CHEMTECH 110 Route 4 • Englewood, New Jersey 07631 Phone (201) 567-6868 Fax: (201) 567-1333

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DATA PACKAGE FOR 114316

METALS AND CYANIDE

PART III

ROY F. WESTON INC.
5 UNDERWOOD COURT
DELRAN, NJ 08075-1229

CONTRACT # EPA 68-S5-3002
CHEMTECH PROJECT # 1821CLP
ATTENTION MARIAN MURPHY

PART I VOLATILES
PART II SEMIVOLATILES
PART III INORGANICS

LOW CONCENTRATION WATER FOR INORGANIC ANALYTES
COMPLETE SDG FILE (CSF)
INVENTORY SHEET

Lab Name: CHEMTECH CONSULTING GROUP City/State: ENGLEWOOD, NJ.

Case No. 18210LP SDG No. RW-09 SDG Nos. to Follow: _____ _____ _____

SAS No. _____ Contract No. _____ SOW No. _____

All documents delivered in the Complete SDG File must be original documents where possible. (Reference Exhibit B, Section II D and Section III V)

		Page Nos. From	Page Nos. To	(Please Check:) Lab	(Please Check:) Region
1.	Inventory Sheet (DC-2) (Do not number)			✓	
2.	Cover Page	03	03	✓	
3.	Inorganic Analysis Data Sheet (Form I)	04	15	✓	
4.	Initial & Continuing Calibration Verification (Form II - LCIN)	16	17	✓	
5.	CRDL Standards (Form III - LCIN)	18	18	✓	
6.	Linear Range Standards (Form IV-LCIN)	18A	18A	✓	
7.	Blanks (Form V-LCIN)	19	20	✓	
8.	ICP & ICP/MS Interference Check Sample (Form VI-LCIN)	21	21	✓	
9.	Spike Sample Recovery (Form VII-LCIN)	22	22	✓	
10.	Duplicates (Form VIII-LCIN)	23	23	✓	
11.	Lab Control Sample (Form IX-LCIN)	24	24	✓	
12.	Serial Dilution (Form X-LCIN)	24A	24A	✓	
13.	Standard Addition Results (Form XI-LCIN)	25	26	✓	
14.	Instrument Detection Limits (Form XII-LCIN)	27	28	✓	
15.	Interelement Correction Factor (Form XIII-LCIN)	29	34	✓	
16.	ICP/MS Tuning & Response Factor Criteria (Form XIV-LCIN)	✓	✓	✓	
17.	ICP/MS Internal Standards Summary (Form XV-LCIN)	✓	✓	✓	
18.	Analysis Run Log (A) (Form XVI-LCIN)	35	36	✓	
19.	Analysis Run Log (B) (Form XVII-LCIN)	37	40	✓	
20.	Standard Solutions Sources (Form XVIII-LCIN)	✓	✓	✓	
21.	ICP Raw Data	41	93	✓	
22.	ICP/MS Raw Data	✓	✓	✓	
23.	HYICP Raw Data	✓	✓	✓	
24.	Furnace AA Raw Data	✓	✓	✓	

		Page Nos. From	Page Nos. To	(Please Check:) Lab	(Please Check:) Region
25.	Mercury Raw Data	94	99	✓	—
26.	Cyanide Raw Data	100	102	✓	—
27.	Fluoride Raw Data	✓	✓	✓	—
28.	Total Nitrogen Raw Data	✓	✓ and 117	✓	—
29.	Preparation Logs	103	114	✓	—
30.	Traffic Report	115	118	✓	—
31.	EPA Shipping/Receiving Documents				
	Airbill (No. of Shipments 3)	119	121	✓	—
	Chain-of-Custody Records	115	118	✓	—
	Sample Tags	125	125	✓	—
	Sample Log-In Sheet (Lab & DC1)	121A	121E	✓	—
	SDG Cover Sheet	122	122	✓	—
32.	Misc. Shipping/Receiving Records (list all individual records)				
	Telephone Logs	122A	122A	✓	—
	_____	—	—	—	—
	_____	—	—	—	—
33.	Internal Lab Sample Transfer Records & Tracking Sheets (describe or list)	—	—	—	—
	_____	—	—	—	—
	_____	—	—	—	—
34.	Internal Original Sample Prep & Analysis Records (describe or list)				
	Prep Records _____	—	—	—	—
	Analysis Records _____	—	—	—	—
	Description _____	—	—	—	—
35.	Other Records (describe or list)				
	Telephone Communication Log				—
	REQUEST FOR BID	123	123	✓	—
	NOTICE TO LABORATORY PERSONNEL	124	124	✓	—

36. Comments:

_____

_____

Completed by (CLP Lab):

Sadia Afreen	SADIA AFREEN	06/17/96
(Signature)	(Print Name & Title)	(Date)

Audited by (EPA):

(Signature)	(Print Name & Title)	(Date)

CHEMTECH

CASE NARRATIVE

US EPA (WESTON)
SATA CONTRACT # 68-S5-3002
Chemtech # 1821CLP

A. Number of Samples and Date of Sample Receipt:
13 aqueous samples were delivered to the laboratory intact on 6/1/96.

B. Parameters:
Tests requested on the Chain of Custody were Volatile Organics. Semivolatile Organics, Metals and Cyanide. This data package contains Metals and Cyanide results.

C. Analytical Techniques:
The analysis of Inorganics is based on CLP SOW OLC01.0 Method ILCO1.0.

D. QA/ QC Samples
A Method Blank, Laboratory Control Sample, Spike, Duplicate and Serial Dilution sample were digested and analyzed along with the samples.

The Duplicate analysis for Chromium and Cobalt were outside Control Limits so test results are flagged with "*". Interference was detected with the Sodium analysis so results are flagged with "E"

No other dificulties were encountered with these analyses.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature _____ NAME Divyajit Mehta
Date 6/17/96 Title Laboratory Director

CHEMTECH
CONSULTING GROUP, INC.

DATA REPORTING QUALIFIERS--INORGANIC

For reporting results, the following "Results Qualifiers" are used:

B - If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).

U - If the analyte was analyzed for, but not detected.

E - The reported value is estimated because of the presence of interference.

M - Duplicate injection precision not met.

N - Spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions (MSA).

W - Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

+ - Correlation coefficient for the MSA is less than 0.995.

*** Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

M (Method) qualifier

"P" for ICP
"A" for Flame AA
"F" for Furnace AA
"PM" for ICP when Microwave Digestion is used
"AM" for flame AA when Microwave Digestion used
"FM" for Furnace AA when Microwave Digestion used
"CV" for Manual Cold Vapor AA
"AV" for automated Cold Vapor AA
"CA" for Midi-Distillation Spectrophotometric
"AS" for Semi-Automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

COVER PAGE

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: 1821 CLP SAS No.: SDG No.: RW-09

SOW No.: ILC01.0

EPA SAMPLE NO.	Lab Sample ID.
FB	5979S
RW-04	5978S
RW-09	5966S
RW-09D	5967S2
RW-09S	5968DS
RW-11	5971S
RW-13	5969S
RW-27	5977S
RW-28	5973S
RW-29	5975S
RW-300	5970S
RW-400	5974S
RW-57	5972S
RW-66	5976S

		ICP	ICP/MS
Were ICP and ICP/MS interelement corrections applied?	Yes/No	YES	YES
Were ICP and ICP/MS background corrections applied?	Yes/No	YES	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO	NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: PARVEEN HASAN

Date: 6/11/96 Title: QA/QC OFFICER

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U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5979S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16.1	B		P
7440-36-0	Antimony	4.0	U		P
7440-38-2	Arsenic	2.0	U		P
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	16.0	U		P
7440-47-3	Chromium	1.0	U	*	P
7440-48-4	Cobalt	1.0	U	*	P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	25.0	U		P
7439-92-1	Lead	2.0	U		P
7439-95-4	Magnesium	6.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.0	U		P
7440-09-7	Potassium	29.0	U		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	23.0	U	E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	4.0	U		P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-04

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5978S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	83.5	B		P
7440-36-0	Antimony	4.0	U		P
7440-38-2	Arsenic	2.0	U		P
7440-39-3	Barium	88.7			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	16300			P
7440-47-3	Chromium	1.4	B	*	P
7440-48-4	Cobalt	1.0	U	*	P
7440-50-8	Copper	185			P
7439-89-6	Iron	116			P
7439-92-1	Lead	5.2			P
7439-95-4	Magnesium	9110			P
7439-96-5	Manganese	12.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	7.0	B		P
7440-09-7	Potassium	1080			P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	21400		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	445			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

00005

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-09

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5966S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	50.2	B		P
7440-36-0	Antimony	4.0	U		P
7440-38-2	Arsenic	2.0	U		P
7440-39-3	Barium	45.0			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	4550			P
7440-47-3	Chromium	1.0	U	*	P
7440-48-4	Cobalt	4.3	B	*	P
7440-50-8	Copper	112			P
7439-89-6	Iron	136			P
7439-92-1	Lead	7.8			P
7439-95-4	Magnesium	3730			P
7439-96-5	Manganese	17.9			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	8.0	B		P
7440-09-7	Potassium	527	B		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	5140		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	107			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-11

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5971S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	39.6	B		P
7440-36-0	Antimony	4.7	B		P
7440-38-2	Arsenic	7.6			P
7440-39-3	Barium	6.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	5070			P
7440-47-3	Chromium	1.0	U	*	P
7440-48-4	Cobalt	1.0	U	*	P
7440-50-8	Copper	404			P
7439-89-6	Iron	62.2	B		P
7439-92-1	Lead	8.8			P
7439-95-4	Magnesium	4430			P
7439-96-5	Manganese	4.9	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.2	B		P
7440-09-7	Potassium	371	B		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	5380		E	P
7440-28-0	Thallium	9.2			P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	60.1			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

00007

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-13

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5969S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	43.8	B		P
7440-36-0	Antimony	4.8	B		P
7440-38-2	Arsenic	7.0			P
7440-39-3	Barium	32.3			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	4120			P
7440-47-3	Chromium	1.3	B	*	P
7440-48-4	Cobalt	1.7	B	*	P
7440-50-8	Copper	273			P
7439-89-6	Iron	37.2	B		P
7439-92-1	Lead	7.9			P
7439-95-4	Magnesium	2360			P
7439-96-5	Manganese	4.4	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.6	B		P
7440-09-7	Potassium	807			P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	3420		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	59.9			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-27

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5977S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	50.9	B		P
7440-36-0	Antimony	4.0	U		P
7440-38-2	Arsenic	6.0			P
7440-39-3	Barium	68.1			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	28900			P
7440-47-3	Chromium	1.4	B	*	P
7440-48-4	Cobalt	1.0	U	*	P
7440-50-8	Copper	74.1			P
7439-89-6	Iron	102			P
7439-92-1	Lead	2.0			P
7439-95-4	Magnesium	7570			P
7439-96-5	Manganese	3.5	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.8	B		P
7440-09-7	Potassium	766			P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8330		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	39.7			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-28

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5973S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	40.8	B		P
7440-36-0	Antimony	4.0	U		P
7440-38-2	Arsenic	4.3			P
7440-39-3	Barium	121			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	36600			P
7440-47-3	Chromium	1.0	U	*	P
7440-48-4	Cobalt	1.0	U	*	P
7440-50-8	Copper	66.7			P
7439-89-6	Iron	33.9	B		P
7439-92-1	Lead	2.0	U		P
7439-95-4	Magnesium	7670			P
7439-96-5	Manganese	12.2			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.0	U		P
7440-09-7	Potassium	1200			P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	16500		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	39.6			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-29

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5975S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.8	B		P
7440-36-0	Antimony	4.8	B		P
7440-38-2	Arsenic	9.1			P
7440-39-3	Barium	177			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	40200			P
7440-47-3	Chromium	1.0	U	*	P
7440-48-4	Cobalt	1.0	U	*	P
7440-50-8	Copper	21.9			P
7439-89-6	Iron	25.0	U		P
7439-92-1	Lead	2.2			P
7439-95-4	Magnesium	9730			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.0	U		P
7440-09-7	Potassium	478	B		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	10500		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	30.3			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-300

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5970S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	43.5	B		P
7440-36-0	Antimony	5.3			P
7440-38-2	Arsenic	3.5			P
7440-39-3	Barium	30.6			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	3920			P
7440-47-3	Chromium	1.0	U	*	P
7440-48-4	Cobalt	1.6	B	*	P
7440-50-8	Copper	250			P
7439-89-6	Iron	38.1	B		P
7439-92-1	Lead	7.2			P
7439-95-4	Magnesium	2260			P
7439-96-5	Manganese	5.1	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	4.1	B		P
7440-09-7	Potassium	781			P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	3170		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	42.2			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-400

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5974S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.5	B		P
7440-36-0	Antimony	4.0	U		P
7440-38-2	Arsenic	14.8			P
7440-39-3	Barium	117			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	35700			P
7440-47-3	Chromium	1.0	U	*	P
7440-48-4	Cobalt	1.0	U	*	P
7440-50-8	Copper	57.2			P
7439-89-6	Iron	27.0	B		P
7439-92-1	Lead	2.0	U		P
7439-95-4	Magnesium	7460			P
7439-96-5	Manganese	11.9			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.0	U		P
7440-09-7	Potassium	1150			P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	16100		E	P
7440-28-0	Thallium	3.3			P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	33.6			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-57

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5972S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	38.3	B		P
7440-36-0	Antimony	4.0	U		P
7440-38-2	Arsenic	7.6			P
7440-39-3	Barium	35.4			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	11100			P
7440-47-3	Chromium	1.0	U	*	P
7440-48-4	Cobalt	1.0	U	*	P
7440-50-8	Copper	44.8			P
7439-89-6	Iron	43.9	B		P
7439-92-1	Lead	2.5			P
7439-95-4	Magnesium	3480			P
7439-96-5	Manganese	116			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.4	B		P
7440-09-7	Potassium	634	B		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	6560		E	P
7440-28-0	Thallium	2.0	U		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	58.0			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

ANALYSIS DATA SHEET

EPA SAMPLE NO.

RW-66

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Matrix (soil/water): WATER Lab Sample ID: 5976S

Level (low/med): LOW Date Received: 06/01/96

Concentration Units: ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	35.1	B		P
7440-36-0	Antimony	6.5			P
7440-38-2	Arsenic	2.0	U		P
7440-39-3	Barium	293			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	35600			P
7440-47-3	Chromium	1.0	U	*	P
7440-48-4	Cobalt	1.0	U	*	P
7440-50-8	Copper	26.4			P
7439-89-6	Iron	25.0	U		P
7439-92-1	Lead	3.4			P
7439-95-4	Magnesium	4980			P
7439-96-5	Manganese	10.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.0	U		P
7440-09-7	Potassium	537	B		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	20700		E	P
7440-28-0	Thallium	8.4			P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	38.5			P
	Cyanide	8.0	U		CA

	Color	Clarity	Viscosity
Before:	COLORLESS	CLEAR	
After:	COLORLESS	CLEAR	

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	WOMN	Initial Calibration			Continuing Calibration					M
		True	Found	%R	True	Found 1	%R 1	Found 2	%R 2	
Aluminum		1956.0	2053.66	105	25000	23899.9	96	22827.8	91	P
Antimony		970.0	1004.62	104	500.0	483.30	97	515.78	103	P
[illegible]senic		50.9	52.86	104	500.0	493.40	99	533.96	107	P
[illegible]ium		2009.0	2013.97	100	500.0	478.36	96	506.04	101	P
[illegible]eryllium		476.0	489.10	103	100.0	96.84	97	103.34	103	P
Cadmium		510.0	502.60	99	500.0	479.72	96	505.72	101	P
Calcium		50711	51717.0	102	25000	23933.9	96	23268.9	93	P
Chromium		471.0	476.96	101	500.0	464.35	93	500.90	100	P
Cobalt		520.0	528.84	102	500.0	490.84	98	498.23	100	P
Copper		497.0	487.34	98	500.0	476.36	95	492.48	98	P
Iron		1985.0	2041.22	103	10000	9755.82	98	9441.64	94	P
Lead		4938.0	4946.14	100	500.0	475.16	95	504.28	101	P
Magnesium		24588	25387.9	103	25000	23911.8	96	23036.5	92	P
Manganese		491.0	488.04	99	500.0	467.56	94	502.76	101	P
Mercury		4.9	4.77	97	5.0	5.32	106	4.88	98	CV
Nickel		497.0	478.78	96	500.0	476.48	95	509.20	102	P
Potassium		49603	50980.0	103	50000	49732.9	99	50505.4	101	P
Selenium		50.7	53.54	106	200.0	207.84	104	207.82	104	P
Silver		487.0	469.08	96	1000.0	908.66	91	959.07	96	P
Sodium		48786	50431.8	103	25000	24949.3	100	24952.9	100	P
Thallium		98.9	98.98	100	200.0	202.06	101	201.58	101	P
Vanadium		492.0	503.54	102	500.0	475.06	95	504.76	101	P
Zinc		3012.0	3038.97	101	500.0	503.25	101	531.22	106	P
Cyanide		90.0	89.90	100	500.0	497.90	100	483.60	97	CA

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Initial Calibration Source: EPA-LV

Continuing Calibration Source: EPA-LV

Concentration Units: ug/L

Analyte	WOMN	Initial Calibration True	Initial Calibration Found	Initial Calibration %R	Continuing Calibration True	Continuing Calibration Found 1	Continuing Calibration %R 1	Continuing Calibration Found 2	Continuing Calibration %R 2	M
Aluminum					25000	25954.7	104	25915.9	104	P
Antimony					500.0	498.48	100	502.74	101	P
Arsenic					500.0	510.90	102	521.50	104	P
Barium					500.0	493.04	99	500.76	100	P
Beryllium					100.0	98.83	99	100.30	100	P
Cadmium					500.0	490.55	98	503.84	101	P
Calcium					25000	25774.6	103	25589.2	102	P
Chromium					500.0	480.28	96	491.86	98	P
Cobalt					500.0	477.14	95	489.42	98	P
Copper					500.0	484.66	97	484.19	97	P
Iron					10000	9153.90	92	10418.3	104	P
Lead					500.0	490.35	98	491.46	98	P
Magnesium					25000	25843.6	103	25677.2	103	P
Manganese					500.0	482.20	96	496.00	99	P
Mercury					5.0	4.77	95			CV
Nickel					500.0	493.20	99	500.64	100	P
Potassium					50000	50518.0	101	49873.4	100	P
Selenium					200.0	208.37	104	208.02	104	P
Silver					1000.0	924.48	92	956.78	96	P
Sodium					25000	24741.7	99	27021.3	108	P
Thallium					200.0	195.49	98	206.76	103	P
Vanadium					500.0	486.89	97	496.55	99	P
Zinc					500.0	515.07	103	527.78	106	P
Cyanide					500.0	489.80	98			CA

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

CRDL STANDARDS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Concentration Units: ug/L

Analyte	WOMN	Initial			Final		M
		True	Found	%R	Found	%R	
Aluminum		200.00	186.99	93	224.18	112	P
Antimony		10.00	7.20	72	11.53	115	P
Arsenic		4.00	3.46	86	5.40	135	P
Barium		40.00	38.20	96	40.24	101	P
Beryllium		2.00	1.92	96	2.45	122	P
Cadmium		2.00	1.94	97	1.60	80	P
Calcium		1000.00	966.60	97	1047.92	105	P
Chromium		20.00	17.82	89	18.80	94	P
Cobalt		20.00	19.08	95	19.46	97	P
Copper		20.00	20.21	101	21.52	108	P
Iron		200.00	204.56	102	187.60	94	P
Lead		4.00	4.45	111	3.52	88	P
Magnesium		1000.00	962.34	96	1041.65	104	P
Manganese		20.00	19.18	96	19.86	99	P
Mercury		0.20	0.17	85	0.17	85	CV
Nickel		40.00	36.58	91	39.10	98	P
Potassium		1500.00	885.40	59	880.58	59	P
Selenium		6.00	5.45	91	5.48	91	P
Silver		20.00	16.16	81	16.44	82	P
Sodium		1000.00	662.93	66	656.50	66	P
Thallium		4.00	3.42	86	4.01	100	P
Vanadium		20.00	18.54	93	19.20	96	P
Zinc		40.00	39.21	98	42.96	107	P
Cyanide		20.00	19.80	99	19.70	98	CA

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LOW CONCENTRATION INORGANICS

LRS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Concentration Units: ug/L

Analyte	WOMN	Initial			Final		M
		True	Found	%R	Found	%R	
Aluminum		600000.0	558313.42	93	564774.74	94	P
Antimony		44000.00	39706.23	90	42181.58	96	P
Arsenic		39000.00	40219.00	103	40697.00	104	P
Barium		47000.00	46520.82	99	44995.76	96	P
Beryllium		27000.00	26868.26	100	28464.00	105	P
Cadmium		46000.00	45901.52	100	45875.29	100	P
Calcium		1150000	1063839.2	93	1055415.7	92	P
Chromium		65000.00	66150.0	102	60349.28	93	P
Cobalt		53000.00	51036.10	96	50260.57	95	P
Copper		50000.00	49592.96	99	47851.94	96	P
Iron		1000000	975934.75	98	961591.98	96	P
Lead		50000.00	48933.50	98	47502.84	95	P
Magnesium		650000.0	616505.61	95	624274.16	96	P
Manganese		47000.00	45650.89	97	47613.00	101	P
Mercury		10.00	9.70	97	10.20	102	CV
Nickel		50000.00	47514.78	95	47309.36	95	P
Potassium		90000.00	94520.00	105	95847.00	106	P
Selenium		50000.00	51267.00	103	53758.00	108	P
Silver		50000.00	45444.19	91	46679.60	93	P
Sodium		80000.00	83440.00	104	82466.00	103	P
Thallium		50000.00	48315.79	97	52628.00	105	P
Vanadium		54000.00	48871.03	91	49019.72	91	P
Zinc		45000.00	44590.48	99	48121.00	107	P
Cyanide		1000.00	976.70	98	985.30	98	CA

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LOW CONCENTRATION INORGANICS

BLANKS

Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Analyte	WOMN	Initial Calib. Blank	C	Continuing Calibration Blanks 1	C	2	C	3	C	Prep. Blank	C	M
Aluminum		9.000	U	25.210	B	13.100	B	16.540	B	16.320	B	P
Antimony		4.000	U	4.000	U	4.000	U	4.000	U	4.000	U	P
Arsenic		2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	P
Barium		1.000	U	2.470	B	1.000	U	4.400	B	2.310	B	P
Beryllium		1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	P
Cadmium		1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	P
Calcium		16.000	U	16.000	U	16.000	U	38.430	B	16.000	U	P
Chromium		1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	P
Cobalt		1.000	U	1.000	U	1.080	B	1.000	U	1.000	U	P
Copper		5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	P
Iron		25.000	U	25.000	U	25.000	U	25.000	U	25.000	U	P
Lead		2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	P
Magnesium		6.000	U	8.170	B	6.000	U	7.020	B	6.000	U	P
Manganese		1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	P
Mercury		0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	CV
Nickel		1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	P
Potassium		29.000	U	-58.830	B	-88.240	B	29.000	U	-58.220	B	P
Selenium		3.000	U	3.000	U	3.000	U	3.000	U	3.000	U	P
Silver		2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	P
Sodium		-31.500	B	-30.170	B	-49.480	B	109.730	B	-41.030	B	P
Thallium		2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	P
Vanadium		1.000	U	1.000	U	1.000	U	1.000	U	1.000	U	P
Zinc		4.000	U	4.000	U	4.000	U	4.940	B	4.000	U	P
Cyanide		8.000	U	8.000	U	8.000	U	8.000	U	8.000	U	CA

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

BLANKS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Analyte	WOMN	Initial Calib. Blank	C	Continuing Calibration Blanks 1	C	2	C	3	C	Prep. Blank	C	M
Aluminum				9.000	U							P
Antimony				4.000	U							P
Arsenic				2.000	U							P
Barium				1.000	U							P
Beryllium				1.000	U							P
Cadmium				1.000	U							P
Calcium				16.000	U							P
Chromium				1.000	U							P
Cobalt				1.000	U							P
Copper				5.000	U							P
Iron				25.000	U							P
Lead				2.000	U							P
Magnesium				6.000	U							P
Manganese				1.000	U							P
Mercury												NR
Nickel				1.000	U							P
Potassium				29.000	U							P
Selenium				3.000	U							P
Silver				2.000	U							P
Sodium				23.000	U							P
Thallium				2.000	U							P
Vanadium				1.000	U							P
Zinc				4.000	U							P
Cyanide												NR

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS
ICS

Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

ICP ID Number: P0 ICS Source:

Concentration Units: ug/L

Analyte	WOMN	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R	M
Aluminum		100000.0	100000.0	92955.44	90008.05	90	110472.7	91867.00	92	P
Antimony		0.00	0.00	-2.340	-0.500		2.850	0.320		P
Arsenic		0.00	100.00	1.360	98.400	98	-1.540	116.900	117	P
Barium		0.00	0.00	0.450	0.280		0.710	0.410		P
Beryllium		0.00	0.00	0.540	0.710		0.200	0.450		P
Cadmium		0.00	50.00	0.540	46.090	92	-0.220	52.360	105	P
Calcium		100000.0	100000.0	90725.86	88935.24	89	107031.7	85896.41	86	P
Chromium		0.00	100.00	0.080	88.620	89	-0.140	103.420	103	P
Cobalt		0.00	200.00	1.000	186.650	93	0.160	204.180	102	P
Copper		0.00	100.00	-0.220	82.640	83	-0.420	96.730	97	P
Iron		100000.0	100000.0	87328.56	88895.40	89	118546.4	80053.14	80	P
Lead		0.00	0.00	1.780	1.640		-0.410	0.590		P
Magnesium		100000.0	100000.0	90817.42	90186.48	90	107901.8	87519.24	88	P
Manganese		0.00	100.00	2.060	89.100	89	1.980	105.620	106	P
Mercury										NR
Nickel		0.00	200.00	1.200	167.300	84	1.060	195.630	98	P
Potassium		100000.0	100000.0	98889.52	102581.1	103	101179.8	101852.2	102	P
Selenium		0.00	100.00	-0.580	86.440	86	-2.220	105.920	106	P
Silver		0.00	100.00	0.840	87.210	87	0.850	86.470	86	P
Sodium		100000.0	100000.0	97851.88	98752.16	99	103206.9	101497.2	101	P
Thallium		0.00	0.00	-1.510	-0.580		-0.140	-1.190		P
Vanadium		0.00	200.00	0.860	185.980	93	-1.170	219.500	110	P
Zinc		0.00	100.00	10.520	97.580	98	12.360	107.320	107	P

U.S. EPA - CLP
LOW CONCENTRATION INORGANICS

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

RW-09S

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Concentration Units: ug/L

Analyte	WOMN	Control Limit %R	Sample Result (SR)	C	Spiked Sample Result (SSR)	C	Spike Added (SA)	%R	Q	M
Aluminum		75-125	50.180	B	497.600		500.000	89		P
Antimony		75-125	4.000	U	52.140		50.000	104		P
Arsenic		75-125	2.000	U	12.060		10.000	121		P
Barium		75-125	44.960		243.980		200.000	100		P
Beryllium		75-125	1.000	U	10.740		10.000	107		P
Cadmium		75-125	1.000	U	10.580		10.000	106		P
Calcium										NR
Chromium		75-125	1.000	U	50.580		50.000	101		P
Cobalt		75-125	4.320	B	103.440		100.000	99		P
Copper		75-125	112.170		164.350		50.000	104		P
Iron		75-125	136.140		385.980		250.000	100		P
Lead		75-125	7.770		33.360		25.000	102		P
Magnesium										NR
Manganese		75-125	17.860		66.590		50.000	97		P
Mercury		75-125	0.200	U	0.500		0.500	100		CV
Nickel		75-125	7.950	B	105.760		100.000	98		P
Potassium										NR
Selenium		75-125	3.000	U	60.970		50.000	122		P
Silver		75-125	2.000	U	46.080		50.000	92		P
Sodium										NR
Thallium		75-125	2.000	U	48.360		50.000	97		P
Vanadium		75-125	1.000	U	99.540		100.000	100		P
Zinc		75-125	106.970		214.840		100.000	108		P
Cyanide		75-125	8.000	U	97.000		100.000	97		CA

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

DUPLICATES

EPA SAMPLE NO.

RW-09D

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Concentration Units: ug/L

Analyte	WOMN	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			50.180	B	52.880	B	5		P
Antimony			4.000	U	4.000	U			P
Arsenic			2.000	U	2.000	U			P
Barium			44.960		45.080		0		P
Beryllium			1.000	U	1.000	U			P
Cadmium			1.000	U	1.000	U			P
Calcium			4549.460		4559.570		0		P
Chromium		1.00	1.000	U	1.000	B	200	*	P
Cobalt		1.00	4.320	B	3.240	B	29	*	P
Copper			112.170		112.530		0		P
Iron		25.00	136.140		120.910		12		P
Lead		2.00	7.770		7.130		9		P
Magnesium			3727.530		3733.250		0		P
Manganese			17.860		17.910		0		P
Mercury			0.200	U	0.200	U			CV
Nickel			7.950	B	7.600	B	5		P
Potassium			527.020	B	538.430	B	2		P
Selenium			3.000	U	3.000	U			P
Silver			2.000	U	2.000	U			P
Sodium			5144.570		5180.770		1		P
Thallium			2.000	U	2.000	U			P
Vanadium			1.000	U	1.000	U			P
Zinc			106.970		106.720		0		P
Cyanide			8.000	U	8.000	U			CA

Comments:

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

LCS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Solid LCS Source:

Aqueous LCS Source: EPA-LV

Analyte	WOMN	Limits Lower	Limits Upper	True	Found	C	%R	M
Aluminum		751.20	1126.8	939.00	951.100		101	P
Antimony		409.60	614.4	512.00	497.700		97	P
Arsenic		40.00	60.0	50.00	54.300		109	P
Barium		756.40	1134.6	945.50	972.820		103	P
Beryllium		191.20	286.8	239.00	232.940		97	P
Cadmium		237.12	355.7	296.40	287.470		97	P
Calcium		19524.00	29286.0	24405.00	24085.850		99	P
Chromium		192.00	288.0	240.00	228.240		95	P
Cobalt		194.80	292.2	243.50	248.400		102	P
Copper		194.40	291.6	243.00	241.330		99	P
Iron		784.80	1177.2	981.00	976.950		100	P
Lead		1935.60	2903.4	2419.50	2436.980		101	P
Magnesium		9543.60	14315.4	11929.50	11788.360		99	P
Manganese		189.60	284.4	237.00	231.400		98	P
Mercury								
Nickel		195.20	292.8	244.00	230.270		94	P
Potassium		19672.80	29509.2	24591.00	23087.860		94	P
Selenium		40.00	60.0	50.00	46.830		94	P
Silver		232.48	348.7	290.60	262.200		90	P
Sodium		18721.60	28082.4	23402.00	23534.940		101	P
Thallium		40.00	60.0	50.00	57.590		115	P
Vanadium		192.80	289.2	241.00	241.380		100	P
Zinc		1168.40	1752.6	1460.50	1461.290		100	P
Cyanide								

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS

SERIAL DILUTION

EPA SAMPLE NO.

RW-09L

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Concentration Units: ug/L

Analyte	WOMN	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum		50.180	B	95.200	B	90		P
Antimony		4.000	U	20.000	U			P
Arsenic		2.000	U	10.000	U			P
Barium		44.960		45.750	B	2		P
Beryllium		1.000	U	5.000	U			P
Cadmium		1.000	U	5.000	U			P
Calcium		4549.460		4710.850		4		P
Chromium		1.000	U	5.000	U			P
Cobalt		4.320	B	5.400	B	25		P
Copper		112.170		110.500		1		P
Iron		136.140		163.500	B	20		P
Lead		7.770		10.000	U	100		P
Magnesium		3727.530		3801.900		2		P
Manganese		17.860		17.800	B	0		P
Mercury								NR
Nickel		7.950	B	7.600	B	4		P
Potassium		527.020	B	186.050	B	65		P
Selenium		3.000	U	15.000	U			P
Silver		2.000	U	10.000	U			P
Sodium		5144.570		4579.800		11	E	P
Thallium		2.000	U	10.000	U			P
Vanadium		1.000	U	5.000	U			P
Zinc		106.970		121.250		13		P
Cyanide								NR

Comments:

CCC024A

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LOW CONCENTRATION INORGANICS
STANDARD ADDITION RESULTS

Lab Name: CHEMTECH CONSULTING GROUP   Contract:

Lab Code: CHEM   Case No.:   SAS No.:   SDG No.: RW-09

Concentration Units: ug/L

EPA Sample No.	An.	ADDITIONS Zero							Final Conc.	r	Q
		Zero	First		Second		Third				
		Found	Added	Found	Added	Found	Added	Found			

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS
IDL

Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: P0 Method: P Date: 04/15/96

Concentration Units: ug/L

Analyte	Wavelength or Mass Number (WOMN)	Wave-Length (nm)	Mass (m/z)	Integ. Time (sec)	Back-ground	CRDL	IDL
Aluminum		308.2				100	9.0
Antimony		206.8				5	4.0
Arsenic		189.0				2	2.0
Barium		493.4				20	1.0
Beryllium		313.0				1	1.0
Cadmium		226.5				1	1.0
Calcium		317.9				500	16
Chromium		267.7				10	1.0
Cobalt		228.6				10	1.0
Copper		324.7				10	5.0
Iron		271.4				100	25
Lead		220.4				2	2.0
Magnesium		279.0				500	6.0
Manganese		257.6				10	1.0
Mercury						0.2	
Nickel		231.6				20	1.0
Potassium		766.5				750	29
Selenium		196.0				3	3.0
Silver		328.0				10	2.0
Sodium		588.9				500	23
Thallium		190.9				2	2.0
Vanadium		292.4				10	1.0
Zinc		206.2				20	4.0

Comments:
P0: ICP 61E TRACE ANALYZER

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS
IDL

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: CV Method: CV Date: 04/15/96

Concentration Units: ug/L

Analyte	Wavelength or Mass Number (WOMN)	Wave-Length (nm)	Mass (m/z)	Integ. Time (sec)	Back-ground	CRDL	IDL
Aluminum						100	
Antimony						5	
Arsenic						2	
Barium						20	
Beryllium						1	
Cadmium						1	
Calcium						500	
Chromium						10	
Cobalt						10	
Copper						10	
Iron						100	
Lead						2	
Magnesium						500	
Manganese						10	
Mercury		253.7				0.2	0.20
Nickel						20	
Potassium						750	
Selenium						3	
Silver						10	
Sodium						500	
Thallium						2	
Vanadium						10	
Zinc						20	

Comments:
CV: SPECTRO-PRODUCTS MERCURY ANALYZER

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS
INTERELEMENT CORRECTION FACTORS

Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: P0 Date: 01/15/96

Analyte	Wave-Length or Mass	Interelement Correction Factors for: Ag	Al	As	Ba	Be
Aluminum	308.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0002390	0.0000000	0.0000000
Cobalt	228.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000980	0.0000000	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.4	-0.0035800	0.0197100	0.0000000	0.0000000	0.0004920
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cyanide						

Comments:
P0: ICP 61E TRACE ANALYZER

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS
INTERELEMENT CORRECTION FACTORS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: P0 Date: 01/15/96

Analyte	Wave-Length or Mass	Interelement Correction Factors for: Ca	Cd	Co	Cr	Cu
Aluminum	308.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0002480	0.0000000	0.0000000
Cobalt	228.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.4	0.0000000	0.0000770	0.0000000	0.0000000	-0.0001210
Lead	220.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0003580	0.0000000
Mercury						
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.4	0.0000000	0.0000000	0.0000000	-0.0005000	0.0000000
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cyanide						

Comments:
P0: ICP 61E TRACE ANALYZER

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS
INTERELEMENT CORRECTION FACTORS

Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: P0 Date: 01/15/96

Analyte	Wave-Length or Mass	Interelement Correction Factors for: Fe	K	Mg	Mn	Na
Aluminum	308.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0011370	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
gnesium	279.0	-0.0006570	0.0000000	0.0000000	0.0000160	0.0000000
nganese	257.6	0.0000000	0.0000000	-0.0083300	0.0000000	0.0000000
Mercury						
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.4	0.0078500	0.0000000	0.0000000	-0.0001600	0.0000000
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cyanide						

Comments:
P0: ICP 61E TRACE ANALYZER

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS
INTERELEMENT CORRECTION FACTORS

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: P0 Date: 01/15/96

Analyte	Wave-Length or Mass	Interelement Correction Factors for: Ni	Pb	Sb	Se	Tl
Aluminum	308.2	0.0000000	0.0005970	0.0000000	0.0000000	-0.0000400
Antimony	206.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0099600	0.0000000	0.0002160
Cobalt	228.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.4	0.0000000	0.0000980	0.0000000	0.0000980	0.0000000
Lead	220.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.0	0.0000000	0.0000150	0.0000000	0.0000000	0.0000390
Manganese	257.6	0.0000000	0.0001510	0.0000000	0.0010350	-0.0069300
Mercury						
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	588.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.4	0.0000000	0.0000620	-0.0005300	0.0005580	0.0012460
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cyanide						

Comments:
P0: ICP 61E TRACE ANALYZER

U.S. EPA - CLP

LOW CONCENTRATION INORGANICS
INTERELEMENT CORRECTION FACTORS

Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: P0 Date: 01/15/96

Analyte	Wave-Length or Mass	Interelement Correction Factors for: V	Zn	—	—	—
Aluminum	308.2	0.0000000	0.0000000			
Antimony	206.8	0.0000000	0.0000000			
Arsenic	189.0	0.0000000	0.0000000			
Barium	493.4	0.0000000	0.0000000			
Beryllium	313.0	0.0000000	0.0000000			
Cadmium	226.5	0.0000000	0.0000000			
Calcium	317.9	0.0000000	0.0000000			
Chromium	267.7	0.0000000	0.0008490			
Cobalt	228.6	0.0000000	0.0000000			
Copper	324.7	0.0000000	0.0000000			
Iron	271.4	0.0000000	0.0000360			
[illegible]d	220.4	0.0000000	0.0000000			
[illegible]nesium	279.0	0.0000000	0.0000000			
Manganese	257.6	0.0000000	0.0000000			
Mercury						
Nickel	231.6	0.0000000	0.0000000			
Potassium	766.5	0.0000000	0.0000000			
Selenium	196.0	0.0000000	0.0000000			
Silver	328.0	0.0000000	0.0000000			
Sodium	588.9	0.0000000	0.0000000			
Thallium	190.9	0.0000000	0.0000000			
Vanadium	292.4	0.0000000	0.0000000			
Zinc	206.2	0.0000000	0.0000000			
Cyanide						

Comments:
P0: ICP 61E TRACE ANALYZER

001033+000034

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LOW CONCENTRATION INORGANICS
ANALYSIS RUN LOG (A)

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: P0 Run No.: 1 Method: P

Start date: 06/07/96 End date: 06/07/96

EPA Sample No.	Prep. Batch Number	Time	D/F	Analytes																				
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL
S0		1039	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
S		1042	1.00		X	X	X	X	X		X	X	X		X		X	-	X					
S		1045	1.00	X						X				X		X		-		X	-	-	X	-
S		1047	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-
S		1049	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	X
ICV		1050	1.00	X	-	-	X	X	X	X	X	X	X	X	X	X	X	-	X	X	-	X	X	-
ICV		1054	1.00	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-
ICV		1059	1.00	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ICV		1102	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICB		1105	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	-	
CRI		1111	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X		
LRS		1118	1.00	X						X				X		X		-						
LRS		1127	1.00	-	X	-	X	X	X	-	-	X	X	-	X	-	X	-	X	-	-	-	-	X
LRS		1133	1.00	-		-				-	-			-		-		-		-		X	-	
ICSA		1137	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	-	X	X	-	X
ICSA		1143	2.00															-		X			X	
ICSAB		1146	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X		X	X		X
ICSAB		1149	2.00															-		X			X	
CCV		1152	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
CCB		1155	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
LCSW	06069608P	1209	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
PBW	06069608P	1217	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
RW-13	06069608P	1223	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
RW-300	06069608P	1227	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
RW-11	06069608P	1233	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
RW-57	06069608P	1239	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
RW-28	06069608P	1248	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
RW-400	06069608P	1253	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
RW-29	06069608P	1302	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
RW-66	06069608P	1310	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
CCV		1313	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X
CCB		1315	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X

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LOW CONCENTRATION INORGANICS ANALYSIS RUN LOG (A)

Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: P0 Run No.: 1 Method: P

Start date: 06/07/96 End date: 06/07/96

EPA Sample No.	Prep. Batch Number	Time	D/F	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL
RW-09	06069608P	1323	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
RW-09D	06069608P	1330	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
RW-09S	06069608P	1336	1.00	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X
RW-09L	06069608P	1342	5.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
RW-27	06069608P	1345	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
RW-04	06069608P	1349	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
FB	06069608P	1354	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
CCV		1357	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
CCB		1400	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
CRI		1414	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
[illegible]		1425	1.00	X						X				X		X								
LRS		1429	1.00		X		X		X		X	X	X		X				X					
LRS		1433	1.00																			X		
ICSA		1436	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X		X
ICSA		1440	2.00																	X			X	
ICSAB		1443	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X		X
ICSAB		1446	2.00																	X			X	
CCV		1449	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
CCB		1452	1.00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X

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LOW CONCENTRATION INORGANICS
ANALYSIS RUN LOG (B)

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: CN Run No.: 1 Method: CA

Start date: 06/03/96 Analyte: CN End date: 06/03/96

Retention Time Window: Lower Limit: Upper Limit:

EPA Sample No.	Prep. Batch Number	Inl. Vol.	Fin. Vol.	Time	D/F	%R	%RSD	Retention Time
S0				1430	1.00			
S10.0				1432	1.00			
S100.0				1434	1.00			
S500.0				1436	1.00			
S1000.0				1438	1.00			
ICV				1440	1.00			
ICB				1442	1.00			
CCV				1444	1.00			
CCB				1446	1.00			
CRA				1448	1.00			
LRS				1450	1.00			
PBW	06039608CA	50	50	1452	1.00			
ZZZZZZ				1454	1.00			
RW-09	06039608CA	50	50	1456	1.00			
RW-09D	06039608CA	50	50	1458	1.00			
RW-09S	06039608CA	50	50	1500	1.00			
RW-13	06039608CA	50	50	1502	1.00			
RW-300	06039608CA	50	50	1504	1.00			
RW-11	06039608CA	50	50	1506	1.00			
CCV				1508	1.00			
CCB				1510	1.00			
RW-57	06039608CA	50	50	1512	1.00			
RW-28	06039608CA	50	50	1514	1.00			
RW-400	06039608CA	50	50	1516	1.00			
RW-29	06039608CA	50	50	1518	1.00			
RW-66	06039608CA	50	50	1520	1.00			
RW-27	06039608CA	50	50	1522	1.00			
RW-04	06039608CA	50	50	1524	1.00			
FB	06039608CA	50	50	1526	1.00			
CRA				1528	1.00			
LRS				1530	1.00			
CCV				1532	1.00			

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LOW CONCENTRATION INORGANICS
ANALYSIS RUN LOG (B)

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: CN Run No.: 1 Method: CA

Start date: 06/03/96 Analyte: CN End date: 06/03/96

Retention Time Window: Lower Limit: Upper Limit:

EPA Sample No.	Prep. Batch Number	Inl. Vol.	Fin. Vol.	Time	D/F	%R	%RSD	Retention Time
CCB				1534	1.00			

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LOW CONCENTRATION INORGANICS
ANALYSIS RUN LOG (B)

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

Instrument ID Number: CV Run No.: 1 Method: CV

Start date: 06/07/96 Analyte: HG End date: 06/07/96

Retention Time Window: Lower Limit: Upper Limit:

EPA Sample No.	Prep. Batch Number	Inl. Vol.	Fin. Vol.	Time	D/F	%R	%RSD	Retention Time
S0				1527	1.00			
S0.2				1529	1.00			
S0.5				1531	1.00			
S1.0				1533	1.00			
S5.0				1535	1.00			
S10.0				1537	1.00			
ICV				1539	1.00			
ICB				1541	1.00			
CCV				1543	1.00			
CCB				1545	1.00			
CRA				1547	1.00			
LRS				1549	1.00			
PBW	06079608CV	100	100	1551	1.00			
RW-09	06079608CV	100	100	1553	1.00			
RW-09D	06079608CV	100	100	1555	1.00			
RW-09S	06079608CV	100	100	1557	1.00			
RW-13	06079608CV	100	100	1559	1.00			
RW-300	06079608CV	100	100	1601	1.00			
RW-11	06079608CV	100	100	1603	1.00			
RW-57	06079608CV	100	100	1605	1.00			
CCV				1607	1.00			
CCB				1609	1.00			
RW-28	06079608CV	100	100	1611	1.00			
RW-400	06079608CV	100	100	1613	1.00			
RW-29	06079608CV	100	100	1615	1.00			
RW-66	06079608CV	100	100	1617	1.00			
RW-27	06079608CV	100	100	1619	1.00			
RW-04	06079608CV	100	100	1621	1.00			
FB	06079608CV	100	100	1623	1.00			
CRA				1625	1.00			
LRS				1627	1.00			
CCV				1629	1.00			

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LOW CONCENTRATION INORGANICS ANALYSIS RUN LOG (B)

Lab Name: CHEMTECH CONSULTING GROUP Contract:

Lab Code: CHEM Case No.: SAS No.: SDG No.: RW-09

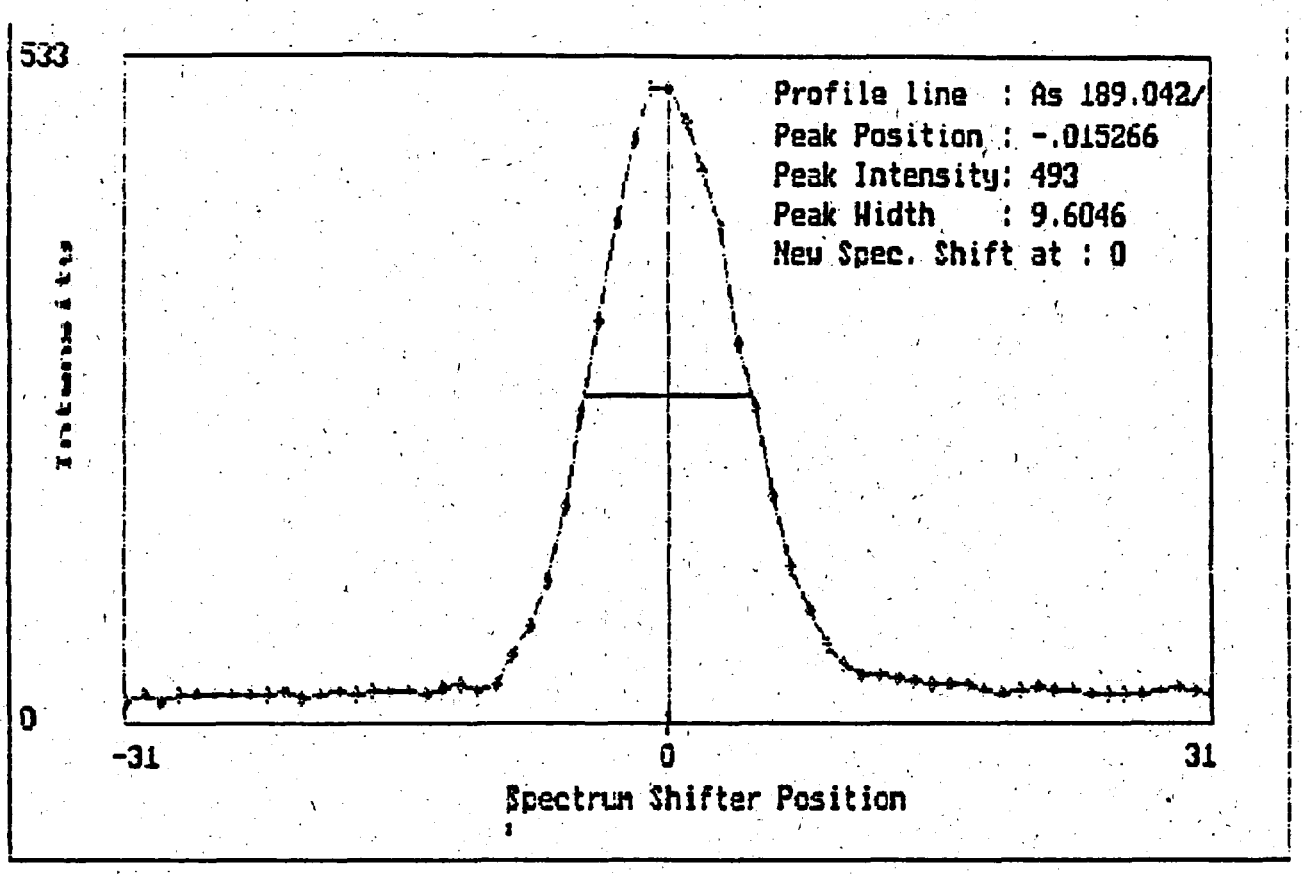
Instrument ID Number: CV Run No.: 1 Method: CV

Start date: 06/07/96 Analyte: HG End date: 06/07/96

Retention Time Window: Lower Limit: Upper Limit:

EPA Sample No.	Prep. Batch Number	Inl. Vol.	Fin. Vol.	Time	D/F	%R	%RSD	Retention Time
CCB				1631	1.00			

INSTRUMENT ID # P0



INSTRUMENT ID# P0

Standardization Rpt. Fri 06-07-96 10:39:53 AM page 1

Method: SOW40 Standard: STD1-Blank (S0)

Elem	As1890	Tl1908	Sb2068	K_7664	Al3082	Ba4934	Be3130
Avge	.00500	-.03750	.02833	-.50917	.74583	.01667	.08250
SDev	.01650	.00354	.07071	.01061	.01296	.00236	.00118
%RSD	329.98	9.4281	249.57	2.0831	1.7381	14.142	1.4285
#1	-.00667	-.03500	.07833	-.50167	.73667	.01833	.08167
#2	.01667	-.04000	-.02167	-.51667	.75500	.01500	.08333

Elem	Cd2265	Ca3179	Cr2677	Co2286	Cu3247	Fe2714	Mn2576
Avge	.02000	-.01917	.02667	-.00167	.15083	.02167	.01000
SDev	.00000	.00118	.01886	.00471	.00589	.03300	.00471
%RSD	.00000	6.1488	70.711	282.84	3.9067	152.30	47.140
#1	.02000	-.02000	.04000	-.00500	.14667	-.00167	.01333
#2	.02000	-.01833	.01333	.00167	.15500	.04500	.00667

Elem	Mg2790	Ni2316	Ag3280	Na5889	V_2924	Zn2062	PB 220351
Avge	.01500	.04250	.02500	.11167	-.01333	.00750	.60250
SDev	.00471	.00589	.02121	.00000	.01179	.01061	.17796
%RSD	31.427	13.865	84.853	.00000	88.388	141.42	29.536
#1	.01167	.03833	.01000	.11167	-.02167	.01500	.47667
#2	.01833	.04667	.04000	.11167	-.00500	.00000	.72833

Elem	220352 SE	196021	196022
Avge	-.31250	-.06167	.08333
SDev	.21331	.07071	.00943
%RSD	68.259	114.67	11.314
#1	-.46333	-.11167	.09000
#2	-.16167	-.01167	.07667

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Standardization Rpt. Fri 06-07-96 10:42:41 AM page 1

Method: SOW40 Standard: STD2 (S)

Elem	As1890	Sb2068	Ba4934	Be3130	Cd2265	Cr2677	Co2286
Avge	22.811	96.084	310.30	74.821	503.27	215.13	28.143
SDev	.041	.088	.88	.164	1.56	.62	.064
%RSD	.18083	.09199	.28446	.21894	.31027	.28816	.22613
#1	22.782	96.022	309.68	74.705	502.17	214.69	28.098
#2	22.840	96.147	310.92	74.937	504.38	215.56	28.188

Elem	Cu3247	Mn2576	Ni2316	V_2924	Zn2062	Pb 220351	220352
Avge	63.501	273.66	221.55	132.09	54.878	698.78	1023.7
SDev	.147	.77	.76	.35	.171	1.40	1.3
%RSD	.23199	.28077	.34150	.26766	.31139	.20053	.12905
#1	63.397	273.12	221.02	131.84	54.757	699.78	1022
#2	63.605	274.20	222.09	132.34	54.998	697.79	102

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Method: SOW40 Standard: STD3 (S)

Elem	K_7664	Al3082	Ca3179	Fe2714	Mg2790	Na5889
Avge	71.727	177.99	141.02	53.969	106.07	35.812
SDev	.203	.25	.21	.140	.17	.054
%RSD	.28261	.13839	.14625	.25986	.16000	.15137
#1	71.870	178.16	141.17	54.068	106.19	35.850
#2	71.583	177.81	140.88	53.870	105.95	35.773

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CTD. INT. STD. CCV/CCB.
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Method: SOW40 Standard: STD4(S)

Elem	Ag3280
Avge	63.519
SDev	.074
%RSD	.11689
#1	63.467
#2	63.572

STL FREE STATE CE/CHI
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Standardization Rpt. Fri 06-07-96 10:49:14 AM page 1

Method: SOW40 Standard: STD5 (S)

Elem	T11908	℄ 196021	196022
Avge	4.2475	4.6083	8.6967
SDev	.0247	.0024	.0471
%RSD	.58266	.05115	.54205
#1	4.2300	4.6100	8.6633
#2	4.2650	4.6067	8.7300

Analysis Report QC Standard Fri 06-07-96 10:52:52 AM page 1

Method: SOW40 Sample Name: ICV195 Operator: SJ
Run Time: 06/07/96 10:50:41
Comment: ICV-1
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00171	.00720	4.9461	.00767	-.00401	50.980	2.0537
SDev	.00620	.00439	.0153	.00452	.00349	.215	.0049
%RSD	362.01	60.995	.30852	58.878	87.077	.42083	.24057
#1	-.00267	.00410	4.9569	.01087	-.00154	51.132	2.0572
#2	.00610	.01031	4.9354	.00448	-.00648	50.828	2.0502

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0140	.48910	.50261	51.717	.47697	.52884	.487
SDev	.0060	.00115	.00098	.118	.00080	.00063	.00084
%RSD	.29703	.23511	.19565	.22861	.16668	.11872	.17183
#1	2.0182	.48992	.50330	51.801	.47753	.52928	.48794
#2	2.0097	.48829	.50191	51.633	.47641	.52840	.48676

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0412	.48804	25.388	.47878	.46908	50.432	.50355
SDev	.0022	.00168	.069	.00053	.00118	.142	.00236
%RSD	.10898	.34400	.27144	.11113	.25105	.28146	.46949
#1	2.0428	.48923	25.437	.47915	.46991	50.532	.50522
#2	2.0396	.48685	25.339	.47840	.46825	50.331	.50187

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	3.0390	4.9137	4.9621	.01035	.00636
SDev	.0067	.0160	.0149	.00732	.00314
%RSD	.21907	.32593	.30003	70.652	49.431
#1	3.0437	4.9251	4.9726	.01553	.00858
#2	3.0343	4.9024	4.9516	.00518	.00413

Method: SOW40 Sample Name: ICV692 Operator: SJ
Run Time: 06/07/96 10:54:03
Comment: ICV-2
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05287	-.00544	.00139	.05355	-.00390	-.00115	.00706
SDev	.00000	.00688	.00007	.00485	.00516	.00897	.00100
%RSD	.00008	126.30	4.8585	9.0518	132.09	777.81	14.122
#1	.05287	-.00058	.00134	.05012	-.00755	.00519	.00636
#2	.05287	-.01031	.00144	Q.05698	-.00026	-.00750	.00777

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	.00016	.00026	.03722	-.00014	.00030	.00309
SDev	.00013	.00008	.00022	.00292	.00019	.00000	.00037
%RSD	31.934	50.427	86.249	7.8567	141.10	.01605	12.080
#1	.00051	.00021	.00041	.03929	-.00000	.00030	.00336
#2	.00032	.00010	.00010	.03515	-.00027	.00030	.00283

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00093	.00018	.00432	-.00075	-.00016	.01050	-.00050
SDev	.01179	.00004	.00167	.00008	.00056	.00495	.00000
%RSD	1261.9	23.575	38.564	10.607	349.50	47.140	.00000
#1	.00927	.00015	.00314	-.00081	-.00055	.01401	-.00050
#2	-.00741	.00021	.00550	-.00070	.00023	.00700	-.00050

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00144	.00096	.00160	.05425	.05321
SDev	.00086	.00071	.00045	.00908	.00276
%RSD	59.413	73.959	28.079	16.748	5.1871
#1	.00205	.00146	.00128	.04782	.05126
#2	.00084	.00046	.00192	.06067	.05516

Analysis Report QC Standard Fri 06-07-96 11:01:20 AM page 1

Method: SOW40 Sample Name: ICV694 Operator: SJ
Run Time: 06/07/96 10:59:00
Comment: ICV-3
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01057	-.00155	.00068	.00170	1.0046	.20535	.00777
SDev	.00103	.00137	.00091	.00256	.0070	.01060	.00598
%RSD	9.7543	88.448	132.75	151.04	.69658	5.1643	77.000
#1	.01130	-.00253	.00133	.00351	1.0096	.21284	.00354
#2	.00984	-.00058	.00004	-.00012	.99968	.19785	.01200

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00023	.00009	.00011	.02629	-.00012	.00074	.001
SDev	.00013	.00002	.00006	.00084	.00049	.00021	.000
%RSD	58.232	17.699	54.831	3.1780	423.19	28.300	.02881
#1	.00032	.00010	.00007	.02688	-.00047	.00089	.00178
#2	.00013	.00008	.00015	.02570	.00023	.00059	.00178

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00062	.00012	.00275	-.00038	.00122	.00233	-.00054
SDev	.00437	.00000	.00278	.00013	.00028	.00000	.00013
%RSD	700.15	.05390	100.98	35.355	22.807	.00000	24.957
#1	.00372	.00012	.00472	-.00047	.00142	.00233	-.00063
#2	-.00247	.00012	.00079	-.00028	.00102	.00233	-.00044

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00805	-.00344	.00272	-.00232	.00368
SDev	.00097	.00199	.00038	.00833	.00793
%RSD	12.010	57.703	13.909	359.02	215.70
#1	.00737	-.00204	.00298	-.00821	.00928
#2	.00873	-.00484	.00245	.00357	-.00193

Analysis Report QC Standard Fri 06-07-96 11:04:13 AM

Method: SOW40 Sample Name: ICV-4[692] Operator: SJ
Run Time: 06/07/96 11:02:08
Comment: ICV-4
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00820	.09899	.10227	-.00061	.00252	-.00923	.00965
SDev	.00954	.00055	.00062	.00698	.00061	.00245	.00332
%RSD	116.28	.55502	.60561	1139.1	24.207	26.516	34.373
#1	.00146	.09938	.10183	-.00555	.00209	-.01096	.01199
#2	.01495	.09860	.10271	.00432	.00295	-.00750	.00730

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.00009	.09999	.01684	-.00023	.00059	.00158
SDev	.00011	.00002	.00020	.00084	.00038	.00042	.00028
%RSD	106.07	17.405	.19872	4.9622	164.68	70.688	17.658
#1	.00003	.00010	.10013	.01743	-.00050	.00030	.00138
#2	.00019	.00008	.09985	.01625	.00004	.00089	.00177

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00494	.00012	.00236	-.00092	.09568	-.01401	-.00054
SDev	.00349	.00004	.00111	.00037	.00045	.00000	.00040
%RSD	70.768	35.353	47.105	40.406	.46710	.00000	74.870
#1	-.00247	.00009	.00314	-.00119	.09599	-.01401	-.00025
#2	-.00741	.00015	.00157	-.00066	.09536	-.01401	-.00082

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00084	.10022	.10328	.00303	-.00241
SDev	.00000	.00232	.00022	.00025	.01054
%RSD	.02374	2.3177	.21271	8.3061	437.63
#1	.00084	.09858	.10343	.00321	-.00986
#2	.00084	.10186	.10312	.00286	.00505

Method: SOW40 Sample Name: ICB Operator: SJ
Run Time: 06/07/96 11:05:52
Comment: CAL.BLANK
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00055	-.00039	.00018	-.00244	-.00009	-.01154	.00259
SDev	.00181	.00110	.00067	.00018	.00319	.01224	.00000
%RSD	329.98	282.64	360.46	7.3230	3605.5	106.07	.13586
#1	.00182	.00039	.00066	-.00231	-.00235	-.02019	.00259
#2	-.00073	-.00116	-.00029	-.00256	.00217	-.00288	.00259

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	.00004	-.00000	.00177	.00014	.00030	.000
SDev	.00008	.00002	.00019	.00042	.00052	.00000	.000
%RSD	35.355	35.503	18807.	23.570	384.06	.04354	68.784
#1	-.00016	.00003	-.00013	.00207	.00050	.00030	.00020
#2	-.00027	.00006	.00013	.00148	-.00023	.00030	.00007

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00988	-.00005	-.00511	-.00064	.00008	-.03151	-.00013
SDev	.01486	.00002	.00611	.00045	.00089	.00165	.00018
%RSD	150.39	46.928	119.66	70.711	1137.0	5.2378	141.42
#1	-.00063	-.00006	-.00943	-.00096	-.00055	-.03035	-.00000
#2	.02039	-.00003	-.00079	-.00032	.00071	-.03268	-.00025

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	-.00008	-.00032	.00044	-.00125	-.00302
SDev	.00064	.00151	.00174	.00076	.00011
%RSD	828.74	465.35	398.91	60.644	3.5466
#1	-.00053	-.00139	.00167	-.00071	-.00309
#2	.00038	.00074	-.00079	-.00179	-.00294

00051

Method: SOW40 Sample Name: CRI Operator: SJ
Run Time: 06/07/96 11:11:51
Comment: 2XCRDL
Mode: CONC Corr. Factor: 1

Elem	As1890	T11908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00346	.00342	.00445	.00545	.00720	.88541	.18700
SDev	.00181	.00083	.00058	.00068	.00049	.00816	.00198
%RSD	52.165	24.363	13.101	12.520	6.7936	.92131	1.0602
#1	.00474	.00401	.00487	.00497	.00754	.87964	.18840
#2	.00219	.00283	.00404	.00594	.00685	.89118	.18560

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03820	.00193	.00194	.96661	.01782	.01909	.02022
SDev	.00006	.00002	.00025	.00209	.00022	.00063	.00019
%RSD	.14913	.83252	12.672	.21610	1.2313	3.2899	.92123
#1	.03816	.00192	.00212	.96513	.01798	.01865	.02008
#2	.03824	.00194	.00177	.96808	.01767	.01954	.02035

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.20456	.01919	.96235	.03659	.01617	.66293	.01855
SDev	.00175	.00002	.00389	.00011	.00039	.00000	.00062
%RSD	.85521	.11242	.40418	.29084	2.4246	.00000	3.3672
#1	.20333	.01920	.96510	.03651	.01645	.66293	.01899
#2	.20580	.01917	.95960	.03666	.01589	.66293	.01810

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.03921	.00453	.00441	.01227	.00209
SDev	.00000	.00100	.00038	.00681	.00438
%RSD	.00019	21.945	8.6246	55.519	208.88
#1	.03921	.00524	.00468	.01709	-.00100
#2	.03921	.00383	.00414	.00745	.00519

Method: SOW40 Sample Name: LR-1 Operator: SJ
Run Time: 06/07/96 11:18:13
Comment: For[Ca,Na,Mg,Al,Fe&K]
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00401	.00377	.00394	-.00109	-.00257	94.520	558.31
SDev	.00000	.03897	.00094	.00802	.00077	.028	1.48
%RSD	.00033	1032.5	23.958	734.07	30.081	.02963	.26592
#1	.00401	-.02378	.00327	.00458	-.00312	94.539	557.26
#2	.00401	.03133	.00461	-.00676	-.00203	94.500	559.36

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00438	.00018	-.00276	1063.8	.00206	.00814	-.00
SDev	.00011	.00000	.00033	9.5	.00006	.00021	.00
%RSD	2.6028	.21408	11.942	.88871	2.6801	2.5716	20.698
#1	.00430	.00018	-.00253	1057.2	.00202	.00829	-.00396
#2	.00446	.00018	-.00300	1070.5	.00210	.00799	-.00295

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	975.93	-.00179	616.51	.01336	.00071	83.440	.01022
SDev	6.92	.00002	1.91	.00072	.00039	.124	.00080
%RSD	.70890	.97525	.31042	5.3780	54.794	.14821	7.8567
#1	971.04	-.00180	615.15	.01285	.00098	83.353	.00965
#2	980.83	-.00178	617.86	.01386	.00043	83.528	.01079

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	-.00260	-.03115	.02122	.03739	-.02004
SDev	.00034	.00183	.00051	.01170	.00620
%RSD	13.194	5.8755	2.3888	31.300	30.931
#1	-.00285	-.03245	.02086	.04566	-.01566
#2	-.00236	-.02986	.02158	.02911	-.02443

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Method: SOW40 Sample Name: LR-2 Operator: SJ
Run Time: 06/07/96 11:27:20
Comment: All other elements except(LR-1&LR-3)
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.219	48.316	48.934	51.267	39.706	.01981	-.96424
SDev	.208	.178	.072	.153	.108	.01019	.00246
%RSD	.51748	.36792	.14787	.29763	.27159	51.426	.25542
#1	40.072	48.190	48.882	51.160	39.630	.01261	-.96598
#2	40.367	48.441	48.985	51.375	39.782	.02701	-.96250

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	46.521	26.868	45.902	.05483	66.150	51.036	49.593
SDev	.095	.142	.147	.00000	.160	.145	.145
%RSD	.20332	.52709	.32008	.00000	.24116	.28357	.29316
#1	46.454	26.768	45.798	.05483	66.037	50.934	49.490
#2	46.588	26.968	46.005	.05483	66.263	51.138	49.696

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.36735	45.651	-.00092	47.515	-.00233	.02776	48.871
SDev	.01180	.115	.00847	.163	.00142	.00512	.106
%RSD	3.2135	.25084	916.17	.34369	61.241	18.446	.21611
#1	.35900	45.570	-.00691	47.399	-.00333	.03138	48.796
#2	.37569	45.732	.00506	47.630	-.00132	.02414	48.946

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	44.590	48.916	48.942	50.786	51.505
SDev	.193	.103	.159	.035	.245
%RSD	.43223	.20988	.32399	.06893	.47565
#1	44.454	48.988	48.830	50.811	51.331
#2	44.727	48.843	49.054	50.761	51.678

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Method: SOW40 Sample Name: LR-3 Operator: SJ
Run Time: 06/07/96 11:33:13
Comment: Ag only
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00563	-.00943	.00140	.00076	-.00196	-.05222	.02026
SDev	.00192	.00111	.00048	.00766	.00225	.00000	.00035
%RSD	34.138	11.788	34.597	1004.2	114.84	.00000	1.7071
#1	.00699	-.00865	.00174	-.00466	-.00354	-.05222	.02002
#2	.00427	-.01022	.00106	.00618	-.00037	-.05222	.02051

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.00050	.00021	.02205	.00035	.00050	.002
SDev	.00006	.00003	.00037	.00043	.00020	.00024	.0001
%RSD	47.140	6.5987	176.08	1.9642	58.240	47.139	3.9366
#1	.00017	.00052	-.00005	.02175	.00021	.00033	.00254
#2	.00009	.00048	.00047	.02236	.00049	.00067	.00240

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00984	.00027	-.00449	-.00073	45.444	-.02896	.00040
SDev	.00135	.00002	.00058	.00017	.154	.00000	.00019
%RSD	13.688	8.3224	12.867	22.933	.33989	.00000	47.140
#1	-.00889	.00026	-.00490	-.00061	45.553	-.02896	.00027
#2	-.01080	.00029	-.00408	-.00085	45.335	-.02896	.00053

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00243	-.00155	.00285	.00232	-.00000
SDev	.00067	.00125	.00011	.00934	.00684
%RSD	27.382	80.402	3.8008	402.51	200690.
#1	.00290	-.00067	.00293	-.00428	-.00484
#2	.00196	-.00243	.00278	.00892	.00483

Analysis Report QC Standard Fri 06-07-96 11:39:17 AM page 1

Method: SOW40 Sample Name: ICSA Operator: SJ
Run Time: 06/07/96 11:37:11
Comment: ICS-A1
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00136	-.00152	.00178	-.00057	-.00235	105.95	92.955
SDev	.00002	.00001	.00019	.00444	.00230	.45	.456
%RSD	1.2703	.97415	10.488	774.57	98.141	.42863	.49038
#1	.00135	-.00151	.00191	Q-.00371	-.00072	106.28	93.278
#2	.00137	-.00153	.00165	.00257	-.00398	105.63	92.633

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00045	.00055	.00054	90.726	.00008	.00101	-.00023
SDev	.00000	.00000	.00011	.240	.00006	.00046	.00007
%RSD	.00000	.01684	20.698	.26499	70.908	45.626	29.774
#1	.00045	.00055	.00046	90.896	.00004	.00133	-.00018
#2	.00045	.00055	.00062	90.556	.00012	.00068	-.00028

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	87.329	.00206	90.817	.00121	.00085	98.607	.00086
SDev	.288	.00011	.410	.00034	.00036	.328	.00019
%RSD	.33027	5.2292	.45109	27.821	42.204	.33231	21.757
#1	87.533	.00213	91.107	.00144	.00060	98.839	.00099
#2	87.125	.00198	90.528	.00097	.00110	98.376	.00073

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.01052	.00266	.00135	.01954	-.01048
SDev	.00100	.00136	.00039	.02777	.00705
%RSD	9.4990	51.226	29.066	142.12	67.293
#1	.01123	.00362	.00107	-.00010	-.00549
#2	.00981	.00170	.00163	.03918	-.01547

604056

Analysis Report Fri 06-07-96 11:45:29 AM page 1

Method: SOW40 Sample Name: ICSAX2 Operator: SJ
Run Time: 06/07/96 11:43:12
Comment: ICS-A1X2 (For Na only)
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00053	-.00129	.00195	.00063	-.00333	49.445	45.977
SDev	.00358	.00249	.00006	.00032	.00642	.242	.075
%RSD	671.62	193.01	3.1630	50.121	192.97	.48930	.16269
#1	.00306	.00047	.00191	.00085	-.00787	49.274	45.924
#2	-.00200	-.00305	.00200	.00041	.00121	49.616	46.030

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00068	.00054	.00011	45.464	.00000	.00054	.000
SDev	.00004	.00002	.00005	.059	.00006	.00020	.000
%RSD	5.8926	3.0428	48.557	.12958	63431.	36.282	519.81
#1	.00065	.00052	.00015	45.423	.00004	.00068	-.00025
#2	.00071	.00055	.00007	45.506	-.00004	.00040	.00043

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	44.339	.00113	45.421	.00047	.00021	48.926	.00099
SDev	.046	.00007	.069	.00014	.00042	.096	.00038
%RSD	.10436	5.9471	.15138	29.463	194.19	.19534	37.712
#1	44.306	.00109	45.373	.00057	.00051	48.858	.00073
#2	44.372	.00118	45.470	.00038	-.00008	48.994	.00126

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00652	.00144	.00220	.00581	-.00192
SDev	.00044	.00137	.00077	.00682	.00289
%RSD	6.8147	95.524	34.893	117.29	150.22
#1	.00683	.00241	.00166	.01063	-.00396
#2	.00620	.00047	.00275	.00099	.00012

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AR320855

Analysis Report QC Standard Fri 06-07-96 11:48:44 AM page 1

Method: SOW40 Sample Name: ICSAB Operator: SJ
Run Time: 06/07/96 11:46:23
Comment: ICS-AB1
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09841	-.00058	.00164	.08645	-.00050	106.36	90.008
SDev	.00906	.00302	.00036	.00264	.00018	.53	.241
%RSD	9.2068	517.69	21.997	3.0519	35.868	.49722	.26758
#1	.09200	.00155	.00189	.08458	-.00063	105.99	89.838
#2	.10482	-.00272	.00138	.08831	-.00037	106.74	90.178

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00028	.00071	.04609	88.935	.08863	.18665	.08264
SDev	.00016	.00000	.00015	.289	.00064	.00003	.00058
%RSD	56.569	.02910	.31420	.32488	.72019	.01573	.70417
#1	.00017	.00071	.04620	88.731	.08818	.18663	.08223
#2	.00040	.00071	.04599	89.140	.08908	.18668	.08305

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	88.895	.08911	90.186	.16730	.08721	97.017	.18599
SDev	.250	.00022	.181	.00050	.00042	.280	.00042
%RSD	.28132	.25300	.20053	.30086	.48168	.28850	.22684
#1	88.719	.08895	90.059	.16694	.08692	96.819	.18569
#2	89.072	.08927	90.314	.16766	.08751	97.215	.18629

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.09759	.00623	-.00063	.11063	.07454
SDev	.00100	.00148	.00019	.00453	.00171
%RSD	1.0234	23.694	30.331	4.0941	2.2899
#1	.09689	.00728	-.00076	.10743	.07333
#2	.09830	.00519	-.00049	.11384	.07574

v01058

Analysis Report Fri 06-07-96 11:51:34 AM page 1

Method: SOW40 Sample Name: ICSABX2 Operator: SJ
Run Time: 06/07/96 11:49:24
Comment: ICS-AB1X2
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05551	-.00161	.00086	.04646	-.00428	51.291	45.548
SDev	.00330	.00555	.00097	.01008	.00148	.088	.032
%RSD	5.9350	343.65	113.05	21.686	34.563	.17213	.06983
#1	.05784	.00231	.00154	.03933	-.00324	51.228	45.571
#2	.05318	-.00554	.00017	.05358	-.00533	51.353	45.526

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00000	.00068	.02398	45.630	.04561	.09761	.041
SDev	.00004	.00002	.00040	.034	.00012	.00023	.000
%RSD	4416e6	2.4496	1.6555	.07499	.25440	.23925	.00000
#1	.00003	.00066	.02426	45.606	.04552	.09777	.04149
#2	-.00003	.00069	.02370	45.654	.04569	.09744	.04149

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	46.047	.04599	46.072	.08690	.04469	49.376	.09543
SDev	.062	.00018	.021	.00056	.00006	.002	.00014
%RSD	.13549	.39782	.04640	.64356	.13488	.00345	.14736
#1	46.003	.04612	46.057	.08651	.04474	49.375	.09553
#2	46.091	.04586	46.087	.08730	.04465	49.377	.09533

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.05139	.00025	.00116	.06112	.03923
SDev	.00000	.00162	.00225	.01161	.00932
%RSD	.00019	651.75	193.94	18.987	23.758
#1	.05139	-.00090	.00275	.05292	.03264
#2	.05139	.00139	-.00043	.06933	.04582

001059

AR320857

Analysis Report QC Standard Fri 06-07-96 11:55:41 AM page 1

Method: SOW40 Sample Name: CCV5 Operator: SJ
Run Time: 06/07/96 11:52:23
Comment: CCV
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49340	.20206	.47517	.20785	.48330	49.733	23.900
SDev	.00000	.00844	.00149	.00281	.00045	.025	.032
%RSD	.00000	4.1769	.31389	1.3538	.09277	.04950	.13593
#1	.49340	.20803	.47411	.20984	.48362	49.750	23.877
#2	.49340	.19609	.47622	.20586	.48298	49.715	23.923

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47837	.09684	.47973	23.934	.46436	.49085	.47636
SDev	.00078	.00006	.00094	.023	.00006	.00099	.00165
%RSD	.16372	.06746	.19633	.09774	.01238	.20099	.34612
#1	.47781	.09679	.47907	23.917	.46440	.49015	.47519
#2	.47892	.09689	.48040	23.950	.46432	.49155	.47753

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.7558	.46757	23.912	.47649	.90866	24.949	.47507
SDev	.0005	.00034	.031	.00025	.00023	.034	.00131
%RSD	.00476	.07316	.13049	.05281	.02581	.13681	.27629
#1	9.7555	.46733	23.890	.47631	.90882	24.925	.47414
#2	9.7561	.46781	23.934	.47667	.90849	24.973	.47599

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.50326	.47177	.47684	.22763	.19810
SDev	.00000	.00063	.00192	.00531	.00159
%RSD	.00001	.13287	.40211	2.3315	.80053
#1	.50326	.47133	.47548	.23139	.19923
#2	.50326	.47222	.47820	.22388	.19698

Analysis Report QC Standard Fri 06-07-96 11:58:06 AM page 1

Method: SOW40 Sample Name: CCB1 Operator: SJ
Run Time: 06/07/96 11:55:53
Comment: CCB
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00097	-.00123	.00088	-.00068	-.00027	-.05883	.02521
SDev	.00302	.00367	.00059	.00012	.00244	.00424	.00034
%RSD	311.09	298.95	67.477	17.987	911.95	7.2154	1.3499
#1	Q.00311	-.00382	.00129	-.00076	.00146	-.05582	.02497
#2	-.00116	.00137	.00046	-.00059	-.00199	-.06183	.02545

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00247	.00061	.00001	.01562	-.00049	.00016	-.00
SDev	.00004	.00002	.00030	.00087	.00012	.00019	.00
%RSD	1.6255	2.6818	3791.7	5.5459	23.616	117.16	35.355
#1	.00244	.00059	-.00021	.01501	-.00057	.00030	-.00103
#2	.00250	.00062	.00022	.01623	-.00041	.00003	-.00062

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00667	.00003	.00817	-.00091	-.00030	-.03017	.00007
SDev	.00673	.00005	.00231	.00014	.00066	.00171	.00047
%RSD	100.88	142.07	28.288	15.372	222.98	5.6568	707.11
#1	.00191	-.00000	.00654	-.00101	-.00076	-.02896	-.00027
#2	.01143	.00006	.00981	-.00081	.00017	-.03138	.00040

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00181	-.00285	.00271	.01481	-.00831
SDev	.00022	.00239	.00206	.00475	.00252
%RSD	12.300	83.660	75.858	32.061	30.345
#1	.00196	-.00454	.00417	.01817	-.01009
#2	.00165	-.00117	.00126	.01145	-.00652

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Method: SOW40 Sample Name: LCSW Operator: SJ
Run Time: 06/07/96 12:09:42
Comment: LCSW
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05431	.05759	2.4370	.04683	.49770	23.088	.95111
SDev	.00165	.01048	.0015	.00242	.00032	.173	.00139
%RSD	3.0333	18.196	.05991	5.1689	.06336	.75007	.14662
#1	.05314	Q.06500	2.4359	.04854	.49748	22.965	.95012
#2	.05547	.05018	2.4380	.04512	.49792	23.210	.95210

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97282	.23295	.28747	24.086	.22824	.24841	.24133
SDev	.00167	.00040	.00000	.067	.00052	.00067	.00058
%RSD	.17134	.16989	.00031	.27696	.22877	.27007	.24113
#1	.97164	.23267	.28747	24.039	.22787	.24793	.24092
#2	.97400	.23323	.28747	24.133	.22861	.24888	.24175

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97695	.23141	11.788	.23028	.26220	23.535	.24138
SDev	.00988	.00016	.008	.00008	.00150	.092	.00019
%RSD	1.0109	.06900	.06863	.03643	.57041	.39159	.07768
#1	.96997	.23130	11.783	.23022	.26114	23.470	.24125
#2	.98394	.23152	11.794	.23034	.26326	23.600	.24151

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	1.4613	2.4168	2.4469	.02618	.05700
SDev	.0009	.0040	.0002	.02212	.00728
%RSD	.06076	.16582	.00838	84.472	12.771
#1	1.4607	2.4140	2.4468	.04182	.05186
#2	1.4619	2.4197	2.4470	.01054	.06215

000062

Analysis Report QC Standard Fri 06-07-96 12:20:09 PM page 1

Method: SOW40 Sample Name: PBW Operator: SJ
Run Time: 06/07/96 12:17:36
Comment: EXT.BLANK
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00039	-.00043	.00127	-.00202	-.00204	-.05823	.01633
SDev	.00000	.00308	.00149	.00110	.00173	.00170	.00035
%RSD	.00357	708.76	117.24	54.285	84.898	2.9159	2.1522
#1	.00039	.00174	.00022	-.00124	-.00326	-.05943	.01658
#2	.00039	-.00261	Q.00232	-.00280	-.00082	-.05702	.01608

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00231	.00065	.00006	.01041	-.00025	.00032	-.0[illegible]
SDev	.00002	.00012	.00014	.00043	.00006	.00000	.00[illegible]
%RSD	.86762	17.661	223.99	4.1595	23.561	.00454	25.713
#1	.00233	.00057	.00016	.01072	-.00029	.00032	-.00089
#2	.00230	.00074	-.00004	.01011	-.00021	.00032	-.00062

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00128	-.00000	.00041	-.00085	-.00043	-.04103	-.00073
SDev	.00897	.00005	.00636	.00078	.00012	.00000	.00009
%RSD	703.09	36968.	1555.7	92.088	28.191	.00000	12.856
#1	-.00507	.00003	.00490	-.00140	-.00051	-.04103	-.00080
#2	.00762	-.00003	-.00409	-.00030	-.00034	-.04103	-.00066

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00165	-.00054	.00216	-.01543	.00459
SDev	.00022	.00281	.00083	.00172	.00079
%RSD	13.470	518.62	38.549	11.168	17.180
#1	.00181	-.00253	.00157	-.01422	.00514
#2	.00149	.00145	.00275	-.01665	.00403

Analysis Report

Fri 06-07-96 12:26:52 PM

Method: SOW40 Sample Name: 5969
Run Time: 06/07/96 12:23:30
Operator: SJ
Comment: RW-13
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00699	.00046	.00790	-.00761	.00479	.80675	.04376
SDev	.00055	.00555	.00095	.00267	.00064	.01273	.00209
%RSD	7.8567	1205.3	12.070	35.079	13.365	1.5784	4.7765
#1	.00738	-.00346	.00857	-.00572	.00525	.79775	.04523
#2	.00660	.00438	.00722	-.00950	.00434	.81576	.04228

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03233	.00076	.00046	4.1219	.00135	.00174	.27302
SDev	.00002	.00000	.00015	.0095	.00012	.00112	.00078
%RSD	.06211	.02433	31.715	.23120	8.5982	64.296	.28419
#1	.03232	.00076	.00057	4.1151	.00143	.00095	.27247
#2	.03235	.00076	.00036	4.1286	.00127	.00253	.27357

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03724	.00445	2.3563	.00358	-.00038	3.4164	-.00027
SDev	.00314	.00009	.0006	.00067	.00030	.0017	.00038
%RSD	8.4427	2.0504	.02455	18.752	77.929	.04995	141.42
#1	.03502	.00438	2.3559	.00405	-.00059	3.4176	.00000
#2	.03947	.00451	2.3567	.00310	-.00017	3.4152	-.00053

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.05990	.00416	.00974	-.01422	-.00435
SDev	.00111	.00093	.00097	.01034	.00111
%RSD	1.8537	22.267	9.9252	72.699	25.458
#1	.05912	.00481	.01042	-.00691	-.00514
#2	.06069	.00350	.00906	-.02153	-.00357

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Method: SOW40 Sample Name: 5970 Operator: SJ
Run Time: 06/07/96 12:27:29
Comment: RW-300
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00349	-.00106	.00721	-.00360	.00530	.78094	.04351
SDev	.00165	.00154	.00023	.00039	.00225	.00849	.00244
%RSD	47.145	145.17	3.1873	10.728	42.415	1.0870	5.6177
#1	.00466	-.00215	.00705	-.00387	.00689	.78694	.04178
#2	.00233	.00003	.00737	-.00333	.00371	.77494	.04524

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03056	.00078	.00023	3.9151	.00086	.00158	.25
SDev	.00004	.00000	.00006	.0091	.00023	.00000	.00
%RSD	.13143	.00885	25.808	.23235	27.005	.00363	.27152
#1	.03053	.00078	.00027	3.9087	.00070	.00158	.24956
#2	.03059	.00078	.00019	3.9216	.00102	.00158	.25052

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03811	.00510	2.2586	.00407	-.00047	3.1678	-.00023
SDev	.01973	.00005	.0196	.00003	.00018	.0119	.00014
%RSD	51.760	.89003	.86982	.68651	38.566	.37713	60.609
#1	.05206	.00506	2.2447	.00409	-.00059	3.1763	-.00033
#2	.02416	.00513	2.2725	.00405	-.00034	3.1594	-.00013

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.04216	.00498	.00831	-.00752	-.00167
SDev	.00089	.00038	.00016	.00086	.00015
%RSD	2.1064	7.5307	1.9051	11.467	9.0876
#1	.04153	.00471	.00819	-.00813	-.00178
#2	.04279	.00524	.00842	-.00691	-.00156

001065

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Analysis Report Fri 06-07-96 12:38:57 PM page 1

Method: SOW40 Sample Name: 5971 Operator: SJ
Run Time: 06/07/96 12:33:24
Comment: RW-11
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00757	.00918	.00877	-.01248	.00466	.37096	.03956
SDev	.00137	.00062	.00127	.00133	.00083	.00255	.00105
%RSD	18.132	6.7222	14.440	10.658	17.864	.68651	2.6462
#1	.00660	.00962	.00788	-.01342	.00525	.37276	.04030
#2	.00854	.00875	.00967	-.01154	.00407	.36916	.03882

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00657	.00081	.00034	5.0738	.00090	.00063	.40449
SDev	.00002	.00003	.00012	.0009	.00012	.00045	.00049
%RSD	.30545	4.0919	36.103	.01707	12.885	70.740	.11989
#1	.00659	.00083	.00025	5.0732	.00098	.00032	.40415
#2	.00656	.00078	.00043	5.0745	.00082	.00095	.40483

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06219	.00492	4.4285	.00320	.00021	5.3823	-.00060
SDev	.00627	.00016	.0098	.00059	.00054	.0034	.00009
%RSD	10.086	3.2532	.22177	18.332	257.60	.06342	15.713
#1	.06663	.00503	4.4216	.00362	-.00017	5.3847	-.00053
#2	.05776	.00480	4.4355	.00279	.00059	5.3799	-.00066

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.06006	.00441	.01092	-.02763	-.00502
SDev	.00000	.00095	.00236	.01206	.00396
%RSD	.00016	21.588	21.607	43.664	78.873
#1	.06006	.00508	.00925	-.03616	-.00222
#2	.06006	.00374	.01259	-.01910	-.00781

001066

Method: SOW40 Sample Name: 5972 Operator: SJ
Run Time: 06/07/96 12:39:36
Comment: RW-57
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00757	-.00467	.00246	-.00572	.00339	.63388	.03831
SDev	.00247	.00250	.00136	.00015	.00019	.00255	.00279
%RSD	32.636	53.634	55.526	2.6637	5.6362	.40176	7.2918
#1	.00582	-.00290	.00149	-.00561	.00326	.63568	.03634
#2	.00932	-.00644	.00342	-.00583	.00353	.63208	.04029

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03543	.00084	-.00003	11.130	.00061	-.00000	.04[illegible]
SDev	.00006	.00002	.00013	.032	.00012	.00045	.00[illegible]
%RSD	.17005	1.9559	450.40	.28411	18.899	293940.	.21624
#1	.03547	.00083	.00007	11.152	.00053	.00032	.04492
#2	.03539	.00085	-.00013	11.107	.00070	-.00032	.04478

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04392	.11644	3.4799	.00239	-.00014	6.5650	-.00003
SDev	.00133	.00018	.0121	.00050	.00006	.0239	.00014
%RSD	3.0382	.15663	.34872	21.038	43.590	.36396	424.26
#1	.04298	.11657	3.4885	.00204	-.00018	6.5819	-.00013
#2	.04486	.11631	3.4714	.00275	-.00010	6.5481	.00007

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.05802	-.00030	.00381	-.00743	-.00488
SDev	.00311	.00227	.00092	.01206	.00617
%RSD	5.3585	769.49	24.084	162.27	126.49
#1	.06022	-.00190	.00316	-.01596	-.00051
#2	.05582	.00131	.00446	.00110	-.00924

Analysis Report

Fri 06-07-96 12:52:16 PM

Method: SOW40 Sample Name: 5973
Run Time: 06/07/96 12:48:10
Operator: SJ
Comment: RW-28
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00427	-.00904	.00156	.00070	.00180	1.2017	.04078
SDev	.00000	.00368	.00006	.00090	.00013	.0093	.00209
%RSD	.00016	40.706	3.8042	128.10	7.1268	.77704	5.1156
#1	.00427	-.00644	.00160	.00007	.00171	1.1951	.03931
#2	.00427	-.01164	.00152	.00134	.00189	1.2083	.04226

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12133	.00086	-.00005	36.645	.00096	.00032	.06666
SDev	.00044	.00002	.00002	.146	.00003	.00000	.00049
%RSD	.36415	1.9432	42.756	.39836	2.9966	.00225	.72747
#1	.12102	.00087	-.00007	36.542	.00098	.00032	.06632
#2	.12164	.00085	-.00004	36.748	.00094	.00032	.06700

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03388	.01218	7.6731	.00097	-.00055	16.502	.00007
SDev	.01079	.00009	.0335	.00022	.00030	.082	.00056
%RSD	31.854	.74616	.43676	23.089	54.663	.49643	848.53
#1	.02625	.01211	7.6494	.00081	-.00076	16.444	-.00033
#2	.04152	.01224	7.6967	.00113	-.00034	16.560	.00046

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.03965	-.00053	.00259	-.00083	.00146
SDev	.00022	.00165	.00090	.00402	.00333
%RSD	.56016	310.98	34.764	486.51	228.28
#1	.03949	-.00169	.00322	.00202	-.00089
#2	.03980	.00063	.00195	-.00367	.00381

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Method: SOW40 Sample Name: 5974 Operator: SJ
Run Time: 06/07/96 12:53:55
Comment: RW-400
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01475	.00335	.00088	-.00799	.00290	1.1507	.04153
SDev	.00275	.00093	.00122	.00217	.00269	.0153	.00034
%RSD	18.608	27.765	138.44	27.208	92.945	1.3279	.81067
#1	.01670	.00400	.00174	-.00645	.00481	1.1399	.04129
#2	.01281	.00269	.00002	-.00952	.00099	1.1615	.04176

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11666	.00091	.00007	35.708	.00026	.00032	.05
SDev	.00038	.00002	.00003	.099	.00009	.00000	.000
%RSD	.32708	1.8487	38.037	.27779	33.292	.00684	.16957
#1	.11639	.00092	.00008	35.638	.00020	.00032	.05713
#2	.11693	.00090	.00005	35.779	.00032	.00032	.05726

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02704	.01189	7.4647	.00097	.00017	16.077	.00007
SDev	.01033	.00005	.0208	.00011	.00012	.048	.00066
%RSD	38.210	.38586	.27865	11.545	69.701	.29724	989.95
#1	.01974	.01192	7.4500	.00105	.00025	16.043	-.00040
#2	.03435	.01186	7.4794	.00089	.00009	16.111	.00053

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.03360	-.00150	.00205	-.01057	-.00671
SDev	.00011	.00551	.00089	.00402	.00126
%RSD	.33065	366.28	43.470	38.034	18.806
#1	.03368	.00239	.00142	-.00773	-.00582
#2	.03352	-.00540	.00269	-.01342	-.00760

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Method: SOW40 Sample Name: 5975 Operator: SJ
Run Time: 06/07/96 13:02:43
Comment: RW-29
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00912	.00110	.00222	-.00474	.00476	.47841	.04177
SDev	.00028	.00340	.00053	.00391	.00084	.01358	.00210
%RSD	3.0096	309.96	23.669	82.605	17.583	2.8391	5.0299
#1	.00932	.00350	.00260	-.00751	.00535	.48801	.04029
#2	.00893	-.00131	.00185	-.00197	.00417	.46880	.04326

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17702	.00091	.00003	40.224	.00057	.00032	.02195
SDev	.00024	.00002	.00002	.050	.00023	.00000	.00010
%RSD	.13613	1.8030	74.685	.12385	40.405	.01817	.44194
#1	.17719	.00092	.00005	40.259	.00041	.00032	.02201
#2	.17685	.00090	.00002	40.189	.00074	.00032	.02188

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02169	.00077	9.7309	.00079	-.00017	10.514	.00007
SDev	.00092	.00002	.0318	.00036	.00048	.010	.00019
%RSD	4.2572	3.0448	.32657	45.962	282.72	.09740	282.84
#1	.02235	.00075	9.7534	.00105	-.00051	10.521	.00020
#2	.02104	.00078	9.7085	.00053	.00017	10.506	-.00007

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.03030	-.00258	.00459	.00629	-.01017
SDev	.00100	.00337	.00244	.00833	.00174
%RSD	3.2981	130.56	53.261	132.34	17.103
#1	.03101	-.00496	.00632	.00040	-.01140
#2	.02960	-.00020	.00286	.01218	-.00894

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Method: SOW40 Sample Name: 5976 Operator: SJ
Run Time: 06/07/96 13:10:22
Comment: RW-66
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00097	.00837	.00339	-.00988	.00648	.53663	.03510
SDev	.00027	.00062	.00068	.00374	.00071	.00255	.00665
%RSD	28.285	7.3990	19.999	37.785	10.917	.47457	18.938
#1	-.00117	.00793	.00387	-.00724	.00598	.53843	.03040
#2	-.00078	.00881	.00291	-.01253	.00698	.53483	.03980

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.29319	.00096	.00012	35.632	.00055	.00063	.026
SDev	.00078	.00002	.00015	.088	.00020	.00045	.0005
%RSD	.26712	1.7391	123.01	.24557	36.938	70.718	2.2040
#1	.29264	.00094	.00022	35.570	.00069	.00095	.02599
#2	.29375	.00097	.00002	35.694	.00041	.00032	.02681

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01919	.01033	4.9769	.00059	.00051	20.652	.00000
SDev	.00046	.00002	.0052	.00053	.00012	.125	.00028
%RSD	2.3740	.21970	.10448	89.567	23.817	.60327	552e6
#1	.01887	.01031	4.9732	.00022	.00059	20.564	.00020
#2	.01951	.01035	4.9806	.00097	.00042	20.740	-.00020

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.03847	.00233	.00391	-.02337	-.00324
SDev	.00056	.00158	.00023	.01292	.00079
%RSD	1.4426	67.727	5.9737	55.311	24.380
#1	.03886	.00345	.00408	-.01423	-.00380
#2	.03808	.00122	.00374	-.03251	-.00269

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Method: SOW40 Sample Name: CCV5 Operator: SJ
Run Time: 06/07/96 13:13:15
Comment: CCV
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.53397	.20159	.50429	.20782	.51578	50.505	22.828
SDev	.00305	.00432	.00312	.00166	.00613	.153	.067
%RSD	.57096	2.1450	.61805	.80070	1.1882	.30255	.29390
#1	.53181	.19853	.50649	.20664	.52012	50.613	22.875
#2	.53612	.20465	.50208	.20899	.51145	50.397	22.780

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50605	.10335	.50572	23.269	.50091	.49823	.49249
SDev	.00111	.00042	.00164	.091	.00264	.00280	.00193
%RSD	.21972	.40186	.32357	.39279	.52696	.56262	.39158
#1	.50684	.10364	.50688	23.334	.50278	.50022	.49385
#2	.50527	.10305	.50456	23.204	.49904	.49625	.49112

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.4416	.50277	23.037	.50920	.95908	24.953	.50476
SDev	.0342	.00192	.101	.00317	.00344	.060	.00139
%RSD	.36196	.38236	.43900	.62175	.35829	.23938	.27524
#1	9.4658	.50413	23.108	.51144	.96151	24.995	.50574
#2	9.4175	.50141	22.965	.50696	.95665	24.911	.50378

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.53122	.50241	.50521	.17825	.22238
SDev	.00265	.00634	.00153	.00746	.00616
%RSD	.49802	1.2615	.30287	4.1867	2.7698
#1	.53309	.50690	.50629	.18353	.21802
#2	.52935	.49793	.50412	.17298	.22673

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Method: SOW40 Sample Name: CCB2 Operator: SJ
Run Time: 06/07/96 13:15:37
Comment: CCB
Mode: CONC Corr. Factor: 1

Elem	As1890	T11908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00065	.00197	.00083	-.00101	.00344	-.08824	.01311
SDev	.00336	.00340	.00161	.00059	.00181	.01188	.00209
%RSD	518.61	172.75	195.39	58.785	52.556	13.469	15.981
#1	.00173	.00438	-.00032	-.00143	.00216	-.07983	.01162
#2	Q-.00302	-.00044	.00197	-.00059	.00471	-.09664	.01459

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00002	.00005	.00024	.00796	-.00039	.00108	-.00
SDev	.00020	.00004	.00001	.00217	.00029	.00000	.00
%RSD	1272.8	70.389	5.5910	27.196	74.816	.00672	61.872
#1	.00015	.00003	.00025	.00950	-.00018	.00108	-.00065
#2	-.00012	.00008	.00023	.00643	-.00060	.00108	-.00165

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00666	.00015	-.00449	.00054	.00014	-.04948	-.00025
SDev	.00135	.00000	.00520	.00080	.00020	.00171	.00015
%RSD	20.279	.07399	115.74	147.08	141.97	3.4493	60.609
#1	-.00571	.00015	-.00082	.00111	.00028	-.04827	-.00036
#2	-.00762	.00015	-.00817	-.00002	-.00000	-.05069	-.00015

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00000	-.00243	.00243	-.00667	.00178
SDev	.00108	.00645	.00077	.00715	.00441
%RSD	325520.	265.34	31.613	107.14	247.79
#1	.00077	-.00699	.00297	-.00162	-.00134
#2	-.00077	.00213	.00189	-.01172	.00489

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Method: SOW40 Sample Name: 5966 Operator: SJ
Run Time: 06/07/96 13:23:46
Comment: RW-09
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00173	.00010	.00777	-.00222	-.00084	.52703	.05019
SDev	.00061	.00309	.00066	.00039	.00659	.01613	.00210
%RSD	35.358	3130.0	8.4964	17.597	779.65	3.0604	4.1769
#1	.00129	.00229	.00731	-.00194	-.00550	.51562	.05167
#2	.00216	-.00209	.00824	-.00249	.00381	.53843	.04871

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04496	.00019	.00033	4.5495	.00068	.00433	.11218
SDev	.00026	.00005	.00008	.0234	.00006	.00000	.00061
%RSD	.58198	28.226	23.996	.51416	9.5140	.00037	.54289
#1	.04477	.00023	.00027	4.5329	.00064	.00433	.11175
#2	.04514	.00015	.00038	4.5660	.00073	.00433	.11261

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13615	.01786	3.7275	.00795	-.00024	5.1446	-.00062
SDev	.01662	.00005	.0156	.00021	.00033	.0563	.00005
%RSD	12.204	.28579	.41854	2.7048	138.98	1.0947	8.3189
#1	.12440	.01782	3.7165	.00811	-.00047	5.1048	-.00058
#2	.14790	.01790	3.7386	.00780	-.00000	5.1844	-.00065

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.10698	.00755	.00788	-.01357	.00337
SDev	.00169	.00068	.00065	.00886	.00378
%RSD	1.5751	9.0466	8.2367	65.320	112.21
#1	.10578	.00707	.00742	-.00730	.00070
#2	.10817	.00804	.00834	-.01983	.00604

604074

AR320872

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Method: SOW40 Sample Name: 5967 Operator: SJ
Run Time: 06/07/96 13:30:29
Comment: RW-09 D
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00151	-.00778	.00713	-.00647	.00308	.53843	.05289
SDev	.00580	.00309	.00117	.00074	.00035	.00849	.00244
%RSD	383.79	39.777	16.332	11.435	11.377	1.5766	4.6116
#1	-.00561	-.00997	.00796	-.00594	.00332	.54444	.05461
#2	.00259	-.00559	.00631	-.00699	.00283	.53243	.05116

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04508	.00022	.00028	4.5596	.00101	.00324	.11[illegible]
SDev	.00009	.00002	.00031	.0013	.00033	.00102	.000[illegible]
%RSD	.19346	8.2365	109.26	.02850	32.319	31.432	.45096
#1	.04514	.00023	.00006	4.5587	.00078	.00397	.11218
#2	.04502	.00020	.00050	4.5605	.00124	.00252	.11289

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.12092	.01792	3.7333	.00761	-.00028	5.1808	.00058
SDev	.00852	.00008	.0029	.00003	.00066	.0051	.00041
%RSD	7.0462	.43015	.07737	.40406	235.45	.09882	70.711
#1	.12694	.01797	3.7312	.00759	-.00075	5.1772	.00087
#2	.11489	.01786	3.7353	.00763	.00019	5.1844	.00029

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.10672	.00236	.00949	-.01559	-.00198
SDev	.00060	.00010	.00179	.00543	.00157
%RSD	.56415	4.2298	18.847	34.836	79.516
#1	.10715	.00229	.01075	-.01175	-.00309
#2	.10629	.00243	.00822	-.01943	-.00086

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Method: SOW40 Sample Name: 5968 Operator: SJ
Run Time: 06/07/96 13:36:31
Comment: RW-09 S
Mode: CONC Corr. Factor: 1

Elem	As1890	T11908	Pb	Se	Sb2068	K_7664	A13082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01207	.04837	.03336	.06097	.05214	.55164	.49760
SDev	.00061	.00310	.00210	.00607	.00131	.00679	.00280
%RSD	5.0553	6.3985	6.2868	9.9521	2.5207	1.2311	.56283
#1	.01250	.05056	.03188	.05668	.05307	.55644	.49958
#2	.01164	.04618	.03484	.06526	.05121	.54684	.49562

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24398	.01074	.01059	4.6077	.05058	.10344	.16435
SDev	.00035	.00005	.00012	.0104	.00026	.00153	.00010
%RSD	.14298	.50343	1.1251	.22563	.51516	1.4785	.06175
#1	.24374	.01070	.01067	4.6003	.05077	.10236	.16428
#2	.24423	.01078	.01050	4.6150	.05040	.10453	.16443

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.38599	.06659	3.7639	.10576	.04608	5.2447	.09955
SDev	.00942	.00005	.0017	.00015	.00026	.0068	.00021
%RSD	2.4411	.07703	.04604	.14531	.57446	.13016	.20675
#1	.39265	.06663	3.7627	.10565	.04589	5.2399	.09940
#2	.37933	.06656	3.7651	.10587	.04627	5.2496	.09969

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.21485	.02964	.03519	.05018	.06629
SDev	.00096	.00182	.00223	.00657	.00582
%RSD	.44806	6.1403	6.3476	13.101	8.7779
#1	.21553	.02835	.03361	.04553	.06217
#2	.21417	.03093	.03677	.05483	.07040

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Method: SOW40 Sample Name: 5966LX5 Operator: SJ
Run Time: 06/07/96 13:42:37
Comment: RW-09LX5
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00151	-.00239	.00087	-.00797	-.00113	.03722	.01904
SDev	.00030	.00774	.00022	.00065	.00077	.00085	.00069
%RSD	20.209	324.10	24.862	8.2051	67.814	2.2810	3.6339
#1	.00130	-.00786	.00072	-.00751	-.00167	.03782	.01855
#2	.00173	.00309	.00102	-.00843	-.00059	.03662	.01953

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00916	.00015	.00013	.94218	.00011	.00108	.022
SDev	.00004	.00000	.00008	.00217	.00036	.00102	.000
%RSD	.47617	.11543	61.711	.22989	315.18	94.292	.45916
#1	.00919	.00015	.00007	.94065	.00037	.00036	.02218
#2	.00913	.00015	.00019	.94371	-.00014	.00180	.02203

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03270	.00356	.76038	.00152	.00046	.91596	-.00055
SDev	.00403	.00008	.00289	.00095	.00040	.00171	.00036
%RSD	12.333	2.1581	.38004	62.629	85.553	.18632	65.997
#1	.02985	.00362	.76242	.00085	.00018	.91475	-.00080
#2	.03556	.00351	.75834	.00220	.00075	.91717	-.00029

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.02425	-.00259	.00258	-.01355	-.00522
SDev	.00096	.00063	.00063	.00486	.00142
%RSD	3.9685	24.183	24.526	35.872	27.151
#1	.02494	-.00215	.00213	-.01011	-.00622
#2	.02357	-.00303	.00302	-.01698	-.00422

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Method: SOW40 Sample Name: 5977 Operator: SJ
Run Time: 06/07/96 13:45:49
Comment: RW-27
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00604	-.00172	.00204	-.00592	-.00379	.76593	.05092
SDev	.00244	.00307	.00038	.00568	.00256	.00934	.00104
%RSD	40.412	178.83	18.501	96.001	67.423	1.2192	2.0455
#1	.00777	.00045	.00177	-.00994	-.00560	.75933	.05019
#2	.00432	-.00389	.00230	-.00190	-.00198	.77254	.05166

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06806	.00029	.00002	28.918	.00138	.00036	.07407
SDev	.00002	.00002	.00007	.091	.00085	.00051	.00030
%RSD	.03203	6.0873	356.13	.31607	61.357	141.50	.41111
#1	.06808	.00028	.00007	28.854	.00078	-.00000	.07385
#2	.06805	.00031	-.00003	28.983	.00198	.00072	.07428

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.10170	.00354	7.5725	.00180	.00042	8.3329	-.00011
SDev	.01616	.00010	.0150	.00074	.00086	.0358	.00036
%RSD	15.893	2.9007	.19838	40.893	204.94	.43010	329.98
#1	.09027	.00362	7.5618	.00233	-.00019	8.3076	-.00036
#2	.11312	.00347	7.5831	.00128	.00103	8.3583	.00015

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.03974	.00207	.00202	-.01981	.00092
SDev	.00072	.00054	.00083	.00572	.00567
%RSD	1.8188	26.127	40.930	28.844	615.52
#1	.04025	.00245	.00144	-.02386	-.00309
#2	.03923	.00168	.00261	-.01577	.00493

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Method: SOW40 Sample Name: 5978 Operator: SJ
Run Time: 06/07/96 13:49:25
Comment: RW-04
Mode: CONC Corr. Factor: 1

Elem	As1890	T11908	Pb	Se	Sb2068	K_7664	A13082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00410	-.00145	.00522	.00138	.00258	1.0793	.08354
SDev	.00458	.00277	.00214	.00127	.00035	.0297	.00595
%RSD	111.64	190.24	40.992	92.084	13.477	2.7529	7.1267
#1	-.00086	-.00341	.00674	.00048	.00233	1.0583	.08775
#2	-.00734	.00050	.00371	.00228	.00283	1.1003	.07933

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08874	.00034	.00030	16.326	.00142	.00018	.18[illegible]
SDev	.00105	.00002	.00031	.173	.00013	.00026	.001[illegible]
%RSD	1.1793	5.1589	102.44	1.0613	9.1366	141.72	.98781
#1	.08800	.00033	.00052	16.204	.00152	-.00000	.18366
#2	.08948	.00036	.00008	16.449	.00133	.00036	.18624

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11602	.01230	9.1104	.00700	-.00033	21.424	.00025
SDev	.01489	.00020	.0994	.00009	.00006	.326	.00057
%RSD	12.832	1.6565	1.0909	1.3176	19.571	1.5215	222.23
#1	.10550	.01215	9.0401	.00693	-.00028	21.194	-.00015
#2	.12655	.01244	9.1807	.00706	-.00037	21.655	.00065

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.44535	.00415	.00575	-.00265	.00337
SDev	.00120	.00282	.00180	.00829	.00598
%RSD	.27027	68.049	31.377	313.30	177.70
#1	.44450	.00615	.00703	.00322	-.00086
#2	.44620	.00215	.00448	-.00851	.00760

600079

AR320877

Analysis Report

Fri 06-07-96 01:56:34 PM

Method: SOW40 Sample Name: 5979 Operator: SJ
Run Time: 06/07/96 13:54:17
Comment: FB
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00691	-.00329	-.00213	-.00349	-.00010	-.09424	.01607
SDev	.00244	.00465	.00063	.00248	.00332	.00679	.00209
%RSD	35.358	141.39	29.771	71.235	3450.1	7.2062	13.020
#1	-.00864	-.00000	-.00168	-.00173	.00225	-.08944	.01755
#2	-.00518	-.00658	-.00258	-.00524	-.00244	-.09904	.01459

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00085	.00029	-.00025	.01103	-.00021	.00054	-.00136
SDev	.00002	.00002	.00011	.00043	.00062	.00026	.00020
%RSD	2.5713	6.1899	42.854	3.9284	298.54	47.108	14.886
#1	.00083	.00028	-.00017	.01133	.00023	.00072	-.00122
#2	.00086	.00031	-.00032	.01072	-.00065	.00036	-.00151

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00634	-.00009	-.00736	-.00072	.00009	-.03258	-.00018
SDev	.01525	.00003	.00231	.00061	.00079	.00512	.00026
%RSD	240.58	28.307	31.421	85.710	855.41	15.713	141.42
#1	.01713	-.00011	-.00572	-.00028	.00065	-.02896	-.00000
#2	-.00445	-.00007	-.00899	-.00115	-.00047	-.03620	-.00036

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00162	-.00533	-.00055	-.01576	.00256
SDev	.00024	.00032	.00079	.00686	.00709
%RSD	14.852	5.9984	142.63	43.520	276.66
#1	.00179	-.00511	.00000	-.02062	.00757
#2	.00145	-.00556	-.00111	-.01091	-.00245

Method: SOW40 Sample Name: CCV5 Operator: SJ
Run Time: 06/07/96 13:57:15
Comment: CCV
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51090	.19550	.49035	.20837	.49848	50.518	25.955
SDev	.01374	.00404	.00232	.00344	.00359	.021	.057
%RSD	2.6892	2.0637	.47293	1.6491	.72091	.04201	.22088
#1	.52061	.19835	.49199	.21080	.50103	50.533	25.995
#2	.50118	.19264	.48871	.20594	.49594	50.503	25.914

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49304	.09884	.49055	25.775	.48028	.47715	.484
SDev	.00094	.00022	.00182	.049	.00104	.00153	.001
%RSD	.19015	.21928	.37150	.19146	.21706	.32047	.37696
#1	.49370	.09899	.49184	25.809	.48102	.47823	.48595
#2	.49238	.09868	.48926	25.740	.47955	.47607	.48337

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.1539	.48221	25.844	.49320	.92449	24.742	.48689
SDev	.0400	.00087	.079	.00224	.00264	.041	.00000
%RSD	.43698	.18060	.30683	.45496	.28551	.16556	.00000
#1	9.1822	.48282	25.900	.49479	.92635	24.771	.48689
#2	9.1256	.48159	25.788	.49162	.92262	24.713	.48689

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.51507	.48670	.49215	.17480	.22491
SDev	.00072	.00266	.00215	.00943	.00049
%RSD	.14037	.54593	.43738	5.3941	.21548
#1	.51456	.48858	.49367	.18147	.22525
#2	.51558	.48482	.49063	.16813	.22456

Analysis Report QC Standard Fri 06-07-96 02:07:29 PM

Method: SOW40 Sample Name: CCB3 Operator: SJ
Run Time: 06/07/96 14:00:48
Comment: CCB
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00161	-.00018	-.00118	-.00267	-.00087	.01529	.01654
SDev	.00202	.00026	.00074	.00189	.00327	.00458	.00200
%RSD	125.69	142.27	63.129	70.629	375.90	29.998	12.099
#1	.00018	.00000	-.00065	Q-.00400	.00144	.01853	.01512
#2	Q.00304	-.00037	-.00171	-.00134	-.00318	.01204	.01795

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00440	-.00000	-.00069	.03843	-.00073	-.00046	.00113
SDev	.00122	.00001	.00006	.00933	.00003	.00022	.00000
%RSD	27.808	6164.4	8.3109	24.274	3.6945	47.430	.00010
#1	.00527	-.00001	-.00073	.04503	-.00071	-.00062	.00113
#2	.00354	.00001	-.00065	.03184	-.00075	-.00031	.00113

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00663	-.00044	.00702	-.00050	.00047	.10973	.00012
SDev	.00001	.00011	.00939	.00057	.00060	.03046	.00052
%RSD	.15747	25.182	133.65	113.76	127.65	27.756	424.26
#1	.00664	-.00036	.01366	-.00090	.00090	.13127	-.00024
#2	.00663	-.00052	.00039	-.00010	.00005	.08820	.00049

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00494	-.00247	-.00055	.02202	-.01483
SDev	.00154	.00090	.00156	.00349	.00110
%RSD	31.193	36.670	285.27	15.839	7.4015
#1	.00603	-.00310	.00055	.01955	-.01561
#2	.00385	-.00183	-.00165	.02448	-.01405

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Analysis Report QC Standard Fri 06-07-96 02:18:00 PM page 1

Method: SOW40 Sample Name: CRI Operator: SJ
Run Time: 06/07/96 14:14:29
Comment: 2XCRDL
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00540	.00401	.00353	.00549	.01153	.88058	.22419
SDev	.00061	.00284	.00021	.00212	.00021	.01019	.00783
%RSD	11.247	70.828	5.8902	38.598	1.8091	1.1568	3.4919
#1	.00583	.00200	.00368	.00399	.01168	.87338	.22972
#2	.00497	Q.00602	.00338	.00698	.01139	.88779	.21865

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04025	.00246	.00160	1.0479	.01881	.01946	.021
SDev	.00050	.00002	.00003	.0169	.00006	.00051	.00051
%RSD	1.2458	.72733	1.6995	1.6173	.34626	2.6195	2.3570
#1	.04061	.00247	.00158	1.0599	.01876	.01910	.02189
#2	.03990	.00244	.00162	1.0359	.01885	.01982	.02117

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.18760	.01987	1.0417	.03910	.01645	.65650	.01921
SDev	.00673	.00041	.0081	.00055	.00020	.00683	.00041
%RSD	3.5897	2.0656	.77440	1.4150	1.2125	1.0399	2.1428
#1	.19236	.02016	1.0474	.03949	.01659	.66132	.01950
#2	.18284	.01958	1.0360	.03871	.01630	.65167	.01892

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.04296	.00408	.00326	.01402	.00128
SDev	.00000	.00103	.00082	.00227	.00428
%RSD	.00013	25.264	25.092	16.202	333.57
#1	.04296	.00335	.00384	.01563	-.00174
#2	.04296	.00481	.00268	.01241	.00431

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Method: SOW40 Sample Name: LR-1 Operator: SJ
Run Time: 06/07/96 14:25:29
Comment: For Al,Ca,Na,Mg,K,Fe
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00047	-.00075	.00085	-.00060	-.00229	95.847	564.77
SDev	.00161	.00447	.00261	.00251	.00026	.508	3.56
%RSD	341.82	594.43	305.86	420.34	11.454	.52963	.63028
#1	-.00067	-.00391	-.00099	-.00238	-.00211	95.488	567.29
#2	.00161	.00241	.00270	.00118	-.00248	96.206	562.26

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00472	.00088	-.00215	1055.4	.00167	.00551	.00470
SDev	.00005	.00003	.00052	2.5	.00029	.00082	.00131
%RSD	1.0687	3.4260	24.025	.23834	17.192	14.886	27.961
#1	.00469	.00091	-.00178	1057.2	.00147	.00493	.00377
#2	.00476	.00086	-.00251	1053.6	.00188	.00609	.00563

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	961.59	.01112	624.27	.01272	-.00224	82.466	-.00426
SDev	1.97	.00006	2.31	.00002	.00092	.007	.00120
%RSD	.20459	.51901	.37053	.19163	40.950	.00825	28.158
#1	962.98	.01108	625.91	.01274	-.00289	82.461	-.00511
#2	960.20	.01116	622.64	.01271	-.00159	82.471	-.00341

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	-.00241	-.00072	.00163	.06283	-.03184
SDev	.00119	.00361	.00568	.00628	.00684
%RSD	49.116	503.88	348.74	9.9871	21.497
#1	-.00325	.00183	-.00239	.06727	-.03668
#2	-.00158	-.00327	.00564	.05839	-.02700

Method: SOW40 Sample Name: LR-2 Operator: SJ
Run Time: 06/07/96 14:29:33
Comment: All other elements except (LR-1&LR-3)
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	40.697	52.628	47.503	53.758	42.182	-.08302	-.96713
SDev	.211	.194	.070	.152	.112	.00737	.00229
%RSD	.51760	.36798	.14762	.28208	.26510	8.8829	.23665
#1	40.548	52.491	47.453	53.651	42.103	-.08823	-.96875
#2	40.846	52.765	47.552	53.865	42.261	-.07780	-.96551

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	44.996	28.464	45.875	.05336	60.349	50.261	47.8
SDev	.091	.147	.147	.00000	.148	.145	.138
%RSD	.20333	.51472	.32008	.00000	.24450	.28840	.28843
#1	44.931	28.360	45.771	.05336	60.245	50.158	47.754
#2	45.060	28.568	45.979	.05336	60.454	50.363	47.950

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.6788	47.613	.02194	47.309	.01332	-.02353	49.020
SDev	.0220	.119	.00838	.163	.00133	.00451	.106
%RSD	.47121	.25084	38.178	.34369	9.9950	19.166	.21611
#1	4.6632	47.528	.01602	47.194	.01238	-.02034	48.945
#2	4.6944	47.697	.02787	47.424	.01427	-.02672	49.095

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	48.121	47.554	47.477	57.908	51.715
SDev	.206	.100	.154	.040	.246
%RSD	.42854	.20990	.32400	.06891	.47566
#1	47.975	47.625	47.369	57.936	51.541
#2	48.267	47.484	47.586	57.879	51.888

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Method: SOW40 Sample Name: LR-3 Operator: SJ
Run Time: 06/07/96 14:33:23
Comment: Ag only
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01160	-.01841	-.00102	-.00995	-.00019	-.08058	.08954
SDev	.00195	.00091	.00090	.00351	.00138	.00432	.00235
%RSD	16.776	4.9351	87.586	35.331	726.85	5.3582	2.6279
#1	-.01022	-.01776	-.00166	-.00746	-.00117	-.08363	.09120
#2	-.01297	-.01905	-.00039	-.01243	.00079	-.07752	.08788

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.00187	-.00011	.02534	.00006	.00017	.00587
SDev	.00000	.00001	.00006	.00084	.00003	.00071	.00025
%RSD	.00000	.68159	52.819	3.3276	47.630	424.30	4.2930
#1	.00011	.00188	-.00016	.02474	.00004	-.00033	.00570
#2	.00011	.00187	-.00007	.02594	.00008	.00067	.00605

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01056	.00018	-.00160	-.00093	46.680	-.03145	-.00146
SDev	.01211	.00007	.00227	.00006	.047	.00131	.00019
%RSD	114.71	38.649	141.52	6.0179	.10142	4.1617	12.877
#1	.00199	.00024	-.00321	-.00089	46.646	-.03238	-.00133
#2	.01912	.00013	.00000	-.00096	46.713	-.03052	-.00160

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00267	.00174	-.00239	-.02462	-.00272
SDev	.00009	.00380	.00053	.00719	.00879
%RSD	3.5289	218.26	22.364	29.218	323.51
#1	.00260	-.00095	-.00201	-.02971	.00350
#2	.00274	.00443	-.00276	-.01954	-.00893

Analysis Report QC Standard Fri 06-07-96 02:39:38 PM page 1

Method: SOW40 Sample Name: ICSA Operator: SJ
Run Time: 06/07/96 14:36:26
Comment: ICS-AB3 A2
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00154	-.00013	-.00041	-.00222	.00285	116.97	110.47
SDev	.00333	.00677	.00166	.00598	.00798	.40	.38
%RSD	216.04	5013.3	403.08	269.37	279.76	.34229	.34041
#1	Q-.00389	.00465	-.00159	.00201	-.00279	117.25	110.74
#2	.00081	-.00492	.00076	Q-.00645	Q.00850	116.68	110.21

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00071	.00020	-.00023	107.03	-.00015	.00017	-.00
SDev	.00004	.00004	.00020	.05	.00003	.00024	.00
%RSD	5.4393	18.310	87.343	.05081	20.082	141.39	3.6542
#1	.00069	.00023	-.00037	106.99	-.00017	.00000	-.00044
#2	.00074	.00017	-.00009	107.07	-.00013	.00033	-.00041

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	118.55	.00199	107.90	.00106	.00086	106.42	-.00118
SDev	.15	.00009	.28	.00025	.00010	.33	.00010
%RSD	.13073	4.5687	.25737	23.570	11.804	.30758	8.3719
#1	118.66	.00205	108.10	.00089	.00093	106.65	-.00125
#2	118.44	.00192	107.71	.00124	.00079	106.19	-.00111

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.01237	.01247	-.00675	-.00247	-.00210
SDev	.00028	.00376	.00063	.00546	.00624
%RSD	2.2598	30.167	9.2682	221.13	297.32
#1	.01217	.00981	-.00720	.00139	.00231
#2	.01257	.01512	-.00631	-.00633	-.00651

Analysis Report Fri 06-07-96 02:42:47 PM page 1

Method: SOW40 Sample Name: ICSAX2 Operator: SJ
Run Time: 06/07/96 14:40:23
Comment: ICS-A2X2
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00037	-.00080	-.00122	.00083	-.00209	50.590	48.817
SDev	.00388	.00147	.00064	.00043	.00144	.244	.084
%RSD	1062.3	184.64	52.196	51.806	68.865	.48243	.17147
#1	-.00311	.00024	-.00077	.00053	-.00107	50.762	48.876
#2	.00238	-.00184	-.00168	.00114	-.00311	50.417	48.758

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00016	.00013	-.00090	47.567	-.00070	.00067	.00156
SDev	.00008	.00005	.00008	.011	.00009	.00047	.00044
%RSD	47.140	36.288	8.7486	.02415	12.854	70.689	28.316
#1	.00011	.00016	-.00096	47.575	-.00076	.00033	.00125
#2	.00022	.00010	-.00085	47.558	-.00064	.00100	.00188

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.369	.00124	47.786	.00057	.00003	51.603	-.00029
SDev	.038	.00017	.050	.00050	.00005	.062	.00024
%RSD	.08768	13.474	.10363	87.779	148.59	.11979	80.479
#1	43.396	.00112	47.821	.00022	-.00000	51.647	-.00046
#2	43.342	.00136	47.751	.00093	.00007	51.560	-.00013

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.00728	.01072	-.00711	-.01997	.01108
SDev	.00043	.00014	.00088	.00000	.00064
%RSD	5.9063	1.3168	12.441	.00038	5.8204
#1	.00697	.01082	-.00648	-.01997	.01063
#2	.00758	.01062	-.00773	-.01997	.01154

001088

AR320886

Analysis Report QC Standard Fri 06-07-96 02:45:41 PM page 1

Method: SOW40 Sample Name: ICSAB Operator: SJ
Run Time: 06/07/96 14:43:23
Comment: ICS-AB2
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11690	-.00120	.00059	.10592	.00032	100.91	91.867
SDev	.00861	.00030	.00111	.00028	.00249	.55	.340
%RSD	7.3699	24.836	189.51	.26329	768.98	.54581	.37016
#1	Q.12299	-.00099	.00137	.10612	-.00144	101.30	92.107
#2	.11081	-.00141	-.00020	.10573	.00208	100.52	91.627

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00041	.00045	.05237	85.896	.10343	.20419	.096
SDev	.00015	.00002	.00018	.430	.00087	.00118	.000
%RSD	37.712	3.5346	.34032	.50060	.84167	.57814	.14438
#1	.00030	.00044	.05224	85.592	.10281	.20335	.09663
#2	.00052	.00046	.05249	86.200	.10404	.20502	.09683

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	80.053	.10562	87.519	.19564	.08647	92.919	.21951
SDev	.360	.00061	.259	.00056	.00153	.241	.00178
%RSD	.45022	.58230	.29611	.28464	1.7680	.25931	.80921
#1	Q79.798	.10518	87.336	.19524	.08539	93.090	.21825
#2	80.308	.10605	87.702	.19603	.08755	92.749	.22077

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.10732	.02315	-.01053	.12432	.09686
SDev	.00011	.00430	.00046	.00864	.00384
%RSD	.10142	18.571	4.3568	6.9488	3.9632
#1	.10725	.02619	-.01085	.13043	.09415
#2	.10740	.02011	-.01020	.11822	.09958

600089

AR320887

Analysis Report Fri 06-07-96 02:48:38 PM page 1

Method: SOW40 Sample Name: ICSABX2 Operator: SJ
Run Time: 06/07/96 14:46:15
Comment: ICS-AB2X2
Mode: CONC Corr. Factor: 1

Elem	As1890	T11908	Pb	Se	Sb2068	K_7664	A13082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05855	.00511	-.00023	.05351	.00050	50.926	47.525
SDev	.00111	.00353	.00196	.00641	.00359	.285	.150
%RSD	1.8986	69.160	852.66	11.987	714.37	.55895	.31569
#1	.05776	.00761	.00116	.04898	-.00204	51.127	47.631
#2	.05933	.00261	-.00162	.05805	.00304	50.725	47.419

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00004	.00040	.02841	45.791	.05457	.10986	.05135
SDev	.00017	.00003	.00001	.083	.00021	.00000	.00019
%RSD	424.26	8.5048	.01794	.18107	.38513	.00005	.36468
#1	-.00008	.00037	.02841	45.849	.05442	.10986	.05121
#2	.00016	.00042	.02841	45.732	.05472	.10986	.05148

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.147	.05686	46.604	.10718	.04592	50.749	.11655
SDev	.115	.00036	.130	.00047	.00040	.006	.00014
%RSD	.26762	.62429	.27855	.44161	.88302	.01227	.12390
#1	43.229	.05711	46.696	.10684	.04620	50.744	.11645
#2	43.066	.05660	46.512	.10751	.04563	50.753	.11665

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.06063	.01363	-.00706	.06599	.04737
SDev	.00022	.00481	.00056	.00892	.00518
%RSD	.36121	35.266	7.9513	13.522	10.935
#1	.06048	.01703	-.00666	.05968	.04370
#2	.06079	.01023	-.00746	.07230	.05103

60/090

AR320888

Analysis Report QC Standard Fri 06-07-96 02:51:44 PM page 1

Method: SOW40 Sample Name: CCV5 Operator: SJ
Run Time: 06/07/96 14:49:19
Comment: CCV
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52150	.20676	.49146	.20803	.50274	49.873	25.916
SDev	.00117	.00049	.00195	.00305	.00126	.046	.047
%RSD	.22377	.23653	.39662	1.4681	.25075	.09315	.18276
#1	.52067	.20711	.49008	.20587	.50185	49.841	25.949
#2	.52232	.20641	.49284	.21019	.50363	49.906	25.882

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50077	.10030	.50384	25.589	.49186	.48943	.48
SDev	.00080	.00024	.00044	.020	.00044	.00041	.001
%RSD	.16046	.24127	.08801	.07956	.08894	.08295	.25704
#1	.50134	.10048	.50415	25.604	.49217	.48971	.48508
#2	.50020	.10013	.50353	25.575	.49156	.48914	.48332

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.418	.49600	25.677	.50065	.95678	27.021	.49656
SDev	.037	.00081	.023	.00114	.00132	.017	.00059
%RSD	.35158	.16291	.09063	.22681	.13812	.06408	.11912
#1	10.444	.49657	25.694	.50145	.95771	27.034	.49698
#2	10.392	.49543	25.661	.49985	.95584	27.009	.49614

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	.52778	.49704	.48871	.21129	.20642
SDev	.00049	.00407	.00090	.01811	.00436
%RSD	.09261	.81936	.18486	8.5699	2.1123
#1	.52813	.49416	.48807	.19849	.20951
#2	.52744	.49992	.48935	.22410	.20334

000091

Analysis Report QC Standard Fri 06-07-96 03:08:51 PM page 1

Method: SOW40 Sample Name: CCB4 Operator: SJ
Run Time: 06/07/96 14:52:26
Comment: CCB
Mode: CONC Corr. Factor: 1

Elem	As1890	Tl1908	Pb	Se	Sb2068	K_7664	Al3082
Units	PPM	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00132	.00052	.00103	.00181	-.00136	-.01071	.00063
SDev	.00187	.00320	.00097	.00152	.00304	.00270	.00089
%RSD	141.42	612.65	94.288	83.875	223.49	25.210	141.18
#1	Q.00264	-.00174	.00171	.00074	-.00351	-.00880	.00127
#2	.00000	Q.00279	.00034	.00288	.00079	-.01262	.00000

Elem	Ba4934	Be3130	Cd2265	Ca3179	Cr2677	Co2286	Cu3247
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00003	.00002	-.00002	-.00053	-.00007	.00043	.00005
SDev	.00005	.00000	.00009	.00075	.00010	.00020	.00035
%RSD	141.42	.00036	428.49	141.42	141.37	47.133	705.67
#1	.00007	.00002	-.00009	-.00107	-.00000	.00057	.00029
#2	-.00000	.00002	.00004	.00000	-.00015	.00029	-.00020

Elem	Fe2714	Mn2576	Mg2790	Ni2316	Ag3280	Na5889	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00028	.00001	-.00143	-.00010	.00039	.00000	-.00006
SDev	.00507	.00002	.00202	.00005	.00066	.00248	.00000
%RSD	1841.9	141.51	141.42	47.140	167.22	90341.	.26309
#1	.00331	-.00000	-.00000	-.00007	.00086	.00176	-.00006
#2	-.00386	.00003	-.00286	-.00013	-.00007	-.00175	-.00006

Elem	Zn2062	220351	220352	196021	196022
Units	ppm	PPM	PPM	PPM	PPM
Avge	-.00048	.00013	.00147	-.00424	.00478
SDev	.00029	.00089	.00101	.01653	.00588
%RSD	60.635	707.72	68.535	390.33	122.92
#1	-.00069	.00075	.00219	-.01593	.00894
#2	-.00028	-.00050	.00076	.00746	.00063

CHEMTECH
CONSULTING GROUP, INC.

ICAP 61E TRACE ANALYZER LOGBOOK

DATE	RUN ID	PROJECT #:	INIT.	COMMENT
06/07/96	9615901	1821 CLP	ED	low conc

Rev. 12/95

5. 0000 00001 4 U01093

Logbook Page Number: _____

AR320891

MERCURY
Cold Vapor AA

CHEMTECH
CONSULTING GROUP, INC.

Method #: _____ Project No.: 1821 CLP

Units: PPB (ug/L)
Analyst: ~~JD~~

Date: 6/7/96
r: 0.9965 x: 0.0219 b: -0.0486

Std. Name	mL. used	Std. Ref. # From Logbook	Chemical Used	Lot #:
			$SnCl_2$	R0256
			Nuck-Hydroxylamine Hydrochloride	R0257

Lab Sample No.	Client Sample No.	Matrix W/S	# Box Smp.	# Box S-Blk	ug Hg 100 mL	ug Hg 1000 mL	Dil. Fact	Final Con. PPB	Time	STD TV
BLK(0.0PPB)	S_0		1.0	0.0	<0.02			<0.2	15.27	
Std-1 (0.2PPB)	$S_{0.2}$		4.5	3.5	0.02			0.2	15.29	
Std-2(0.5PPB)	$S_{0.5}$		6.0	5.0	0.05			0.5	15.31	
Std-3 (1.0PPB)	$S_{1.0}$		8.5	7.5	0.10			1.0	15.33	
Std-4 (5.0PPB)	$S_{5.0}$		28.0	27.0	0.50			5.0	15.35	
Std-5(10.0PPB)	$S_{10.0}$		47.5	46.5	1.00			10.0	15.37	
ICV	(#0791)		25.0	24.0	0.4770			4.770	15.39	
ICB			2.5	1.5	<0.02			<0.2	15.41	
CCV	5.0PPB		27.5	26.5	~~0.4770~~ 0.5316	6/7/96		5.316	15.43	
CCB1			2.5	1.5	<0.02			<0.2	15.45	
CRA	0.2PPB		4.0	3.0	0.0171			0.171	15.47	
LR	10.0PPB		47.5	46.5	0.9694			9.694	15.49	
PBW		W	3.0	2.0	<0.02			<0.2	15.51	
1821CLP-5966	RW-09	W	2.5	1.5	<0.02			<0.2	15.53	
5967	RW-09D	W	3.0	2.0	<0.02			<0.2	15.55	
5968	RW-09S	W	5.5	4.5	0.0500			0.500	15.57	

r = Correlation Coefficient
x = Slope
b = Constant
Rev. 12/95

0011194

MERCURY
Cold Vapor AA

CHEMTECH
CONSULTING GROUP, INC.

Method #: _____ Project No.: 1821 CLP

Units: PPB (ug/L) Date: 6/7/96
Analyst: [illegible] r: 0.9965 x: 0.0219 b: -0.0486

Std. Name	mL. used	Std. Ref. # From Logbook	Chemical Used	Lot #:

Lab Sample No.	Client Sample No.	Matrix W/S	# Box Smp.	# Box S-Blk	ug Hg 100 mL	ug Hg 1000 mL	Dil. Fact	Final Con. PPB	Time	STD TV
5969	RW-13	W	3.0	2.0	<0.02			<0.2	15.59	
5970	RW-300	W	2.5	1.5	<0.02			<0.2	16.01	
5971	RW-11	W	2.5	1.5	<0.02			<0.2	16.03	
5972	RW-57	W	3.0	2.0	<0.02			<0.2	16.05	
CCV	R 5.0PPB		25.5	24.5	0.4879			4.879	16.07	
CCB2			3.0	2.0	<0.02			<0.2	16.09	
5973	RW-28	W	2.5	1.5	<0.02			<0.2	16.11	
5974	RW-400	W	3.0	2.0	<0.02			<0.2	16.13	
5975	RW-29	W	2.0	1.0	<0.02			<0.2	16.15	
5976	RW-~~7866~~ 11116	W	3.0	2.0	<0.02			<0.2	16.17	
5977	RW-27	W	3.0	2.0	<0.02			<0.2	16.19	
5978	RW-04	W	3.0	2.0	<0.02			<0.2	16.21	
5979	FB	W	3.0	2.0	<0.02			<0.2	16.23	
ERA	0.2PPB		4.0	3.0	0.0171			0.171	16.25	
LR	10.0PPB		50.0	49.0	1.0245			10.245	16.27	
CCV	5.0PPB		25.0	24.0	0.4770			4.770	16.29	

r = Correlation Coefficient
x = Slope
b = Constant
Rev. 12/95

V01095

MERCURY
Cold Vapor AA

CHEMTECH
CONSULTING GROUP, INC.

Method #: _____ Project No.: 1521 C&P

Units: PPB (ug/L) Date: 6/7/96
Analyst: _____ r: 0.9965 x: 0.029 b: -0.0486

Std. Name	mL. used	Std. Ref. # From Logbook	Chemical Used	Lot #:

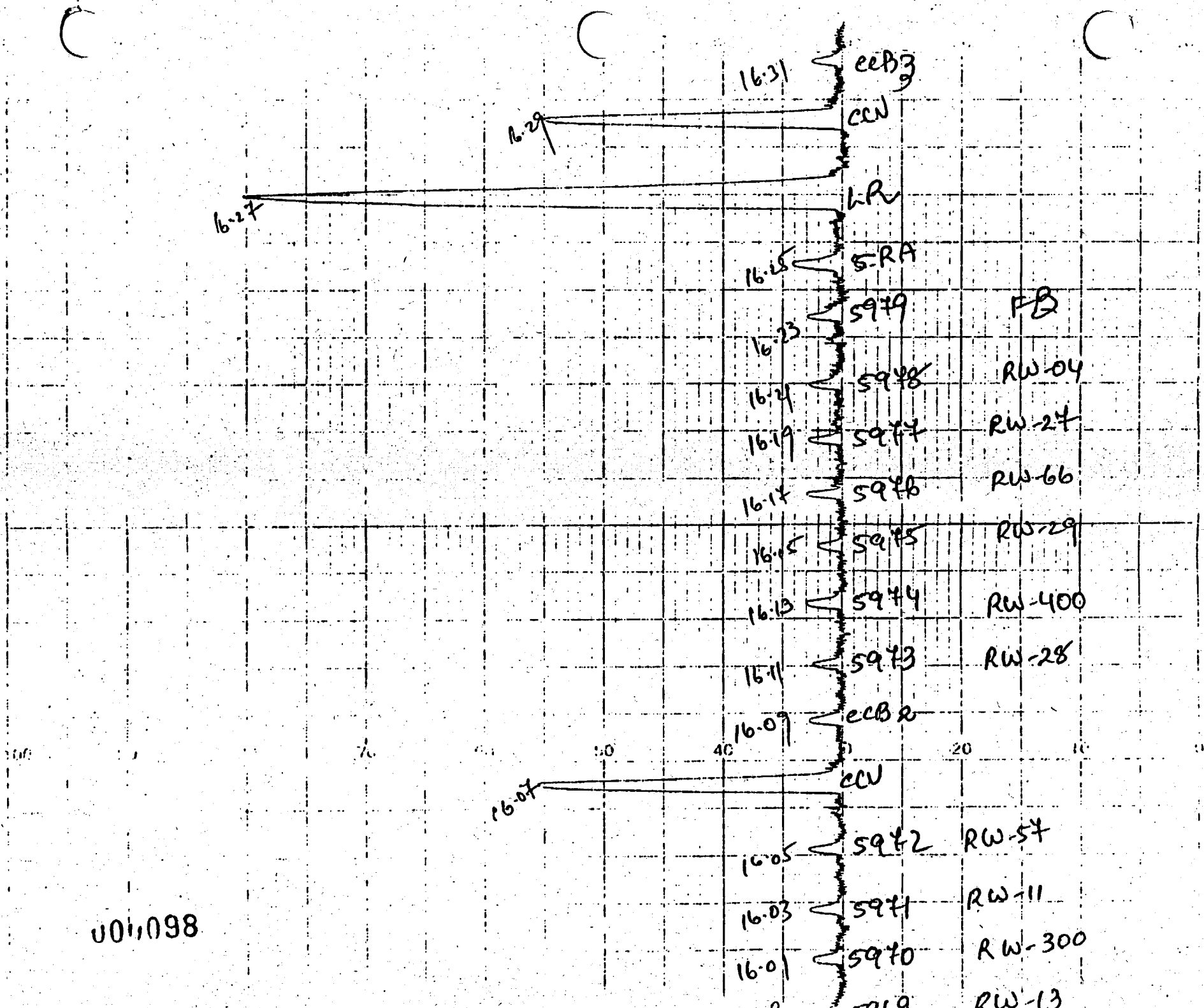
Lab Sample No.	Client Sample No.	Matrix W / S	# Box Smp.	# Box S-Blk	ug Hg 100 mL	ug Hg 1000 mL	Dil. Fact	Final Con. PPB	Time	STD TV
ECB3			2.5	1.5	<0.02			<0.2	16:31	

6/7/96

r = Correlation Coefficient
x = Slope
b = Constant
Rev. 12/95

60:096

15:27
15:29
15:31
15:33
15:35
15:37
15:39
15:41
15:43
15:45
15:47
15:49
15:51
15:53
15:55
S9.6a
RW-09
LR
PBW
ERA
ECU
EEB
IEU
S10.0
S5.0
S0.5
S1.0
S0.2
S0



CHEMTECH
CONSULTING GROUP INC

MERCURY ANALYSIS LOGBOOK

DATE	CASE No.	BATCH No.	START TIME	% ABSORBANCE OF STD. BLK	STD1	STD2	STD3	STD4	STD5
6/7/96	18316		14:00	0.0	3.5	5.0	7.5	27.0	46.5

LOGBOOK PAGE: 000005

CHEMTECH
CONSULTING GROUP INC

MERCURY ANALYSIS LOGBOOK

END TIME	CORR. COFF. r	SLOPE x	CONC. b	ANALYST	COMMENT
17:00	0.9965	0.0219	-0.0466	[illegible]	—

LOGBOOK PAGE: 000005

AR320897

06/06/99

CYANIDE

Analysis Spectrophotometric Method, λ = 578 nm 1 cm Cell

CHEMTECH
CONSULTING GROUP, INC.

Method #: _____ Project No.: 1821 CLP

Analyst: MR Date: 06-03-96 r: 0.9999 X: 0.8128 b: 0.0006

Std. Name	mL. used	Std. Ref. # From Logbook	Chemical Used	Lot #:
CCV	2.5	D0221	Pyridine barbituric acid sol.	D0216
working std	10	D0221	Buffer	D0214
			chloramine-T	D0222
			NaOH	D0213

Lab Sample No.	Client Sample No.	Matrix	Color Vol mL	ABS	Dist. Conc.	Dil. Fac.	CN^- mg/L	CN^- mg/Kg	Time
S0	S0	water	50	0.0000	<0.0070	-	<0.0070		14:30
S1	S1C	water	50	0.0115	0.0100	-	0.0100		14:32
S2	S100	water	50	0.1297	0.1000	-	0.1000		14:34
S3	S500	water	50	0.6003	0.5000	-	0.5000		14:36
S4	S1000	water	50	1.2357	1.0000	-	1.0000		14:39
ICV	(# 1191)	water	50	0.1099	0.0899	-	0.0899		14:40
ICB		water	50	0.0005	<0.0070	-	<0.0070		14:42
CCV-1	(0.5mg/L)	water	50	0.6119	0.4979	-	0.4979		14:44
CCB-1		water	50	0.0013	<0.0070	-	<0.0070		14:46
CRAL		water	50	0.0114	0.0098	- ~~2~~	~~0.0198~~ ~~0.0098~~ (6)3		14:48
LR		water	50	1.2010	0.9767	-	0.9767		14:50
PBW		water	50	0.0009	<0.0070	-	<0.0070		14:52
Mid Rng		water	50	0.5573	0.4780	-	0.4780		14:54
5966	RW-09	water	50	0.0026	<0.0070	-	<0.0070		14:56
5967	RW-09 D	water	50	~~0.0028~~ ~~0.0026~~ 0.0026	<0.0070	-	<0.0070		14:58
5968	RW-09 S	water	50	0.1186	0.0970	-	0.0970		15:00
5969	RW-13	water	50	0.0027	<0.0070	-	<0.0070		15:02

r = Corelation Coefficient
x = Slope
b = Constant
Rev. 12/95

001100

CYANIDE

Analysis Spectrophotometric Method, λ = 578 nm 1 cm Cell

CHEMTECH
CONSULTING GROUP, INC.

Method #: ________

Analyst: MR   Date: 06-03-96

Project No.: 18 21CCP

r: 0.9999 X: 0.8128 b: 0.0006

Std. Name	mL. used	Std. Ref. # From Logbook	Chemical Used	Lot #:

Lab Sample No.	Client Sample No.	Matrix	Color Vol mL	ABS	Dist. Conc.	Dil. Fac.	CN⁻ mg/L	CN⁻ mg/Kg	Time
5970	RW-300	water	50	0.0039	<0.0070	–	<0.0070		15:04
5971	RW-11	water	50	0.0004	<0.0070	–	<0.0070		15:06
CCW-2	(0.5mg/L)	water	50	0.5943	0.4836	–	0.4836		15:08
CCB-2		water	50	0.0014	<0.0070	–	<0.0070		15[illegible]
5972	RW-57	water	50	0.0007	<0.0070	–	<0.0070		15:12
5973	RW-28	water	50	0.0016	<0.0070	–	<0.0070		15:14
5974	RW-400	water	50	0.0002	<0.0070	–	<0.0070		15:16
5975	RW-29	water	50	0.0013	<0.0070	–	<0.0070		15:18
5976	RW-66	water	50	0.0001	<0.0070	–	<0.0070		15:20
5977	RW-27	water	50	0.0020	<0.0070	–	<0.0070		15:22
5978	RW-04	water	50	0.0003	<0.0070	–	<0.0070		15:24
5979	FB	water	50	0.0002	<0.0070	–	<0.0070		15:26
CRAL		water	50	0.0113	0.0097	–	~~0.0097~~ 0.0197		15:28
LR		water	50	1.2116	0.9853	–	0.9853		15:30
CCW-3	(0.5mg/L)	water	50	0.6019	0.4898	–	0.4898		15:32
CCB-3		water	50	0.0006	<0.0070	–	<0.0070		15:34

r = Corelation Coefficient
x = Slope
b = Constant
Rev. 12/95

000101

AR320899

EMTECH
TESTING GROUP INC

CYANIDE ANALYSIS LOGBOOK

DATE	CASE No.	BATCH No.	START TIME	% ABSORBANCE OF STD. BLK	STD1	STD2	STD3	STD4
05/29/96	19655 19673	ASP	18:00	0.0000	0.0113	0.1130	0.5704	1.1050
05/31/96	19792 19807	LP, NJ	15:30	0.0000	0.0113	0.1175	0.5503	1.1160
06/03/96	19821	LP	14:00	0.0000	0.0115	0.1207	0.6003	1.2357
06/04/96	Check		18:00	0.0000	0.0119	0.1290	0.5831	1.1529

LOGBOOK PAGE: 000005

CHEMTECH
CONSULTING GROUP INC

CYANIDE ANALYSIS LOGBOOK

END TIME	CORR. COFF. r	SLOPE x	CONC. b	ANALYST
21:00	0.9999	0.9016	-0.0011	le
18:00	1.0000	0.8989	-0.0007	le
16:00	0.9999	0.8128	0.0006	le
21:00	0.9999	0.8689	-0.0039	le

LOGBOOK PAGE:- 000005

AR320900

60,102

CHEMTECH
CONSULTING GROUP, INC.

Sample Preparation Worksheet
ICP and AA Furnace

Matrix: Water | Project No.: 1821CLP | ICP. Dig. Date 06/06/96

Initial Vol: 100 mL | Final Vol. 100 mL | Fur. Dig. Date: / /

SDG No.: _____ | Analyst: SBS

Hot Plate Temp. 93 °C | Method #: _____

Std. Name	mL. used	Std. Ref. # From Loogbook	Chemical Used	Stock #:
LCSW	100ml.	I0050	Conc. HNO_3	Mollos
PDS #1	1ml	I0039	HNO_3(1:1)	I0051
PDS #2	1ml.	I0040	HCl (1:1)	I0052
PDS #3	1ml.	I0041		

Lab Sample No.	Client Sample No.	Color		Clarity		pH	Comment
		Before	After	Before	After		
LCSW		colorless	colorless	clear	clear	<2	
PBW		colorless	colorless	clear	clear	<2	
5966	RW-09	colorless	colorless	clear	clear	<2	
5967	RW-09 S	colorless	colorless	clear	clear	<2	
5968	RW-09 D	colorless	colorless	clear	clear	<2	
5969	RW-13	colorless	colorless	clear	clear	<2	
5970	RW-300	colorless	colorless	clear	clear	<2	
5971	RW-11	colorless	colorless	clear	clear	<2	
5972	RW-57	colorless	colorless	clear	clear	<2	
5973	RW-28	colorless	colorless	clear	clear	<2	
5974	RW-400	colorless	colorless	clear	clear	<2	
5975	RW-29	colorless	colorless	clear	clear	<2	
5976	RW-66	colorless	colorless	clear	clear	<2	
5977	RW-27	colorless	colorless	clear	clear	<2	
5978	RW-04	colorless	colorless	clear	clear	<2	

CHEMTECH
CONSULTING GROUP, INC.

Sample Preparation Worksheet
ICP and AA Furnace

Matrix: Water | Project No.: 1621CLP | ICP. Dig. Date 06/06/96

Initial Vol: 100 mL | Final Vol. 100 mL | Fur. Dig. Date: / /

SDG No.: | Analyst: SBS

Hot Plate Temp. 93 °C | Method #:

Std. Name	mL. used	Std. Ref. # From Loogbook	Chemical Used	Stock #:
LCSW	100ml	I6059	conc. HNO_3	mclg
PDS #1	1ml	I6039	HNO_3(1:1)	I6051
PDS #2	1ml	I6044	HCl(1:1)	I6052
PDS #3	1ml	I6041		

Lab Sample No.	Client Sample No.	Color		Clarity		pH	Comment
		Before	After	Before	After		
5979	FB	colorless	colorless	clear	clear	<2	
							SBS

Rev. 12/95

Page 2 of 2

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AR320902

MERCURY PREPRATION WORKSHHET

CHEMTECH
CONSULTING GROUP, INC.

Method No.: _____ Project No.: 1821 CLP

Autoclave / Water Bath Temp.: 95°C (2h2) Autoclave Pressure: —

Balance Check: (0.20g) — Analyst (s) DB Date: 6/7/96

Std. Name	mL. used	Std. Ref. # From Loogbook	Chemical Used	Lot #:
Working Std.		R0258	$KMnO_4$	R059
ICV		H0021	$K_2S_2O_8$	R0260
Spike Soln.		R0258	HNO_3	H0030
			H_2SO_4	H0031

Lab Sample No.	Client Sample No.	Matrix W / S	Sampl Wt. / Vol	Comment
BLK (0.0 PPB)	S_0			
Std-1 (0.2 PPB)	$S_{0.2}$			
Std-2 (0.5 PPB)	$S_{0.5}$			
Std-3 (1.0 PPB)	$S_{1.0}$			
Std-4 (5.0 PPB)	$S_{5.0}$			
Std-5 (10.0 PPB)	$S_{10.0}$			
ICV	(#0791)			
ICB				
CCV	5.0 PPB			
CCBI				
CRA	0.2 PPB			
LR				
PBW		W	100 mL	
1821CLP-5960C	RW-09	W	100 mL	
5967	RW-09D	W	100 mL	
5968	RW-09S	W	100 mL	

MERCURY PREPRATION WORKSHHET

CHEMTECH
CONSULTING GROUP, INC.

Method No.: _____ Project No.: 1821 CLP

Autoclave / Water Bath Temp.: 95°C (2h2) Autoclave Pressure: —

Balance Check: (0.20g) — Analyst (s) D.B Date: 6/7/96

Std. Name	mL. used	Std. Ref. # From Logbook	Chemical Used	Lot #:

Lab Sample No.	Client Sample No.	Matrix W / S	Sampl Wt. / Vol	Comment
5969	RW-13	W	100 mL	
5970	RW-300	W	100 mL	
5971	RW-11	W	100 mL	
5972	RW-57	W	100 mL	
CCV	5.0 PPB			
CCB2				
5973	RW-28	W	100 mL	
5974	RW-400	W	100 mL	
5975	RW-29	W	100mL	
5976	RW-66	W	100 mL	
5977	RW-27	W	100 mL	
5978	RW-04	W	100 mL	
5979	FB	W	100 mL	
CRA	0.20 PPB			
LR	10.0 PPB			
CCV	5.0PPB			

MERCURY PREPRATION WORKSHHET

CHEMTECH
CONSULTING GROUP, INC.

Method No.: _____ Project No.: 1821 CLP

Autoclave / Water Bath Temp.: 95°C (2hr) Autoclave Pressure: —

Balance Check: (0.20g)_____ Analyst (s) DB. Date: 6/7/96

Std. Name	mL. used	Std. Ref. # From Loogbook	Chemical Used	Lot #:

Lab Sample No.	Client Sample No.	Matrix W / S	Sampl Wt. / Vol	Comment
CCB3				
				6/7/96

Rev. 12/95

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AR320905

CHEMTECH
CONSULTING GROUP, INC.

MERCURY DIGESTION LOGBOOK

Date	Project No.:	Batch No.:	Matrix	Digst. Time	Digst. Pressure	Digst. Temp.	Analyst	Comment
6/2/96	1721R, 1738R 1745R		Soil	9.00AM	15psi	121c	—	—
6/2/96	1721R, 1745R		water	9.10	—	95c	—	2hr waterbath
6/2/96	1738R, 1745R		Soil	18.05	15psi	121c	—	—
6/3/96	1739R, 1799R		water	9.00AM	—	95c	—	2hr waterbath.
6/3/96	1765R		soil	9.45	15psi	121c	—	—
6/6/96	1853NS, 1847C, 1833C, 1824C, 1823C 1825C, 1842C		water TCLP	9.00	—	95c	—	2hr waterbath
6/6/96	1815NS, 1838NS		Soil	9.15	15psi	121c	—	—
6/6/96	1847C		TCLP	16.00	—	95c	—	2hr waterbath
6/7/96	1821 CLP		water	9.45	—	95c	—	2hr waterbath

Rev. 12/95

Logbook Page Number: 7

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AR320906

CYANIDE DISTILLATION LOG

CHEMTECH
CONSULTING GROUP, INC.

Method No.: _____ Rec. Date __/__/____ Project No.: 1821CLP

SDG No.: _____ Distilled Date: 06/03/96 Analyst (s) MR

Std. Name	mL. used	Std. Ref. # From Loogbook	Chemical Used	Lot #:
ICV	0.5	C0026	NaOH	D0213
Mid Range	2.5	D0221	H_2SO_4	D0215
Spike	0.5	D0221	$MgCl_2$	D0202

SET #:	Lab Sample No.	Client Sample No.	Matrix	Wt. / Vol (g. / mL.)	pH	Sulfide Test	Comment
1	ICV	(#1191)	water	50 ml	>12	-ve	T.V.=0.09mg/l
2	ICB		water	50ml	>12	-ve	
3	Mid Range		water	50ml	>12	-ve	T.V.=0.50mg/l
4	PBW		water	50ml	>12	-ve	
5	5966	RW-09	water	50ml	>12	-ve	
6	5967	RW-09 D	water	50ml	>12	-ve	
7	5968	RW-09 S	water	50ml	>12	-ve	T.V.=0.10mg/l
8	5969	RW-13	water	50ml	>12	-ve	
9	5970	RW-300	water	50ml	>12	-ve	
1	5971	RW-11	water	50ml	>12	-ve	
2	5972	RW-57	water	50 ml	>12	-ve	
3	5973	RW-28	water	50ml	>12	-ve	
4	5974	RW-400	water	50ml	>12	-ve	
5	5975	RW-29	water	50ml	>12	-ve	
6	5976	RW-66	water	50ml	>12	-ve	
7	5977	RW-27	water	50ml	>12	-ve	
8	5978	RW-04	water	50ml	>12	-ve	
9	5979	FB	water	50ml	>12	-ve.	

00119

Final Distilate Volume: 50ml

Rev. 12/95

AR320907

CHEMTECH
CONSULTING GROUP INC

CYANIDE DISTILLATION LOGBOOK

DATE DIST.	CASE No.	BATCH No.	MATRIX	ANALYST	COMMENT
05/28/96	1743C, 1753C, 1754C 1771C		water	hlss	
05/29/96	1765R; 1762ASP		soil	hlss	
05/31/96	1779CLP; 1807NJ		water & soil	hl	
06/03/96	1821C	LP	water	hl	
06/04/96	clients		water	hl	

LOGBOOK PAGE: 5

00110+000111
+000112+000113
+000114

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION III
841 Chestnut St.
Philadelphia, Pennsylvania 19107

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
2461	05/96-18

SAMPLERS: (Signature) Colleen Duffy / Jon Weiss

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	SEMI VOA	TAL Metals	CN			REMARKS
													TAT 14
FW04	5/31/96	1745		X	[redacted]	3-40ml	X						Preserved w/HCl, T3-23116-118
FW04	5/31/96	1747		X	[redacted]	2-1L Amber		X					T3-23119-120
FW04	5/31/96	1750		X	[redacted]	1-1L Poly			X				Preserved w/HNO3 pH<2, T3-23121
FW04	5/31/96	1750		X	[redacted]	1-1L Poly				X			Preserved w/NaOH pH>12, T3-23122

STL100

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Colleen Duffy	5/31/96 1940	FED EX			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		B Morrow	6/1/96 1030		

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AR320909

3 04690

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 3
841 Chestnut St.
Philadelphia, Pennsylvania 19107

CHAIN OF CUSTODY RECORD

PROJ. NO. 2461 | PROJECT NAME 05/96 - 1B

SAMPLERS: (Signature) Colleen Duffy / Dan Ward

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	SEMI VOA	TAL Metals	CN			REMARKS
													TAG #'S
RW11	5/31/96	1200		X	[redacted]	1-1L POLY				X			PRESERVED W/NaOH pH >12, T3-23228
FB	5/31/96	1145		X	FIELD BLANK	3-40ml	X						PRESERVED W/HCl, T3-23229-231
FB	5/31/96	1147		X	FIELD BLANK	2-1L AMBER		X					T3-23232-233
FB	5/31/96	1150		X	FIELD BLANK	1-1L POLY			X				PRESERVED W/HNO3 pH <2, T3-23234
FB	5/31/96	1150		X	FIELD BLANK	1-1L POLY				X			PRESERVED W/NaOH pH >12, T3-23235
TB	5/31/96	0615		X	TRIP BLANK	3-40ml	X						PRESERVED W/HCl T3-23236-238
RW57	5/31/96	1240		X	[redacted]	3-40ml	X						PRESERVED W/HCl, T3-23239-241
RW57	5/31/96	1242		X	[redacted]	2-1L AMBER		X					T3-23245 & 2-243
RW57	5/31/96	1245		X	[redacted]	1-1L POLY			X				PRESERVED W/HNO3 pH <2, T3-23244
RW57	5/31/96	1245		X	[redacted]	1-1L POLY				X			PRESERVED W/NaOH pH >12, T3-23245
RW28	5/31/96	1410		X	[redacted]	3-40ml	X						PRESERVED W/HCl, T3-23246, 248-249
RW28	5/31/96	1412		X	[redacted]	2-1L AMBER		X					" T3-23247, 250
RW28	5/31/96	1415		X	[redacted]	1-1L POLY			X				PRESERVED W/HNO3 pH <2, T3-23251
RW28	5/31/96	1415		X	[redacted]	1-1L POLY				X			PRESERVED W/NaOH pH >12 T3-23252
RW400	5/31/96	1450		X	[redacted]	3-40ml	X						PRESERVED W/HCl, T3-23253-255

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Colleen Duffy	5/31/96 1940	FEDEX			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		B Marvin	6/1/96 1030		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 0
841 Chestnut St.
Philadelphia, Pennsylvania 19107

CHAIN OF CUSTODY RECORD

AR320911

PROJ. NO.	PROJECT NAME
2461	05/96-18

SAMPLERS: (Signature) Colleen Duffy / Ken Weeks

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	Semi VOA	TR Metals	CN			REMARKS
													TAG #
RW400	5/31/96	1452		X	[redacted]	2-1L Amber		X					T3-23256 23256-258
RW400	5/31/96	1455		X		1-1L Poly			X				Preserved w/HNO3 pH<2, T3-23259
RW400	5/31/96	1455		X		1-1L Poly				X			Preserved w/NaOH pH>12, T3-23260
RW29	5/31/96	1550		X		3-40ml	X						Preserved w/HCl, T3-23258, 261-262
RW29	5/31/96	1552		X		2-1L Amber		X					T3-23263-264
RW29	5/31/96	1555		X		1-1L Poly			X				Preserved w/HNO3 pH<2, T3-23265
RW29	5/31/96	1555		X		1-1L Poly				X			Preserved w/NaOH pH>12, T3-23266
RW66	5/31/96	1625		X		3-40ml	X						Preserved w/HCl, T3-23134-136
RW66	5/31/96	1627		X		2-1L Amber		X					T3-23137-138
RW66	5/31/96	1630		X		1-1L Poly			X				Preserved w/HNO3 pH<2, T3-23139
RW66	5/31/96	1630		X		1-1L Poly				X			Preserved w/NaOH pH 712, T3-23141
RW27	5/31/96	1705		X		3-40ml	X						Preserved w/HCl, T3-23142-144
RW27	5/31/96	1707		X		2-1L Amber		X					T3-23145-146
RW27	5/31/96	1710		X		1-1L Poly			X				Preserved w/HNO3 pH<2, T3-23147
RW27	5/31/96	1710		X		1-1L Poly				X			Preserved w/NaOH pH 712, T3-23148

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Colleen Duffy	5/31/96 1740	FEDEX			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[illegible]	6/1/96 1030		

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3 04691

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 3
841 Chestnut St.
Philadelphia, Pennsylvania 19107

AR320912

PROJ. NO.	PROJECT NAME
2461	05/96 - 18

SAMPLERS: (Signature) Colleen Duffy

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	Semi-VOA	TAL Metals	CN			REMARKS
													TAG #
RW-09	5/31/96	1020		X	[redacted]	3-40ml	X						PRESERVED W/ HCl, T3-23201-202, 205
RW-09	5/31/96	1022		X		2-1L AMBER		X					T3-23203-204
RW-09	5/31/96	1025		X		1-1L POLY			X				PRESERVED W/ HNO_3 pH<2, T3-23206
RW-09	5/31/96	1025		X		1-1L POLY				X			PRESERVED W/ NaOH pH>12, T3-23207
RW-13	5/31/96	1100		X		3-40ml	X						T3-23216 PRESERVED W/ HCl, T3-23208-209
RW-13	5/31/96	1102		X		2-1L AMBER		X					T3-23210-211
RW13	5/31/96	1105		X		1-1L POLY			X				PRESERVED W/ HNO_3 pH<2, T3-23212
RW13	5/31/96	1105		X		1-1L POLY				X			PRESERVED W/ NaOH, pH>12, T3-23213
RW300	5/31/96	1400		X		3-40ml	X						PRESERVED W/ HCl, T3-23214-215, 217
RW300	5/31/96	1402		X		2-1L AMBER		X					T3-23219, 221
RW300	5/31/96	1405		X		1-1L POLY			X				PRESERVED W/ HNO_3 pH<2, T3-23220
RW300	5/31/96	1405		X		1-1L POLY				X			PRESERVED W/ NaOH pH>12, T3-23218
RW11	5/31/96	1155		X		3-40ml	X						PRESERVED W/ HCl, T3-23222-224
RW11	5/31/96	1157		X		2-1L AMBER		X					T3-23225-226
RW11	5/31/96	1200		X		1-1L POLY			X				PRESERVED W/ HNO_3 pH<2, T3-23227

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Colleen Duffy	5/31/96 1940	FEX EX			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		B. Morrow	6/1/96 1030		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

FedEx *USA Airbill* Tracking Number 765765737 2

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Date

Sender's Name Phone (609)-461-4003

Company JOY F WESTON INC Dept/Room Suite/Room

Address 5 UNDERWOOD COURT

City DELRAN State NJ Zip 0 8 0 7 5

2 Your Internal Billing Reference Information

3 To

Recipient's Name Phone

Company Dept/Room Suite/Room

Address

City State Zip

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☐ Weekday ☐ Saturday

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3 months
6/11/96 1030

765765737 2

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Credit Card Auth.

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232

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AR320913

00119

FedEx USA Airbill

Tracking Number 765765736 1

Recipient's Copy

240 1000 31273719 5240

1 From

Date

Sender's Name _____ Phone 609-461-4003

Company ROY F WESTON INC Dept./Floor Suite/Room

Address 5 UNIVERSITY COURT

City DELRAN State NJ Zip 08075

2 Your Internal Billing Reference Information

3 To

Recipient's Name _____ Phone

Company _____ Dept./Floor Suite/Room

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City _____ State _____ Zip

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5 Packaging

☐ FedEx Letter* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other Packaging

6 Special Handling

Does this shipment contain dangerous goods?
☐ Yes ☐ Yes
☐ Dry Ice
CA ☐ Cargo Aircraft Only

7 Payment

Bill to: ☐ Sender ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages | Total Weight | Total Declared Value* | Total Charges
_____ | _____ | $ .00 | $ _____

Credit Card Auth.

8 Release Signature

232

Rev. Date 7/95 • PART #147401
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AR320914

120

FedEx *USA Airbill* Tracking Number 765765733 3

Recipient's Copy

1 From

Date

Sender's Name Phone (609-461-4033

Company BCY E ESTON INC Dept./Floor Suite/Room

Address 5 UNDERWOOD COURT

City DELRAN State NJ Zip 0 8 0 7 5

2 Your Internal Billing Reference Information

3 To

Recipient's Name Phone

Company Dept./Floor Suite/Room

Address

City State Zip

For "HOLD" Service check here

Weekday Saturday

For Saturday Delivery check here

BMorrell 6/1/96 1030 -

765765733 3

4 Service

FedEx Priority Overnight FedEx Standard Overnight FedEx 2Day

FedEx Gov't Overnight

FedEx Overnight Freight FedEx 2Day Freight

NEW FedEx First Overnight

5 Packaging

FedEx Letter* FedEx Pak FedEx Box FedEx Tube Other Packaging X

6 Special Handling

Does this shipment contain dangerous goods?

Yes Yes

Dry Ice CA Cargo Aircraft Only

7 Payment

Bill to: Sender Recipient Third Party Credit Card Cash/Check

Total Packages Total Weight Total Declared Value* Total Charges

$ .00 $

Credit Card Auth.

8 Release Signature

232

Rev. Date 7/95 • PART #14281

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AR320915

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ChemTech Consulting Group, Inc.
SAMPLE LOGIN PAGE

SAMPLES LOGGED IN BY BM pH Verified by BM
CLIENT : ROY F. WESTON SAMPLE BATCH NUMBER : 1057
PROJECT NAME : 1821CLP CLIENT NO. : 964
SAMPLES DELIVERED : 06/01/96 AT 1030 HOURS BY : FEDEX
SAMPLES RECEIVED BY : BM
LOG IN DATE AND TIME : 06/03/96 TIME 12:12

SAMPLE NUMBER	CLIENT SAMPLE ID	SAMPLE DATE	SAMP TIME	FRACTIONS OR CONTAINERS RECEIVED
5966	RW-09	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96
ANALYSES REQUESTED

5967	RW-09 MS	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96
ANALYSES REQUESTED

5968	RW-09 MSD	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96
ANALYSES REQUESTED

5969	RW-13	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96
ANALYSES REQUESTED

5970	RW-300	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96
ANALYSES REQUESTED

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7 DAYS Verbal
14 DAYS HARD COPY
BM

ChemTech Consulting Group, Inc.
SAMPLE LOGIN PAGE

SAMPLES LOGGED IN BY BM pH Verified by BM
CLIENT : ROY F. WESTON SAMPLE BATCH NUMBER : 1057
PROJECT NAME : 1821CLP CLIENT NO. : 964
SAMPLES DELIVERED : 06/01/96 AT 1030 HOURS BY : FEDEX
SAMPLES RECEIVED BY : BM
LOG IN DATE AND TIME : 06/03/96 TIME 12:12

SAMPLE NUMBER	CLIENT SAMPLE ID	SAMPLE DATE	SAMP TIME	FRACTIONS OR CONTAINERS RECEIVED
5971	RW-11	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96

SAMPLE NUMBER	CLIENT SAMPLE ID	SAMPLE DATE	SAMP TIME	FRACTIONS OR CONTAINERS RECEIVED
5972	RW-57	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96

SAMPLE NUMBER	CLIENT SAMPLE ID	SAMPLE DATE	SAMP TIME	FRACTIONS OR CONTAINERS RECEIVED
5973	RW-28	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96

SAMPLE NUMBER	CLIENT SAMPLE ID	SAMPLE DATE	SAMP TIME	FRACTIONS OR CONTAINERS RECEIVED
5974	RW-400	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96

SAMPLE NUMBER	CLIENT SAMPLE ID	SAMPLE DATE	SAMP TIME	FRACTIONS OR CONTAINERS RECEIVED
5975	RW-29	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU

VOA_W ,BNA_W ,TAL ,TCN- ,
MATRIX: WW SAMPLER: COLLEEN DUFFY LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab COMMENT: PROJECT#: 2461 PROJECT NAME: 05/96-18
TEMP: 4.0 C
RESULTS PROMISED NO LATER THAN : 06/08/96

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~~UO-112~~ val 1/7

4 BM

ChemTech Consulting Group, Inc.
SAMPLE LOGIN PAGE

SAMPLES LOGGED IN BY BM pH Verified by BM
CLIENT : ROY F. WESTON SAMPLE BATCH NUMBER : 1057
PROJECT NAME : 1821CLP CLIENT NO. : 964
SAMPLES DELIVERED : 06/01/96 AT 1030 HOURS BY : FEDEX
SAMPLES RECEIVED BY : BM
LOG IN DATE AND TIME : 06/03/96 TIME 12:12

SAMPLE NUMBER	CLIENT SAMPLE ID	SAMPLE DATE	SAMP TIME	FRACTIONS OR CONTAINERS RECEIVED
ANALYSES REQUESTED				
5976	RW-66	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU
VOA_W	,BNA_W	,TAL	,TCN-	
MATRIX: WW	SAMPLER: COLLEEN DUFFY			LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab		COMMENT: PROJECT#: 2461		PROJECT NAME: 05/96-18
		TEMP: 4.0 C		
RESULTS PROMISED NO LATER THAN : 06/08/96				
5977	RW-27	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU
VOA_W	,BNA_W	,TAL	,TCN-	
MATRIX: WW	SAMPLER: COLLEEN DUFFY			LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab		COMMENT: PROJECT#: 2461		PROJECT NAME: 05/96-18
		TEMP: 4.0 C		
RESULTS PROMISED NO LATER THAN : 06/08/96				
5978	RW-04	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU
VOA_W	,BNA_W	,TAL	,TCN-	
MATRIX: WW	SAMPLER: COLLEEN DUFFY			LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab		COMMENT: PROJECT#: 2461		PROJECT NAME: 05/96-18
		TEMP: 4.0 C		
RESULTS PROMISED NO LATER THAN : 06/08/96				
5979	FB	05/31/96		8GCU,8GCU,8GCU,3GCU,3GCU,3PNU,3PBU
VOA_W	,BNA_W	,TAL	,TCN-	
MATRIX: WW	SAMPLER: COLLEEN DUFFY			LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab		COMMENT: PROJECT#: 2461		PROJECT NAME: 05/96-18
		TEMP: 4.0 C		
RESULTS PROMISED NO LATER THAN : 06/08/96				
5980	TB	05/31/96		8GCU,8GCU,8GCU
VOA_W	,			
MATRIX: WW	SAMPLER:			LOCATION: PRJ#: 2461
TYPE SAMPLE: Grab		COMMENT:		
RESULTS PROMISED NO LATER THAN : 06/08/96				

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~~001113~~ 6/17

4 BM

ChemTech Consulting Group, Inc.
SAMPLE LOGIN PAGE

SAMPLES LOGGED IN BY BM pH Verified by BM
CLIENT : ROY F. WESTON SAMPLE BATCH NUMBER : 1057
PROJECT NAME : 1821CLP CLIENT NO. : 964
SAMPLES DELIVERED : 06/01/96 AT 1030 HOURS BY : FEDEX
SAMPLES RECEIVED BY : BM
LOG IN DATE AND TIME : 06/03/96 TIME 12:12

SAMPLE NUMBER	CLIENT SAMPLE ID	SAMPLE DATE	SAMP TIME	FRACTIONS OR CONTAINERS RECEIVED
ANALYSES REQUESTED				
5981	LCSW	05/31/96	3GCU	
TAL				
MATRIX: WW	SAMPLER:		LOCATION: PRJ#: 2461	
TYPE SAMPLE: Grab	COMMENT:			
RESULTS PROMISED NO LATER THAN : 06/08/96				

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BM

SAMPLE LOG-IN SHEET

Lab Name: Chemtech	Page 1 of 1
Received By (Print Name): B. Morgan	Log-in Date: 6/3/96
Received By (Signature): B Morgan	
Case Number: 2461	Sample Delivery Group No.: FB
	SAS Number:

Remarks:

1. Custody Seal(s)	Present/Absent* Intact/Broken		
2. Custody Seal Nos.	NT		
3. Chain-of Custody Records	Present/Absent*		
4. Traffic Reports or Packing Lists	Present/Absent*		
5. Airbill	Airbill/Sticker Present/Absent*		
6. Airbill No.	765765736 1 765765737 2 765765736 3		
7. Sample Tags	Present/Absent*		
Sample Tag Numbers	Listed/Not Listed on Chain-of-Custody		
8. Sample Condition	Intact/Broken*/Leaking		
9. Does information on custody records, traffic reports, and sample tags agree?	Yes/No*		
10. Date Received at Lab	6/1/96		
11. Time Received	10:30		

EPA Sample #	Corresponding: Sample Tag #	Corresponding: Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
RW-09	23201-07	5966-69	Damaged
RW-13	23208-13, 16	5969	
RW-30	23214-15, 23217, 232M, 23221, 23218, 23220	5970	
-11	23222-228	5971	
-57	23239-45	5972	
-29	23246-52	5973	
-44	23253-57; 23259-60	5974	
-29	23258; 23261-66	5975	
-66	23134-139, 23141	5976	
-27	2342-48	5977	
-04	2316-122	5978	
FB	23229-35	5979	
TB	23236-38	5980	

Sample Transfer

Fraction	Fraction
Area #	Area #
By	By
On	On

* Contact SMO and attach record of resolution.

Reviewed By	Logbook No.
Date	Logbook Page No.

FORM DC-1

000121E 6/17
UDU125 ILM04.0

SAMPLE DELIVERY GROUP (SDG) TRAFFIC REPORT (TR) COVER SHEET

Lab Name: chemtech Contract No.: 68-S5-3002

Lab Code: chem Case No.: 2461 SAS No.: _____

Full Sample Analysis Price in Contract: $ _____

SDG No./First Sample in SDG: FB Sample Receipt Date: 6/1/96
(Lowest EPA Sample Number in first shipment of samples received under SDG.) (MM/DD/YY)

Last Sample in SDG: TB Sample Receipt Date: 6/1/96
(Highest EPA Sample Number in last shipment of samples received under SDG.) (MM/DD/YY)

EPA Sample Numbers in the SDG (listed in alphanumeric order)

1	FB	11	RW-300
2	RW-04	12	√ -400
3	-09	13	TB
4	-11	14	
5	-13	15	
6	-27	16	
7	-25	17	
8	-29	18	
9	-56 & -57	19	
10	-66	20	

Note: There are a maximum of 20 field samples in an SDG.

Attach Traffic Reports to this form in alphanumeric order (i.e., the order listed on this form).

B Moroney
Signature

6/1/96
Date

001122

AR320921

In Reference to COC No(s):
304697-98
304640-91

CLIENT / LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 6/3/96

Laboratory Name: Chemtech

Lab Contact: B. morovat

CLIENT: weston

CLIENT Contact: colleen Duffy

Call Initiated By: ✓ Laboratory ___ Client

In reference to data for the following sample number(s):

(1) completion of case (4) DAS No.

(2) QC

(3) sample ID.

Summary of Questions/Issues Discussed:

(1) 15 samples were sched. Lab received 12. will we receive more?

(2) No QC has been assigned by sampler. should lab choose?

(3) NO EPA sample ID has been assigned for any samples.

(4) This project appears to be a DAS Project. Workorder shows DAS R3220 (however, it has been Lined out). Is this in fact a DAS case?

Summary of Resolution:

(1) NO; sampling is complete. close SDG.

(2) Yes. Lab may choose a QC sample on its own. Lab will perform QC on the first sample which is RW-09.

(3) use station number as sample ID.

(4) Colleen will get back to Lab as to the nature of project. 6/3/96 Marian murphy contacted lab. DO NOT USE DAS No. this is not a DAS case.

Signature Date

000122A

AR320922

Precautionary Measures Against Hidden Hazards in Laboratory Samples

Notice to Laboratory Pers[illegible]nel

Background

Under the authority of Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) of 1980, Section 311 of the Clean Water Act, and Subtitle I of the Resource Conservation and Recovery Act (RCRA), EPA has been delegated the responsibility to undertake response actions with respect to the release or potential release of oil, petroleum or hazardous substances that pose a substantial threat to human health or welfare, or the environment. In addition, EPA provides technical assistance to help mitigate endangerment of the public health, welfare or environment during other emergencies or natural disasters.

EPA's successful implementation of these emergency response action responsibilities requires that technical support capabilities be provided in the form of contracted Technical Assistance Teams (TAT) for each EPA Region. The WESTON TAT Contract 68-WO-0036 provides support to EPA Regions I, II, III, IV, ERT - Edison, and Headquarters - Washington, DC.

Hazard Communication

The samples which accompany this notice have been shipped to your laboratory for analysis in accordance with applicable D.O.T. or IATA Regulations and were collected by the WESTON TAT and were tentatively designated by the field response team as either environmental or hazardous material samples.

In general, *Environmental Samples* are collected from streams, farm ponds, small lakes, wells, and off-site soils that are not reasonably expected to be contaminated with hazardous materials. Samples of on-site soils or water, and materials collected from drums, bulk storage tanks, obviously contaminated ponds, impoundments, lagoons pools and leachates from hazardous waste are considered *Hazardous Samples*. Samples which are obtained from a known radioactive material contamination site or which demonstrate beta or gamma activity greater than three times average background as scanned with a Geiger-Mueller radiation survey meter are considered *Radioactive Samples*. Samples which are collected from septic tanks, wastewater or sewage treatment plants or cooling tower water may pose *Biological Hazards*.

The samples which accompany this notice have been tentatively classified by the field response team as:

X Environmental ____ Hazardous ____ Comb.(Envir.& Haz.) ____ Radioactive ____ Biological Hazard

The field team, which collected the samples, used the following Level(s) of personal protedtion as designated by EPA and OSHA conventions to provide protection against possible radiological or chemical exposure:

____ Level A ____ Level B ____ Level C X Level D

This information is intended for use as a guide for the safe handling of these laboratory samples in accordance with EPA and OSHA regulations. The sample classification(s) and Levels of personal protection used by the WESTON TAT are not represented to be, nor are they adequate or applicable in all situations, nor are they intended to serve as substitutes for professional/personal judgement.

This form was prepared by: Colleen Duffy 5/31/96

Analytical Services TDD No.: 05/96 - 18 Date: __/__/__

WESTON Office: Delran, NJ Phone: (609) 461 - 4003 Fax: (609) 461 - 4916

Laboratory Name: CHEMTECH CONSULTING GROUP

00124

/Hazcom for Laboratory Personnel/To be attached to each Chain-of-custody Form.

AR320923