PROJECT ID: PMN06011997

SAMPLE ID: NO SAMPLE ID

DESCRIPTOR: PESTICIDE MONITORING NETWORK

PN 96

HERITAGE ENVIRONMENTAL SERVICES
COMMERCIAL LABORATORY OPERATIONS
7901 WEST MORRIS STREET
INDIANAPOLIS, IN 46231

TO MITT L. DENNEY
IDEM

Report Package # 5809
A441373-A441390, A441396-A441403
DK10963-DK10972, DK11727-DK11733,
DK11023-DK11031

invoice 209831 done

HERITAGE ENVIRONMENTAL SERVICES, INC.

7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
FAX: 317/486-5095

QUALITY ASSURANCE REPORT PACKAGE # 5809
FOR
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

MITT L. DENNEY
INDIANA DEPT. OF ENV. MANAGEMENT
2525 NORTH SHADELAND AVENUE
BUILDING 30
INDIANAPOLIS, IN 46219
(317) 308-3324

SAMPLE: A441373-A441390, A441396-A441403

DK10963-DK10972, DK11727-DK11733, DK11023-DK11031

HERITAGE ENVIRONMENTAL SERVICES, INC.
COMMERCIAL LABORATORY OPERATIONS
7901 WEST MORRIS STREET
INIANAPOLIS, INDIANA 46231
PHONE: (317) 243-8304
FAX: (317) 486-5095

APPROVED BY: _____
PROJECT CHEMIST

Recycled Paper

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

☒ OWM ☐ OSHWM ☐ OER ☐ OAM

CHAIN OF CUSTODY

I certify that the sample(s) listed below was/were collected by me or in my presence. Date: 5 / 8 / 98

Signature: Thelinda Brandyke Section: GROUND WATER

LAB NUMBER ASSIGNED	IDEM CONTROL NUMBER	CONSISTING OF THE INDICATED NUMBER OF BOTTLES													DATE AND TIME COLLECTED
		2000 ml P.N.M.	1000 ml P.N.M.	1000 ml G.N.M.	500 ml G.W.M.	40 ml VIAL	120 ml G.(B.O.)	500 ml P.N.M.	250 ml P.N.M.						
A441373	DK10963							3							5/6/98 10:55 AM/PM
374	DK10964							3							5/6/98 12:20 AM/PM
375	DK10965							3							5/6/98 2:10 AM/PM
376	DK10966							3							5/6/98 3:00 AM/PM
377	DK10967							3							5/6/98 4:20 AM/PM
378	DK10968							3							5/6/98 5:00 AM/PM
379	DK10969							3							5/6/98 6:00 AM/PM
380	DK10970							3							5/7/98 12:00 AM/PM
381 ~~380~~	DK10971							3							5/7/98 2:00 AM/PM
382	DK10972							3							5/7/98 3:20 AM/PM
~~383~~	~~QA/QC~~ 5/8/98														/ / : AM/PM
															/ / : AM/PM

P - Plastic G - Glass N.M. - Narrow Mouth W.M. - Wide Mouth B.O. - Bacti. Only

CARRIERS

Should samples be Iced? Y N

I certify that I received the above sample(s).

SIGNATURE	DATE AND TIME	SEALS INTACT		COMMENTS
RELINQUISHED BY: Thelinda Brandyke	/ /	Y	N	no seals
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			

LAB CUSTODIAN

I certify that I received the above sample(s) and is/are recorded in the official record book. The same sample(s) will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Signature: [illegible] Date: 8 MAY 98 Time: 14:50 AM/PM

Lab: HERETAGE Address: 7901 W. MORRIS INDIANAPOLIS IN

INDIANA DEPARTMENT of ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER MANAGEMENT
GROUND WATER SECTION

ASSIGNED LAB: HLI

Date Submitted:	5/8/98	**Sample Nos Submitted Today:**	**DK** 10963 **to DK** 10972
Project:	MONITORING NETWORK	**Assigned IDEM Sample Nos:**	DK10951 to DK10975
Matrix:	Ground Water	**Sampler:**	BRONDYKE

TASKS &/OR PARAMETERS TO DETERMINE

TASK	PARAMETER	TASK	PARAMETER
2	CHLORIDE	1	BARIUM
2	HARDNESS, TOTAL	1	CALCIUM
2	SULFATE	1	IRON
2	NITRATE, NITRITE	1	MAGNESIUM
2	TKN	1	POTASSIUM
		1	SODIUM

APPROXIMATE CONCENTRATIONS: 10ppm **REPORTING TIME REQUIRED: 30 DAYS**

Comments:

Please Send Report To:

Mitt Denney
IDEM
Ground Water Section
P.O. Box 6015
Indianapolis, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

☒ OWM ☐ OSHWM ☐ OER ☐ OAM

CHAIN OF CUSTODY

I certify that the sample(s) listed below was/were collected by me or in my presence. Date: 5 / 8 / 98

Signature: [signature] Section: Ground Water

LAB NUMBER ASSIGNED	IDEM CONTROL NUMBER	2000 ml P.N.M.	1000 ml P.N.M.	1000 ml G.N.M.	500 ml G.W.M.	40 ml VIAL	120 ml G.(B.O.)	500 ml P.N.M.	250 ml P.N.M.	250 ml P.W.M.	500 ml P.W.M.		DATE AND TIME COLLECTED
A441383	DK11727										3		5/6/98 11:20 AM/PM
384	DK11728										3		5/6/98 12:51 AM/PM
385	DK11729										3		5/6/98 1:46 AM/PM
386	DK11730									1	2		5/6/98 2:51 AM/PM
387	DK11731									1	2		5/6/98 3:56 AM/PM
388	DK11732										3		5/8/98 10:38 AM/PM
389	DK11733	1								1	2		5/8/98 11:39 AM/PM
~~390~~	~~QA/QC~~												/ / : AM/PM
	QC 5.8.98												/ / : AM/PM
													/ / : AM/PM
													/ / : AM/PM
													/ / : AM/PM

P - Plastic G - Glass N.M. - Narrow Mouth W.M. - Wide Mouth B.O. - Bacti. Only

CARRIERS

Should samples be Iced? Y N

I certify that I received the above sample(s).

SIGNATURE	DATE AND TIME	SEALS INTACT		COMMENTS
RELINQUISHED BY: [signature]	5/8/98	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			

LAB CUSTODIAN

I certify that I received the above sample(s) and is/are recorded in the official record book. The same sample(s) will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Signature: [signature] Date: 8 MAY 98 Time: 14:50 AM/

Lab: HERITAGE Address: 7901 W. MORRIS INDIANAPOLIS IN

INDIANA DEPARTMENT of ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER MANAGEMENT
GROUND WATER SECTION

ASSIGNED LAB: HLI

Date Submitted:		**Sample Nos Submitted Today:**	DK11727 to DK 11733
Project:	MONITORING NETWORK	**Assigned IDEM Sample Nos:**	DK11727 to DK11786
Matrix:	Ground Water	**Sampler:**	HAMILTON

TASKS &/OR PARAMETERS TO DETERMINE

TASK	PARAMETER	TASK	PARAMETER
2	CHLORIDE	1	BARIUM
2	HARDNESS, TOTAL	1	CALCIUM
2	SULFATE	1	IRON
2	NITRATE, NITRITE	1	MAGNESIUM
2	TKN	1	POTASSIUM
		1	SODIUM

APPROXIMATE CONCENTRATIONS: 10ppm **REPORTING TIME REQUIRED: 30 DAYS**

Comments:

Please Send Report To:

Mitt Denney
IDEM
Ground Water Section
P.O. Box 6015
Indianapolis, IN 46206-6015

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

☒ OWM ☐ OSHWM ☐ OER ☐ OAM

CHAIN OF CUSTODY

I certify that the sample(s) listed below was/were collected by me or in my presence. Date: 5 / 7 / 98

Signature: Michael Yerby Section: Ground Water

LAB NUMBER ASSIGNED	IDEM CONTROL NUMBER	CONSISTING OF THE INDICATED NUMBER OF BOTTLES												DATE AND TIME COLLECTED
		2000 ml P.N.M.	1000 ml P.N.M.	1000 ml G.N.M.	500 ml G.W.M.	40 ml VIAL	120 ml G.(B.O.)	500 ml P.N.M.	250 ml P.N.M.	500 ml P.3.M.				
A441390	DK 11023									3				5 / 6 / 98 10 : 20 AM/PM
A441396	DK 11024									3				5 / 6 / 98 11 : 55 AM/PM
397	DK 11025									3				5 / 6 / 98 1 : 02 AM/PM
398	DK 11026									3				5 / 6 / 98 2 : 07 AM/PM
399	DK 11027									3				5 / 6 / 98 3 : 00 AM/PM
400	DK 11028									3				5 / 6 / 98 3 : 50 AM/PM
401	DK 11029									3				5 / 8 / 98 8 : 54 AM/PM
402	DK 11030									3				5 / 8 / 98 9 : 40 AM/PM
403	DK 11031									3				5 / 8 / 98 10 : 45 AM/PM
A441404	QA/QC													/ / : AM/PM
														/ / : AM/PM
														/ / : AM/PM

P - Plastic G - Glass N.M. - Narrow Mouth W.M. - Wide Mouth B.O. - Bacti. Only

CARRIERS

Should samples be Iced? Y N

I certify that I received the above sample(s).

SIGNATURE	DATE AND TIME	SEALS INTACT		COMMENTS
RELINQUISHED BY: Michael Yerby	5 / 7 / 98	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			

LAB CUSTODIAN

I certify that I received the above sample(s) and is/are recorded in the official record book. The same sample(s) will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Signature: [illegible] Date: 8 / MAY / 98 Time: 14 : 50 AM/PM

Lab: HERITAGE Address: 7901 W MORRIS INDIANAPOLIS IN

INDIANA DEPARTMENT of ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER MANAGEMENT
GROUND WATER SECTION

ASSIGNED LAB: HLI

Date Submitted:		**Sample Nos Submitted Today:**	**DK** 11023 **to DK** ~~11028~~ 11031 my
Project:	MONITORING NETWORK	**Assigned IDEM Sample Nos:**	DK11021 to DK11045
Matrix:	Ground Water	**Sampler:**	YARLING

TASKS &/OR PARAMETERS TO DETERMINE

TASK	PARAMETER	TASK	PARAMETER
2	CHLORIDE	1	BARIUM
2	HARDNESS, TOTAL	1	CALCIUM
2	SULFATE	1	IRON
2	NITRATE, NITRITE	1	MAGNESIUM
2	TKN	1	POTASSIUM
		1	SODIUM

APPROXIMATE CONCENTRATIONS: 10ppm **REPORTING TIME REQUIRED: 30 DAYS**

Comments:

Please Send Report To:

Mitt Denney
IDEM
Ground Water Section
P.O. Box 6015
Indianapolis, IN 46206-6015

May 19, 1998

U. S. EPA -CLP

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Lab Name : Heritage

Contract : IDEM-OWM

Lab Code: Metals

Case No. : _____

SAS No. : _____

SDG No.: _____

Instrument ID Number : _____

Method : _____

EPA Sample No.	Lab Sample No.
	A441373
	↓ water
	A441382
	↓
	A441389

Were ICP interelement corrections applied? Yes/No ___ yes

Were ICP background corrections applied? Yes/No ___ yes

If yes-were raw data generated before application of background corrections? Yes/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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature : _____

Name : _____

Date : _____

Title : _____

HERITAGE ENVIRONMENTAL SERVICES, INC.

7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
FAX: 317/486-5095

CASE NARRATIVE

METALS SECTION

SAMPLE # A441373-389

These samples were analyzed using the normal procedures with no modifications.

Steven J. Endersen 5-19-98

Steven J Endersen, Senior Chemist

Recycled Paper

U. S. EPA -CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration % R (1)	Continuing Calibration True	Continuing Calibration Found *118*	Continuing Calibration % R (1)	Continuing Calibration Found *2103*	Continuing Calibration % R (1)		M
Barium	1000	1000	100	5000	5000	100	5050	101		P
Calcium	20000	19700	98.5	50000	49400	98.8	49500	99		P
Iron	1000	1010	101	5000	4980	99.6	4950	99		P
Magnesium	20000	19500	97.5	50000	49700	99.4	49900	99.8		P
Potassium	20000	19800	99	50000	50500	101	51000	102		P
Sodium	20000	19900	99.5	50000	50100	100	50400	101		P

ICP Analytical Run Time

(1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115.

FORM II (Part 1) - IN

U. S. EPA -CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration % R (1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration % R (1)	Continuing Calibration Found	Continuing Calibration % R (1)		M
					4314		*11024*			
Barium				5000	4980	99.6	5000	100		P
Calcium				50000	49000	98	49000	98		P
Iron				5000	4880	97.6	4890	97.8		P
Magnesium				50000	49300	98.6	49700	99.4		P
Potassium				50000	50500	101	50700	101		P
Sodium				50000	49800	99.6	49500	99		P

ICP Analytical Run Time (1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115.

FORM II (Part 1) - IN

U. S. EPA -CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration % R (1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration % R (1)	Found	% R (1)		M
					21208					
Barium				5000	5070	101				P
Calcium				50000	49700	99.4				P
Iron				5000	5000	100				P
Magnesium				50000	50600	101				P
Potassium				50000	51500	103				P
Sodium				50000	50100	100				P

ICP Analytical Run Time

(1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115.

FORM II (Part 1) - IN

U. S. EPA -CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: __

AA CRDL Calibration Source : Inorganic Ventures

ICP CRDL Calibration Source : Inorganic Ventures

Concentration Units: uG/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP						M
	True	Found	% R	True	Initial Found	% R	Final Found	% R		
					235127		20443			
Barium				NA						
Calcium				NA						
Iron				NA						
Magnesium				NA						
Potassium				NA						
Sodium				NA						

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U. S. EPA -CLP

3

BLANKS

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : ___ SAS No. : ___ SDG No.: _____

Preparation Blank Matrix : Water

Preparation Blank Concentration Units (uG/L or mG/kG) : uG/L

Analyte	Initial Calibration Blank (uG/L)	C	Continuing Calibration Blank (uG/L) 1	C	2	C	3	C	Preparation Blank	C	M
	233641		*234632*		*346*		*2331*		*614*		
Barium	1.6	B	0.89	U	2.7	B	1.9	B	1.2	B	P
Calcium	21	B	17	U	72	B	21	B	28	B	P
Iron	3.4	U	3.4	U	20	B	3.4	U	13	B	P
Magnesium	60	U	60	U	71	B	60	U	60	U	P
Potassium	120	U	120	U	120	U	120	U	120	U	P
Sodium	31	U	31	U	31	U	39	B	31	U	P

ICP Analytical Run Time

FORM III -IN

7

U. S. EPA -CLP

3

BLANKS

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : ___ SAS No. : ___ SDG No.: _____

Preparation Blank Matrix : _____

Preparation Blank Concentration Units (uG/L or mG/kG) : _____

Analyte	Initial Calibration Blank (uG/L)	C	Continuing Calibration Blank (uG/L) 4	C	5	C	6	C	Preparation Blank	C	M
			4542		*11252*		*21437*				
Barium			2.1	B	1.9	B	1.6	B			P
Calcium			23	B	17	U	26	B			P
Iron			3.5	B	3.5	B	6.9	B			P
Magnesium			60	U	60	U	60	U			P
Potassium			120	U	120	U	120	U			P
Sodium			31	U	31	U	31	U			P

ICP Analytical Run Time

FORM III -IN

8

U. S. EPA -CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: ___

ICP ID Number : 32 ICS Source : Perkin-Elmer

Date of Analysis : 18-May-98

Concentration Units: uG/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found % R	Final Found Sol. A	Final Found Sol. AB	Final Found % R
Aluminum		500,000		512,000	102		519,000	104
Antimony		600		604	101		608	101
Arsenic		100						
Barium		500		482	96.4		488	97.6
Beryllium		500		474	94.8		482	96.4
Cadmium		1,000		901	90.1		901	90.1
Calcium		500,000		475,000	95		476,000	95.2
Chromium		500		459	91.8		458	91.6
Cobalt		500		454	90.8		455	91
Copper		500		491	98.2		500	100
Iron		200,000		183,000	91.5		183,000	91.5
Lead		1,000		976	97.6		976	97.6
Magnesium		500,000		489,000	97.8		497,000	99.4
Manganese		500		467	93.4		468	93.6
Mercury								
Nickel		1,000		891	89.1		895	89.5
Potassium								
Selenium		50						
Silver		200		208	104		217	109
Sodium								
Thallium		100						
Vanadium		500		480	96		485	97
Zinc		1,000		978	97.8		981	98.1

FORM IV - IN

U. S. EPA -CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

A441373

Lab Name: Heritage

Contract :

Lab Code:

Case No. :

SAS No. :

SDG No.:

Matrix (soil/water) : Water

Level (low/med):

Initial Wt/Vol : 50 mL

Final Volume : 50 mL

Dilution : 1

% Solids for Sample :

Concentration Units (uG/L or mG/kG dry weight) : uG/L

Analyte	Control Limit %R	Q834624 Spiked Sample (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Barium	80 - 120	2350		367		2,000	99.2		P
Calcium	80 - 120	161000		63600		100,000	97.4		P
Iron	80 - 120	1510		619		1,000	89.1		P
Magnesium	80 - 120	125000		26200		100,000	98.8		P
Potassium	80 - 120	104000		1630		100,000	102		P
Sodium	80 - 120	143000		41500		100,000	102		P

FORM V (Part 1) - IN

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icp_clp.xlw Rev. 1/95

U. S. EPA -CLP

5A

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

EPA SAMPLE NO.

A441373

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Initial Wt/Vol : 50 mL

% Solids for Sample : _____ Final Volume : 50 mL

Dilution : 1

Concentration Units (uG/L or mG/kG dry weight) : uG/L

Analyte	Sample Result (SR)	Q834624 Spiked Sample (SSR)	C	0 Spiked Duplicate Sample (SDS)	C	Spike Added (SA)	% RPD	Q	M
Barium	370	99.2		99.2		2,000	0		P
Calcium	64000	97.4		97.4		100,000	0		P
Iron	620	89.1		89.1		1,000	0		P
Magnesium	26000	98.8		98.8		100,000	0		P
Potassium	1600	102		102		100,000	0		P
Sodium	42000	102		102		100,000	0		P

FORM V (Part 1) - IN

11

U. S. EPA -CLP
7

LABORATORY CONTROL SAMPLE

Q834622

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Solid LCS Source : _____

Aqueous LCS Source : SPEX

Analyte	Aqueous (uG/L) True	Found	%R	True	Found	C	Limits		%R
Barium	20000	19,300	96.5						
Calcium	100000	94,700	94.7						
Iron	10000	8,660	86.6						
Magnesium	100000	94,700	94.7						
Potassium	100000	97,100	97.1						
Sodium	100000	107,000	107						

FORM VII - IN

12

U. S. EPA -CLP

9

ICP SERIAL DILUTION

EPA SAMPLE NO.

A441373

Lab Name: Heritage

Contract :

Lab Code:

Case No. :

SAS No. :

SDG No.:

Matrix (soil/water) : Water

Level (low/med):

Concentration Units (uG/L) : uG/L

Dilution 1: 5

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q (1)	M
Barium	367		395		7.6		P
Calcium	63600		65600		3.1		P
Iron	619		652		5.3		P
Magnesium	26200		26600		1.5		P
Potassium	1630		1540		5.5		P
Sodium	41500		42200		1.7		P

(1) - % Difference criteria 10%, if concentration > 50*IDL.

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FORM IX - IN

icp_clp.xlw Rev. 1/95

U. S. EPA - CLP

17

STANDARD SOLUTIONS SOURCES

Lab Name: Heritage Labotatories, Inc. Contract_____

Analyte	CALIBRATION STANDARD	ICV	TRACE CCV	CCV	CRDL	MATRIX SPIKE	ICS	Method
Aluminum	INV	PE		INV		SPEX	PE	P
Antimony	INV	PE	SPEX	INV	PE	INV		P
Arsenic	INV	PE	SPEX	INV	PE	SPEX		P
Barium	INV	PE		INV		SPEX	PE	P
Beryllium	INV	PE	SPEX	INV	PE	SPEX	PE	P
Cadmium	INV	PE	SPEX	INV	PE	SPEX	PE	P
Calcium	INV	PE		INV		SPEX	PE	P
Chromium	INV	PE	SPEX	INV	PE	SPEX	PE	P
Cobalt	INV	PE	SPEX	INV	PE	SPEX	PE	P
Copper	INV	PE		INV	PE	SPEX	PE	P
Iron	INV	PE		INV		SPEX	PE	P
Lead	INV	PE	SPEX	INV	PE	SPEX	PE	P
Magnesium	INV	PE		INV		SPEX	PE	P
Manganese	INV	PE	SPEX	INV	PE	SPEX	PE	P
Mercury	INV	NIST		FISHER	FISHER	FISHER		CV
Nickel	INV	PE		INV	PE	SPEX	PE	P
Potassium	INV	PE		INV		SPEX		P
Selenium	INV	PE	SPEX	INV	PE	SPEX		P
Silver	INV	PE	PE	INV	PE	SPEX	PE	P
Sodium	INV	PE		INV		SPEX		P
Thallium	INV	PE	SPEX	INV	PE	SPEX		P
Vanadium	INV	PE	SPEX	INV	PE	SPEX	PE	P
Zinc	INV	PE		INV	PE	SPEX	PE	P
Titanium	INV	PE		INV		SPEX		P
Strontium	INV	PE		INV		SPEX		P
Molybdenum	INV	PE		INV		SPEX		P
Boron	INV	PE		INV		SPEX		P
Tin	INV	PE		INV		INV		P
Zirconium	INV	FISHER		INV		SPEX		P
Lithium	INV	PE		INV		SPEX		P
Silicon	INV	PE		INV		INV		P
Bismuth	INV	PE		INV		SPEX		P
Yttrium	INV	PE		INV		SPEX		P

PE = Perkin Elmer Pure

INV = Inorganic Ventures

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U. S. EPA -CLP

12

ICP LINEAR RANGES (QUARTERLY)

Lab Name: Heritage Laboratories, Inc. Contract : _____

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

ICP ID Number : ICP#32 Date : Jan 29, 1998

Analyte	Integ. Time (Sec.)	Concentration (uG/L)	M
Aluminum	8	500,000	P
Antimony	8	100,000	P
Arsenic	8	200,000	P
Barium	8	500,000	P
Beryllium	8	100,000	P
Cadmium	8	500,000	P
Calcium	8	700,000	P
Chromium	8	700,000	P
Cobalt	8	800,000	P
Copper	8	200,000	P
Iron	8	400,000	P
Lead	8	300,000	P
Magnesium	8	700,000	P
Manganese	8	200,000	P
Mercury			CV
Nickel	8	400,000	P
Potassium	8	500,000	P
Selenium	8	200,000	P
Silver	8	10,000	P
Sodium	8	500,000	P
Thallium	8	400,000	P
Vanadium	8	200,000	P
Zinc	8	200,000	P
Boron	8	300,000	P
Bismuth	8	200,000	P
Lithium	8	200,000	P
Molybdenum	8	300,000	P
Titanium	8	300,000	P
Tin	8	500,000	P
Silicon	8	500,000	P
Strontium	8	100,000	P
Yttrium	8	200,000	P
Zirconium	8	500,000	P

mments: _____

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FORM XII - IN

U. S. EPA -CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Heritage Laboratories, Inc. Contract :

Lab Code: Case No. : SAS No. : SDG No.:

ICP ID Number : ICP#32 Date : Jul 21, 1997

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ba	Ca	Co	Cr	Cu	Fe	Mg
Aluminum	308.2			0.000154	0.000141				
Antimony	206.8				0.000075	0.015145		0.000248	-4.5E-05
Arsenic	193.6	0.003007	0.000214		0.001142	0.001357			
Barium	493.4								
Beryllium	313.0								
Cadmium	226.5	-3.5E-05			0.000163	0.000486		-0.00034	
Calcium	315.8								
Chromium	267.7						0.000053		
Cobalt	228.6		0.000204			0.000098			
Copper	324.7		-0.00015		-0.00157	0.000076		-0.00028	
Iron	259.9								
Lead	220.3	0.000886			-0.00117		-0.00188		
Magnesium	383.2					0.00182		0.001498	
Manganese	257.6				-0.0005	0.000041	-5.9E-05		
Mercury									
Nickel	231.6				-5.9E-05	-2.5E-05			
Potassium	766.4								
Selenium	196.0	-0.00029						-0.01052	
Silver	328.0								
Sodium	589.0								
Thallium	190.8				0.001569	0.02523			-0.00312
Vanadium	292.4					-0.00491	-0.00006	-0.00003	
Zinc	213.8				-6.5E-05		0.001241	0.000066	
Bismuth	223.0				-0.00047	-0.00152	-0.40418		
Boron	249.7				0.00206	0.000175			
Molybdenum	202.0					0.001625		-3.3E-05	
Silicon	288.1					-0.01432			
Strontium	421.5		0.000494						
Tin	189.9							0.000143	
Titanium	337.3				-0.00016				
Zirconium	339.2					-0.00031			

Comments:

FORM XI (Part 1) - IN

U. S. EPA -CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Heritage Laboratories, Inc. Contract :

Lab Code: Case No. : SAS No. : SDG No.:

ICP ID Number : ICP#32 Date : Jul 21, 1997

Analyte	Wavelength (nm)	Interelement Correction Factors for: Mn	Mo	Ni	Ti	V	Zn	Zr	
Aluminum	308.2	0.001202	0.016722		-0.00091	0.017174		-0.00256	
Antimony	206.8		-0.00236	-0.00142	0.001495	-0.00869	-0.00033		
Arsenic	193.6			0.000379		0.006805		0.006618	
Barium	493.4								
Beryllium	313.0				-0.0019	0.000973			
Cadmium	226.5		-0.00097	-0.00458		0.000027			
Calcium	315.8								
Chromium	267.7	0.000254				0.000471			
Cobalt	228.6			0.000401	0.001798				
Copper	324.7				0.000237	-0.00012		-0.00019	
Iron	259.9	-0.00503				0.000379			
Lead	220.3		-0.00062	0.045707	0.000521				
Magnesium	383.2		0.005707						
Manganese	257.6								
Mercury									
Nickel	231.6	-9.5E-05	-0.00206			-0.00011	0.000222		
Potassium	766.4								
Selenium	196.0		-0.00532						
Silver	328.0	0.000144				-0.00714		0.006048	
Sodium	589.0								
Thallium	190.8		0.010656		-0.01777	-0.02781			
Vanadium	292.4	-0.00013	-0.00191		0.000411				
Zinc	213.8			0.003946					
Bismuth	223.0	-0.00068	-0.00371	0.000406	0.001467	-0.00192			
Boron	249.7								
Lithium	670.8			0.00003	0.000123		0.00007		
Molybdenum	202.0						0.000135		
Silicon	288.1		-0.00468		0.034982				
Tin	189.9		-0.00135		-0.00135				
Titanium	337.3		-0.00026						
Zirconium	339.2								

Comments:

FORM XI (Part 2) - IN

17

WATER METHOD DETECTION LIMITS, uG/L Hotblock / Hotplate

Element	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	GFAA	GFAA	GFAA	GFAA	GFAA	GFAA
	#32 (AH)	#32 (AH)	#32 (AAS)	#32 (AAS)	#242 (AH)	#242 (AH)	#242 (AAS)	TRACE	TRACE	PE5100-A	PE5100-A	PE5100-B	PE5100-B	PE3030	PE3030
		Hotblock		Hotblock		Hotblock	Hotblock		Hotblock		Hotblock		Hotblock		Hotblock
Complete	1/27/98	3/19/98	1/22/98	3/18/98	1/27/98	3/19/98	3/20/98	2/3/98	3/17/98	2/18/98	4/9/98	2/24/98	3/24/98	2/20/98	4/6/98
Al	32	37	20	25	43	21	21								
B	21	4.6	15	4.6	18	4.5	4.2								
Sb	14	19	16	17	25	20	18	3.5	2.9			2.1	1.7		
As	46	40	27	20	31	21	20	2.3	2.8	0.75	0.96	1.7	1.9		
Ba	0.79	0.92	1.9	0.92	1.7	0.94	0.64								
Be	1.5	0.67	0.83	0.83	0.10	0.13	0.36	0.22	0.10			0.099	0.056		
Bi	29	30	24	14											
Cd	2.9	2.2	3.0	2.1	2.6	1.7	3.2	0.24	0.20	0.086	0.20	0.11	0.23	0.19	0.17
Ca	94	36	90	36	92	23	23								
Cr	3.7	3.0	6.7	2.8	6.2	3.4	3.8	1.9	0.94					1.7	1.4
Co	3.2	2.0	2.5	3.5	3.6	1.9	2.8	0.90	1.0						
Cu	4.4	4.0	3.6	1.9	9.2	5.9	3.5							2.0	0.83
Fe	25	4.3	27	6.1	25	4.8	3.5								
Pb	15	16	29	12	25	36	18	1.9	1.7	1.7	0.82	1.2	1.2	2.6	1.4
Hg					99										
Mg	98	65	130	50	58	28	27								
Mn	1.4	1.0	2.1	0.96	1.2	0.80	0.48	1.2	0.85						
Mo	3.5	3.4	3.1	2.8	2.7	4.4	3.7								
Ni	4.8	3.7	7.8	3.6	7.7	3.3	5.1					2.5			
K	90	79	110	99	140	85	56								
Li	3.0	3.2	2.5	1.6	20	13	18								
P					160	150	160								
Se	28	40	22	48	50	33	25	2.3	2.2	1.3	1.5	1.2	1.5		
Si	28	22	23	13	49	30	31								
Sr	0.92	0.70	0.46	0.97	1.1	0.40	0.50								
Sn	11	13	10	10	110	71	59								
Ag	3.4	2.4	4.0	2.0	3.6	3.8	4.4	1.6	1.3					0.18	0.37
Na	120	32	120	17	120	30	26								
Ti	2.0	1.9	1.4	1.6	4.3	2.6	2.7								
Tl	140	67	78	110	53	49	38	3.4	3.2	0.90	0.86	0.81	0.90		
U					140	93	86								
V	1.7	1.9	2.8	2.2	4.2	2.1	1.3	0.96	1.0	0.86	0.69				
Y	2.3	0.86													
Zn	17	1.1	20	3.2	19	2.3	2.2								
Zr	6.0	2.3	6.8	3.7	5.4	3.6	4.1								
As prep												1.3			
Se prep										1.2					
Pb (DW)										1.2		1.2		1.8	
As (2inj.)												0.84			
Hg	CVAA	PE-FIMS	1/29/98	0.031											4/14/98

U. S. EPA -CLP

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Heritage Laboratories, Inc. Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No. _____

ICP ID Number : ICP#32 Date : Feb 03, 1998

Flame AA ID Number : PE FIMS-CVAA

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	USEPA CRDL (uG/L)	Laboratory Reporting Limits		IDL (uG/L)	M
Aluminum	308.2		200	50		21	P
Antimony	206.8		60	30		16	P
Arsenic	193.6		10	100		47	P
Barium	493.4		200	10		0.89	P
Beryllium	313.0		5	4		0.37	P
Cadmium	226.5		5	5		4.8	P
Calcium	315.8		5000	200		17	P
Chromium	267.7		10	10		2.5	P
Cobalt	228.6		50	10		2.7	P
Copper	324.7		25	20		6.5	P
Iron	259.9		100	25		3.4	P
Lead	220.3		3	50		17	P
Magnesium	383.2		5000	200		60	P
Manganese	257.6		15	10		1.1	P
Mercury**	253.7		0.2	0.2		0.031	CV
Nickel	231.6		40	10		4.0	P
Potassium	766.4		5000	200		120	P
Selenium	196.0		5	100		25	P
Silver	328.0		10	10		3.7	P
Sodium	589.5		5000	200		31	P
Thallium	190.8		10	300		130	P
Vanadium	292.4		50	10		2.0	P
Zinc	213.8		20	20		2.2	P
Bismuth	223.0			100		23	P
Boron	249.6			50		3.5	P
Lithium	670.7			10		2.7	P
Molybdenum	202.0			10		4.3	P
Silicon	288.1			200		13	P
Strontium	421.5			10		0.60	P
Tin	189.9			50		13	P
Titanium	337.2			10		1.1	P
Yttrium	371.0			10		0.53	P
Zirconium	339.1			10		2.4	P

Comments: **Mercury on 2/10/98

FORM X - IN

19-A

MTO PREP SHEET Method: EPA 200.0

Prep Worksheet for Run: R348490 Instrument: 275 Page: 1

Analyst S/H/P # 6278 Reviewed ___/___/___ #_____ Recorded ___/___/___ #_____

Date 5/18/99 Start 12:00 Stop 16:00 Date ___/___/___ Date ___/___/___

Hotblock

SAMPLE	TEST	Initial Wt/Vol	Final Volume	DUE	SUBMITTER	CONTAINER ID	AN_REP	ELEMENT
Q834622	LCS	50ml	50ml			7326		
Q834623	BLA02					Milli-Q		
Q834624	SPI02					A441373	Spikes 7259 7328 7260 } 50ml	
Q834625	DPS02					A441373		
A441373	P129.2.0			27-MAY	IDEM - OFFICE	DK10963	ICP.0	Ba Ca Fe K Mg Na
A441374	P129.2.0			27-MAY	IDEM - OFFICE	64	ICP.0	Ba Ca Fe K Mg Na
A441375	P129.2.0			27-MAY	IDEM - OFFICE	65	ICP.0	Ba Ca Fe K Mg Na
A441376	P129.2.0			27-MAY	IDEM - OFFICE	66	ICP.0	Ba Ca Fe K Mg Na
A441377	P129.2.0			27-MAY	IDEM - OFFICE	67	ICP.0	Ba Ca Fe K Mg Na
A441378	P129.2.0			27-MAY	IDEM - OFFICE	68	ICP.0	Ba Ca Fe K Mg Na
A441379	P129.2.0			27-MAY	IDEM - OFFICE	69	ICP.0	Ba Ca Fe K Mg Na
A441380	P129.2.0			27-MAY	IDEM - OFFICE	70	ICP.0	Ba Ca Fe K Mg Na
A441381	P129.2.0			27-MAY	IDEM - OFFICE	71	ICP.0	Ba Ca Fe K Mg Na
A441382	P129.2.0			27-MAY	IDEM - OFFICE	72	ICP.0	Ba Ca Fe K Mg Na
A441383	P129.2.0			27-MAY	IDEM - OFFICE	DK11727	ICP.0	Ba Ca Fe K Mg Na
A441384	P129.2.0			27-MAY	IDEM - OFFICE	728	ICP.0	Ba Ca Fe K Mg Na
A441385	P129.2.0			27-MAY	IDEM - OFFICE	729	ICP.0	Ba Ca Fe K Mg Na
A441386	P129.2.0			27-MAY	IDEM - OFFICE	730	ICP.0	Ba Ca Fe K Mg Na
A441387	P129.2.0			27-MAY	IDEM - OFFICE	731	ICP.0	Ba Ca Fe K Mg Na
A441388	P129.2.0			27-MAY	IDEM - OFFICE	732	ICP.0	Ba Ca Fe K Mg Na
A441389	P129.2.0			27-MAY	IDEM - OFFICE	733	ICP.0	Ba Ca Fe K Mg Na
~~A441390~~	~~P129.2.0~~			~~27-MAY~~	~~IDEM - OFFICE~~		ICP.0	~~Ba Ca Fe K Mg Na~~

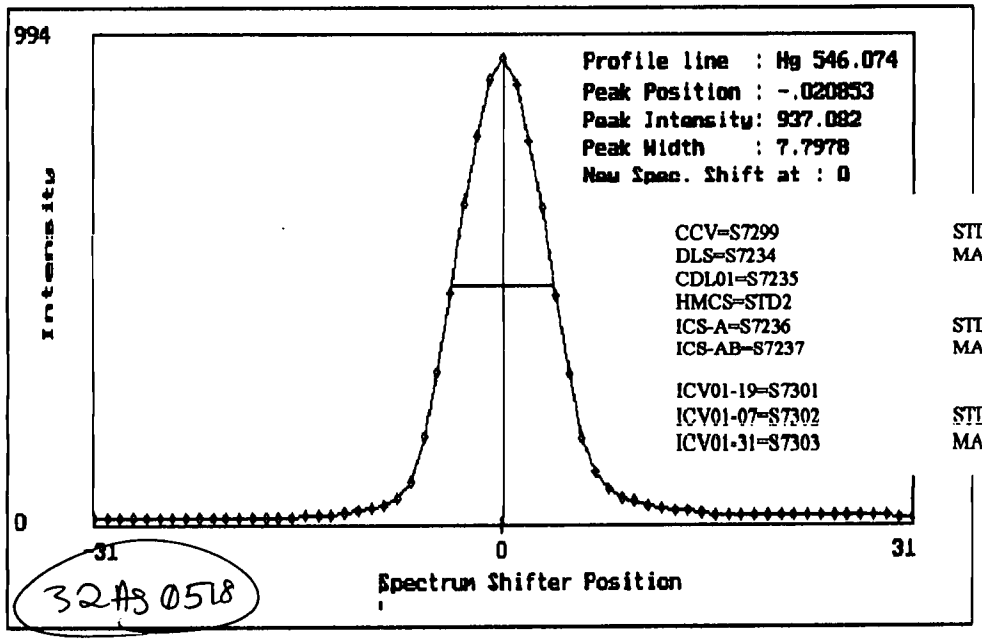
STOP 5-18

HNO3 Fisher 118010 H2O2 Fisher N/A HCL Fisher 412120 Balance# N/A

(runprep.sql)

P-B

AAS #2012
ICP#32
5/18/98
1



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DLS=S7234
CDL01=S7235
HMCS=STD2
ICS-A=S7236
ICS-AB=S7237

ICV01-19=S7301
ICV01-07=S7302
ICV01-31=S7303

STD2=S7231
MADE 4/16/98

STD3=S7313
MADE 5/11/98

STD4=S7314
MADE 5/11/98

32AS 0518

A441373-389 Ba Ca Fe K Mg Na

20

Method: EMS Standard: STD4

Elem	Mo2020	Sb2068	Si2881	Sn1899	Ti3372
Avge	.4366	.1005	1.169	3.748	3.539
SDev	.0008	.0005	.006	.010	.024
%RSD	.1822	.5277	.5292	.2547	.6892
#1	.4360	.1009	1.174	3.755	3.557
#2	.4371	.1001	1.165	3.742	3.522

Method: EMS Standard: STD2

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.3156	1.362	2.262	1.398	3.036	1.872	.1200
SDev	.0003	.001	.004	.003	.004	.002	.0025
%RSD	.1120	.0973	.1954	.2403	.1368	.0944	2.062
#1	.3154	1.361	2.265	1.395	3.033	1.871	.1182
#2	.3159	1.363	2.259	1.400	3.039	1.873	.1217

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	Li6707	Mn2576
Avge	1.960	2.062	1.526	2.305	1.441	7.847	1.467
SDev	.001	.000	.000	.004	.000	.006	.001
%RSD	.0631	.0129	.0174	.1726	.0000	.0800	.0362
#1	1.959	2.062	1.526	2.302	1.441	7.842	1.467
#2	1.961	2.063	1.526	2.308	1.441	7.851	1.467

Elem	Ni2316	Pb2203	Se1960	Sr4215	Tl1908	V_2924	Zn2138
Avge	1.733	.4708	.1204	4.637	.8518	3.389	1.135
SDev	.002	.0001	.0004	.010	.0103	.004	.003
%RSD	.1071	.0188	.3669	.2230	1.214	.1173	.2882
#1	1.732	.4708	.1201	4.629	.8591	3.387	1.132
#2	1.734	.4709	.1208	4.644	.8445	3.392	1.137

Elem	Zr3391
Avge	1.873
SDev	.002
%RSD	.1321
#1	1.871
#2	1.875

Method: EMS Standard: STD3

Elem	Ca3158	K_7664	Mg3832	Na5895
Avge	3.734	.1612	.1645	.3069
SDev	.014	.0007	.0000	.0034
%RSD	.3740	.4385	.0000	1.123
#1	3.724	.1618	.1645	.3045
#2	3.744	.1608	.1645	.3094

Method: EMS Standard: STD1-Blank

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	-.0152	-.0173	-.0016	.0012	-.0001	.0009	.0009
SDev	.0003	.0018	.0010	.0001	.0001	.0000	.0003
%RSD	1.746	10.25	62.23	7.443	141.4	.0000	40.41
#1	-.0150	-.0185	-.0009	.0012	-.0001	.0009	.0011
#2	-.0154	-.0160	-.0022	.0011	.0000	.0009	.0006

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.2301	-.0019	-.0019	.0003	.0005	.0001	.0029
SDev	.0011	.0004	.0004	.0001	.0007	.0001	.0007
%RSD	.4609	18.86	18.86	28.28	141.4	141.4	24.60
#1	.2294	-.0021	-.0021	.0004	.0000	.0001	.0024
#2	.2309	-.0016	-.0016	.0003	.0010	.0000	.0034

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.1310	.0587	.0009	.0044	.0003	.0058	.0052
SDev	.0002	.0003	.0001	.0003	.0003	.0001	.0003
%RSD	.1349	.6018	9.428	5.976	141.4	1.521	6.734
#1	.1309	.0585	.0009	.0043	.0000	.0059	.0055
#2	.1311	.0590	.0010	.0046	.0005	.0058	.0050

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0007	.0001	.0074	-.0011	-.0002	-.0006	.0683
SDev	.0001	.0001	.0003	.0047	.0001	.0002	.0101
%RSD	12.86	141.4	4.794	440.9	47.14	28.28	14.76
#1	.0006	.0000	.0076	-.0044	-.0003	-.0005	.0611
#2	.0008	.0001	.0071	.0022	-.0001	-.0008	.0754

Elem	V_2924	Zn2138	Zr3391
Avge	.0005	.0033	-.0004
SDev	.0000	.0001	.0003
%RSD	.0000	2.668	60.61
#1	.0005	.0034	-.0003
#2	.0005	.0033	-.0006

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/18/98 23:31:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	1.015	5.005	4.972	5.003	4.995	4.950	4.926
SDev	.007	.034	.043	.014	.021	.044	.059
%RSD	.6791	.6782	.8627	.2785	.4255	.8890	1.190
#1	1.010	4.981	4.941	4.993	4.980	4.919	4.885
#2	1.019	5.029	5.002	5.012	5.010	4.981	4.968

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	49.13	4.890	4.921	4.953	5.011	4.948	50.42

SDev	.25	.014	.009	.023	.025	.018	.03
%RSD	.5119	.2762	.1903	.4562	.5045	.3602	.0664
#1	48.96	4.880	4.914	4.937	4.993	4.935	50.44
#2	49.31	4.899	4.928	4.969	5.029	4.960	50.39

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	5.070	49.44	4.942	.9744	50.60	4.913	4.928
SDev	.025	.16	.024	.0118	.39	.010	.007
%RSD	.5016	.3209	.4757	1.214	.7689	.1985	.1523
#1	5.052	49.33	4.926	.9660	50.33	4.906	4.923
#2	5.088	49.55	4.959	.9827	50.88	4.920	4.934

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.9931	4.943	5.082	5.001	4.996	5.061	4.676
SDev	.0070	.000	.043	.005	.025	.028	.034
%RSD	.7031	.0049	.8392	.0982	.5037	.5575	.7295
#1	.9882	4.943	5.052	4.997	4.978	5.041	4.700
#2	.9980	4.943	5.112	5.004	5.013	5.081	4.651

Elem	V_2924	Zn2138	Zr3391
Avge	4.983	4.956	5.030
SDev	.023	.016	.030
%RSD	.4556	.3155	.6003
#1	4.967	4.945	5.008
#2	4.999	4.967	5.051

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/18/98 23:34:16
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0004	-.0012	.0512	.0058	.0016	.0017	.0142
SDev	.0000	.0091	.0091	.0025	.0003	.0005	.0179
%RSD	1.464	770.2	17.81	43.56	17.68	28.17	125.6
#1	.0004	-.0076	.0448	.0040	.0014	.0013	.0016
#2	.0004	.0053	.0577	.0076	.0019	.0020	.0269

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0212	.0013	.0021	.0029	.0043	.0013	-.0276
SDev	.0003	.0009	.0004	.0012	.0008	.0000	.0391
%RSD	1.188	68.86	20.24	40.41	17.65	.0296	141.4
#1	.0210	.0007	.0024	.0020	.0038	.0013	-.0000
#2	.0214	.0019	.0018	.0037	.0049	.0013	-.0552

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0021	.0176	.0013	H.0139	.0163	.0011	-.0028
SDev	.0002	.0251	.0000	.0021	.0115	.0021	.0040
%RSD	10.88	142.1	.0169	14.75	70.71	184.1	142.9

#1	.0023	.0354	.0013	H.0153	.0245	.0026	-.0057
#2	.0019	-.0001	.0013	H.0124	.0082	-.0003	.0000

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0000	.0721	.0150	.0020	.0009	.0032	-.0056
SDev	.0053	.0073	.0118	.0040	.0000	.0000	.0033
%RSD	105700.	10.10	78.81	199.1	.0152	.0188	59.05
#1	-.0038	.0772	.0066	-.0008	.0009	.0032	-.0080
#2	.0038	.0669	.0233	.0049	.0009	.0032	-.0033

Elem	V_2924	Zn2138	Zr3391
Avge	.0021	.0022	.0017
SDev	.0008	.0008	.0000
%RSD	37.91	35.83	.0217
#1	.0015	.0017	.0017
#2	.0026	.0028	.0017

Method: EMS Sample Name: ICV01-19 Operator: AAS
Run Time: 05/18/98 23:36:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	-.0008	-.0090	.9910	.0017	.0010	.9815	.0650
SDev	.0022	.0228	.0139	.0013	.0006	.0090	.0029
%RSD	264.0	252.9	1.405	73.17	56.57	.9163	4.538
#1	-.0023	-.0252	1.001	.0008	.0006	.9879	.0671
#2	.0007	.0071	.9812	.0026	.0014	.9752	.0629

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	1.033	1.028	1.026	1.017	1.020	1.015	.0237
SDev	.008	.004	.004	.003	.007	.007	.0335
%RSD	.7816	.3919	.3747	.3417	.7135	.7251	141.4
#1	1.038	1.031	1.028	1.020	1.025	1.020	-.0000
#2	1.027	1.025	1.023	1.015	1.015	1.010	.0474

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	1.011	1.001	1.015	1.016	.0326	1.012	1.016
SDev	.007	.008	.006	.000	.0115	.002	.016
%RSD	.6684	.8363	.5939	.0006	35.36	.1518	1.570
#1	1.016	.9955	1.019	1.016	.0245	1.011	1.027
#2	1.006	1.007	1.011	1.016	.0408	1.013	1.005

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	1.043	.9767	-.0190	.0035	1.019	1.022	H1.083
SDev	.005	.0290	.0010	.0010	.006	.007	.040
%RSD	.5085	2.970	5.208	27.28	.5614	.7085	3.653
#1	1.047	.9562	-.0197	.0028	1.023	1.027	H1.111
#2	1.039	.9972	-.0183	.0042	1.015	1.017	H1.055

Elem	V_2924	Zn2138	Zr3391
Avge	1.018	1.023	1.002
SDev	.003	.008	.008
%RSD	.3329	.7676	.7534
#1	1.020	1.028	1.007
#2	1.015	1.017	.9965

Method: EMS Sample Name: ICV01-07 Operator: AAS
Run Time: 05/18/98 23:39:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	H.5404	.9939	.0200	1.006	1.003	.0000	L3.693
SDev	.0011	.0064	.0039	.004	.003	.0000	.049
%RSD	.1985	.6398	19.66	.4405	.2903	55.36	1.321
#1	H.5412	.9984	.0228	1.010	1.005	.0000	L3.727
#2	H.5396	.9894	.0172	1.003	1.001	.0000	L3.658

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0014	.0013	.0007	.0033	.0042	.0026	10.00
SDev	.0030	.0036	.0030	.0017	.0011	.0006	.06
%RSD	212.1	276.0	426.1	53.01	27.38	23.52	.6137
#1	.0036	.0039	.0028	.0045	.0050	.0030	9.961
#2	-.0007	-.0012	-.0014	.0021	.0034	.0022	10.05

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0002	-.0237	.0004	.0174	1.017	-.0014	.0021
SDev	.0001	.0167	.0000	.0069	.026	.0067	.0235
%RSD	47.09	70.20	.3519	40.07	2.551	472.1	1093.
#1	.0003	-.0120	.0004	.0223	1.035	.0033	.0187
#2	.0002	-.0355	.0004	.0124	.9986	-.0061	-.0145

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0126	.0413	5.230	2.066	.0003	.0011	-.0354
SDev	.0089	.0073	.032	.011	.0002	.0005	.1059
%RSD	70.78	17.70	.6174	.5492	60.26	47.15	299.5
#1	-.0063	.0465	5.253	2.074	.0004	.0014	.0395
#2	-.0189	.0361	5.207	2.058	.0002	.0007	-.1103

Elem	V_2924	Zn2138	Zr3391
Avge	.0000	.0028	-.0003
SDev	.0021	.0000	.0009
%RSD	4259.	.9936	283.9
#1	.0015	.0028	.0003
#2	-.0014	.0028	-.0010

Method: EMS Sample Name: ICV01-31 Operator: AAS

Run Time: 05/18/98 23:41:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	-.0000	.0052	.0062	.0040	.0006	.0000	.0104
SDev	.0027	.0013	.0147	.0013	.0000	.0000	.0216
%RSD	46300.	24.14	238.3	31.58	.0000	35.97	207.6
#1	-.0019	.0060	.0166	.0031	.0006	.0000	.0257
#2	.0019	.0043	-.0042	.0049	.0006	.0000	-.0049

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	19.74	-.0006	-.0003	.0025	.0027	.0017	19.76
SDev	.04	.0018	.0030	.0006	.0008	.0006	.07
%RSD	.1981	284.1	984.7	23.59	28.11	35.42	.3390
#1	19.76	.0006	.0018	.0020	.0022	.0013	19.80
#2	19.71	-.0019	-.0024	.0029	.0032	.0022	19.71

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0011	19.51	-.0004	.0061	19.89	-.0011	-.0041
SDev	.0003	.08	.0000	.0016	.08	.0010	.0019
%RSD	32.63	.3855	.3482	26.97	.3912	95.71	46.66
#1	-.0013	19.56	-.0004	.0072	19.95	-.0003	-.0028
#2	-.0008	19.46	-.0004	.0049	19.84	-.0018	-.0055

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0105	.0206	.0139	.0025	.0024	.0009	-.0008
SDev	.0000	.0073	.0071	.0146	.0002	.0003	.0059
%RSD	.2681	35.28	50.75	583.2	7.858	28.34	705.6
#1	-.0105	.0258	.0189	.0129	.0026	.0011	.0033
#2	-.0105	.0155	.0089	-.0078	.0023	.0007	-.0050

Elem	V_2924	Zn2138	Zr3391
Avge	-.0005	.0011	.0003
SDev	.0013	.0008	.0000
%RSD	246.2	70.92	.0542
#1	.0004	.0006	.0003
#2	-.0014	.0017	.0003

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/18/98 23:44:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0000	-.0263	.0032	.0005	-.0002	-.0003	.0178
SDev	.0005	.0202	.0080	.0000	.0000	.0005	.0088
%RSD	23800.	76.81	251.2	1.148	.0000	142.2	49.45
#1	-.0004	-.0120	-.0025	.0005	-.0002	.0000	.0116
#2	.0004	-.0406	.0089	.0004	-.0002	-.0007	.0240

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Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0052	-.0013	-.0018	.0008	-.0022	-.0000	-.0355
SDev	.0018	.0018	.0026	.0006	.0000	.0006	.1284
%RSD	34.14	141.8	141.3	70.75	.1793	30150.	361.4
#1	.0039	-.0025	-.0036	.0012	-.0022	.0004	.0552
#2	.0064	.0000	-.0000	.0004	-.0022	-.0004	-.1263

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0015	-.0296	-.0004	.0038	.0224	-.0007	-.0042
SDev	.0007	.0084	.0012	.0000	.0029	.0015	.0099
%RSD	47.12	28.27	282.4	.0218	12.86	214.3	237.2
#1	-.0019	-.0355	-.0013	.0038	.0204	-.0018	-.0111
#2	-.0010	-.0237	.0004	.0038	.0245	.0004	.0028

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0063	.0154	.0067	-.0018	.0001	.0007	-.0224
SDev	.0178	.0436	.0015	.0132	.0000	.0005	.0225
%RSD	282.6	282.5	23.19	721.3	.0000	70.70	100.1
#1	-.0189	-.0154	.0056	-.0112	.0001	.0004	-.0066
#2	.0063	.0463	.0078	.0075	.0001	.0011	-.0383

Elem	V_2924	Zn2138	Zr3391
Avge	-.0005	.0011	-.0010
SDev	.0008	.0008	.0000
%RSD	143.7	69.84	.0181
#1	-.0011	.0006	-.0010
#2	.0000	.0017	-.0010

Method: EMS Sample Name: DLS Operator: AAS
Run Time: 05/18/98 23:46:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0106	.0495	-.0003	-.0000	.0113	.0053	.0006
SDev	.0005	.0078	.0131	.0006	.0000	.0000	.0044
%RSD	4.971	15.78	4865.	2503.	.0000	.0165	737.8
#1	.0110	.0440	-.0095	-.0005	.0113	.0053	.0037
#2	.0102	.0550	.0090	.0004	.0113	.0053	-.0025

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0121	.0061	.0112	.0127	.0244	.0268	-.0118
SDev	.0040	.0031	.0004	.0012	.0000	.0006	.0726
%RSD	33.28	51.56	3.808	9.126	.0031	2.286	612.8
#1	.0093	.0039	.0109	.0119	.0244	.0264	-.0631
#2	.0150	H.0083	.0115	.0135	.0244	.0273	.0395

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0013	.0236	.0111	.0014	.0245	.0127	.0359
SDev	.0009	.0000	.0006	.0008	.0000	.0000	.0079

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%RSD	70.81	.0070	5.438	57.61	.0000	.0128	22.08
#1	.0006	.0236	.0107	.0020	.0245	.0127	.0303
#2	.0019	.0236	.0115	.0008	.0245	.0127	.0415

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0264	.0054	.0080	.0050	.0004	.0004	.0383
SDev	.0036	.0145	.0032	.0021	.0000	.0010	.0316
%RSD	13.55	268.4	39.78	42.38	.0000	281.1	82.52
#1	.0289	.0157	.0102	.0035	.0004	-.0004	.0159
#2	.0238	-.0049	.0057	.0065	.0004	.0011	.0606

Elem	V_2924	Zn2138	Zr3391
Avge	.0111	.0221	.0000
SDev	.0010	.0008	.0005
%RSD	9.404	3.548	11900.
#1	.0103	.0216	-.0003
#2	.0118	.0227	.0003

Method: EMS Sample Name: CDL01 Operator: AAS
Run Time: 05/18/98 23:49:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0233	-.0188	.0198	.0002	.0002	.0099	.0088
SDev	.0016	.0189	.0183	.0013	.0006	.0000	.0171
%RSD	6.798	100.3	92.40	533.3	282.8	.0266	194.1
#1	.0221	-.0055	.0327	-.0007	-.0002	.0099	.0209
#2	.0244	-.0322	.0069	.0011	.0006	.0099	-.0033

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	-.0095	.0102	.1006	.0200	.0519	.0010	-.0947
SDev	.0043	.0005	.0000	.0012	.0011	.0006	.1116
%RSD	45.36	4.512	.0012	5.789	2.214	63.25	117.9
#1	-.0125	.0105	.1006	.0192	.0510	.0005	-.1736
#2	-.0064	.0098	.1006	.0209	.0527	.0014	-.0158

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0048	-.1655	.0290	.0023	.0183	.0778	.1003
SDev	.0008	.0167	.0006	.0004	.0086	.0021	.0039
%RSD	16.76	10.10	2.076	17.89	47.14	2.629	3.840
#1	-.0054	-.1774	.0286	.0020	.0122	.0793	.1031
#2	-.0042	-.1537	.0295	.0026	.0245	.0764	.0976

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.1165	.0206	.0131	-.0003	.0004	.0011	.0965
SDev	.0018	.0218	.0071	.0078	.0000	.0010	.0034
%RSD	1.552	106.0	54.12	2339.	.0711	92.85	3.509
#1	.1178	.0052	.0081	.0052	.0004	.0004	.0941

#2	.1152	.0360	.0180	-.0058	.0004	.0018	.0989

Elem	V_2924	Zn2138	Zr3391
Avge	.0990	.0402	.0007
SDev	.0008	.0000	.0014
%RSD	.7800	.0164	210.2
#1	.0995	.0402	-.0003
#2	.0985	.0402	.0017

Method: EMS Sample Name: HMCS Operator: AAS
Run Time: 05/18/98 23:51:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	2.023	10.08	10.10	10.15	10.10	10.08	10.000
SDev	.005	.03	.02	.01	.04	.01	.0506
%RSD	.2629	.2500	.1902	.1432	.3603	.1314	.5057
#1	2.026	10.10	10.12	10.16	10.13	10.07	10.04
#2	2.019	10.07	10.09	10.14	10.07	10.09	9.964

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0885	10.01	10.01	10.05	10.08	10.02	-.0868
SDev	.0020	.01	.02	.01	.03	.02	.0670
%RSD	2.281	.0856	.2439	.1211	.2700	.1597	77.14
#1	.0870	10.02	10.02	10.05	10.10	10.03	-.1342
#2	.0899	10.01	9.989	10.04	10.06	10.01	-.0395

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	10.12	.0082	10.04	-.0194	.0326	10.04	10.00
SDev	.03	.0251	.02	.0008	.0115	.01	.00
%RSD	.3216	306.7	.2463	4.337	35.36	.1172	.0150
#1	10.14	-.0096	10.06	-.0200	.0245	10.05	10.00
#2	10.09	.0259	10.02	-.0188	.0408	10.03	10.00

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0315	10.02	.1495	.0109	10.10	-.0044	10.02
SDev	.0036	.00	.0234	.0007	.04	.0010	.06
%RSD	11.53	.0016	15.65	6.482	.3775	22.44	.6286
#1	-.0341	10.02	.1330	.0114	10.13	-.0051	10.07
#2	-.0289	10.02	.1661	.0104	10.07	-.0037	9.978

Elem	V_2924	Zn2138	Zr3391
Avge	10.07	10.08	10.09
SDev	.01	.02	.01
%RSD	.1114	.2408	.1263
#1	10.08	10.09	10.10
#2	10.06	10.06	10.08

Method: EMS Sample Name: ICS-A Operator: AAS
Run Time: 05/18/98 23:53:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0030	519.4	H.2256	.0206	.0089	.0037	.0418
SDev	.0005	4.0	.0312	.0032	.0006	.0014	.0131
%RSD	17.43	.7636	13.84	15.38	6.578	38.66	31.42
#1	.0034	522.2	H.2477	.0229	.0093	.0047	H.0511
#2	.0027	516.6	H.2035	.0184	.0084	.0027	.0325

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	481.5	.0028	.0027	.0045	.0035	185.0	-.0355
SDev	3.1	.0011	.0004	.0012	.0001	1.4	.0614
%RSD	.6492	37.71	15.81	25.74	3.738	.7310	172.8
#1	483.7	.0036	.0024	.0053	.0034	185.9	.0079
#2	479.3	.0021	.0030	.0037	.0036	184.0	-.0789

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0003	499.9	.0098	.0006	-.0367	-.0058	.0263
SDev	.0007	2.9	.0012	.0033	.0115	.0015	.0208
%RSD	213.0	.5831	12.30	574.3	31.43	26.63	78.95
#1	.0008	501.9	.0107	.0029	-.0285	-.0047	.0410
#2	-.0002	497.8	.0089	-.0018	-.0448	-.0069	.0116

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0297	.0063	.0256	-.0151	.0152	.0016	L-.3596
SDev	.0123	.0573	.0000	.0052	.0008	.0008	.1302
%RSD	41.23	901.9	.0029	34.79	5.006	47.17	36.21
#1	H.0384	.0468	.0256	-.0114	.0158	.0021	-.2675
#2	.0211	-.0341	.0256	-.0188	.0147	.0011	L-.4516

Elem	V_2924	Zn2138	Zr3391
Avge	.0108	H.0201	.0090
SDev	.0011	.0007	.0019
%RSD	10.12	3.440	20.95
#1	.0116	H.0206	.0103
#2	.0100	.0196	.0077

Method: EMS Sample Name: ICS Operator: AAS
Run Time: 05/18/98 23:56:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.2079	511.7	H.2040	.0138	.4816	.4739	H.0791
SDev	.0016	.5	.0559	.0025	.0000	.0005	.0132
%RSD	.7682	.0899	27.38	18.37	.0000	.0997	16.64
#1	.2090	512.0	H.2435	.0156	.4816	.4743	H.0884
#2	.2068	511.4	.1645	.0120	.4816	.4736	H.0698

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	475.1	.9014	.4537	.4593	.4909	183.4	-.0947
SDev	.8	.0032	.0021	.0000	.0000	.0	.0335
%RSD	.1620	.3552	.4714	.0001	.0026	.0266	35.36
#1	475.6	.9037	.4552	.4593	.4909	183.4	-.1184
#2	474.5	.8991	.4521	.4593	.4908	183.3	-.0710

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0037	489.1	.4668	-.0064	-.0020	.8911	.9757
SDev	.0005	.5	.0000	.0029	.0144	.0072	.0112
%RSD	12.51	.0974	.0002	44.59	707.1	.8033	1.150
#1	-.0033	489.4	.4668	-.0084	.0082	.8962	.9837
#2	-.0040	488.8	.4668	-.0044	-.0122	.8861	.9678

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.6036	.0207	.0366	-.0085	H.0212	.0011	L-.3485
SDev	.0035	.0140	.0015	.0068	.0000	.0005	.1230
%RSD	.5863	67.73	4.235	80.43	.0000	44.20	35.29
#1	.6011	.0108	.0377	-.0037	H.0212	.0015	L-.2615
#2	.6061	.0307	.0355	-.0133	H.0212	.0008	L-.4355

Elem	V_2924	Zn2138	Zr3391
Avge	.4802	.9778	.0065
SDev	.0010	.0008	.0009
%RSD	.2153	.0771	14.56
#1	.4809	.9784	.0071
#2	.4794	.9773	.0058

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/18/98 23:58:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	1.016	5.089	4.801	5.037	4.995	4.965	4.929
SDev	.007	.058	.070	.052	.037	.035	.047
%RSD	.7302	1.139	1.458	1.031	.7461	.6960	.9524
#1	1.021	5.130	4.850	5.073	5.022	4.990	4.896
#2	1.011	5.048	4.751	5.000	4.969	4.941	4.962

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	49.35	4.891	4.905	4.944	4.996	4.978	50.52
SDev	.40	.042	.042	.034	.036	.053	.34
%RSD	.8132	.8566	.8540	.6914	.7141	1.058	.6739
#1	49.63	4.921	4.934	4.968	5.021	5.016	50.76
#2	49.07	4.862	4.875	4.920	4.971	4.941	50.28

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	5.065	49.66	4.930	.9776	50.08	4.916	4.928

SDev	.037	.33	.035	.0008	.55	.041	.038
%RSD	.7395	.6561	.7094	.0778	1.093	.8329	.7670
#1	5.091	49.90	4.955	.9781	50.47	4.945	4.955
#2	5.038	49.43	4.905	.9770	49.70	4.887	4.901

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	1.010	4.918	5.079	4.615	5.001	5.059	L4.076
SDev	.005	.007	.036	.045	.035	.042	.048
%RSD	.5104	.1371	.7090	.9754	.6975	.8292	1.175
#1	1.013	4.913	5.104	4.647	5.026	5.089	L4.109
#2	1.006	4.922	5.053	4.583	4.977	5.030	L4.042

Elem	V_2924	Zn2138	Zr3391
Avge	4.988	4.978	5.020
SDev	.038	.028	.048
%RSD	.7523	.5638	.9586
#1	5.014	4.998	5.054
#2	4.961	4.958	4.986

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/19/98 00:01:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0008	.0195	.0252	.0081	.0027	.0020	-.0044
SDev	.0005	.0501	.0085	.0006	.0006	.0009	.0179
%RSD	69.75	257.2	33.71	7.924	21.76	47.24	406.8
#1	.0004	-.0160	.0313	.0076	.0023	.0013	-.0170
#2	.0011	H.0549	.0192	.0085	.0031	.0027	.0082

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0722	.0038	.0012	.0041	.0043	.0203	.0158
SDev	.0457	.0009	.0026	.0006	.0008	.0147	.0447
%RSD	63.20	23.94	213.5	14.16	17.61	72.21	282.8
#1	.0400	.0032	.0030	.0037	.0038	.0099	.0474
#2	.1045	.0045	-.0006	.0045	.0049	H.0307	-.0158

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0023	.0708	.0021	H.0150	.0143	-.0007	.0028
SDev	.0014	.0501	.0012	.0004	.0144	.0026	.0002
%RSD	60.61	70.81	56.49	2.726	101.0	369.2	5.522
#1	.0013	.0354	.0013	H.0153	.0041	-.0025	.0029
#2	.0032	.1062	.0030	H.0147	.0245	.0011	.0027

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0227	.0722	.0044	.0035	.0022	.0030	.0024
SDev	.0089	.0217	.0079	.0043	.0013	.0013	.0846
%RSD	39.18	29.98	177.8	121.0	61.90	41.52	3489.

#1	-.0290	.0876	.0100	.0065	.0012	.0021	-.0574
#2	-.0164	.0569	-.0011	.0005	.0031	.0039	.0623

Elem	V_2924	Zn2138	Zr3391
Avge	.0024	.0022	.0027
SDev	.0013	.0023	.0005
%RSD	53.21	105.7	17.66
#1	.0033	.0006	.0030
#2	.0015	.0039	.0023

Method: EMS Sample Name: Q834623 BLA02 Operator: AAS
Run Time: 05/19/98 00:03:50
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0007	.0068	.0064	.0054	.0012	.0003	-.0009
SDev	.0037	.0227	.0222	.0019	.0009	.0005	.0044
%RSD	499.2	332.8	345.2	35.40	70.71	141.2	488.7
#1	-.0019	-.0092	-.0093	.0040	.0006	.0007	.0022
#2	.0034	.0229	.0221	.0067	.0019	.0000	-.0040

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0280	.0006	-.0003	.0041	.0054	.0125	-.0118
SDev	.0154	.0009	.0013	.0006	.0000	.0061	.0056
%RSD	54.95	141.3	418.7	14.11	.0041	48.75	47.14
#1	.0171	.0013	.0006	.0037	.0054	.0082	-.0158
#2	.0389	.0000	-.0012	.0045	.0054	.0168	-.0079

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0010	-.0237	.0004	.0038	.0245	.0000	.0070
SDev	.0005	.0167	.0000	.0008	.0058	.0026	.0021
%RSD	47.12	70.51	.1569	21.78	23.57	38790.	29.67
#1	-.0013	-.0355	.0004	.0032	.0204	.0018	.0055
#2	-.0006	-.0119	.0004	.0043	.0285	-.0018	.0085

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0101	.0156	.0434	.0005	.0007	.0018	.1186
SDev	.0053	.0146	.0047	.0057	.0004	.0000	.0010
%RSD	52.64	93.83	10.90	1133.	56.56	.0006	.8655
#1	-.0064	.0052	.0401	.0045	.0004	.0018	.1193
#2	-.0139	.0259	.0468	-.0035	.0009	.0018	.1179

Elem	V_2924	Zn2138	Zr3391
Avge	.0009	.0061	.0017
SDev	.0029	.0000	.0009
%RSD	302.6	.1574	56.54
#1	-.0011	.0061	.0010
#2	.0030	.0061	.0023

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Method: EMS Sample Name: Q834622 LCS Operator: AAS
Run Time: 05/19/98 00:06:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	L.3815	19.53	18.54	.9174	19.28	.4820	1.023
SDev	.0033	.01	.03	.0007	.03	.0019	.028
%RSD	.8563	.0508	.1860	.0719	.1465	.3914	2.768
#1	L.3792	19.52	18.51	.9179	19.26	.4806	1.043
#2	L.3838	19.54	18.56	.9170	19.30	.4833	1.003

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	94.68	.4723	4.710	1.878	2.403	8.661	97.13
SDev	.30	.0001	.012	.005	.006	.011	.17
%RSD	.3176	.0146	.2543	.2775	.2399	.1269	.1724
#1	94.46	.4723	4.701	1.875	2.399	8.653	97.02
#2	94.89	.4724	4.718	1.882	2.407	8.668	97.25

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	1.002	94.68	4.723	.9541	107.3	4.746	4.760
SDev	.003	.10	.001	.0135	.2	.012	.035
%RSD	.3199	.1058	.0256	1.414	.2069	.2594	.7378
#1	1.000	94.61	4.722	.9445	107.4	4.737	4.735
#2	1.005	94.75	4.723	.9636	107.1	4.754	4.785

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	5.060	18.96	10.35	L.0021	.9702	.9827	16.74
SDev	.007	.07	.01	.0009	.0011	.0043	.11
%RSD	.1391	.3461	.0605	44.63	.1165	.4324	.6622
#1	5.065	18.91	10.34	L.0028	.9694	.9797	16.66
#2	5.055	19.00	10.35	L.0014	.9710	.9857	16.81

Elem	V_2924	Zn2138	Zr3391
Avge	4.790	4.803	.9801
SDev	.013	.008	.0028
%RSD	.2719	.1623	.2889
#1	4.781	4.797	.9781
#2	4.799	4.808	.9821

Method: EMS Sample Name: A441373 1:5 Operator: AAS
Run Time: 05/19/98 00:08:46 SD
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	-.0011	-.0208	.0597	.0238	.0791	.0000	.0105
SDev	.0021	.0001	.0075	.0013	.0009	.0000	.0047
%RSD	187.5	.7037	12.62	5.318	1.105	129.4	45.08

#1	-.0026	-.0209	.0651	.0247	.0797	.0000	.0138
#2	.0004	-.0207	.0544	.0229	.0784	.0000	.0072

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	13.12	-.0009	.0009	.0004	.0027	.1305	.3078
SDev	.02	.0023	.0021	.0012	.0008	.0006	.0781
%RSD	.1884	252.2	240.3	283.6	28.04	.4698	25.38
#1	13.11	.0007	.0024	.0012	.0033	.1309	.3631
#2	13.14	-.0025	-.0006	-.0004	.0022	.1300	.2526

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0006	5.325	.0051	.0194	8.435	-.0018	.0155
SDev	.0009	.008	.0006	.0065	.061	.0031	.0098
%RSD	141.3	.1562	11.80	33.76	.7175	174.3	62.96
#1	-.0000	5.331	.0055	.0240	8.392	.0004	.0224
#2	-.0013	5.319	.0047	.0148	8.478	-.0040	.0086

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0002	.1145	1.608	.0028	.2462	.0012	.0412
SDev	.0053	.0800	.012	.0024	.0006	.0003	.0462
%RSD	2151.	69.89	.7316	82.72	.2326	19.95	112.1
#1	-.0035	.1711	1.599	.0012	.2458	.0011	.0739
#2	.0040	.0579	1.616	.0045	.2466	.0014	.0086

Elem	V_2924	Zn2138	Zr3391
Avge	.0002	.0033	.0000
SDev	.0024	.0008	.0005
%RSD	1038.	24.00	369600.
#1	.0019	.0028	.0003
#2	-.0014	.0039	-.0003

Method: EMS Sample Name: A441373 Operator: AAS
Run Time: 05/19/98 00:11:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0008	L-.0560	.0426	.1103	.3669	-.0003	.0019
SDev	.0016	.0012	.0040	.0006	.0009	.0005	.0000
%RSD	212.2	2.201	9.341	.5789	.2381	141.4	.2986
#1	.0019	L-.0551	.0398	.1108	.3675	-.0000	.0019
#2	-.0004	L-.0569	.0454	.1099	.3663	-.0007	.0019

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	63.62	-.0007	.0014	.0020	.0045	.6186	1.634
SDev	.22	.0005	.0021	.0000	.0000	.0018	.045
%RSD	.3445	61.07	148.7	.0076	.0659	.2967	2.733
#1	63.78	-.0004	-.0001	.0020	.0045	.6199	1.665
#2	63.47	-.0011	.0030	.0020	.0045	.6173	1.602

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0053	26.25	.0222	.0087	41.45	-.0022	.0100
SDev	.0007	.11	.0006	.0021	.10	.0005	.0099
%RSD	12.86	.4139	2.715	23.53	.2294	23.98	99.18
#1	.0058	26.32	.0226	.0101	41.52	-.0018	.0169
#2	.0049	26.17	.0217	.0072	41.39	-.0025	.0030

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0023	.0164	7.862	-.0004	1.211	.0000	-.1033
SDev	.0000	.0218	.026	.0017	.004	.0000	.0014
%RSD	.4479	132.9	.3304	402.0	.3622	7.822	1.340
#1	.0023	.0319	7.881	-.0016	1.214	.0000	-.1023
#2	.0023	.0010	7.844	.0008	1.208	.0000	-.1043

Elem	V_2924	Zn2138	Zr3391
Avge	.0000	.0016	-.0007
SDev	.0000	.0000	.0005
%RSD	8.322	.1408	70.78
#1	.0001	.0016	-.0010
#2	.0000	.0016	-.0003

Method: EMS Sample Name: Q834624 SPI02 Operator: AAS
Run Time: 05/19/98 00:13:43
Comment:
Mode: CONC Corr. Factor: 1

A441373

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0407	1.941	1.965	1.053	2.355	.0496	.9353
SDev	.0011	.011	.016	.006	.009	.0000	.0033
%RSD	2.635	.5896	.8351	.6013	.3710	.0036	.3492
#1	.0415	1.933	1.976	1.049	2.348	.0496	.9376
#2	.0399	1.949	1.953	1.058	2.361	.0496	.9329

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	160.5	.0476	.4844	.1948	.2539	1.506	103.6
SDev	.7	.0014	.0039	.0029	.0027	.008	.3
%RSD	.4358	2.884	.7947	1.488	1.059	.5275	.3018
#1	160.0	.0467	.4817	.1927	.2520	1.501	103.3
#2	161.0	.0486	.4871	.1968	.2558	1.512	103.8

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	1.055	125.0	.5052	.9976	143.5	.4779	.5017
SDev	.002	.6	.0012	.0086	.5	.0041	.0002
%RSD	.1954	.4946	.2390	.8606	.3656	.8603	.0364
#1	1.054	124.6	.5044	.9916	143.1	.4750	.5019
#2	1.057	125.5	.5061	1.004	143.8	.4808	.5016

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0448	1.933	18.34	.0058	2.212	1.010	2.525
SDev	.0036	.051	.06	.0170	.007	.002	.003

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%RSD	7.994	2.640	.3434	293.7	.3188	.1733	.1030
#1	.0423	1.896	18.29	-.0062	2.207	1.009	2.523
#2	.0473	1.969	18.38	.0178	2.217	1.012	2.526

Elem	V_2924	Zn2138	Zr3391
Avge	.4939	.4992	.9919
SDev	.0016	.0031	.0033
%RSD	.3214	.6253	.3329
#1	.4928	.4970	.9896
#2	.4951	.5014	.9942

Method: EMS Sample Name: Q834625 DPS02 Operator: AAS
Run Time: 05/19/98 00:16:11
Comment:
Mode: CONC Corr. Factor: 1

A441373

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0404	1.937	1.950	1.052	2.354	.0496	.9247
SDev	.0016	.008	.014	.009	.010	.0000	.0005
%RSD	3.892	.3981	.7120	.8446	.4205	.0214	.0501
#1	.0415	1.943	1.959	1.058	2.361	.0496	.9250
#2	.0393	1.932	1.940	1.045	2.347	.0496	.9243

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	160.8	.0480	.4807	.1952	.2506	1.506	103.7
SDev	.6	.0009	.0013	.0023	.0011	.006	.8
%RSD	.4038	1.890	.2698	1.188	.4581	.3658	.8022
#1	161.3	.0474	.4798	.1968	.2514	1.510	104.2
#2	160.3	.0486	.4817	.1936	.2498	1.502	103.1

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	1.054	125.0	.5052	1.007	143.1	.4848	.5028
SDev	.005	.7	.0024	.000	.7	.0026	.0098
%RSD	.5216	.5484	.4770	.0402	.4735	.5277	1.948
#1	1.058	125.5	.5069	1.008	143.5	.4830	.4959
#2	1.050	124.5	.5035	1.007	142.6	.4866	.5097

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0524	1.979	18.38	.0142	2.212	1.007	2.551
SDev	.0036	.000	.09	.0061	.010	.006	.006
%RSD	6.821	.0029	.4830	43.27	.4567	.5701	.2468
#1	.0499	1.979	18.44	.0185	2.219	1.011	2.555
#2	.0549	1.979	18.31	.0098	2.205	1.003	2.546

Elem	V_2924	Zn2138	Zr3391
Avge	.4967	.4947	.9866
SDev	.0003	.0032	.0043
%RSD	.0543	.6366	.4303
#1	.4969	.4969	.9896

#2	.4965	.4925	.9836

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/19/98 00:18:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	1.023	5.052	4.910	5.089	5.046	5.010	4.842
SDev	.001	.011	.060	.005	.009	.000	.014
%RSD	.1116	.2152	1.225	.0995	.1731	.0005	.2793
#1	1.022	5.044	4.867	5.092	5.040	5.010	4.832
#2	1.023	5.060	4.952	5.085	5.052	5.010	4.852

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	49.51	4.899	4.925	4.967	5.049	4.949	51.01
SDev	.08	.002	.006	.001	.001	.003	.16
%RSD	.1554	.0452	.1214	.0117	.0150	.0617	.3173
#1	49.57	4.900	4.929	4.968	5.048	4.947	50.90
#2	49.46	4.897	4.920	4.967	5.049	4.952	51.13

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	5.123	49.93	4.952	1.002	50.41	4.924	4.928
SDev	.004	.03	.001	.009	.01	.004	.004
%RSD	.0850	.0669	.0121	.8573	.0229	.0835	.0842
#1	5.120	49.91	4.952	.9960	50.42	4.921	4.931
#2	5.126	49.95	4.953	1.008	50.41	4.927	4.925

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	1.003	4.953	5.158	4.816	5.044	5.115	4.523
SDev	.003	.044	.012	.037	.008	.012	.029
%RSD	.3482	.8821	.2355	.7609	.1663	.2391	.6514
#1	1.006	4.923	5.166	4.790	5.038	5.123	4.544
#2	1.001	4.984	5.149	4.842	5.050	5.106	4.502

Elem	V_2924	Zn2138	Zr3391
Avge	5.028	4.989	5.075
SDev	.001	.003	.011
%RSD	.0262	.0626	.2230
#1	5.027	4.987	5.083
#2	5.029	4.991	5.067

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/19/98 00:21:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0026	-.0155	.0192	.0090	.0019	.0013	.0011
SDev	.0011	.0110	.0099	.0006	.0006	.0000	.0086

%RSD	40.41	70.90	51.78	7.021	31.43	.0707	812.4
#1	.0034	-.0078	.0262	.0085	.0014	.0013	.0072
#2	.0019	-.0233	.0122	.0094	.0023	.0013	-.0050

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0209	.0019	.0003	.0029	.0024	.0022	.0276
SDev	.0003	.0018	.0021	.0012	.0004	.0012	.0167
%RSD	1.209	94.75	721.4	40.42	15.87	56.42	60.61
#1	.0210	.0006	-.0012	.0020	.0022	.0013	.0158
#2	.0207	.0032	.0018	.0037	.0027	.0030	.0395

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0004	-.0119	.0013	H.0200	.0387	-.0003	-.0112
SDev	.0010	.0167	.0000	.0025	.0202	.0061	.0003
%RSD	255.0	139.9	.0822	12.31	52.10	1912.	2.421
#1	.0011	-.0001	.0013	H.0217	.0245	-.0047	-.0110
#2	-.0003	-.0238	.0013	H.0182	.0530	.0040	-.0114

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0050	.0618	.0200	.0044	.0011	.0032	-.0424
SDev	.0018	.0218	.0016	.0035	.0002	.0005	.0056
%RSD	34.98	35.29	8.001	81.17	17.67	15.70	13.14
#1	.0038	.0772	.0189	.0019	.0009	.0035	-.0464
#2	.0063	.0464	.0211	.0069	.0012	.0028	-.0385

Elem	V_2924	Zn2138	Zr3391
Avge	.0015	.0022	.0007
SDev	.0000	.0008	.0005
%RSD	.0832	34.28	70.67
#1	.0015	.0017	.0003
#2	.0015	.0028	.0010

Method: EMS Sample Name: A441374 Operator: AAS
Run Time: 05/19/98 00:23:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0023	-.0318	.0251	.3207	.1707	.0000	-.0201
SDev	.0005	.0104	.0271	.0013	.0006	.0000	.0132
%RSD	23.53	32.80	107.9	.3956	.3412	14.94	65.36
#1	.0019	-.0392	.0443	.3216	.1711	.0000	-.0294
#2	.0026	-.0244	.0060	.3198	.1703	.0000	-.0108

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	39.67	.0016	-.0006	.0033	.0034	.7339	2.466
SDev	.00	.0000	.0000	.0006	.0000	.0000	.117
%RSD	.0025	.4165	.0682	17.72	.0035	.0000	4.752
#1	39.67	.0015	-.0006	.0037	.0034	.7339	2.549

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#2	39.67	.0016	-.0006	.0029	.0034	.7339	2.384

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0207	17.23	.0320	.0498	65.32	-.0028	.0030
SDev	.0000	.00	.0000	.0012	.19	.0015	.0040
%RSD	.0002	.0000	.0001	2.464	.2912	54.92	135.2
#1	.0207	17.23	.0320	.0506	65.46	-.0039	.0058
#2	.0207	17.23	.0320	.0489	65.19	-.0017	.0001

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0044	.0229	6.486	.0055	1.271	.0011	-.0286
SDev	.0143	.0000	.005	.0047	.003	.0000	.0653
%RSD	320.7	.0255	.0848	86.37	.2251	.0297	228.6
#1	-.0056	.0229	6.482	.0088	1.273	.0011	.0176
#2	.0145	.0229	6.489	.0021	1.269	.0011	-.0748

Elem	V_2924	Zn2138	Zr3391
Avge	.0003	.0050	-.0003
SDev	.0003	.0000	.0000
%RSD	82.46	.1220	.0545
#1	.0005	.0050	-.0003
#2	.0001	.0050	-.0003

Method: EMS Sample Name: A441375 Operator: AAS
Run Time: 05/19/98 00:26:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0026	-.0484	.0020	.1695	.3663	.0000	.0044
SDev	.0000	.0182	.0208	.0019	.0006	.0000	.0232
%RSD	.1501	37.57	1018.	1.123	.1590	117.6	531.4
#1	.0026	-.0355	-.0127	.1682	.3658	.0000	.0208
#2	.0026	L-.0612	.0168	.1709	.3667	.0000	-.0120

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	56.60	-.0014	-.0004	.0004	.0025	1.367	1.196
SDev	.01	.0009	.0004	.0035	.0031	.001	.017
%RSD	.0125	64.05	113.4	899.0	123.7	.0445	1.400
#1	56.60	-.0020	-.0001	.0028	.0046	1.366	1.208
#2	56.61	-.0008	-.0007	-.0021	.0003	1.367	1.184

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0033	26.70	.0920	.0541	30.79	-.0013	.0057
SDev	.0008	.02	.0006	.0024	.11	.0015	.0040
%RSD	24.15	.0627	.6550	4.523	.3650	116.0	70.38
#1	.0028	26.69	.0925	.0559	30.87	-.0002	.0029
#2	.0039	26.71	.0916	.0524	30.72	-.0024	.0086

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908

Avge	-.0028	.0138	7.917	.0019	4.164	.0002	-.0508
SDev	.0035	.0073	.011	.0021	.007	.0003	.0339
%RSD	126.2	52.76	.1400	113.2	.1603	130.7	66.80
#1	-.0003	.0189	7.925	.0034	4.159	.0000	-.0748
#2	-.0053	.0086	7.910	.0004	4.168	.0004	-.0268

Elem	V_2924	Zn2138	Zr3391
Avge	-.0009	.0005	-.0010
SDev	.0011	.0000	.0019
%RSD	112.5	2.098	188.7
#1	-.0002	.0005	.0003
#2	-.0017	.0005	-.0023

Method: EMS Sample Name: A441376 Operator: AAS
Run Time: 05/19/98 00:28:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0023	L-.0585	.0086	.0744	.1863	-.0007	.0006
SDev	.0005	.0053	.0019	.0019	.0006	.0000	.0044
%RSD	24.00	9.008	22.59	2.562	.3125	.0594	797.2
#1	.0019	L-.0547	.0100	.0731	.1859	-.0007	.0037
#2	.0026	L-.0622	.0072	.0758	.1867	-.0007	-.0026

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	73.58	-.0006	-.0003	.0016	.0396	.1908	1.168
SDev	.41	.0009	.0021	.0029	.0000	.0012	.056
%RSD	.5598	151.8	632.4	178.8	.0100	.6400	4.778
#1	73.29	-.0012	.0012	.0037	.0396	.1916	1.208
#2	73.87	.0000	-.0019	-.0004	.0396	.1899	1.129

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0076	23.04	.0643	.0075	28.47	-.0058	.0200
SDev	.0002	.05	.0000	.0004	.20	.0005	.0000
%RSD	3.008	.2177	.0015	5.499	.7085	8.862	.1271
#1	.0078	23.00	.0643	.0072	28.33	-.0054	.0200
#2	.0075	23.07	.0643	.0078	28.62	-.0061	.0200

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0141	.0071	8.553	.0038	.2869	-.0002	-.0580
SDev	.0161	.0000	.053	.0024	.0006	.0007	.0137
%RSD	113.8	.1446	.6255	61.82	.1993	429.0	23.58
#1	-.0255	.0071	8.515	.0022	.2865	.0004	-.0677
#2	-.0028	.0071	8.591	.0055	.2873	-.0007	-.0483

Elem	V_2924	Zn2138	Zr3391
Avge	.0004	.0027	-.0010
SDev	.0010	.0000	.0028
%RSD	259.0	.0717	283.1

#1	.0011	.0027	.0010
#2	-.0003	.0027	-.0030

Method: EMS Sample Name: A441377 Operator: AAS
Run Time: 05/19/98 00:30:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0019	L-.0677	.0012	.1902	.5686	.0000	.0049
SDev	.0021	.0052	.0379	.0019	.0032	.0000	.0039
%RSD	113.4	7.638	3070.	1.000	.5632	30.47	79.72
#1	.0004	L-.0714	.0280	.1915	.5664	.0000	.0021
#2	.0034	L-.0641	-.0255	.1888	.5709	.0000	.0077

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	49.59	-.0005	-.0007	.0016	.0038	1.188	1.693
SDev	.22	.0005	.0000	.0017	.0011	.003	.084
%RSD	.4344	93.73	.1761	106.3	29.98	.2571	4.945
#1	49.44	-.0002	-.0007	.0029	.0046	1.186	1.752
#2	49.74	-.0008	-.0007	.0004	.0030	1.190	1.634

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0051	24.02	.0183	.0712	30.30	-.0009	.0212
SDev	.0006	.08	.0000	.0004	.16	.0010	.0138
%RSD	11.22	.3480	.0000	.5787	.5327	109.0	65.35
#1	.0055	23.96	.0183	.0709	30.19	-.0002	.0309
#2	.0047	24.08	.0183	.0715	30.41	-.0017	.0114

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0079	.0070	7.753	.0066	7.296	.0013	-.0228
SDev	.0071	.0146	.036	.0050	.046	.0008	.0340
%RSD	90.62	209.0	.4670	75.08	.6299	59.71	149.6
#1	-.0129	-.0033	7.727	.0101	7.264	.0018	-.0468
#2	-.0028	.0173	7.778	.0031	7.329	.0007	.0013

Elem	V_2924	Zn2138	Zr3391
Avge	-.0015	.0049	-.0007
SDev	.0003	.0000	.0005
%RSD	18.17	.1069	70.68
#1	-.0013	.0049	-.0010
#2	-.0017	.0049	-.0003

Method: EMS Sample Name: A441378 Operator: AAS
Run Time: 05/19/98 00:33:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230

Avge	.0045	-.0467	.0183	.1090	.5750	.0000	.0180
SDev	.0006	.0124	.0422	.0038	.0041	.0000	.0042
%RSD	12.10	26.60	230.3	3.493	.7089	46.05	23.50
#1	.0041	-.0379	.0481	.1063	.5721	.0000	.0150
#2	.0049	L-.0555	-.0115	.1117	.5779	.0000	.0210

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	59.98	.0013	.0008	.0033	.0055	1.658	1.697
SDev	.30	.0000	.0004	.0017	.0004	.008	.011
%RSD	.4992	1.228	54.19	53.11	6.884	.4787	.6578
#1	59.76	.0013	.0011	.0045	.0058	1.653	1.689
#2	60.19	.0013	.0005	.0020	.0053	1.664	1.705

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0049	28.10	.0132	.0669	20.12	-.0002	.0183
SDev	.0000	.18	.0000	.0000	.08	.0041	.0018
%RSD	.0048	.6246	.0013	.0049	.3868	1834.	9.755
#1	.0049	27.98	.0132	.0669	20.06	.0027	.0196
#2	.0049	28.22	.0132	.0669	20.17	-.0031	.0170

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0098	.0167	8.399	-.0028	3.478	.0014	.0713
SDev	.0072	.0073	.062	.0026	.024	.0000	.0106
%RSD	73.07	43.88	.7399	92.02	.6799	.0046	14.93
#1	.0047	.0115	8.355	-.0047	3.461	.0014	.0638
#2	.0148	.0219	8.443	-.0010	3.495	.0014	.0789

Elem	V_2924	Zn2138	Zr3391
Avge	.0011	.0016	.0013
SDev	.0008	.0015	.0014
%RSD	69.18	100.2	106.0
#1	.0006	.0027	.0023
#2	.0017	.0005	.0003

Method: EMS Sample Name: A441379 Operator: AAS
Run Time: 05/19/98 00:35:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0015	L-.0640	.0283	.1108	.1272	-.0003	-.0012
SDev	.0027	.0052	.0092	.0000	.0003	.0005	.0047
%RSD	176.2	8.115	32.44	.0041	.2288	141.2	399.3
#1	.0034	L-.0603	.0218	.1108	.1270	-.0000	.0022
#2	-.0004	L-.0676	.0348	.1108	.1274	-.0007	-.0045

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	66.06	.0003	-.0003	.0016	.0045	.9320	1.464
SDev	.13	.0018	.0021	.0006	.0008	.0018	.028
%RSD	.2024	516.4	649.1	35.41	16.99	.1966	1.906

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#1	65.97	.0016	.0012	.0020	.0051	.9308	1.484
#2	66.16	-.0009	-.0018	.0012	.0040	.9333	1.444

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0087	27.78	.0132	.0229	33.20	.0019	.0112
SDev	.0000	.03	.0000	.0016	.04	.0010	.0039
%RSD	.0004	.1204	.0083	7.148	.1128	55.31	34.99
#1	.0087	27.75	.0132	.0240	33.18	.0026	.0140
#2	.0087	27.80	.0132	.0217	33.23	.0011	.0084

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0065	.0042	9.497	.0041	.9237	.0000	-.0557
SDev	.0018	.0000	.027	.0061	.0029	.0005	.0315
%RSD	27.43	.2168	.2818	150.8	.3097	8492.	56.49
#1	-.0077	.0042	9.478	.0084	.9217	.0004	-.0335
#2	-.0052	.0042	9.515	-.0003	.9257	-.0003	-.0779

Elem	V_2924	Zn2138	Zr3391
Avge	.0006	.0021	-.0003
SDev	.0008	.0008	.0009
%RSD	124.0	36.80	283.3
#1	.0012	.0016	.0003
#2	.0001	.0027	-.0010

Method: EMS Sample Name: A441380 Operator: AAS
Run Time: 05/19/98 00:38:21
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0015	-.0139	-.0219	.0152	.0006	-.0007	-.0096
SDev	.0027	.0130	.0083	.0032	.0000	.0000	.0133
%RSD	177.4	93.46	37.89	20.80	.0000	.2908	138.7
#1	.0034	-.0231	-.0278	.0175	.0006	-.0007	-.0002
#2	-.0004	-.0047	-.0160	.0130	.0006	-.0007	-.0190

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.1509	.0013	.0012	.0021	-.0008	.0082	.0474
SDev	.0030	.0000	.0000	.0012	.0004	.0000	.0447
%RSD	2.006	1.309	.0349	56.58	47.27	.0037	94.28
#1	.1530	.0013	.0012	.0029	-.0005	.0082	.0789
#2	.1488	.0013	.0012	.0012	-.0011	.0082	.0158

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0011	-.0178	-.0004	.0066	156.3	-.0022	.0071
SDev	.0003	.0084	.0000	.0008	.4	.0036	.0058
%RSD	32.62	46.96	.0057	12.28	.2249	165.9	81.06
#1	-.0013	-.0119	-.0004	.0072	156.1	-.0047	.0030
#2	-.0008	-.0237	-.0004	.0061	156.6	.0004	.0112

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0076	.0053	6.389	-.0012	.0011	.0004	-.0400
SDev	.0018	.0145	.002	.0085	.0006	.0005	.1172
%RSD	23.08	276.6	.0370	731.7	53.05	140.7	292.7
#1	-.0063	-.0050	6.390	.0049	.0015	.0007	.0428
#2	-.0088	.0155	6.387	-.0072	.0007	.0000	-.1229

Elem	V_2924	Zn2138	Zr3391
Avge	-.0007	.0011	.0000
SDev	.0010	.0008	.0014
%RSD	145.0	68.92	220800.
#1	-.0014	.0006	-.0010
#2	.0000	.0017	.0010

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/19/98 00:40:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	1.011	4.997	5.008	5.042	4.980	4.950	4.790
SDev	.001	.015	.008	.007	.007	.017	.107
%RSD	.0581	.2925	.1656	.1386	.1462	.3340	2.241
#1	1.011	4.987	5.002	5.047	4.985	4.938	4.714
#2	1.012	5.008	5.014	5.037	4.975	4.961	4.866

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	48.99	4.861	4.882	4.919	4.998	4.884	50.54
SDev	.12	.013	.005	.007	.006	.008	.22
%RSD	.2384	.2688	.1055	.1414	.1223	.1632	.4417
#1	48.90	4.851	4.878	4.914	5.003	4.878	50.69
#2	49.07	4.870	4.885	4.924	4.994	4.889	50.38

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	5.057	49.34	4.900	.9712	49.82	4.882	4.874
SDev	.008	.02	.006	.0139	.02	.010	.004
%RSD	.1563	.0341	.1230	1.431	.0347	.2103	.0910
#1	5.063	49.35	4.896	.9614	49.81	4.875	4.877
#2	5.052	49.33	4.904	.9811	49.83	4.889	4.871

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.9897	4.911	5.100	4.938	4.975	5.063	4.813
SDev	.0018	.058	.004	.002	.004	.007	.022
%RSD	.1787	1.187	.0844	.0389	.0728	.1331	.4524
#1	.9884	4.870	5.097	4.937	4.977	5.067	4.828
#2	.9909	4.953	5.104	4.939	4.972	5.058	4.797

Elem	V_2924	Zn2138	Zr3391
Avge	4.969	4.947	5.024

SDev	.005	.006	.004
%RSD	.0953	.1118	.0751
#1	4.965	4.951	5.026
#2	4.972	4.943	5.021

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/19/98 00:43:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0026	-.0210	.0403	.0090	.0021	.0013	-.0172
SDev	.0032	.0045	.0215	.0006	.0003	.0000	.0182
%RSD	120.7	21.32	53.39	7.174	14.14	.0308	105.3
#1	.0004	-.0179	.0555	.0094	.0019	.0013	-.0301
#2	.0049	-.0242	.0251	.0085	.0023	.0013	-.0044

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0230	.0003	.0012	.0045	.0033	.0035	.0039
SDev	.0013	.0022	.0043	.0012	.0015	.0006	.0837
%RSD	5.481	682.4	355.6	25.71	47.31	17.67	2121.
#1	.0221	-.0012	-.0018	.0037	.0022	.0039	-.0552
#2	.0239	.0019	.0042	.0053	.0043	.0030	.0631

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0020	.0058	.0013	H.0150	.0224	-.0007	.0029
SDev	.0010	.0251	.0000	.0053	.0259	.0015	.0078
%RSD	50.93	432.0	.1716	35.39	115.7	223.1	274.0
#1	.0013	-.0119	.0013	H.0188	.0041	.0004	.0084
#2	.0028	.0236	.0013	H.0113	.0408	-.0018	-.0027

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0038	.0772	.0322	-.0008	.0011	.0037	-.0240
SDev	.0035	.0000	.0047	.0024	.0002	.0008	.0587
%RSD	93.49	.0448	14.57	285.8	17.68	20.16	244.7
#1	-.0063	.0772	.0289	-.0025	.0009	.0032	-.0655
#2	-.0013	.0772	.0356	.0008	.0012	.0042	.0175

Elem	V_2924	Zn2138	Zr3391
Avge	.0037	.0033	.0023
SDev	.0010	.0008	.0009
%RSD	27.78	23.45	40.40
#1	.0030	.0039	.0017
#2	.0044	.0028	.0030

Method: EMS Sample Name: A441381 Operator: AAS
Run Time: 05/19/98 00:45:46
Comment:

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0015	L-.0671	.0624	.1162	.1196	.0000	.0053
SDev	.0016	.0045	.0191	.0000	.0012	.0000	.0042
%RSD	106.1	6.703	30.55	.0005	.9736	80.20	80.09
#1	.0004	L-.0639	.0759	.1162	.1204	.0000	.0083
#2	.0026	L-.0702	.0489	.1162	.1188	.0000	.0023

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	63.65	.0001	-.0015	.0016	.0050	2.196	1.294
SDev	.36	.0018	.0004	.0017	.0004	.015	.022
%RSD	.5727	1246.	27.99	106.1	7.558	.6676	1.725
#1	63.90	.0014	-.0018	.0029	.0048	2.206	1.310
#2	63.39	-.0011	-.0012	.0004	.0053	2.186	1.279

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0006	34.41	.0068	.0394	22.58	-.0025	.0156
SDev	.0001	.13	.0006	.0012	.17	.0031	.0058
%RSD	20.05	.3886	8.835	3.121	.7530	124.7	37.16
#1	-.0005	34.50	.0072	.0385	22.70	-.0003	.0197
#2	-.0007	34.31	.0064	.0403	22.46	-.0046	.0115

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0065	.0322	8.072	.0016	1.270	.0007	-.0502
SDev	.0053	.0220	.046	.0057	.007	.0005	.0094
%RSD	82.60	68.18	.5655	359.6	.5255	69.67	18.69
#1	-.0027	.0477	8.104	.0056	1.275	.0011	-.0436
#2	-.0102	.0167	8.040	-.0024	1.265	.0004	-.0568

Elem	V_2924	Zn2138	Zr3391
Avge	.0003	.0404	.0000
SDev	.0018	.0016	.0024
%RSD	544.9	3.857	460700.
#1	.0016	.0415	.0017
#2	-.0010	.0393	-.0017

Method: EMS Sample Name: A441382 Operator: AAS
Run Time: 05/19/98 00:48:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0030	L-.0504	.0150	.1166	.2044	-.0003	-.0107
SDev	.0005	.0071	.0175	.0006	.0006	.0005	.0003
%RSD	17.99	14.09	116.5	.5416	.2848	141.9	2.933
#1	.0034	-.0454	.0274	.1162	.2049	-.0007	-.0105
#2	.0026	L-.0554	.0027	.1171	.2040	.0000	-.0109

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	39.14	-.0014	-.0003	.0016	.0034	.4072	1.496

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SDev	.18	.0004	.0013	.0006	.0008	.0031	.028
%RSD	.4698	31.21	372.9	35.79	22.77	.7500	1.866
#1	39.27	-.0017	-.0013	.0012	.0039	.4094	1.515
#2	39.01	-.0011	.0006	.0020	.0028	.4051	1.476

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0045	19.90	.0780	.0874	45.01	-.0020	.0156
SDev	.0008	.09	.0000	.0021	.18	.0036	.0137
%RSD	18.00	.4620	.0007	2.343	.4034	180.7	87.83
#1	.0039	19.96	.0780	.0888	45.14	.0006	.0253
#2	.0050	19.83	.0780	.0859	44.88	-.0045	.0059

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0179	.0148	8.827	-.0046	.8484	.0006	-.0485
SDev	.0107	.0219	.029	.0054	.0036	.0003	.1136
%RSD	59.55	148.0	.3299	117.6	.4271	45.15	234.3
#1	-.0254	.0302	8.848	-.0085	.8510	.0004	-.1288
#2	-.0104	-.0007	8.807	-.0008	.8459	.0007	.0318

Elem	V_2924	Zn2138	Zr3391
Avge	.0000	.0016	.0007
SDev	.0003	.0016	.0014
%RSD	1837.	96.54	212.0
#1	-.0002	.0005	-.0003
#2	.0002	.0028	.0017

Method: EMS Sample Name: A441383 Operator: AAS
Run Time: 05/19/98 00:50:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0030	L-.0803	-.0034	.0161	.0527	.0000	.0024
SDev	.0016	.0019	.0032	.0019	.0003	.0000	.0000
%RSD	53.02	2.311	92.94	11.78	.5524	150.6	.1038
#1	.0041	L-.0816	-.0012	.0175	.0525	.0000	.0024
#2	.0019	L-.0790	-.0057	.0148	.0529	-.0000	.0024

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	81.79	.0010	.0003	.0025	.0060	.0056	1.705
SDev	.60	.0004	.0004	.0006	.0000	.0000	.078
%RSD	.7300	47.28	146.5	23.56	.0110	.0078	4.583
#1	81.37	.0013	.0006	.0029	.0060	.0056	1.760
#2	82.22	.0006	-.0000	.0020	.0060	.0056	1.650

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0013	30.34	.0004	.0046	5.619	-.0007	.0043
SDev	.0007	.18	.0000	.0012	.072	.0005	.0020
%RSD	52.87	.6060	.0448	26.60	1.282	70.15	45.45

#1	-.0008	30.21	.0004	.0037	5.568	-.0004	.0057
#2	-.0018	30.47	.0004	.0055	5.669	-.0011	.0029

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0062	.0001	4.122	.0112	.0872	.0005	-.0275
SDev	.0018	.0073	.043	.0057	.0008	.0008	.0354
%RSD	28.99	9706.	1.031	50.67	.8744	141.0	128.6
#1	-.0074	.0052	4.092	.0072	.0867	.0011	-.0525
#2	-.0049	-.0051	4.152	.0152	.0878	.0000	-.0025

Elem	V_2924	Zn2138	Zr3391
Avge	.0008	.0555	-.0007
SDev	.0010	.0008	.0005
%RSD	137.5	1.418	70.82
#1	.0015	.0550	-.0003
#2	.0000	.0561	-.0010

Method: EMS Sample Name: A441384 Operator: AAS
Run Time: 05/19/98 00:53:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0041	L-.0619	.0035	.0753	.3220	-.0003	.0046
SDev	.0011	.0064	.0100	.0006	.0003	.0005	.0032
%RSD	25.62	10.40	283.7	.8456	.0904	141.1	69.25
#1	.0034	L-.0573	-.0035	.0758	.3218	-.0000	.0068
#2	.0049	L-.0664	.0106	.0749	.3222	-.0007	.0023

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	64.01	-.0005	-.0010	.0020	.0033	2.990	1.436
SDev	.03	.0014	.0013	.0012	.0031	.003	.078
%RSD	.0516	255.8	132.3	56.67	92.50	.1021	5.439
#1	64.04	.0004	-.0019	.0012	.0011	2.988	1.492
#2	63.99	-.0015	-.0001	.0029	.0055	2.993	1.381

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0010	32.53	.0141	.0290	14.86	-.0010	.0169
SDev	.0002	.09	.0000	.0037	.12	.0051	.0002
%RSD	23.59	.2826	.0055	12.69	.7755	499.7	1.442
#1	-.0011	32.60	.0141	.0316	14.78	.0026	.0168
#2	-.0008	32.47	.0141	.0264	14.95	-.0046	.0171

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0030	.0091	7.331	.0093	14.71	-.0005	-.0166
SDev	.0214	.0218	.024	.0050	.00	.0003	.0363
%RSD	712.4	238.4	.3330	53.39	.0207	47.95	218.1
#1	.0121	.0246	7.314	.0128	14.71	-.0003	.0090
#2	-.0181	-.0063	7.349	.0058	14.72	-.0007	-.0423

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Elem	V_2924	Zn2138	Zr3391
Avge	-.0000	.0042	-.0017
SDev	.0003	.0008	.0000
%RSD	1049.	18.11	.0217
#1	.0002	.0048	-.0017
#2	-.0002	.0037	-.0017

Method: EMS Sample Name: A441385 Operator: AAS
Run Time: 05/19/98 00:55:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0019	-.0260	.0091	.0924	.0010	-.0003	-.0191
SDev	.0021	.0189	.0051	.0006	.0000	.0005	.0000
%RSD	113.4	72.59	56.05	.6837	.0000	141.7	.0044
#1	.0034	-.0126	.0127	.0919	.0010	-.0007	-.0191
#2	.0004	-.0393	.0055	.0928	.0010	.0000	-.0191

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0787	-.0012	-.0015	.0000	-.0016	.0587	.0631
SDev	.0028	.0000	.0013	.0006	.0000	.0006	.0558
%RSD	3.527	.4403	85.04	94690.	.0938	1.034	88.39
#1	.0806	-.0012	-.0024	.0004	-.0016	.0592	.0237
#2	.0767	-.0012	-.0006	-.0004	-.0016	.0583	.1026

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0020	-.0653	-.0009	.0402	166.0	-.0061	-.0053
SDev	.0008	.0251	.0006	.0000	.4	.0010	.0001
%RSD	39.58	38.38	70.72	.0023	.2482	16.85	1.179
#1	-.0026	-.0831	-.0013	.0402	165.7	-.0053	-.0053
#2	-.0015	-.0476	-.0004	.0402	166.3	-.0068	-.0052

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0125	.0008	8.058	.0037	.0136	-.0003	-.0620
SDev	.0125	.0073	.016	.0054	.0008	.0000	.0236
%RSD	99.55	918.2	.1952	146.0	5.601	.0590	38.11
#1	-.0037	.0059	8.046	.0076	.0142	-.0003	-.0453
#2	-.0213	-.0044	8.069	-.0001	.0131	-.0003	-.0787

Elem	V_2924	Zn2138	Zr3391
Avge	-.0007	.0183	.0000
SDev	.0010	.0000	.0014
%RSD	158.8	.0227	405e6
#1	.0001	.0183	.0010
#2	-.0014	.0183	-.0010

Method: EMS Sample Name: A441386 Operator: AAS

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Run Time: 05/19/98 00:58:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0026	L-.0551	.0088	.0785	.5672	-.0007	-.0035
SDev	.0021	.0052	.0008	.0000	.0012	.0000	.0003
%RSD	81.11	9.510	9.180	.0049	.2053	.0597	9.235
#1	.0041	L-.0588	.0082	.0785	.5664	-.0007	-.0032
#2	.0011	L-.0514	.0093	.0785	.5680	-.0007	-.0037

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	79.63	-.0004	.0011	.0016	.0063	1.443	1.223
SDev	.10	.0005	.0017	.0017	.0008	.001	.100
%RSD	.1308	104.2	156.3	109.7	12.17	.0428	8.212
#1	79.56	-.0001	.0023	.0028	.0069	1.442	1.294
#2	79.71	-.0008	-.0001	.0004	.0058	1.443	1.152

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0003	33.99	.2101	.0116	13.36	.0000	-.0069
SDev	.0005	.03	.0012	.0020	.03	.0036	.0021
%RSD	141.0	.0738	.5733	17.59	.2588	8788.	30.77
#1	-.0006	33.97	.2092	.0131	13.39	.0026	-.0085
#2	-.0000	34.00	.2109	.0102	13.34	-.0025	-.0054

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0101	.0092	6.905	.0006	2.910	.0005	-.0175
SDev	.0036	.0000	.036	.0090	.006	.0008	.0632
%RSD	35.09	.0482	.5242	1395.	.2228	140.7	361.8
#1	-.0076	.0092	6.879	-.0057	2.905	.0011	-.0622
#2	-.0126	.0092	6.930	.0070	2.914	.0000	.0272

Elem	V_2924	Zn2138	Zr3391
Avge	.0019	.0149	-.0003
SDev	.0010	.0016	.0019
%RSD	54.23	10.45	566.7
#1	.0027	.0160	.0010
#2	.0012	.0138	-.0017

Method: EMS Sample Name: A441387 Operator: AAS
Run Time: 05/19/98 01:00:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0030	L-.0660	.0089	.0520	.3358	-.0003	-.0006
SDev	.0005	.0040	.0024	.0006	.0018	.0005	.0044
%RSD	17.78	6.006	27.00	1.224	.5203	142.1	697.4
#1	.0034	L-.0632	.0072	.0516	.3346	.0000	-.0037
#2	.0026	L-.0688	.0106	.0525	.3370	-.0007	.0025

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	79.53	.0002	-.0010	.0004	.0057	1.444	1.212
SDev	.35	.0004	.0013	.0000	.0000	.009	.095
%RSD	.4361	252.9	131.6	.1833	.0015	.5927	7.831
#1	79.29	-.0001	-.0001	.0004	.0057	1.438	1.144
#2	79.78	.0005	-.0019	.0004	.0057	1.450	1.279

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0019	32.75	.1683	.0122	22.69	-.0021	.0044
SDev	.0006	.19	.0012	.0004	.12	.0005	.0060
%RSD	30.76	.5870	.7157	3.353	.5081	23.97	136.6
#1	.0023	32.61	.1675	.0125	22.61	-.0025	.0086
#2	.0015	32.88	.1692	.0119	22.77	-.0018	.0001

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0140	.0349	7.969	.0025	5.759	.0007	-.0334
SDev	.0054	.0363	.046	.0040	.024	.0005	.0546
%RSD	38.34	103.9	.5824	161.7	.4172	70.37	163.5
#1	-.0177	.0605	7.936	-.0004	5.742	.0004	-.0720
#2	-.0102	.0092	8.002	.0053	5.776	.0011	.0052

Elem	V_2924	Zn2138	Zr3391
Avge	-.0005	.0043	.0007
SDev	.0008	.0008	.0005
%RSD	169.3	18.00	70.70
#1	-.0010	.0038	.0003
#2	.0001	.0049	.0010

Method: EMS Sample Name: A441388 Operator: AAS
Run Time: 05/19/98 01:03:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	-.0007	L-.0508	.0088	.0825	.2728	-.0007	-.0099
SDev	.0027	.0065	.0064	.0019	.0012	.0000	.0083
%RSD	358.0	12.80	72.43	2.304	.4269	.2118	83.82
#1	-.0026	L-.0554	.0133	.0839	.2720	-.0007	-.0158
#2	.0011	-.0462	.0043	.0812	.2736	-.0007	-.0040

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	63.90	-.0003	-.0007	.0020	.0059	1.044	1.010
SDev	.18	.0018	.0009	.0000	.0011	.001	.033
%RSD	.2854	673.8	129.6	.0105	19.41	.1167	3.315
#1	63.77	-.0015	-.0001	.0020	.0067	1.043	.9866
#2	64.03	.0010	-.0013	.0020	.0051	1.045	1.034

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0027	25.26	.0179	.0243	29.37	-.0028	.0100
SDev	.0013	.06	.0006	.0012	.04	.0015	.0217

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%RSD	47.16	.2316	3.370	5.045	.1472	53.84	217.2
#1	.0036	25.22	.0183	.0252	29.34	-.0039	-.0054
#2	.0018	25.31	.0175	.0235	29.40	-.0018	.0254

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0066	.0104	7.399	-.0013	.9914	.0002	.0160
SDev	.0160	.0073	.031	.0000	.0032	.0008	.1196
%RSD	241.8	69.56	.4151	.0161	.3270	410.1	746.5
#1	.0047	.0156	7.378	-.0013	.9891	.0007	-.0685
#2	-.0180	.0053	7.421	-.0013	.9936	-.0003	.1006

Elem	V_2924	Zn2138	Zr3391
Avge	.0016	.0171	.0000
SDev	.0000	.0000	.0005
%RSD	.1378	.0277	73830.
#1	.0016	.0172	.0003
#2	.0016	.0171	-.0003

Method: EMS Sample Name: A441389 Operator: AAS
Run Time: 05/19/98 01:05:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0022	L-.0745	-.0078	.0354	.9168	.0000	-.0119
SDev	.0027	.0026	.0036	.0013	.0000	.0000	.0085
%RSD	118.1	3.489	46.00	3.584	.0000	141.1	71.07
#1	.0004	L-.0763	-.0053	.0345	.9168	.0000	-.0059
#2	.0041	L-.0727	-.0104	.0363	.9168	.0000	-.0179

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	75.47	.0007	-.0014	.0016	.0010	1.921	1.058
SDev	.08	.0000	.0009	.0017	.0008	.005	.011
%RSD	.1100	4.115	61.27	106.4	73.67	.2544	1.055
#1	75.41	.0007	-.0008	.0004	.0005	1.917	1.050
#2	75.53	.0006	-.0020	.0029	.0016	1.924	1.066

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0051	33.64	.0200	.0180	7.730	-.0018	.0142
SDev	.0003	.08	.0000	.0004	.026	.0061	.0235
%RSD	6.735	.2485	.0023	2.289	.3356	346.8	166.0
#1	.0053	33.58	.0200	.0183	7.748	.0026	.0308
#2	.0049	33.70	.0200	.0177	7.711	-.0061	-.0025

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0090	-.0066	9.328	.0013	5.700	.0002	-.0631
SDev	.0054	.0291	.038	.0047	.004	.0013	.0295
%RSD	59.60	439.3	.4047	376.8	.0636	689.6	46.73
#1	-.0052	-.0272	9.302	-.0021	5.697	-.0007	-.0840

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#2	-.0128	.0140	9.355	.0046	5.703	.0011	-.0423

Elem	V_2924	Zn2138	Zr3391
Avge	-.0012	.0032	.0003
SDev	.0003	.0008	.0019
%RSD	22.60	25.17	565.0
#1	-.0014	.0026	-.0010
#2	-.0010	.0038	.0017

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/19/98 01:07:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	1.018	5.015	4.725	5.063	4.999	4.987	4.778
SDev	.005	.014	.001	.024	.037	.034	.066
%RSD	.4751	.2847	.0282	.4754	.7339	.6833	1.373
#1	1.014	5.005	4.726	5.046	4.973	4.963	4.825
#2	1.021	5.025	4.725	5.080	5.025	5.011	4.732

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	48.99	4.864	4.891	4.921	5.007	4.892	50.74
SDev	.15	.008	.013	.021	.033	.026	.14
%RSD	.3125	.1578	.2700	.4355	.6580	.5393	.2750
#1	48.89	4.859	4.882	4.906	4.984	4.874	50.64
#2	49.10	4.870	4.900	4.936	5.030	4.911	50.84

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	5.067	49.65	4.907	.9756	49.51	4.897	4.901
SDev	.038	.11	.027	.0102	.43	.010	.008
%RSD	.7551	.2186	.5528	1.045	.8615	.1991	.1537
#1	5.040	49.58	4.888	.9684	49.21	4.891	4.896
#2	5.094	49.73	4.926	.9828	49.81	4.904	4.906

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	1.007	4.937	5.085	4.621	5.004	5.068	L4.081
SDev	.005	.022	.026	.035	.038	.035	.099
%RSD	.5349	.4481	.5087	.7528	.7581	.6898	2.431
#1	1.011	4.922	5.067	4.645	4.977	5.043	L4.011
#2	1.004	4.953	5.104	4.596	5.031	5.092	L4.151

Elem	V_2924	Zn2138	Zr3391
Avge	4.985	4.962	5.026
SDev	.034	.005	.031
%RSD	.6738	.1092	.6194
#1	4.961	4.958	5.004
#2	5.008	4.966	5.049

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/19/98 01:10:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0000	-.0247	.0279	.0072	.0019	.0013	-.0126
SDev	.0016	.0097	.0168	.0032	.0000	.0000	.0094
%RSD	11970.	39.35	59.99	44.21	.0000	.2685	74.72
#1	.0011	-.0178	.0161	.0094	.0019	.0013	-.0192
#2	-.0011	-.0316	.0398	.0049	.0019	.0013	-.0059

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0139	.0022	.0015	.0049	-.0005	.0035	-.0079
SDev	.0020	.0004	.0004	.0006	.0015	.0006	.0558
%RSD	14.50	19.84	28.18	11.78	284.4	17.76	707.1
#1	.0153	.0019	.0018	.0045	-.0016	.0039	.0316
#2	.0125	.0025	.0012	.0053	.0005	.0030	-.0474

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0006	-.0474	.0009	H.0156	.0224	-.0014	-.0041
SDev	.0008	.0167	.0006	.0037	.0029	.0005	.0060
%RSD	141.3	35.23	70.68	23.59	12.86	36.68	145.4
#1	-.0000	-.0356	.0013	H.0182	.0245	-.0010	-.0083
#2	-.0011	-.0592	.0004	H.0130	.0204	-.0018	.0001

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0063	.0824	.0117	.0050	.0015	.0025	-.0234
SDev	.0071	.0364	.0133	.0054	.0000	.0015	.1048
%RSD	112.9	44.16	113.8	108.1	.0000	60.55	447.8
#1	-.0013	H.1081	.0211	.0089	.0015	.0035	.0507
#2	-.0114	.0566	.0023	.0012	.0015	.0014	-.0975

Elem	V_2924	Zn2138	Zr3391
Avge	.0024	.0006	.0007
SDev	.0008	.0016	.0005
%RSD	31.78	279.7	70.52
#1	.0019	.0017	.0010
#2	.0030	-.0005	.0003

Method: EMS Sample Name: Q834632 BLA02 Operator: AAS
Run Time: 05/19/98 01:12:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0022	-.0079	.0076	.0121	.0012	-.0003	.0012
SDev	.0016	.0007	.0295	.0025	.0003	.0005	.0001
%RSD	70.35	8.997	386.5	20.99	23.57	142.0	11.53
#1	.0034	-.0074	.0285	.0139	.0010	-.0007	.0013
#2	.0011	-.0084	-.0132	.0103	.0014	.0000	.0011

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0076	.0772	.0150	.0023	.0013	.0041	.0388
SDev	.0018	.0146	.0118	.0021	.0002	.0008	.1274
%RSD	23.46	18.85	78.88	90.77	14.14	18.46	328.5
#1	-.0088	.0875	.0233	.0039	.0012	.0046	-.0513
#2	-.0063	.0669	.0066	.0008	.0015	.0035	.1288

Elem	V_2924	Zn2138	Zr3391
Avge	.0013	.0017	.0007
SDev	.0003	.0016	.0005
%RSD	18.85	94.07	70.64
#1	.0011	.0028	.0010
#2	.0015	.0006	.0003

Method: EMS Sample Name: DLS Operator: AAS
Run Time: 05/19/98 01:59:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0147	L.0136	.0063	.0004	.0121	.0053	.0008
SDev	.0011	.0234	.0327	.0013	.0000	.0000	.0135
%RSD	7.177	172.7	518.0	299.4	.0000	.0229	1642.
#1	.0140	L-.0030	.0295	.0013	.0121	.0053	-.0087
#2	H.0155	.0301	-.0168	-.0005	.0121	.0053	.0104

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0173	.0064	.0112	.0139	.0249	.0268	-.0434
SDev	.0043	.0009	.0013	.0017	.0008	.0006	.0391
%RSD	24.79	14.20	11.49	12.49	3.063	2.277	90.00
#1	.0143	.0057	.0121	.0127	.0244	.0264	-.0710
#2	.0203	.0070	.0103	H.0152	.0255	.0273	-.0158

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0000	-.0178	.0107	.0023	.0102	.0072	.0417
SDev	.0000	.0083	.0000	.0012	.0086	.0015	.0120
%RSD	1.077	46.87	.0063	53.49	84.85	21.24	28.68
#1	-.0000	-.0237	.0107	.0014	.0041	.0062	.0502
#2	-.0000	-.0119	.0107	.0032	.0163	.0083	.0333

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0238	.0106	.0058	.0065	.0008	.0005	.0421
SDev	.0036	.0073	.0126	.0028	.0002	.0003	.0395
%RSD	15.07	68.98	218.6	43.54	23.75	46.95	93.77
#1	.0264	.0054	.0146	.0045	.0007	.0004	.0700
#2	.0213	.0157	-.0031	.0085	.0009	.0007	.0142

Elem	V_2924	Zn2138	Zr3391
Avge	.0113	.0233	.0003

SDev	.0008	.0008	.0000
%RSD	6.812	3.407	.1609
#1	.0118	.0238	.0003
#2	.0107	.0227	.0003

Method: EMS Sample Name: CDL01 Operator: AAS
Run Time: 05/19/98 02:02:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0248	-.0395	.0215	.0011	.0002	.0099	.0024
SDev	.0016	.0182	.0039	.0038	.0000	.0000	.0089
%RSD	6.464	46.20	18.19	335.1	.0000	.0047	375.5
#1	.0259	-.0524	.0188	-.0016	.0002	.0099	-.0039
#2	.0236	-.0266	.0243	.0038	.0002	.0099	.0087

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	-.0084	.0111	.0999	.0225	.0513	.0018	.0592
SDev	.0048	.0009	.0000	.0012	.0004	.0006	.0167
%RSD	57.17	8.050	.0010	5.155	.7463	33.25	28.28
#1	-.0118	.0117	.0999	.0217	.0510	.0014	.0474
#2	-.0050	.0105	.0999	.0233	.0516	.0023	.0710

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0065	-.2246	.0295	.0011	.0224	.0749	.0949
SDev	.0007	.0000	.0000	.0012	.0144	.0010	.0080
%RSD	10.61	.0018	.0001	110.0	64.28	1.366	8.416
#1	-.0070	-.2246	.0295	.0020	.0326	.0742	.1005
#2	-.0060	-.2246	.0295	.0002	.0122	.0756	.0892

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.1101	.0206	.0086	-.0005	.0004	.0009	-.0169
SDev	.0071	.0364	.0039	.0024	.0000	.0003	.1319
%RSD	6.487	176.6	45.48	470.3	.0000	27.75	781.2
#1	.1152	-.0051	.0114	-.0022	.0004	.0007	.0764
#2	.1051	.0463	.0059	.0012	.0004	.0011	-.1101

Elem	V_2924	Zn2138	Zr3391
Avge	.0985	.0319	-.0003
SDev	.0000	.0102	.0009
%RSD	.0033	32.06	289.0
#1	.0985	.0391	-.0010
#2	.0985	.0246	.0003

Method: EMS Sample Name: ICS-A Operator: AAS
Run Time: 05/19/98 02:04:46
Comment:

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0057	516.2	-.0706	.0036	.0047	-.0000	.0194
SDev	.0021	.7	.0294	.0006	.0000	.0000	.0185
%RSD	37.80	.1443	41.67	17.62	.0000	29.98	95.24
#1	.0072	515.7	-.0498	.0040	.0047	-.0000	.0325
#2	.0042	516.7	-.0914	.0031	.0047	-.0000	.0063

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	472.8	-.0053	.0000	.0020	.0020	181.3	-.0829
SDev	.6	.0026	.0009	.0012	.0023	.1	.1395
%RSD	.1276	50.02	49670.	56.65	115.7	.0643	168.4
#1	473.2	-.0034	.0006	.0029	.0036	181.2	.0158
#2	472.3	-.0071	-.0006	.0012	.0004	181.4	-.1815

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0045	498.8	.0060	-.0010	-.0204	-.0119	-.0033
SDev	.0007	.9	.0006	.0078	.0115	.0000	.0184
%RSD	15.15	.1893	10.11	786.7	56.57	.1390	557.9
#1	-.0041	498.1	.0064	.0045	-.0122	-.0119	.0097
#2	-.0050	499.4	.0055	-.0065	-.0285	-.0120	-.0163

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0072	L-.1283	.0111	-.0082	.0111	.0011	L-.6062
SDev	.0231	.0206	.0047	.0031	.0002	.0000	.2037
%RSD	322.7	16.09	42.73	37.81	1.725	.2032	33.61
#1	.0092	L-.1137	.0145	-.0060	.0112	.0011	L-.4622
#2	-.0235	L-.1429	.0078	-.0104	.0109	.0011	L-.7503

Elem	V_2924	Zn2138	Zr3391
Avge	.0064	.0187	.0030
SDev	.0013	.0016	.0009
%RSD	20.43	8.383	31.41
#1	.0074	.0176	.0023
#2	.0055	.0198	.0037

Method: EMS Sample Name: ICS Operator: AAS
Run Time: 05/19/98 02:07:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.2170	518.7	.0008	.0057	.4883	.4823	.0363
SDev	.0016	1.9	.0479	.0000	.0015	.0019	.0003
%RSD	.7310	.3715	6351.	.0189	.2981	.3921	.8159
#1	.2181	520.1	L-.0331	.0057	.4894	.4810	.0365
#2	.2159	517.4	.0346	.0057	.4873	.4836	.0361

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	476.1	.9007	.4555	.4576	.5001	183.4	-.1342

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SDev	.3	.0000	.0004	.0012	.0008	.1	.0558
%RSD	.0606	.0029	.0936	.2533	.1507	.0336	41.59
#1	475.9	.9008	.4552	.4568	.5006	183.4	-.1736
#2	476.3	.9007	.4558	.4584	.4995	183.5	-.0947

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0071	496.5	.4681	-.0032	.0020	.8955	.9760
SDev	.0008	1.6	.0006	.0016	.0086	.0041	.0106
%RSD	11.22	.3300	.1288	50.60	424.3	.4575	1.090
#1	-.0077	497.7	.4677	-.0044	-.0041	.8926	.9835
#2	-.0066	495.4	.4686	-.0021	.0082	.8984	.9684

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.6078	L-.0811	.0410	.0052	H.0213	.0025	L-.5207
SDev	.0088	.0296	.0142	.0092	.0002	.0005	.0680
%RSD	1.450	36.45	34.59	177.7	.8972	19.66	13.05
#1	.6016	L-.1020	.0309	.0117	H.0212	.0022	L-.5688
#2	.6140	L-.0602	.0510	-.0013	H.0215	.0029	L-.4727

Elem	V_2924	Zn2138	Zr3391
Avge	.4855	.9811	.0038
SDev	.0013	.0023	.0000
%RSD	.2694	.2382	.0095
#1	.4846	.9795	.0038
#2	.4864	.9828	.0038

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/19/98 02:09:43
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	1.032	5.179	L4.343	5.126	5.072	5.061	4.803
SDev	.009	.006	.036	.043	.068	.053	.088
%RSD	.8281	.1155	.8295	.8389	1.349	1.048	1.835
#1	1.026	5.175	L4.317	5.096	5.024	5.023	4.741
#2	1.038	5.183	L4.368	5.157	5.120	5.098	4.865

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	49.68	4.911	4.941	4.969	5.082	5.000	51.49
SDev	.38	.040	.056	.053	.066	.039	.82
%RSD	.7661	.8065	1.124	1.073	1.290	.7869	1.593
#1	49.42	4.883	4.902	4.932	5.036	4.972	50.91
#2	49.95	4.939	4.980	5.007	5.129	5.028	52.07

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	5.155	50.60	4.955	.9781	50.08	4.948	4.945
SDev	.077	.65	.056	.0138	.45	.033	.032
%RSD	1.493	1.288	1.132	1.413	.8978	.6627	.6539

#1	5.101	50.14	4.915	.9683	49.76	4.925	4.922
#2	5.210	51.07	4.995	.9879	50.39	4.971	4.968

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.9998	4.902	5.139	L4.078	5.070	5.137	L3.155
SDev	.0015	.102	.065	.046	.066	.067	.066
%RSD	.1505	2.085	1.272	1.120	1.305	1.303	2.093
#1	.9987	4.830	5.092	L4.045	5.023	5.089	L3.109
#2	1.001	4.975	5.185	L4.110	5.116	5.184	L3.202

Elem	V_2924	Zn2138	Zr3391
Avge	5.051	5.032	5.093
SDev	.060	.043	.063
%RSD	1.192	.8542	1.241
#1	5.008	5.001	5.048
#2	5.093	5.062	5.137

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/19/98 02:12:12
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0026	-.0095	.0296	.0081	.0016	.0010	-.0003
SDev	.0000	.0183	.0008	.0006	.0003	.0005	.0005
%RSD	.1051	192.7	2.519	7.824	17.68	46.90	179.3
#1	.0026	-.0224	.0290	.0085	.0019	.0013	.0001
#2	.0026	.0034	.0301	.0076	.0014	.0007	-.0006

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0259	.0022	.0009	.0029	-.0008	.0069	-.0474
SDev	.0008	.0004	.0013	.0012	.0011	.0006	.0446
%RSD	2.926	20.36	142.4	40.41	142.1	8.838	94.28
#1	.0264	.0025	.0018	.0037	.0000	.0065	-.0158
#2	.0253	.0019	-.0000	.0020	-.0016	.0073	-.0789

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	-.0003	-.0297	.0004	H.0153	.0245	-.0029	-.0027
SDev	.0002	.0083	.0000	.0033	.0346	.0005	.0040
%RSD	70.22	28.12	.1561	21.35	141.4	18.20	149.0
#1	-.0005	-.0238	.0004	H.0176	.0489	-.0025	.0001
#2	-.0002	-.0355	.0004	H.0130	-.0000	-.0032	-.0055

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	-.0076	.0618	.0150	-.0073	.0013	.0041	-.0241
SDev	.0018	.0073	.0039	.0002	.0002	.0003	.0384
%RSD	23.73	11.77	26.18	3.165	14.14	6.168	159.1
#1	-.0088	.0670	.0122	-.0075	.0015	.0042	-.0512
#2	-.0063	.0567	.0177	-.0072	.0012	.0039	.0030

Elem	V_2924	Zn2138	Zr3391
Avge	.0015	.0095	.0013
SDev	.0000	.0126	.0005
%RSD	.7884	133.0	35.36
#1	.0015	.0006	.0017
#2	.0015	.0183	.0010

Method: EMS Sample Name: Q834733 BLA02 Operator: AAS
Run Time: 05/19/98 02:14:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Bi2230
Avge	.0019	-.0170	.0017	.0027	.0006	.0003	.0005
SDev	.0021	.0214	.0076	.0006	.0006	.0005	.0356
%RSD	113.4	125.8	437.5	23.80	94.28	140.5	6518.
#1	.0034	-.0019	-.0037	.0022	.0010	.0007	.0257
#2	.0004	-.0322	.0072	.0031	.0002	.0000	-.0246

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664
Avge	.0624	.0003	.0012	.0004	.0014	.0073	.0276
SDev	.0101	.0032	.0026	.0023	.0011	.0024	.0391
%RSD	16.16	1047.	211.9	565.3	85.01	33.26	141.4
#1	.0696	.0025	.0030	.0020	.0022	.0091	.0552
#2	.0553	-.0019	-.0006	-.0012	.0005	.0056	-.0000

Elem	Li6707	Mg3832	Mn2576	Mo2020	Na5895	Ni2316	Pb2203
Avge	.0046	.1418	.0004	-.0006	.0917	-.0036	-.0054
SDev	.0008	.0334	.0000	.0029	.0086	.0036	.0196
%RSD	17.38	23.55	.2960	493.1	9.428	99.15	362.2
#1	.0052	.1655	.0004	.0014	.0978	-.0011	.0085
#2	.0040	.1182	.0004	-.0026	.0856	-.0062	-.0193

Elem	Sb2068	Se1960	Si2881	Sn1899	Sr4215	Ti3372	Tl1908
Avge	.0012	.0001	.1391	-.0025	.0009	.0009	-.0554
SDev	.0035	.0219	.0032	.0052	.0008	.0008	.0158
%RSD	284.2	31950.	2.274	207.0	80.81	84.98	28.52
#1	.0038	.0155	.1413	-.0062	.0015	.0014	-.0442
#2	-.0013	-.0154	.1369	.0012	.0004	.0004	-.0666

Elem	V_2924	Zn2138	Zr3391
Avge	-.0007	.0100	-.0003
SDev	.0011	.0118	.0009
%RSD	143.9	117.9	283.2
#1	.0000	.0017	.0003
#2	-.0015	.0183	-.0010

Method: EMS Sample Name: Q834732 LCS Operator: AAS

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May 22, 1998

m 57

U. S. EPA -CLP

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Lab Name : Heritage Contract : IDEM-OWM

Lab Code: Metals Case No. : _____ SAS No. : _____ SDG No.: _____

Instrument ID Number : _____ Method : _____

EPA Sample No.	Lab Sample No.
	A441390
	A441396 water
	↓
	A441403

Were ICP interelement corrections applied? Yes/No ___ yes

Were ICP background corrections applied? Yes/No ___ yes

If yes-were raw data generated before application of background corrections? Yes/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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature : _____ Name : _____

Date : _____ Title : _____

1

CASE NARRATIVE

METALS SECTION

SAMPLE # A441390, A441396-403

There was possible matrix interference for Fe, as indicated by the serial dilution results.

Steven J. Endersen 5-22-98

Steven J Endersen, Senior Chemist

U. S. EPA -CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration % R (1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration % R (1)	Continuing Calibration Found	Continuing Calibration % R (1)		M
					234708		*4337*			
Barium	1000	992	99.2	5000	4880	97.6	4760	95.2		P
Calcium	20000	20000	100	50000	48300	96.6	46600	93.2		P
Iron	1000	1030	103	5000	4920	98.4	4710	94.2		P
Magnesium	20000	19500	97.5	50000	49200	98.4	48000	96		P
Potassium	20000	19900	99.5	50000	50900	102	49900	99.8		P
Sodium	20000	19800	99	50000	50000	100	49100	98.2		P

ICP Analytical Run Time

(1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115.

FORM II (Part 1) - IN

3

U. S. EPA -CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration % R (1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration % R (1)	Continuing Calibration Found	Continuing Calibration % R (1)		M
					10409		*13227*			
Barium				5000	4810	96.2	4860	97.2		P
Calcium				50000	47000	94	47000	94		P
Iron				5000	4710	94.2	4740	94.8		P
Magnesium				50000	48500	97	48800	97.6		P
Potassium				50000	50500	101	51100	102		P
Sodium				50000	49500	99	50300	101		P

ICP Analytical Run Time

(1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115. 4

FORM II (Part 1) - IN

U. S. EPA -CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Initial Calibration Source : Perkin-Elmer

Continuing Calibration Source : Inorganic Ventures

Concentration Units: uG/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration % R (1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration % R (1)	Found	% R (1)		M
					14752					
Barium				5000	4840	96.8				P
Calcium				50000	46400	92.8				P
Iron				5000	4790	95.8				P
Magnesium				50000	48700	97.4				P
Potassium				50000	50900	102				P
Sodium				50000	50100	100				P

ICP Analytical Run Time (1) Control Limits: Mercury 80-120: Other Metals 90-110: Cyanide 85-115. 5

FORM II (Part 1) - IN

U. S. EPA -CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: __

AA CRDL Calibration Source : Inorganic Ventures

ICP CRDL Calibration Source : Inorganic Ventures

Concentration Units: uG/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP						M
	True	Found	% R	True	Initial Found	% R	Final Found	% R		
					233654		14010			
Barium				NA						
Calcium				NA						
Iron				NA						
Magnesium				NA						
Potassium				NA						
Sodium				NA						

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U. S. EPA -CLP

3

BLANKS

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : ___ SAS No. : ___ SDG No.: _____

Preparation Blank Matrix : Water

Preparation Blank Concentration Units (uG/L or mG/kG) : uG/L

Analyte	Initial Calibration Blank (uG/L)	C	Continuing Calibration Blank (uG/L) 1	C	2	C	3	C	Preparation Blank	C	M
	232133		*233147*		*234942*		*4611*		*4845*		
Barium	0.84	U	0.84	U	0.93	B	1.7	B	0.84	U	P
Calcium	11	B	8.2	U	71	B	80	B	30	B	P
Iron	2.1	U	2.1	U	24	B	24.9	B	12	B	P
Magnesium	20	U	20	U	53	B	71	B	20	U	P
Potassium	98	U	98	U	98	U	98	U	98	U	P
Sodium	37	U	37	U	37	U	37	U	37	U	P

ICP Analytical Run Time

FORM III -IN

7

U. S. EPA -CLP

3

BLANKS

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : ___ SAS No. : ___ SDG No.: _____

Preparation Blank Matrix : _____

Preparation Blank Concentration Units (uG/L or mG/kG) : _____

Analyte	Initial Calibration Blank (uG/L)	C	Continuing Calibration Blank (uG/L) 4	C	5	C	6	C	Preparation Blank	C	M
			10643		*13501*		*15027*				
Barium			2.2	B	1.3	B	2.6	B			P
Calcium			41	B	21	B	170	B			P
Iron			2.1	U	2.1	U	60				P
Magnesium			24	B	20	U	160	B			P
Potassium			98	U	98	U	98	U			P
Sodium			37	U	37	U	37	U			P

ICP Analytical Run Time

FORM III -IN

8

U. S. EPA -CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: ___

ICP ID Number : 242 ICS Source : Perkin-Elmer

Date of Analysis : 21-May-98

Concentration Units: uG/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found % R	Final Found Sol. A	Final Found Sol. AB	Final Found % R
Aluminum		500,000		469,000	93.8		468,000	93.6
Antimony		600		660	110		661	110
Arsenic		100						
Barium		500		474	94.8		472	94.4
Beryllium		500		446	89.2		442	88.4
Cadmium		1,000		926	92.6		899	89.9
Calcium		500,000		467,000	93.4		451,000	90.2
Chromium		500		453	90.6		443	88.6
Cobalt		500		451	90.2		445	89
Copper		500		482	96.4		483	96.6
Iron		200,000		178,000	89		173,000	86.5
Lead		1,000		1,030	103		1,000	100
Magnesium		500,000		489,000	97.8		487,000	97.4
Manganese		500		453	90.6		446	89.2
Mercury								
Nickel		1,000		878	87.8		864	86.4
Potassium								
Selenium		50						
Silver		200		204	102		198	99
Sodium								
Thallium		100						
Vanadium		500		470	94		463	92.6
Zinc		1,000		949	94.9		931	93.1

FORM IV - IN

9

U. S. EPA -CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

A441390

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Initial Wt/Vol : 50 mL

Final Volume : 50 mL

% Solids for Sample : _____ Dilution : 1

Concentration Units (uG/L or mG/kG dry weight) : uG/L

Analyte	Control Limit %R	Q836547 Spiked Sample (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Barium	80 - 120	1920		21.9		2,000	94.9		P
Calcium	80 - 120	170000		79400		100,000	90.6		P
Iron	80 - 120	1060		230		1,000	83		P
Magnesium	80 - 120	136000		39500		100,000	96.5		P
Potassium	80 - 120	104000		922		100,000	103		P
Sodium	80 - 120	104000		3390		100,000	101		P

FORM V (Part 1) - IN

10

U. S. EPA -CLP

5A

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

EPA SAMPLE NO.

A441390

Lab Name: HES - Commercial Laboratories Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Initial Wt/Vol : 50 mL

Final Volume : 50 mL

% Solids for Sample : _____ Dilution : 1

Concentration Units (uG/L or mG/kG dry weight) : uG/L

Analyte	Sample Result (SR)	Q836547 Spiked Sample (SSR)	C	0 Spiked Duplicate Sample (SDS)	C	Spike Added (SA)	% RPD	Q	M
Barium	22	94.9		91.9		2,000	3.21		P
Calcium	79000	90.6		85.6		100,000	5.68		P
Iron	230	83		80		1,000	3.68		P
Magnesium	40000	96.5		92.5		100,000	4.23		P
Potassium	920	103		101		100,000	1.96		P
Sodium	3400	101		98.6		100,000	2.4		P

FORM V (Part 1) - IN

U. S. EPA -CLP
7

LABORATORY CONTROL SAMPLE

Q836545

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Solid LCS Source : _____

Aqueous LCS Source : SPEX

Analyte	Aqueous (uG/L) True	Found	%R	True	Found	C	Limits		%R
Barium	20000	18,900	94.5						
Calcium	100000	90,500	90.5						
Iron	10000	8,300	83						
Magnesium	100000	93,500	93.5						
Potassium	100000	99,600	99.6						
Sodium	100000	108,000	108						

FORM VII - IN

12

U. S. EPA -CLP

9

ICP SERIAL DILUTION

EPA SAMPLE NO.

A441390

Lab Name: Heritage Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____ SDG No.: _____

Matrix (soil/water) : Water Level (low/med): _____

Concentration Units (uG/L) : uG/L Dilution 1: 5

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q (1)	M
Barium	21.9		55.1		150		P
Calcium	79400		82100		3.4		P
Iron	231		262		13	E	P
Magnesium	39500		40500		2.5		P
Potassium	922		1250		36		P
Sodium	3390		3590		5.9		P

(1) - % Difference criteria 10%, if concentration > 50*IDL.

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FORM IX - IN

U. S. EPA - CLP
17
STANDARD SOLUTIONS SOURCES

Lab Name: Heritage Labotatories, Inc. Contract_____

Analyte	CALIBRATION STANDARD	ICV	TRACE CCV	CCV	CRDL	MATRIX SPIKE	ICS	Method
Aluminum	INV	PE		INV		SPEX	PE	P
Antimony	INV	PE	SPEX	INV	PE	INV		P
Arsenic	INV	PE	SPEX	INV	PE	SPEX		P
Barium	INV	PE		INV		SPEX	PE	P
Beryllium	INV	PE	SPEX	INV	PE	SPEX	PE	P
Cadmium	INV	PE	SPEX	INV	PE	SPEX	PE	P
Calcium	INV	PE		INV		SPEX	PE	P
Chromium	INV	PE	SPEX	INV	PE	SPEX	PE	P
Cobalt	INV	PE	SPEX	INV	PE	SPEX	PE	P
Copper	INV	PE		INV	PE	SPEX	PE	P
Iron	INV	PE		INV		SPEX	PE	P
Lead	INV	PE	SPEX	INV	PE	SPEX	PE	P
Magnesium	INV	PE		INV		SPEX	PE	P
Manganese	INV	PE	SPEX	INV	PE	SPEX	PE	P
Mercury	INV	NIST		FISHER	FISHER	FISHER		CV
Nickel	INV	PE		INV	PE	SPEX	PE	P
Potassium	INV	PE		INV		SPEX		P
Selenium	INV	PE	SPEX	INV	PE	SPEX		P
Silver	INV	PE	PE	INV	PE	SPEX	PE	P
Sodium	INV	PE		INV		SPEX		P
Thallium	INV	PE	SPEX	INV	PE	SPEX		P
Vanadium	INV	PE	SPEX	INV	PE	SPEX	PE	P
Zinc	INV	PE		INV	PE	SPEX	PE	P
Titanium	INV	PE		INV		SPEX		P
Strontium	INV	PE		INV		SPEX		P
Molybdenum	INV	PE		INV		SPEX		P
Boron	INV	PE		INV		SPEX		P
Tin	INV	PE		INV		INV		P
Zirconium	INV	FISHER		INV		SPEX		P
Lithium	INV	PE		INV		SPEX		P
Silicon	INV	PE		INV		INV		P
Bismuth	INV	PE		INV		SPEX		P
Yttrium	INV	PE		INV		SPEX		P

PE = Perkin Elmer Pure
INV = Inorganic Ventures

U. S. EPA -CLP

12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: Heritage Laboratories, Inc. Contract : _____

Lab Code: _____ Case No. : _____ SAS No. : _____
ICP ID Number : ICP#242 Date : May 19, 1998

Analyte	Integ. Time (Sec.)	Concentration (uG/L)	M
Aluminum	8	500,000	P
Antimony	8	100,000	P
Arsenic	8	200,000	P
Barium	8	200,000	P
Beryllium	8	10,000	P
Boron	8	300,000	P
Cadmium	8	100,000	P
Calcium	8	800,000	P
Chromium	8	100,000	P
Cobalt	8	800,000	P
Copper	8	100,000	P
Iron	8	300,000	P
Lead	8	300,000	P
Lithium	8	300,000	P
Magnesium	8	1,000,000	P
Manganese	8	100,000	P
Mercury	8	100,000	P
Molybdenum	8	100,000	P
Nickel	8	400,000	P
Phosphorus	8	500,000	P
Potassium	8	500,000	P
Selenium	8	200,000	P
Silicon	8	500,000	P
Silver	8	10,000	P
Sodium	8	500,000	P
Strontium	8	50,000	P
Thallium	8	200,000	P
Tin	8	500,000	P
Titanium	8	100,000	P
Uranium	8	500,000	P
Vanadium	8	100,000	P
Zinc	8	100,000	P
Zirconium	8	500,000	P

Comments: _____

FORM XII - IN

U. S. EPA -CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Heritage Laboratories, Inc. Contract :

Lab Code: Case No. : SAS No. :

ICP ID Number : ICP#242 Date : Feb 11, 1998

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Cr	Cu	Fe	Mn	Ni	V
Aluminum	308.2					0.00128		-0.04832
Antimony	206.8		0.01381		-0.007786	-0.000198	0.000093	0.000441
Arsenic	193.6	0.003796	0.001743		0.000407		0.000802	0.013807
Barium	493.4							
Beryllium	313.0							0.000836
Boron	249.6							
Cadmium	226.5	0.000011			0.00009		-0.000198	
Calcium	317.9							
Chromium	267.7				-0.000038	0.000107		0.001866
Cobalt	228.6						0.000264	
Copper	324.7				-0.000029			0.000112
Iron	259.9		0.000076			0.000285		0.000426
Lead	220.3	0.000951			0.000107		0.000201	
Lithium	670.7				-0.000019			
Magnesium	279.0					-0.005355		
Manganese	257.6							-0.00019
Molybdenum	202.0		0.000982		-0.003821		-0.000076	-0.0005
Nickel	231.6	0.000013				-0.000186		-0.00018
Potassium	766.4							
Selenium	196.0				0.000154			
Silicon	288.1	0.000474	-0.008893		-0.000582	-0.002939		
Silver	328.0				-0.00054			-0.00133
Sodium	588.9							
Strontium	421.5						-0.000111	
Thallium	190.8				0.003472	-0.005651		0.006385
Tin	283.9	0.000524	0.903853		-0.038125	0.000949		-0.14987
Titanium	337.2							
Uranium	367.0				0.003547	-0.000812		-0.01458
Vanadium	292.4		-0.005278	-0.000057	0.000029	-0.000123		
Zinc	213.8	0.000031		0.001155	0.000058		0.004196	0.00013
Zirconium	343.8				0.000055	-0.003351		
Phosphorus	214.9	-0.001949		0.105579	0.000626			-0.00407

Comments:

FORM XI (Part 1) - IN

U. S. EPA -CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Heritage Laboratories, Inc. Contract :

Lab Code: Case No. : SAS No. :

ICP ID Number : ICP#242 Date : Feb 11, 1998

Analyte	Wave-length (nm)	Interelement Correction Factors for: Ca	Cd	Mg	Sb	P	U	Co
Aluminum	308.2						0.011576	-0.00824
Antimony	206.8						0.000882	
Arsenic	193.6						0.001634	0.000762
Barium	493.4							
Beryllium	313.0						0.000025	
Boron	249.6						-0.000287	0.001548
Cadmium	226.5						-0.000492	0.00005
Calcium	317.9						0.000894	
Chromium	267.7		0.000249	-0.000014	0.000379		-0.003551	-6.6E-05
Cobalt	228.6		0.001778				-0.000068	
Copper	324.7						0.002049	-0.00017
Iron	259.9				0.000112		-0.000155	
Lead	220.3						0.000242	-0.00645
Lithium	670.7							
Magnesium	279.0						0.01286	-0.00088
Manganese	257.6			0.00002			0.000169	
Molybdenum	202.0						0.000027	
Nickel	231.6				0.000375		0.000142	-0.00018
Potassium	766.4							
Selenium	196.0		-0.001896					0.000542
Silicon	288.1		-0.003025				-0.000258	
Silver	328.0	-0.000021		-0.000011			0.000583	
Sodium	588.9						0.000262	
Strontium	421.5	0.000071		0.000017				
Thallium	190.8						0.000851	0.006722
Tin	283.9			-0.000329			0.004525	
Titanium	337.2						-0.000271	
Uranium	367.0							0.001834
Vanadium	292.4						-0.002521	
Zinc	213.8							-0.00005
Zirconium	343.8						-0.000033	-0.00051
Phosphorus	214.9		0.001187				0.000795	

Comments:

FORM XI (Part 2)-IN

17

U. S. EPA -CLP

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Heritage Laboratories, Inc. Contract :

Lab Code: Case No. : SAS No. :
ICP ID Number : ICP#242 Date : Feb 11, 1998

Analyte	Wave-length (nm)	Interelement Correction Factors for: Ti	Zr	Mo	B	Sr	Sn	Ba
Aluminum	308.2		-0.00033	0.019169				
Antimony	206.8	0.001167		0.005408			0.001312	
Arsenic	193.6		0.005115	0.001027				
Barium	493.4		-0.000191		0.000127	0.000158		
Beryllium	313.0		-0.000062	-0.000047				
Boron	249.6		0.000194	-0.000524				
Cadmium	226.5	0.000117		0.000076				
Calcium	317.9							
Chromium	267.7	0.000102	0.000801	-0.0045				
Cobalt	228.6	0.001663					0.000025	0.000441
Copper	324.7	0.001203		0.000648				
Iron	259.9	-0.000384	0.000885					
Lead	220.3			-0.000799				
Lithium	670.7							
Magnesium	279.0	-0.004244	-0.000934	-0.03065				
Manganese	257.6		0.000032	-0.000218				
Molybdenum	202.0		-0.000101		0.00005		-0.000042	
Nickel	231.6			-0.003003			0.000019	
Potassium	766.4							
Selenium	196.0		0.00037					
Silicon	288.1	0.008533	0.001264	0.002573			0.00254	
Silver	328.0	-0.000475	0.001966					
Sodium	588.9							
Strontium	421.5		0.00003					
Thallium	190.8	-0.027949		-0.003732				
Tin	283.9	0.018563	0.016534	0.007298				
Titanium	337.2		0.000817					
Uranium	367.0							
Vanadium	292.4	0.000503		-0.003564				
Zinc	213.8							
Zirconium	343.8			-0.000486				
Phosphorus	214.9	-0.009505	0.001026	0.005753				

Comments:

FORM XI (Part 3) IN

WATER METHOD DETECTION LIMITS, uG/L — Hotblock / Hotplate

Element	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	ICAP-61	GFAA	GFAA	GFAA	GFAA	GFAA	GFAA
	#32 (AH)	#32 (AH)	#32 (AAS)	#32 (AAS)	#242 (AH)	#242 (AH)	#242 (AAS)	TRACE	TRACE	PE5100-A	PE5100-A	PE5100-B	PE5100-B	PE3030	PE3030
		Hotblock		Hotblock		Hotblock	Hotblock		Hotblock		Hotblock		Hotblock		Hotblock
Complete	1/27/98	3/19/98	1/22/98	3/18/98	1/27/98	3/19/98	3/20/98	2/3/98	3/17/98	2/18/98	4/9/98	2/24/98	3/24/98	2/20/98	4/6/98
Al	32	37	20	25	43	21	21								
B	21	4.6	15	4.6	18	4.5	4.2								
Sb	14	19	16	17	25	20	18	3.5	2.9			2.1	1.7		
As	46	40	27	20	31	21	20	2.3	2.8	0.75	0.96	1.7	1.9		
Ba	0.79	0.92	1.9	0.92	1.7	0.94	0.64								
Be	1.5	0.67	0.83	0.83	0.10	0.13	0.36	0.22	0.10			0.099	0.056		
Bi	29	30	24	14											
Cd	2.9	2.2	3.0	2.1	2.6	1.7	3.2	0.24	0.20	0.086	0.20	0.11	0.23	0.19	0.17
Ca	94	36	90	36	92	23	23								
Cr	3.7	3.0	6.7	2.8	6.2	3.4	3.8	1.9	0.94					1.7	1.4
Co	3.2	2.0	2.5	3.5	3.6	1.9	2.8	0.90	1.0						
Cu	4.4	4.0	3.6	1.9	9.2	5.9	3.5							2.0	0.83
Fe	25	4.3	27	6.1	25	4.8	3.5								
Pb	15	16	29	12	25	36	18	1.9	1.7	1.7	0.82	1.2	1.2	2.6	1.4
Hg					99										
Mg	98	65	130	50	68	28	27								
Mn	1.4	1.0	2.1	0.96	1.2	0.80	0.48	1.2	0.85						
Mo	3.5	3.4	3.1	2.8	2.7	4.4	3.7								
Ni	4.8	3.7	7.8	3.6	7.7	3.3	5.1					2.5			
K	90	79	110	99	140	85	56								
Li	3.0	3.2	2.5	1.6	20	13	18								
P					160	150	160								
Se	28	40	22	48	50	33	25	2.3	2.2	1.3	1.6	1.2	1.5		
Si	28	22	23	13	49	30	31								
Sr	0.92	0.70	0.46	0.97	1.1	0.40	0.50								
Sn	11	13	10	10	110	71	59								
Ag	3.4	2.4	4.0	2.0	3.6	3.8	4.4	1.6	1.3					0.18	0.37
Na	120	32	120	17	120	30	26								
Ti	2.0	1.9	1.4	1.6	4.3	2.6	2.7								
Tl	140	67	78	110	53	49	38	3.4	3.2	0.90	0.86	0.81	0.90		
U					140	93	86								
V	1.7	1.9	2.8	2.2	4.2	2.1	1.3	0.96	1.0	0.86	0.69				
Y	2.3	0.83													
Zn	17	1.1	20	3.2	19	2.3	2.2								
Zr	6.0	2.3	6.8	3.7	5.4	3.6	4.1								
As prep												1.3			
Se prep										1.2					
Pb (DW)										1.2		1.2		1.8	
As (2inj.)												0.84			
Hg	CVAA	PE-FIMS	1/29/98	0.031											4/14/98

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U. S. EPA -CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Heritage Laboratories, Inc. Contract :

Lab Code: Case No. : SAS No. : SDG No.

ICP ID Number : ICP#242 Date : May 18, 1998
Flame AA ID Number : PE FIMS-CVAA
Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	USEPA CRDL (uG/L)	Laboratory Reporting Limits (uG/L)		IDL (uG/L)	M
Aluminum	308.2		200	50		14	P
Antimony	206.8		60	30		23	P
Arsenic	193.6		10	100		27	P
Barium	493.4		200	10		0.84	P
Beryllium	313.0		5	4		0.12	P
Boron	249.6			50		4.2	P
Cadmium	226.5		5	5		3.3	P
Calcium	317.9		5000	200		8.2	P
Chromium	267.7		10	10		3.6	P
Cobalt	228.6		50	10		3.2	P
Copper	324.7		25	20		3.1	P
Iron	259.9		100	25		2.1	P
Lead	220.3		3	50		46	P
Lithium	670.7			50		18	P
Magnesium	279.0		5000	200		20	P
Manganese	257.6		15	10		0.66	P
Mercury **	253.7		0.20	0.20		0.031	CV
Molybdenum	202.0			10		4.2	P
Nickel	231.6		40	10		5.0	P
Phosphorus	214.9			500		120	P
Potassium	766.4		5000	200		98	P
Selenium	196.0		5	100		42	P
Silicon	288.1			200		31	P
Silver	328.0		10	10		4.6	P
Sodium	588.9		5000	200		37	P
Strontium	421.5			10		0.64	P
Thallium	190.8		10	300		54	P
Tin	283.9			200		97	P
Titanium	337.2			10		2.3	P
Uranium	367.0			500		84	P
Vanadium	292.4		50	10		2.3	P
Zinc	213.8		20	20		2.6	P
Zirconium	343.8			10		3.5	P

Comments: **Mercury on 2/10/98

FORM X - IN

MTO PREP SHEET Method: EPA 200.0
Prep Worksheet for Run: R348740 Instrument: 275 Page: 1

Analyst T/W/N # 2908 Reviewed ___/___/___ #_____ Recorded ___/___/___ #_____
Date 05/21/98 Start 1130 Stop 1730 Date ___/___/___ Date ___/___/___

SAMPLE	TEST	Initial Wt/Vol	Final Volume	DUE	SUBMITTER	CONTAINER ID	AN_REP	ELEMENT
A441390	P129.2.0	50ml	50ml	27-MAY	IDEM - OFFICE	DK 11023	ICP.0	Ba Ca Fe K Mg Na
A441396	P129.2.0			27-MAY	IDEM - OFFICE	DK 1024	ICP.0	Ba Ca Fe K Mg Na
A441397	P129.2.0			27-MAY	IDEM - OFFICE	1025	ICP.0	Ba Ca Fe K Mg Na
A441398	P129.2.0			27-MAY	IDEM - OFFICE	11026	ICP.0	Ba Ca Fe K Mg Na
A441399	P129.2.0			27-MAY	IDEM - OFFICE	11027	ICP.0	Ba Ca Fe K Mg Na
A441400	P129.2.0			27-MAY	IDEM - OFFICE	11028	ICP.0	Ba Ca Fe K Mg Na
A441401	P129.2.0			27-MAY	IDEM - OFFICE	11029	ICP.0	Ba Ca Fe K Mg Na
A441402	P129.2.0			27-MAY	IDEM - OFFICE	11030	ICP.0	Ba Ca Fe K Mg Na
A441403	P129.2.0			27-MAY	IDEM - OFFICE	11031	ICP.0	Ba Ca Fe K Mg Na
A442828	P129.2.0			22-MAY	PRAXAIR - JK	3148 T3 2B5G	ICP.0	Ca K Mg Na Si Zr
Q836545	LCS					7328		
Q836546	BLA02							
Q836547	SPI02				A441390		7259	
Q836548	DPS02				↓		7340 7260	

hot block

HNO3 Fisher 117040 H2O2 Fisher _____ HCL Fisher 417090 Balance# _____
(runprep.sql)

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AAS# 2012
ICP# 242
5/21/98
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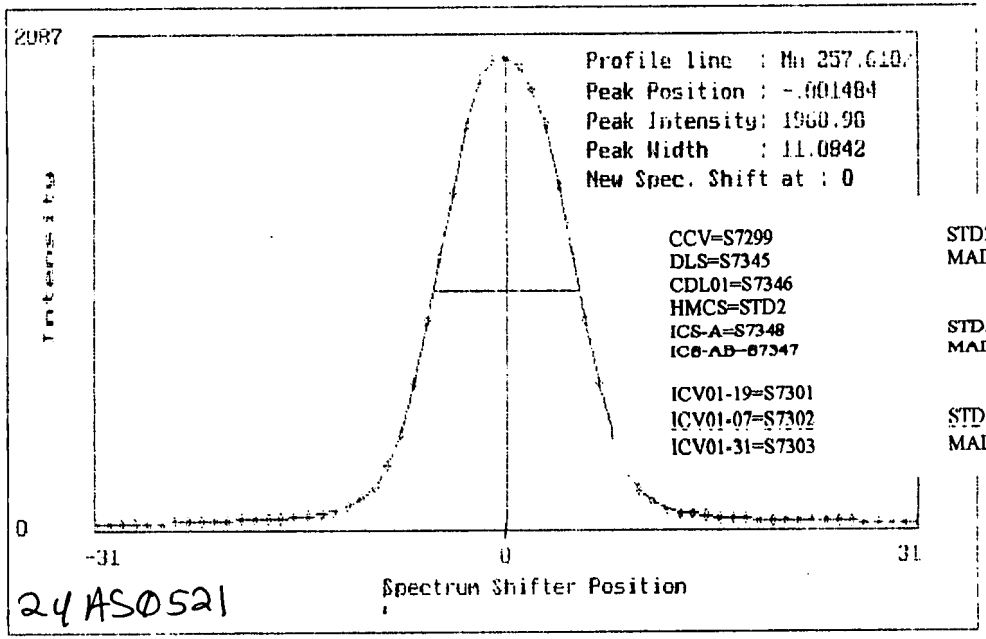

24AS0521

A442837; 928-930 Ag Ba Cd Cr Ni Pb

A441390; 396-403 Ba Ca Fe K Mg Na

Method: EMS Standard: STD4

Elem	Mo2020	Sb2068	Si2881	Sn2839	Ti3372
Avge	2.947	.8283	.5480	.2242	10.57
SDev	.033	.0132	.0065	.0079	.09
%RSD	1.104	1.590	1.194	3.509	.8168
#1	2.924	.8376	.5434	.2298	10.51
#2	2.970	.8190	.5526	.2186	10.63

Method: EMS Standard: STD2

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Cd2265
Avge	.8234	1.533	1.665	7.963	3.3340	23.324	6.724
SDev	.0032	.001	.006	.030	.0110	.089	.001
%RSD	.3865	.0865	.3398	.3752	.32874	.38198	.0131
#1	.8211	1.534	1.661	7.942	3.3417	23.261	6.724
#2	.8256	1.532	1.669	7.984	3.3263	23.387	6.723

Elem	Co2286	Cr2677	Cu3247	Fe2599	Li6707	Mn2576	Ni2316
Avge	1.463	14.65	2.739	6.249	.1733	1.9894	3.310
SDev	.003	.03	.001	.010	.0010	.0035	.001
%RSD	.1812	.1822	.0420	.1556	.5610	.17772	.0267
#1	1.465	14.67	2.738	6.256	.1726	1.9919	3.309
#2	1.461	14.63	2.740	6.242	.1740	1.9869	3.310

Elem	Pb2203	Se1960	Sr4215	Tl1908	V_2924	Zn2138	Zr3438
Avge	1.574	2.328	12.587	1.936	8.144	5.163	4.0909
SDev	.001	.015	.024	.021	.012	.005	.0074
%RSD	.0506	.6569	.19451	1.077	.1519	.0959	.18149
#1	1.573	2.317	12.605	1.951	8.153	5.160	4.0961
#2	1.574	2.339	12.570	1.921	8.135	5.167	4.0856

Method: EMS Standard: STD3

Elem	Ca3179	K_7664	Mg2790	Na5889
Avge	.3341	1.120	.9016	1.082
SDev	.0026	.009	.0065	.009
%RSD	.7673	.7815	.7157	.8496
#1	.3359	1.126	.9061	1.089
#2	.3322	1.113	.8970	1.076

Method: EMS Standard: STD1-Blank

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.0102	.0208	-.0011	.0043	.00006	.00450	.0001
SDev	.0011	.0003	.0071	.0011	.00009	.00000	.0001
%RSD	11.28	1.274	628.5	24.96	141.42	.00000	141.4
#1	.0094	.0206	.0039	.0035	.00000	.00450	.0001
#2	.0110	.0210	-.0061	.0050	.00013	.00450	.0000

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Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0000	-.0002	.0058	.0019	.0002	.0209	.0003
SDev	.0005	.0003	.0041	.0001	.0004	.0010	.0002
%RSD	.0000	141.4	70.71	4.562	235.7	4.644	70.71
#1	-.0004	-.0004	.0029	.0020	.0005	.0216	.0004
#2	.0004	.0000	.0086	.0019	-.0001	.0203	.0001

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	.0027	.00075	.0006	.0349	.0012	.0046	.0049
SDev	.0007	.00000	.0010	.0000	.0009	.0002	.0068
%RSD	25.71	.00000	172.8	.0000	70.71	3.822	137.8
#1	.0022	.00075	-.0001	.0349	.0006	.0045	.0001
#2	.0033	.00075	.0012	.0349	.0019	.0047	.0098

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0044	.0024	-.0052	.00000	.0036	-.0012	.0019
SDev	.0001	.0009	.0019	.00018	.0000	.0026	.0013
%RSD	1.992	37.22	37.04	.00000	.0000	215.9	68.43
#1	-.0044	.0030	-.0039	-.00013	.0036	.0006	.0010
#2	-.0045	.0018	-.0066	.00013	.0036	-.0030	.0029

Elem	Zn2138	Zr3438
Avge	.0025	.00050
SDev	.0005	.00071
%RSD	21.21	141.42
#1	.0021	.00100
#2	.0029	.00000

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/21/98 23:16:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.9952	4.950	4.963	4.924	4.8897	4.7211	48.98
SDev	.0008	.006	.023	.005	.0053	.0042	.20
%RSD	.0844	.1251	.4668	.0988	.10845	.08897	.3998
#1	.9946	4.955	4.979	4.928	4.8859	4.7241	49.11
#2	.9958	4.946	4.946	4.921	4.8934	4.7182	48.84

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	4.859	4.859	4.857	4.878	4.882	50.81	4.948
SDev	.014	.021	.004	.002	.013	.09	.031
%RSD	.2922	.4352	.0870	.0401	.2726	.1710	.6193
#1	4.869	4.874	4.860	4.877	4.892	50.75	4.926
#2	4.849	4.844	4.854	4.880	4.873	50.87	4.969

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	48.93	4.8842	1.016	50.04	4.853	4.862	.9787

SDev	.05	.0076	.006	.08	.022	.003	.0153
%RSD	.1111	.15472	.5532	.1518	.4461	.0663	1.566
#1	48.97	4.8896	1.020	49.98	4.868	4.860	.9896
#2	48.89	4.8789	1.012	50.09	4.838	4.865	.9679

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	4.900	5.165	L3.936	4.8688	5.004	5.004	4.883
SDev	.034	.003	.049	.0023	.013	.045	.013
%RSD	.7030	.0614	1.245	.04626	.2573	.9063	.2616
#1	4.876	5.163	L3.901	4.8672	5.013	5.036	4.892
#2	4.924	5.168	L3.971	4.8704	4.995	4.972	4.874

Elem	Zn2138	Zr3438
Avge	4.885	4.9153
SDev	.019	.0026
%RSD	.3965	.05333
#1	4.899	4.9171
#2	4.871	4.9134

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/21/98 23:19:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0017	-.0016	.0069	.0063	.00075	.00075	.0112
SDev	.0013	.0094	.0065	.0000	.00026	.00015	.0027
%RSD	76.77	576.8	93.72	.0209	35.420	20.232	23.57
#1	-.0026	-.0083	.0023	.0063	.00056	.00064	.0094
#2	-.0008	.0050	.0115	.0063	.00094	.00086	.0131

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0026	-.0009	.0030	.0025	.0007	-.0222	-.0072
SDev	.0003	.0018	.0006	.0006	.0017	.0676	.0000
%RSD	10.12	209.2	20.47	25.84	242.4	304.6	.0004
#1	.0028	.0004	.0034	.0020	-.0005	.0256	-.0072
#2	.0024	-.0022	.0026	.0030	.0019	-.0700	-.0072

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0132	.00126	.0010	.0191	.0006	.0103	-.0051
SDev	.0009	.00000	.0022	.0034	.0024	.0078	.0037
%RSD	6.944	.05042	220.5	17.68	422.4	75.97	73.34
#1	-.0138	.00126	.0025	.0167	.0023	.0048	-.0024
#2	-.0125	.00126	-.0005	.0215	-.0011	.0158	-.0077

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0027	.0219	.0471	.00060	.0028	.0079	-.0008
SDev	.0186	.0082	.0163	.00042	.0008	.0198	.0004
%RSD	694.1	37.59	34.50	70.729	29.54	249.9	53.84

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#1	-.0158	.0277	.0356	.00030	.0034	-.0061	-.0005
#2	.0104	.0161	.0586	.00089	.0022	.0219	-.0011

Elem	Zn2138	Zr3438
Avge	.0010	.00198
SDev	.0007	.00194
%RSD	72.04	97.595
#1	.0005	.00061
#2	.0015	.00335

Method: EMS Sample Name: ICV01-19 Operator: AAS
Run Time: 05/21/98 23:21:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0052	.0070	.9958	.0025	.00041	.95591	1.020
SDev	.0035	.0093	.0011	.0009	.00027	.00186	.005
%RSD	66.57	133.3	.1114	35.53	65.002	.19460	.5190
#1	-.0028	.0004	.9966	.0019	.00022	.95460	1.016
#2	-.0077	.0135	.9950	.0032	.00060	.95723	1.024

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	1.040	1.033	1.029	1.016	1.034	-.0637	.9968
SDev	.004	.009	.001	.000	.002	.0314	.0306
%RSD	.3917	.8797	.0905	.0319	.2188	49.24	3.074
#1	1.037	1.040	1.029	1.015	1.032	-.0415	.9751
#2	1.043	1.027	1.028	1.016	1.035	-.0859	1.018

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	.9895	1.0314	H1.066	-.0000	1.026	1.003	1.027
SDev	.0011	.0013	.003	.0068	.004	.032	.026
%RSD	.1086	.12935	.2412	36e6	.4182	3.231	2.538
#1	.9902	1.0323	H1.068	-.0048	1.029	.9805	1.008
#2	.9887	1.0304	H1.065	.0048	1.023	1.026	1.045

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.9724	.0154	-.3303	1.0142	1.040	1.047	1.025
SDev	.0239	.0262	.0073	.0001	.000	.007	.002
%RSD	2.455	169.6	2.196	.01387	.0164	.7090	.1699
#1	.9555	.0340	-.3252	1.0143	1.040	1.042	1.026
#2	.9892	-.0031	-.3355	1.0141	1.040	1.052	1.024

Elem	Zn2138	Zr3438
Avge	1.025	1.0176
SDev	.001	.0034
%RSD	.1025	.33744
#1	1.024	1.0152
#2	1.025	1.0200

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Method: EMS Sample Name: ICV01-07 Operator: AAS
Run Time: 05/21/98 23:24:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	H.5358	.9758	-.0002	.9994	.99241	.00024	.0019
SDev	.0080	.0093	.0054	.0009	.00822	.00011	.0053
%RSD	1.502	.9565	3011.	.0891	.82820	46.750	282.8
#1	H.5415	.9824	.0036	1.000	.99822	.00016	-.0019
#2	H.5301	.9692	-.0040	.9988	.98660	.00032	.0056

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0012	-.0005	.0003	.0011	.0008	9.958	-.0181
SDev	.0030	.0006	.0026	.0000	.0004	.030	.0051
%RSD	254.5	122.2	833.2	.0644	52.88	.2989	28.28
#1	-.0009	-.0001	.0022	.0011	.0011	9.979	-.0217
#2	.0033	-.0009	-.0015	.0011	.0005	9.937	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0187	-.00031	.0009	1.015	.0020	-.0286	-.0232
SDev	.0128	.00044	.0020	.009	.0035	.0067	.0036
%RSD	68.52	141.48	222.9	.9145	169.6	23.48	15.37
#1	-.0097	-.00063	.0023	1.022	.0045	-.0239	-.0207
#2	-.0278	.00000	-.0005	1.009	-.0004	-.0334	-.0257

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0070	5.202	H2.130	.00020	.0017	-.0156	-.0015
SDev	.0004	.029	.080	.00014	.0003	.0272	.0003
%RSD	5.357	.5633	3.762	70.663	20.16	174.4	19.89
#1	-.0067	5.222	H2.187	.00010	.0014	.0036	-.0017
#2	-.0072	5.181	2.073	.00030	.0019	-.0348	-.0013

Elem	Zn2138	Zr3438
Avge	.0001	.00122
SDev	.0002	.00086
%RSD	166.9	70.784
#1	-.0000	.00061
#2	.0002	.00183

Method: EMS Sample Name: ICV01-31 Operator: AAS
Run Time: 05/21/98 23:26:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0029	.0127	-.0089	.0039	.00037	.00008	20.03
SDev	.0004	.0066	.0016	.0011	.00027	.00004	.03
%RSD	14.79	51.53	18.52	28.33	71.061	46.705	.1718

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#1	-.0032	.0174	-.0101	.0047	.00019	.00011	20.05
#2	-.0026	.0081	-.0077	.0031	.00056	.00005	20.00

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	-.0000	-.0021	.0008	.0023	.0013	19.90	-.0289
SDev	.0000	.0012	.0008	.0010	.0011	.10	.0204
%RSD	70.10	56.47	94.06	42.63	86.64	.4812	70.71
#1	-.0000	-.0030	.0014	.0016	.0005	19.96	-.0144
#2	-.0000	-.0013	.0003	.0030	.0021	19.83	-.0433

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	19.52	-.00038	.0037	19.79	-.0019	-.0167	-.0014
SDev	.04	.00000	.0019	.04	.0053	.0325	.0012
%RSD	.1918	.08087	51.72	.1834	284.9	195.0	83.21
#1	19.54	-.00038	.0050	19.82	.0019	.0063	-.0023
#2	19.49	-.00038	.0023	19.77	-.0057	-.0396	-.0006

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0321	.0185	.0054	.00160	.0022	.0399	-.0014
SDev	.0246	.0161	.1187	.00000	.0009	.0041	.0004
%RSD	76.61	86.98	2193.	.04613	41.52	10.29	29.38
#1	-.0147	.0071	-.0785	.00160	.0029	.0370	-.0017
#2	-.0495	.0299	.0893	.00161	.0016	.0428	-.0011

Elem	Zn2138	Zr3438
Avge	.0004	-.00076
SDev	.0005	.00280
%RSD	133.7	367.33
#1	.0007	-.00274
#2	.0000	.00122

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/21/98 23:29:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0026	.0034	-.0162	.0011	.00000	.00005	.0075
SDev	.0000	.0032	.0033	.0033	.00026	.00000	.0027
%RSD	.0485	95.70	20.09	302.0	74821.	2.2463	35.36
#1	-.0026	.0011	-.0139	.0035	-.00019	.00005	.0094
#2	-.0026	.0057	-.0185	-.0013	.00019	.00006	.0056

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	-.0003	-.0013	.0012	.0014	.0006	.0375	-.0144
SDev	.0001	.0024	.0011	.0016	.0001	.0249	.0000
%RSD	47.15	187.8	90.07	118.1	23.75	66.43	.0000
#1	-.0002	.0004	.0004	.0025	.0005	.0552	-.0144
#2	-.0004	-.0030	.0020	.0002	.0007	.0199	-.0144

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Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0124	.00094	.0027	.0221	.0009	.0051	.0185
SDev	.0098	.00044	.0017	.0025	.0024	.0286	.0055
%RSD	78.69	47.205	62.87	11.47	255.3	556.2	29.52
#1	-.0193	.00126	.0039	.0239	.0026	.0254	.0146
#2	-.0055	.00063	.0015	.0203	-.0008	-.0151	.0223

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0075	.0196	.0236	-.00000	.0021	-.0042	-.0012
SDev	.0080	.0082	.0028	.00000	.0011	.0249	.0016
%RSD	106.1	41.69	11.66	32.209	52.57	600.1	134.2
#1	.0131	.0254	.0217	-.00000	.0028	.0135	-.0001
#2	.0019	.0138	.0256	-.00000	.0013	-.0218	-.0024

Elem	Zn2138	Zr3438
Avge	.0019	.00259
SDev	.0007	.00065
%RSD	36.08	25.058
#1	.0014	.00305
#2	.0024	.00213

Method: EMS Sample Name: DLS Operator: AAS
Run Time: 05/21/98 23:31:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.0114	.0377	-.0131	.0003	.01069	.00485	.0019
SDev	.0024	.0056	.0092	.0027	.00000	.00004	.0053
%RSD	20.95	14.86	70.56	894.5	.00230	.77241	282.8
#1	.0131	.0337	-.0196	.0022	.01069	.00482	-.0019
#2	.0097	.0416	-.0066	-.0016	.01069	.00487	.0056

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	L.0017	.0107	.0144	.0206	.0252	-.0040	-.0072
SDev	.0005	.0012	.0022	.0010	.0010	.0241	.0000
%RSD	31.47	11.32	15.46	4.704	3.927	606.1	.0003
#1	L.0020	.0098	.0128	.0212	.0245	.0131	-.0072
#2	L.0013	.0116	H.0160	.0199	.0259	-.0210	-.0072

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0256	.01132	.0014	.0101	.0057	.0476	.0206
SDev	.0107	.00000	.0024	.0042	.0021	.0022	.0060
%RSD	41.95	.00561	172.8	41.59	37.51	4.708	29.27
#1	-.0332	.01132	.0031	.0131	L.0042	.0492	.0163
#2	-.0180	.01131	-.0003	.0072	.0072	.0460	.0248

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0104	.0119	-.0497	.00005	.0018	-.0311	.0108
SDev	.0038	.0001	.0688	.00007	.0003	.0480	.0004

%RSD	36.30	1.264	138.6	141.32	13.66	154.4	4.012
#1	.0131	.0120	-.0983	.00000	.0020	.0028	.0105
#2	.0078	.0118	-.0010	.00010	.0017	-.0650	.0112

Elem	Zn2138	Zr3438
Avge	.0204	.00004
SDev	.0014	.00043
%RSD	6.790	1010.3
#1	.0214	.00035
#2	.0194	-.00026

Method: EMS Sample Name: CDL01 Operator: AAS
Run Time: 05/21/98 23:34:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.0181	-.0034	.0058	-.0007	-.00037	.00952	.0019
SDev	.0013	.0009	.0126	.0008	.00026	.00000	.0000
%RSD	7.237	26.93	216.7	108.7	70.622	.02234	.0000
#1	.0191	-.0041	-.0031	-.0002	-.00019	.00952	.0019
#2	.0172	-.0028	.0147	-.0013	-.00056	.00952	.0019

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0094	.1032	.0203	.0502	.0003	-.0330	-.0108
SDev	.0028	.0048	.0034	.0029	.0001	.0764	.0153
%RSD	29.37	4.688	16.59	5.782	42.54	231.6	141.4
#1	.0113	.1066	.0227	.0523	.0002	.0210	.0000
#2	.0074	.0997	.0179	.0482	.0004	-.0870	-.0217

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0198	.03050	.0023	.0006	.0759	.0712	.1126
SDev	.0069	.00044	.0011	.0076	.0016	.0168	.0192
%RSD	34.62	1.4574	47.40	1273.	2.123	23.66	17.05
#1	-.0150	.03082	.0015	.0060	.0748	.0831	.1262
#2	-.0247	.03019	.0031	-.0048	.0771	.0592	.0990

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0008	.0025	.0185	.00010	.0020	.0146	.0985
SDev	.0030	.0132	.0106	.00014	.0023	.0014	.0024
%RSD	359.7	516.3	56.98	141.52	115.2	9.401	2.424
#1	-.0030	.0119	.0111	.00020	.0036	.0136	.1002
#2	.0013	-.0068	.0260	-.00000	.0004	.0155	.0968

Elem	Zn2138	Zr3438
Avge	.0382	-.00015
SDev	.0002	.00129
%RSD	.4594	867.92
#1	.0383	-.00106

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#2	.0381	.00076

Method: EMS Sample Name: HMCS Operator: AAS
Run Time: 05/21/98 23:36:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	1.979	9.892	10.04	9.972	9.8255	10.030	.0075
SDev	.007	.042	.06	.037	.0146	.031	.0027
%RSD	.3293	.4237	.5961	.3724	.14839	.31146	35.36
#1	1.984	9.922	10.08	9.998	9.8358	10.052	.0056
#2	1.974	9.862	9.999	9.946	9.8151	10.008	.0094

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	9.996	10.00	9.986	9.874	9.957	-.0398	9.856
SDev	.034	.01	.019	.024	.023	.0072	.056
%RSD	.3445	.1446	.1855	.2388	.2301	18.18	.5700
#1	10.02	10.01	9.999	9.891	9.974	-.0449	9.895
#2	9.971	9.990	9.973	9.858	9.941	-.0347	9.816

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0456	9.9855	-.0079	.0101	9.964	9.859	-.0551
SDev	.0002	.0249	.0001	.0076	.017	.031	.0040
%RSD	.3795	.24926	1.588	74.87	.1663	.3118	7.281
#1	-.0454	10.003	-.0078	.0048	9.976	9.837	-.0579
#2	-.0457	9.9679	-.0080	.0155	9.952	9.881	-.0522

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	10.06	.1482	-2.584	9.8741	-.0019	10.13	9.920
SDev	.04	.0160	.041	.0146	.0003	.13	.020
%RSD	.4182	10.78	1.587	.14791	16.57	1.277	.2035
#1	10.09	.1369	-2.613	9.8845	-.0017	10.04	9.934
#2	10.03	.1595	-2.555	9.8638	-.0021	10.22	9.906

Elem	Zn2138	Zr3438
Avge	9.934	9.9254
SDev	.021	.0233
%RSD	.2088	.23513
#1	9.949	9.9419
#2	9.920	9.9089

Method: EMS Sample Name: ICS-A Operator: AAS
Run Time: 05/21/98 23:39:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0060	469.1	H.1140	.0136	.00544	.00104	464.5
SDev	.0022	2.6	.0091	.0012	.00053	.00072	.1

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%RSD	36.47	.5522	7.986	8.999	9.7490	69.026	.0194
#1	-.0075	467.3	H.1076	.0127	.00506	.00053	464.6
#2	-.0044	470.9	H.1204	.0145	.00581	.00155	464.5

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	H.0102	-.0017	-.0014	-.0001	177.4	-.0199	-.0147
SDev	.0018	.0018	.0018	.0013	.4	.0145	.0153
%RSD	17.75	104.5	131.6	1256.	.2132	72.73	104.4
#1	H.0115	-.0005	-.0001	.0008	177.1	-.0097	-.0255
#2	.0089	-.0030	-.0026	-.0010	177.7	-.0301	-.0038

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	487.2	-.00358	-.0001	.0012	.0004	H.0585	H.0573
SDev	1.7	.00041	.0033	.0051	.0043	.0150	.0143
%RSD	.3491	11.465	3701.	424.3	1224.	25.73	24.88
#1	486.0	-.00387	.0022	.0048	.0034	H.0691	H.0472
#2	488.4	-.00329	-.0024	-.0024	-.0027	.0478	H.0674

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0808	.0934	H.2818	.00022	-.0053	H.6098	.0025
SDev	.0405	.0239	.0003	.00063	.0024	.0374	.0003
%RSD	50.08	25.63	.1089	286.11	44.54	6.125	9.850
#1	L-.1094	.1103	H.2820	-.00023	-.0036	H.6362	.0027
#2	-.0522	.0765	H.2816	.00067	-.0070	H.5833	.0023

Elem	Zn2138	Zr3438
Avge	.0037	.00305
SDev	.0010	.00045
%RSD	27.19	14.825
#1	.0030	.00337
#2	.0044	.00273

Method: EMS Sample Name: ICS Operator: AAS
Run Time: 05/21/98 23:42:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.2035	469.3	.1509	.0056	.47433	.44585	467.1
SDev	.0027	1.2	.0552	.0009	.00026	.00026	.1
%RSD	1.327	.2512	36.56	15.91	.05596	.05937	.0130
#1	.2054	470.1	.1119	.0050	.47452	.44603	467.2
#2	.2016	468.4	.1900	.0062	.47415	.44566	467.1

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.9256	.4510	.4533	.4822	178.2	-.0427	-.0219
SDev	.0052	.0006	.0050	.0006	.1	.0788	.0357
%RSD	.5584	.1381	1.114	.1355	.0833	184.8	163.3
#1	.9220	.4514	.4497	.4827	178.3	.0131	-.0472

#2	.9293	.4505	.4569	.4818	178.0	-.0984	.0034

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	489.4	.45337	-.0038	.0167	.8784	1.035	.6596
SDev	1.0	.00131	.0022	.0000	.0016	.019	.0224
%RSD	.2084	.28981	56.87	.0000	.1805	1.881	3.395
#1	490.1	.45430	-.0023	.0167	.8773	1.021	.6438
#2	488.7	.45244	-.0053	.0167	.8795	1.049	.6754

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0087	.1013	.0817	.00269	-.0068	H.5883	.4700
SDev	.0106	.0046	.0542	.00014	.0039	.0518	.0012
%RSD	122.4	4.494	66.35	5.2725	56.85	8.807	.2482
#1	.0012	.1045	.0434	.00259	-.0095	H.5517	.4708
#2	.0162	.0981	.1200	.00279	-.0041	H.6250	.4692

Elem	Zn2138	Zr3438
Avge	.9492	.00431
SDev	.0041	.00064
%RSD	.4340	14.913
#1	.9521	.00477
#2	.9463	.00386

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/21/98 23:44:39
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.9992	5.170	4.935	4.946	4.8822	4.7493	48.30
SDev	.0018	.194	.000	.012	.0016	.0011	.17
%RSD	.1787	3.749	.0017	.2473	.03256	.02378	.3616
#1	.9979	5.033	4.935	4.954	4.8833	4.7501	48.18
#2	1.000	5.307	4.935	4.937	4.8811	4.7485	48.43

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	4.884	4.885	4.881	4.890	4.925	50.89	4.987
SDev	.003	.007	.014	.016	.081	.01	.036
%RSD	.0697	.1360	.2850	.3364	1.637	.0142	.7169
#1	4.881	4.890	4.891	4.902	4.868	50.88	4.962
#2	4.886	4.880	4.871	4.878	4.982	50.89	5.013

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	49.16	4.9075	1.015	50.02	4.851	4.856	.9780
SDev	.13	.0076	.006	.07	.010	.034	.0096
%RSD	.2635	.15406	.5592	.1350	.2150	.7073	.9833
#1	49.07	4.9128	1.019	50.07	4.859	4.881	.9848
#2	49.25	4.9021	1.011	49.97	4.844	4.832	.9712

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924

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Avge	4.949	5.175	L3.910	4.8804	5.021	4.958	4.892
SDev	.011	.019	.128	.0039	.009	.006	.012
%RSD	.2219	.3752	3.275	.07922	.1881	.1204	.2359
#1	4.941	5.189	L4.001	4.8831	5.028	4.954	4.900
#2	4.956	5.161	L3.820	4.8777	5.015	4.962	4.883

Elem	Zn2138	Zr3438
Avge	4.863	4.9341
SDev	.004	.0084
%RSD	.0861	.17087
#1	4.860	4.9400
#2	4.866	4.9281

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/21/98 23:47:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0049	H.0550	.0109	.0091	.00094	.00139	.0711
SDev	.0028	.0298	.0113	.0009	.00053	.00068	.0291
%RSD	57.77	54.26	103.3	9.736	56.655	48.825	40.94
#1	-.0069	.0339	.0029	.0098	.00056	.00091	.0505
#2	-.0029	H.0761	.0189	.0085	.00131	.00188	.0917

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	-.0000	.0008	.0018	.0011	.0240	.0068	-.0108
SDev	.0000	.0006	.0017	.0026	.0132	.0475	.0051
%RSD	56.53	71.20	94.15	227.0	54.79	695.3	47.14
#1	-.0000	.0004	.0006	-.0007	.0147	-.0267	-.0144
#2	-.0000	.0013	.0030	.0030	H.0334	.0404	-.0072

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	.0530	.00189	.0041	.0221	.0010	-.0123	.0123
SDev	.0415	.00089	.0053	.0143	.0008	.0163	.0243
%RSD	78.26	47.185	129.4	64.98	85.09	132.1	197.0
#1	.0237	.00126	.0003	.0119	.0004	-.0008	-.0048
#2	.0823	.00251	.0078	.0322	.0015	-.0238	.0295

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0190	.0137	.0851	.00129	.0029	.0010	.0001
SDev	.0068	.0033	.0205	.00070	.0008	.0627	.0024
%RSD	35.86	24.30	24.15	54.410	25.94	6300.	2438.
#1	-.0142	.0113	.0996	.00079	.0024	-.0433	-.0016
#2	-.0238	.0160	.0705	.00179	.0034	.0453	.0018

Elem	Zn2138	Zr3438
Avge	.0015	.00229
SDev	.0031	.00151
%RSD	212.8	66.007

#1	.0310	.0724	.1291	.00227	-.0049	H.5801	.4596
#2	-.0354	.0898	.1512	.00247	-.0088	H.6693	.4650

Elem	Zn2138	Zr3438
Avge	.9248	.00157
SDev	.0011	.00109
%RSD	.1212	69.723
#1	.9240	.00234
#2	.9256	.00080

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/22/98 00:41:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.9804	4.911	4.898	4.869	4.7551	4.6479	46.65
SDev	.0019	.039	.031	.029	.0074	.0165	.12
%RSD	.1977	.7996	.6376	.5867	.15607	.35567	.2610
#1	.9818	4.883	4.876	4.848	4.7498	4.6362	46.56
#2	.9791	4.939	4.920	4.889	4.7603	4.6596	46.73

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	4.744	4.767	4.775	4.808	4.707	49.91	4.915
SDev	.006	.015	.007	.013	.025	.16	.005
%RSD	.1246	.3167	.1374	.2684	.5266	.3111	.1039
#1	4.740	4.756	4.771	4.799	4.690	49.80	4.919
#2	4.749	4.777	4.780	4.817	4.725	50.02	4.912

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	48.03	4.7915	.9940	49.08	4.738	4.725	.9739
SDev	.11	.0053	.0041	.14	.015	.030	.0072
%RSD	.2375	.11126	.4082	.2924	.3155	.6387	.7425
#1	47.95	4.7878	.9969	48.98	4.728	4.746	.9790
#2	48.11	4.7953	.9911	49.18	4.749	4.703	.9688

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	4.854	5.067	L3.795	4.7669	4.894	4.799	4.772
SDev	.066	.048	.055	.0048	.016	.094	.009
%RSD	1.350	.9417	1.439	.10157	.3348	1.956	.1858
#1	4.901	5.101	L3.756	4.7635	4.882	4.865	4.765
#2	4.808	5.033	L3.834	4.7703	4.906	4.732	4.778

Elem	Zn2138	Zr3438
Avge	4.759	4.8169
SDev	.017	.0091
%RSD	.3493	.18816
#1	4.748	4.8105
#2	4.771	4.8233

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Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/22/98 00:43:41
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0017	H.0550	.0101	.0107	.00169	.00190	.0805
SDev	.0017	.0243	.0048	.0022	.00053	.00057	.0265
%RSD	104.0	44.09	47.05	20.81	31.445	29.856	32.89
#1	-.0029	.0379	.0067	.0091	.00131	.00150	.0618
#2	-.0004	H.0722	.0135	.0123	.00206	.00231	.0992

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0039	.0008	.0018	.0036	.0249	.0137	-.0072
SDev	.0018	.0006	.0035	.0003	.0091	.0056	.0000
%RSD	47.15	71.07	193.5	8.697	36.34	41.25	.0024
#1	.0026	.0004	-.0007	.0034	.0185	.0097	-.0072
#2	H.0052	.0013	.0043	.0039	H.0314	.0176	-.0072

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	.0711	.00220	.0053	.0167	.0030	-.0297	-.0156
SDev	.0297	.00044	.0050	.0067	.0037	.0241	.0070
%RSD	41.72	20.235	95.20	40.41	123.3	80.97	44.66
#1	.0501	.00188	.0017	.0119	.0004	-.0468	-.0206
#2	.0921	.00251	.0088	.0215	.0057	-.0127	-.0107

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0110	.0090	.0825	.00179	.0030	-.0111	.0016
SDev	.0061	.0033	.0107	.00056	.0023	.0245	.0012
%RSD	55.19	36.53	12.99	31.424	74.90	221.1	78.71
#1	-.0067	.0067	.0901	.00139	.0014	-.0284	.0007
#2	-.0153	.0114	.0749	.00218	.0046	.0062	.0024

Elem	Zn2138	Zr3438
Avge	.0018	.00275
SDev	.0002	.00173
%RSD	10.50	62.784
#1	.0019	.00153
#2	.0017	.00397

Method: EMS Sample Name: Q836546 BLA02 Operator: AAS
Run Time: 05/22/98 00:46:15
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0009	.0171	-.0005	.0042	.00037	.00051	.0299
SDev	.0028	.0039	.0136	.0002	.00080	.00027	.0079
%RSD	308.1	22.49	2763.	5.182	212.26	52.157	26.52

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#1	.0011	.0144	.0092	.0041	-.00019	.00032	.0243
#2	-.0029	.0198	-.0101	.0044	.00094	.00070	.0356

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0006	.0008	.0041	.0025	.0117	.0233	-.0072
SDev	.0009	.0018	.0010	.0013	.0026	.0241	.0000
%RSD	141.7	214.2	23.33	51.52	21.77	103.5	.0007
#1	.0013	-.0004	.0048	.0016	.0099	.0063	-.0072
#2	-.0000	.0021	.0034	.0034	.0135	.0404	-.0072

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	.0120	.00094	.0049	.0090	.0038	.0083	.0027
SDev	.0187	.00044	.0006	.0059	.0053	.0163	.0019
%RSD	156.0	47.067	11.25	66.00	141.0	195.4	69.82
#1	-.0012	.00063	.0045	.0131	.0000	-.0032	.0041
#2	.0252	.00126	.0053	.0048	.0076	.0198	.0014

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0220	.0115	.0215	.00055	.0035	.0089	.0003
SDev	.0080	.0001	.0266	.00035	.0012	.0138	.0004
%RSD	36.21	.4096	123.8	64.343	33.04	156.0	163.5
#1	.0163	.0115	.0403	.00030	.0027	-.0009	.0006
#2	.0276	.0116	.0027	.00079	.0044	.0187	-.0000

Elem	Zn2138	Zr3438
Avge	.0033	.00138
SDev	.0012	.00107
%RSD	36.16	78.079
#1	.0024	.00213
#2	.0041	.00062

Method: EMS Sample Name: Q836545 LCS Operator: AAS
Run Time: 05/22/98 00:48:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	L.3659	18.45	19.20	.9036	18.922	.45144	90.52
SDev	.0002	.06	.01	.0006	.081	.00167	.04
%RSD	.0568	.2984	.0436	.0645	.42596	.36890	.0439
#1	L.3658	18.49	19.20	.9032	18.979	.45262	90.55
#2	L.3661	18.41	19.19	.9041	18.865	.45026	90.50

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.4703	4.605	1.840	2.363	8.301	99.62	.9933
SDev	.0051	.015	.005	.004	.013	.26	.0357
%RSD	1.090	.3280	.2620	.1778	.1553	.2649	3.599
#1	.4667	4.616	1.843	2.366	8.310	99.81	1.019
#2	.4740	4.594	1.836	2.360	8.292	99.44	.9680

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Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	93.54	4.6493	.9751	108.0	4.614	4.573	4.922
SDev	.12	.0080	.0049	.4	.024	.058	.017
%RSD	.1313	.17199	.5064	.4064	.5208	1.275	.3450
#1	93.63	4.6550	.9716	108.3	4.631	4.614	4.910
#2	93.45	4.6437	.9786	107.7	4.597	4.532	4.934

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	18.97	10.21	L-.3233	.95738	.9662	19.37	4.652
SDev	.10	.05	.0270	.00484	.0023	.20	.004
%RSD	.5110	.4503	8.346	.50599	.2422	1.034	.0930
#1	19.04	10.24	L-.3424	.96080	.9678	19.23	4.655
#2	18.90	10.18	L-.3042	.95395	.9645	19.51	4.649

Elem	Zn2138	Zr3438
Avge	4.607	.95271
SDev	.007	.00326
%RSD	.1509	.34222
#1	4.612	.95502
#2	4.602	.95041

Method: EMS Sample Name: A441390 1:5 Operator: AAS
Run Time: 05/22/98 00:51:24
Comment:
Mode: CONC Corr. Factor: 1

SD

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0055	.0055	.0165	.0057	.01102	.00027	16.43
SDev	.0013	.0072	.0082	.0009	.00106	.00008	.01
%RSD	23.64	130.9	49.83	15.82	9.6307	28.809	.0644
#1	-.0046	.0106	.0107	.0063	.01027	.00021	16.42
#2	-.0065	.0004	.0223	.0050	.01177	.00032	16.44

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0004	.0047	.0012	.0046	.0525	.2503	-.0108
SDev	.0010	.0036	.0048	.0003	.0004	.0684	.0051
%RSD	287.4	77.24	389.1	7.071	.8036	27.32	47.14
#1	-.0004	.0021	-.0022	.0043	.0522	.2019	-.0072
#2	.0011	.0073	.0047	.0048	.0528	.2986	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	8.091	.00361	.0037	.7174	.0053	.0008	-.0117
SDev	.008	.00000	.0015	.0000	.0027	.0516	.0205
%RSD	.0966	.00673	40.06	.0000	50.30	6108.	175.9
#1	8.097	.00361	.0027	.7174	.0034	-.0356	-.0261
#2	8.086	.00361	.0048	.7174	.0072	.0373	.0028

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0022	.9409	.0143	.27807	.0013	.0240	.0019
SDev	.0057	.0491	.0203	.00084	.0001	.0106	.0010

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%RSD	263.9	5.216	141.4	.30314	6.254	44.30	54.42
#1	.0019	.9756	.0287	.27867	.0014	.0315	.0027
#2	-.0062	.9062	.0000	.27747	.0013	.0165	.0012

Elem	Zn2138	Zr3438
Avge	.0020	.00108
SDev	.0008	.00108
%RSD	41.74	99.993
#1	.0014	.00032
#2	.0026	.00184

Method: EMS Sample Name: A441390 Operator: AAS
Run Time: 05/22/98 00:53:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0041	.0049	-.0122	.0190	.02191	.00008	79.40
SDev	.0013	.0044	.0278	.0014	.00027	.00004	.08
%RSD	31.91	89.93	229.0	7.602	1.2141	46.000	.1033
#1	-.0032	.0080	-.0318	.0200	.02209	.00006	79.35
#2	-.0050	.0018	.0075	.0179	.02172	.00011	79.46

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0006	-.0004	.0020	.0009	.2305	.9215	-.0181
SDev	.0001	.0036	.0035	.0016	.0008	.0459	.0051
%RSD	21.16	822.9	172.5	176.1	.3680	4.976	28.29
#1	.0007	.0021	.0045	.0021	.2311	.9539	-.0217
#2	.0005	-.0030	-.0004	-.0002	.2299	.8891	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	39.50	.00897	.0043	3.390	-.0019	-.0062	-.0013
SDev	.05	.00045	.0025	.002	.0059	.0291	.0082
%RSD	.1268	4.9720	57.19	.0498	313.9	467.7	626.0
#1	39.46	.00928	.0060	3.389	.0023	.0144	.0045
#2	39.53	.00865	.0026	3.391	-.0060	-.0268	-.0071

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0359	4.641	-.0244	1.3635	.0018	.0417	-.0017
SDev	.0042	.005	.0164	.0048	.0018	.0171	.0000
%RSD	11.60	.1068	67.28	.35006	100.4	40.98	1.528
#1	-.0389	4.638	-.0128	1.3601	.0031	.0538	-.0017
#2	-.0330	4.645	-.0360	1.3669	.0005	.0296	-.0018

Elem	Zn2138	Zr3438
Avge	.0016	-.00059
SDev	.0009	.00130
%RSD	56.91	219.83
#1	.0009	.00033

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#2	.0022	-.00151

Method: EMS Sample Name: Q836547 SPI02 Operator: AAS
Run Time: 05/22/98 00:56:32
Comment:
Mode: CONC Corr. Factor: 1

A441390

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.0342	1.890	1.987	.9451	1.9154	.04526	170.5
SDev	.0026	.013	.041	.0013	.0024	.00007	.1
%RSD	7.632	.6705	2.084	.1418	.12456	.16670	.0776
#1	.0361	1.881	1.957	.9441	1.9137	.04531	170.6
#2	.0324	1.899	2.016	.9460	1.9171	.04520	170.4

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0496	.4581	.1852	.2368	1.056	104.0	1.047
SDev	.0043	.0042	.0001	.0019	.001	.2	.010
%RSD	8.741	.9240	.0659	.8180	.0802	.1841	.9753
#1	.0527	.4611	.1851	.2355	1.057	103.8	1.040
#2	.0466	.4551	.1852	.2382	1.055	104.1	1.055

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	135.6	.47463	1.010	104.0	.4708	.4322	.4842
SDev	.2	.00089	.002	.2	.0013	.0151	.0159
%RSD	.1240	.18807	.2143	.1461	.2838	3.490	3.283
#1	135.5	.47527	1.011	103.9	.4718	.4215	.4955
#2	135.7	.47400	1.008	104.1	.4699	.4428	.4730

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	1.912	14.72	-.0767	2.2741	.9857	2.815	.4714
SDev	.011	.02	.0395	.0017	.0008	.016	.0007
%RSD	.5746	.1675	51.49	.07424	.0846	.5555	.1390
#1	1.920	14.70	-.0487	2.2729	.9851	2.826	.4719
#2	1.905	14.73	-.1046	2.2753	.9863	2.804	.4710

Elem	Zn2138	Zr3438
Avge	.4731	.96731
SDev	.0002	.00044
%RSD	.0371	.04514
#1	.4730	.96762
#2	.4732	.96700

Method: EMS Sample Name: Q836548 DPS02 Operator: AAS
Run Time: 05/22/98 00:59:06
Comment:
Mode: CONC Corr. Factor: 1

A441390

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.0362	1.829	1.918	.9272	1.8642	.04384	165.0
SDev	.0065	.008	.008	.0043	.0090	.00019	.6

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%RSD	17.97	.4617	.3934	.4678	.48347	.42868	[illegible]
#1	.0316	1.835	1.923	.9303	1.8706	.04398	165.4
#2	.0408	1.823	1.912	.9242	1.8579	.04371	164.6

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0461	.4504	.1838	.2312	1.027	101.8	1.015
SDev	.0004	.0006	.0018	.0003	.006	.8	.046
%RSD	.8554	.1374	.9921	.1419	.5792	.8325	4.529
#1	.0458	.4500	.1825	.2309	1.032	102.4	1.047
#2	.0464	.4509	.1851	.2314	1.023	101.2	.9823

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	131.8	.46213	.9884	101.5	.4594	.4547	.4914
SDev	.7	.00176	.0035	.7	.0061	.0224	.0180
%RSD	.5079	.38171	.3499	.6659	1.336	4.924	3.663
#1	132.3	.46338	.9859	102.0	.4638	.4706	.4787
#2	131.4	.46088	.9908	101.1	.4551	.4389	.5041

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	1.838	14.23	-.1285	2.1966	.9681	2.758	.4587
SDev	.018	.07	.0528	.0128	.0059	.002	.0021
%RSD	.9680	.5071	41.09	.58120	.6120	.0550	.4653
#1	1.851	14.29	-.1659	2.2056	.9723	2.759	.4602
#2	1.826	14.18	-.0912	2.1876	.9639	2.757	.4572

Elem	Zn2138	Zr3438
Avge	.4625	.94960
SDev	.0032	.00388
%RSD	.7018	.40843
#1	.4648	.95234
#2	.4602	.94685

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/22/98 01:01:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.9754	4.857	4.877	4.930	4.8104	4.6984	46.96
SDev	.0057	.002	.060	.028	.0019	.0232	.03
%RSD	.5819	.0447	1.224	.5777	.03850	.49467	.0564
#1	.9794	4.856	4.919	4.950	4.8117	4.7149	46.94
#2	.9713	4.859	4.835	4.910	4.8091	4.6820	46.98

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	4.772	4.790	4.816	4.869	4.710	50.47	5.002
SDev	.000	.001	.009	.017	.013	.08	.015
%RSD	.0055	.0247	.1969	.3578	.2826	.1530	.3063
#1	4.772	4.791	4.823	4.881	4.719	50.53	5.013

#2	4.772	4.789	4.810	4.857	4.700	50.42	4.991

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	48.46	4.8339	.9994	49.53	4.762	4.784	.9697
SDev	.19	.0058	.0025	.19	.021	.038	.0069
%RSD	.3920	.11950	.2496	.3851	.4320	.7964	.7087
#1	48.59	4.8380	1.001	49.67	4.777	4.811	.9745
#2	48.32	4.8299	.9976	49.40	4.748	4.757	.9648

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	4.896	5.134	L3.919	4.8302	4.954	4.944	4.821
SDev	.022	.015	.144	.0074	.014	.001	.013
%RSD	.4485	.2939	3.677	.15411	.2903	.0248	.2721
#1	4.911	5.144	L3.817	4.8355	4.964	4.945	4.831
#2	4.880	5.123	L4.021	4.8250	4.944	4.943	4.812

Elem	Zn2138	Zr3438
Avge	4.783	4.8741
SDev	.000	.0063
%RSD	.0059	.12850
#1	4.782	4.8785
#2	4.783	4.8697

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/22/98 01:04:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.0006	.0094	.0003	.0094	.00225	.00214	.0412
SDev	.0024	.0040	.0016	.0022	.00186	.00106	.0238
%RSD	389.9	42.42	554.0	23.57	82.535	49.459	57.85
#1	-.0011	.0066	-.0008	.0110	.00094	.00139	.0243
#2	.0023	.0122	.0014	.0079	.00356	.00290	.0580

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0017	.0013	.0059	.0043	.0018	.0432	-.0253
SDev	.0000	.0012	.0003	.0019	.0010	.0024	.0153
%RSD	.0107	95.77	4.801	44.71	55.04	5.582	60.61
#1	.0017	.0021	.0057	.0030	.0011	.0449	-.0361
#2	.0017	.0004	.0061	.0057	.0025	.0415	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	.0238	.00220	.0037	.0334	.0028	-.0059	.0015
SDev	.0255	.00133	.0033	.0203	.0019	.0006	.0083
%RSD	107.1	60.550	88.19	60.61	65.28	9.668	537.7
#1	.0058	.00126	.0061	.0191	.0015	-.0055	-.0043
#2	.0418	.00314	.0014	.0477	.0042	-.0063	.0074

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924

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Avge	.0094	.0103	.0476	.00248	.0046	.0063	.0015
SDev	.0257	.0016	.0274	.00126	.0026	.0019	.0013
%RSD	274.7	15.12	57.68	50.911	56.96	30.18	86.02
#1	.0276	.0092	.0282	.00159	.0027	.0050	.0006
#2	-.0088	.0114	.0670	.00338	.0064	.0077	.0024

Elem	Zn2138	Zr3438
Avge	.0014	.00351
SDev	.0007	.00022
%RSD	46.99	6.1940
#1	.0010	.00336
#2	.0019	.00366

Method: EMS Sample Name: A441396 Operator: AAS
Run Time: 05/22/98 01:06:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0043	.0007	.0008	.0098	.04044	.00051	52.50
SDev	.0015	.0029	.0119	.0004	.00026	.00034	.10
%RSD	35.62	415.2	1577.	4.553	.65629	66.523	.1815
#1	-.0032	-.0014	-.0077	.0094	.04025	.00027	52.43
#2	-.0054	.0028	.0092	.0101	.04063	.00075	52.57

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	-.0007	-.0017	.0012	.0071	.0045	.4664	-.0072
SDev	.0017	.0006	.0011	.0000	.0006	.0217	.0102
%RSD	262.5	34.99	88.73	.0454	12.48	4.657	141.4
#1	-.0019	-.0013	.0020	.0071	.0041	.4511	.0000
#2	.0006	-.0022	.0005	.0071	.0049	.4818	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	14.44	.00066	.0022	4.704	.0017	-.0079	-.0167
SDev	.02	.00044	.0021	.013	.0013	.0235	.0028
%RSD	.1426	67.256	94.36	.2692	77.69	296.8	17.04
#1	14.42	.00035	.0037	4.695	.0008	.0087	-.0147
#2	14.45	.00097	.0007	4.713	.0027	-.0246	-.0187

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0238	5.462	.0119	.34806	.0024	.0196	-.0004
SDev	.0121	.013	.0289	.00133	.0018	.0365	.0025
%RSD	50.83	.2390	242.2	.38265	77.98	185.8	556.0
#1	-.0153	5.453	-.0085	.34712	.0037	.0455	-.0022
#2	-.0324	5.472	.0324	.34900	.0011	-.0062	.0013

Elem	Zn2138	Zr3438
Avge	.0005	.00168
SDev	.0000	.00280
%RSD	1.276	166.93

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#1	.0005	-.00030
#2	.0005	.00366

Method: EMS Sample Name: A441397 Operator: AAS
Run Time: 05/22/98 01:09:22
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0049	.0068	-.0020	.0445	.01759	.00030	154.7
SDev	.0004	.0038	.0017	.0007	.00026	.00011	.2
%RSD	9.108	55.77	82.75	1.505	1.4872	38.291	.1180
#1	-.0052	.0095	-.0032	.0450	.01741	.00022	154.6
#2	-.0045	.0041	-.0008	.0441	.01778	.00038	154.8

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	-.0008	-.0009	.0008	.0037	.0723	1.077	-.0072
SDev	.0012	.0006	.0018	.0010	.0010	.016	.0000
%RSD	140.0	70.12	242.5	26.59	1.367	1.494	.0003
#1	-.0000	-.0013	.0020	.0030	.0730	1.065	-.0072
#2	-.0017	-.0004	-.0005	.0043	.0716	1.088	-.0072

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	57.48	.00076	.0051	8.551	.0047	-.0075	-.0122
SDev	.17	.00000	.0034	.018	.0019	.0241	.0131
%RSD	.2958	.53844	67.50	.2073	39.34	321.1	106.6
#1	57.36	.00076	.0075	8.539	.0034	.0095	-.0030
#2	57.60	.00076	.0026	8.564	.0061	-.0245	-.0215

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0538	5.521	.0810	4.9183	.0001	-.0058	-.0020
SDev	.0159	.025	.0140	.0216	.0001	.0046	.0002
%RSD	29.54	.4458	17.32	.43967	146.6	80.02	11.65
#1	-.0651	5.504	.0909	4.9030	-.0000	-.0090	-.0019
#2	-.0426	5.539	.0711	4.9335	.0001	-.0025	-.0022

Elem	Zn2138	Zr3438
Avge	.0218	.00198
SDev	.0002	.00108
%RSD	.8315	54.443
#1	.0219	.00274
#2	.0216	.00122

Method: EMS Sample Name: A441398 Operator: AAS
Run Time: 05/22/98 01:11:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179

Avge	-.0054	.0011	-.0012	.0138	.19507	.00014	46.98
SDev	.0011	.0066	.0081	.0000	.00185	.00011	.17
%RSD	19.97	584.2	698.5	.0212	.95001	83.554	.3549
#1	-.0062	-.0035	-.0069	.0138	.19638	.00006	47.10
#2	-.0046	.0058	.0046	.0138	.19376	.00021	46.86

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	-.0008	.0003	.0020	.0059	.0135	.7713	.0000
SDev	.0009	.0000	.0002	.0003	.0011	.0024	.0102
%RSD	109.7	.6441	10.74	5.391	8.375	.3129	3974000.
#1	-.0002	.0003	.0022	.0057	.0127	.7730	-.0072
#2	-.0015	.0003	.0019	.0062	.0143	.7696	.0072

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	32.74	-.00001	-.0002	2.189	-.0032	-.0087	-.0120
SDev	.23	.00001	.0063	.020	.0030	.0202	.0143
%RSD	.7023	45.784	2934.	.9253	92.36	231.6	119.3
#1	32.90	-.00002	-.0047	2.204	-.0053	-.0230	-.0019
#2	32.58	-.00001	.0042	2.175	-.0011	.0056	-.0221

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0021	3.790	-.0159	1.7935	.0013	.0078	-.0011
SDev	.0352	.021	.0514	.0159	.0011	.0134	.0016
%RSD	1647.	.5659	324.4	.88466	83.88	170.8	154.9
#1	.0270	3.806	-.0522	1.8047	.0021	-.0016	-.0022
#2	-.0228	3.775	.0205	1.7823	.0005	.0173	.0001

Elem	Zn2138	Zr3438
Avge	.0010	.00030
SDev	.0004	.00129
%RSD	36.52	426.26
#1	.0012	-.00061
#2	.0007	.00122

Method: EMS Sample Name: A441399 Operator: AAS
Run Time: 05/22/98 01:14:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0037	.5769	.0060	.0204	.07432	.00008	49.84
SDev	.0057	.0016	.0044	.0019	.00026	.00011	.05
%RSD	151.1	.2748	72.69	9.282	.35334	142.66	.1009
#1	.0003	.5758	.0091	.0190	.07451	-.00000	49.80
#2	-.0077	.5781	.0029	.0217	.07413	.00016	49.87

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0014	-.0001	.0010	.1220	4.294	.9187	-.0144
SDev	.0003	.0018	.0021	.0003	.000	.0225	.0000
%RSD	19.41	2802.	216.8	.2679	.0098	2.452	.0001

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#1	.0012	-.0014	-.0005	.1218	4.294	.9346	-.0144
#2	.0015	.0012	.0025	.1223	4.295	.9027	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	37.69	.02849	-.0002	2.446	.0021	.0015	-.0068
SDev	.08	.00045	.0056	.007	.0035	.0000	.0148
%RSD	.2214	1.5704	2856.	.2761	165.9	1.043	217.9
#1	37.75	.02817	-.0042	2.451	.0045	.0015	-.0173
#2	37.63	.02880	.0038	2.441	-.0004	.0015	.0037

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0111	4.798	-.0602	4.2444	.0187	.0425	.0009
SDev	.0273	.051	.0215	.0168	.0062	.0132	.0005
%RSD	245.6	1.056	35.66	.39544	33.17	31.07	53.47
#1	-.0304	4.834	-.0450	4.2563	.0230	.0332	.0005
#2	.0082	4.763	-.0754	4.2326	.0143	.0519	.0012

Elem	Zn2138	Zr3438
Avge	.9266	-.00029
SDev	.0022	.00065
%RSD	.2401	222.76
#1	.9282	-.00075
#2	.9251	.00017

Method: EMS Sample Name: A441400 Operator: AAS
Run Time: 05/22/98 01:17:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0089	.0392	-.0076	.0153	.05313	.00003	58.43
SDev	.0041	.0067	.0028	.0011	.00026	.00004	.75
%RSD	46.33	17.21	36.84	7.274	.49675	119.63	1.291
#1	L-.0118	.0344	-.0056	.0145	.05332	.00000	58.97
#2	-.0060	.0439	-.0096	.0160	.05295	.00006	57.90

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0010	.0004	-.0024	.0208	.1631	1.300	-.0108
SDev	.0033	.0012	.0026	.0019	.0041	.009	.0051
%RSD	327.4	299.0	107.9	9.323	2.520	.6805	47.15
#1	-.0013	-.0004	-.0042	.0194	.1660	1.294	-.0072
#2	.0033	.0013	-.0006	.0222	.1602	1.307	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	24.62	.00172	.0036	3.770	.0078	.0262	-.0092
SDev	.29	.00045	.0002	.043	.0061	.0459	.0048
%RSD	1.162	26.227	5.314	1.142	79.19	175.4	51.96
#1	24.82	.00140	.0037	3.801	.0034	-.0063	-.0058
#2	24.42	.00204	.0034	3.740	.0121	.0587	-.0126

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0188	4.184	-.0386	.68612	.0001	-.0090	-.0039
SDev	.0049	.044	.0960	.00743	.0001	.0475	.0022
%RSD	26.20	1.063	248.9	1.0823	69.49	528.1	55.75
#1	-.0153	4.216	-.1064	.69137	.0001	.0246	-.0054
#2	-.0222	4.153	.0293	.68087	.0002	-.0426	-.0024

Elem	Zn2138	Zr3438
Avge	.1454	-.00031
SDev	.0005	.00086
%RSD	.3743	282.43
#1	.1458	-.00092
#2	.1451	.00030

Method: EMS Sample Name: A441401 Operator: AAS
Run Time: 05/22/98 01:19:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0081	.0062	.0154	.0260	.06709	.00005	93.89
SDev	.0022	.0062	.0239	.0002	.00026	.00008	.45
%RSD	26.80	99.54	155.5	.8476	.39499	140.28	.4764
#1	-.0066	.0018	-.0015	.0258	.06728	.00011	94.20
#2	-.0097	.0105	.0323	.0261	.06690	.00000	93.57

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0019	.0004	-.0002	.0018	.0078	2.575	-.0144
SDev	.0021	.0012	.0013	.0023	.0013	.020	.0000
%RSD	113.2	304.9	720.5	123.7	16.30	.7812	.0002
#1	.0004	-.0005	-.0011	.0002	.0069	2.560	-.0144
#2	.0033	.0013	.0008	.0034	.0087	2.589	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	17.10	-.00002	.0006	9.281	-.0043	-.0198	-.0066
SDev	.09	.00045	.0011	.056	.0035	.0067	.0062
%RSD	.5063	2123.5	188.5	.6002	80.09	33.96	95.16
#1	17.16	-.00034	.0013	9.321	-.0019	-.0246	-.0110
#2	17.03	.00029	-.0002	9.242	-.0068	-.0150	-.0021

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0530	6.037	-.0303	.15341	.0005	-.0144	-.0011
SDev	.0079	.026	.0993	.00076	.0013	.0004	.0011
%RSD	14.99	.4300	327.3	.49651	259.0	3.114	94.57
#1	-.0474	6.056	.0399	.15395	-.0004	-.0140	-.0019
#2	-.0586	6.019	-.1005	.15288	.0014	-.0147	-.0004

Elem	Zn2138	Zr3438
Avge	.0608	.00198

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SDev	.0005	.00022
%RSD	.8307	10.912
#1	.0611	.00183
#2	.0604	.00213

Method: EMS Sample Name: A441402 Operator: AAS
Run Time: 05/22/98 01:22:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0031	.0070	.0080	.0145	.07064	.00011	86.34
SDev	.0011	.0060	.0202	.0004	.00053	.00008	.85
%RSD	35.30	86.15	251.5	3.057	.74998	70.694	.9808
#1	-.0039	.0113	-.0063	.0142	.07026	.00016	85.74
#2	-.0024	.0027	.0223	.0148	.07101	.00005	86.94

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0021	-.0026	.0053	.0292	.0031	1.771	-.0144
SDev	.0004	.0006	.0030	.0023	.0014	.005	.0204
%RSD	18.43	23.34	56.94	7.726	45.57	.2726	141.4
#1	.0019	-.0030	.0075	.0308	.0041	1.774	-.0289
#2	.0024	-.0022	.0032	.0276	.0021	1.767	.0000

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	25.37	.00233	.0013	31.97	-.0002	-.0214	-.0052
SDev	.18	.00045	.0031	.22	.0056	.0459	.0112
%RSD	.7089	19.245	239.6	.6760	3051.	214.5	214.9
#1	25.24	.00265	.0034	31.81	.0038	.0111	.0027
#2	25.50	.00201	-.0009	32.12	-.0042	L-.0539	-.0132

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0123	5.399	.0508	.27128	.0019	-.0325	.0003
SDev	.0178	.031	.0562	.00188	.0008	.0189	.0003
%RSD	144.6	.5794	110.5	.69144	43.14	58.23	103.4
#1	-.0249	5.376	.0906	.26995	.0025	-.0191	.0006
#2	.0003	5.421	.0111	.27260	.0014	-.0459	.0001

Elem	Zn2138	Zr3438
Avge	.0121	.00183
SDev	.0000	.00086
%RSD	.2175	47.104
#1	.0121	.00244
#2	.0122	.00122

Method: EMS Sample Name: A441403 Operator: AAS
Run Time: 05/22/98 01:24:48
Comment:

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Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0067	.0948	-.0031	.0134	.04348	-.00008	63.37
SDev	.0004	.0098	.0168	.0020	.00026	.00004	.10
%RSD	6.437	10.39	540.4	15.00	.60939	48.689	.1503
#1	-.0064	.1018	.0088	.0148	.04329	-.00005	63.44
#2	-.0070	.0878	-.0150	.0120	.04367	-.00011	63.30

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	-.0005	-.0000	-.0035	.3281	.0834	4.152	-.0072
SDev	.0004	.0018	.0013	.0013	.0013	.040	.0102
%RSD	82.76	9515.	37.04	.3935	1.528	.9688	141.5
#1	-.0008	-.0013	-.0026	.3291	.0843	4.180	.0000
#2	-.0002	.0013	-.0044	.3272	.0825	4.123	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	5.732	.00146	-.0023	4.180	-.0042	.0170	-.0068
SDev	.000	.00044	.0031	.022	.0011	.0095	.0059
%RSD	.0015	30.443	134.6	.5250	25.43	56.17	86.90
#1	5.733	.00114	-.0001	4.196	-.0049	.0102	-.0110
#2	5.732	.00177	-.0044	4.165	-.0034	.0237	-.0026

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0249	4.110	-.0263	.08686	.0015	.0105	-.0020
SDev	.0144	.002	.0145	.00014	.0014	.0378	.0003
%RSD	57.76	.0390	55.14	.15897	94.71	359.0	15.31
#1	-.0351	4.111	-.0161	.08696	.0005	.0373	-.0022
#2	-.0147	4.109	-.0366	.08677	.0025	-.0162	-.0018

Elem	Zn2138	Zr3438
Avge	.0267	-.00198
SDev	.0024	.00237
%RSD	9.053	119.56
#1	.0284	-.00031
#2	.0250	-.00365

Method: EMS Sample Name: A442828 1:10 Operator: AAS
Run Time: 05/22/98 01:27:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	L-.0115	203.5	.1017	.0028	.02845	-.00008	.1104
SDev	.0044	1.4	.0245	.0007	.00079	.00007	.0212
%RSD	38.34	.7019	24.13	23.62	2.7749	91.324	19.18
#1	L-.0146	204.5	.0844	.0024	.02789	-.00013	.0954
#2	-.0084	202.5	.1191	.0033	.02901	-.00003	.1254

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	-.0000	.0008	-.0007	.0009	.0428	.0006	-.0144

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SDev	.0013	.0006	.0079	.0036	.0003	.1351	.0000
%RSD	93190.	74.15	1184.	395.8	.5989	23760.	.0000
#1	.0009	.0013	-.0063	-.0016	.0430	-.0950	-.0144
#2	-.0009	.0004	.0049	.0034	.0426	.0961	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0000	.00265	.0065	.0746	.0172	-.0273	-.0106
SDev	.0038	.00044	.0046	.0093	.0056	.0290	.0099
%RSD	10650.	16.794	71.48	12.45	32.54	106.1	93.63
#1	-.0027	.00233	.0097	.0680	.0132	-.0068	-.0036
#2	.0026	.00296	.0032	.0812	.0212	-.0478	-.0176

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0006	2.235	-.0207	.00037	.0111	-.0229	-.0017
SDev	.0261	.040	.0133	.00049	.0025	.0378	.0033
%RSD	4456.	1.796	64.29	132.41	22.78	164.6	187.2
#1	-.0179	2.206	-.0113	.00002	.0093	.0038	-.0041
#2	.0191	2.263	-.0301	.00072	.0129	-.0497	.0006

Elem	Zn2138	Zr3438
Avge	.0065	5.6390
SDev	.0014	.0306
%RSD	21.64	.54210
#1	.0075	5.6606
#2	.0055	5.6174

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/22/98 01:29:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.9937	4.977	4.937	4.978	4.8574	4.7459	47.05
SDev	.0042	.102	.037	.038	.0350	.0422	.27
%RSD	.4177	2.040	.7396	.7681	.72043	.88988	.5681
#1	.9907	4.905	4.911	4.951	4.8327	4.7161	46.86
#2	.9966	5.049	4.962	5.005	4.8822	4.7758	47.24

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	4.788	4.813	4.818	4.915	4.742	51.13	5.078
SDev	.025	.020	.024	.033	.032	.46	.020
%RSD	.5325	.4253	.5030	.6694	.6683	.8968	.4023
#1	4.770	4.798	4.801	4.892	4.720	50.81	5.063
#2	4.806	4.827	4.835	4.939	4.765	51.46	5.092

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	48.81	4.8468	1.005	50.26	4.780	4.734	.9544
SDev	.29	.0311	.000	.34	.024	.003	.0308
%RSD	.6011	.64179	.0261	.6751	.5084	.0699	3.227

#1	48.60	4.8248	1.005	50.02	4.763	4.736	.9326
#2	49.01	4.8688	1.005	50.50	4.797	4.731	.9761

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	4.964	5.166	L4.010	4.8623	4.985	4.893	4.845
SDev	.034	.021	.026	.0354	.032	.008	.030
%RSD	.6794	.4120	.6384	.72774	.6337	.1729	.6174
#1	4.940	5.151	L3.992	4.8373	4.962	4.887	4.824
#2	4.987	5.181	L4.028	4.8873	5.007	4.899	4.866

Elem	Zn2138	Zr3438
Avge	4.817	4.9000
SDev	.021	.0318
%RSD	.4296	.64809
#1	4.802	4.8776
#2	4.831	4.9225

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/22/98 01:32:31
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0046	-.0020	-.0073	.0063	.00131	.00212	.0206
SDev	.0024	.0067	.0125	.0022	.00106	.00133	.0212
%RSD	51.89	334.0	171.2	35.32	80.870	62.643	102.9
#1	-.0029	-.0067	-.0161	.0047	.00056	.00118	.0056
#2	-.0063	.0027	.0015	.0079	.00206	.00306	.0356

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0007	-.0000	-.0005	.0020	.0000	-.0262	-.0036
SDev	.0021	.0006	.0022	.0000	.0024	.0282	.0153
%RSD	282.9	8548.	484.0	.0113	71510.	107.6	424.3
#1	-.0007	-.0004	.0011	.0020	-.0017	-.0461	.0072
#2	.0022	.0004	-.0021	.0020	.0017	-.0063	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0111	.00126	.0007	.0066	.0010	-.0174	-.0093
SDev	.0216	.00178	.0015	.0127	.0008	.0090	.0092
%RSD	195.0	141.33	220.5	192.8	84.40	51.44	99.56
#1	-.0264	.00000	.0017	-.0024	.0015	-.0111	-.0027
#2	.0042	.00251	-.0004	.0155	.0004	-.0238	-.0158

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0086	.0049	-.1109	.00209	.0046	-.0136	-.0005
SDev	.0004	.0101	.0885	.00126	.0008	.0060	.0000
%RSD	4.385	206.4	79.83	60.597	16.50	44.13	3.238
#1	.0088	.0120	-.1735	.00119	.0040	-.0093	-.0005
#2	.0083	-.0022	-.0483	.00298	.0051	-.0178	-.0005

Elem	Zn2138	Zr3438
Avge	.0024	-.00076
SDev	.0007	.00108
%RSD	28.23	142.98
#1	.0029	-.00152
#2	.0019	.00001

Method: EMS Sample Name: DLS Operator: AAS
Run Time: 05/22/98 01:35:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.0085	.0555	-.0058	.0016	.01106	.00576	.0150
SDev	.0009	.0199	.0054	.0000	.00053	.00004	.0079
%RSD	10.30	35.82	92.60	.0499	4.7968	.66889	53.03
#1	.0091	.0415	-.0096	.0016	.01069	.00573	.0094
#2	.0079	.0696	-.0020	.0016	.01144	.00579	.0206

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0072	.0120	.0091	.0210	.0237	-.0301	-.0144
SDev	.0025	.0006	.0027	.0003	.0003	.0225	.0102
%RSD	34.92	5.020	29.88	1.548	1.194	74.71	70.71
#1	H.0089	.0124	.0072	.0208	.0235	-.0461	-.0217
#2	.0054	.0115	.0110	.0212	.0239	-.0142	-.0072

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0103	.01194	.0014	-.0006	.0098	.0519	.0215
SDev	.0011	.00089	.0027	.0008	.0043	.0364	.0154
%RSD	10.31	7.4355	189.0	141.4	43.54	70.16	71.44
#1	-.0096	.01132	.0033	-.0000	.0128	H.0777	.0324
#2	-.0111	.01257	-.0005	-.0012	.0068	.0262	L.0107

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0094	-.0253	-.0453	.00074	.0017	-.0017	.0086
SDev	.0136	.0064	.0524	.00007	.0004	.0147	.0008
%RSD	145.4	25.48	115.9	9.4645	24.46	853.8	8.724
#1	-.0003	-.0298	-.0823	.00079	.0020	-.0122	.0091
#2	.0190	-.0207	-.0082	.00069	.0014	.0087	.0081

Elem	Zn2138	Zr3438
Avge	.0223	.00020
SDev	.0007	.00151
%RSD	3.163	762.70
#1	.0218	-.00087
#2	.0228	.00126

Method: EMS Sample Name: CDL01 Operator: AAS

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Run Time: 05/22/98 01:37:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.0186	.0164	.0439	.0008	-.00037	.00968	.0019
SDev	.0046	.0060	.0011	.0004	.00080	.00007	.0000
%RSD	24.61	36.81	2.592	55.33	212.13	.75604	.0000
#1	.0154	.0207	.0447	.0011	-.00094	.00963	.0019
#2	.0218	.0121	.0431	.0005	.00019	.00973	.0019

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0099	.1002	.0199	.0525	.0013	.0603	-.0217
SDev	.0005	.0030	.0075	.0035	.0010	.0523	.0102
%RSD	5.338	3.033	37.75	6.747	73.91	86.72	47.14
#1	.0095	.1023	.0146	.0500	.0006	.0233	-.0289
#2	.0102	.0980	.0252	.0550	.0020	.0973	-.0144

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	-.0156	.03050	.0036	-.0161	.0803	.1060	.1258
SDev	.0287	.00045	.0054	.0076	.0067	.0246	.0283
%RSD	183.7	1.4612	151.5	47.14	8.325	23.27	22.45
#1	-.0359	.03019	-.0003	-.0107	.0755	.1234	.1059
#2	.0047	.03082	.0074	-.0215	.0850	.0885	.1458

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0147	-.0161	.0550	.00025	.0021	.0325	.0981
SDev	.0030	.0393	.0212	.00049	.0038	.0349	.0035
%RSD	20.60	244.1	38.51	198.05	181.1	107.4	3.581
#1	.0168	-.0439	.0400	-.00010	-.0006	.0572	.0956
#2	.0126	.0117	.0699	.00060	.0047	.0078	.1006

Elem	Zn2138	Zr3438
Avge	.0400	.00092
SDev	.0003	.00022
%RSD	.7785	23.771
#1	.0398	.00076
#2	.0402	.00107

Method: EMS Sample Name: ICS-A Operator: AAS
Run Time: 05/22/98 01:40:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0086	461.3	.0910	.0011	.00431	.00008	444.4
SDev	.0004	2.4	.0402	.0011	.00053	.00004	.0
%RSD	4.948	.5165	44.15	100.1	12.301	45.393	.0018
#1	-.0089	462.9	.0626	.0019	.00394	.00005	444.4
#2	-.0083	459.6	H.1194	.0003	.00469	.00010	444.4

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	H.0144	-.0009	-.0033	-.0005	170.6	-.0358	-.0076
SDev	.0002	.0067	.0001	.0003	.4	.0515	.0051
%RSD	1.170	760.6	2.263	63.94	.2237	143.7	67.17
#1	H.0145	.0038	-.0033	-.0003	170.9	-.0722	-.0112
#2	H.0143	-.0056	-.0032	-.0008	170.3	.0006	-.0040

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	480.4	-.00502	-.0031	-.0113	-.0002	.0382	H.0722
SDev	2.1	.00004	.0002	.0059	.0019	.0086	.0063
%RSD	.4413	.84038	6.702	52.10	820.8	22.65	8.726
#1	481.9	-.00505	-.0033	-.0155	-.0016	.0320	H.0767
#2	478.9	-.00499	-.0030	-.0072	.0011	.0443	H.0677

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	-.0752	.0565	.1218	-.00019	-.0068	H.5267	.0026
SDev	.0251	.0240	.0452	.00007	.0006	.0351	.0029
%RSD	33.33	42.43	37.07	37.505	8.090	6.663	112.1
#1	-.0929	.0395	.1537	-.00024	-.0064	H.5515	.0005
#2	-.0575	.0734	.0899	-.00014	-.0072	H.5019	.0047

Elem	Zn2138	Zr3438
Avge	.0024	.00144
SDev	.0018	.00023
%RSD	73.37	16.175
#1	.0012	.00128
#2	.0037	.00161

Method: EMS Sample Name: ICS Operator: AAS
Run Time: 05/22/98 01:42:49
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.1983	467.8	.1298	.0018	.47246	.44204	450.9
SDev	.0026	4.1	.0028	.0018	.00504	.00527	3.1
%RSD	1.313	.8659	2.177	97.57	1.0662	1.1923	.6908
#1	.1965	465.0	.1318	.0031	.46890	.43832	448.7
#2	.2002	470.7	.1278	.0006	.47602	.44577	453.1

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.8986	.4455	.4426	.4825	173.2	-.0802	-.0292
SDev	.0040	.0048	.0004	.0033	1.4	.0740	.0051
%RSD	.4411	1.084	.0921	.6771	.7994	92.27	17.39
#1	.8958	.4420	.4423	.4802	172.2	-.1325	-.0256
#2	.9014	.4489	.4429	.4848	174.2	-.0279	-.0328

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	487.3	.44618	.0034	-.0042	.8644	1.002	.6608
SDev	4.0	.00348	.0033	.0025	.0101	.058	.0377

%RSD	.8132	.77968	97.33	60.61	1.173	5.775	5.711
#1	484.5	.44372	.0010	-.0024	.8572	1.043	.6341
#2	490.1	.44864	.0057	-.0060	.8716	.9608	.6875

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0306	.0617	.1240	.00288	-.0062	H.6192	.4628
SDev	.0263	.0035	.1324	.00007	.0006	.0528	.0025
%RSD	86.20	5.644	106.7	2.5902	9.832	8.533	.5309
#1	.0492	.0592	.0305	.00294	-.0066	H.5819	.4610
#2	.0119	.0641	H.2176	.00283	-.0057	H.6566	.4645

Elem	Zn2138	Zr3438
Avge	.9312	.00030
SDev	.0002	.00243
%RSD	.0248	810.47
#1	.9313	.00202
#2	.9310	-.00142

Method: EMS Sample Name: CCV Operator: AAS
Run Time: 05/22/98 01:45:23
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	.9822	5.211	4.871	4.925	4.8372	4.6865	46.44
SDev	.0013	.151	.005	.004	.0032	.0045	.06
%RSD	.1309	2.897	.1046	.0789	.06577	.09685	.1368
#1	.9831	5.104	4.867	4.927	4.8394	4.6897	46.40
#2	.9812	5.317	4.875	4.922	4.8349	4.6833	46.49

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	4.725	4.754	4.746	4.884	4.795	50.88	5.085
SDev	.013	.004	.012	.002	.045	.07	.020
%RSD	.2673	.0754	.2629	.0328	.9489	.1375	.4018
#1	4.734	4.757	4.755	4.885	4.762	50.93	5.070
#2	4.716	4.751	4.737	4.883	4.827	50.83	5.099

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	48.75	4.7947	.9909	50.08	4.729	4.652	.9705
SDev	.10	.0089	.0024	.04	.024	.031	.0065
%RSD	.2138	.18546	.2446	.0792	.5138	.6650	.6647
#1	48.67	4.8009	.9892	50.11	4.746	4.674	.9660
#2	48.82	4.7884	.9926	50.05	4.712	4.630	.9751

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	4.882	5.047	L3.961	4.8283	4.943	4.870	4.789
SDev	.049	.008	.084	.0065	.009	.054	.016
%RSD	1.009	.1638	2.119	.13529	.1844	1.111	.3393
#1	4.917	5.041	L4.020	4.8329	4.950	4.831	4.801

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#2	4.848	5.053	L3.902	4.8237	4.937	4.908	4.778

Elem	Zn2138	Zr3438
Avge	4.768	4.8491
SDev	.000	.0091
%RSD	.0093	.18713
#1	4.768	4.8556
#2	4.768	4.8427

Method: EMS Sample Name: BLA01 Operator: AAS
Run Time: 05/22/98 01:47:57
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1936	B_2496	Ba4934	Be3130	Ca3179
Avge	-.0026	H.1503	.0147	.0091	.00262	.00273	.1684
SDev	.0018	.0288	.0086	.0013	.00133	.00045	.0397
%RSD	68.09	19.16	58.45	14.66	50.519	16.609	23.57
#1	-.0038	H.1300	.0086	.0101	.00169	.00241	.1403
#2	-.0013	H.1707	.0207	.0082	.00356	.00305	.1965

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Avge	.0006	-.0017	.0047	.0034	H.0601	.0455	-.0181
SDev	.0020	.0018	.0022	.0019	.0140	.0282	.0051
%RSD	307.3	104.9	45.85	56.66	23.33	61.87	28.28
#1	-.0008	-.0030	.0032	.0020	H.0502	.0654	-.0144
#2	.0020	-.0004	.0063	.0048	H.0700	.0256	-.0217

Elem	Mg2790	Mn2576	Mo2020	Na5889	Ni2316	Pb2203	Sb2068
Avge	.1649	.00283	.0036	.0090	.0061	-.0049	-.0168
SDev	.0344	.00044	.0013	.0008	.0027	.0302	.0147
%RSD	20.85	15.701	35.20	9.428	43.94	621.0	87.67
#1	.1406	.00251	.0045	.0084	.0042	-.0262	-.0272
#2	.1893	.00314	.0027	.0095	.0079	.0165	-.0064

Elem	Se1960	Si2881	Sn2839	Sr4215	Ti3372	Tl1908	V_2924
Avge	.0107	.0021	.0532	.00253	.0047	.0133	.0029
SDev	.0004	.0130	.0328	.00063	.0019	.0258	.0012
%RSD	3.549	606.7	61.66	24.962	41.23	193.8	40.65
#1	.0104	.0113	.0765	.00208	.0033	-.0049	.0021
#2	.0110	-.0071	.0300	.00297	.0060	.0316	.0038

Elem	Zn2138	Zr3438
Avge	.0028	.00290
SDev	.0008	.00151
%RSD	30.61	51.941
#1	.0022	.00396
#2	.0034	.00183

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HERITAGE ENVIRONMENTAL SERVICES, INC.

7901 West Morris Street
Indianapolis, IN 46231
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CASE NARRATIVE
GENERAL CHEMISTRIES SECTION

SAMPLE# A441373-390, and A441396-403

These samples were analyzed for the following analytes (see Table below) using normal procedures with no modifications. The required hold times were met for the analyses. The method blanks were below the reporting limit. The Laboratory Fortified Blanks, and Initial and Continuing Calibration standards were within the control limits. In addition, the matrix spike and matrix spike duplicate recoveries were within the control limits.

Hardness	EPA 130.2
Total Kjeldahl Nitrogen	EPA 351.4
Nitrate-Nitrite, Nitrogen	EPA 353.2

Barbara A. Shrake

BARBARA A. SHRAKE
LABORATORY SUPERVISOR
6/5/98

Recycled Paper

Analysis Run Number
Run Number 277-78
Test G621.D
Analyst KMW 4318
Date Analyzed 5-14-98
Instrument / Test #274 / HARDNESS

Reagent Lot #
Expiration Date

BLA 01 RESP 0, 0, 0

CAL01	KNOWN CONC.					
	RESPONSE					
	OBS. CONC.					
	% RECOVERY					

CAL01	KNOWN CONC.					
	RESPONSE					
	OBS. CONC.					
	% RECOVERY					

CORR. = SLOPE = INT. =

DUP	DUP SAMPLE					
	REP. 1 CONC.					
	REP. 2 CONC.					
	REL. % DIFF.					

SPI 01	SPIKE SAMPLE	A441373	A441373	A441381	A441381	
	SPIKE CONC.	500	500	500	500	
	SAMPLE CONC.	140	140	150	150	
	TOTAL CONC.	612	627	647	639	
	% RECOVERY	94.4	97.4	99.4	97.8	
			RPD=3.1		RPD=1.6	

CCV	OBS. RESP.					
	TRUE VALUE	1000	1000			
	OBS. CONC.	984	988			
	% RECOVERY	98.4	98.8			

LFB01	STD I.D.	X521				
	TRUE VALUE	73.6				
	OBS. CONC.	70.6				
	% RECOVERY	95.9				
	MATRIX					

Page 1 of 2

Reference No. G621.0 277

TOTAL HARDNESS (mg/l as $CaCO_3$)

Analyst Kmw 4318

Reviewer BAS #1108
Date 5/15/98

Recorder
Date

Start Date 5-14-98 Start Time 17:00 End Date 5-14-98 End Time 19:00

QAQC TYPE	SAMPLE	TV	RESULT	%REC, RPD	UNITS	DL	COMMENTS
BLAØ1	BLANK		~~0~~		mg/L	1.0	
LFBØ1	X521	73.6	70.6	95.9 %			
	A441373		280				
SPIØ1	A441373	SAMPLE=140 SPIKE=500	612	94.4%			
DPSØ1	A441373	SAMPLE=140 SPIKE=500	627	97.4% RPD=3.1			
	A441374		180				
	A441375		270				
	A441376		280				
	A441377		240				
	A441378		270				
	A441379		280				
	A441380		~~0~~ BDL				
CCV	CCV	1000	984	98.4%			
BLAØ1	BLANK		~~0~~				
	A441381		300				

2

Reference No. G621.0 278

TOTAL HARDNESS (mg/l as $CaCO_3$)

Analyst _____

Reviewer BAS#1108

Date 5/15/98

Recorder _____

Date _____

Start Date _____ Start Time _____ End Date _____ End Time _____

QAQC TYPE	SAMPLE	TV	RESULT	%REC, RPD	UNITS	DL	COMMENTS
SPIØ1	A441381	SAMPLE=150 SPIKE=500	647	99.4%	mg/L	1.0	
DPSØ1	A441381	SAMPLE=150 SPIKE=500	639	97.8% RPD=1.6			
	A441382		180				
	A441383		320				
	A441384		330				
	A441385		BDL				
	A441386		360				
	A441387		340				
	A441388		270				
CCV	CCV	1000	988	98.8%			
BLAØ1	BLANK		Ø				

Page 1 of 2	Analyst KMW 4318	Date 5-14-98		HARDNESS

TV=73.6

Sample	BLANK	X521	A441373	A441373	A441373	A441374	A441375	A441376	A441377
QAQC	BLA01	LFB01	DK10963	SPI01	DPS01	DK 10964	DK10965	DK10966	DK10967
Buret Fin	2.9	KMW 5-14 ~~4.2~~ 4.7	11.8	27.~~4~~	43.4	6.7	13.5	20.7	26.7
Buret Init	2.9	2.9	4.7	11.8	27.4	2.2	6.7	13.5	20.7
Vol Titr	~~0~~	1.8	7.1	15.6	16.0	4.5	6.8	7.2	6.0
Vol Samp	25	25	25	KMW 5-14 ~~25~~ SAMPLE=12.5 SPIKE=12.5	SAMPLE=12.5 SPIKE=12.5	25	25	25	25
N EDTA	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196
Result	~~0~~	70.6	280	612	627	180	270	280	240
				94.4%	97.4%				

Sample	A441378	A441379	A441380	CCV	BLANK	A441381	A441381	A441381	A441382
QAQC	DK10968	DK10969	DK10970	CCV	BLA01	DK10971	SPI01	DPS01	DK10972
Buret Fin	33.7	40.9	40.9	26.5	26.5	34.2	18.8	35.1	39.8
Buret Init	26.7	33.7	40.9	1.4	26.5	26.5	2.3 ~~34.3~~ KMW 5-14	18.8	35.1
Vol Titr	7.0	7.2	~~0~~	25.1	~~0~~	7.7	16.5	16.3	4.7
Vol Samp	25	25	25	25	25	25	SAMPLE=12.5 SPIKE=12.5	SAMPLE=12.5 SPIKE=12.5	25
N EDTA	~~0~~.0196	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196
Result	270	280	~~0~~	984	~~0~~	300	647	639	180

$$\textit{HARDNESS, mg/l} = \frac{\textit{ml EDTA x N EDTA x 50,000}}{\textit{ml Sample}}$$

4

Page 2 of 2	Analyst KMW 4318	Date 5-14-98					HARDNESS	
Sample	A441383	A441384	A441385	A441386	A441387	A441388	CCV	BLANK
QAQC	DK11727	DK11728	DK11729	DK11730	DK11731	DK11732	CCV	BLAQ1
Buret Fin	48.1	10.8	10.8	19.9	28.6	35.6	40.1	40.1
Buret Init	39.8	24	10.8	10.8	19.9	28.6	14.9	40.1
Vol Titr	8.3	8.4	~~0~~	9.1	8.7	7.0	25.2	~~0~~
Vol Samp	25	25	25	25	25	25	25	25
N EDTA	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196	0.0196
Result	320	330	~~0~~	360	340	270	988	~~0~~
Sample								
QAQC								
Buret Fin								
Buret Init								
Vol Titr								
Vol Samp								
N EDTA								
Result								

$$\textit{HARDNESS, mg/l} = \frac{\textit{ml EDTA x N EDTA x 50,000}}{\textit{ml Sample}}$$

HARDNESS TITRANT STANDARDIZATION

Analyst KMW 4318

Date 5-14-98

Standard ID X470

True Value 1000 mg/L as $CaCO_3$

Titrant Solution EDTA

Titrant Source LABCHEM

Titrant Lot # 7121-1

Titrant Nominal Value 0.02 N

Vol Std, mL	10	10	10
$Buret_{FINAL}$	11.1	21.2	31.5
$Buret_{INITIAL}$	0.9	11.1	21.2
Vol Titrant, mL	10.2	10.1	10.3
Normality	0.0196	0.0198	KMW 5-14 ~~0.10~~ 0.0194

Avg Normality 0.0196

$$\text{Normality Titrant} = \frac{(\text{True Value STD, mg/L}) \times (\text{ml STD})}{(\text{mL Titrant}) \times (50{,}000)}$$

Analysis Run Number
Run Number 279-281
Test 6621.0
Analyst RAS 3066
Date Analyzed 5-19-98
Instrument / Test #2691 Hardness

Reagent Lot #
Expiration Date

BLA 01 RESP 0.000, 0.000, 0.000, 0.000, 0.000

CAL01	KNOWN CONC.					
	RESPONSE					
	OBS. CONC.					
	% RECOVERY					

CAL01	KNOWN CONC.					
	RESPONSE					
	OBS. CONC.					
	% RECOVERY					

CORR. = SLOPE = INT. =

DUP 01	DUP SAMPLE	A442384				
	REP. 1 CONC.	420				
	REP. 2 CONC.	420				
	REL. % DIFF.	0.0				
SPI 01	SPIKE SAMPLE	A441390	DPS01 A441390	A441402	DPS01 A441402	~~A442384~~
	SPIKE CONC.	500	500	500	500	42
	SAMPLE CONC.	180	180	170	170	
	TOTAL CONC.	655	692	660	662	
	% RECOVERY	95.0	102.4 RPD=7.5	98.0	98.4 RPD=0.4	
CCV	OBS. RESP.					
	TRUE VALUE	1000	1000	1000	1000	
	OBS. CONC.	976	982	988	980	
	% RECOVERY	97.6	98.2	98.8	98.0	
LFB01	STD I.D.	X521				
	TRUE VALUE	73.6				
	OBS. CONC.	74.5				
	% RECOVERY	101.2				
	MATRIX					

Page 1 of 3

Reference No. G621.0 279

TOTAL HARDNESS (mg/l as $CaCO_3$)

Analyst RAS 3066

Reviewer KLF 7661

Date 5-22-98

Recorder

Date

Start Date 5-19-98 Start Time 14:45 End Date 5-21-98 End Time 16:00

QAQC TYPE	SAMPLE	TV	RESULT	%REC, RPD	UNITS	DL	COMMENTS
Bla 01	Blank		0.000		mg/L	1.0	
LFB 01	X521	73.6	74.5	%R=101.2			
	A441522		63				Stormwater Runoff 1-4
	A441389		340				DK 11733
	A441390		350				DK 11023
SPI 01	A441390	SAM=180 SPI=500	655	%R=95.0			DK 11023
DPS 01	A441390	SAM=180 SPI=500	692	%R=102.4 RPD=7.5			DK 11023
	A441396		200				DK 11024
	A441397		660				DK 11025
	A441398		250				DK 11026
	A441399		290				DK 11027
	A441400		250				DK 11028
CCV	X470	1000	976	%R=97.6			
Bla 01	Blank		0.000				
CCV	X470	1000	982	%R=98.2			

8

Reference No. G621.0 280

TOTAL HARDNESS (mg/l as $CaCO_3$)

Analyst RAS 3066

Reviewer KLF 2661

Date 5-22-98

Recorder

Date

Start Date 5-19-98 Start Time 14:45 End Date 5-21-98 End Time 16:00

QAQC TYPE	SAMPLE	TV	RESULT	%REC, RPD	UNITS	DL	COMMENTS
Bla 01	Blank		0.000		mg/L	1.0	
	A441402		320				DK11030
SPF 01	A441402	SAM=170 SPF=500	660	%R- 98.0			DK11030
DPS 01	A441402	SAM=170 SPF=500	662	%R=98.4 RPD-0.4			DK11030
	A441401		320				DK11029
	A441403		180				DK11031
	A442374		360				0507
	A442384		420				0603
Dup 01	A442384		420	RPD=0.0			0603
	A442392		360				0507 Dup
	A442393		310				0504
CCV	X470	1000	988	%R=98.8			
Bla 01	Blank		0.000				
	A442395		BDL				Field Blank
	A442398		500				0502

Reference No. G621.0 281

TOTAL HARDNESS (mg/l as $CaCO_3$)

Analyst RAS 3066

Reviewer KLF2661

Date 5-22-98

Recorder

Date

Start Date 5-19-98 Start Time 14:45 End Date 5-21-98 End Time 16:00

QAQC TYPE	SAMPLE	TV	RESULT	%REC, RPD	UNITS	DL	COMMENTS
	A442399		880		mg/L	1.0	0501
	A442401		530				0505
CCV	X470	1000	980	%R = 98.0			
Bla 01	Blank		0.000				

START: 14:45 5-19-98 END: 16:00 - 5-21-98

Page 1 of 2	Analyst RAS 3066	Date 5-19-98					HARDNESS	
	TV=73.6							
Sample	Blank	X521	A441522	A441389	A441390	A441390	A441390	A441396	A441397
QAQC	Bla 01	LFB01	Stormwater Rung-4	DK 11733	DK11023	SPI 01	DPS01	DK 11024	DK11025
Buret Fin	37.10	39.00	1.70	10.50	19.50	36.20	18.80	23.90	40.80
Buret Init	37.10	37.10	0.10	1.75	10.50	19.50	1.15	18.80	23.90
Vol Titr	0.00	1.90	1.60	8.75	9.00	16.70	17.65	5.10	16.90
Vol Samp	25	25	25	25	25	25	25	25	25
N EDTA	0.0196								
Result	0.000	74.5	63	340	350	655	692	200	660
	101.2			TV=100.0	5-21-98 95.0		102.4 RPD=7.5		SAM=170 SPI=50
Sample	A441398	A441399	A441400	X470	~~Bla 01~~ Blank	X470	Blank	A441402	A441402
QAQC	DK 11026	DK 11027	DK 11028	CCV	Bla 01	CCV	Bla 01	DK 11030	SPI 01
Buret Fin	8.80	16.20	22.60	47.50	47.50	29.90	29.90	37.95	21.80
Buret Init	2.40	8.80	16.30	22.60	47.50	4.85	29.90	29.90	4.95
Vol Titr	6.40	7.40	6.30	24.90	0.00	25.05	0.00	8.05	16.85
Vol Samp	25	25	25	25	25	25	25	25	25
N EDTA	0.0196								
Result	250	290	250	976	0.000	982	0.000	320	660
				97.6		98.2			98.0

$$\text{HARDNESS, mg/l} = \frac{\text{ml EDTA} \times \text{N EDTA} \times 50{,}000}{\text{ml Sample}}$$

Page 2 of 2	Analyst RAS 3066	Date 5-22-98						HARDNESS	
									TV=1000
Sample	A441402	A441401	A441403	A442374	A442384	A442384	A442392	A442393	X470
QAQC	DP501	DK11029	DK11031	0507	0603	Dup01	0507Dup	0504	CCV
Buret Fin	38.70	46.65	11.45	20.55	31.30	42.10	11.45	19.40	44.60
Buret Init	21.80	38.60	6.80	11.45	20.55	31.30	2.20	11.45	19.40
Vol Titr	16.90	8.05	4.65	9.10	10.75	10.80	9.25	7.75	25.20
Vol Samp	25	25	25	25	25	25	25	25	25
N EDTA	0.0196								
Result	662	320	180	360	420	420	360	310	988
	RPD=4.04					RPD=0.0			98.8
Sample	Blank	A442395	A442398	A442399	A442401	X470	Blank		
QAQC	Bla01	Field Blank	0502	0501	0505	CCV	Bla01		
Buret Fin	44.60	44.60	12.65	35.20	48.80	25.10	25.10		
Buret Init	44.60	44.60	0.00	12.65	35.20	0.10	25.10		
Vol Titr	0.00	0.00	12.65	22.55	13.60	25.00	0.00		
Vol Samp	25	25	25	25	25	25	25		
N EDTA	0.0196								
Result	0.000	BDL	500	880	530	980	0.000		
						98.0			

$$\text{HARDNESS, mg/l} = \frac{\text{ml EDTA} \times \text{N EDTA} \times 50{,}000}{\text{ml Sample}}$$

HARDNESS TITRANT STANDARDIZATION

Analyst RAS 3066

Date 5-19-98

Standard ID X470

True Value 1000 mg/L as $CaCO_3$

Titrant Solution EDTA

Titrant Source Labchem

Titrant Lot # 7121-1

Titrant Nominal Value 0.02 N

Vol Std, mL	10	10	10
$Buret_{FINAL}$	16.65	26.90	37.10
$Buret_{INITIAL}$	6.35	16.65	26.90
Vol Titrant, mL	10.30	10.25	10.20
Normality	0.0194	0.0195	0.0196

Avg Normality 0.0195

$$\text{Normality Titrant} = \frac{(\text{True Value STD, mg/L}) \times (\text{ml STD})}{(\text{mL Titrant}) \times (50{,}000)}$$

Analysis Run No. _____ Run No. 98051103 14

Analysis G113.3 Instrument # 98

Analyst KJP4657 Reviewer BAS#1108 Recorder _____

Date 5/12/98 Date _____

Start Date 5.11.98 Start Time 13:29 End Date 5.11.98 End Time 16:19

CAL01 See Attached Calibration Report

BLA01	OBS CONC	-0.0050, -0.0048, -0.0045, -0.0048, -0.0057, -0.0055
BLA01	OBS CONC	-0.0065, -0.0061

ICV01	STD ID	X516					
	TRUE VALUE	0.514					
	OBS CONC	0.554					
	%	107.8					

DUP01	SAMPLE #	A41262	A41367	A41375	A41382	A41389	A41401
	REP 1 CONC	0.39	5.5	BDL	BDL	BDL	7.5
	REP 2 CONC	0.38	5.4	BDL	BDL	BDL	7.4
	RPD	2.6	1.8	CNA	CNA	CNA	1.3

				DPS01		DPS01	
SP101	SAMPLE #	A41366	A41374	A41374	A41381	A41381	
	SPIKE TV	1.00	1.00	1.00	1.00	1.00	
	SAMPLE TV	4.86	BDL	BDL	BDL	BDL	
	TOTAL CONC	5.93	1.01	1.01	0.934	0.930	
	% RECOVERY	107.0	101.0	101.0	93.4	93.0	
				R=0.0%		R=0.4%	

CCV	TRUE VALUE	1.00	1.00	1.00	1.00	1.00	1.00
	OBS CONC	1.04	1.01	1.01	1.02	1.02	1.02
	%RECOVERY	104.0	101.0	101.0	102.0	102.0	102.0

CCV	TRUE VALUE	1.00					
	OBS CONC	1.00					
	%RECOVERY	100.0					

Analysis Run No. _____ Run No. 98051103

Analysis G113.3 Instrument # 98

Analyst KJP4657 Reviewer _____ Recorder _____

Date _____ Date _____

Start Date 5.11.98 Start Time 13:29 End Date 5.11.98 End Time 16:19

CAL01 See Attached Calibration Report

SLA01 OBS CONC _____

SLA01 OBS CONC _____

ICV01	STD ID						
	TRUE VALUE						
	OBS CONC						
	%						

DUP01	SAMPLE #						
	REP 1 CONC						
	REP 2 CONC						
	RPD						

			DPS01		DPS01		DPS01
SP101	SAMPLE #	A41388	A41388	A41400	A41400	A41403	A41403
	SPIKE TV	1.00	1.00	1.00	1.00	1.00	1.00
	SAMPLE TV	BDL	BDL	0.603	0.603	2.43	2.43
	TOTAL CONC	0.980	0.978	1.61	1.62	3.46	3.49
	% RECOVERY	98.0	97.8	100.7	101.7	103.0	106.0
			R=0.2%		R=1.0%		R=2.9%

CCV	TRUE VALUE						
	OBS CONC						
	%RECOVERY						

CCV	TRUE VALUE						
	OBS CONC						
	%RECOVERY						

QuikChem AE Calibration Report for Calibration [redacted]
Method: NITRATE/ITE
This calibration was done on 05/11/98 at 01:45 pm
This report prepared on 05/11/98 at 01:45 pm

CAL01 FOR TEST CODES: G113.3

CALIBRATION STATISTICS

Segment NO3/NO2#1

Standards A-F for NO3/NO2
(1mm flow cell)

Corr	Slope	Intercept
0.99984	0.02687	-0.00157

Segment NO3/NO2#2

Standards E-K for NO3/NO2
(10mm flow cell)

Corr	Slope	Intercept
0.99988	0.24195	0.00067

Standards E-K for NO2
(1mm flow cell)

Corr	Slope	Intercept
0.99997	0.25537	0.00005

Column Efficiency Factor = 0.9475

(Total Slope / Nitrite Slope)

STDS A-F NO3-047

STDS E-I NO2-179

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard A,	NO2	mg/l	**.*****	0.00029	0.0	0.0001
Standard A,	NO3/NO2	mg/l	10.00000	10.06310	100.6	0.2688

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard B,	NO2	mg/l	**.*****	0.00123	0.0	0.0004
Standard B,	NO3/NO2	mg/l	5.00000	4.88989	97.8	0.1298

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard C,	NO2	mg/l	**.*****	0.00032	0.0	0.0001
Standard C,	NO3/NO2	mg/l	2.50000	2.45564	98.2	0.0644

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard D,	NO2	mg/l	**.*****	0.00040	0.0	0.0001
Standard D,	NO3/NO2	mg/l	1.00000	1.00359	100.4	0.0254

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard E,	NO2	mg/l	0.25000	0.25046	100.2	0.0640
Standard E,	NO3/NO2	mg/l	0.50000	0.53105	106.2	0.0127

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard F,	NO2	mg/l	0.10000	0.09898	99.0	0.0253
Standard F,	NO3/NO2	mg/l	0.20000	0.20425	102.1	0.0501

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard G,	NO2	mg/l	0.05000	0.04969	99.4	0.0127
Standard G,	NO3/NO2	mg/l	0.10000	0.10289	102.9	0.0256

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard H,	NO2	mg/l	0.02500	0.02455	98.2	0.0063
Standard H,	NO3/NO2	mg/l	0.05000	0.04769	95.4	0.0122

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard I,	NO2	mg/l	0.01000	0.01128	112.8	0.0029
Standard I,	NO3/NO2	mg/l	0.02000	0.01905	95.2	0.0053

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard J,	NO2	mg/l	0.00500	0.00514	102.8	0.0014
Standard J,	NO3/NO2	mg/l	0.01000	0.01090	109.0	0.0033

	Analyte	Units	---- Average Concentrations --- Known	Observed	% Recovery	Baseline Corrected Average Absorbance
Standard K,	NO2	mg/l	0.00000	-0.00010	***.*	0.0000
Standard K,	NO3/NO2	mg/l	0.00000	-0.00275	***.*	0.0000

---------- End of Calibration Report For Calibration 98051103 ----------

==========

QuikChem AE Runtime Report for Tray 98051103.RS
Method: NITRATE/ITE

This report and tray were started on 05/11/98 at 02:52 pm.
Operator: KJP 4657 Template: #1

* The calculated value reported for NO3 may differ slightly from the difference of the reported values for NO2 and NO3/NO2. The NO3 value is calculated from the determined concentrations before they are rounded. The reported results for NO2 and NO3/NO2 are rounded values. This difference, if any, will not affect sample results.

** The calculated value reported for NO3 is the NO3/NO2 value. The NO2 value in this case is negative and was not subtracted from the NO3/NO2 value.

==========

-- Page 1 of report for tray 98051103.RS ----------

BL001

Test	Result	Units	D.L.				
G113.3	-0.0050	mg/L	0.01	Cup 101	DL =	0.01	Segment NO3/NO2#2
				: NO3		-0.0053	mg/l (Calculation)*
				Ch. 2: NO2		0.0003	mg/l PIF=0.00 Abs= 0.0001
				Ch. 3: NO3/NO2		-0.0050	mg/l PIF=0.78 Abs=-0.0005

CBL01 TV=0.0250/0.0300 [illegible]%

Test	Result	Units	D.L.				
G113.3	0.0495	mg/L	0.01	Cup 102	DL =	0.01	Segment NO3/NO2#2
				: NO3		0.0238	mg/l (Calculation)*
				Ch. 2: NO2		0.0256	mg/l PIF=0.99 Abs= 0.0066
				Ch. 3: NO3/NO2		0.0495	mg/l PIF=0.96 Abs= 0.0126

ICV01 TV=0.150 X454 DO NOT RECORD

Test	Result	Units	D.L.				
				Cup 103	DL =	0.01	Segment NO3/NO2#2
				: NO3		0.0131	mg/l (Calculation)*
				Ch. 2: NO2		0.1548	mg/l PIF=0.99 Abs= 0.0396
				Ch. 3: NO3/NO2		0.1679	mg/l PIF=0.98 Abs= 0.0413

-- Report for tray 98051103.RS continued on next page . . .

[redacted] 101.8%

Test	Result	Units	D.L.
G113.3	0.554	mg/L	0.01

```
Cup 104    DL =        0.01   Segment NO3/NO2#1
     : NO3           0.5527   mg/l (Calculation)*
Ch.2: NO2            0.0007   mg/l PIF=0.33 Abs= 0.0002
Ch.3: NO3/NO2        0.5535   mg/l PIF=0.95 Abs= 0.0133
```

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 105    DL =        0.01   Segment NO3/NO2#2
     : NO3          -0.0138   mg/l (Calculation)*
Ch.2: NO2            0.0005   mg/l PIF=0.34 Abs= 0.0002
Ch.3: NO3/NO2       -0.0133   mg/l PIF=0.61 Abs=-0.0026
     : (NEGATIVE PEAK)
     :
```

A441262 OUTFALL 001

Test	Result	Units	D.L.
G113.3	0.39	mg/L	0.01

```
Cup 106    DL =        0.01   Segment NO3/NO2#1
     : NO3           0.3855   mg/l (Calculation)*
Ch.2: NO2            0.0006   mg/l PIF=0.56 Abs= 0.0002
Ch.3: NO3/NO2        0.3860   mg/l PIF=0.92 Abs= 0.0088
```

[redacted] 96%

Test	Result	Units	D.L.
G113.3	0.38	mg/L	0.01

```
Cup 107    DL =        0.01   Segment NO3/NO2#1
     : NO3           0.3790   mg/l (Calculation)*
Ch.2: NO2            0.0006   mg/l PIF=0.40 Abs= 0.0002
Ch.3: NO3/NO2        0.3796   mg/l PIF=0.93 Abs= 0.0086
```

A441360 A-06D

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 108    DL =        0.01   Segment NO3/NO2#2
     : NO3          -0.0067   mg/l (Calculation)*
     :
     :  Low level difference between NO3/NO2 and
     :  NO2.  Report NO3/NO2 value for NO3/NO2 and
     :  NO2.  Report BDL for NO3.
     :
Ch.2: NO2            0.0091   mg/l PIF=0.95 Abs= 0.0024
Ch.3: NO3/NO2        0.0024   mg/l PIF=0.46 Abs= 0.0013
```

-- Report for tray 98051103.RS continued on next page . . .

-- Page 3 of report for tray 98051103.RS ----------

A441361 A-22D

Test	Result	Units	D.L.	
G113.3	BDL	mg/L	0.01	Cup 109 DL = 0.01 Segment NO3/NO2#2
				: NO3 -0.0008 mg/l (Calculation)*
				:
				: Low level difference between NO3/NO2 and
				: NO2. Report NO3/NO2 value for NO3/NO2 and
				: NO2. Report BDL for NO3.
				:
				Ch.2: NO2 0.0024 mg/l PIF=0.66 Abs= 0.0007
				Ch.3: NO3/NO2 0.0016 mg/l PIF=0.86 Abs= 0.0011

A441362 A-33D

Test	Result	Units	D.L.	
G113.3	BDL	mg/L	0.01	Cup 110 DL = 0.01 Segment NO3/NO2#2
				: NO3 0.0001 mg/l (Calculation)*
				Ch.2: NO2 0.0004 mg/l PIF=0.33 Abs= 0.0001
				Ch.3: NO3/NO2 0.0005 mg/l PIF=0.53 Abs= 0.0008

A441363 A-18D

Test	Result	Units	D.L.	
G113.3	BDL	mg/L	0.01	Cup 111 DL = 0.01 Segment NO3/NO2#2
				: NO3 -0.0053 mg/l (Calculation)*
				Ch.2: NO2 0.0020 mg/l PIF=0.91 Abs= 0.0005
				Ch.3: NO3/NO2 -0.0034 mg/l PIF=0.00 Abs=-0.0001

A441364 A-13D

Test	Result	Units	D.L.	
G113.3	2.3	mg/L	0.01	Cup 112 DL = 0.01 Segment NO3/NO2#1
				: NO3 2.2393 mg/l (Calculation)*
				Ch.2: NO2 0.0446 mg/l PIF=0.98 Abs= 0.0114
				Ch.3: NO3/NO2 2.2839 mg/l PIF=0.99 Abs= 0.0598

A441365 A-14D

Test	Result	Units	D.L.	
G113.3	3.8	mg/L	0.01	Cup 113 DL = 0.01 Segment NO3/NO2#1
				: NO3 3.7532 mg/l (Calculation)*
				Ch.2: NO2 0.0019 mg/l PIF=0.86 Abs= 0.0005
				Ch.3: NO3/NO2 3.7551 mg/l PIF=0.99 Abs= 0.0993

-- Report for tray 98051103.RS continued on next page . . .

A441366 A-15D

Test	Result	Units	D.L.					
G113.3	5.4	mg/L	0.01	Cup 114	DL =	0.01	Segment NO3/NO2#1	
				: NO3		5.4547	mg/l	(Calculation)*
				Ch.2: NO2		0.0008	mg/l	PIF=0.53 Abs= 0.0002
				Ch.3: NO3/NO2		5.4555	mg/l	PIF=1.00 Abs= 0.1450

SAM = 4.86

[redacted] SPF = 1.00

Test	Result	Units	D.L.					
G113.3	5.93	mg/L	0.01	Cup 115	DL =	0.01	Segment NO3/NO2#1	
				: NO3		5.9275	mg/l	(Calculation)*
				Ch.2: NO2		0.0007	mg/l	PIF=0.54 Abs= 0.0002
				Ch.3: NO3/NO2		5.9282	mg/l	PIF=1.00 Abs= 0.1577

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.					
				Cup 116	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0993	mg/l	(Calculation)*
				Ch.2: NO2		0.0003	mg/l	PIF=0.24 Abs= 0.0001
				Ch.3: NO3/NO2		-0.0991	mg/l	PIF=0.42 Abs=-0.0233
				: (NEGATIVE PEAK)				
				:				

CCV TV=0.100 DO NOT RECORD

Test	Result	Units	D.L.					
				Cup 117	DL =	0.01	Segment NO3/NO2#2	
				: NO3		0.1002	mg/l	(Calculation)*
				Ch.2: NO2		0.1010	mg/l	PIF=1.00 Abs= 0.0258
				Ch.3: NO3/NO2		0.2012	mg/l	PIF=0.98 Abs= 0.0494

[redacted]

Test	Result	Units	D.L.					
G113.3	1.04	mg/L	0.01	Cup 118	DL =	0.01	Segment NO3/NO2#1	
				: NO3		1.0364	mg/l	(Calculation)*
				Ch.2: NO2		0.0000	mg/l	PIF=0.00 Abs= 0.0000
				Ch.3: NO3/NO2		1.0364	mg/l	PIF=0.98 Abs= 0.0263

-- Report for tray 98051103.RS continued on next page . . .

Rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 119    DL =        0.01  Segment NO3/NO2#2
     : NO3          -0.0218  mg/l (Calculation)*
Ch.2: NO2            0.0006  mg/l PIF=0.32 Abs= 0.0002
Ch.3: NO3/NO2       -0.0212  mg/l PIF=0.52 Abs=-0.0045
     : (NEGATIVE PEAK)
     :
```

[redacted]

Test	Result	Units	D.L.
G113.3	-0.0048	mg/L	0.01

```
Cup 120    DL =        0.01  Segment NO3/NO2#2
     : NO3          -0.0049  mg/l (Calculation)*
Ch.2: NO2            0.0001  mg/l PIF=0.00 Abs= 0.0001
Ch.3: NO3/NO2       -0.0048  mg/l PIF=0.57 Abs=-0.0005
```

A441367 DUP-1

Test	Result	Units	D.L.
G113.3	~~5.0~~ 5.5	mg/L	0.01

```
Cup 121    DL =        0.01  Segment NO3/NO2#1
     : NO3           5.4713  mg/l (Calculation)*
Ch.2: NO2            0.0001  mg/l PIF=0.24 Abs= 0.0001
Ch.3: NO3/NO2        5.4714  mg/l PIF=0.99 Abs= 0.1454
```

[redacted] RPD= 1.8%

Test	Result	Units	D.L.
G113.3	5.4	mg/L	0.01

```
Cup 122    DL =        0.01  Segment NO3/NO2#1
     : NO3           5.4415  mg/l (Calculation)*
Ch.2: NO2            0.0003  mg/l PIF=0.48 Abs= 0.0001
Ch.3: NO3/NO2        5.4419  mg/l PIF=1.00 Abs= 0.1446
```

A441368 A-01D DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 123    DL =        0.01  Segment NO3/NO2#2
     : NO3          -0.0936  mg/l (Calculation)*
Ch.2: NO2            0.0003  mg/l PIF=0.56 Abs= 0.0001
Ch.3: NO3/NO2       -0.0933  mg/l PIF=0.39 Abs=-0.0219
     : (NEGATIVE PEAK)
     :
```

-- Report for tray 98051103.RS continued on next page . . .

A441369 A-17D

Test	Result	Units	D.L.					
G113.3	BDL	mg/L	0.01	Cup 124	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0055	mg/l	(Calculation)*
				Ch.2: NO2		0.0005	mg/l	PIF=0.58 Abs= 0.0002
				Ch.3: NO3/NO2		-0.0050	mg/l	PIF=0.64 Abs=-0.0005

A441370 A-19U

Test	Result	Units	D.L.					
G113.3	3.7	mg/L	0.01	Cup 125	DL =	0.01	Segment NO3/NO2#1	
				: NO3		3.7035	mg/l	(Calculation)*
				Ch.2: NO2		0.0023	mg/l	PIF=0.75 Abs= 0.0006
				Ch.3: NO3/NO2		3.7059	mg/l	PIF=0.99 Abs= 0.0980

A441371 A-21D

DO NOT RECORD

Test	Result	Units	D.L.					
				Cup 126	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0633	mg/l	(Calculation)*
				Ch.2: NO2		0.0008	mg/l	PIF=0.37 Abs= 0.0002
				Ch.3: NO3/NO2		-0.0625	mg/l	PIF=0.42 Abs=-0.0144
				: (NEGATIVE PEAK)				
				:				

A441373 DK10963

Test	Result	Units	D.L.					
G113.3	BDL	mg/L	0.01	Cup 127	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0050	mg/l	(Calculation)*
				Ch.2: NO2		0.0008	mg/l	PIF=0.50 Abs= 0.0002
				Ch.3: NO3/NO2		-0.0042	mg/l	PIF=0.46 Abs=-0.0003

A441374 DK10964

Test	Result	Units	D.L.					
G113.3	BDL	mg/L	0.01	Cup 128	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0054	mg/l	(Calculation)*
				Ch.2: NO2		0.0016	mg/l	PIF=0.59 Abs= 0.0004
				Ch.3: NO3/NO2		-0.0038	mg/l	PIF=0.00 Abs=-0.0002

-- Report for tray 98051103.RS continued on next page . . .

[redacted] SAM=BDL SPI=1.00

Test	Result	Units	D.L.
G113.3	1.01	mg/L	0.01

```
Cup 129    DL =        0.01  Segment NO3/NO2#1
     : NO3           1.0066  mg/l (Calculation)*
Ch.2: NO2            0.0012  mg/l PIF=0.70 Abs= 0.0004
Ch.3: NO3/NO2        1.0078  mg/l PIF=0.97 Abs= 0.0255
```

---

rinse DO NOT RECORD DO NOT RECORD

```
Cup 130    DL =        0.01  Segment NO3/NO2#2
     : NO3          -0.0209  mg/l (Calculation)*
Ch.2: NO2            0.0006  mg/l PIF=0.45 Abs= 0.0002
Ch.3: NO3/NO2       -0.0204  mg/l PIF=0.53 Abs=-0.0043
     : (NEGATIVE PEAK)
     :
```

[redacted]

Test	Result	Units	D.L.
G113.3	1.01	mg/L	0.01

```
Cup 131    DL =        0.01  Segment NO3/NO2#1
     : NO3           1.0055  mg/l (Calculation)*
Ch.2: NO2            0.0008  mg/l PIF=0.81 Abs= 0.0003
Ch.3: NO3/NO2        1.0063  mg/l PIF=0.97 Abs= 0.0255
```

---

rinse DO NOT RECORD DO NOT RECORD

```
Cup 132    DL =        0.01  Segment NO3/NO2#2
     : NO3          -0.0227  mg/l (Calculation)*
Ch.2: NO2            0.0002  mg/l PIF=0.16 Abs= 0.0001
Ch.3: NO3/NO2       -0.0225  mg/l PIF=0.51 Abs=-0.0048
     : (NEGATIVE PEAK)
     :
```

CCV TV=0.100 DO NOT RECORD

```
Cup 133    DL =        0.01  Segment NO3/NO2#2
     : NO3           0.0970  mg/l (Calculation)*
Ch.2: NO2            0.1014  mg/l PIF=0.97 Abs= 0.0259
Ch.3: NO3/NO2        0.1984  mg/l PIF=0.97 Abs= 0.0487
```

-- Report for tray 98051103.RS continued on next page . . .

[redacted]

Test	Result	Units	D.L.
G113.3	1.01	mg/L	0.01

```
Cup 134    DL =          0.01   Segment NO3/NO2#1
     : NO3            1.0096   mg/l (Calculation)*
Ch.2: NO2             0.0001   mg/l PIF=0.00 Abs= 0.0001
Ch.3: NO3/NO2         1.0096   mg/l PIF=0.98 Abs= 0.0256
```

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 135    DL =          0.01   Segment NO3/NO2#2
     : NO3           -0.0213   mg/l (Calculation)*
Ch.2: NO2             0.0008   mg/l PIF=0.44 Abs= 0.0003
Ch.3: NO3/NO2        -0.0204   mg/l PIF=0.52 Abs=-0.0043
     : (NEGATIVE PEAK)
     :
```

BLA01 [redacted]

Test	Result	Units	D.L.
G113.3	-0.0045	mg/L	0.01

```
Cup 136    DL =          0.01   Segment NO3/NO2#2
     : NO3           -0.0052   mg/l (Calculation)*
Ch.2: NO2             0.0007   mg/l PIF=0.52 Abs= 0.0002
Ch.3: NO3/NO2        -0.0045   mg/l PIF=0.65 Abs=-0.0004
```

A441375 DK10965

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 137    DL =          0.01   Segment NO3/NO2#2
     : NO3           -0.0069   mg/l (Calculation)*
Ch.2: NO2             0.0016   mg/l PIF=0.84 Abs= 0.0004
Ch.3: NO3/NO2        -0.0053   mg/l PIF=0.67 Abs=-0.0006
```

[redacted]

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 138    DL =          0.01   Segment NO3/NO2#2
     : NO3           -0.0068   mg/l (Calculation)*
Ch.2: NO2             0.0013   mg/l PIF=0.91 Abs= 0.0004
Ch.3: NO3/NO2        -0.0055   mg/l PIF=0.60 Abs=-0.0007
```

-- Report for tray 98051103.RS continued on next page . . .

A441376 DK10966

Test	Result	Units	D.L.				
G113.3	0.02	mg/L	0.01	Cup 139	DL =	0.01	Segment NO3/NO2#2
				: NO3		0.0189	mg/l (Calculation)*
				Ch.2: NO2		0.0007	mg/l PIF=0.68 Abs= 0.0002
				Ch.3: NO3/NO2		0.0196	mg/l PIF=0.93 Abs= 0.0054

A441377 DK10967

Test	Result	Units	D.L.				
G113.3	BDL	mg/L	0.01	Cup 140	DL =	0.01	Segment NO3/NO2#2
				: NO3		0.0005	mg/l (Calculation)*
				Ch.2: NO2		0.0013	mg/l PIF=0.79 Abs= 0.0004
				Ch.3: NO3/NO2		0.0017	mg/l PIF=0.77 Abs= 0.0011

A441378 DK10968

Test	Result	Units	D.L.				
G113.3	BDL	mg/L	0.01	Cup 141	DL =	0.01	Segment NO3/NO2#2
				: NO3		-0.0076	mg/l (Calculation)*
				Ch.2: NO2		0.0015	mg/l PIF=0.82 Abs= 0.0004
				Ch.3: NO3/NO2		-0.0061	mg/l PIF=0.71 Abs=-0.0008

A441379 DK10969

Test	Result	Units	D.L.				
G113.3	BDL	mg/L	0.01	Cup 142	DL =	0.01	Segment NO3/NO2#2
				: NO3		-0.0043	mg/l (Calculation)*
				Ch.2: NO2		0.0004	mg/l PIF=0.49 Abs= 0.0002
				Ch.3: NO3/NO2		-0.0039	mg/l PIF=0.11 Abs=-0.0003

A441380 DK10970

Test	Result	Units	D.L.				
G113.3	BDL	mg/L	0.01	Cup 143	DL =	0.01	Segment NO3/NO2#2
				: NO3		-0.0042	mg/l (Calculation)*
				Ch.2: NO2		0.0001	mg/l PIF=0.00 Abs= 0.0001
				Ch.3: NO3/NO2		-0.0042	mg/l PIF=0.17 Abs=-0.0003

-- Report for tray 98051103.RS continued on next page . . .

441381 DK10971

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 144    DL =        0.01   Segment NO3/NO2#2
     : NO3           -0.0092   mg/l (Calculation)*
Ch.2: NO2             0.0027   mg/l PIF=0.93 Abs= 0.0007
Ch.3: NO3/NO2        -0.0065   mg/l PIF=0.68 Abs=-0.0009
```

[redacted] SAM=BDL SPI=1.00

Test	Result	Units	D.L.
G113.3	0.934	mg/L	0.01

```
Cup 145    DL =        0.01   Segment NO3/NO2#1
     : NO3            0.9315   mg/l (Calculation)*
Ch.2: NO2             0.0023   mg/l PIF=0.84 Abs= 0.0006
Ch.3: NO3/NO2         0.9337   mg/l PIF=0.96 Abs= 0.0235
```

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 146    DL =        0.01   Segment NO3/NO2#2
     : NO3           -0.0178   mg/l (Calculation)*
Ch.2: NO2             0.0002   mg/l PIF=0.20 Abs= 0.0001
Ch.3: NO3/NO2        -0.0176   mg/l PIF=0.55 Abs=-0.0036
     : (NEGATIVE PEAK)
     :
```

[redacted] SAM=BDL SPI=1.00

Test	Result	Units	D.L.
G113.3	0.930	mg/L	0.01

```
Cup 147    DL =        0.01   Segment NO3/NO2#1
     : NO3            0.9264   mg/l (Calculation)*
Ch.2: NO2             0.0032   mg/l PIF=0.83 Abs= 0.0009
Ch.3: NO3/NO2         0.9296   mg/l PIF=0.96 Abs= 0.0234
```

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 148    DL =        0.01   Segment NO3/NO2#2
     : NO3           -0.0208   mg/l (Calculation)*
Ch.2: NO2             0.0006   mg/l PIF=0.49 Abs= 0.0002
Ch.3: NO3/NO2        -0.0202   mg/l PIF=0.54 Abs=-0.0042
     : (NEGATIVE PEAK)
     :
```

-- Report for tray 98051103.RS continued on next page . . .

-- Page 11 of report for tray 98051103.RS ----------

CCV TV=0.100 DO NOT RECORD

Test	Result	Units	D.L.				
				Cup 149	DL =	0.01	Segment NO3/NO2#2
				: NO3		0.0977	mg/l (Calculation)*
				Ch.2: NO2		0.1005	mg/l PIF=0.98 Abs= 0.0257
				Ch.3: NO3/NO2		0.1982	mg/l PIF=0.97 Abs= 0.0486

[redacted]

Test	Result	Units	D.L.				
				Cup 150	DL =	0.01	Segment NO3/NO2#1
G113.3	1.01	mg/L	0.01	: NO3		1.0132	mg/l (Calculation)*
				Ch.2: NO2		0.0003	mg/l PIF=0.14 Abs= 0.0001
				Ch.3: NO3/NO2		1.0135	mg/l PIF=0.98 Abs= 0.0257

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.				
				Cup 151	DL =	0.01	Segment NO3/NO2#2
				: NO3		-0.0203	mg/l (Calculation)*
				Ch.2: NO2		0.0004	mg/l PIF=0.52 Abs= 0.0002
				Ch.3: NO3/NO2		-0.0199	mg/l PIF=0.50 Abs=-0.0041
				: (NEGATIVE PEAK)			
				:			

[redacted]

Test	Result	Units	D.L.				
				Cup 152	DL =	0.01	Segment NO3/NO2#2
G113.3	-0.0048	mg/L	0.01	: NO3		-0.0049	mg/l (Calculation)*
				Ch.2: NO2		0.0001	mg/l PIF=0.00 Abs= 0.0001
				Ch.3: NO3/NO2		-0.0048	mg/l PIF=0.82 Abs=-0.0005

--------- End of Report for Tray 98051103.RS ----------

==========
QuikChem AE Runtime Report for Tray 98051104.RS
Method: NITRATE/ITE

This report and tray were started on 05/11/98 at 03:52 pm.
Operator: KJP 4657 Template: #2

* The calculated value reported for NO3 may differ slightly from the difference of the reported values for NO2 and NO3/NO2. The NO3 value is calculated from the determined concentrations before they are rounded. The reported results for NO2 and NO3/NO2 are rounded values. This difference, if any, will not affect sample results.

** The calculated value reported for NO3 is the NO3/NO2 value. The NO2 value in this case is negative and was not subtracted from the NO3/NO2 value.
==========

-- Page 1 of report for tray 98051104.RS ----------

A441382 DK10972

Test	Result	Units	D.L.					
G113.3	BDL	mg/L	0.01	Cup 201	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0051	mg/l	(Calculation)*
				Ch.2: NO2		0.0001	mg/l	PIF=0.54 Abs= 0.0001
				Ch.3: NO3/NO2		-0.0049	mg/l	PIF=0.56 Abs=-0.0005

~~A441382 DUP01 RPD= CNA~~

Test	Result	Units	D.L.					
G113.3	BDL	mg/L	0.01	Cup 202	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0053	mg/l	(Calculation)*
				Ch.2: NO2		0.0001	mg/l	PIF=0.03 Abs= 0.0001
				Ch.3: NO3/NO2		-0.0052	mg/l	PIF=0.57 Abs=-0.0006

A441383 DK11727

Test	Result	Units	D.L.					
G113.3	7.0	mg/L	0.01	Cup 203	DL =	0.01	Segment NO3/NO2#1	
				: NO3		6.9637	mg/l	(Calculation)**
				Ch.2: NO2		-0.0000	mg/l	PIF=0.16 Abs= 0.0000
				Ch.3: NO3/NO2		6.9637	mg/l	PIF=0.99 Abs= 0.1855

-- Report for tray 98051104.RS continued on next page . . .

A441384 DK11728 DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 204    DL =          0.01   Segment NO3/NO2#2
     : NO3            -0.1207   mg/l (Calculation)*
Ch.2: NO2              0.0034   mg/l PIF=0.96 Abs= 0.0009
Ch.3: NO3/NO2         -0.1173   mg/l PIF=0.45 Abs=-0.0277
     : (NEGATIVE PEAK)
     :
```

A441385 DK11729

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 205    DL =          0.01   Segment NO3/NO2#2
     : NO3            -0.0050   mg/l (Calculation)**
Ch.2: NO2              -0.0001   mg/l PIF=0.00 Abs= 0.0000
Ch.3: NO3/NO2         -0.0050   mg/l PIF=0.61 Abs=-0.0005
```

A441386 DK11730

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 206    DL =          0.01   Segment NO3/NO2#2
     : NO3            -0.0022   mg/l (Calculation)*
Ch.2: NO2              0.0006   mg/l PIF=0.76 Abs= 0.0002
Ch.3: NO3/NO2         -0.0016   mg/l PIF=0.00 Abs= 0.0003
```

A441387 DK11731

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 207    DL =          0.01   Segment NO3/NO2#2
     : NO3            -0.0054   mg/l (Calculation)*
Ch.2: NO2              0.0010   mg/l PIF=0.83 Abs= 0.0003
Ch.3: NO3/NO2         -0.0045   mg/l PIF=0.42 Abs=-0.0004
```

A441388 DK11732

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 208    DL =          0.01   Segment NO3/NO2#2
     : NO3            -0.0051   mg/l (Calculation)*
Ch.2: NO2              0.0004   mg/l PIF=0.78 Abs= 0.0001
Ch.3: NO3/NO2         -0.0047   mg/l PIF=0.61 Abs=-0.0005
```

-- Report for tray 98051104.RS continued on next page . . .

-- Page 3 of report for tray 98051104.RS ----------

A441388 SPI01 TV=1.00 98.0%

Test	Result	Units	D.L.
G113.3	0.980	mg/L	0.01

```
Cup 209    DL =          0.01   Segment NO3/NO2#1
     : NO3            0.9794   mg/l (Calculation)*
Ch.2: NO2             0.0004   mg/l PIF=0.67 Abs= 0.0001
Ch.3: NO3/NO2         0.9797   mg/l PIF=0.97 Abs= 0.0248
```

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 210    DL =          0.01   Segment NO3/NO2#2
     : NO3           -0.0216   mg/l (Calculation)*
Ch.2: NO2             0.0004   mg/l PIF=0.37 Abs= 0.0002
Ch.3: NO3/NO2        -0.0212   mg/l PIF=0.53 Abs=-0.0045
     : (NEGATIVE PEAK)
     :
```

A441388 DPS01 97.8% RPD= 0.2%

Test	Result	Units	D.L.
G113.3	BAS 5/18/98 ~~97.8~~ 0.978	mg/L	0.01

```
Cup 211    DL =          0.01   Segment NO3/NO2#1
     : NO3            0.9769   mg/l (Calculation)*
Ch.2: NO2             0.0006   mg/l PIF=0.78 Abs= 0.0002
Ch.3: NO3/NO2         0.9776   mg/l PIF=0.97 Abs= 0.0247
```

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 212    DL =          0.01   Segment NO3/NO2#2
     : NO3           -0.0205   mg/l (Calculation)*
Ch.2: NO2             0.0007   mg/l PIF=0.51 Abs= 0.0002
Ch.3: NO3/NO2        -0.0199   mg/l PIF=0.53 Abs=-0.0041
     : (NEGATIVE PEAK)
     :
```

CCV TV=0.100 DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 213    DL =          0.01   Segment NO3/NO2#2
     : NO3            0.0995   mg/l (Calculation)*
Ch.2: NO2             0.1013   mg/l PIF=0.98 Abs= 0.0259
Ch.3: NO3/NO2         0.2009   mg/l PIF=0.96 Abs= 0.0493
```

-- Report for tray 98051104.RS continued on next page . . .

CCV TV=1.00 102.0%

Test	Result	Units	D.L.
G113.3	1.02	mg/L	0.01

```
Cup 214    DL =          0.01   Segment NO3/NO2#1
     : NO3             1.0164   mg/l (Calculation)*
Ch.2: NO2              0.0003   mg/l PIF=0.18 Abs= 0.0001
Ch.3: NO3/NO2          1.0167   mg/l PIF=0.97 Abs= 0.0257
```

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 215    DL =          0.01   Segment NO3/NO2#2
     : NO3            -0.0204   mg/l (Calculation)*
Ch.2: NO2              0.0006   mg/l PIF=0.49 Abs= 0.0002
Ch.3: NO3/NO2         -0.0197   mg/l PIF=0.50 Abs=-0.0041
     : (NEGATIVE PEAK)
     :
```

BLA01

Test	Result	Units	D.L.
G113.3	-0.0057	mg/L	0.01

```
Cup 216    DL =          0.01   Segment NO3/NO2#2
     : NO3            -0.0063   mg/l (Calculation)*
Ch.2: NO2              0.0005   mg/l PIF=0.38 Abs= 0.0002
Ch.3: NO3/NO2         -0.0057   mg/l PIF=0.94 Abs=-0.0007
```

A441389 DK11733

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 217    DL =          0.01   Segment NO3/NO2#2
     : NO3            -0.0103   mg/l (Calculation)*
Ch.2: NO2              0.0023   mg/l PIF=0.87 Abs= 0.0006
Ch.3: NO3/NO2         -0.0080   mg/l PIF=0.84 Abs=-0.0013
```

A441389 DUP01 RPD= CNA

Test	Result	Units	D.L.
G113.3	BDL	mg/L	0.01

```
Cup 218    DL =          0.01   Segment NO3/NO2#2
     : NO3            -0.0093   mg/l (Calculation)*
Ch.2: NO2              0.0021   mg/l PIF=0.94 Abs= 0.0006
Ch.3: NO3/NO2         -0.0072   mg/l PIF=0.64 Abs=-0.0011
```

-- Report for tray 98051104.RS continued on next page . . .

A441390 DK11023

Test	Result	Units	D.L.				
G113.3	BDL	mg/L	0.01	Cup 219	DL =	0.01	Segment NO3/NO2#2
				: NO3		-0.0035	mg/l (Calculation)*
				Ch.2: NO2		0.0001	mg/l PIF=0.00 Abs= 0.0001
				Ch.3: NO3/NO2		-0.0034	mg/l PIF=0.00 Abs=-0.0001

A441396 DK11024

Test	Result	Units	D.L.				
G113.3	3.1	mg/L	0.01	Cup 220	DL =	0.01	Segment NO3/NO2#1
				: NO3		3.1199	mg/l (Calculation)*
				Ch.2: NO2		0.0005	mg/l PIF=0.34 Abs= 0.0002
				Ch.3: NO3/NO2		3.1204	mg/l PIF=0.99 Abs= 0.0823

A441397 DK11025

Test	Result	Units	D.L.				
G113.3	0.16	mg/L	0.01	Cup 221	DL =	0.01	Segment NO3/NO2#2
				: NO3		0.1596	mg/l (Calculation)*
				Ch.2: NO2		0.0005	mg/l PIF=0.35 Abs= 0.0002
				Ch.3: NO3/NO2		0.1601	mg/l PIF=0.89 Abs= 0.0394

A441398 DK11026

Test	Result	Units	D.L.				
G113.3	0.03	mg/L	0.01	Cup 222	DL =	0.01	Segment NO3/NO2#2
				: NO3		0.0265	mg/l (Calculation)**
				Ch.2: NO2		-0.0002	mg/l PIF=0.00 Abs= 0.0000
				Ch.3: NO3/NO2		0.0265	mg/l PIF=0.97 Abs= 0.0071

A441399 DK11027

Test	Result	Units	D.L.				
G113.3	BDL	mg/L	0.01	Cup 223	DL =	0.01	Segment NO3/NO2#2
				: NO3		-0.0079	mg/l (Calculation)*
				Ch.2: NO2		0.0033	mg/l PIF=0.92 Abs= 0.0009
				Ch.3: NO3/NO2		-0.0046	mg/l PIF=0.56 Abs=-0.0004

-- Report for tray 98051104.RS continued on next page . . .

4441400 DK11028

Test	Result	Units	D.L.					
G113.3	0.67	mg/L	0.01	Cup 224	DL =	0.01	Segment NO3/NO2#1	
				: NO3		0.6737	mg/l	(Calculation)*
				Ch.2: NO2		0.0004	mg/l	PIF=0.27 Abs= 0.0001
				Ch.3: NO3/NO2		0.6740	mg/l	PIF=0.96 Abs= 0.0165

[redacted] SAM = 0.603
SPC = 1.00

Test	Result	Units	D.L.					
G113.3	1.61	mg/L	0.01	Cup 225	DL =	0.01	Segment NO3/NO2#1	
				: NO3		1.6078	mg/l	(Calculation)*
				Ch.2: NO2		0.0003	mg/l	PIF=0.43 Abs= 0.0001
				Ch.3: NO3/NO2		1.6081	mg/l	PIF=0.99 Abs= 0.0416

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.					
				Cup 226	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0317	mg/l	(Calculation)*
				Ch.2: NO2		0.0015	mg/l	PIF=0.53 Abs= 0.0004
				Ch.3: NO3/NO2		-0.0302	mg/l	PIF=0.50 Abs=-0.0066
				: (NEGATIVE PEAK)				
				:				

[redacted]

Test	Result	Units	D.L.					
G113.3	1.62	mg/L	0.01	Cup 227	DL =	0.01	Segment NO3/NO2#1	
				: NO3		1.6205	mg/l	(Calculation)*
				Ch.2: NO2		0.0008	mg/l	PIF=0.65 Abs= 0.0003
				Ch.3: NO3/NO2		1.6214	mg/l	PIF=0.98 Abs= 0.0420

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.					
				Cup 228	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0300	mg/l	(Calculation)*
				Ch.2: NO2		0.0004	mg/l	PIF=0.48 Abs= 0.0002
				Ch.3: NO3/NO2		-0.0296	mg/l	PIF=0.49 Abs=-0.0065
				: (NEGATIVE PEAK)				
				:				

-- Report for tray 98051104.RS continued on next page . . .

CV TV=0.100 DO NOT RECORD

Test	Result	Units	D.L.					
				Cup 229	DL =	0.01	Segment NO3/NO2#2	
				: NO3		0.0975	mg/l	(Calculation)*
				Ch.2: NO2		0.1015	mg/l	PIF=0.97 Abs= 0.0260
				Ch.3: NO3/NO2		0.1991	mg/l	PIF=0.97 Abs= 0.0488

[redacted] 102.0%

Test	Result	Units	D.L.					
				Cup 230	DL =	0.01	Segment NO3/NO2#1	
G113.3	1.02	mg/L	0.01	: NO3		1.0179	mg/l	(Calculation)*
				Ch.2: NO2		0.0003	mg/l	PIF=0.00 Abs= 0.0001
				Ch.3: NO3/NO2		1.0182	mg/l	PIF=0.97 Abs= 0.0258

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.					
				Cup 231	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0203	mg/l	(Calculation)*
				Ch.2: NO2		0.0000	mg/l	PIF=0.00 Abs= 0.0001
				Ch.3: NO3/NO2		-0.0203	mg/l	PIF=0.54 Abs=-0.0042
				: (NEGATIVE PEAK)				
				:				

[redacted]

Test	Result	Units	D.L.					
				Cup 232	DL =	0.01	Segment NO3/NO2#2	
G113.3	-0.0055	mg/L	0.01	: NO3		-0.0060	mg/l	(Calculation)*
				Ch.2: NO2		0.0005	mg/l	PIF=0.49 Abs= 0.0002
				Ch.3: NO3/NO2		-0.0055	mg/l	PIF=0.84 Abs=-0.0007

A441401 DK11029

Test	Result	Units	D.L.					
				Cup 233	DL =	0.01	Segment NO3/NO2#1	
G113.3	7.5	mg/L	0.01	: NO3		7.5070	mg/l	(Calculation)*
				Ch.2: NO2		0.0004	mg/l	PIF=0.31 Abs= 0.0001
				Ch.3: NO3/NO2		7.5074	mg/l	PIF=0.99 Abs= 0.2001

-- Report for tray 98051104.RS continued on next page . . .

[redacted]

Test	Result	Units	D.L.
G113.3	7.4	mg/L	0.01

```
Cup 234    DL =        0.01  Segment NO3/NO2#1
     : NO3           7.4105  mg/l (Calculation)*
Ch.2: NO2            0.0005  mg/l PIF=0.16 Abs= 0.0002
Ch.3: NO3/NO2        7.4110  mg/l PIF=1.00 Abs= 0.1975
```

A441402 DK11030

DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 235    DL =        0.01  Segment NO3/NO2#1
     : NO3          18.4073  mg/l (Calculation)*
Ch.2: NO2            0.0013  mg/l PIF=0.78 Abs= 0.0004
Ch.3: NO3/NO2       18.4086  mg/l PIF=0.99 Abs= 0.4930
* This sample must be diluted for the above channel. *
```

A441403 DK11031 DO NOT RECORD

Test	Result	Units	D.L.
G113.3	2.5	mg/L	0.01

```
Cup 236    DL =        0.01  Segment NO3/NO2#1
     : NO3           2.4806  mg/l (Calculation)*
Ch.2: NO2            0.0011  mg/l PIF=0.56 Abs= 0.0003
Ch.3: NO3/NO2        2.4817  mg/l PIF=0.96 Abs= 0.0651
```

SAM=

[redacted]

DO NOT RECORD

Test	Result	Units	D.L.
G113.3	3.47	mg/L	0.01

```
Cup 237    DL =        0.01  Segment NO3/NO2#1
     : NO3           3.4709  mg/l (Calculation)*
Ch.2: NO2            0.0007  mg/l PIF=0.70 Abs= 0.0002
Ch.3: NO3/NO2        3.4716  mg/l PIF=1.00 Abs= 0.0917
```

---

rinse DO NOT RECORD

DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 238    DL =        0.01  Segment NO3/NO2#2
     : NO3          -0.0631  mg/l (Calculation)*
Ch.2: NO2            0.0004  mg/l PIF=0.34 Abs= 0.0001
Ch.3: NO3/NO2       -0.0627  mg/l PIF=0.45 Abs=-0.0145
     : (NEGATIVE PEAK)
     :
```

-- Report for tray 98051104.RS continued on next page . . .

441403 DPS01 RPD= DO NOT RECORD

Test	Result	Units	D.L.

Cup 239 DL = 0.01 Segment NO3/NO2#1
: NO3 3.4956 mg/l (Calculation)*
Ch.2: NO2 0.0009 mg/l PIF=0.72 Abs= 0.0003
Ch.3: NO3/NO2 3.4966 mg/l PIF=0.99 Abs= 0.0924

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

Cup 240 DL = 0.01 Segment NO3/NO2#2
: NO3 -0.0658 mg/l (Calculation)*
Ch.2: NO2 0.0001 mg/l PIF=0.00 Abs= 0.0001
Ch.3: NO3/NO2 -0.0657 mg/l PIF=0.43 Abs=-0.0152
: (NEGATIVE PEAK)
:

CCV TV=0.100 DO NOT RECORD

Test	Result	Units	D.L.

Cup 241 DL = 0.01 Segment NO3/NO2#2
: NO3 0.0938 mg/l (Calculation)*
Ch.2: NO2 0.1015 mg/l PIF=0.98 Abs= 0.0260
Ch.3: NO3/NO2 0.1953 mg/l PIF=0.98 Abs= 0.0479

~~CCVF TV=1.00 102.0%~~

Test	Result	Units	D.L.
G113.3	1.02	mg/L	0.01

Cup 242 DL = 0.01 Segment NO3/NO2#1
: NO3 1.0223 mg/l (Calculation)*
Ch.2: NO2 0.0003 mg/l PIF=0.27 Abs= 0.0001
Ch.3: NO3/NO2 1.0226 mg/l PIF=0.98 Abs= 0.0259

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

Cup 243 DL = 0.01 Segment NO3/NO2#2
: NO3 -0.0199 mg/l (Calculation)*
Ch.2: NO2 0.0007 mg/l PIF=0.55 Abs= 0.0002
Ch.3: NO3/NO2 -0.0192 mg/l PIF=0.50 Abs=-0.0040
: (NEGATIVE PEAK)
:

-- Report for tray 98051104.RS continued on next page . . .

[redacted]

Test	Result	Units	D.L.
G113.3	-0.0065	mg/L	0.01

```
Cup 244    DL =          0.01  Segment NO3/NO2#2
     : NO3            -0.0082  mg/l (Calculation)*
Ch.2: NO2             0.0017  mg/l PIF=0.39 Abs= 0.0005
Ch.3: NO3/NO2        -0.0065  mg/l PIF=0.87 Abs=-0.0009
```

---------- End of Report for Tray 98051104.RS ----------

==========

QuikChem AE Runtime Report for Tray 98051105.RS
Method: NITRATE/ITE

This report and tray were started on 05/11/98 at [redacted]
Operator: KJP 4657 Template: #1

* The calculated value reported for NO3 may differ slightly from the difference of the reported values for NO2 and NO3/NO2. The NO3 value is calculated from the determined concentrations before they are rounded. The reported results for NO2 and NO3/NO2 are rounded values. This difference, if any, will not affect sample results.

** The calculated value reported for NO3 is the NO3/NO2 value. The NO2 value in this case is negative and was not subtracted from the NO3/NO2 value.

==========

-- Page 1 of report for tray 98051105.RS ----------

A441368 A-01D

Test	Result	Units	D.L.				
G113.3	BDL	mg/L	0.01	Cup 301	DL =	0.01	Segment NO3/NO2#2
				: NO3		0.0011	mg/l (Calculation)*
				Ch.2: NO2		0.0005	mg/l PIF=0.48 Abs= 0.0002
				Ch.3: NO3/NO2		0.0016	mg/l PIF=0.72 Abs= 0.0011

A441371 A-21D

Test	Result	Units	D.L.				
G113.3	BDL	mg/L	0.01	Cup 302	DL =	0.01	Segment NO3/NO2#2
				: NO3		-0.0020	mg/l (Calculation)**
				Ch.2: NO2		-0.0004	mg/l PIF=0.30 Abs=-0.0001
				Ch.3: NO3/NO2		-0.0020	mg/l PIF=0.00 Abs= 0.0002

A441384 DK11728

Test	Result	Units	D.L.				
G113.3	BDL	mg/L	0.01	Cup 303	DL =	0.01	Segment NO3/NO2#2
				: NO3		-0.0111	mg/l (Calculation)*
				Ch.2: NO2		0.0046	mg/l PIF=0.91 Abs= 0.0012
				Ch.3: NO3/NO2		-0.0065	mg/l PIF=0.73 Abs=-0.0009

-- Report for tray 98051105.RS continued on next page . . .

This sample diluted by a factor of 10.0

A441402 [redacted]10 DK11030

Test	Result	Units	D.L.
G113.3	20	mg/L	0.10

```
Cup 304    DL =          0.10  Segment NO3/NO2#1
     : NO3            20.1891  mg/l (Calculation)*
Ch.2: NO2              0.0016  mg/l PIF=0.06 Abs= 0.0001
Ch.3: NO3/NO2         20.1908  mg/l PIF=0.99 Abs= 0.0527
```

A441403 DK11031

Test	Result	Units	D.L.
G113.3	2.7	mg/L	0.01

```
Cup 305    DL =          0.01  Segment NO3/NO2#1
     : NO3             2.7327  mg/l (Calculation)*
Ch.2: NO2              0.0008  mg/l PIF=0.67 Abs= 0.0003
Ch.3: NO3/NO2          2.7335  mg/l PIF=1.00 Abs= 0.0719
```

[redacted]

SAM = 2.43
SPK = 1.00

Test	Result	Units	D.L.
G113.3	3.46	mg/L	0.01

```
Cup 306    DL =          0.01  Segment NO3/NO2#1
     : NO3             3.4613  mg/l (Calculation)*
Ch.2: NO2              0.0011  mg/l PIF=0.65 Abs= 0.0003
Ch.3: NO3/NO2          3.4623  mg/l PIF=1.00 Abs= 0.0914
```

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.

```
Cup 307    DL =          0.01  Segment NO3/NO2#2
     : NO3            -0.0606  mg/l (Calculation)*
Ch.2: NO2              0.0006  mg/l PIF=0.32 Abs= 0.0002
Ch.3: NO3/NO2         -0.0599  mg/l PIF=0.46 Abs=-0.0138
     : (NEGATIVE PEAK)
     :
```

[redacted]

Test	Result	Units	D.L.
G113.3	3.49	mg/L	0.01

```
Cup 308    DL =          0.01  Segment NO3/NO2#1
     : NO3             3.4936  mg/l (Calculation)*
Ch.2: NO2              0.0011  mg/l PIF=0.69 Abs= 0.0003
Ch.3: NO3/NO2          3.4947  mg/l PIF=0.99 Abs= 0.0923
```

-- Report for tray 98051105.RS continued on next page . . .

-- Page 3 of report for tray 98051105.RS ----------

---

rinse DO NOT RECORD DO NOT RECORD

Test	Result	Units	D.L.					
----	------	-----	----	Cup 309	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0600	mg/l	(Calculation)*
				Ch.2: NO2		0.0008	mg/l	PIF=0.49 Abs= 0.0003
				Ch.3: NO3/NO2		-0.0591	mg/l	PIF=0.46 Abs=-0.0136
				: (NEGATIVE PEAK)				
				:				

CCV TV=0.100

DO NOT RECORD

Test	Result	Units	D.L.					
----	------	-----	----	Cup 310	DL =	0.01	Segment NO3/NO2#2	
				: NO3		0.0974	mg/l	(Calculation)*
				Ch.2: NO2		0.1010	mg/l	PIF=0.98 Abs= 0.0258
				Ch.3: NO3/NO2		0.1984	mg/l	PIF=0.97 Abs= 0.0487

[redacted]

Test	Result	Units	D.L.					
----	------	-----	----	Cup 311	DL =	0.01	Segment NO3/NO2#1	
G113.3	1.00	mg/L	0.01	: NO3		1.0031	mg/l	(Calculation)*
				Ch.2: NO2		0.0002	mg/l	PIF=0.00 Abs= 0.0001
				Ch.3: NO3/NO2		1.0033	mg/l	PIF=0.98 Abs= 0.0254

---

rinse DO NOT RECORD DO NOT RECORD

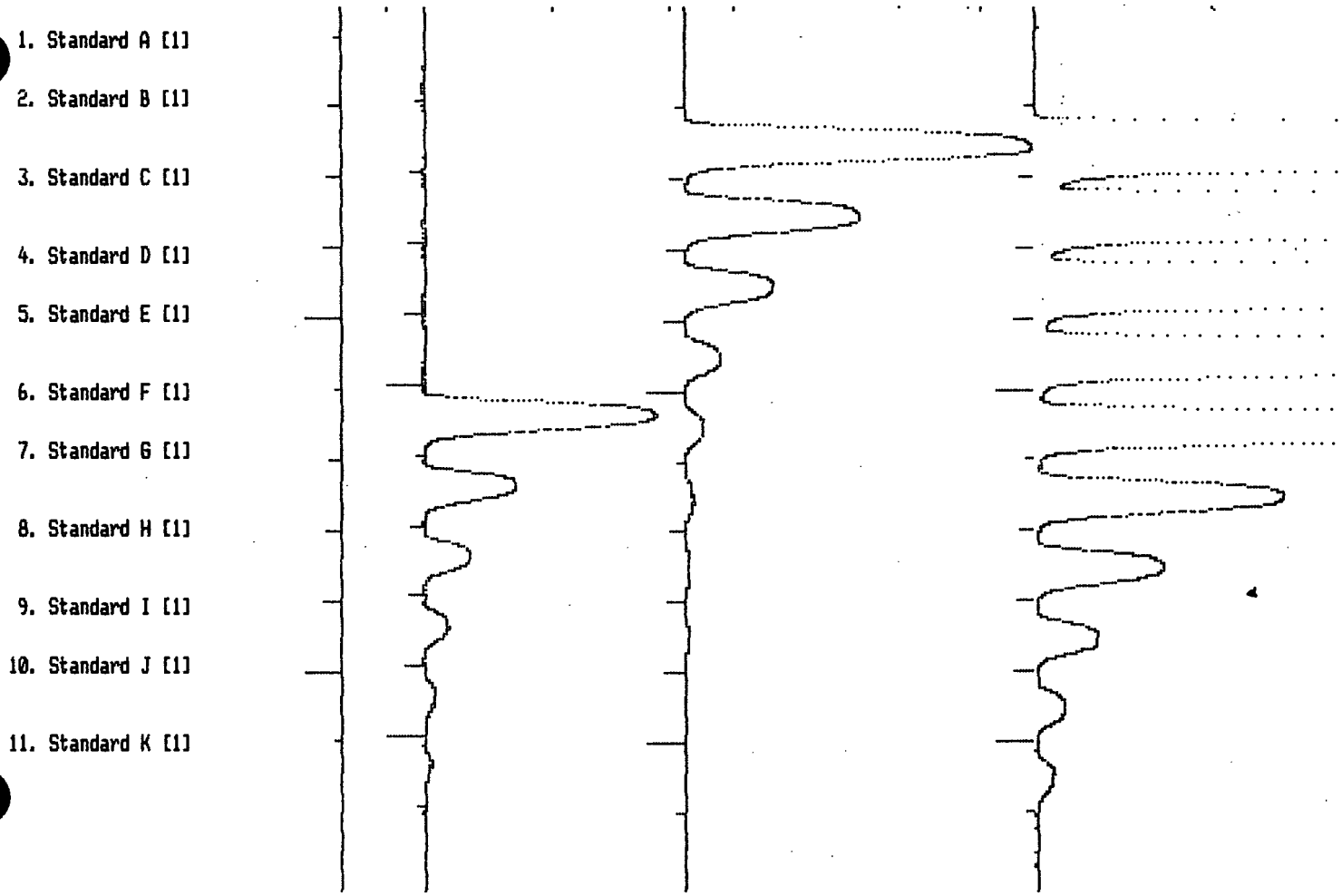
Test	Result	Units	D.L.					
----	------	-----	----	Cup 312	DL =	0.01	Segment NO3/NO2#2	
				: NO3		-0.0211	mg/l	(Calculation)*
				Ch.2: NO2		0.0003	mg/l	PIF=0.37 Abs= 0.0001
				Ch.3: NO3/NO2		-0.0207	mg/l	PIF=0.51 Abs=-0.0043
				: (NEGATIVE PEAK)				
				:				

[redacted]

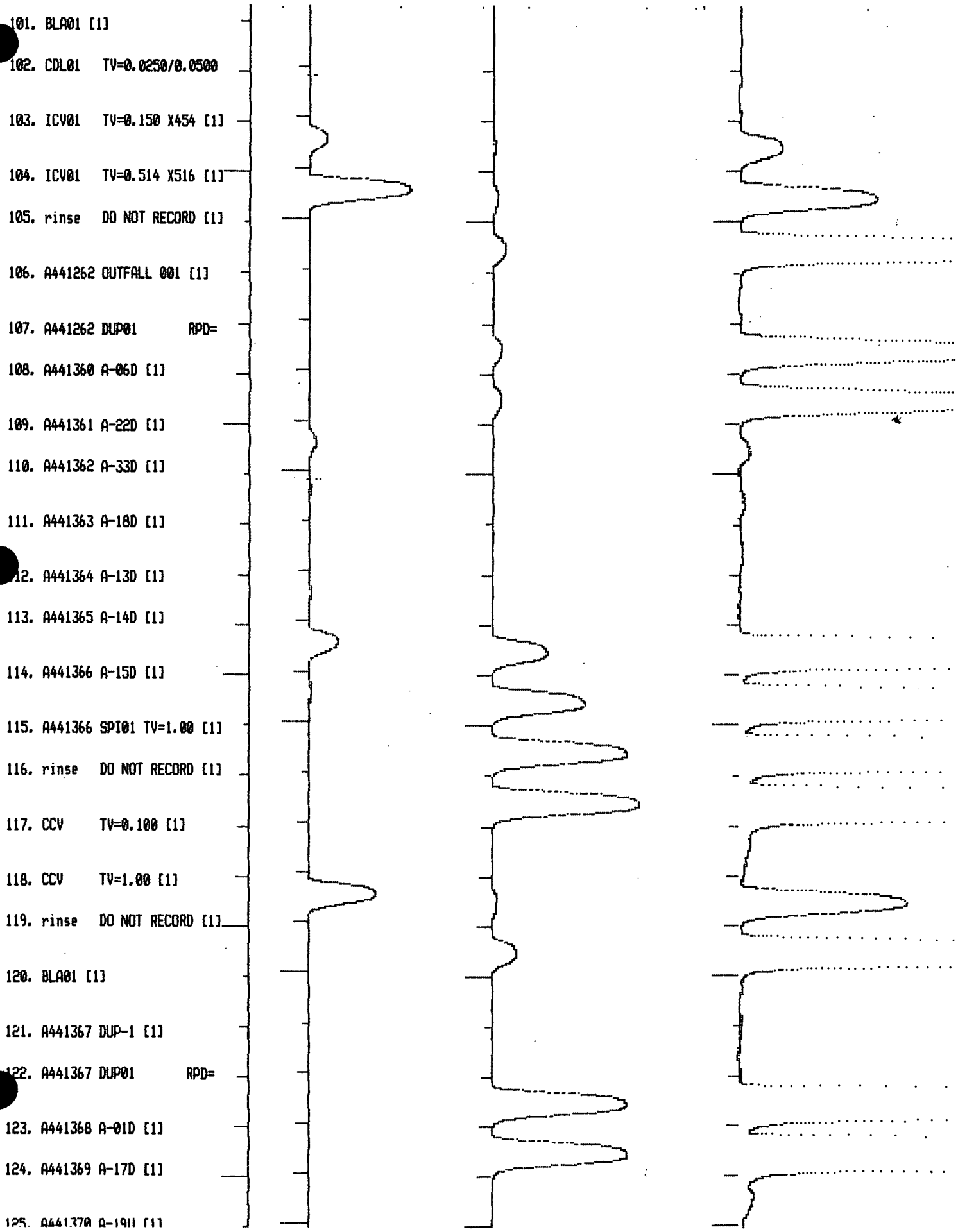
Test	Result	Units	D.L.					
----	------	-----	----	Cup 313	DL =	0.01	Segment NO3/NO2#2	
G113.3	-0.0061	mg/L	0.01	: NO3		-0.0069	mg/l	(Calculation)*
				Ch.2: NO2		0.0008	mg/l	PIF=0.51 Abs= 0.0003
				Ch.3: NO3/NO2		-0.0061	mg/l	PIF=0.92 Abs=-0.0008

--------- End of Report for Tray 98051105.RS ----------

Calibration 05/11/1998, [redacted]



Rack 1 (Ref: 98051103) 05/11/1998, 01:46 pm



126. A441371 A-21D [1]

127. A441373 DK10963 [1]

128. A441374 DK10964 [1]

129. A441374 SPI01 TV=1.00 [1]

130. rinse DO NOT RECORD [1]

131. A441374 DPS01 RPD=

132. rinse DO NOT RECORD [1]

133. CCV TV=0.100 [1]

134. CCV TV=1.00 [1]

135. rinse DO NOT RECORD [1]

136. BLA01 [1]

137. A441375 DK10965 [1]

138. A441375 DUP01 RPD=

139. A441376 DK10966 [1]

140. A441377 DK10967 [1]

141. A441378 DK10968 [1]

142. A441379 DK10969 [1]

143. A441380 DK10970 [1]

144. A441381 DK10971 [1]

145. A441381 SPI01 TV=1.00 [1]

146. rinse DO NOT RECORD [1]

147. A441381 DPS01 RPD=

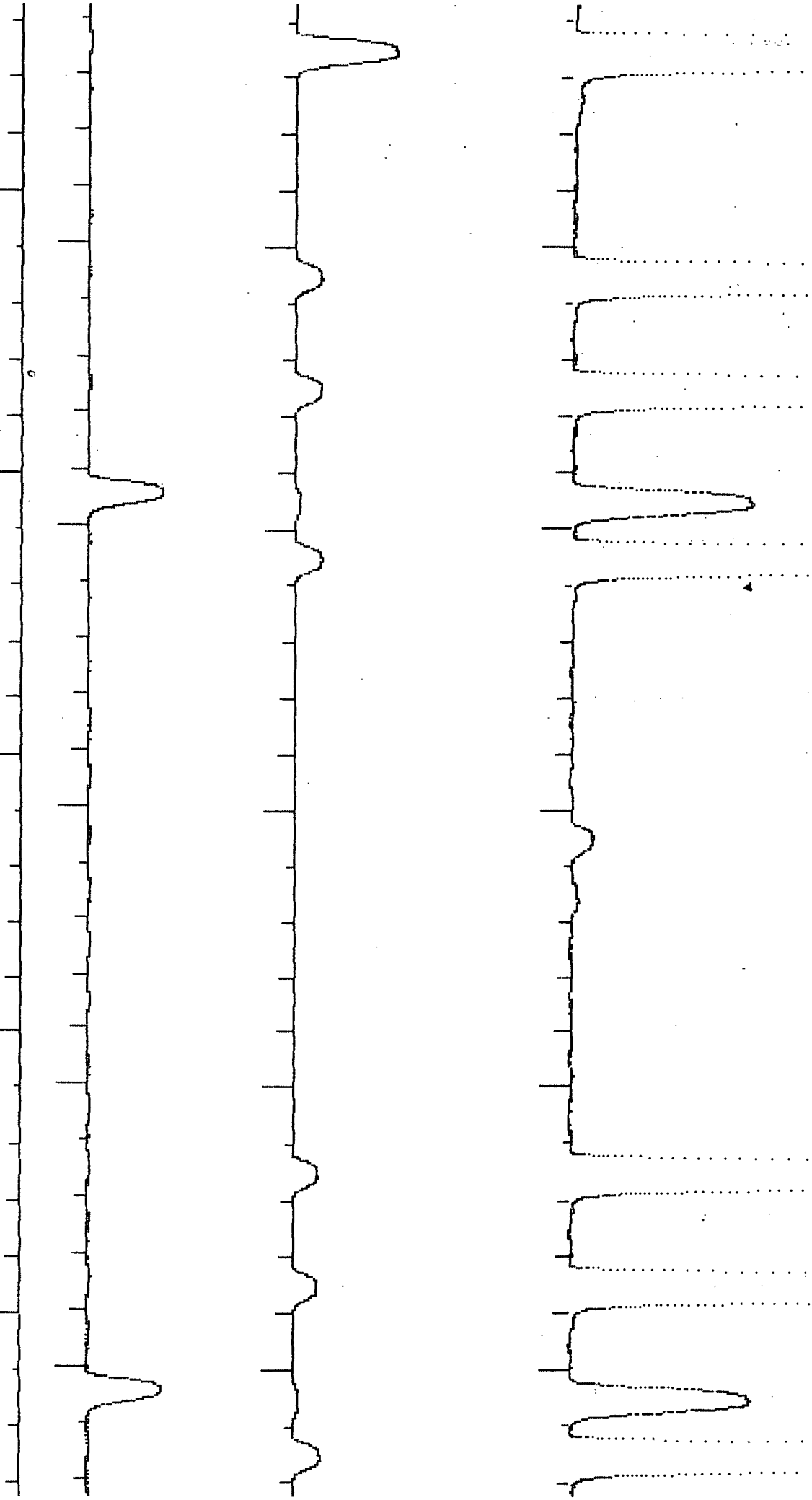
148. rinse DO NOT RECORD [1]

149. CCV TV=0.100 [1]

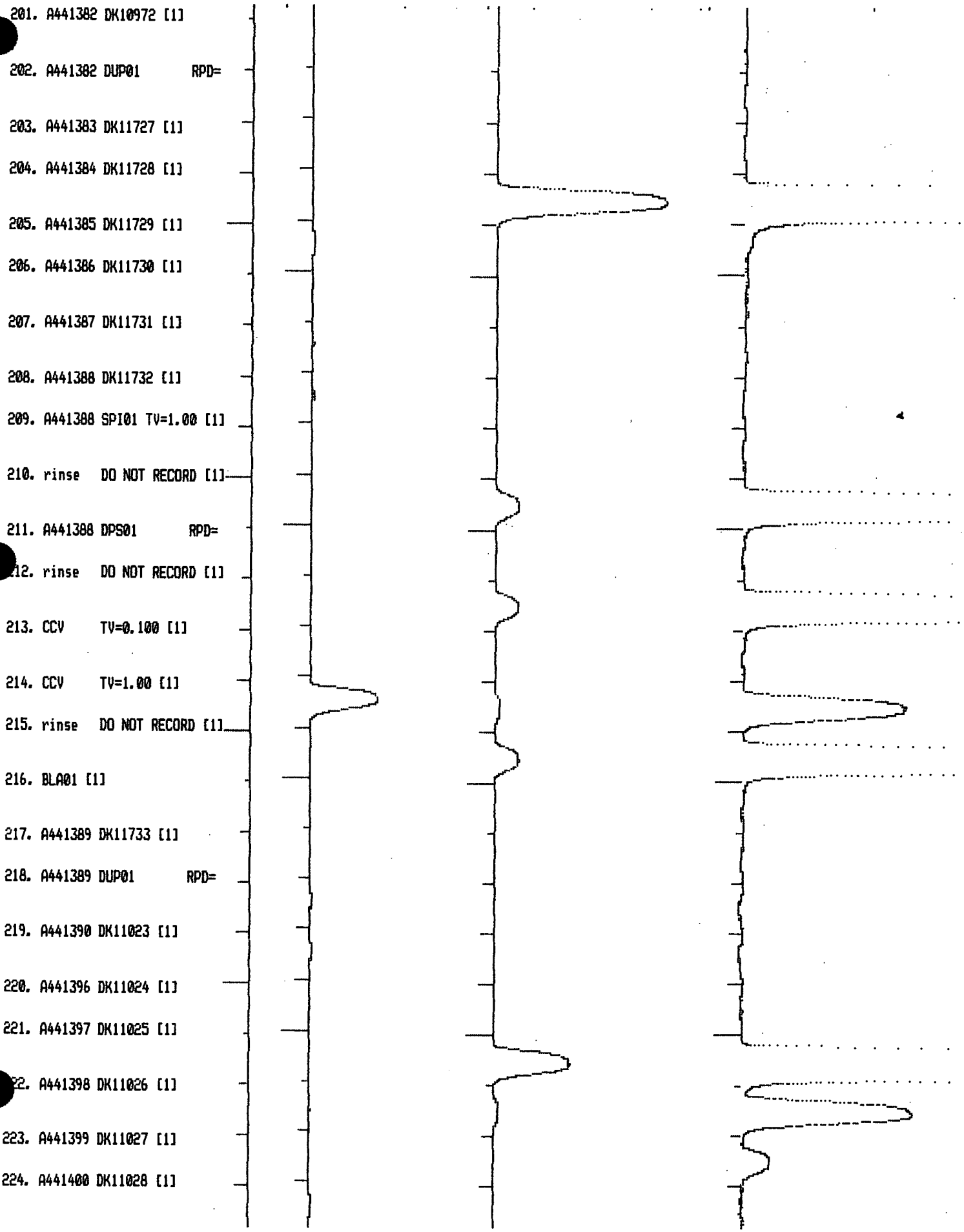
150. CCV TV=1.00 [1]

151. rinse DO NOT RECORD [1]

152. BLA01 [1]



Rack 2 (Ref: 98051104) 05/11/1998, 02:56 pm



226. rinse DO NOT RECORD [1]

227. A441400 DPS01 RPD=

228. rinse DO NOT RECORD [1]

229. CCV TV=0.100 [1]

230. CCV TV=1.00 [1]

231. rinse DO NOT RECORD [1]

232. BLA01 [1]

233. A441401 DK11029 [1]

234. A441401 DUP01 RPD=

235. A441402 DK11030 [1]

236. A441403 DK11031 [1]

237. A441403 SPI01 TV=1.00 [1]

238. rinse DO NOT RECORD [1]

239. A441403 DPS01 RPD=

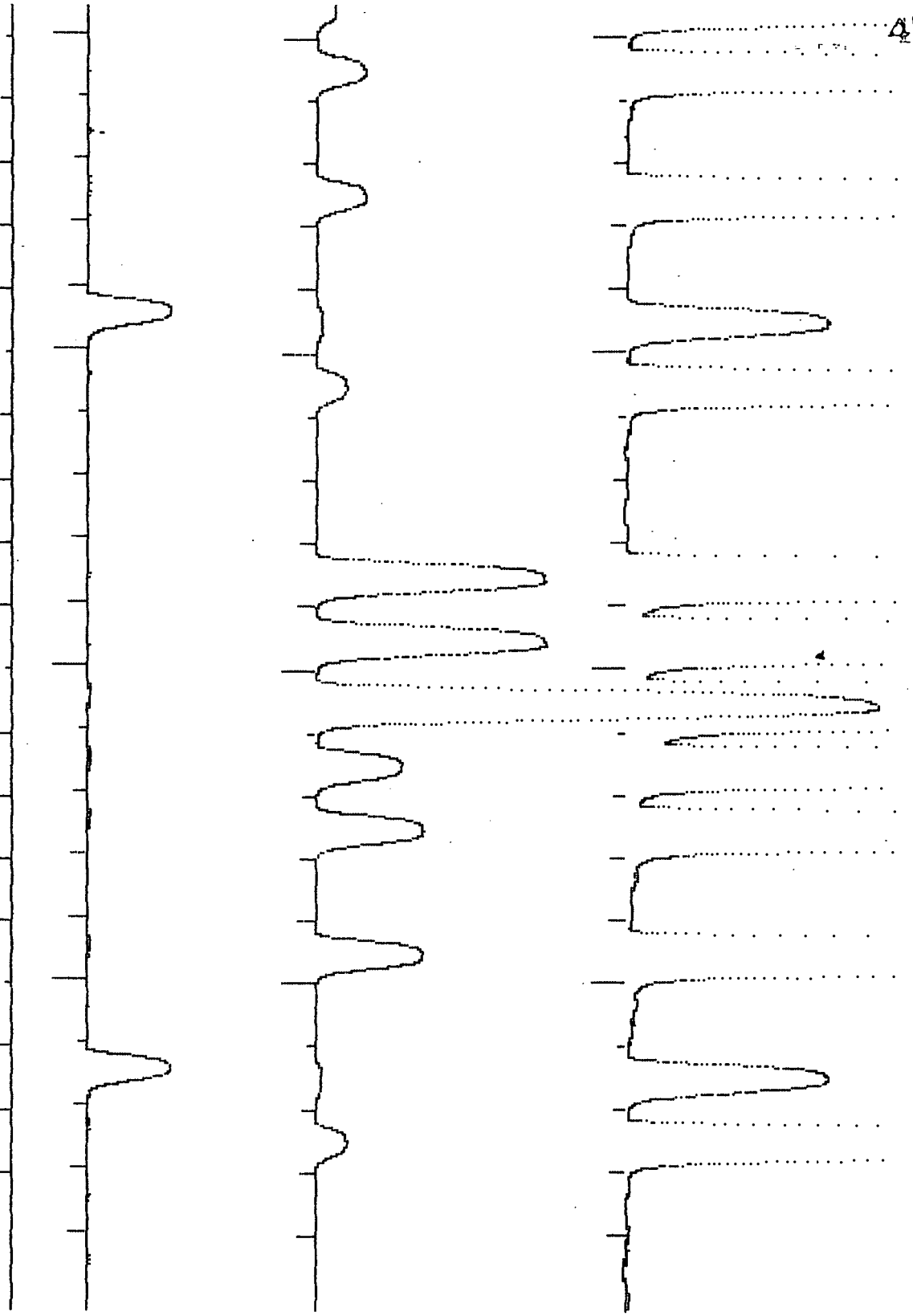
240. rinse DO NOT RECORD [1]

241. CCV TV=0.100 [1]

242. CCV TV=1.00 [1]

243. rinse DO NOT RECORD [1]

244. BLA01 [1]



Rack 3 (Ref: 98051105) 05/11/1998, 04:01 pm

301. A441368 A-01D [1]

302. A441371 A-21D [1]

303. A441384 DK11728 [1]

304. A441402 1:10 DK11030 [1]

305. A441403 DK11031 [1]

306. A441403 SPI01 TV=1.00 [1]

307. rinse DO NOT RECORD [1]

308. A441403 DPS01 RPD=

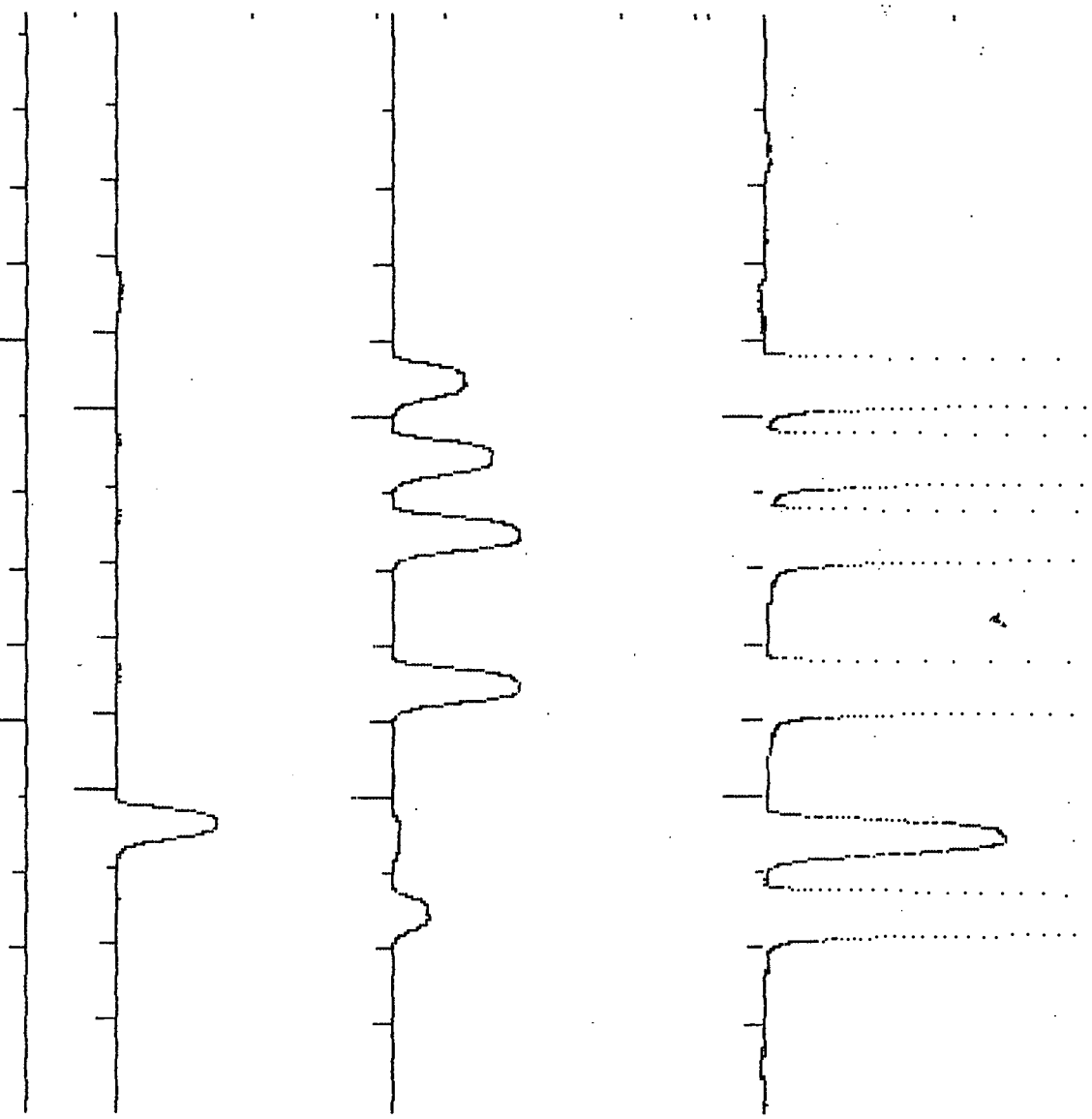
309. rinse DO NOT RECORD [1]

310. CCV TV=0.100 [1]

311. CCV TV=1.00 [1]

312. rinse DO NOT RECORD [1]

313. BLA01 [1]



Analysis Run Number _____
Run Number 2154-2158
Test G202.6
Analyst KDB60017
Date Analyzed 5.26.98
Instrument / Test 311/TKN

Reagent Lot # _____
Expiration Date _____

BLA ____ RESP _____

CAL01	KNOWN CONC.	0.10	0.50	1.0	5.0	10
	RESPONSE	113	77	59	18	0
	OBS. CONC.	0.107	0.462	0.957	5.04	10.4
	% RECOVERY	107.0%	92.4%	95.7%	100.2%	104.0%
CAL01	KNOWN CONC.					
	RESPONSE					
	OBS. CONC.					
	% RECOVERY					

CORR. = -0.9994 SLOPE = -56.86 INT. = 57.93

DUP ____	DUP SAMPLE					
	REP. 1 CONC.					
	REP. 2 CONC.					
	REL. % DIFF.					
SPI ____	SPIKE SAMPLE					
	SPIKE CONC.					
	SAMPLE CONC.					
	TOTAL CONC.					
	% RECOVERY					
CCV	OBS. RESP.					
	TRUE VALUE					
	OBS. CONC.					
	% RECOVERY					
____	STD I.D.					
	TRUE VALUE					
	OBS. CONC.					
	% RECOVERY					
	MATRIX					

Page 1 of 5

Reference No. G202.6 2154

KJELDAHL NITROGEN, TOTAL (TKN)

Analyst KDB6017 Reviewer BAS#1108 Recorder _____

Date 5/27/98 Date _____

Start Date 5.26.98 Start Time 1500 End Date 5.26.98 End Time 1800

Calibration 0.1 STD 113 mV 0.5 STD 77 mV 1.0 STD 59 mV 5.0 STD 18 mV 10.0 STD 0 mV

Sample	BLANK	X527	CDL	BLANK	X487	A441374	A441325	A441376	CCV	BLANK
TKN	0.0518	0.613	0.0991	0.286	12.3	0.85	0.72	~~0.17~~ 0.50 BAS 5/27/98	0.919	0.0498
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Amt Sample				25ml	25ml	25ml	25ml	25ml		
Final Volume				75ml	75ml	75ml	75ml	75ml		
Dilution										
Relative mV	131	70	115	116	23	89	93	102	60	132
QAQC Type	BIA01	ICV01	CDL01	BIA01	LFB01				CCV	BIA01
True Value		0.572	0.100		~~0.572~~ 10.6 KB				1.00	
Detection	0.10	0.10	0.10	0.30	0.30	0.30	0.30	0.30	0.10	0.10
Comments		107.2%	99.1%		94.3%	10964	10965	10966	91.9%	

50

Reference No. G202.6 2155

KJELDAHL NITROGEN, TOTAL (TKN)

Analyst KDB6017 Reviewer BAS#1108 Recorder _____

Date 5/27/98 Date _____

Start Date 5.26.98 Start Time 1500 End Date 5.26.98 End Time 1800

Calibration 0.1 STD _____ mV 0.5 STD _____ mV 1.0 STD _____ mV 5.0 STD _____ mV 10.0 STD _____ mV

Sample	A441373	A441377	A441378	A441379	A441380	A441381	A441382	A441382	CCV	BLANK
TKN	4.0	1.1	0.85	1.3	BDL	4.0	2.1	4.00	0.957	0.0459
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Amt Sample	25ml	25ml	25ml	25ml	25ml	25ml	25ml	25ml		
Final Volume	75ml	75ml	75ml	75ml	75ml	75ml	75ml	75ml		
Dilution										
Relative mV	51	83	89	79	115	51	67	51	59	134
QAQC Type								SD101	CCV	BLA01
True Value								SAm=1.68 SDi=2.12	1.00	
Detection	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.10	0.10
Comments	10963	DK10967	10968	10969	10970	10971	10972	109.4%	95.7%	

Reference No. G202.6 2156

KJELDAHL NITROGEN, TOTAL (TKN)

Analyst KDB6017 Reviewer BAS#1108 Recorder _____

Date 5/27/98 Date _____

Start Date 5.26.98 Start Time 1500 End Date 5.26.98 End Time 1800

Calibration 0.1 STD _____ mV 0.5 STD _____ mV 1.0 STD _____ mV 5.0 STD _____ mV 10.0 STD _____ mV

Sample	A441382	A441383	A441384	A441385	A441386	A441387	A441388	A441389	CCV	BLANK
TKN	3.81	BDL	1.8	BDL	0.78	0.59	0.55	0.41	0.997	0.0459
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Amt Sample	25ml	25ml	25ml	25ml	25ml	25ml	25ml	25ml		
Final Volume	75ml	75ml	75ml	75ml	75ml	75ml	75ml	75ml		
Dilution										
Relative mV	52	116	71	122	91	98	100	107	58	134
QAQC Type	DPS01								CCV	BLA01
True Value	SAM = 1.68 SPi = 2.12								1.00	
Detection	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.10	0.10
Comments	R 100.5% R = 8.5%	DK11727	11728	11729	11730	11731	11732	11733	99.7%	

Reference No. G202.6 2157

KJELDAHL NITROGEN, TOTAL (TKN)

Analyst KDB6017 Reviewer BAS#1108 Recorder _____

Date 5/27/98 Date _____

Start Date 5·26·98 Start Time 1500 End Date 5·26·98 End Time 1800

Calibration 0.1 STD _____ mV 0.5 STD _____ mV 1.0 STD _____ mV 5.0 STD _____ mV 10.0 STD _____ mV

Sample	A441390	A441390	A441396	A441397	A441398	A441399	A441400	A441401	CCV	BLANK
TKN	0.31	0.31	BDL	0.36	0.48	BDL	BDL	0.32	0.883	0.0407
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Amt Sample	25ml	25ml	25ml	25ml	25ml	25ml	25ml	25ml		
Final Volume	75ml	75ml	75ml	75ml	75ml	75ml	75ml	75ml		
Dilution										
Relative mV	114	114	119	110	103	120	115	113	61	137
QAQC Type		Dupes							CCV	BLA01
True Value									1.00	
Detection	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.10	0.10
Comments	DK11023	R=0.0%	11024	11025	11026	11027	11028	11029	88.3%	

Reference No. G202.6 2158

KJELDAHL NITROGEN, TOTAL (TKN)

Analyst KDB6017 Reviewer BAS#1108 Recorder _____

Date 5/27/98 Date _____

Start Date 5.26.98 Start Time 1500 End Date 5.26.98 End Time 1800

Calibration 0.1 STD _____ mV 0.5 STD _____ mV 1.0 STD _____ mV 5.0 STD _____ mV 10.0 STD _____ mV

Sample	A441402	A441403	A441816	A441816	A441632	A442385	A442386	A442614	CCV	BLANK
TKN	0.44	BDL	1.4	3.11	260,000	79	64	140	0.997	0.0390
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Amt Sample	25ml	25ml	25ml	25ml	0.125ml	25ml	25ml	25ml		
Final Volume	75ml	75ml	75ml	75ml	75ml	75ml	75ml	75ml		
Dilution					1:100	1:10	1:10	1:10		
Relative mV	105	118	~~81~~ 76 KB	57	22	34	39	20	58	138
QAQC Type				SD101					CCV	BLA01
True Value				SAm=1.12 SDI=2.12					1.00	
Detection	0.30	0.30	0.30	0.30	6000	3.0	3.0	3.0	0.10	0.10
Comments	11030	11031	WNC QPJ	93.9%	9509	Sewer	Sewer	Sewer	99.7%	

HERITAGE ENVIRONMENTAL SERVICES, INC.

7901 West Morris Street
Indianapolis, IN 46231
Phone: 317/243-0811
FAX: 317/486-5095

CASE NARRATIVE

IDEM
General Organics Packet #1280

6-4-98

SAMPLE # A441373-A441390, A441396-A441403

These samples were analyzed for chloride and sulfate by Ion Chromatography (EPA300.0) using normal procedures with no modifications. The required holding time was met for the analysis. The method blanks were below the reporting limit. The Initial Calibration Verification and Continuing Calibration Verification standards were within the control limits. In addition, the matrix spike and matrix spike duplicate were within the control limits.

Heritage Environmental Services

Melody Adkins

Melody Adkins
IC Analyst

Recycled Paper

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	BLA01 / 08-May-98 16:01													
	367	F	0	1	0.010	< 0.04		0.1	mg/L					
	223	Cl	0	1	0.035	< 0.1		0.25	mg/L					
	507	NO_2	0	1	0.010	< 0.02		0.05	mg/L					
	192	Br	0	1	0.008	< 0.02		0.05	mg/L					
	508	NO_3	0	1	0.006	< 0.02		0.05	mg/L					
	539	HPO_4	0	1	0.055	0.055		0.05	mg/L					
	681	SO_4	0	1	-0.013	< 0.1		0.25	mg/L					
	CCV L / 08-May-98 16:19													
	367	F	196497	1	0.487	0.487		0.1	mg/L		0.5	97.4		
	223	Cl	349808	1	1.278	1.28		0.25	mg/L		1.25	102.4		
	507	NO_2	283270	1	0.495	0.495		0.05	mg/L		0.5	99.0		
	192	Br	53999	1	0.488	0.488		0.05	mg/L		0.5	97.6		
	508	NO_3	315655	1	0.492	0.492		0.05	mg/L		0.5	98.4		
	539	HPO_4	83744	1	0.490	0.49		0.05	mg/L		0.5	98.0		
	681	SO_4	470370	1	2.438	2.44		0.25	mg/L		2.5	97.6		
	CCV H / 08-May-98 16:37													
	367	F	2268744	1	4.919	4.92		0.1	mg/L		5	98.4		
	223	Cl	4213336	1	11.872	11.9		0.25	mg/L		12.5	95.2		
	507	NO_2	3278162	1	4.973	4.97		0.05	mg/L		5	99.4		
	192	Br	597639	1	4.817	4.82		0.05	mg/L		5	96.4		
	508	NO_3	3791364	1	4.688	4.69		0.05	mg/L		5	93.8		
	539	HPO_4	1191350	1	4.638	4.64		0.05	mg/L		5	92.8		
	681	SO_4	5530739	1	23.243	23.2		0.25	mg/L		25	92.8		
	LFB01 SPI / 08-May-98 17:12													
G	367	F	402832	1	0.987	0.987		0.1	mg/L		1	98.7		
G	223	Cl	689756	1	2.486	2.49		0.25	mg/L		2.5	99.6		
	507	NO_2	580154	1	1.003			0.05	mg/L		1			
	192	Br	110155	1	0.987			0.05	mg/L		1			
	508	NO_3	650799	1	0.932			0.05	mg/L		1			
	539	HPO_4	192987	1	0.938			0.05	mg/L		1			
G	681	SO_4	950538	1	4.941	4.94		0.25	mg/L		5	98.8		
	A441298 / 08-May-98 17:29													
G300.1	367	F	20	1	0.010		BDL	0.1	mg/L					
G300.2	223	Cl	9261	1	0.068		BDL	0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	0	1	0.008			0.05	mg/L					
	508	NO_3	0	1	0.006			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
	681	SO_4	4646	1	0.011			0.25	mg/L					
	SPI01 A441298 / 08-May-98 17:47													
G	367	F	417433	1	0.964	0.964		0.1	mg/L	0	1	96.4		
G	223	Cl	712221	1	2.327	2.33		0.25	mg/L	0.061	2.5	90.8		
	507	NO_2	591662	1	0.961			0.05	mg/L		1			
	192	Br	112667	1	0.975			0.05	mg/L		1			
	508	NO_3	660636	1	0.943			0.05	mg/L		1			
	539	HPO_4	183277	1	1.008			0.05	mg/L		1			
	681	SO_4	973657	1	4.663			0.25	mg/L		5			
	DSP01 A441298 / 08-May-98 18:05													
G	367	F	421629	1	0.973	0.973		0.1	mg/L	0	1	97.3	0.9	
	223	Cl	714363	1	2.333	2.33		0.25	mg/L	0.061	2.5	90.8	0	
	507	NO_2	590732	1	0.959			0.05	mg/L		1			
	192	Br	112312	1	0.972			0.05	mg/L		1			
	508	NO_3	661674	1	0.945			0.05	mg/L		1			
	539	HPO_4	200022	1	0.964			0.05	mg/L		1			
	681	SO_4	978294	1	4.682			0.25	mg/L		5			

2

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	A441361 / 08-May-98 18:22													
	367	F	40070	1	0.107			0.1	mg/L					
G310.2	223	Cl	1781583	1	5.243	5.2		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	6355	1	0.064			0.05	mg/L					
	508	NO_3	6214	1	0.016			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G310.7	681	SO_4	2209253	1	9.701	9.7		0.25	mg/L					
	A441362 / 08-May-98 18:40													
	367	F	47035	1	0.124			0.1	mg/L					
G310.2	223	Cl	1768889	1	5.208	5.2		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	3347	1	0.037			0.05	mg/L					
	508	NO_3	17325	1	0.033			0.05	mg/L					
	539	HPO_4	1705	1	0.064			0.05	mg/L					
G310.7	681	SO_4	1053958	1	4.991	5		0.25	mg/L					
	A441363 1:5 / 08-May-98 18:57													
	367	F	8265	5	0.149			0.5	mg/L					
G310.2	223	Cl	6275010	5	87.462	87		1.3	mg/L					
	507	NO_2	0	5	0.052			0.25	mg/L					
	192	Br	9527	5	0.462			0.25	mg/L					
	508	NO_3	0	5	0.032			0.25	mg/L					
	539	HPO_4	0	5	0.275			0.25	mg/L					
G310.7	681	SO_4	1939109	5	42.998	43		1.3	mg/L					
	A441364 / 08-May-98 19:15													
	367	F	19690	1	0.058			0.1	mg/L					
G310.2	223	Cl	5800084	1	16.198	16		0.25	mg/L					
	507	NO_2	18931	1	0.043			0.05	mg/L					
	192	Br	7457	1	0.074			0.05	mg/L					
	508	NO_3	1584404	1	2.048			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G310.7	681	SO_4	10189537	1	42.237	42		0.25	mg/L					
	A441365 1:5 / 08-May-98 19:33													
	367	F	4376	5	0.102			0.5	mg/L					
G310.2	223	Cl	3793544	5	53.638	54		1.3	mg/L					
	507	NO_2	0	5	0.052			0.25	mg/L					
	192	Br	0	5	0.039			0.25	mg/L					
	508	NO_3	452585	5	3.513			0.25	mg/L					
	539	HPO_4	0	5	0.275			0.25	mg/L					
G310.7	681	SO_4	1204834	5	28.030	28		1.3	mg/L					
	A441366 1:5 / 08-May-98 19:50													
	367	F	3256	5	0.088			0.5	mg/L					
	223	Cl	31595129	5	432.600	HIGH		1.3	mg/L					
	507	NO_2	0	5	0.052			0.25	mg/L					
	192	Br	3665	5	0.201			0.25	mg/L					
	508	NO_3	712654	5	5.028			0.25	mg/L					
	539	HPO_4	0	5	0.275			0.25	mg/L					
G310.7	681	SO_4	2135780	5	47.008	47		1.3	mg/L					
	CCV L / 08-May-98 20:08													
	367	F	198989	1	0.493	0.493		0.1	mg/L		0.5	98.6		
	223	Cl	356846	1	1.303	1.3		0.25	mg/L		1.25	104.0		
	507	NO_2	288333	1	0.504	0.504		0.05	mg/L		0.5	100.8		
	192	Br	55328	1	0.499	0.499		0.05	mg/L		0.5	99.8		
	508	NO_3	319232	1	0.497	0.497		0.05	mg/L		0.5	99.4		
	539	HPO_4	82910	1	0.486	0.486		0.05	mg/L		0.5	97.2		
	681	SO_4	474993	1	2.462	2.46		0.25	mg/L		2.5	98.4		

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD #
	CCV H / 08-May-98 20:26												
	367	F	2256554	1	4.893	4.89		0.1	mg/L		5	97.8	
	223	Cl	4208597	1	11.859	11.9		0.25	mg/L		12.5	95.2	
	507	NO_2	3284905	1	4.983	4.98		0.05	mg/L		5	99.6	
	192	Br	600914	1	4.843	4.84		0.05	mg/L		5	96.8	
	508	NO_3	3830168	1	4.735	4.74		0.05	mg/L		5	94.8	
	539	HPO_4	1191146	1	4.638	4.64		0.05	mg/L		5	92.8	
	681	SO_4	5517041	1	23.187	23.2		0.25	mg/L		25	92.8	
	BLA01 / 08-May-98 20:43												
	367	F	0	1	0.010	< 0.04		0.1	mg/L				
	223	Cl	0	1	0.035	< 0.1		0.25	mg/L				
	507	NO_2	0	1	0.010	< 0.02		0.05	mg/L				
	192	Br	0	1	0.008	< 0.02		0.05	mg/L				
	508	NO_3	0	1	0.006	< 0.02		0.05	mg/L				
	539	HPO_4	0	1	0.055	0.055		0.05	mg/L				
	681	SO_4	0	1	-0.013	< 0.1		0.25	mg/L				
	A441366 1:25 / 08-May-98 21:01												
	367	F	0	25	0.243			2.5	mg/L				
G310.2	223	Cl	5496346	25	384.243	380		6.3	mg/L				
	507	NO_2	0	25	0.259			1.3	mg/L				
	192	Br	0	25	0.193			1.3	mg/L				
	508	NO_3	135089	25	5.355			1.3	mg/L				
	539	HPO_4	0	25	1.377			1.3	mg/L				
	681	SO_4	398209	25	51.557			6.3	mg/L				
	SPI01 A441366 1:25 / 08-May-98 21:18												
	367	F	439372	25	25.260			2.5	mg/L		25		
	223	Cl	5951731	25	415.279	415		6.3	mg/L	346	62.5	110.4	
	507	NO_2	632407	25	25.539			1.3	mg/L		25		
	192	Br	124347	25	26.686			1.3	mg/L		25		
	508	NO_3	841356	25	28.989			1.3	mg/L		25		
	539	HPO_4	172680	25	23.815			1.3	mg/L		25		
G	681	SO_4	1449247	25	165.062	165		6.3	mg/L	46.4	125	94.9	
	DSP01 A441366 1:25 / 08-May-98 21:36												
	367	F	436730	25	25.119			2.5	mg/L		25		
G	223	Cl	5944644	25	414.796	415		6.3	mg/L	346	62.5	110.4	0
	507	NO_2	633899	25	25.594			1.3	mg/L		25		
	192	Br	124576	25	26.731			1.3	mg/L		25		
	508	NO_3	849835	25	29.243			1.3	mg/L		25		
	539	HPO_4	194362	25	23.586			1.3	mg/L		25		
G	681	SO_4	1432782	25	163.384	163		6.3	mg/L	46.4	125	93.3	1.7
	A441367 1:5 / 08-May-98 21:54												
	367	F	3795	5	0.095			0.5	mg/L				
	223	Cl	31271317	5	428.186	HIGH		1.3	mg/L				
	507	NO_2	0	5	0.052			0.25	mg/L				
	192	Br	3914	5	0.213			0.25	mg/L				
	508	NO_3	723393	5	5.092			0.25	mg/L				
	539	HPO_4	3563	5	0.368			0.25	mg/L				
G310.7	681	SO_4	2129478	5	46.879	47		1.3	mg/L				
	A441368 1:5 / 08-May-98 22:11												
	367	F	5538	5	0.116			0.5	mg/L				
0.2	223	Cl	2799144	5	40.083	40		1.3	mg/L				
	507	NO_2	0	5	0.052			0.25	mg/L				
	192	Br	0	5	0.039			0.25	mg/L				
	508	NO_3	0	5	0.032			0.25	mg/L				
	539	HPO_4	0	5	0.275			0.25	mg/L				
G310.7	681	SO_4	1288557	5	29.737	30		1.3	mg/L				

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	A441369 1:5 / 08-May-98 22:29													
	367	F	1958	5	0.072			0.5	mg/L					
G310.2	223	Cl	3808959	5	53.848	54		1.3	mg/L					
	507	NO_2	0	5	0.052			0.25	mg/L					
	192	Br	0	5	0.039			0.25	mg/L					
	508	NO_3	0	5	0.032			0.25	mg/L					
	539	HPO_4	0	5	0.275			0.25	mg/L					
G310.7	681	SO_4	1090976	5	25.709	26		1.3	mg/L					
	A441370 / 08-May-98 22:47													
	367	F	43775	1	0.116			0.1	mg/L					
G310.2	223	Cl	4036265	1	11.389	11		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	0	1	0.008			0.05	mg/L					
	508	NO_3	2691967	1	3.373			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G310.7	681	SO_4	8318449	1	34.609	35		0.25	mg/L					
	A441371 / 08-May-98 23:04													
	367	F	26438	1	0.074			0.1	mg/L					
G310.2	223	Cl	2213898	1	6.421	6.4		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	5234	1	0.054			0.05	mg/L					
	508	NO_3	0	1	0.006			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G310.7	681	SO_4	3105340	1	13.354	13		0.25	mg/L					
	A441373 / 08-May-98 23:22													
	367	F	303560	1	0.746			0.1	mg/L					
G300.2	223	Cl	556540	1	2.013	2		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	7071	1	0.071			0.05	mg/L					
	508	NO_3	1517	1	0.009			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G300.7	681	SO_4	782284	1	4.064	4.1		0.25	mg/L					
	A441374 / 08-May-98 23:39													
	367	F	592885	1	1.338			0.1	mg/L					
G300.2	223	Cl	855110	1	2.717	2.7		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	3056	1	0.035			0.05	mg/L					
	508	NO_3	0	1	0.006			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G300.7	681	SO_4	198412	1	1.021	1		0.25	mg/L					
	CCV L / 08-May-98 23:57													
	367	F	197603	1	0.489	0.489		0.1	mg/L		0.5	97.8		
	223	Cl	355271	1	1.298	1.3		0.25	mg/L		1.25	104.0		
	507	NO_2	283882	1	0.496	0.496		0.05	mg/L		0.5	99.2		
	192	Br	54803	1	0.495	0.495		0.05	mg/L		0.5	99.0		
	508	NO_3	317965	1	0.495	0.495		0.05	mg/L		0.5	99.0		
	539	HPO_4	81862	1	0.481	0.481		0.05	mg/L		0.5	96.2		
	681	SO_4	468680	1	2.430	2.43		0.25	mg/L		2.5	97.2		
	CCV H / 09-May-98 00:15													
	367	F	2267156	1	4.916	4.92		0.1	mg/L		5	98.4		
	223	Cl	4209722	1	11.862	11.9		0.25	mg/L		12.5	95.2		
	507	NO_2	3265611	1	4.955	4.96		0.05	mg/L		5	99.2		
	192	Br	596158	1	4.805	4.81		0.05	mg/L		5	96.2		
	508	NO_3	3795772	1	4.694	4.69		0.05	mg/L		5	93.8		
	539	HPO_4	1191906	1	4.640	4.64		0.05	mg/L		5	92.8		
	681	SO_4	5568912	1	23.399	23.4		0.25	mg/L		25	93.6		

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Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD #
	BLA01	09-May-98 00:32											
	367	F	0	1	0.010	< 0.04		0.1	mg/L				
	223	Cl	0	1	0.035	< 0.1		0.25	mg/L				
	507	NO_2	0	1	0.010	< 0.02		0.05	mg/L				
	192	Br	0	1	0.008	< 0.02		0.05	mg/L				
	508	NO_3	0	1	0.006	< 0.02		0.05	mg/L				
	539	HPO_4	0	1	0.055	0.055		0.05	mg/L				
	681	SO_4	0	1	-0.013	< 0.1		0.25	mg/L				
	A441375	09-May-98 00:50											
	367	F	616312	1	1.388			0.1	mg/L				
300.2	223	Cl	2071122	1	6.032	6		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	2789	1	0.033			0.05	mg/L				
	508	NO_3	0	1	0.006			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
300.7	681	SO_4	1998510	1	8.842	8.8		0.25	mg/L				
	SPI01 A441375	09-May-98 01:08											
	367	F	1133206	1	2.493			0.1	mg/L		1		
3	223	Cl	2898337	1	8.287	8.29		0.25	mg/L	5.43	2.5	114.4	
	507	NO_2	749542	1	1.197			0.05	mg/L		1		
	192	Br	145786	1	1.237			0.05	mg/L		1		
	508	NO_3	845588	1	1.165			0.05	mg/L		1		
	539	HPO_4	156467	1	0.868			0.05	mg/L		1		
3	681	SO_4	3099961	1	13.333	13.3		0.25	mg/L	7.96	5	106.8	
	DSP01 A441375	09-May-98 01:25											
	367	F	1126408	1	2.478			0.1	mg/L		1		
3	223	Cl	2893605	1	8.274	8.27		0.25	mg/L	5.43	2.5	113.6	0.7
	507	NO_2	750465	1	1.198			0.05	mg/L		1		
	192	Br	147483	1	1.251			0.05	mg/L		1		
	508	NO_3	857080	1	1.178			0.05	mg/L		1		
	539	HPO_4	205814	1	0.986			0.05	mg/L		1		
3	681	SO_4	3111196	1	13.378	13.4		0.25	mg/L	7.96	5	108.8	1.9
	A441376	09-May-98 01:43											
	367	F	131008	1	0.328			0.1	mg/L				
300.2	223	Cl	473114	1	1.716	1.7		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	1680	1	0.023			0.05	mg/L				
	508	NO_3	22357	1	0.041			0.05	mg/L				
	539	HPO_4	5618	1	0.084			0.05	mg/L				
300.7	681	SO_4	3783967	1	16.121	16		0.25	mg/L				
	A441377	09-May-98 02:00											
	367	F	788427	1	1.756			0.1	mg/L				
300.2	223	Cl	589385	1	2.129	2.1		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	2133	1	0.027			0.05	mg/L				
	508	NO_3	0	1	0.006			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
300.7	681	SO_4	1613934	1	7.274	7.3		0.25	mg/L				
	A441378	09-May-98 02:18											
	367	F	532003	1	1.208			0.1	mg/L				
30	223	Cl	2191664	1	6.361	6.4		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	2315	1	0.028			0.05	mg/L				
	508	NO_3	9485	1	0.021			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
300.7	681	SO_4	3318514	1	14.224	14		0.25	mg/L				

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Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	A441379	09-May-98 02:36												
	367	F	316630	1	0.778			0.1	mg/L					
G300.2	223	Cl	986201	1	3.074	3.1		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	4741	1	0.050			0.05	mg/L					
	508	NO_3	0	1	0.006			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G300.7	681	SO_4	5057508	1	21.314	21		0.25	mg/L					
	A441380	09-May-98 02:53												
	367	F	79367	1	0.202			0.1	mg/L					
G300.2	223	Cl	3404812	1	9.668	9.7		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	2624	1	0.031			0.05	mg/L					
	508	NO_3	0	1	0.006			0.05	mg/L					
	539	HPO_4	7822	1	0.096			0.05	mg/L					
	681	SO_4	15864351	1	65.374	HIGH		0.25	mg/L					
	A441381	09-May-98 03:11												
	367	F	435913	1	1.003			0.1	mg/L					
G300.2	223	Cl	374584	1	1.366	1.4		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	3157	1	0.036			0.05	mg/L					
	508	NO_3	2701	1	0.011			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G300.7	681	SO_4	9598	1	0.037		BDL	0.25	mg/L					
	A441382	09-May-98 03:29												
	367	F	465666	1	1.067			0.1	mg/L					
G300.2	223	Cl	635833	1	2.294	2.3		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	4589	1	0.049			0.05	mg/L					
	508	NO_3	4334	1	0.013			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G300.7	681	SO_4	544016	1	2.822	2.8		0.25	mg/L					
	CCV L	09-May-98 03:46												
	367	F	199292	1	0.493	0.493		0.1	mg/L		0.5	98.6		
	223	Cl	363192	1	1.326	1.33		0.25	mg/L		1.25	106.4		
	507	NO_2	289436	1	0.506	0.506		0.05	mg/L		0.5	101.2		
	192	Br	55153	1	0.498	0.498		0.05	mg/L		0.5	99.6		
	508	NO_3	313741	1	0.489	0.489		0.05	mg/L		0.5	97.8		
	539	HPO_4	83612	1	0.490	0.49		0.05	mg/L		0.5	98.0		
	681	SO_4	471746	1	2.446	2.45		0.25	mg/L		2.5	98.0		
	CCV H	09-May-98 04:04												
	367	F	2241393	1	4.861	4.86		0.1	mg/L		5	97.2		
	223	Cl	4200518	1	11.837	11.8		0.25	mg/L		12.5	94.4		
	507	NO_2	3280113	1	4.976	4.98		0.05	mg/L		5	99.6		
	192	Br	594178	1	4.790	4.79		0.05	mg/L		5	95.8		
	508	NO_3	3787103	1	4.683	4.68		0.05	mg/L		5	93.6		
	539	HPO_4	1181796	1	4.603	4.6		0.05	mg/L		5	92.0		
	681	SO_4	5479133	1	23.033	23		0.25	mg/L		25	92.0		
	BLA01	09-May-98 04:21												
	367	F	0	1	0.010	< 0.04		0.1	mg/L					
	223	Cl	0	1	0.035	< 0.1		0.25	mg/L					
	507	NO_2	0	1	0.010	< 0.02		0.05	mg/L					
	192	Br	0	1	0.008	< 0.02		0.05	mg/L					
	508	NO_3	0	1	0.006	< 0.02		0.05	mg/L					
	539	HPO_4	0	1	0.055	0.055		0.05	mg/L					
	681	SO_4	0	1	-0.013	< 0.1		0.25	mg/L					

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD #
	A441383	09-May-98 04:39											
	367	F	52415	1	0.137			0.1	mg/L				
G300.2	223	Cl	4660398	1	13.091	13		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	0	1	0.008			0.05	mg/L				
	508	NO_3	5751963	1	7.033			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
G300.7	681	SO_4	6744524	1	28.192	28		0.25	mg/L				
	SPI01 A441383	09-May-98 04:57											
	367	F	590161	1	1.333			0.1	mg/L		1		
G	223	Cl	5172040	1	14.486	14.5		0.25	mg/L	11.8	2.5	108.0	
	507	NO_2	750638	1	1.198			0.05	mg/L		1		
	192	Br	145313	1	1.234			0.05	mg/L		1		
	508	NO_3	6278397	1	7.663			0.05	mg/L		1		
	539	HPO_4	147518	1	0.822			0.05	mg/L		1		
G	681	SO_4	7342196	1	30.628	30.6		0.25	mg/L	25.4	5	104.0	
	DSP01 A441383	09-May-98 05:14											
	367	F	595271	1	1.344			0.1	mg/L		1		
G	223	Cl	5217056	1	14.608	14.6		0.25	mg/L	11.8	2.5	112.0	3.6
	507	NO_2	758460	1	1.210			0.05	mg/L		1		
	192	Br	146279	1	1.241			0.05	mg/L		1		
	508	NO_3	6307948	1	7.698			0.05	mg/L		1		
	539	HPO_4	208873	1	0.997			0.05	mg/L		1		
G	681	SO_4	7347377	1	30.650	30.7		0.25	mg/L	25.4	5	106.0	1.9
	A441384	09-May-98 05:32											
	367	F	637047	1	1.433			0.1	mg/L				
G300.2	223	Cl	339137	1	1.240	1.2		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	1710	1	0.023			0.05	mg/L				
	508	NO_3	4227	1	0.013			0.05	mg/L				
	539	HPO_4	8757	1	0.101			0.05	mg/L				
G300.7	681	SO_4	13524	1	0.057		BDL	0.25	mg/L				
	A441385	09-May-98 05:50											
	367	F	721751	1	1.614			0.1	mg/L				
G300.2	223	Cl	799685	1	2.566	2.6		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	1769	1	0.023			0.05	mg/L				
	508	NO_3	0	1	0.006			0.05	mg/L				
	539	HPO_4	24043	1	0.180			0.05	mg/L				
G300.7	681	SO_4	2035443	1	8.992	9		0.25	mg/L				
	A441386	09-May-98 06:07											
	367	F	295785	1	0.728			0.1	mg/L				
G300.2	223	Cl	5412213	1	15.140	15		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	2734	1	0.032			0.05	mg/L				
	508	NO_3	0	1	0.006			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
G300.7	681	SO_4	11946970	1	49.402	49		0.25	mg/L				
	A441387	09-May-98 06:25											
	367	F	300901	1	0.740			0.1	mg/L				
	223	Cl	11968111	1	33.013	HIGH		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	2837	1	0.033			0.05	mg/L				
	508	NO_3	7316	1	0.018			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
	681	SO_4	15294881	1	63.052	HIGH		0.25	mg/L				

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Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD #
	A441388	**09-May-98 06:42**											
	367	F	244982	1	0.604			0.1	mg/L				
G300.2	223	Cl	434736	1	1.580	1.6		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	2542	1	0.030			0.05	mg/L				
	508	NO_3	0	1	0.006			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
G300.7	681	SO_4	2306752	1	10.099	10		0.25	mg/L				
	A441389	**09-May-98 07:00**											
	367	F	414076	1	0.956			0.1	mg/L				
G300.2	223	Cl	1306543	1	3.948	3.9		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	1698	1	0.023			0.05	mg/L				
	508	NO_3	4151	1	0.013			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
G300.7	681	SO_4	3735206	1	15.922	16		0.25	mg/L				
	A441390	**09-May-98 07:18**											
	367	F	618490	1	1.393			0.1	mg/L				
G300.2	223	Cl	463822	1	1.683	1.7		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	0	1	0.008			0.05	mg/L				
	508	NO_3	0	1	0.006			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
	681	SO_4	33966426	1	139.177	HIGH		0.25	mg/L				
	CCV L	**09-May-98 07:35**											
	367	F	200846	1	0.497	0.497		0.1	mg/L		0.5	99.4	
	223	Cl	369034	1	1.346	1.35		0.25	mg/L		1.25	108.0	
	507	NO_2	293891	1	0.513	0.513		0.05	mg/L		0.5	102.6	
	192	Br	53659	1	0.485	0.485		0.05	mg/L		0.5	97.0	
	508	NO_3	313585	1	0.489	0.489		0.05	mg/L		0.5	97.8	
	539	HPO_4	82667	1	0.485	0.485		0.05	mg/L		0.5	97.0	
	681	SO_4	476854	1	2.472	2.47		0.25	mg/L		2.5	98.8	
	CCV H	**09-May-98 07:53**											
	367	F	2261140	1	4.903	4.9		0.1	mg/L		5	98.0	
	223	Cl	4202868	1	11.843	11.8		0.25	mg/L		12.5	94.4	
	507	NO_2	3302317	1	5.009	5.01		0.05	mg/L		5	100.2	
	192	Br	594653	1	4.793	4.79		0.05	mg/L		5	95.8	
	508	NO_3	3802852	1	4.702	4.7		0.05	mg/L		5	94.0	
	539	HPO_4	1188590	1	4.628	4.63		0.05	mg/L		5	92.6	
	681	SO_4	5488534	1	23.071	23.1		0.25	mg/L		25	92.4	
	BLA01	**09-May-98 08:11**											
	367	F	0	1	0.010	< 0.04		0.1	mg/L				
	223	Cl	0	1	0.035	< 0.1		0.25	mg/L				
	507	NO_2	0	1	0.010	< 0.02		0.05	mg/L				
	192	Br	0	1	0.008	< 0.02		0.05	mg/L				
	508	NO_3	0	1	0.006	< 0.02		0.05	mg/L				
	539	HPO_4	0	1	0.055	0.055		0.05	mg/L				
	681	SO_4	0	1	-0.013	< 0.1		0.25	mg/L				
	A441396	**09-May-98 08:28**											
	367	F	71519	1	0.183			0.1	mg/L				
0.2	223	Cl	1325956	1	4.000	4		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	0	1	0.008			0.05	mg/L				
	508	NO_3	2275918	1	2.876			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
G300.7	681	SO_4	3341711	1	14.318	14		0.25	mg/L				

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD #
	SPI01 A441396 / 09-May-98 08:46												
	367	F	525127	1	1.194			0.1	mg/L		1		
G	223	Cl	2122037	1	6.171	6.17		0.25	mg/L	3.6	2.5	102.8	
	507	NO_2	639818	1	1.033			0.05	mg/L		1		
	192	Br	123956	1	1.064			0.05	mg/L		1		
	508	NO_3	2944133	1	3.675			0.05	mg/L		1		
	539	HPO_4	138674	1	0.776			0.05	mg/L		1		
G	681	SO_4	4246160	1	18.006	18		0.25	mg/L	12.9	5	102.0	
	DSP01 A441396 / 09-May-98 09:04												
	367	F	523805	1	1.191			0.1	mg/L		1		
G	223	Cl	2099160	1	6.108	6.11		0.25	mg/L	3.6	2.5	100.4	2.4
	507	NO_2	632837	1	1.022			0.05	mg/L		1		
	192	Br	122814	1	1.055			0.05	mg/L		1		
	508	NO_3	2928256	1	3.656			0.05	mg/L		1		
	539	HPO_4	175496	1	0.967			0.05	mg/L		1		
G	681	SO_4	4246127	1	18.006	18		0.25	mg/L	12.9	5	102.0	0
	A441397 / 09-May-98 09:21												
	367	F	651416	1	1.463			0.1	mg/L				
G300.2	223	Cl	2780020	1	7.964	8		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	3620	1	0.040			0.05	mg/L				
	508	NO_3	147144	1	0.233			0.05	mg/L				
	539	HPO_4	2977	1	0.071			0.05	mg/L				
	681	SO_4	114904463	1	469.166	HIGH		0.25	mg/L				
	A441398 / 09-May-98 09:39												
	367	F	731998	1	1.636			0.1	mg/L				
G300.2	223	Cl	174630	1	0.656	0.66		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	0	1	0.008			0.05	mg/L				
	508	NO_3	20061	1	0.037			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
G300.7	681	SO_4	1451892	1	6.613	6.6		0.25	mg/L				
	A441399 / 09-May-98 09:56												
	367	F	859823	1	1.909			0.1	mg/L				
G300.2	223	Cl	201129	1	0.750	0.75		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	0	1	0.008			0.05	mg/L				
	508	NO_3	2178	1	0.010			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
G300.7	681	SO_4	6362919	1	26.636	27		0.25	mg/L				
	A441400 / 09-May-98 10:14												
	367	F	111353	1	0.280			0.1	mg/L				
G300.2	223	Cl	565095	1	2.043	2		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	0	1	0.008			0.05	mg/L				
	508	NO_3	416162	1	0.646			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
G300.7	681	SO_4	1054060	1	4.991	5		0.25	mg/L				
	A441401 / 09-May-98 10:32												
	367	F	61973	1	0.160			0.1	mg/L				
G300.2	223	Cl	2160999	1	6.277	6.3		0.25	mg/L				
	507	NO_2	0	1	0.010			0.05	mg/L				
	192	Br	1582	1	0.022			0.05	mg/L				
	508	NO_3	6265645	1	7.648			0.05	mg/L				
	539	HPO_4	0	1	0.055			0.05	mg/L				
G300.7	681	SO_4	8342630	1	34.707	35		0.25	mg/L				

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Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	A441402	**09-May-98 10:49**												
	367	F	42117	1	0.112			0.1	mg/L					
	223	Cl	22523982	1	61.790	HIGH		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	14074	1	0.133			0.05	mg/L					
	508	NO_3	18278968	1	22.018	HIGH		0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G300.7	681	SO_4	5896213	1	24.733	25		0.25	mg/L					
	A441403	**09-May-98 11:07**												
	367	F	37914	1	0.102			0.1	mg/L					
G300.2	223	Cl	2146526	1	6.237	6.2		0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	0	1	0.008			0.05	mg/L					
	508	NO_3	1990086	1	2.534			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
G300.7	681	SO_4	2895276	1	12.498	12		0.25	mg/L					
	CCV L	**09-May-98 11:25**												
	367	F	196904	1	0.488	0.488		0.1	mg/L		0.5	97.6		
	223	Cl	358459	1	1.309	1.31		0.25	mg/L		1.25	104.8		
	507	NO_2	285388	1	0.499	0.499		0.05	mg/L		0.5	99.8		
	192	Br	54649	1	0.493	0.493		0.05	mg/L		0.5	98.6		
	508	NO_3	316672	1	0.493	0.493		0.05	mg/L		0.5	98.6		
	539	HPO_4	86772	1	0.506	0.506		0.05	mg/L		0.5	101.2		
	681	SO_4	467467	1	2.423	2.42		0.25	mg/L		2.5	96.8		
	CCV H	**09-May-98 11:42**												
	367	F	2255526	1	4.891	4.89		0.1	mg/L		5	97.8		
	223	Cl	4208745	1	11.859	11.9		0.25	mg/L		12.5	95.2		
	507	NO_2	3272939	1	4.966	4.97		0.05	mg/L		5	99.4		
	192	Br	589169	1	4.750	4.75		0.05	mg/L		5	95.0		
	508	NO_3	3771652	1	4.665	4.67		0.05	mg/L		5	93.4		
	539	HPO_4	1180172	1	4.597	4.6		0.05	mg/L		5	92.0		
	681	SO_4	5529164	1	23.237	23.2		0.25	mg/L		25	92.8		
	BLA01	**09-May-98 12:00**												
	367	F	0	1	0.010	< 0.04		0.1	mg/L					
	223	Cl	0	1	0.035	< 0.1		0.25	mg/L					
	507	NO_2	0	1	0.010	< 0.02		0.05	mg/L					
	192	Br	0	1	0.008	< 0.02		0.05	mg/L					
	508	NO_3	0	1	0.006	< 0.02		0.05	mg/L					
	539	HPO_4	0	1	0.055	0.055		0.05	mg/L					
	681	SO_4	0	1	-0.013	< 0.1		0.25	mg/L					

Calibration Date/Time 98-May-04 20:14 to 98-May-04 22:17

	AUTOCAL 1	AUTOCAL 2	AUTOCAL 3	AUTOCAL 4	AUTOCAL 5	AUTOCAL 6	AUTOCAL 7	AUTOCAL 8
F Area	**0**	**36803**	**75636**	**199316**	**409925**	**857843**	**2282779**	**4668296**
Cl Area	0	61134	127600	326987	701151	1509158	4214862	9167669
NO2 Area	**0**	**52679**	**106335**	**280950**	**581611**	**1221470**	**3251735**	**6679643**
Br Area	0	10281	21225	54522	112149	229457	596728	1265559
NO3 Area	**0**	**62341**	**122423**	**315514**	**649151**	**1371749**	**3791830**	**8379552**
HPO4 Area	0	8450	21560	77335	185980	418647	1184540	2694581
SO4 Area	**0**	**111585**	**189687**	**471901**	**966277**	**2053560**	**5603737**	**12297654**

	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Fl Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
Cl Conc	0	0.25	0.5	1.25	2.5	5	12.5	25
NO2 Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
Br Conc	0	0.1	0.2	0.5	1	2	5	10
NO3 Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
HPO4 Conc	0	0.1	0.2	0.5	1	2	5	10
SO4 Conc	**0**	**0.5**	**1**	**2.5**	**5**	**10**	**25**	**50**

Low Calibration Curve Autocal 1 - 5

Parameter	Slope	Intercept	Cor. Coef
F	**2.4268e-06**	**0.00973**	**0.99984**
Cl	**3.5531e-06**	**0.03527**	**0.99940**
NO_2	1.7112e-06	0.01037	0.99979
Br	8.8881e-06	0.00772	0.99988
NO_3	**1.5380e-06**	**0.00645**	**0.99987**
HPO_4	**5.1975e-06**	**0.05509**	**0.99505**
SO_4	5.2122e-06	-0.01326	0.99973

High Calibration Curve Autocal 1 - 8

Parameter	Slope	Intercept	Cor. Coef
F	**2.1367e-06**	**0.07163**	**0.99985**
Cl	**2.7262e-06**	**0.38562**	**0.99896**
NO_2	1.4937e-06	0.07694	0.99982
Br	7.9223e-06	0.08233	0.99958
NO_3	**1.1962e-06**	**0.15317**	**0.99869**
HPO_4	**3.7061e-06**	**0.22311**	**0.99805**
SO_4	4.0771e-06	0.69382	0.99885

Sample Areas less than L5 area are calculated using the low calibration.
Sample Areas between L5 area and the L8 are calculated using the high calibration.

Concentration = (Slope)*(area)+Intercept
y = (mx+b)

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Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD #
	BLA01	11-May-98 22:45											
	367	F	0	1	0.010	< 0.04		0.1	mg/L				
	223	Cl	0	1	0.029	< 0.1		0.25	mg/L				
	507	NO_2	0	1	0.013	< 0.02		0.05	mg/L				
	192	Br	0	1	0.007	< 0.02		0.05	mg/L				
	508	NO_3	0	1	0.006	< 0.02		0.05	mg/L				
	539	HPO_4	0	1	0.044	0.044		0.05	mg/L				
	681	SO_4	0	1	0.019	< 0.1		0.25	mg/L				
	CCV L	11-May-98 23:03											
	367	F	200213	1	0.501	0.501		0.1	mg/L		0.5	100.2	
	223	Cl	334275	1	1.205	1.21		0.25	mg/L		1.25	96.8	
	507	NO_2	281529	1	0.484	0.484		0.05	mg/L		0.5	96.8	
	192	Br	54439	1	0.490	0.49		0.05	mg/L		0.5	98.0	
	508	NO_3	316655	1	0.491	0.491		0.05	mg/L		0.5	98.2	
	539	HPO_4	85745	1	0.464	0.464		0.05	mg/L		0.5	92.8	
	681	SO_4	478584	1	2.530	2.53		0.25	mg/L		2.5	101.2	
	CCV H	11-May-98 23:21											
	367	F	2280043	1	4.967	4.97		0.1	mg/L		5	99.4	
	223	Cl	4221105	1	11.958	12		0.25	mg/L		12.5	96.0	
	507	NO_2	3321002	1	5.005	5.01		0.05	mg/L		5	100.2	
	192	Br	596664	1	4.872	4.87		0.05	mg/L		5	97.4	
	508	NO_3	3806517	1	4.728	4.73		0.05	mg/L		5	94.6	
	539	HPO_4	1174409	1	4.632	4.63		0.05	mg/L		5	92.6	
	681	SO_4	5571266	1	23.623	23.6		0.25	mg/L		25	94.4	
	LFB01 SPI	11-May-98 23:56											
	367	F	410161	1	0.954			0.1	mg/L		1		
	223	Cl	702246	1	2.500	2.5		0.25	mg/L		2.5	100.0	
	507	NO_2	596660	1	0.960			0.05	mg/L		1		
	192	Br	112642	1	0.974			0.05	mg/L		1		
	508	NO_3	663490	1	0.948			0.05	mg/L		1		
	539	HPO_4	197392	1	1.011			0.05	mg/L		1		
G	681	SO_4	970260	1	4.722	4.72		0.25	mg/L		5	94.4	
	A441360 1:5	12-May-98 00:14											
	367	F	2855	5	0.084			0.5	mg/L				
G310.2	223	Cl	8108027	5	113.023	110		1.3	mg/L				
	507	NO_2	0	5	0.064			0.25	mg/L				
	192	Br	0	5	0.037			0.25	mg/L				
	508	NO_3	77510	5	0.626			0.25	mg/L				
	539	HPO_4	0	5	0.220			0.25	mg/L				
G310.7	681	SO_4	1428018	5	33.013	33		1.3	mg/L				
	A441367 1:25	12-May-98 00:31											
	367	F	0	25	0.244			2.5	mg/L				
G310.2	223	Cl	5649158	25	396.742	400		6.3	mg/L				
	507	NO_2	0	25	0.318			1.3	mg/L				
	192	Br	0	25	0.187			1.3	mg/L				
	508	NO_3	142188	25	5.605			1.3	mg/L				
	539	HPO_4	0	25	1.099			1.3	mg/L				
	681	SO_4	413184	25	54.662			6.3	mg/L				
	A441380 1:5	12-May-98 00:49											
	367	F	13377	5	0.213			0.5	mg/L				
	223	Cl	564819	5	10.084			1.3	mg/L				
	507	NO_2	0	5	0.064			0.25	mg/L				
	192	Br	0	5	0.037			0.25	mg/L				
	508	NO_3	0	5	0.032			0.25	mg/L				
	539	HPO_4	0	5	0.220			0.25	mg/L				
G300.7	681	SO_4	2651879	5	58.150	58		1.3	mg/L				

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	A441387 1:5 / 12-May-98 01:06													
	367	F	60437	5	0.790			0.5	mg/L					
G300.2	223	Cl	1998892	5	29.357	29		1.3	mg/L					
	507	NO_2	0	5	0.064			0.25	mg/L					
	192	Br	0	5	0.037			0.25	mg/L					
	508	NO_3	0	5	0.032			0.25	mg/L					
	539	HPO_4	0	5	0.220			0.25	mg/L					
G300.7	681	SO_4	2576930	5	56.611	57		1.3	mg/L					
	SPI01 A441387 1:5 / 12-May-98 01:24													
	367	F	486623	5	5.593			0.5	mg/L		5			
G	223	Cl	2741135	5	39.523	39.5		1.3	mg/L	26.4	12.5	104.8		
	507	NO_2	606100	5	4.871			0.25	mg/L		5			
	192	Br	116388	5	5.023			0.25	mg/L		5			
	508	NO_3	680452	5	4.842			0.25	mg/L		5			
	539	HPO_4	146538	5	3.808			0.25	mg/L		5			
G	681	SO_4	3506847	5	75.711	75.7		1.3	mg/L	50.9	25	99.2		
	DSP01 A441387 1:5 / 12-May-98 01:42													
	367	F	486234	5	5.588			0.5	mg/L		5			
G	223	Cl	2732818	5	39.409	39.4		1.3	mg/L	26.4	12.5	104.0	0.8	
	507	NO_2	608475	5	4.888			0.25	mg/L		5			
	192	Br	117392	5	5.064			0.25	mg/L		5			
	508	NO_3	681366	5	4.847			0.25	mg/L		5			
	539	HPO_4	171694	5	4.424			0.25	mg/L		5			
G	681	SO_4	3495105	5	75.470	75.5		1.3	mg/L	50.9	25	98.4	0.8	
	A441390 1:5 / 12-May-98 01:59													
	367	F	117348	5	1.487			0.5	mg/L					
	223	Cl	105797	5	2.005			1.3	mg/L					
	507	NO_2	0	5	0.064			0.25	mg/L					
	192	Br	0	5	0.037			0.25	mg/L					
	508	NO_3	0	5	0.032			0.25	mg/L					
	539	HPO_4	0	5	0.220			0.25	mg/L					
G300.7	681	SO_4	5598775	5	118.679	120		1.3	mg/L					
	A441397 1:10 / 12-May-98 02:17													
	367	F	59866	10	1.565			1	mg/L					
	223	Cl	219562	10	8.015			2.5	mg/L					
	507	NO_2	0	10	0.127			0.5	mg/L					
	192	Br	0	10	0.075			0.5	mg/L					
	508	NO_3	14001	10	0.279			0.5	mg/L					
	539	HPO_4	0	10	0.439			0.5	mg/L					
G300.7	681	SO_4	9293659	10	389.141	390		2.5	mg/L					
	A441402 1:5 / 12-May-98 02:35													
	367	F	7236	5	0.137			0.5	mg/L					
G300.2	223	Cl	3763619	5	53.526	54		1.3	mg/L					
	507	NO_2	0	5	0.064			0.25	mg/L					
	192	Br	2456	5	0.146			0.25	mg/L					
	508	NO_3	2955909	5	18.524			0.25	mg/L					
	539	HPO_4	0	5	0.220			0.25	mg/L					
	681	SO_4	998446	5	24.189			1.3	mg/L					
	CCV L / 12-May-98 02:52													
	367	F	197338	1	0.494	0.494		0.1	mg/L		0.5	98.8		
	223	Cl	339416	1	1.223	1.22		0.25	mg/L		1.25	97.6		
	507	NO_2	278972	1	0.480	0.48		0.05	mg/L		0.5	96.0		
	192	Br	54077	1	0.487	0.487		0.05	mg/L		0.5	97.4		
	508	NO_3	316169	1	0.491	0.491		0.05	mg/L		0.5	98.2		
	539	HPO_4	83548	1	0.453	0.453		0.05	mg/L		0.5	90.6		
	681	SO_4	465038	1	2.459	2.46		0.25	mg/L		2.5	98.4		

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	CCV H	12-May-98 03:10												
	367	F	2251003	1	4.905	4.91		0.1	mg/L		5	98.2		
	223	Cl	4146096	1	11.753	11.8		0.25	mg/L		12.5	94.4		
	507	NO_2	3263792	1	4.920	4.92		0.05	mg/L		5	98.4		
	192	Br	594108	1	4.852	4.85		0.05	mg/L		5	97.0		
	508	NO_3	3785271	1	4.702	4.7		0.05	mg/L		5	94.0		
	539	HPO_4	1183321	1	4.665	4.67		0.05	mg/L		5	93.4		
	681	SO_4	5537053	1	23.482	23.5		0.25	mg/L		25	94.0		
	BLA01	12-May-98 03:27												
	367	F	0	1	0.010	< 0.04		0.1	mg/L					
	223	Cl	2193	1	0.036	< 0.1		0.25	mg/L					
	507	NO_2	0	1	0.013	< 0.02		0.05	mg/L					
	192	Br	0	1	0.007	< 0.02		0.05	mg/L					
	508	NO_3	0	1	0.006	< 0.02		0.05	mg/L					
	539	HPO_4	0	1	0.044	0.044		0.05	mg/L					
	681	SO_4	0	1	0.019	< 0.1		0.25	mg/L					

Calibration Date/Time 98-May-11 19:29 to 98-May-11 22:10

	AUTOCAL 1	AUTOCAL 2	AUTOCAL 3	AUTOCAL 4	AUTOCAL 5	AUTOCAL 6	AUTOCAL 7	AUTOCAL 8
F Area	**0**	**36637**	**76530**	**194273**	**406753**	**857900**	**2260432**	**4651006**
Cl Area	0	64695	130926	333055	709037	1478686	4143209	9141828
NO2 Area	**0**	**52872**	**108300**	**281004**	**595221**	**1240922**	**3256657**	**6727866**
Br Area	0	9897	21478	55158	112130	233204	590464	1245327
NO3 Area	**0**	**60830**	**126374**	**314642**	**652409**	**1376523**	**3764180**	**8339898**
HPO4 Area	0	11596	27296	84167	199586	438687	1186369	2635845
SO4 Area	**0**	**96329**	**185720**	**460138**	**955417**	**2017893**	**5527780**	**12205280**

	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Fl Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
Cl Conc	0	0.25	0.5	1.25	2.5	5	12.5	25
NO2 Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
Br Conc	0	0.1	0.2	0.5	1	2	5	10
NO3 Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
HPO4 Conc	0	0.1	0.2	0.5	1	2	5	10
SO4 Conc	**0**	**0.5**	**1**	**2.5**	**5**	**10**	**25**	**50**

Low Calibration Curve Autocal 1 - 5

Parameter	Slope	Intercept	Cor. Coef
F	**2.4521e-06**	**0.00974**	**0.99973**
Cl	**3.5198e-06**	**0.02870**	**0.99951**
NO_2	1.6737e-06	0.01273	0.99956
Br	8.8724e-06	0.00748	0.99993
NO_3	**1.5316e-06**	**0.00642**	**0.99984**
HPO_4	**4.8979e-06**	**0.04394**	**0.99630**
SO_4	5.2465e-06	0.01872	0.99980

High Calibration Curve Autocal 1 - 8

Parameter	Slope	Intercept	Cor. Coef
F	**2.1461e-06**	**0.07414**	**0.99983**
Cl	**2.7390e-06**	**0.39644**	**0.99868**
NO_2	1.4846e-06	0.07434	0.99982
Br	8.0527e-06	0.06741	0.99969
NO_3	**1.2026e-06**	**0.15001**	**0.99868**
HPO_4	**3.7935e-06**	**0.17653**	**0.99874**
SO_4	4.1079e-06	0.73632	0.99873

Sample Areas less than L5 area are calculated using the low calibration.
Sample Areas between L5 area and the L8 are calculated using the high calibration.

Concentration = (Slope)*(area)+Intercept
y = (mx+b)

Data File	: NET\DATA\05089801\data0005.dxd	Report Date	: 5/11/98 7:56:08 PM
Sample Name	: LFB01 SPI	Collected	: 5/8/98 5:12:14 PM
Injection #	: 5	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	: ID:24 04 47	Moduleware	: 2.10

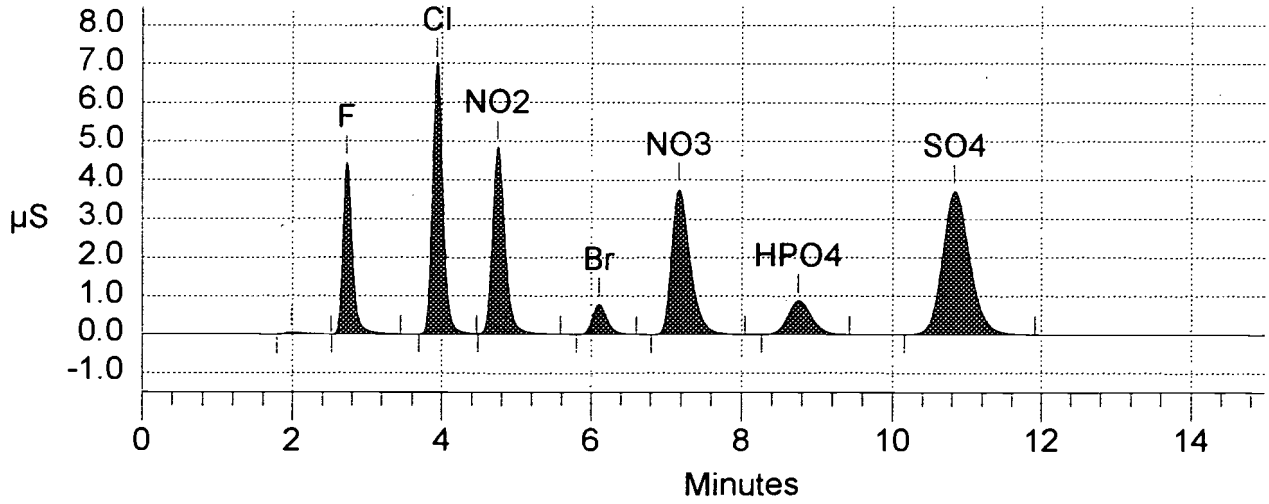
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.927	402832	2.73	-1.80	2	4.92
3	Cl	2.300	689756	3.93	-2.72	2	2.89
4	NO2	0.936	580154	4.74	-2.07	2	4.00
5	Br	0.958	110155	6.10	-0.65	1	2.59
6	NO3	0.940	650799	7.17	1.56	1	3.05
7	HPO4	0.966	192987	8.75	0.00	1	3.32
8	SO4	4.562	950538	10.83	0.37	1	0.00
	Totals	11.588	3577220				

File: data0005.dxd Sample LFB01 SPI



Data File	: NET\DATA\05089801\data0015.dxd	Report Date	: 5/11/98 7:56:15 PM
Sample Name	: CCV L	Collected	: 5/8/98 8:08:32 PM
Injection #	: 15	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	: ID:24 04 47	Moduleware	: 2.10

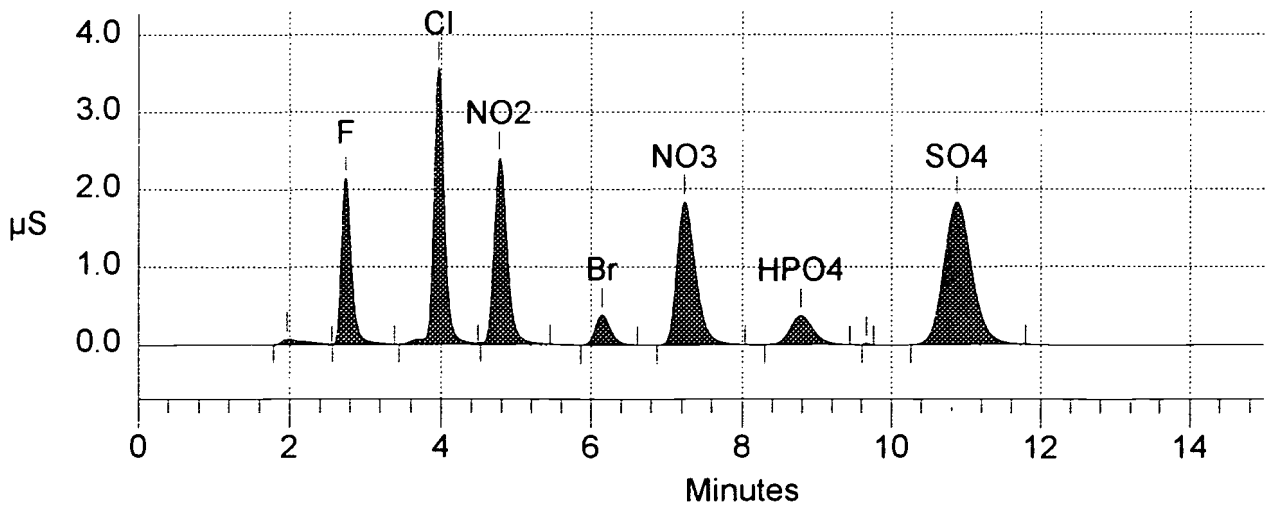
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.467	198989	2.74	-1.44	2	5.07
3	Cl	1.255	356846	3.96	-1.98	2	2.92
4	NO2	0.471	288333	4.77	-1.45	2	4.03
5	Br	0.477	55328	6.14	0.00	1	2.66
6	NO3	0.470	319232	7.24	2.55	1	2.97
7	HPO4	0.473	82910	8.78	0.00	1	2.53
9	SO4	2.283	474993	10.87	0.74	1	0.00
	Totals	5.896	1776629				

File: data0015.dxd Sample CCV L



Data File :	NET\DATA\05089801\data0016.dxd	Report Date:	5/11/98 7:56:16 PM
Sample Name:	CCV H	Collected :	5/8/98 8:26:08 PM
Injection # :	16	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

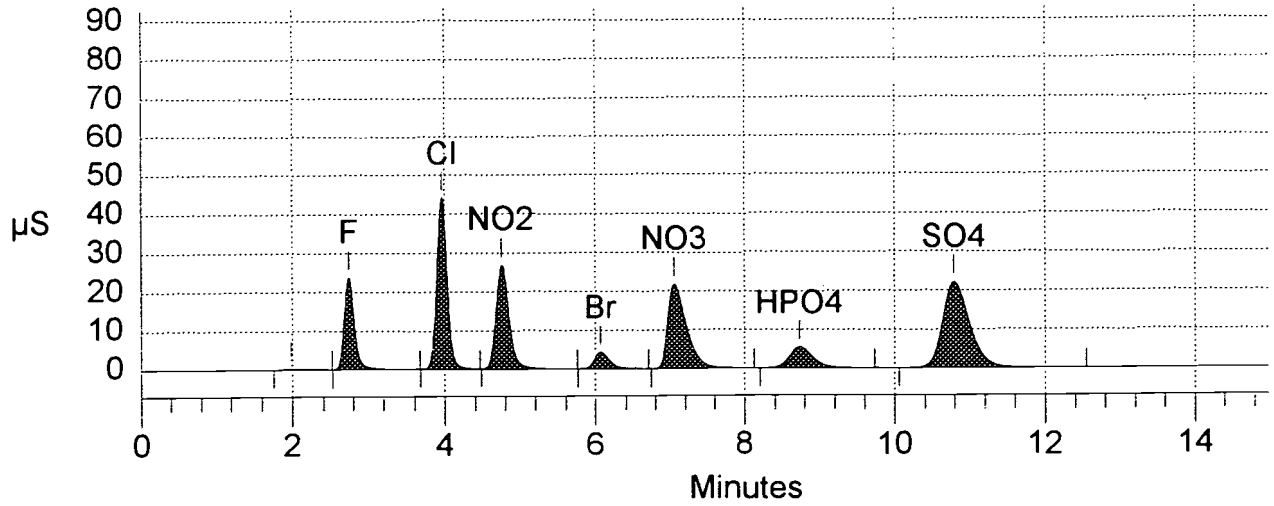
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	4.998	2256554	2.74	-1.44	2	5.01
3	Cl	12.632	4208597	3.96	-1.98	2	2.82
4	NO2	5.103	3284905	4.75	-1.86	2	3.91
5	Br	5.052	600914	6.07	-1.14	2	2.44
6	NO3	5.101	3830168	7.06	0.00	2	3.27
7	HPO4	5.072	1191146	8.73	0.00	2	3.38
8	SO4	24.902	5517041	10.79	0.00	1	0.00
	Totals	62.860	20889325				

File: data0016.dxd Sample CCV H



19

Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:16 PM

Data File :	NET\DATA\05089801\data0017.dxd	Report Date:	5/11/98 7:56:17 PM
Sample Name:	BLA01	Collected :	5/8/98 8:43:46 PM
Injection # :	17	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

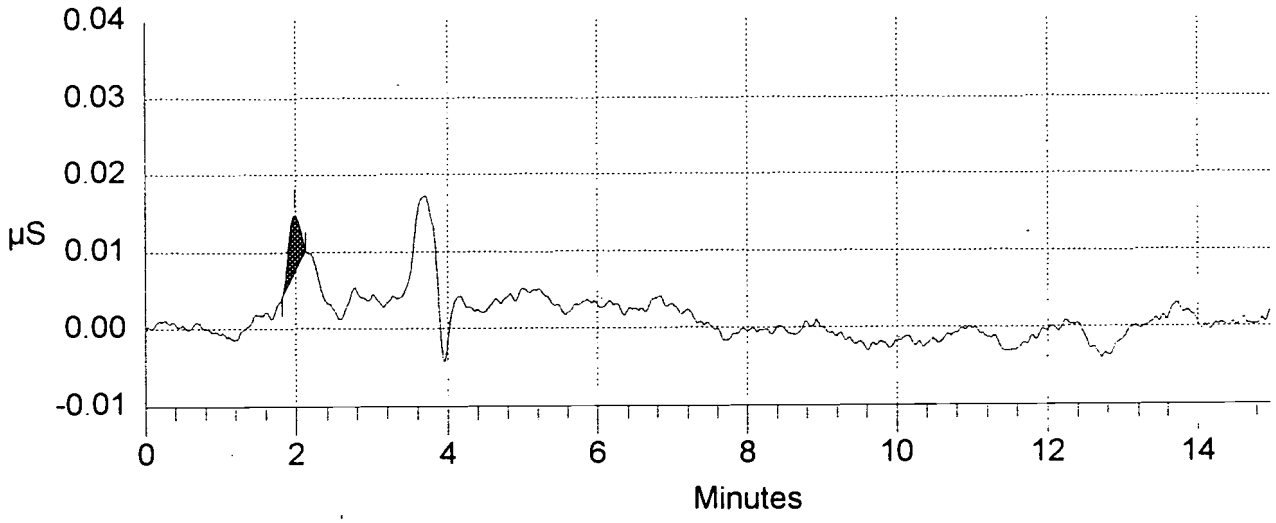
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
Totals		0.000	0				

File: data0017.dxd Sample BLA01



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Data File :	NET\DATA\05089801\data0026.dxd	Report Date:	5/11/98 7:56:23 PM
Sample Name:	A441373	Collected :	5/8/98 11:22:16 PM
Project # :	26	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

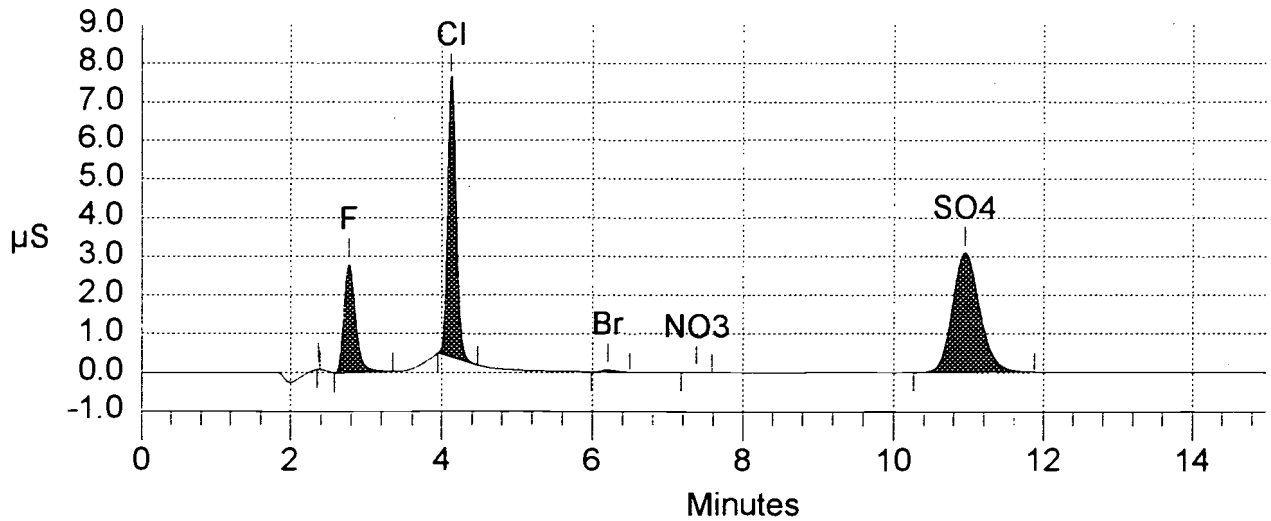
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.703	303560	2.77	-0.36	1	5.54
3	Cl	1.884	556540	4.12	1.98	1	7.34
4	Br	0.050	7071	6.20	0.98	1	3.18
5	NO3	0.015	1517	7.38	4.53	1	6.87
6	SO4	3.759	782284	10.94	1.39	1	0.00
	Totals	6.410	1650972				

File: data0026.dxd Sample A441373



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:23 PM

Data File	: NET\DATA\05089801\data0027.dxd	Report Date	: 5/11/98 7:56:24 PM
Sample Name	: A441374	Collected	: 5/8/98 11:39:55 PM
Project #	: 27	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

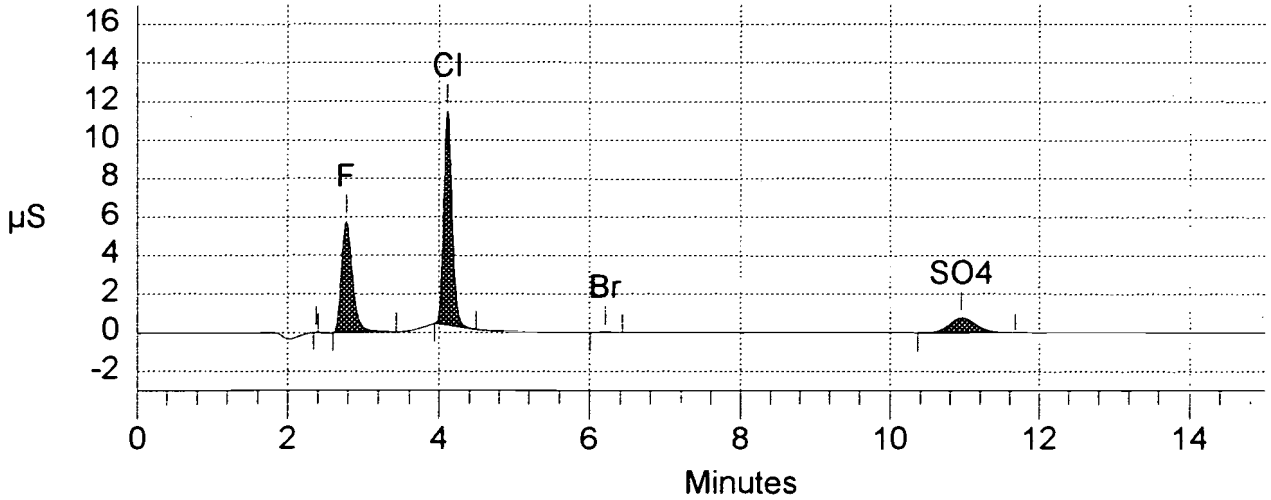
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.353	592885	2.78	0.00	1	5.66
3	Cl	2.815	855110	4.11	1.73	1	7.68
4	Br	0.014	3056	6.20	0.98	1	9.42
5	SO4	0.944	198412	10.95	1.48	1	0.00
	Totals	5.126	1649464				

File: data0027.dxd Sample A441374



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:24 PM

Data File :	NET\DATA\05089801\data0028.dxd	Report Date:	5/11/98 7:56:25 PM
Sample Name:	CCV L	Collected :	5/8/98 11:57:33 PM
Injection # :	28	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

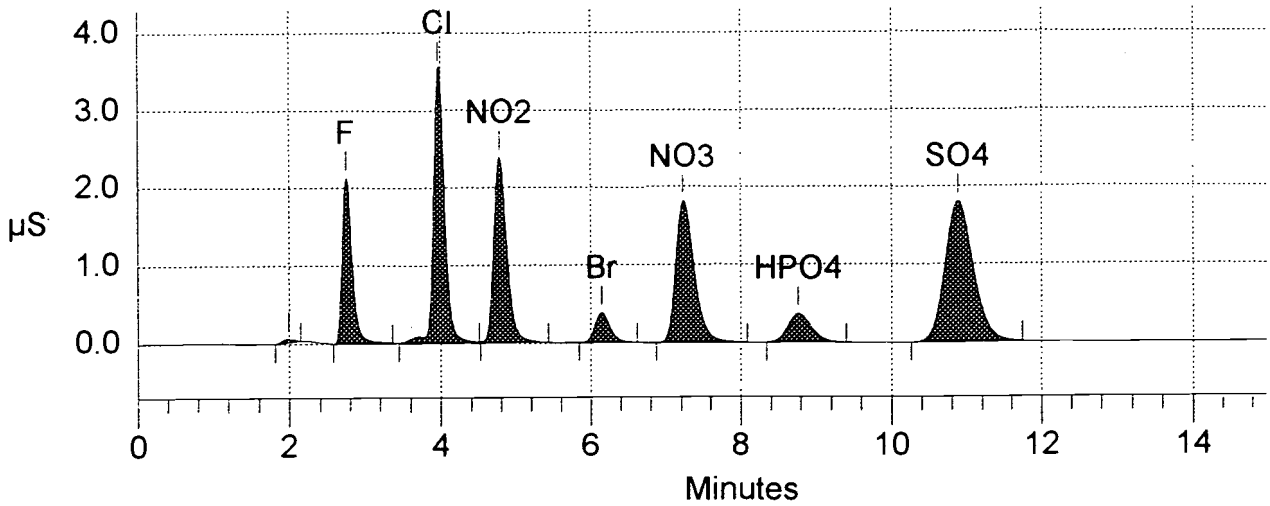
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51	

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.464	197603	2.75	-1.08	2	5.01
3	Cl	1.250	355271	3.97	-1.73	2	2.89
4	NO2	0.464	283882	4.78	-1.24	2	3.97
5	Br	0.472	54803	6.14	0.00	1	2.62
6	NO3	0.469	317965	7.23	2.41	1	2.95
7	HPO4	0.468	81862	8.77	0.00	1	3.34
8	SO4	2.252	468680	10.88	0.83	1	0.00
	Totals	5.839	1760066				

File: data0028.dxd Sample CCV L



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Data File	: NET\DATA\05089801\data0029.dxd	Report Date	: 5/11/98 7:56:26 PM
Sample Name	: CCV H	Collected	: 5/9/98 12:15:10 AM
Injection #	: 29	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

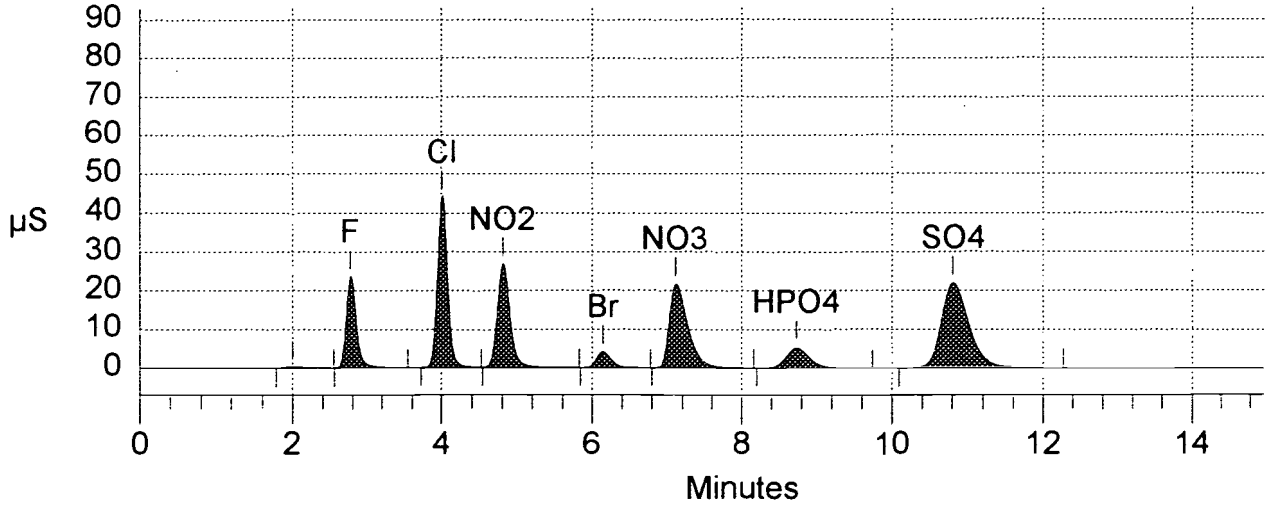
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	5.020	2267156	2.77	-0.36	2	5.03
3	Cl	12.635	4209722	4.01	-0.74	2	2.85
4	NO2	5.074	3265611	4.81	-0.62	2	3.94
5	Br	5.014	596158	6.14	0.00	2	2.38
6	NO3	5.059	3795772	7.11	0.71	2	3.14
7	HPO4	5.075	1191906	8.73	0.00	2	3.37
8	SO4	25.117	5568912	10.81	0.19	1	0.00
	Totals	62.995	20895237				

File: data0029.dxd Sample CCV H



24

Schedule: \PEAKNET\SCHEDULE\05089802.SCH

Data File :	NET\DATA\05089801\data0030.dxd	Report Date:	5/11/98 7:56:27 PM
Sample Name:	BLA01	Collected :	5/9/98 12:32:48 AM
Injection # :	30	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

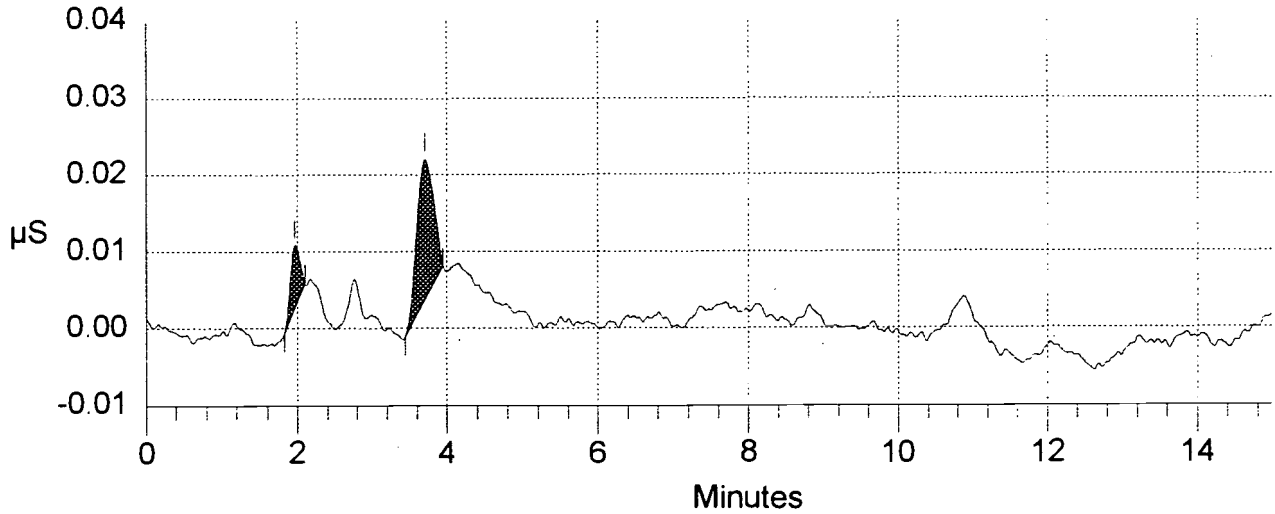
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
Totals		0.000	0				

File: data0030.dxd Sample BLA01



25

Data File :	NET\DATA\05089801\data0031.dxd	Report Date:	5/11/98 7:56:27 PM
Sample Name:	A441375	Collected :	5/9/98 12:50:24 AM
Injection # :	31	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

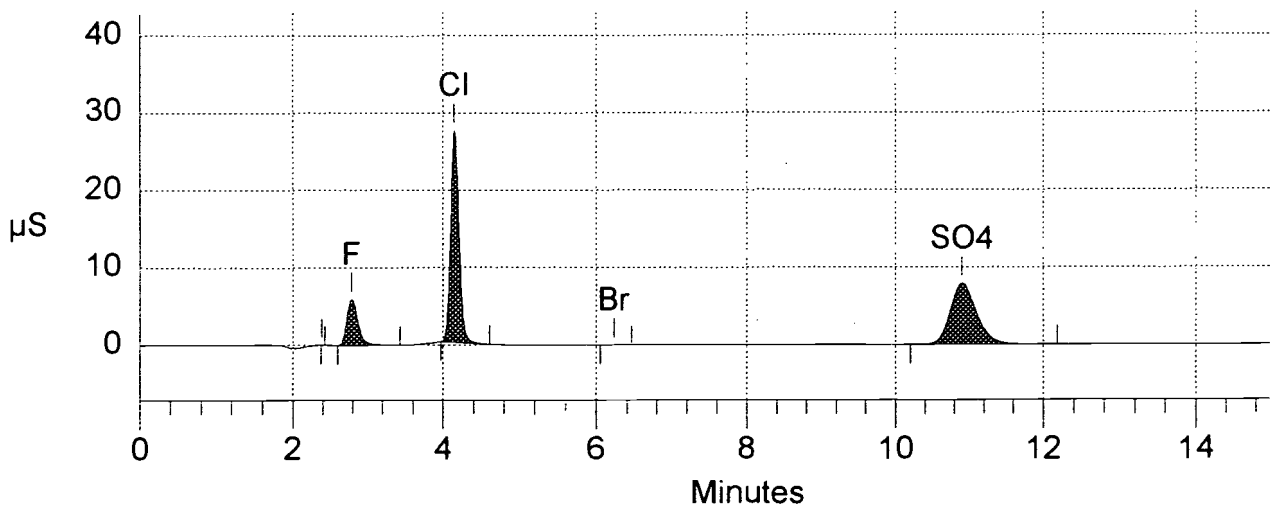
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.406	616312	2.79	0.36	1	5.85
3	Cl	6.512	2071122	4.15	2.72	1	7.81
4	Br	0.012	2789	6.23	1.47	1	9.42
5	SO4	9.476	1998510	10.90	1.02	1	0.00
Totals		17.406	4688734				

File: data0031.dxd Sample A441375



26

Data File	: NET\DATA\05089801\data0032.dxd	Report Date	: 5/11/98 7:56:28 PM
Sample Name	: SPI01 A441375	Collected	: 5/9/98 1:08:03 AM
Injection #	: 32	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	: ID:24 04 47	Moduleware	: 2.10

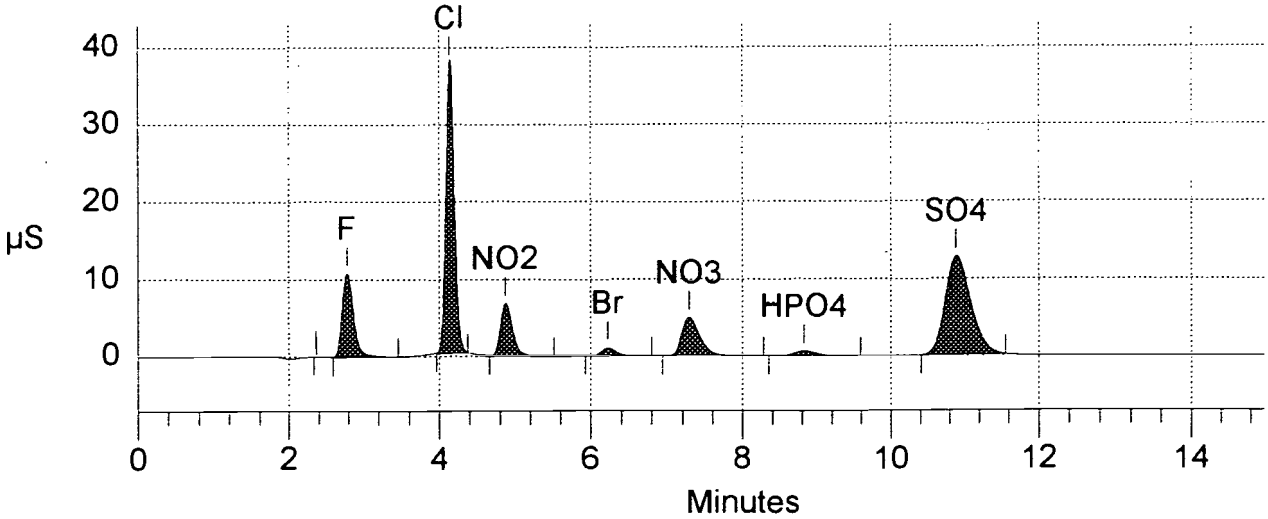
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	2.555	1133206	2.78	0.00	1	5.65
3	Cl	8.938	2898337	4.14	2.48	1	2.96
4	NO2	1.204	749542	4.87	0.62	1	4.18
5	Br	1.268	145786	6.22	1.30	1	2.66
6	NO3	1.212	845588	7.29	3.26	1	3.02
7	HPO4	0.803	156467	8.83	0.00	1	3.37
8	SO4	14.483	3099961	10.89	0.93	1	0.00
	Totals	30.463	9028887				

File: data0032.dxd Sample SPI01 A441375



27

Schedule: \PEAKNET\SCHEDULE\05089802.SCH

Data File	: NET\DATA\05089801\data0033.dxd	Report Date	: 5/11/98 7:56:29 PM
Sample Name	: DSP01 A441375	Collected	: 5/9/98 1:25:42 AM
Injection #	: 33	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

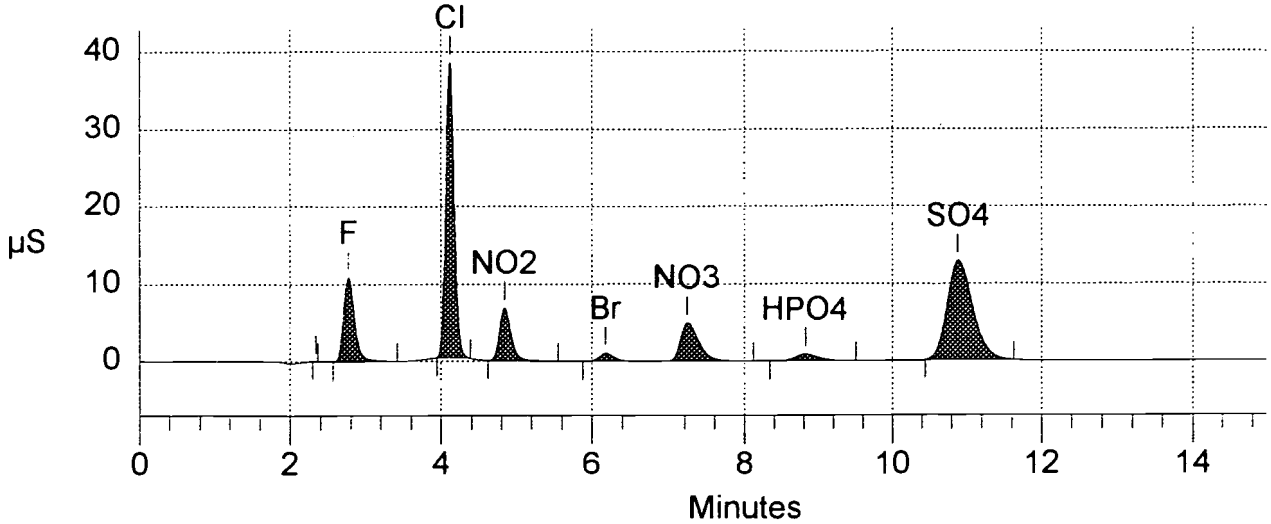
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	2.540	1126408	2.77	-0.36	1	5.74
3	Cl	8.924	2893605	4.12	1.98	1	2.95
4	NO2	1.205	750465	4.84	0.00	1	4.15
5	Br	1.282	147483	6.18	0.65	1	2.63
6	NO3	1.228	857080	7.24	2.55	2	3.08
7	HPO4	1.023	205814	8.82	0.00	2	3.40
8	SO4	14.534	3111196	10.89	0.93	1	0.00
	Totals	30.736	9092051				

File: data0033.dxd Sample DSP01 A441375



23

Data File :	NET\DATA\05089801\data0034.dxd	Report Date:	5/11/98 7:56:29 PM
Sample Name:	A441376	Collected :	5/9/98 1:43:18 AM
Project # :	34	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

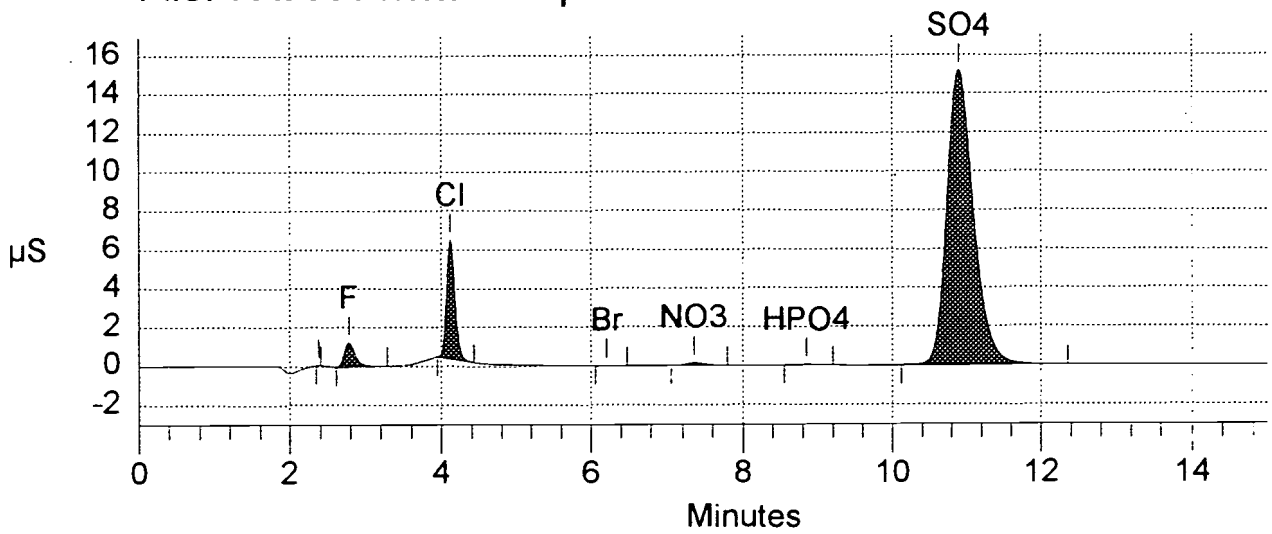
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.313	131008	2.78	0.00	1	5.63
3	Cl	1.622	473114	4.12	1.98	1	8.02
4	Br	0.002	1680	6.21	1.14	1	3.03
5	NO3	0.045	22357	7.36	4.25	1	3.08
6	HPO4	0.121	5618	8.85	0.00	1	3.50
7	SO4	17.511	3783967	10.90	1.02	1	0.00
	Totals	19.613	4417744				

File: data0034.dxd Sample A441376



23

Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:29 PM

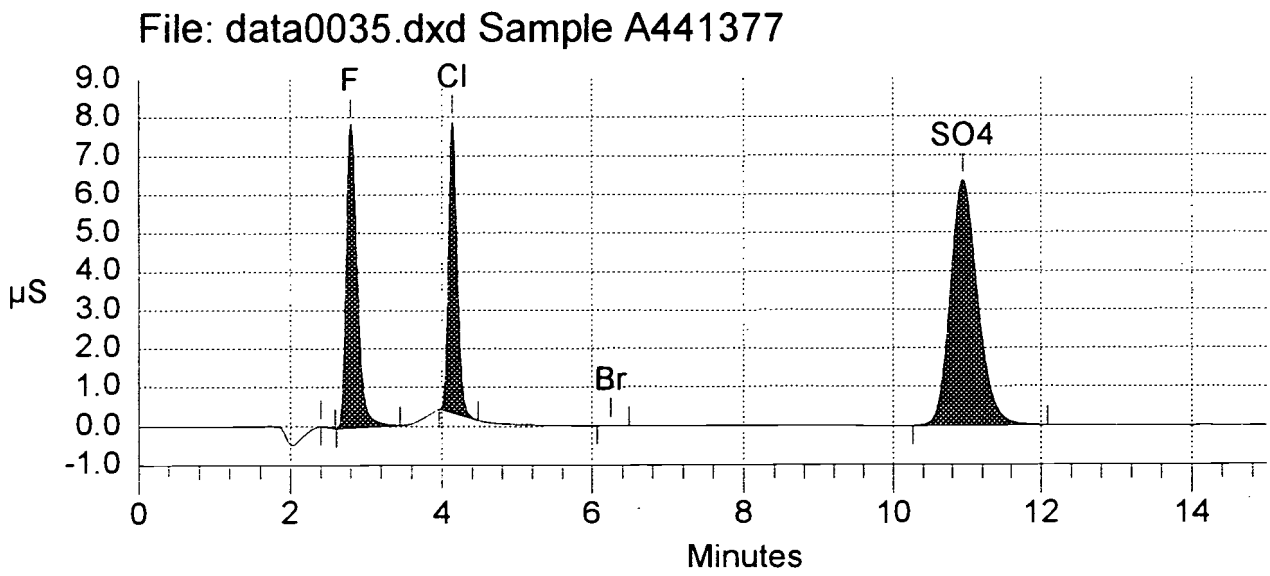
Data File :	NET\DATA\05089801\data0035.dxd	Report Date:	5/11/98 7:56:30 PM
Sample Name:	A441377	Collected :	5/9/98 2:00:58 AM
Injection # :	35	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.790	788427	2.80	0.72	1	5.77
3	Cl	1.987	589385	4.14	2.48	1	7.76
4	Br	0.006	2133	6.25	1.79	1	9.41
5	SO4	7.690	1613934	10.94	1.39	1	0.00
Totals		11.472	2993879				



30

Data File	: NET\DATA\05089801\data0036.dxd	Report Date	: 5/11/98 7:56:31 PM
Sample Name	: A441378	Collected	: 5/9/98 2:18:35 AM
Injection #	: 36	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

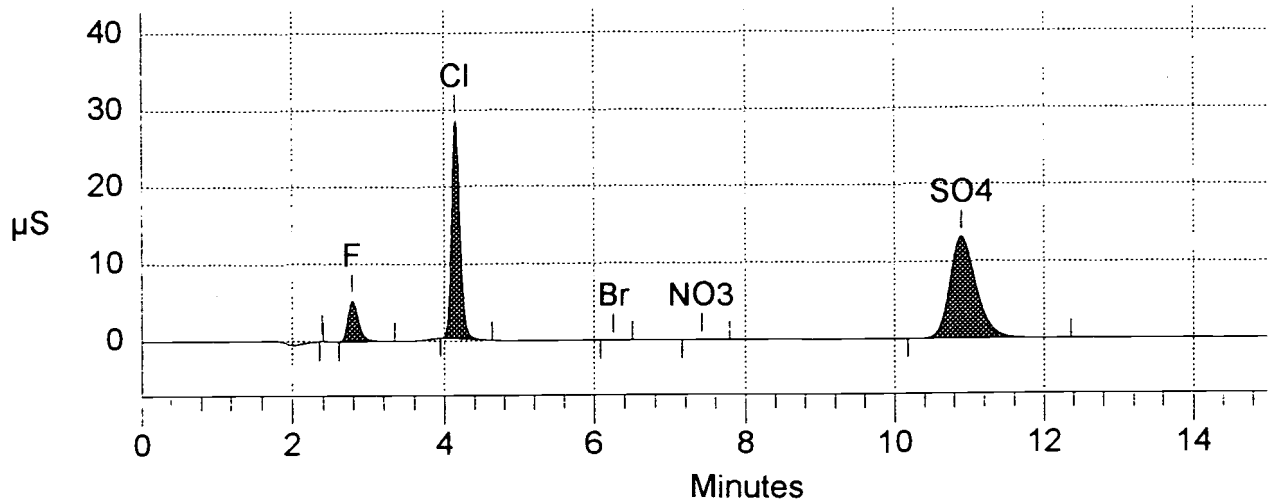
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.217	532003	2.79	0.36	1	5.78
3	Cl	6.870	2191664	4.15	2.72	1	7.84
4	Br	0.008	2315	6.26	1.95	1	2.97
5	NO3	0.026	9485	7.42	5.10	1	6.36
6	SO4	15.457	3318514	10.90	1.02	1	0.00
	Totals	23.578	6053981				

File: data0036.dxd Sample A441378



31

Data File	: NET\DATA\05089801\data0037.dxd	Report Date	: 5/11/98 7:56:31 PM
Sample Name	: A441379	Collected	: 5/9/98 2:36:11 AM
Injection #	: 37	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

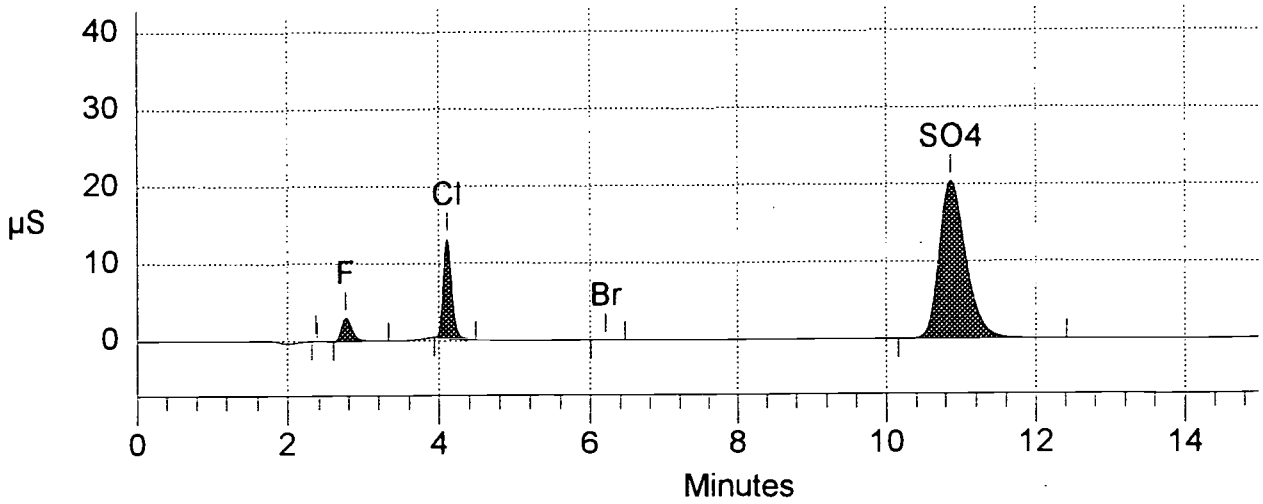
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.732	316630	2.76	-0.72	1	5.67
3	Cl	3.221	986201	4.11	1.73	1	7.64
4	Br	0.029	4741	6.21	1.14	1	9.45
5	SO4	22.981	5057508	10.87	0.74	1	0.00
	Totals	26.964	6365080				

File: data0037.dxd Sample A441379



32

Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:31 PM

Data File	: NET\DATA\05089801\data0038.dxd	Report Date	: 5/11/98 7:56:32 PM
Sample Name	: A441380	Collected	: 5/9/98 2:53:49 AM
Injection #	: 38	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

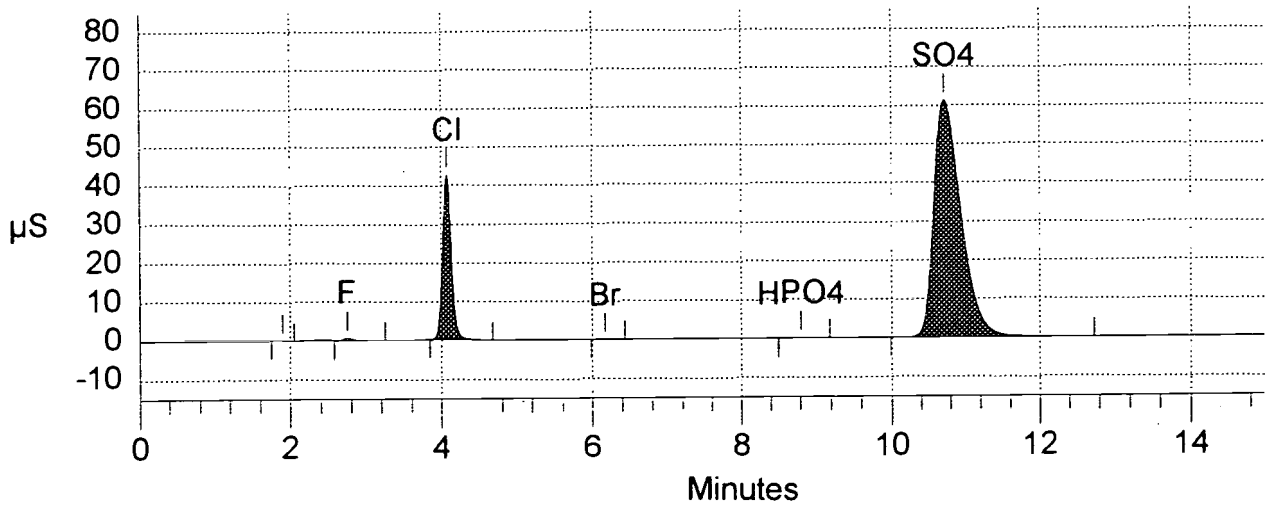
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.196	79367	2.75	-1.08	1	5.66
3	Cl	10.387	3404812	4.08	0.99	1	7.53
4	Br	0.010	2624	6.17	0.49	1	6.01
5	HPO4	0.131	7822	8.81	0.00	1	3.15
6	SO4	60.665	15864351	10.72	-0.65	1	0.00
	Totals	71.389	19358976				

File: data0038.dxd Sample A441380



Data File	: NET\DATA\05089801\data0039.dxd	Report Date	: 5/11/98 7:56:33 PM
Sample Name	: A441381	Collected	: 5/9/98 3:11:26 AM
Injection #	: 39	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

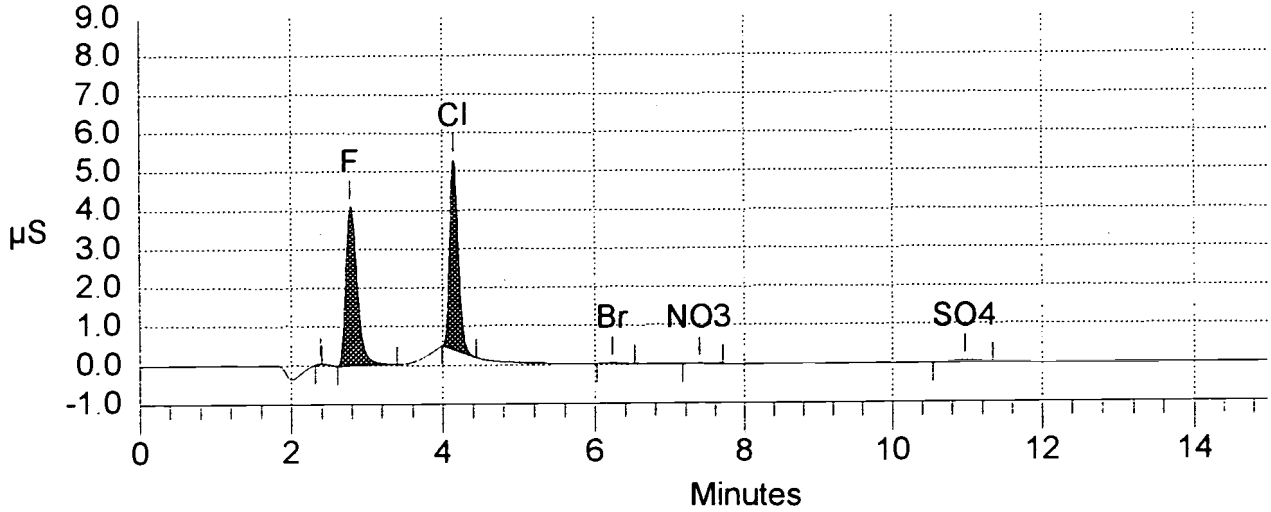
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.001	435913	2.79	0.36	1	5.71
3	Cl	1.311	374584	4.15	2.72	1	7.13
4	Br	0.015	3157	6.23	1.47	1	2.86
5	NO3	0.016	2701	7.39	4.67	1	6.72
6	SO4	0.024	9598	10.97	1.67	1	0.00
	Totals	2.367	825953				

File: data0039.dxd Sample A441381



34

Data File	: NET\DATA\05089801\data0040.dxd	Report Date	: 5/11/98 7:56:33 PM
Sample Name	: A441382	Collected	: 5/9/98 3:29:05 AM
Injection #	: 40	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

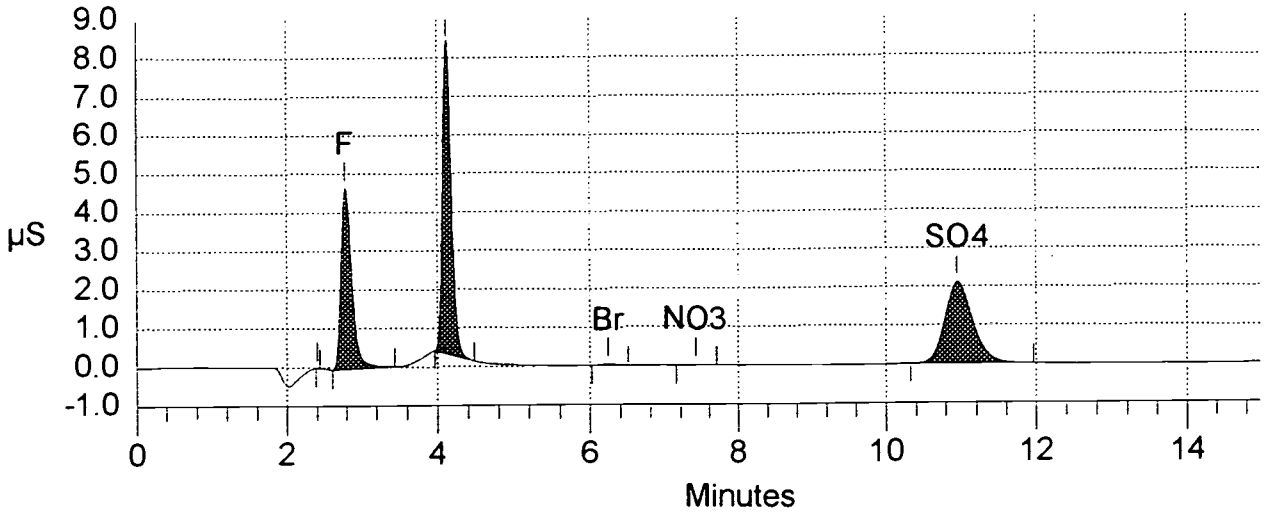
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.068	465666	2.79	0.36	1	5.72
3	Cl	2.132	635833	4.12	1.98	1	7.56
4	Br	0.028	4589	6.24	1.63	1	3.04
5	NO3	0.019	4334	7.41	4.96	1	6.51
6	SO4	2.616	544016	10.95	1.48	1	0.00
	Totals	5.862	1654438				

File: data0040.dxd Sample A441382



Data File	: NET\DATA\05089801\data0041.dxd	Report Date	: 5/11/98 7:56:34 PM
Sample Name	: CCV L	Collected	: 5/9/98 3:46:42 AM
Inject #	: 41	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

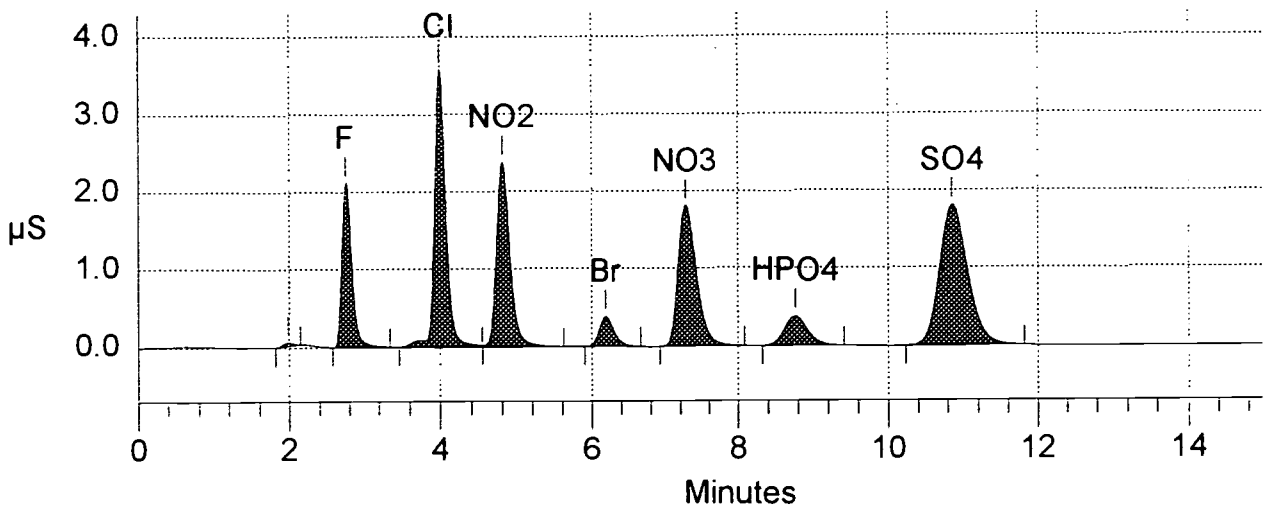
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.467	199292	2.75	-1.08	2	5.03
3	Cl	1.275	363192	3.99	-1.24	2	2.89
4	NO2	0.473	289436	4.81	-0.62	2	3.99
5	Br	0.475	55153	6.19	0.81	1	2.62
6	NO3	0.463	313741	7.28	3.12	1	2.87
7	HPO4	0.476	83612	8.76	0.00	1	3.32
8	SO4	2.267	471746	10.86	0.65	1	0.00
	Totals	5.897	1776172				

File: data0041.dxd Sample CCV L



36

Data File :	NET\DATA\05089801\data0042.dxd	Report Date:	5/11/98 7:56:35 PM
Sample Name:	CCV H	Collected :	5/9/98 4:04:18 AM
Inject # :	42	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

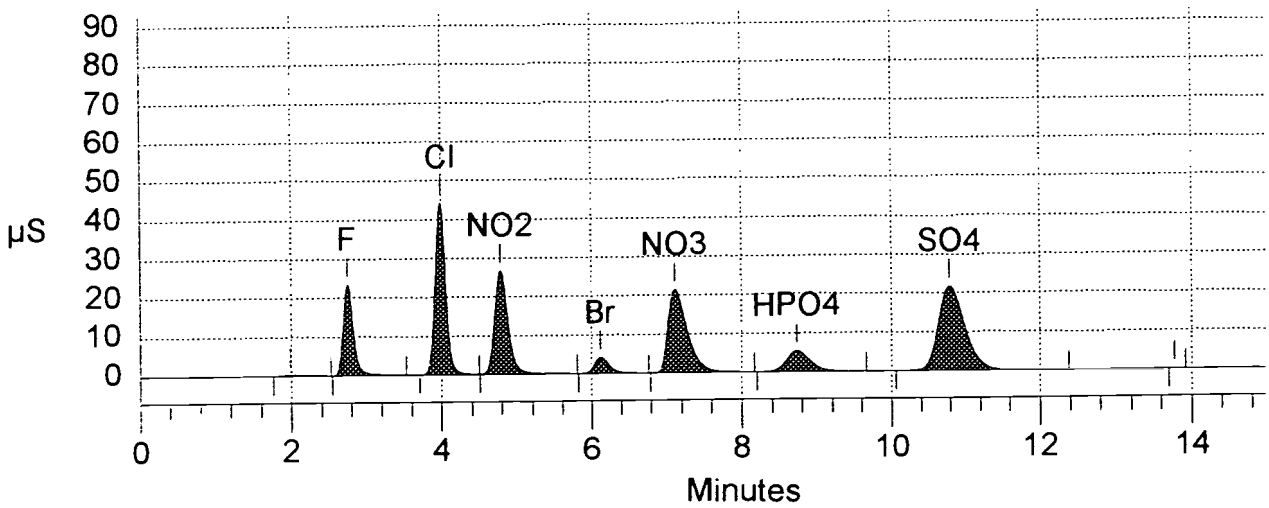
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	4.965	2241393	2.75	-1.08	2	5.15
3	Cl	12.610	4200518	3.99	-1.24	2	2.82
4	NO2	5.096	3280113	4.78	-1.24	2	3.88
5	Br	4.998	594178	6.12	-0.33	2	2.42
6	NO3	5.048	3787103	7.12	0.85	2	3.14
7	HPO4	5.037	1181796	8.73	0.00	2	3.38
8	SO4	24.745	5479133	10.79	0.00	1	7.62
	Totals	62.499	20764234				

File: data0042.dxd Sample CCV H



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Data File :	NET\DATA\05089801\data0043.dxd	Report Date:	5/11/98 7:56:36 PM
Sample Name:	BLA01	Collected :	5/9/98 4:21:57 AM
Injection # :	43	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

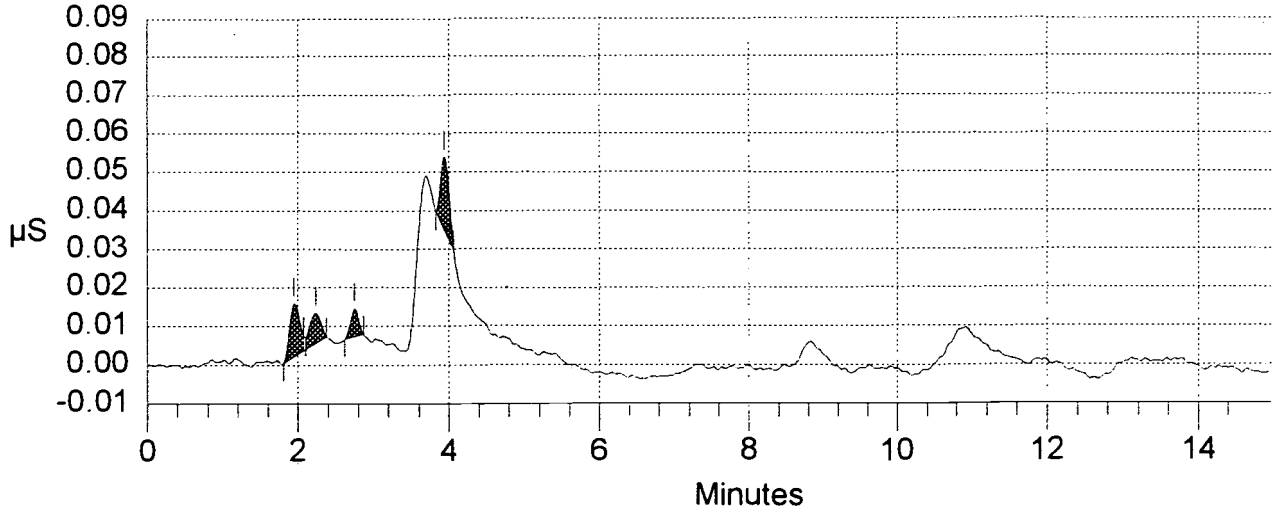
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
Totals		0.000	0				

File: data0043.dxd Sample BLA01



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File :	NET\DATA\05089801\data0044.dxd	Report Date:	5/11/98 7:56:36 PM
Sample Name:	A441383	Collected :	5/9/98 4:39:35 AM
Injection # :	44	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

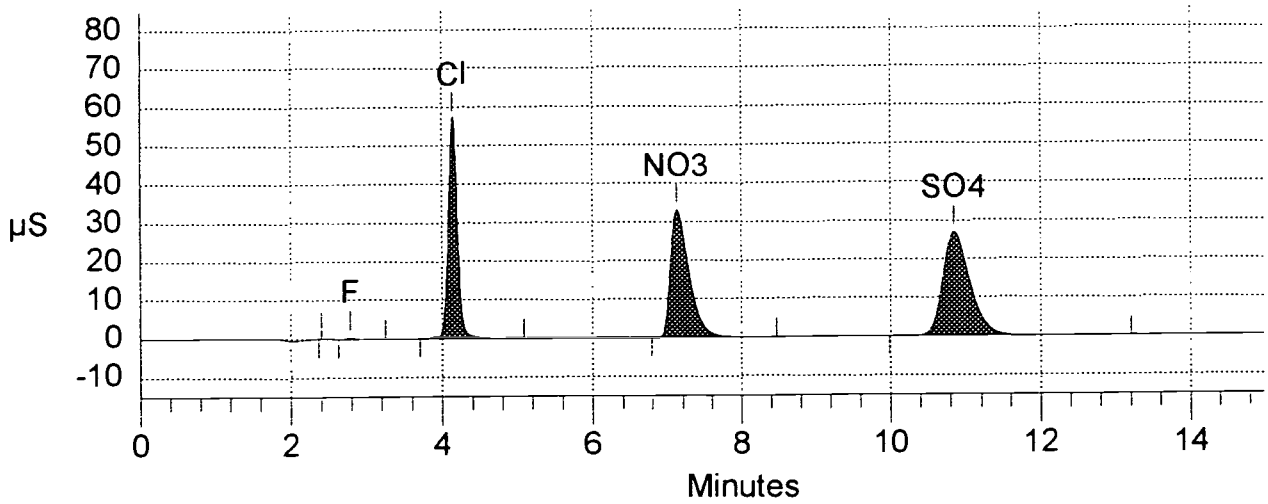
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.134	52415	2.79	0.36	1	5.74
3	Cl	13.864	4660398	4.14	2.48	1	9.10
4	NO3	7.319	5751963	7.13	0.99	1	6.80
5	SO4	29.893	6744524	10.85	0.56	1	0.00
	Totals	51.211	17209299				

File: data0044.dxd Sample A441383



Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:36 PM

Data File :	NET\DATA\05089801\data0045.dxd	Report Date:	5/11/98 7:56:37 PM
Sample Name:	SPI01 A441383	Collected :	5/9/98 4:57:14 AM
Injection # :	45	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

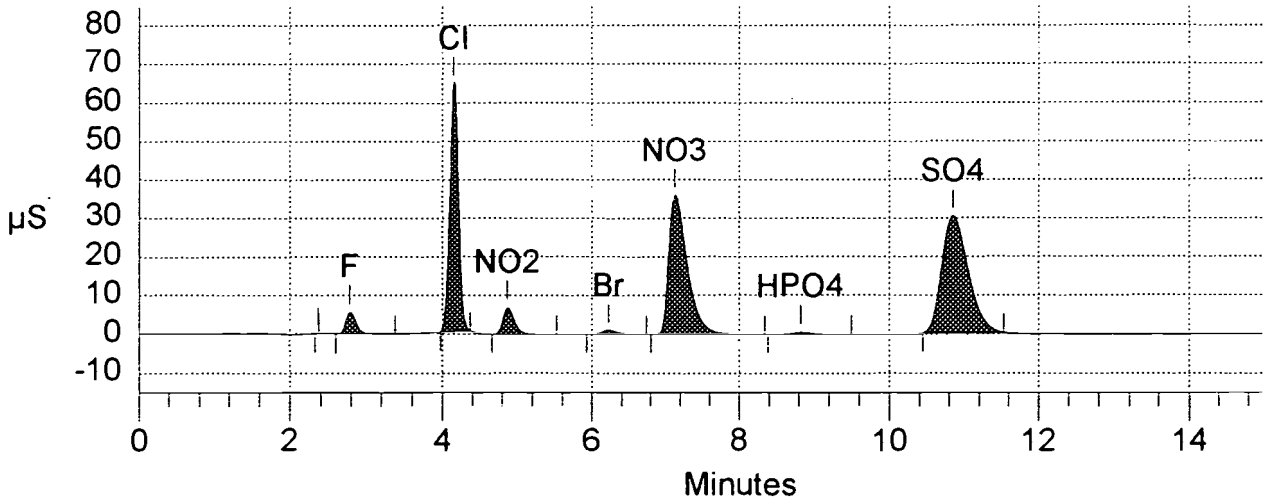
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.347	590161	2.79	0.36	1	5.65
3	Cl	15.233	5172040	4.15	2.72	1	2.89
4	NO2	1.205	750638	4.87	0.62	1	4.22
5	Br	1.264	145313	6.22	1.30	1	2.26
6	NO3	7.888	6278397	7.13	0.99	2	3.26
7	HPO4	0.763	147518	8.82	0.00	2	3.29
8	SO4	32.251	7342196	10.85	0.56	1	0.00
	Totals	59.952	20426263				

File: data0045.dxd Sample SPI01 A441383



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:37 PM

Data File	: NET\DATA\05089801\data0046.dxd	Report Date	: 5/11/98 7:56:38 PM
Sample Name	: DSP01 A441383	Collected	: 5/9/98 5:14:50 AM
Injection #	: 46	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

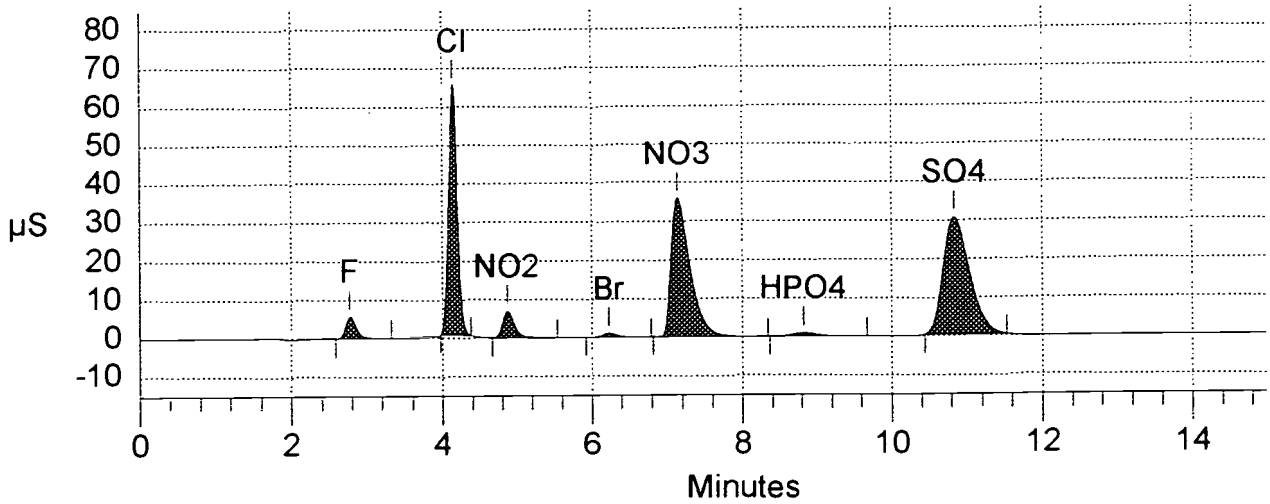
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	1.359	595271	2.77	-0.36	1	5.69
2	Cl	15.352	5217056	4.14	2.48	1	2.89
3	NO2	1.218	758460	4.87	0.62	1	4.21
4	Br	1.272	146279	6.23	1.47	1	2.25
5	NO3	7.919	6307948	7.14	1.13	2	3.21
6	HPO4	1.037	208873	8.82	0.00	2	3.26
7	SO4	32.271	7347377	10.84	0.46	1	0.00
	Totals	60.428	20581264				

File: data0046.dxd Sample DSP01 A441383



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File	: NET\DATA\05089801\data0047.dxd	Report Date	: 5/11/98 7:56:38 PM
Sample Name	: A441384	Collected	: 5/9/98 5:32:28 AM
Injection #	: 47	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

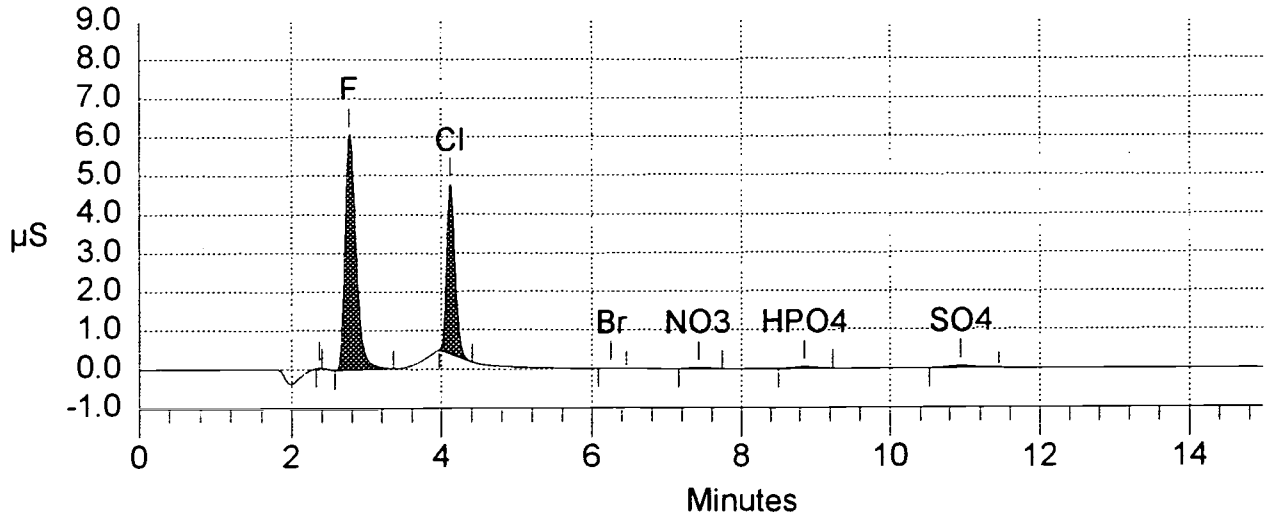
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.452	637047	2.77	-0.36	1	5.54
3	Cl	1.199	339137	4.12	1.98	1	7.79
4	Br	0.002	1710	6.26	1.95	1	3.03
5	NO3	0.019	4227	7.42	5.10	1	2.94
6	HPO4	0.135	8757	8.86	0.00	1	3.42
7	SO4	0.043	13524	10.95	1.48	1	0.00
	Totals	2.850	1004402				

File: data0047.dxd Sample A441384



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File	: NET\DATA\05089801\data0048.dxd	Report Date	: 5/11/98 7:56:39 PM
Sample Name	: A441385	Collected	: 5/9/98 5:50:07 AM
Injection #	: 48	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

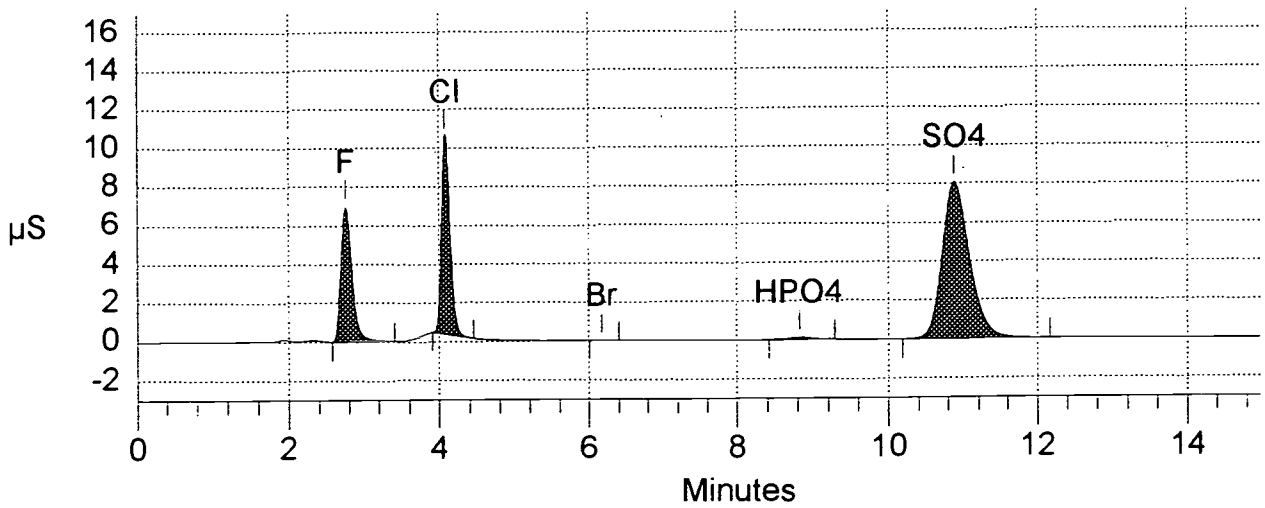
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	1.642	721751	2.76	-0.72	1	5.61
2	Cl	2.643	799685	4.08	0.99	1	7.93
3	Br	0.003	1769	6.17	0.49	1	5.92
4	HPO4	0.205	24043	8.82	0.00	1	3.38
5	SO4	9.647	2035443	10.89	0.93	1	0.00
	Totals	14.139	3582691				

File: data0048.dxd Sample A441385



Data File	: NET\DATA\05089801\data0049.dxd	Report Date	: 5/11/98 7:56:40 PM
Sample Name	: A441386	Collected	: 5/9/98 6:07:44 AM
Injection #	: 49	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

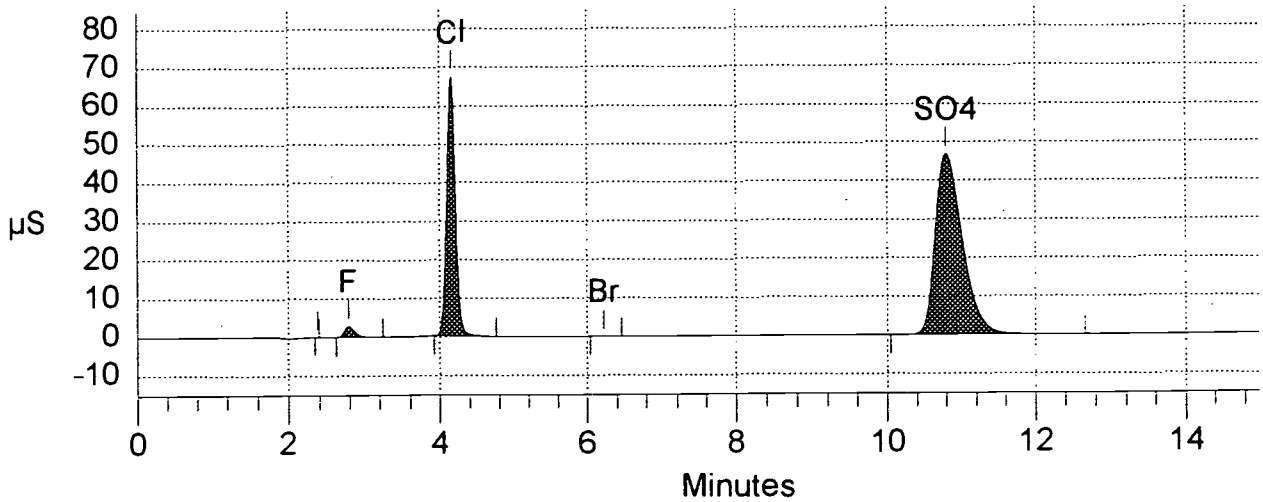
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.685	295785	2.78	0.00	1	5.66
3	Cl	15.866	5412213	4.16	2.97	1	7.42
4	Br	0.011	2734	6.22	1.30	1	9.13
5	SO4	48.811	11946970	10.80	0.09	1	0.00
	Totals	65.374	17657703				

File: data0049.dxd Sample A441386



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File	: NET\DATA\05089801\data0050.dxd	Report Date	: 5/11/98 7:56:40 PM
Sample Name	: A441387	Collected	: 5/9/98 6:25:21 AM
Project #	: 50	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

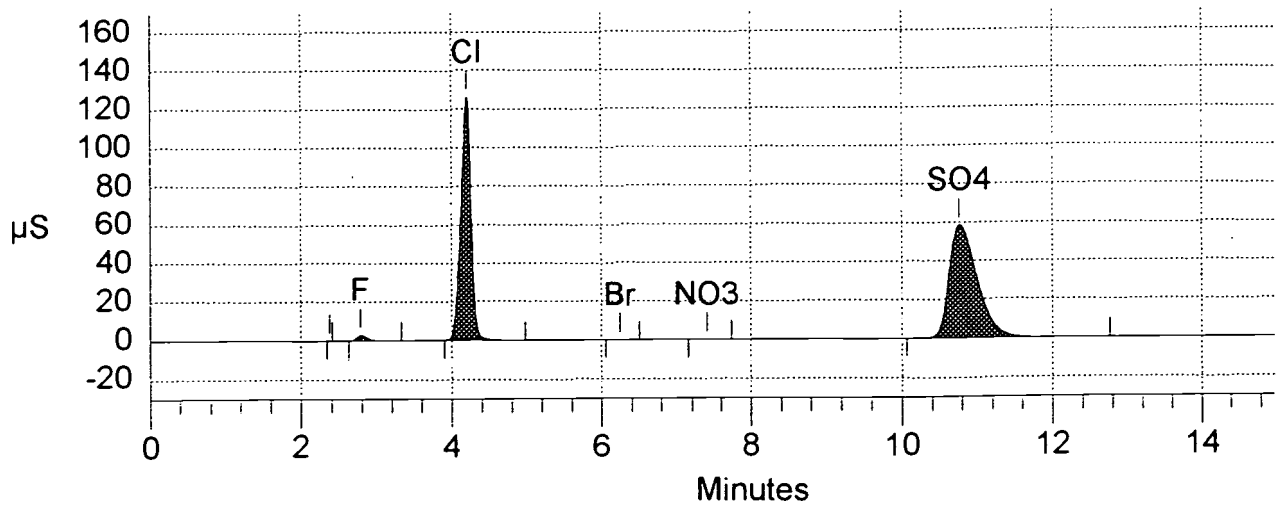
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.697	300901	2.79	0.36	1	5.57
3	Cl	30.798	11968111	4.21	4.21	1	6.99
4	Br	0.012	2837	6.25	1.79	1	2.97
5	NO3	0.023	7316	7.41	4.96	1	5.96
6	SO4	59.069	15294881	10.77	-0.19	1	0.00
	Totals	90.599	27574046				

File: data0050.dxd Sample A441387



Data File :	NET\DATA\05089801\data0051.dxd	Report Date:	5/11/98 7:56:41 PM
Sample Name:	A441388	Collected :	5/9/98 6:42:59 AM
Project # :	51	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

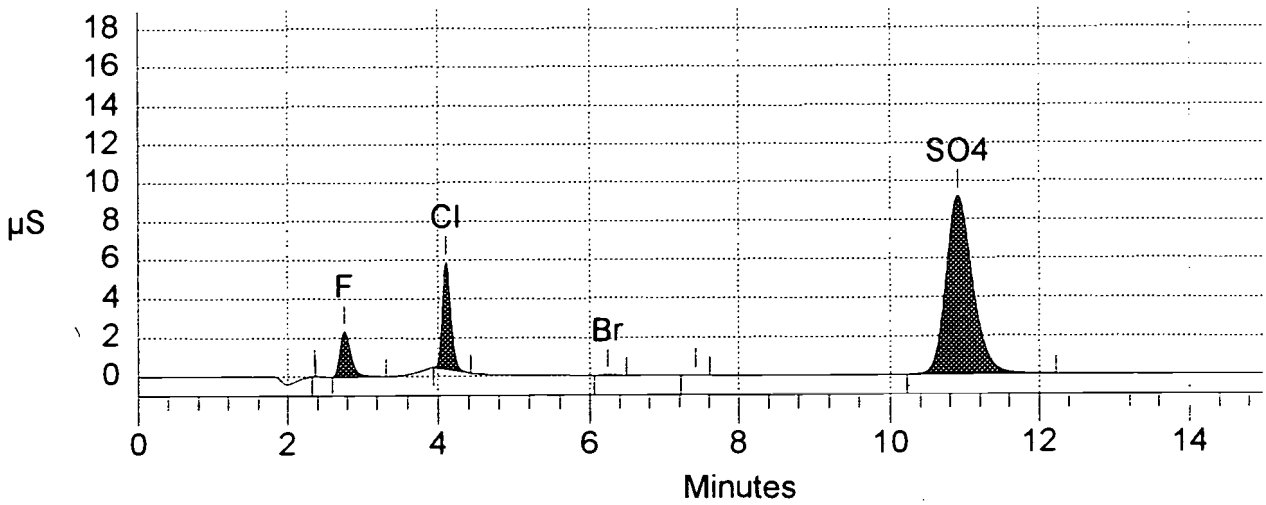
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.571	244982	2.77	-0.36	1	5.66
3	Cl	1.501	434736	4.10	1.49	1	7.95
4	Br	0.010	2542	6.24	1.63	1	3.28
6	SO4	10.894	2306752	10.91	1.11	1	0.00
	Totals	12.975	2989012				

File: data0051.dxd Sample A441388



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File :	NET\DATA\05089801\data0052.dxd	Report Date:	5/11/98 7:56:42 PM
Sample Name:	A441389	Collected :	5/9/98 7:00:39 AM
Injection # :	52	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

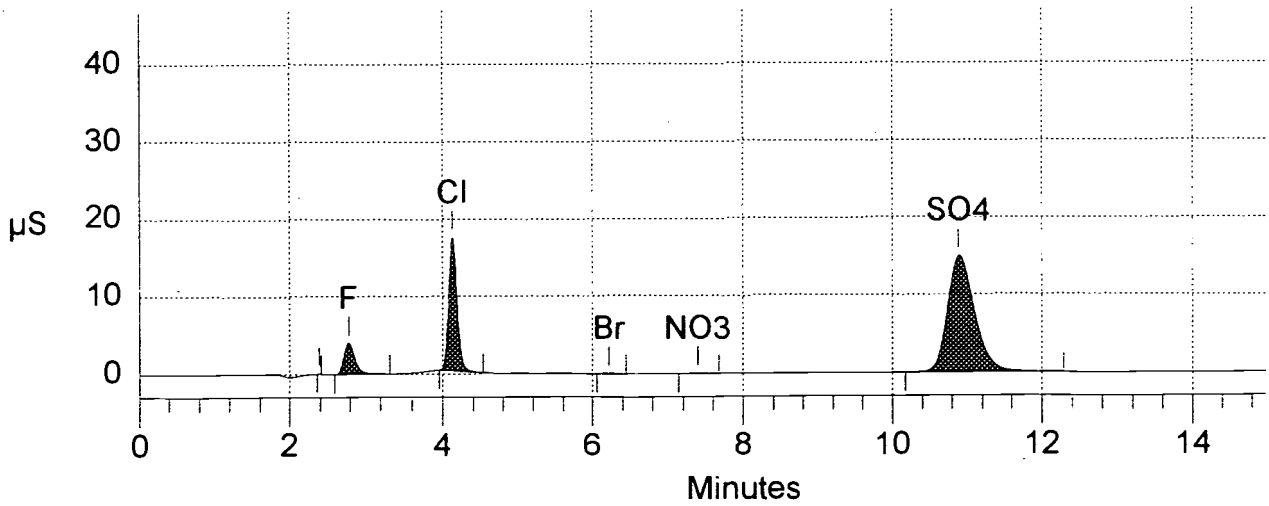
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.952	414076	2.78	0.00	1	5.81
3	Cl	4.206	1306543	4.13	2.23	1	8.02
4	Br	0.002	1698	6.22	1.30	1	3.16
5	NO3	0.018	4151	7.40	4.82	1	6.52
6	SO4	17.297	3735206	10.89	0.93	1	0.00
	Totals	22.475	5461673				

File: data0052.dxd Sample A441389



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Data File :	NET\DATA\05089801\data0053.dxd	Report Date:	5/11/98 7:56:42 PM
Sample Name:	A441390	Collected :	5/9/98 7:18:16 AM
Injection # :	53	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

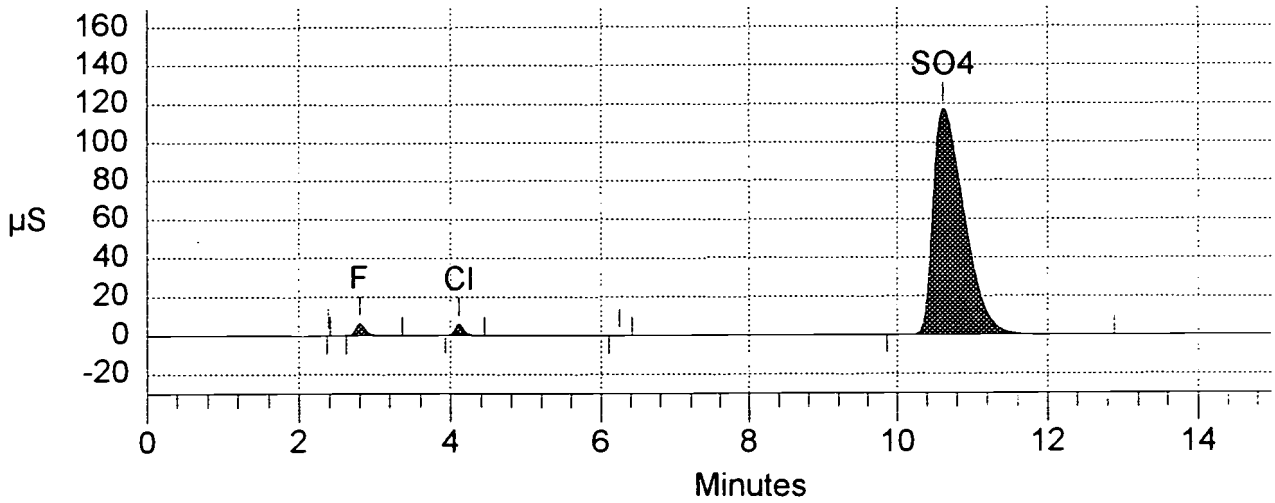
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.411	618490	2.80	0.72	1	5.64
3	Cl	1.592	463822	4.11	1.73	1	8.78
5	SO4	88.769	33966426	10.62	-1.58	1	0.00
	Totals	91.772	35048738				

File: data0053.dxd Sample A441390



Data File	: NET\DATA\05089801\data0054.dxd	Report Date	: 5/11/98 7:56:43 PM
Sample Name	: CCV L	Collected	: 5/9/98 7:35:53 AM
Inject #	: 54	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

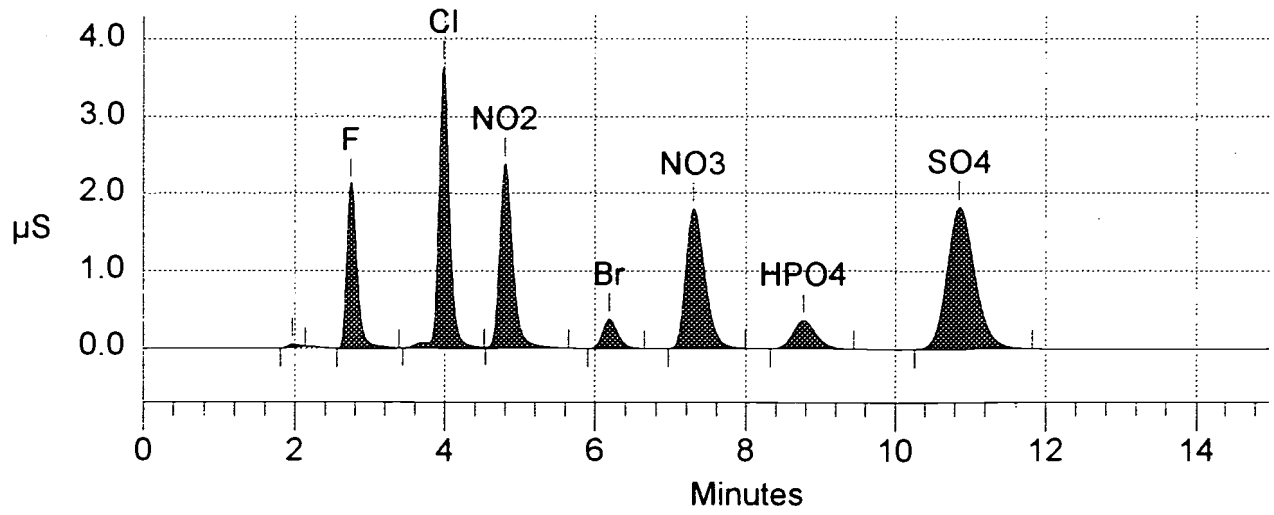
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.471	200846	2.74	-1.44	2	5.09
3	Cl	1.294	369034	3.98	-1.49	2	2.92
4	NO2	0.480	293891	4.80	-0.83	2	4.05
5	Br	0.462	53659	6.19	0.81	1	2.66
6	NO3	0.462	313585	7.29	3.26	1	2.85
7	HPO4	0.471	82667	8.76	0.00	1	3.34
8	SO4	2.292	476854	10.86	0.65	1	0.00
	Totals	5.933	1790536				

File: data0054.dxd Sample CCV L



Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File	: NET\DATA\05089801\data0055.dxd	Report Date	: 5/11/98 7:56:44 PM
Sample Name	: CCV H	Collected	: 5/9/98 7:53:32 AM
Project #	: 55	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

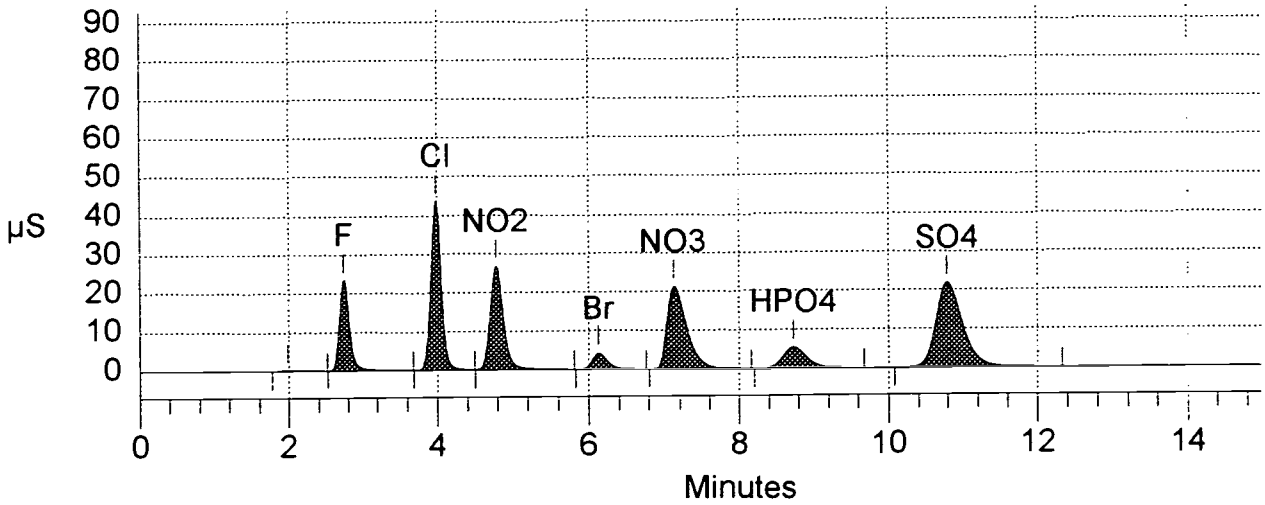
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	5.007	2261140	2.74	-1.44	2	5.03
3	Cl	12.616	4202868	3.98	-1.49	2	2.82
4	NO2	5.129	3302317	4.78	-1.24	2	3.91
5	Br	5.002	594653	6.13	-0.16	2	2.40
6	NO3	5.067	3802852	7.13	0.99	2	3.09
7	HPO4	5.063	1188590	8.73	0.00	2	3.35
8	SO4	24.784	5488534	10.79	0.00	1	0.00
	Totals	62.669	20840955				

File: data0055.dxd Sample CCV H



Data File :	NET\DATA\05089801\data0056.dxd	Report Date:	5/11/98 7:56:45 PM
Sample Name:	BLA01	Collected :	5/9/98 8:11:10 AM
Project # :	56	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

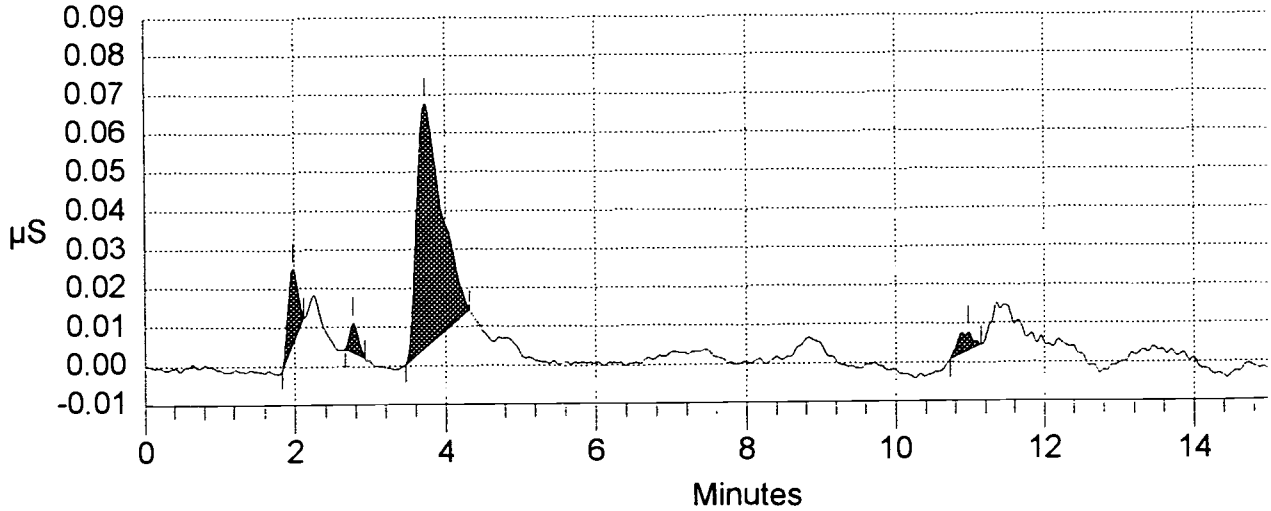
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
Totals		0.000	0				

File: data0056.dxd Sample BLA01



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Data File :	NET\DATA\05089801\data0057.dxd	Report Date:	5/11/98 7:56:45 PM
Sample Name:	A441396	Collected :	5/9/98 8:28:47 AM
Project # :	57	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

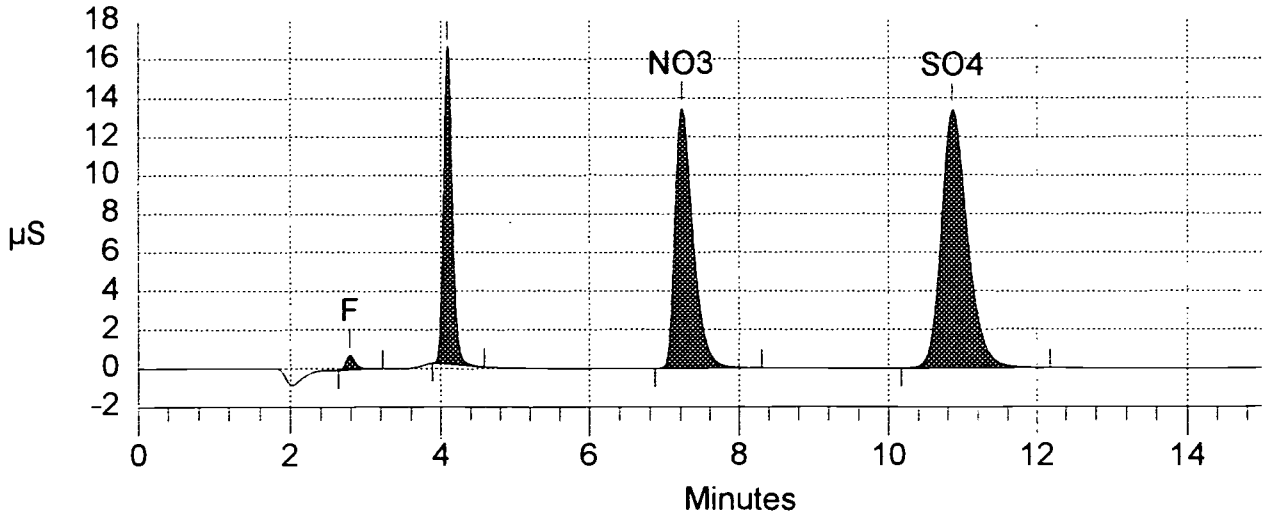
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	0.178	71519	2.79	0.36	1	5.81
2	Cl	4.265	1325956	4.09	1.24	1	9.61
3	NO3	3.143	2275918	7.22	2.27	1	6.66
4	SO4	15.560	3341711	10.86	0.65	1	0.00
	Totals	23.146	7015104				

File: data0057.dxd Sample A441396



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:45 PM

Data File :	NET\DATA\05089801\data0058.dxd	Report Date:	5/11/98 7:56:46 PM
Sample Name:	SPI01 A441396	Collected :	5/9/98 8:46:24 AM
Injection # :	58	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

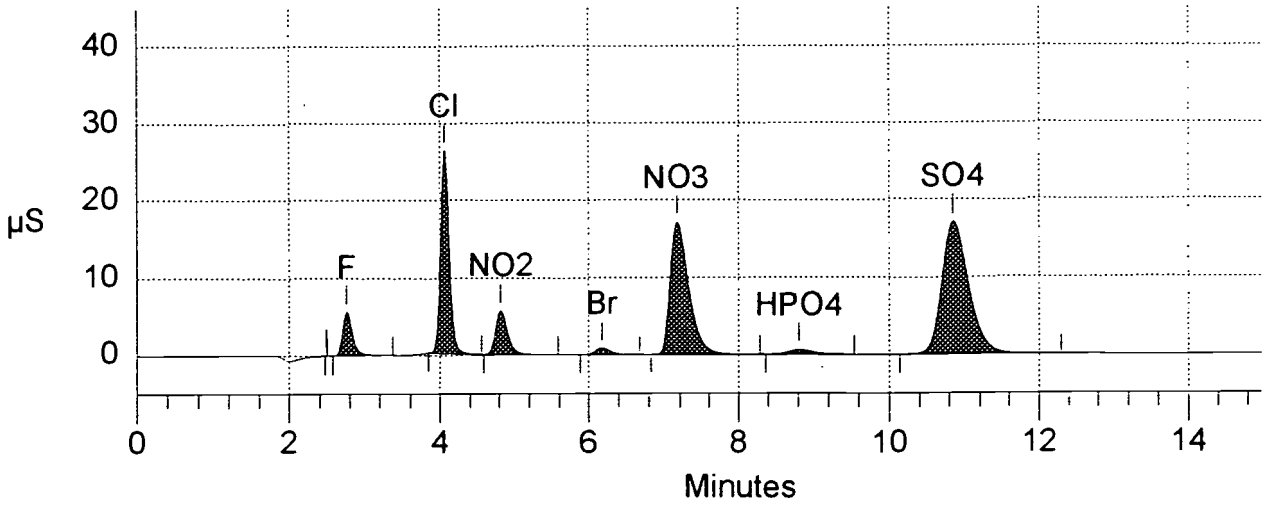
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.202	525127	2.76	-0.72	1	5.81
3	Cl	6.663	2122037	4.06	0.50	1	3.05
4	NO2	1.030	639818	4.82	-0.41	1	4.17
5	Br	1.078	123956	6.18	0.65	1	2.44
6	NO3	4.002	2944133	7.17	1.56	2	3.16
7	HPO4	0.724	138674	8.81	0.00	2	3.32
8	SO4	19.521	4246160	10.85	0.56	1	0.00
	Totals	34.221	10739905				

File: data0058.dxd Sample SPI01 A441396



Data File	: NET\DATA\05089801\data0059.dxd	Report Date	: 5/11/98 7:56:47 PM
Sample Name	: DSP01 A441396	Collected	: 5/9/98 9:04:03 AM
Injection #	: 59	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

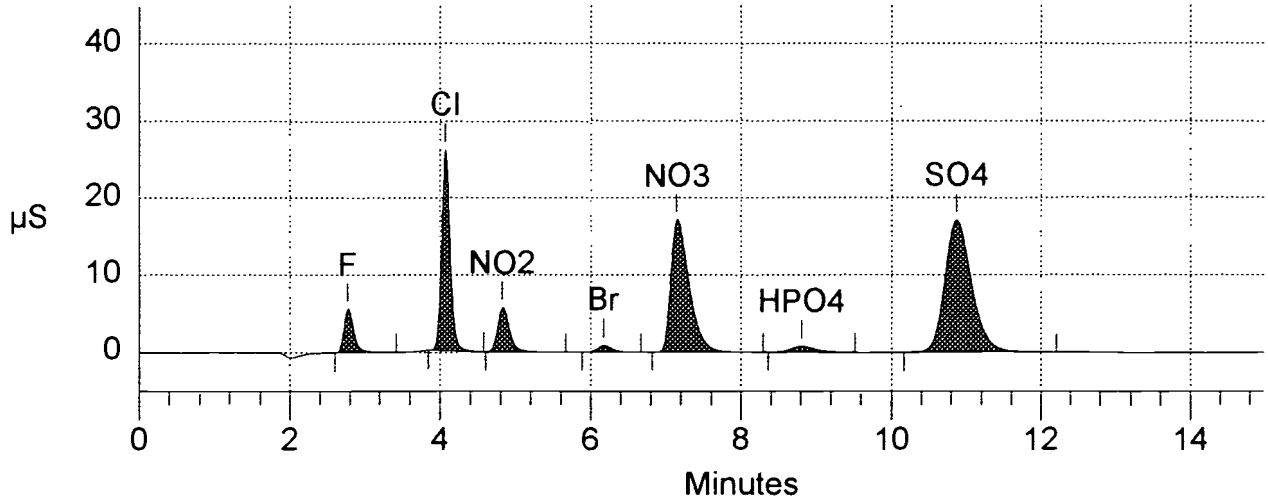
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	1.199	523805	2.77	-0.36	1	5.81
2	Cl	6.595	2099160	4.07	0.74	1	3.01
3	NO2	1.019	632837	4.82	-0.41	1	4.18
4	Br	1.068	122814	6.17	0.49	1	2.45
5	NO3	3.982	2928256	7.15	1.27	2	3.20
6	HPO4	0.888	175496	8.81	0.00	2	3.32
7	SO4	19.521	4246127	10.87	0.74	1	0.00
	Totals	34.273	10728495				

File: data0059.dxd Sample DSP01 A441396



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:47 PM

Data File :	NET\DATA\05089801\data0060.dxd	Report Date:	5/11/98 7:56:47 PM
Sample Name:	A441397	Collected :	5/9/98 9:21:41 AM
Project # :	60	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/11/98 1:13:44 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

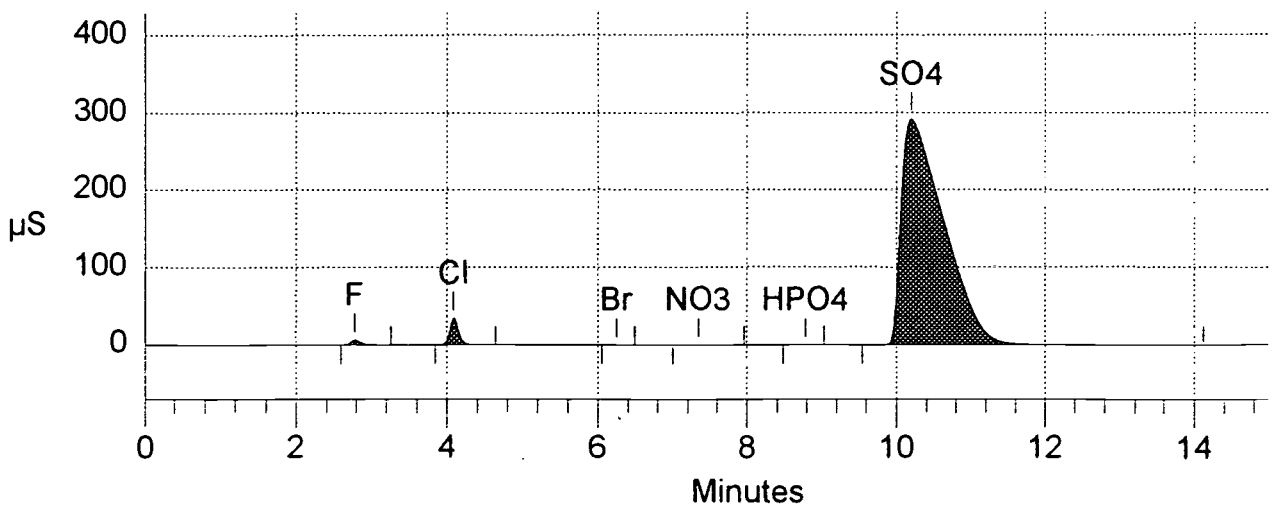
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	1.484	651416	2.78	0.00	1	5.64
2	Cl	8.595	2780020	4.09	1.24	1	7.62
3	Br	0.019	3620	6.25	1.79	1	2.73
4	NO3	0.224	147144	7.35	4.11	1	3.04
5	HPO4	0.109	2977	8.78	0.00	1	1.82
6	SO4	-321.977	114904463	10.20	-2.76	1	0.00
	Totals	-311.545	118489642				

File: data0060.dxd Sample A441397



Schedule: \PEAKNET\SCHEDULE\05089802.SCH

Data File :	NET\DATA\05089801\data0061.dxd	Report Date:	5/11/98 7:56:48 PM
Sample Name:	A441398	Collected :	5/9/98 9:39:18 AM
Injection # :	61	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

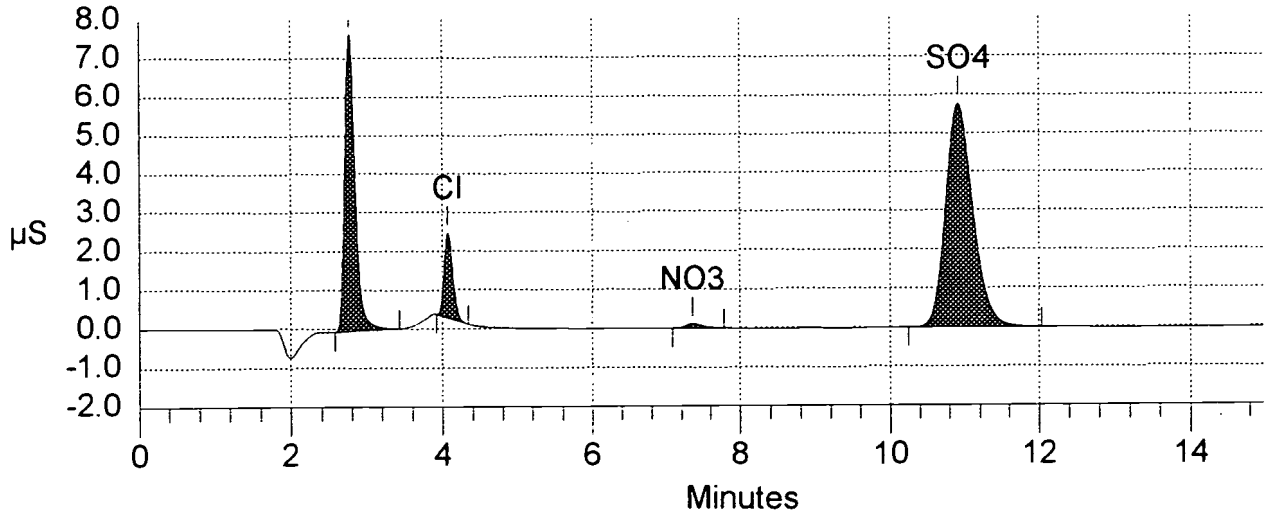
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	1.664	731998	2.77	-0.36	1	5.66
2	Cl	0.678	174630	4.07	0.74	1	10.10
3	NO3	0.041	20061	7.36	4.25	1	6.54
4	SO4	6.931	1451892	10.92	1.20	1	0.00
	Totals	9.315	2378581				

File: data0061.dxd Sample A441398



Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:48 PM

Data File :	NET\DATA\05089801\data0062.dxd	Report Date:	5/11/98 7:56:49 PM
Sample Name:	A441399	Collected :	5/9/98 9:56:55 AM
Injection # :	62	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

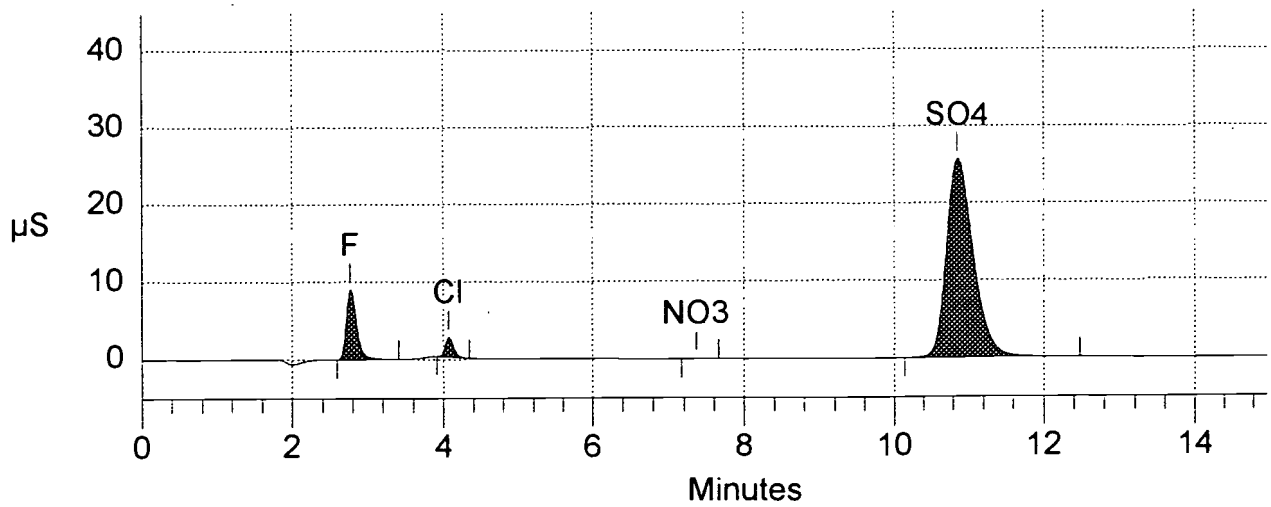
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	1.949	859823	2.77	-0.36	1	5.74
2	Cl	0.762	201129	4.07	0.74	1	10.78
3	NO3	0.016	2178	7.37	4.39	1	6.66
4	SO4	28.363	6362919	10.86	0.65	1	0.00
	Totals	31.090	7426048				

File: data0062.dxd Sample A441399



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File :	NET\DATA\05089801\data0063.dxd	Report Date:	5/11/98 7:56:49 PM
Sample Name:	A441400	Collected :	5/9/98 10:14:34 AM
Project # :	63	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

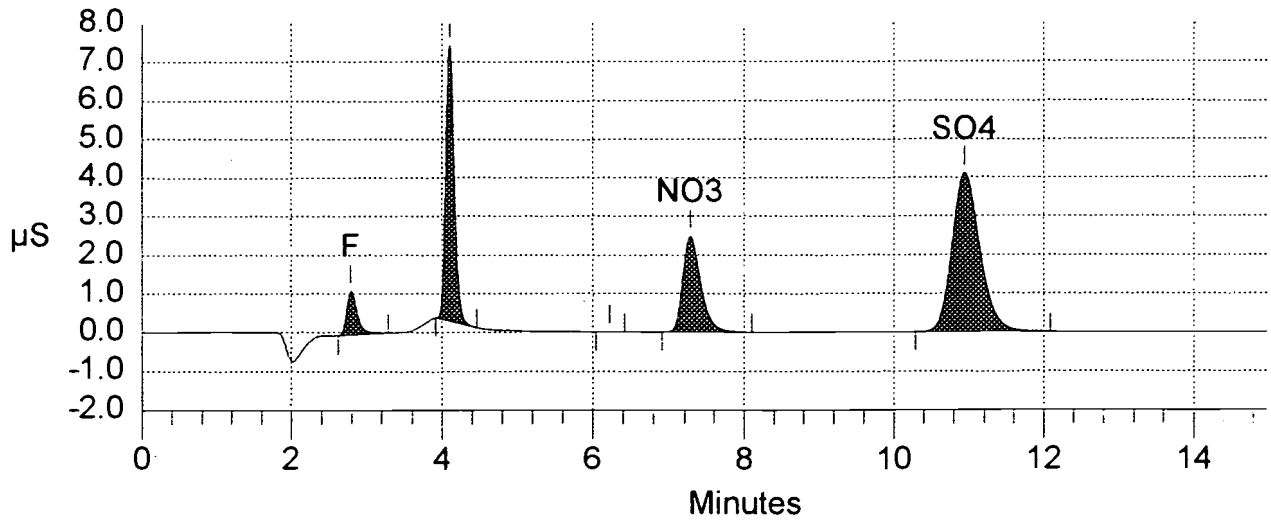
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	0.268	111353	2.79	0.36	1	5.71
2	Cl	1.910	565095	4.10	1.49	1	8.13
4	NO3	0.608	416162	7.28	3.12	1	6.62
5	SO4	5.054	1054060	10.94	1.39	1	0.00
	Totals	7.840	2146670				

File: data0063.dxd Sample A441400



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File :	NET\DATA\05089801\data0064.dxd	Report Date:	5/11/98 7:56:50 PM
Sample Name:	A441401	Collected :	5/9/98 10:32:11 AM
Injection # :	64	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

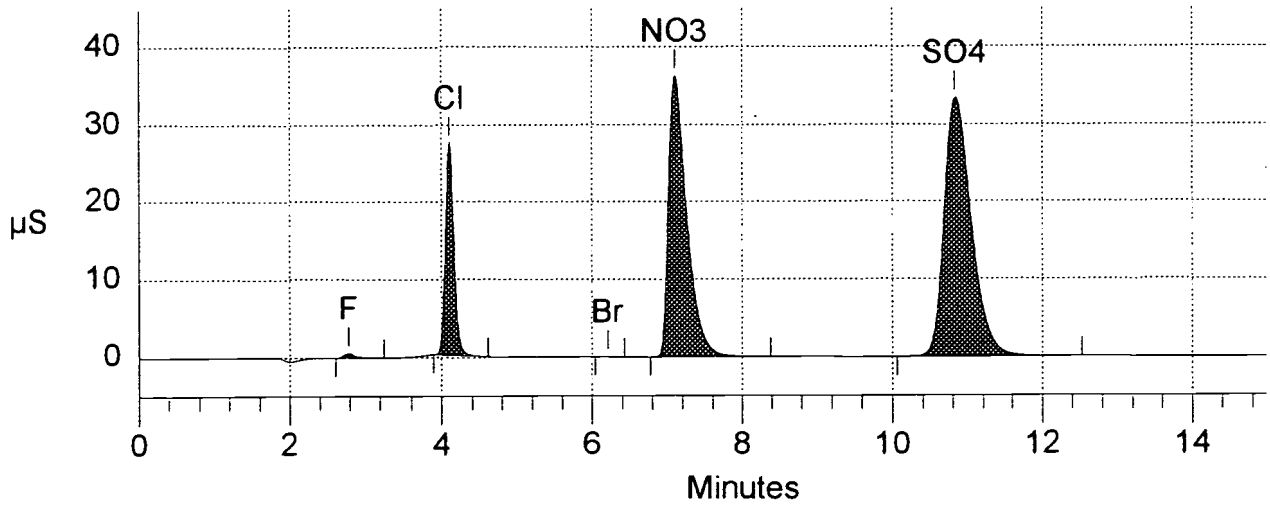
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	0.156	61973	2.78	0.00	1	5.61
2	Cl	6.779	2160999	4.10	1.49	1	7.72
3	Br	0.001	1582	6.20	0.98	1	2.30
4	NO3	7.874	6265645	7.10	0.57	1	6.79
5	SO4	36.090	8342630	10.83	0.37	1	0.00
	Totals	50.901	16832828				

File: data0064.dxd Sample A441401



Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File :	NET\DATA\05089801\data0065.dxd	Report Date:	5/11/98 7:56:51 PM
Sample Name:	A441402	Collected :	5/9/98 10:49:49 AM
Project # :	65	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

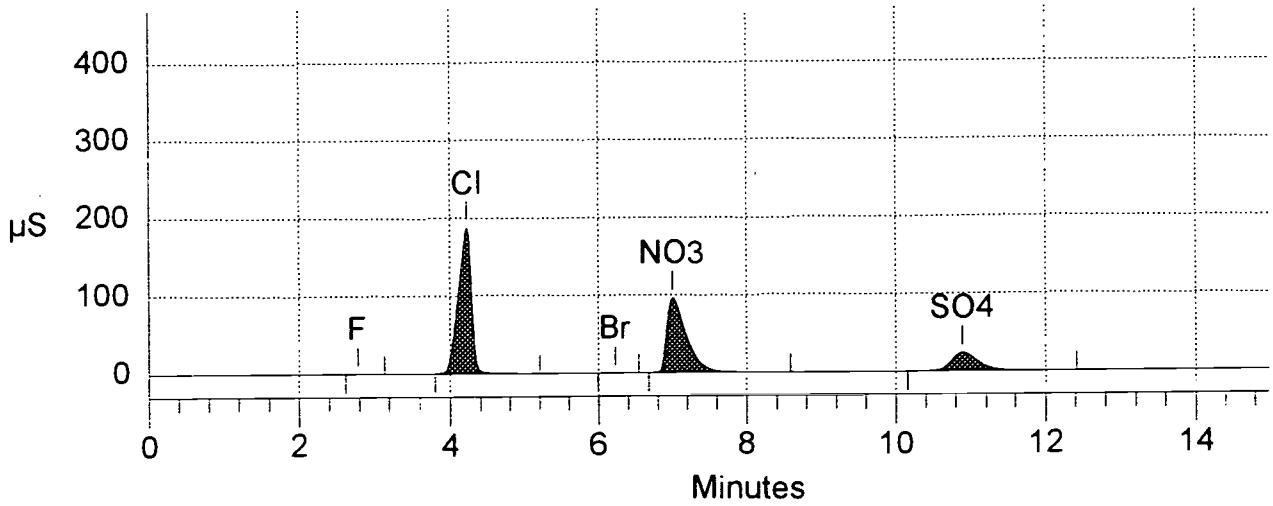
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	0.111	42117	2.78	0.00	1	4.89
2	Cl	45.312	22523982	4.22	4.46	1	5.93
3	Br	0.112	14074	6.22	1.30	1	1.86
4	NO3	16.305	18278968	7.00	-0.85	1	6.83
5	SO4	26.465	5896213	10.89	0.93	1	0.00
	Totals	88.305	46755354				

File: data0065.dxd Sample A441402



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File	: NET\DATA\05089801\data0066.dxd	Report Date	: 5/11/98 7:56:52 PM
Sample Name	: A441403	Collected	: 5/9/98 11:07:26 AM
Injection #	: 66	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/5/98 3:07:19 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

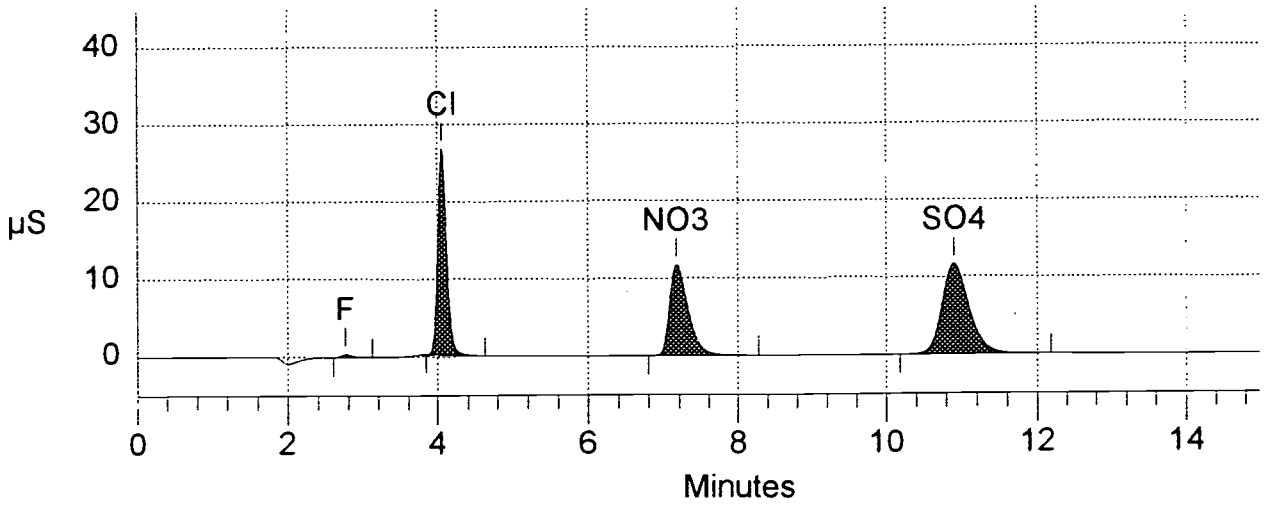
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	0.101	37914	2.76	-0.72	1	5.81
2	Cl	6.736	2146526	4.06	0.50	1	9.54
3	NO3	2.767	1990086	7.17	1.56	1	6.86
4	SO4	13.565	2895276	10.90	1.02	1	0.00
	Totals	23.169	7069803				

File: data0066.dxd Sample A441403



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
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Data File :	NET\DATA\05089801\data0067.dxd	Report Date:	5/11/98 7:56:52 PM
Sample Name:	CCV L	Collected :	5/9/98 11:25:04 AM
Injection # :	67	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

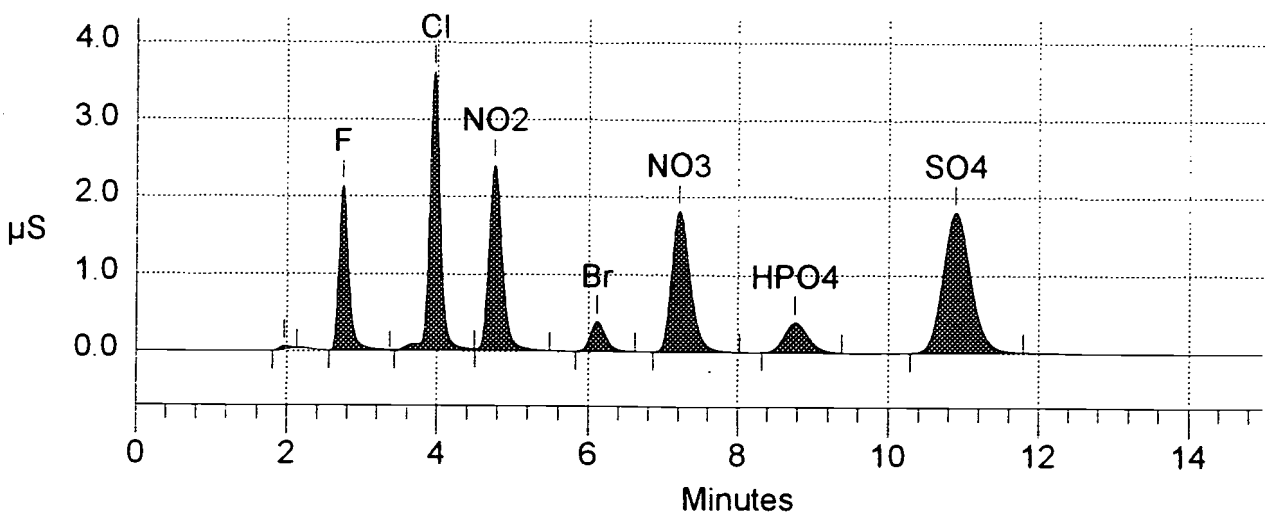
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.462	196904	2.74	-1.44	2	5.07
3	Cl	1.260	358459	3.96	-1.98	2	2.88
4	NO2	0.467	285388	4.76	-1.65	2	3.97
5	Br	0.471	54649	6.11	-0.49	1	2.63
6	NO3	0.467	316672	7.20	1.98	1	3.03
7	HPO4	0.490	86772	8.77	0.00	1	3.37
8	SO4	2.247	467467	10.89	0.93	1	0.00
	Totals	5.863	1766310				

File: data0067.dxd Sample CCV L



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Data File :	NET\DATA\05089801\data0068.dxd	Report Date:	5/11/98 7:56:53 PM
Sample Name:	CCV H	Collected :	5/9/98 11:42:41 AM
Injection # :	68	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

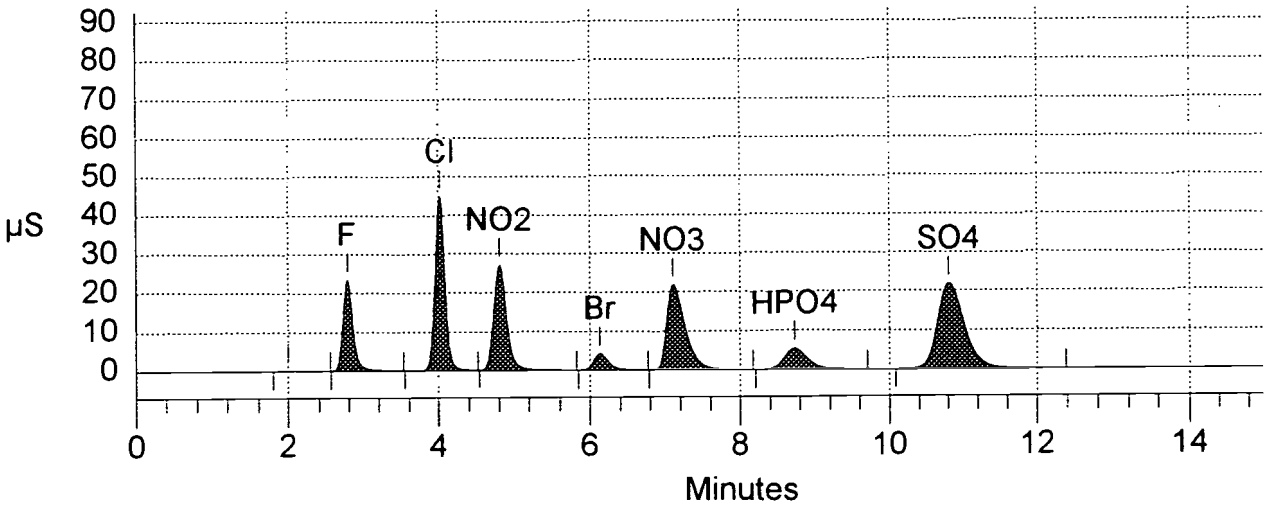
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	4.995	2255526	2.78	0.00	2	5.09
3	Cl	12.632	4208745	4.02	-0.50	2	2.85
4	NO2	5.085	3272939	4.81	-0.62	2	3.91
5	Br	4.959	589169	6.13	-0.16	2	2.39
6	NO3	5.030	3771652	7.10	0.57	2	3.20
7	HPO4	5.031	1180172	8.73	0.00	2	3.38
8	SO4	24.952	5529164	10.81	0.19	1	0.00
	Totals	62.684	20807366				

File: data0068.dxd Sample CCV H



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Schedule: \PEAKNET\SCHEDULE\05089802.SCH
Release 4.30 Page 1 of 1 5/11/98 7:56:53 PM

Data File :	NET\DATA\05089801\data0069.dxd	Report Date:	5/11/98 7:56:54 PM
Sample Name:	BLA01	Collected :	5/9/98 12:00:20 PM
Inject # :	69	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

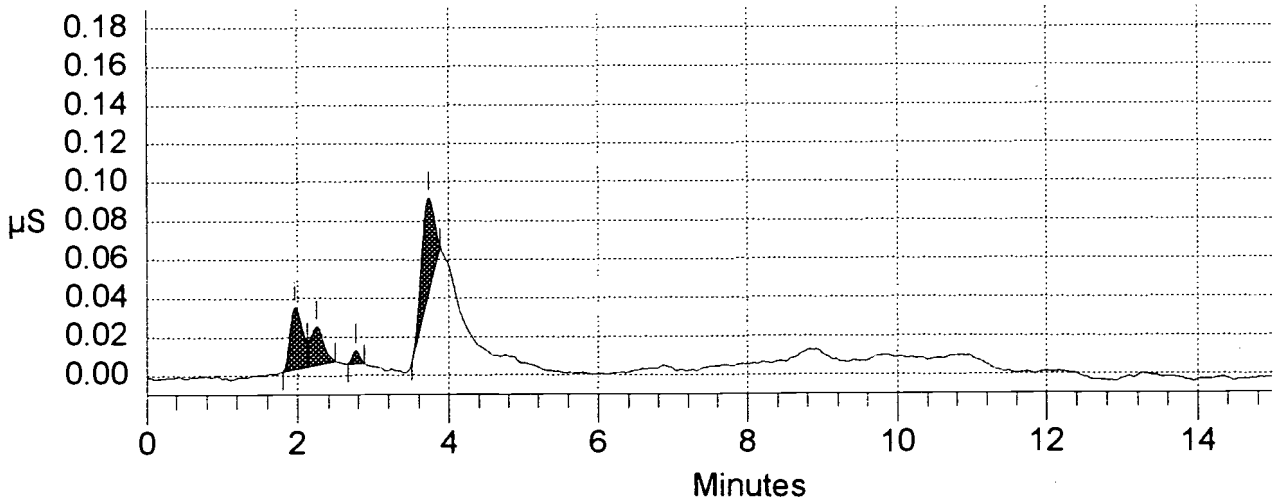
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
Totals		0.000	0				

File: data0069.dxd Sample BLA01



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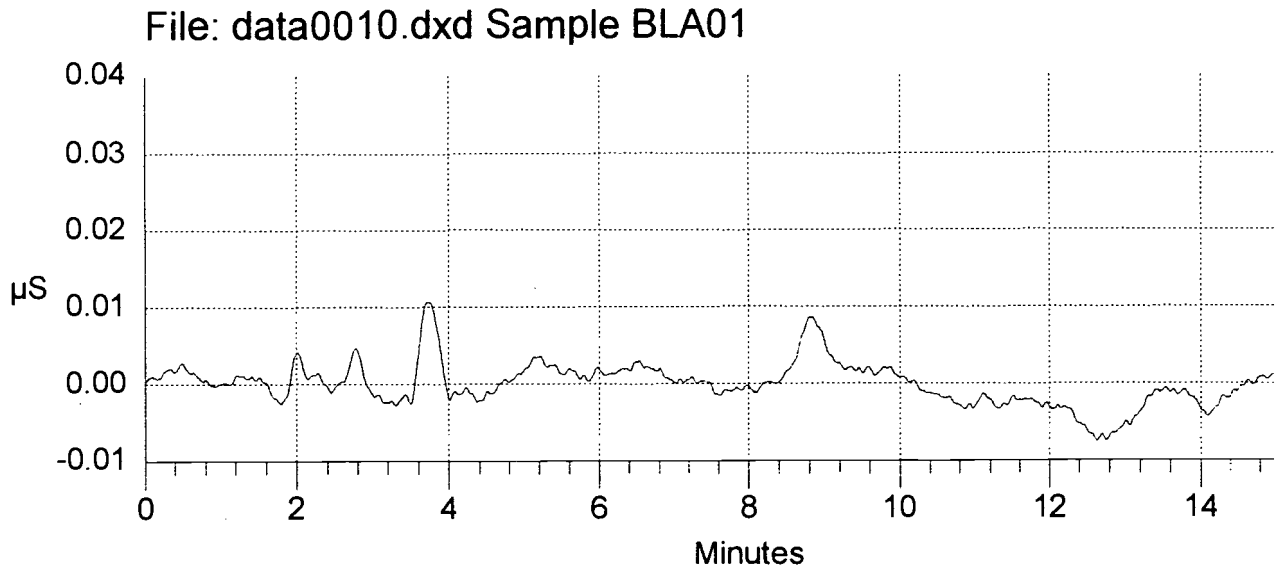
```
==============================================================================
Data File   : NET\DATA\05119801\data0010.dxd Report Date: 5/13/98 2:24:23 PM
Sample Name: BLA01                            Collected  : 5/11/98 10:45:51 PM
Inject #    : 10                              Vial #     :
Method File: c:\peaknet\method\as14_an1.met Calibrated : 5/11/98 10:28:08 PM
System Name: DX-500                           Detector   : CD20
Column Type: AS9-SC (4 x 250 mm)              Operator   : MAA-4317
Data Points: 4500                             Rate       : 5.00  Hz
Module Name:                        ID:24 04 47 Moduleware : 2.10
==============================================================================
```

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
Totals		0.000	0				



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Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:23 PM

Data File	: NET\DATA\05119801\data0011.dxd	Report Date	: 5/13/98 2:24:24 PM
Sample Name	: CCV L	Collected	: 5/11/98 11:03:29 PM
Injection #	: 11	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/11/98 10:28:08 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

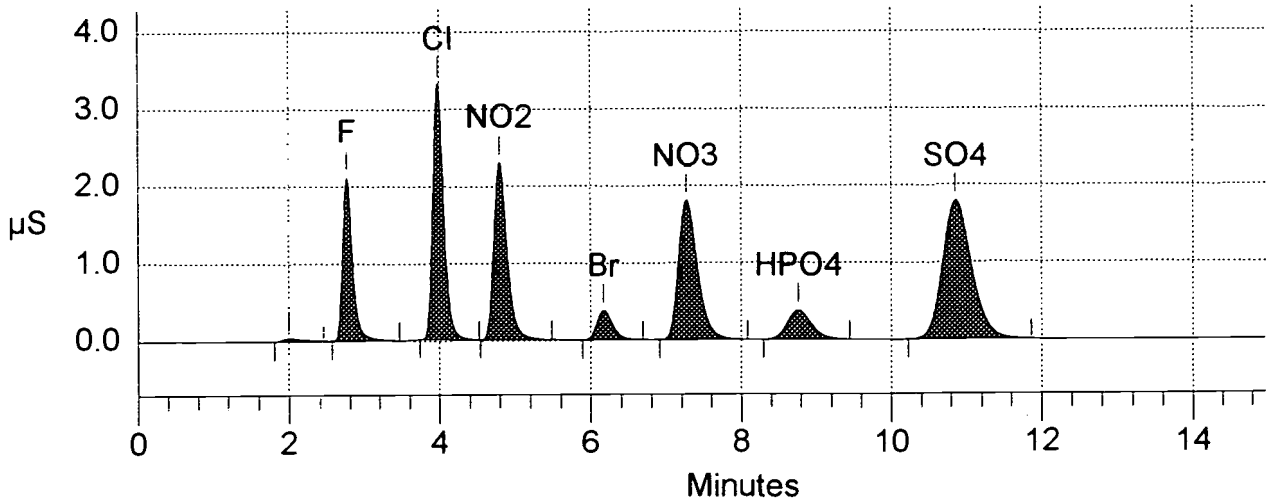
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.473	200213	2.76	-0.72	2	4.84
3	Cl	1.198	334275	3.98	-1.00	1	2.81
4	NO2	0.454	281529	4.80	-0.41	1	3.93
5	Br	0.465	54439	6.17	0.98	1	2.60
6	NO3	0.465	316655	7.26	3.27	1	2.85
7	HPO4	0.452	85745	8.76	0.00	1	3.27
8	SO4	2.352	478584	10.86	1.78	1	0.00
	Totals	5.858	1751440				

File: data0011.dxd Sample CCV L



Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:24 PM

Data File :	NET\DATA\05119801\data0012.dxd	Report Date:	5/13/98 2:24:25 PM
Sample Name:	CCV H	Collected :	5/11/98 11:21:08 PM
Injection # :	12	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/11/98 10:28:08 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

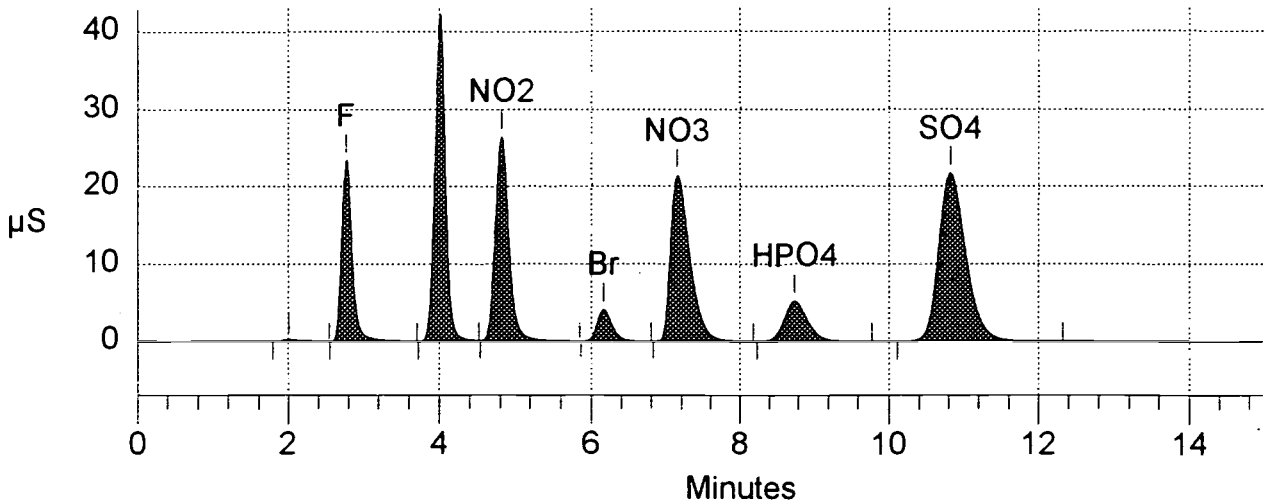
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	5.085	2280043	2.77	-0.36	2	4.86
3	Cl	12.848	4221105	4.01	-0.25	2	2.80
4	NO2	5.134	3321002	4.82	0.00	2	3.88
5	Br	5.050	596664	6.16	0.82	2	2.38
6	NO3	5.097	3806517	7.15	1.71	2	3.07
7	HPO4	4.977	1174409	8.75	0.00	2	3.31
8	SO4	25.437	5571266	10.82	1.41	1	0.00
	Totals	63.629	20971006				

File: data0012.dxd Sample CCV H



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Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:25 PM

Data File :	NET\DATA\05119801\data0014.dxd	Report Date:	5/13/98 2:24:26 PM
Sample Name:	LFB01 SPI	Collected :	5/11/98 11:56:24 PM
Injection # :	14	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/11/98 10:28:08 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

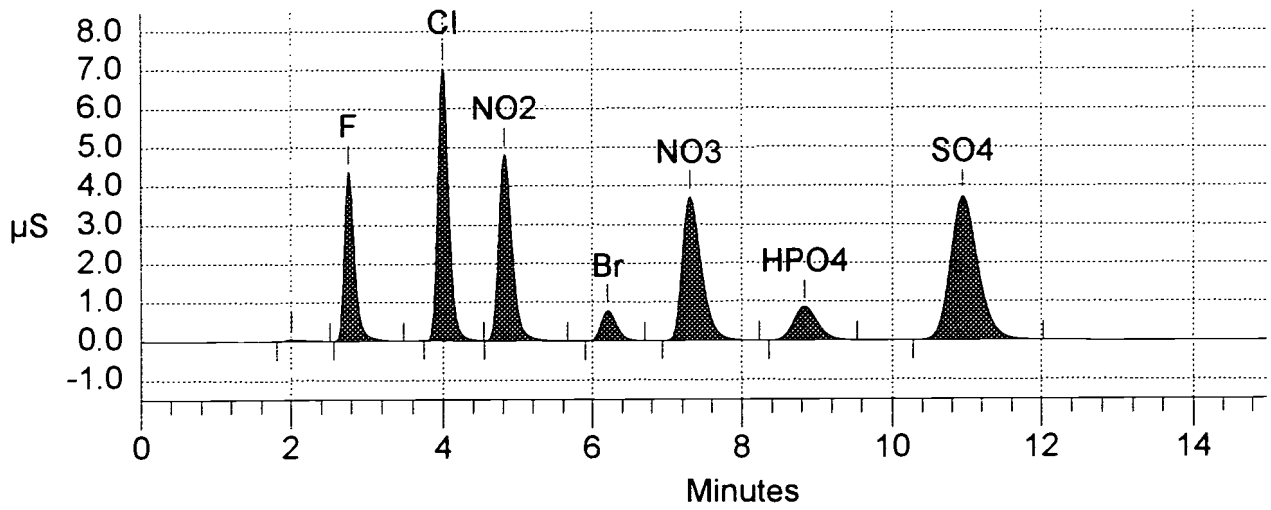
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.952	410161	2.77	-0.36	2	4.93
3	Cl	2.379	702246	4.00	-0.50	2	2.84
4	NO2	0.955	596660	4.82	0.00	2	3.92
5	Br	0.976	112642	6.21	1.64	1	2.57
6	NO3	0.959	663490	7.31	3.98	1	2.87
7	HPO4	0.947	197392	8.84	0.00	1	3.30
8	SO4	4.742	970260	10.95	2.62	1	0.00
	Totals	11.910	3652852				

File: data0014.dxd Sample LFB01 SPI



Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:26 PM

Data File	: NET\DATA\05119801\data0017.dxd	Report Date	: 5/13/98 2:24:27 PM
Sample Name	: A441380 1:5	Collected	: 5/12/98 12:49:18 AM
Project #	: 17	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/11/98 10:28:08 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

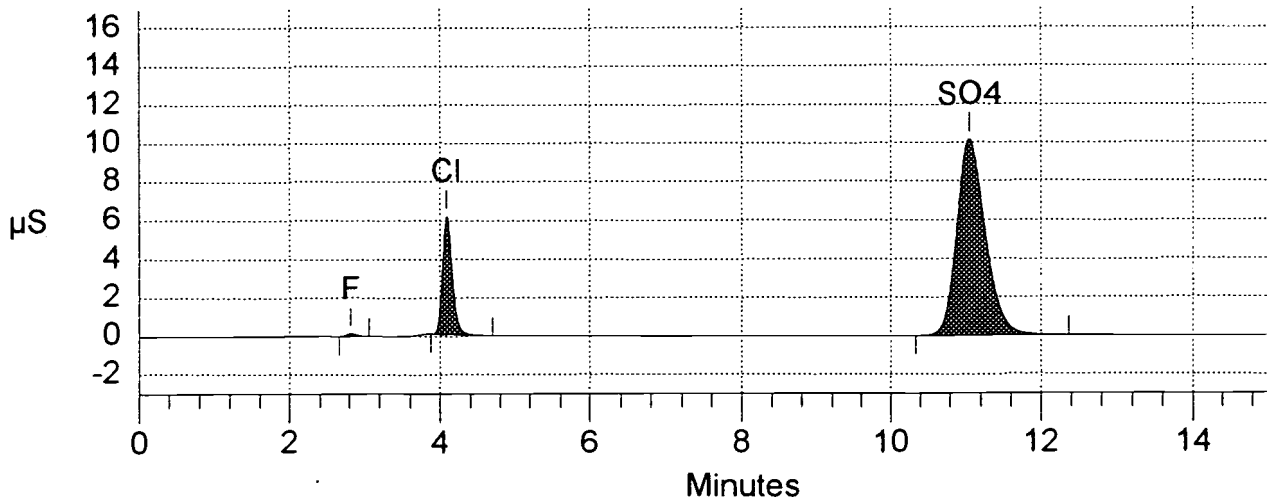
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	5	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	0.225	13377	2.82	1.44	1	5.21
2	Cl	9.699	564819	4.09	1.74	1	15.19
3	SO4	63.281	2651879	11.06	3.66	1	0.00
	Totals	73.204	3230075				

File: data0017.dxd Sample A441380 1:5



Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:27 PM

Data File :	NET\DATA\05119801\data0018.dxd	Report Date:	5/13/98 2:24:28 PM
Sample Name:	A441387 1:5	Collected :	5/12/98 1:06:55 AM
Inject # :	18	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/11/98 10:28:08 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

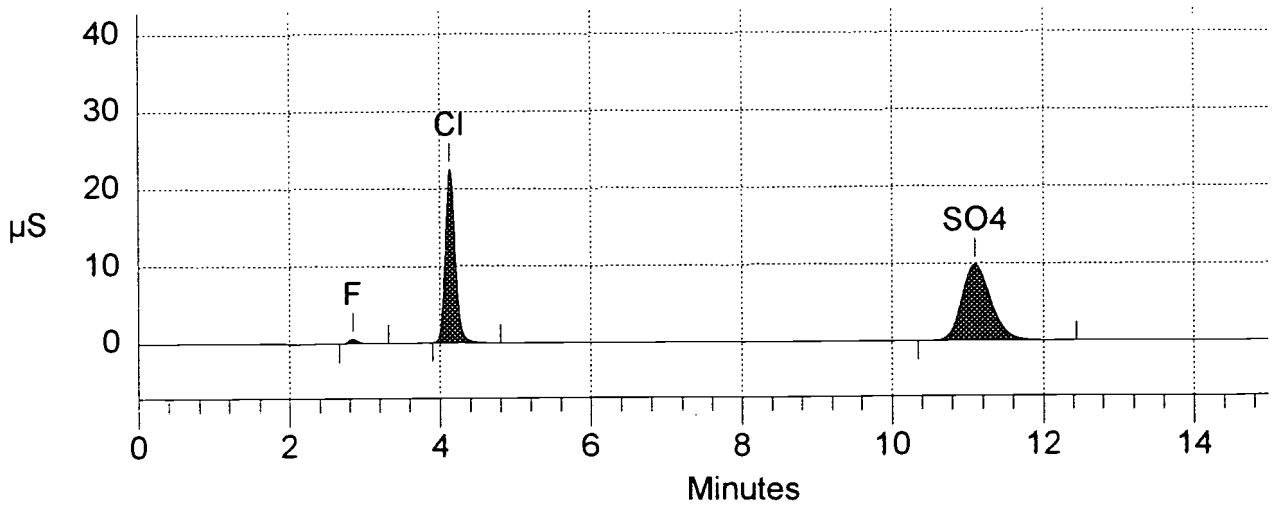
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	5	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	0.765	60437	2.84	2.16	1	5.36
2	Cl	32.053	1998892	4.13	2.74	1	15.28
3	SO4	61.560	2576930	11.10	4.03	1	0.00
	Totals	94.378	4636259				

File: data0018.dxd Sample A441387 1:5



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Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:28 PM

Data File :	NET\DATA\05119801\data0019.dxd	Report Date:	5/13/98 2:24:29 PM
Sample Name:	SPI01 A441387 1:5	Collected :	5/12/98 1:24:34 AM
Project # :	19	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/11/98 10:28:08 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

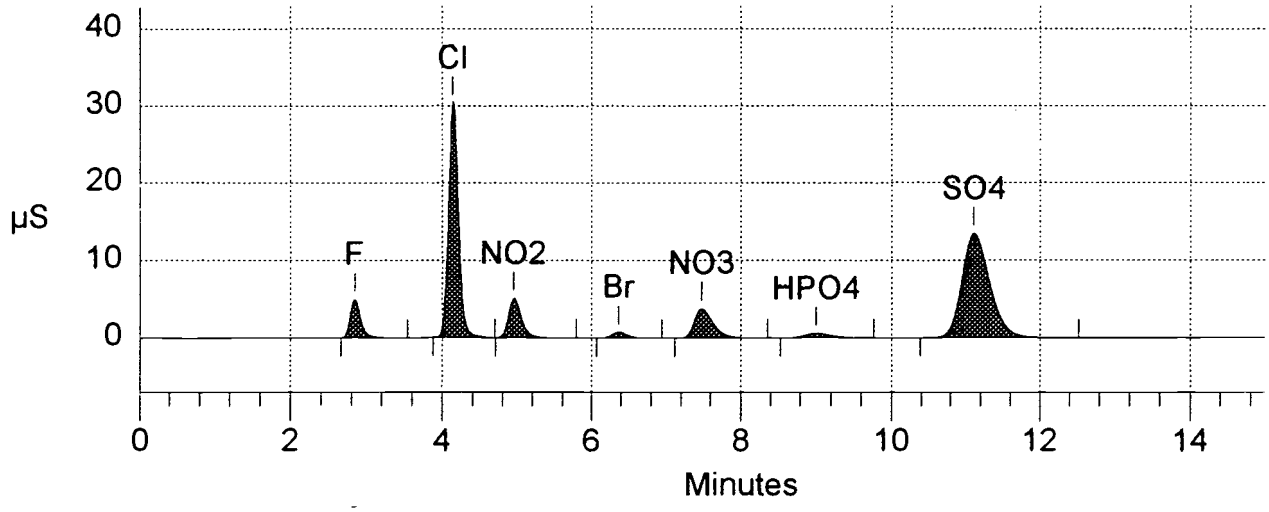
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	5	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	5.628	486623	2.84	2.16	1	5.34
2	Cl	43.135	2741135	4.14	2.99	1	2.95
3	NO2	4.848	606100	4.95	2.70	1	4.07
4	Br	5.046	116388	6.37	4.26	1	2.61
5	NO3	4.913	680452	7.48	6.40	2	2.81
6	HPO4	3.610	146538	9.01	0.00	2	3.24
7	SO4	82.625	3506847	11.11	4.12	1	0.00
	Totals	149.805	8284082				

File: data0019.dxd Sample SPI01 A441387 1:5



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Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:29 PM

Data File	: NET\DATA\05119801\data0020.dxd	Report Date	: 5/13/98 2:24:29 PM
Sample Name	: DSP01 A441387 1:5	Collected	: 5/12/98 1:42:12 AM
Project #	: 20	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/11/98 10:28:08 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

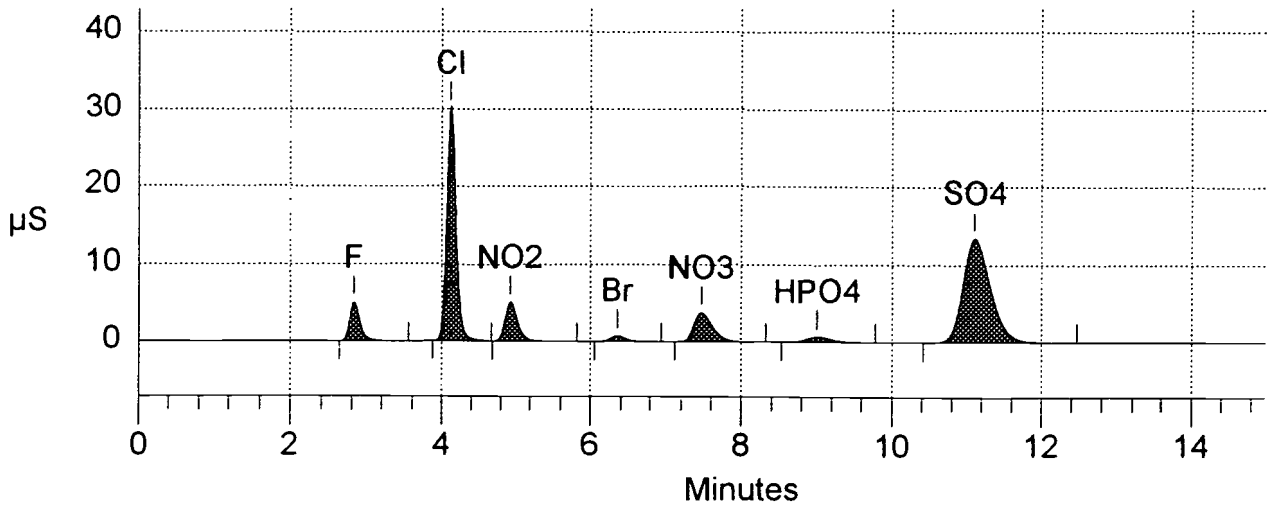
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	5	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	5.624	486234	2.83	1.80	1	5.36
2	Cl	43.013	2732818	4.12	2.49	1	2.95
3	NO2	4.867	608475	4.93	2.28	1	4.07
4	Br	5.090	117392	6.35	3.93	1	2.62
5	NO3	4.920	681366	7.47	6.26	1	2.82
6	HPO4	4.166	171694	9.01	0.00	1	3.24
7	SO4	82.363	3495105	11.11	4.12	1	0.00
	Totals	150.042	8293083				

File: data0020.dxd Sample DSP01 A441387 1:5



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Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:29 PM

Data File :	NET\DATA\05119801\data0021.dxd	Report Date:	5/13/98 2:24:30 PM
Sample Name:	A441390 1:5	Collected :	5/12/98 1:59:48 AM
Injection # :	21	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/11/98 10:28:08 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

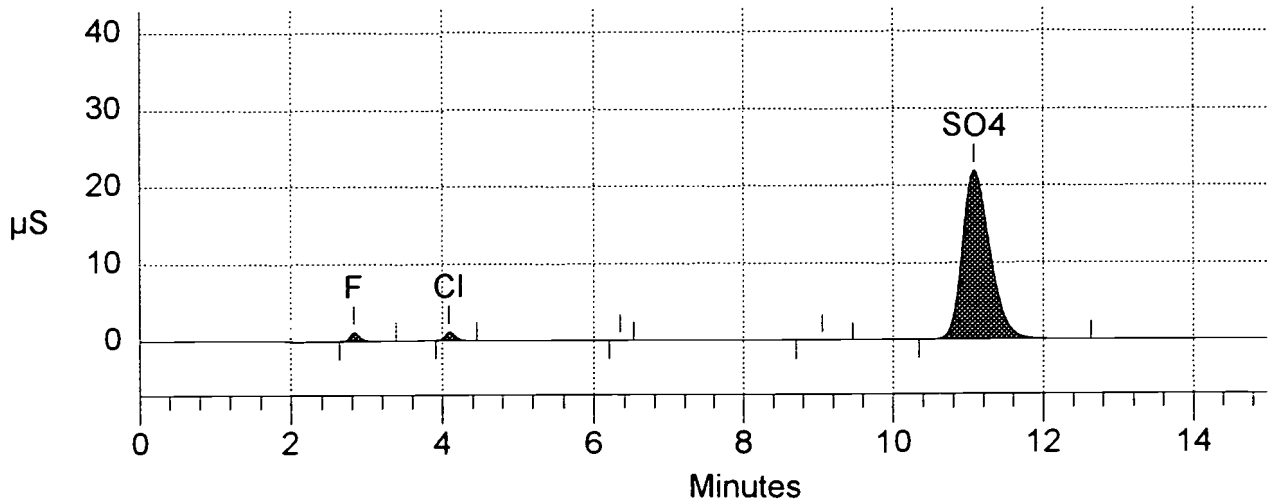
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	5	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	1.418	117348	2.83	1.80	1	5.11
2	Cl	2.282	105797	4.09	1.74	1	8.19
5	SO4	127.757	5598775	11.08	3.84	1	0.00
	Totals	131.457	5821920				

File: data0021.dxd Sample A441390 1:5



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Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:30 PM

Data File :	NET\DATA\05119801\data0022.dxd	Report Date:	5/13/98 2:24:31 PM
Sample Name:	A441397 1:10	Collected :	5/12/98 2:17:27 AM
Project # :	22	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/11/98 10:28:08 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

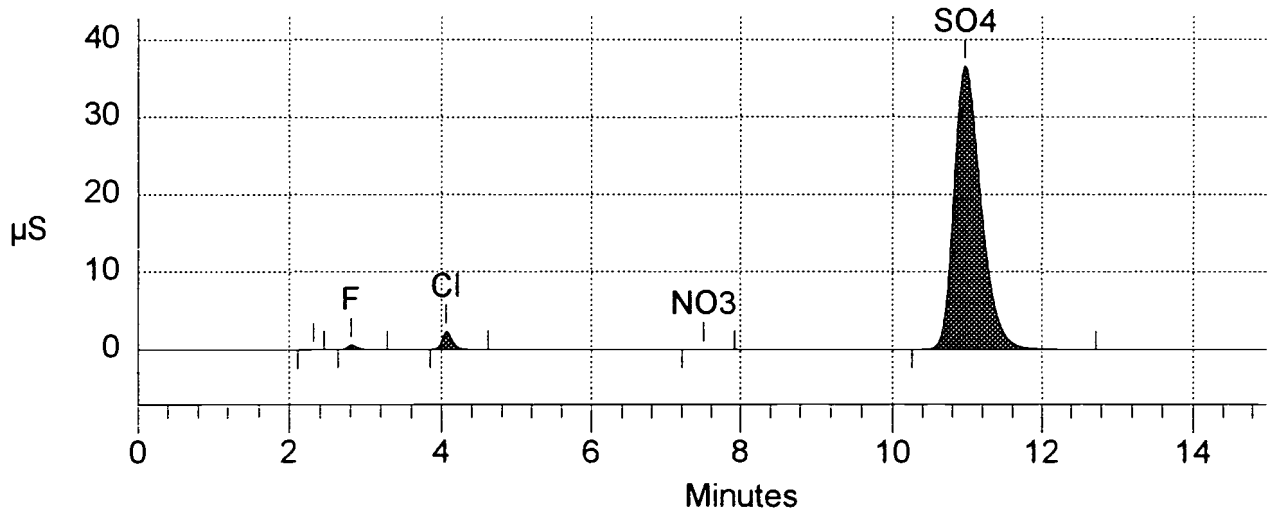
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	10	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.517	59866	2.81	1.08	1	5.01
3	Cl	8.264	219562	4.06	1.00	1	9.49
4	NO3	0.274	14001	7.50	6.69	1	6.11
5	SO4	399.689	9293659	10.96	2.72	1	0.00
	Totals	409.745	9587088				

File: data0022.dxd Sample A441397 1:10



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Data File	: NET\DATA\05119801\data0023.dxd	Report Date	: 5/13/98 2:24:32 PM
Sample Name	: A441402 1:5	Collected	: 5/12/98 2:35:06 AM
Injection #	: 23	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/11/98 10:28:08 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

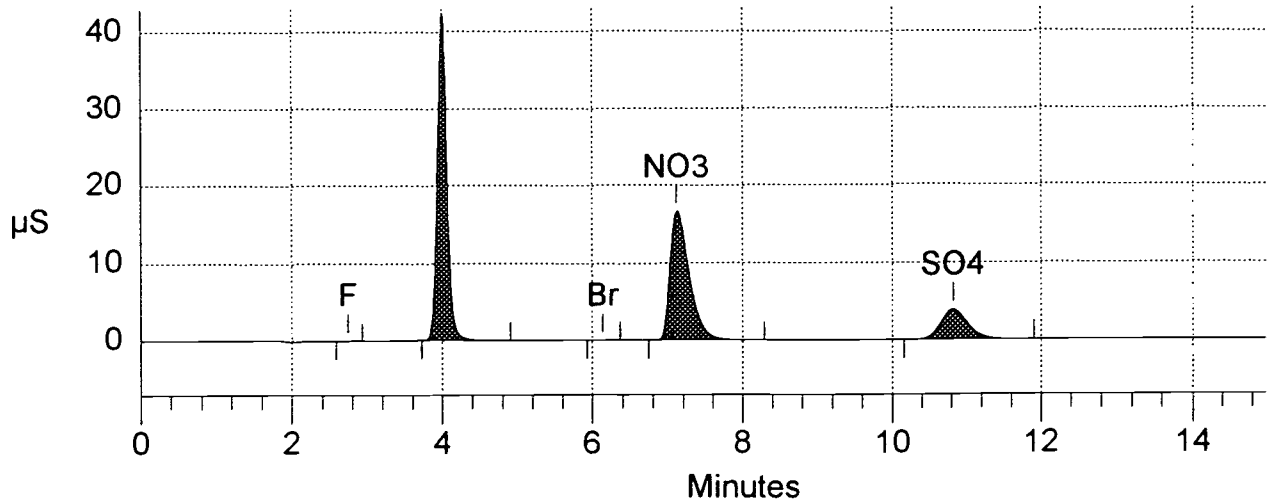
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	5	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
1	F	0.154	7236	2.74	-1.44	1	5.36
2	Cl	57.856	3763619	4.00	-0.50	1	7.26
3	Br	0.018	2456	6.14	0.49	1	2.40
4	NO3	20.187	2955909	7.12	1.28	1	6.56
5	SO4	24.391	998446	10.82	1.41	1	0.00
	Totals	102.606	7727666				

File: data0023.dxd Sample A441402 1:5



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Data File	: NET\DATA\05119801\data0024.dxd	Report Date	: 5/13/98 2:24:32 PM
Sample Name	: CCV L	Collected	: 5/12/98 2:52:42 AM
Project #	: 24	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/11/98 10:28:08 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

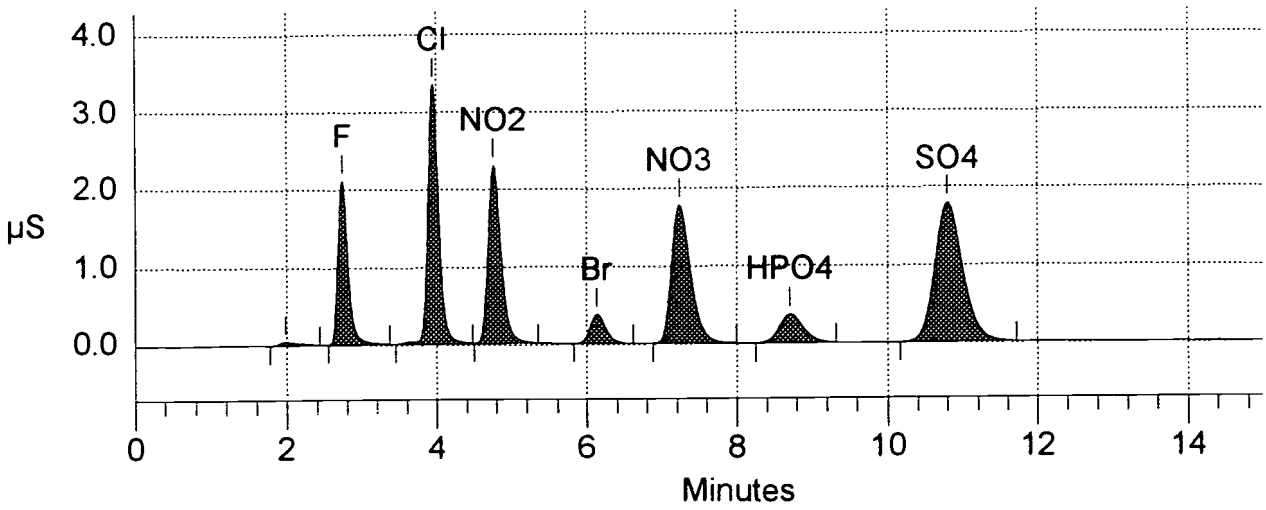
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.467	197338	2.74	-1.44	2	4.91
3	Cl	1.215	339416	3.95	-1.74	2	2.80
4	NO2	0.450	278972	4.76	-1.24	2	3.90
5	Br	0.462	54077	6.13	0.33	1	2.61
6	NO3	0.464	316169	7.24	2.99	1	2.76
7	HPO4	0.442	83548	8.71	0.00	1	3.25
8	SO4	2.286	465038	10.80	1.22	1	0.00
	Totals	5.784	1734558				

File: data0024.dxd Sample CCV L



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Data File	: NET\DATA\05119801\data0025.dxd	Report Date	: 5/13/98 2:24:33 PM
Sample Name	: CCV H	Collected	: 5/12/98 3:10:20 AM
Project #	: 25	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/11/98 10:28:08 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

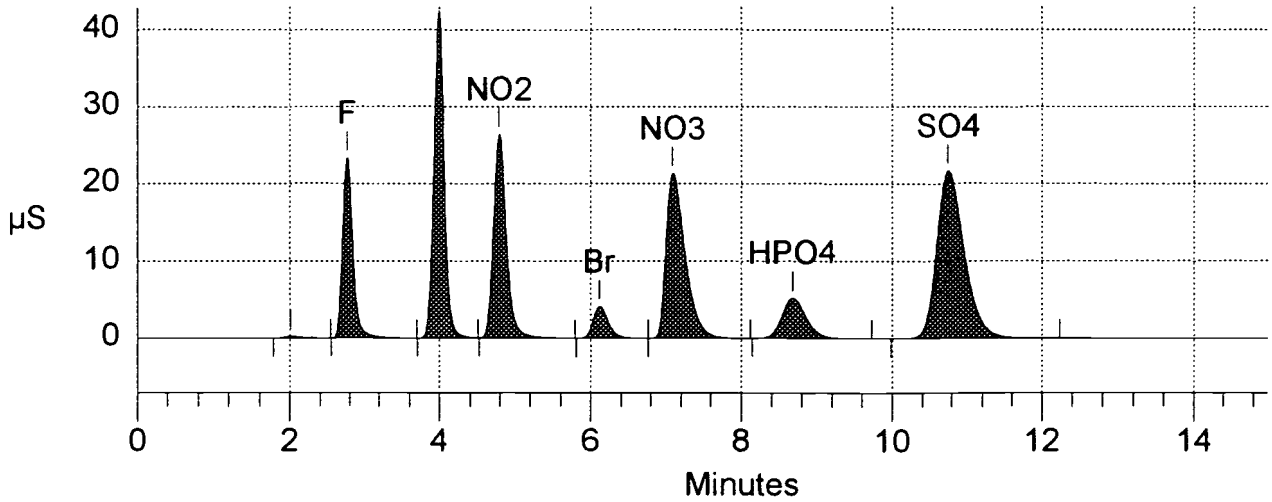
Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	5.023	2251003	2.77	-0.36	2	4.89
3	Cl	12.640	4146096	3.99	-0.75	2	2.80
4	NO2	5.049	3263792	4.79	-0.62	2	3.82
5	Br	5.030	594108	6.11	0.00	2	2.35
6	NO3	5.071	3785271	7.09	0.85	2	3.03
7	HPO4	5.012	1183321	8.68	0.00	2	3.31
8	SO4	25.294	5537053	10.75	0.75	1	0.00
	Totals	63.119	20760642				

File: data0025.dxd Sample CCV H



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Schedule: \PEAKNET\SCHEDULE\05119802.SCH

Data File	: NET\DATA\05119801\data0026.dxd	Report Date	: 5/13/98 2:24:34 PM
Sample Name	: BLA01	Collected	: 5/12/98 3:27:58 AM
Injection #	: 26	Vial #	:
Method File	: c:\peaknet\method\as14_an1.met	Calibrated	: 5/11/98 10:28:08 PM
System Name	: DX-500	Detector	: CD20
Column Type	: AS9-SC (4 x 250 mm)	Operator	: MAA-4317
Data Points	: 4500	Rate	: 5.00 Hz
Module Name	ID:24 04 47	Moduleware	: 2.10

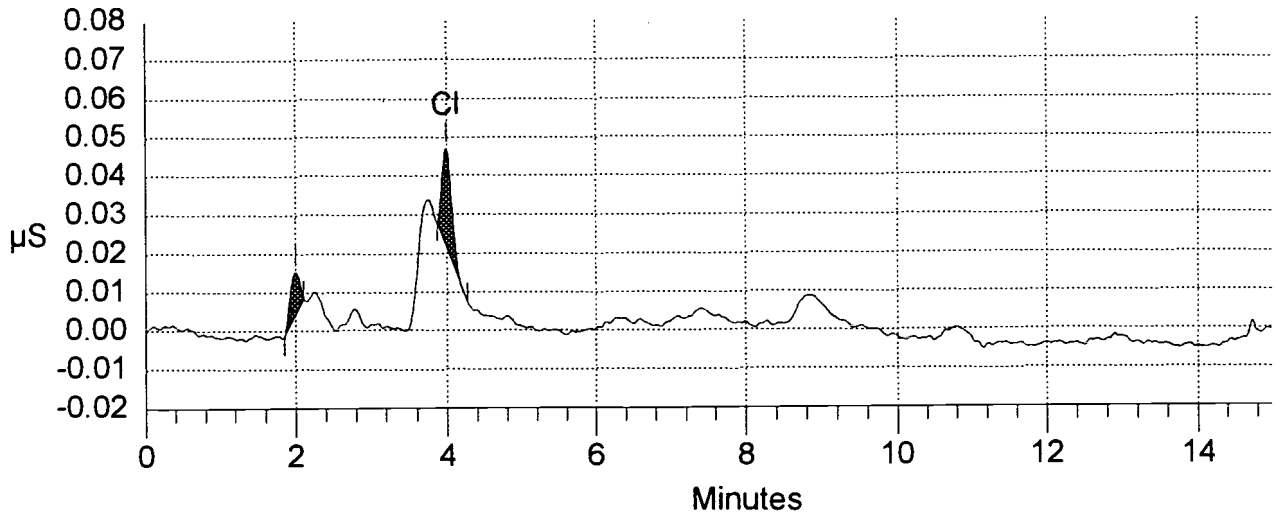
Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	Cl	0.118	2193	3.99	-0.75	1	0.00
	Totals	0.118	2193				

File: data0026.dxd Sample BLA01



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Schedule: \PEAKNET\SCHEDULE\05119802.SCH
Release 4.30 Page 1 of 1 5/13/98 2:24:34 PM

Sample Name	Collection Date	Dilution Factor	F Area	Cl Area	NO2 Area	Br Area	NO3 Area	HPO4 Are	SO4 Area
AUTOCAL 1	5/4/98 20:14	1	0	0	0	0	0	0	0
AUTOCAL 2	5/4/98 20:32	1	36803	61134	52679	10281	62341	8450	111585
AUTOCAL 3	5/4/98 20:49	1	75636	127600	106335	21225	122423	21560	189687
AUTOCAL 4	5/4/98 21:07	1	199316	326987	280950	54522	315514	77335	471901
AUTOCAL 5	5/4/98 21:25	1	409925	701151	581611	112149	649151	185980	966277
AUTOCAL 6	5/4/98 21:42	1	857843	1509158	1221470	229457	1371749	418647	2053560
AUTOCAL 7	5/4/98 22:00	1	2282779	4214862	3251735	596728	3791830	1184540	5603737
AUTOCAL 8	5/4/98 22:17	1	4668296	9167669	6679643	1265559	8379552	2694581	12297654
		low correl	**0.9998**	**0.9994**	**0.9998**	**0.9999**	**0.9999**	**0.9951**	**0.9997**
		correl	**0.9999**	**0.9990**	**0.9998**	**0.9996**	**0.9987**	**0.9980**	**0.9988**
		std % rec	**99.00**	**100.80**	**101.00**	**99.00**	**102.00**	**99.00**	**113.60**
			96.50	**97.80**	**96.00**	**98.00**	**97.50**	**83.50**	**97.50**
			98.60	**95.76**	**98.20**	**98.40**	**98.40**	**91.40**	**97.84**
			94.70	**91.88**	**94.60**	**97.10**	**93.00**	**91.20**	**92.66**
			95.25	**90.00**	**95.05**	**95.00**	**89.70**	**88.75**	**90.66**
			98.98	**95.01**	**98.68**	**96.20**	**93.78**	**92.26**	**94.16**
			100.46	**101.51**	**100.54**	**101.08**	**101.76**	**102.10**	**101.66**

Calibration Date/Time 98-May-04 20:14 to 98-May-04 22:17

	AUTOCAL 1	AUTOCAL 2	AUTOCAL 3	AUTOCAL 4	AUTOCAL 5	AUTOCAL 6	AUTOCAL 7	AUTOCAL 8
F Area	**0**	**36803**	**75636**	**199316**	**409925**	**857843**	**2282779**	**4668296**
Cl Area	0	61134	127600	326987	701151	1509158	4214862	9167669
NO2 Area	**0**	**52679**	**106335**	**280950**	**581611**	**1221470**	**3251735**	**6679643**
Br Area	0	10281	21225	54522	112149	229457	596728	1265559
NO3 Area	**0**	**62341**	**122423**	**315514**	**649151**	**1371749**	**3791830**	**8379552**
HPO4 Area	0	8450	21560	77335	185980	418647	1184540	2694581
SO4 Area	**0**	**111585**	**189687**	**471901**	**966277**	**2053560**	**5603737**	**12297654**

	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Fl Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
Cl Conc	0	0.25	0.5	1.25	2.5	5	12.5	25
NO2 Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
Br Conc	0	0.1	0.2	0.5	1	2	5	10
NO3 Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
HPO4 Conc	0	0.1	0.2	0.5	1	2	5	10
SO4 Conc	**0**	**0.5**	**1**	**2.5**	**5**	**10**	**25**	**50**

Low Calibration Curve Autocal 1 - 5

Parameter	Slope	Intercept	Cor. Coef
F	**2.4268e-06**	**0.00973**	**0.99984**
Cl	**3.5531e-06**	**0.03527**	**0.99940**
NO_2	1.7112e-06	0.01037	0.99979
Br	8.8881e-06	0.00772	0.99988
NO_3	**1.5380e-06**	**0.00645**	**0.99987**
HPO_4	**5.1975e-06**	**0.05509**	**0.99505**
SO_4	5.2122e-06	-0.01326	0.99973

High Calibration Curve Autocal 1 - 8

Parameter	Slope	Intercept	Cor. Coef
F	**2.1367e-06**	**0.07163**	**0.99985**
Cl	**2.7262e-06**	**0.38562**	**0.99896**
NO_2	1.4937e-06	0.07694	0.99982
Br	7.9223e-06	0.08233	0.99958
NO_3	**1.1962e-06**	**0.15317**	**0.99869**
HPO_4	**3.7061e-06**	**0.22311**	**0.99805**
SO_4	4.0771e-06	0.69382	0.99885

Sample Areas less than L5 area are calculated using the low calibration.
Sample Areas between L5 area and the L8 are calculated using the high calibration.

Concentration = (Slope)*(area)+Intercept
y = (mx+b)

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Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	AUTOCAL 1 04-May-98 20:14													
	367	F	0	1	0.010			0.1	mg/L					
	223	Cl	0	1	0.035			0.25	mg/L					
	507	NO_2	0	1	0.010			0.05	mg/L					
	192	Br	0	1	0.008			0.05	mg/L					
	508	NO_3	0	1	0.006			0.05	mg/L					
	539	HPO_4	0	1	0.055			0.05	mg/L					
	681	SO_4	0	1	-0.013			0.25	mg/L					
	AUTOCAL 2 04-May-98 20:32													
	367	F	36803	1	0.099			0.1	mg/L					
	223	Cl	61134	1	0.252			0.25	mg/L					
	507	NO_2	52679	1	0.101			0.05	mg/L					
	192	Br	10281	1	0.099			0.05	mg/L					
	508	NO_3	62341	1	0.102			0.05	mg/L					
	539	HPO_4	8450	1	0.099			0.05	mg/L					
	681	SO_4	111585	1	0.568			0.25	mg/L					
	AUTOCAL 3 04-May-98 20:49													
	367	F	75636	1	0.193			0.1	mg/L					
	223	Cl	127600	1	0.489			0.25	mg/L					
	507	NO_2	106335	1	0.192			0.05	mg/L					
	192	Br	21225	1	0.196			0.05	mg/L					
	508	NO_3	122423	1	0.195			0.05	mg/L					
	539	HPO_4	21560	1	0.167			0.05	mg/L					
	681	SO_4	189687	1	0.975			0.25	mg/L					
	AUTOCAL 4 04-May-98 21:07													
	367	F	199316	1	0.493			0.1	mg/L					
	223	Cl	326987	1	1.197			0.25	mg/L					
	507	NO_2	280950	1	0.491			0.05	mg/L					
	192	Br	54522	1	0.492			0.05	mg/L					
	508	NO_3	315514	1	0.492			0.05	mg/L					
	539	HPO_4	77335	1	0.457			0.05	mg/L					
	681	SO_4	471901	1	2.446			0.25	mg/L					
	AUTOCAL 5 04-May-98 21:25													
	367	F	409925	1	0.947			0.1	mg/L					
	223	Cl	701151	1	2.297			0.25	mg/L					
	507	NO_2	581611	1	0.946			0.05	mg/L					
	192	Br	112149	1	0.971			0.05	mg/L					
	508	NO_3	649151	1	0.930			0.05	mg/L					
	539	HPO_4	185980	1	0.912			0.05	mg/L					
	681	SO_4	966277	1	4.633			0.25	mg/L					
	AUTOCAL 6 04-May-98 21:42													
	367	F	857843	1	1.905			0.1	mg/L					
	223	Cl	1509158	1	4.500			0.25	mg/L					
	507	NO_2	1221470	1	1.901			0.05	mg/L					
	192	Br	229457	1	1.900			0.05	mg/L					
	508	NO_3	1371749	1	1.794			0.05	mg/L					
	539	HPO_4	418647	1	1.775			0.05	mg/L					
	681	SO_4	2053560	1	9.066			0.25	mg/L					
	AUTOCAL 7 04-May-98 22:00													
	367	F	2282779	1	4.949			0.1	mg/L					
	223	Cl	4214862	1	11.876			0.25	mg/L					
	507	NO_2	3251735	1	4.934			0.05	mg/L					
	192	Br	596728	1	4.810			0.05	mg/L					
	508	NO_3	3791830	1	4.689			0.05	mg/L					
	539	HPO_4	1184540	1	4.613			0.05	mg/L					
	681	SO_4	5603737	1	23.541			0.25	mg/L					

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Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	AUTOCAL 8	**04-May-98 22:17**												
	367	F	4668296	1	10.046			0.1	mg/L					
	223	Cl	9167669	1	25.378			0.25	mg/L					
	507	NO_2	6679643	1	10.054			0.05	mg/L					
	192	Br	1265559	1	10.108			0.05	mg/L					
	508	NO_3	8379552	1	10.176			0.05	mg/L					
	539	HPO_4	2694581	1	10.210			0.05	mg/L					
	681	SO_4	12297654	1	50.832			0.25	mg/L					

********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05049801\data0001.dxd	Report Date:	5/5/98 3:07:12 PM
Sample Name:	AUTOCAL 1	Collected :	5/4/98 8:14:36 PM
Inject # :	1	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/4/98 8:32:06 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	1	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE

Data File :	Net\DATA\05049801\data0001.dxd	Report Date:	5/5/98 3:07:12 PM
Sample Name:	AUTOCAL 1	Collected :	5/4/98 8:14:36 PM
Inject # :	1	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:12 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
Totals		0.000	0				

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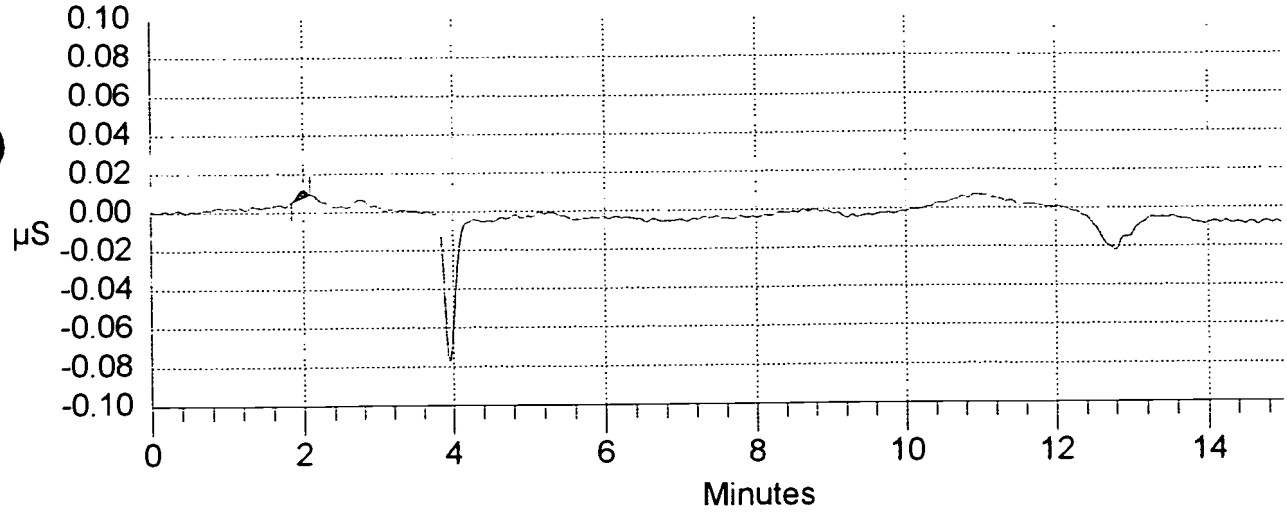
File: data0001.dxd Sample AUTOCAL 1



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Schedule: \PEAKNET\SCHEDULE\050498CA.SCH
Release 4.30 Page 2 of 2 5/5/98 3:07:12 PM

********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05049801\data0002.dxd	Report Date:	5/5/98 3:07:13 PM
Sample Name:	AUTOCAL 2	Collected :	5/4/98 8:32:12 PM
Inject # :	2	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/4/98 8:49:44 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	2	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.75	2.75	2.75	3.955e+004	3.680e+004	3.680e+004
2	Cl	3.96	3.96	3.96	7.419e+004	6.113e+004	6.113e+004
3	NO2	4.78	4.78	4.78	5.336e+004	5.268e+004	5.268e+004
4	Br	6.15	6.15	6.15	1.028e+004	1.028e+004	1.028e+004
5	NO3	7.29	7.29	7.29	6.234e+004	6.234e+004	6.234e+004
6	HPO4	8.82	8.82	8.82	7.724e+003	8.450e+003	8.450e+003
7	SO4	10.92	10.92	10.92	1.116e+005	1.116e+005	1.116e+005

Data File :	Net\DATA\05049801\data0002.dxd	Report Date:	5/5/98 3:07:13 PM
Sample Name:	AUTOCAL 2	Collected :	5/4/98 8:32:12 PM
Inject # :	2	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:13 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.100	36803	2.75	0.00	1	5.08
3	Cl	0.250	61134	3.96	0.00	1	2.95
4	NO2	0.100	52679	4.78	0.00	1	4.00
5	Br	0.100	10281	6.15	0.00	1	2.74
6	NO3	0.100	62341	7.29	0.00	1	3.03
7	HPO4	0.100	8450	8.82	0.00	1	3.38
8	SO4	0.500	111585	10.92	0.00	1	0.00
	Totals	1.250	343273				

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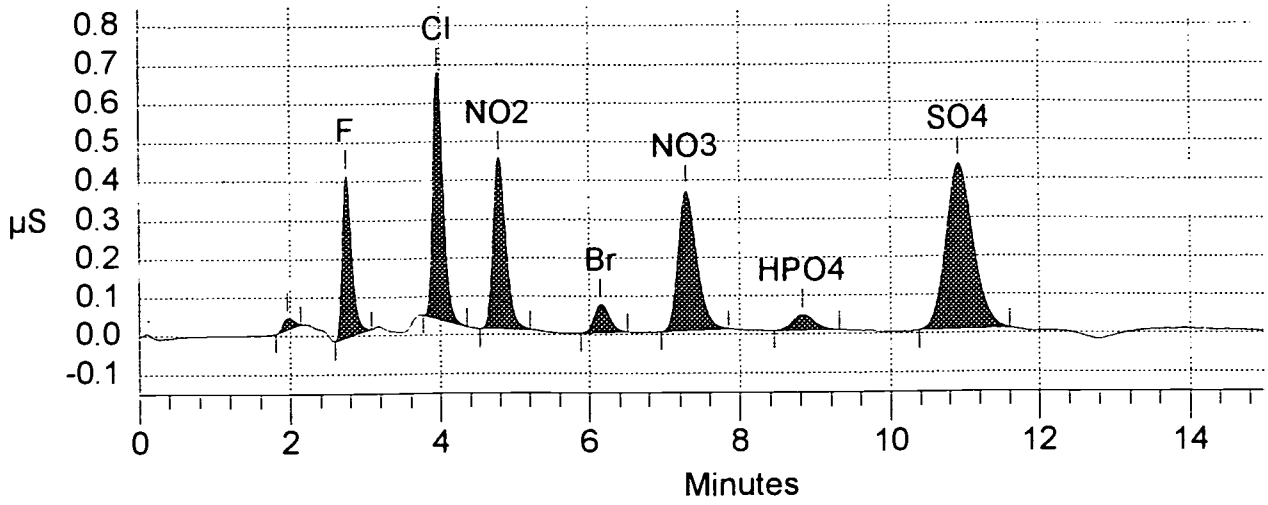
File: data0002.dxd Sample AUTOCAL 2



Schedule: \PEAKNET\SCHEDULE\050498CA.SCH
Release 4.30 Page 2 of 2 5/5/98 3:07:13 PM

********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05049801\data0003.dxd	Report Date:	5/5/98 3:07:14 PM
Sample Name:	AUTOCAL 3	Collected :	5/4/98 8:49:50 PM
Inject # :	3	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/4/98 9:07:18 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	3	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.77	2.77	2.77	7.564e+004	7.564e+004	7.564e+004
2	Cl	3.99	3.99	3.99	1.406e+005	1.276e+005	1.276e+005
3	NO2	4.82	4.82	4.82	1.077e+005	1.063e+005	1.063e+005
4	Br	6.20	6.20	6.20	2.123e+004	2.123e+004	2.123e+004
5	NO3	7.32	7.32	7.32	1.224e+005	1.224e+005	1.224e+005
6	HPO4	8.85	8.85	8.85	1.981e+004	2.156e+004	2.156e+004
7	SO4	10.98	10.98	10.98	1.897e+005	1.897e+005	1.897e+005

Data File :	Net\DATA\05049801\data0003.dxd	Report Date:	5/5/98 3:07:14 PM
Sample Name:	AUTOCAL 3	Collected :	5/4/98 8:49:50 PM
Inject # :	3	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:14 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.200	75636	2.77	0.00	1	5.01
3	Cl	0.500	127600	3.99	0.00	1	2.93
4	NO2	0.200	106335	4.82	0.00	1	4.06
5	Br	0.200	21225	6.20	0.00	1	2.73
6	NO3	0.200	122423	7.32	0.00	1	3.02
7	HPO4	0.200	21560	8.85	0.00	1	3.42
8	SO4	1.000	189687	10.98	0.00	1	0.00
	Totals	2.500	664466				

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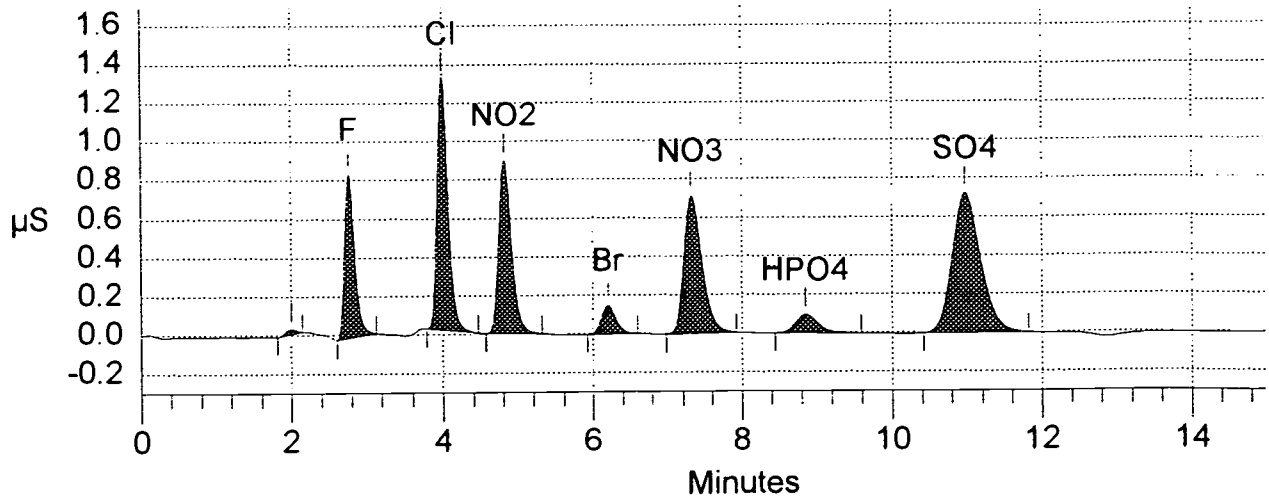
File: data0003.dxd Sample AUTOCAL 3



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Schedule: \PEAKNET\SCHEDULE\050498CA.SCH
Release 4.30 Page 2 of 2 5/5/98 3:07:14 PM

********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05049801\data0004.dxd	Report Date:	5/5/98 3:07:15 PM
Sample Name:	AUTOCAL 4	Collected :	5/4/98 9:07:24 PM
Inject # :	4	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/4/98 9:24:56 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	4	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.73	2.73	2.73	1.993e+005	1.993e+005	1.993e+005
2	Cl	3.96	3.96	3.96	3.270e+005	3.270e+005	3.270e+005
3	NO2	4.78	4.78	4.78	2.809e+005	2.809e+005	2.809e+005
4	Br	6.15	6.15	6.15	5.452e+004	5.452e+004	5.452e+004
5	NO3	7.26	7.26	7.26	3.155e+005	3.155e+005	3.155e+005
6	HPO4	8.80	8.80	8.80	7.733e+004	7.733e+004	7.733e+004
7	SO4	10.93	10.93	10.93	4.719e+005	4.719e+005	4.719e+005

Data File :	Net\DATA\05049801\data0004.dxd	Report Date:	5/5/98 3:07:15 PM
Sample Name:	AUTOCAL 4	Collected :	5/4/98 9:07:24 PM
Inject # :	4	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:15 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

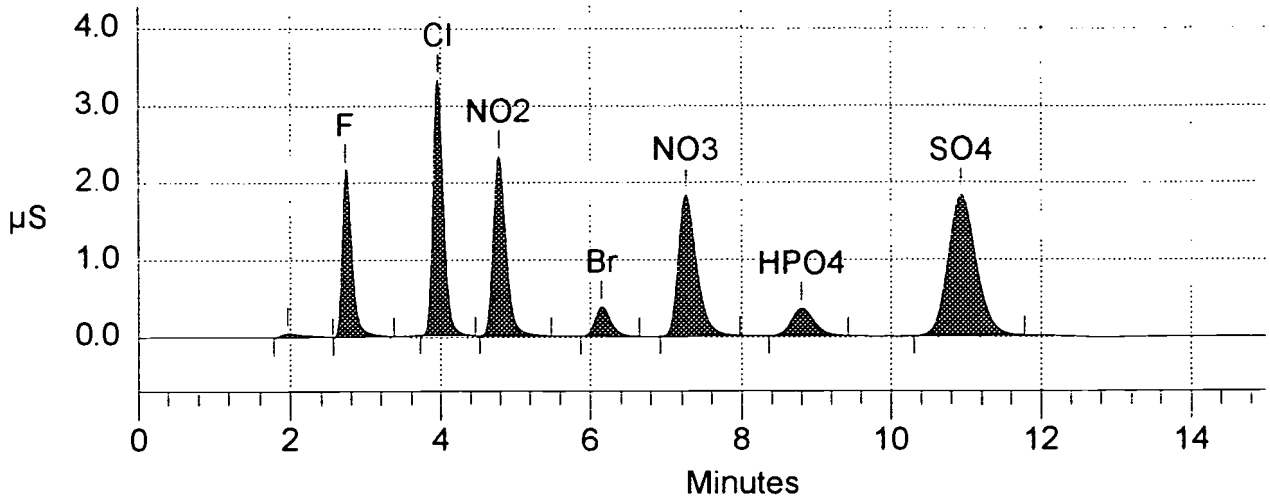
Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.500	199316	2.73	0.00	1	4.99
3	Cl	1.250	326987	3.96	0.00	1	2.89
4	NO2	0.500	280950	4.78	0.00	1	4.00
5	Br	0.500	54522	6.15	0.00	1	2.68
6	NO3	0.500	315514	7.26	0.00	1	3.00
7	HPO4	0.500	77335	8.80	0.00	1	3.40
8	SO4	2.500	471901	10.93	0.00	1	0.00
	Totals	6.250	1726523				

Schedule: \PEAKNET\SCHEDULE\050498CA.SCH
Release 4.30 Page 1 of 2 5/5/98 3:07:15 PM

File: data0004.dxd Sample AUTOCAL 4



Schedule: \PEAKNET\SCHEDULE\050498CA.SCH
Release 4.30 Page 2 of 2 5/5/98 3:07:15 PM

********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05049801\data0005.dxd	Report Date:	5/5/98 3:07:16 PM
Sample Name:	AUTOCAL 5	Collected :	5/4/98 9:25:01 PM
Inject # :	5	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/4/98 9:42:33 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	5	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.74	2.74	2.74	4.099e+005	4.099e+005	4.099e+005
2	Cl	3.96	3.96	3.96	7.012e+005	7.012e+005	7.012e+005
3	NO2	4.78	4.78	4.78	5.816e+005	5.816e+005	5.816e+005
4	Br	6.16	6.16	6.16	1.121e+005	1.121e+005	1.121e+005
5	NO3	7.24	7.24	7.24	6.492e+005	6.492e+005	6.492e+005
6	HPO4	8.80	8.80	8.80	1.860e+005	1.860e+005	1.860e+005
7	SO4	10.92	10.92	10.92	9.663e+005	9.663e+005	9.663e+005

Data File :	Net\DATA\05049801\data0005.dxd	Report Date:	5/5/98 3:07:16 PM
Sample Name:	AUTOCAL 5	Collected :	5/4/98 9:25:01 PM
Inject # :	5	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:16 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.000	409925	2.74	0.00	2	5.01
3	Cl	2.500	701151	3.96	0.00	2	2.89
4	NO2	1.000	581611	4.78	0.00	2	3.99
5	Br	1.000	112149	6.16	0.00	1	2.59
6	NO3	1.000	649151	7.24	0.00	1	3.03
7	HPO4	1.000	185980	8.80	0.00	1	3.39
8	SO4	5.000	966277	10.92	0.00	1	0.00
	Totals	12.500	3606242				

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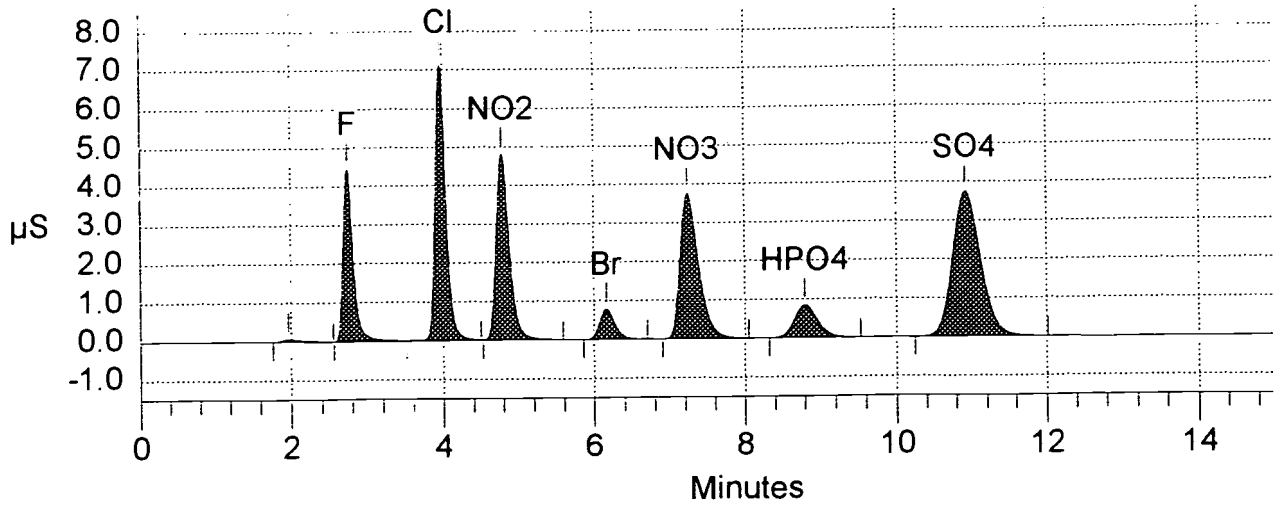
File: data0005.dxd Sample AUTOCAL 5



********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05049801\data0006.dxd	Report Date:	5/5/98 3:07:16 PM
Sample Name:	AUTOCAL 6	Collected :	5/4/98 9:42:39 PM
Inject # :	6	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/4/98 10:00:10 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	6	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.75	2.75	2.75	8.578e+005	8.578e+005	8.578e+005
2	Cl	3.98	3.98	3.98	1.509e+006	1.509e+006	1.509e+006
3	NO2	4.80	4.80	4.80	1.221e+006	1.221e+006	1.221e+006
4	Br	6.16	6.16	6.16	2.295e+005	2.295e+005	2.295e+005
5	NO3	7.21	7.21	7.21	1.372e+006	1.372e+006	1.372e+006
6	HPO4	8.79	8.79	8.79	4.186e+005	4.186e+005	4.186e+005
7	SO4	10.91	10.91	10.91	2.054e+006	2.054e+006	2.054e+006

Data File :	Net\DATA\05049801\data0006.dxd	Report Date:	5/5/98 3:07:17 PM
Sample Name:	AUTOCAL 6	Collected :	5/4/98 9:42:39 PM
Inject # :	6	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:16 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	2.000	857843	2.75	0.00	2	5.17
3	Cl	5.000	1509158	3.98	0.00	2	2.95
4	NO2	2.000	1221470	4.80	0.00	2	3.97
5	Br	2.000	229457	6.16	0.00	2	2.56
6	NO3	2.000	1371749	7.21	0.00	2	3.08
7	HPO4	2.000	418647	8.79	0.00	2	3.42
8	SO4	10.000	2053560	10.91	0.00	1	0.00
	Totals	25.000	7661884				

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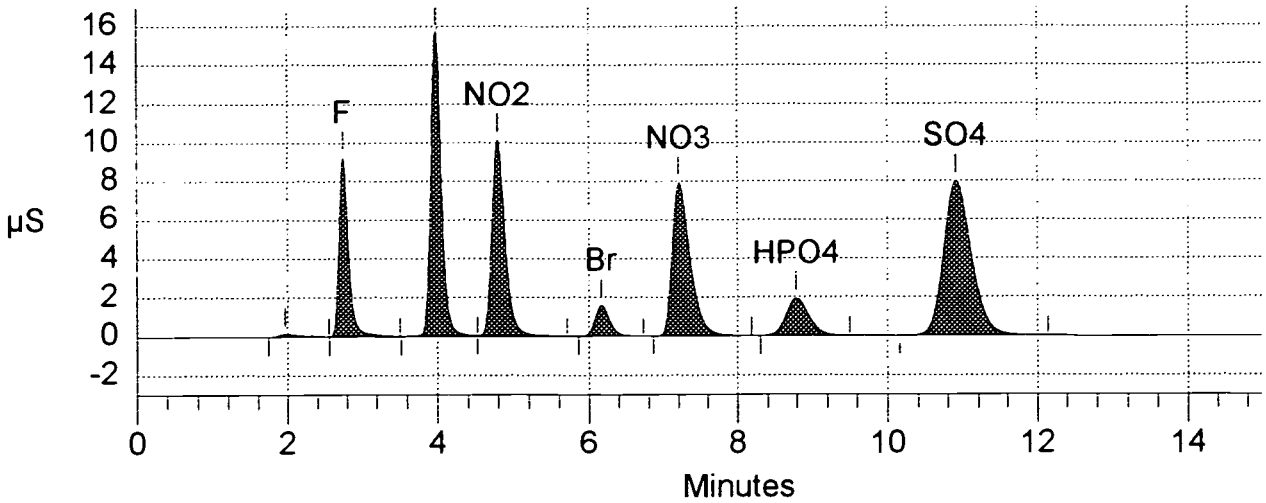
File: data0006.dxd Sample AUTOCAL 6



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********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05049801\data0007.dxd	Report Date:	5/5/98 3:07:18 PM
Sample Name:	AUTOCAL 7	Collected :	5/4/98 10:00:15 PM
Inject # :	7	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/4/98 10:17:48 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	7	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.76	2.76	2.76	2.283e+006	2.283e+006	2.283e+006
2	Cl	4.00	4.00	4.00	4.215e+006	4.215e+006	4.215e+006
3	NO2	4.81	4.81	4.81	3.252e+006	3.252e+006	3.252e+006
4	Br	6.15	6.15	6.15	5.967e+005	5.967e+005	5.967e+005
5	NO3	7.14	7.14	7.14	3.792e+006	3.792e+006	3.792e+006
6	HPO4	8.77	8.77	8.77	1.185e+006	1.185e+006	1.185e+006
7	SO4	10.86	10.86	10.86	5.604e+006	5.604e+006	5.604e+006

Data File :	Net\DATA\05049801\data0007.dxd	Report Date:	5/5/98 3:07:18 PM
Sample Name:	AUTOCAL 7	Collected :	5/4/98 10:00:15 PM
Inject # :	7	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:18 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	5.000	2282779	2.76	0.00	2	5.03
3	Cl	12.500	4214862	4.00	0.00	2	2.86
4	NO2	5.000	3251735	4.81	0.00	2	3.94
5	Br	5.000	596728	6.15	0.00	2	2.41
6	NO3	5.000	3791830	7.14	0.00	2	3.18
7	HPO4	5.000	1184540	8.77	0.00	2	3.40
8	SO4	25.000	5603737	10.86	0.00	1	0.00
	Totals	62.500	20926210				

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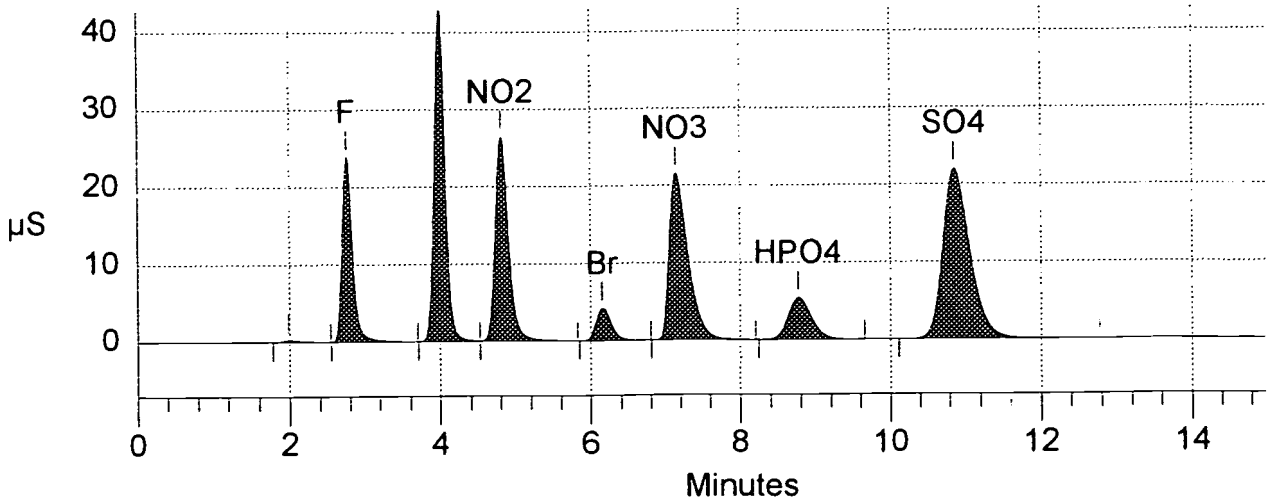
File: data0007.dxd Sample AUTOCAL 7



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Schedule: \PEAKNET\SCHEDULE\050498CA.SCH
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********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05049801\data0008.dxd	Report Date:	5/5/98 3:07:19 PM
Sample Name:	AUTOCAL 8	Collected :	5/4/98 10:17:54 PM
Inject # :	8	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/4/98 10:35:27 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	8	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.78	2.78	2.78	4.668e+006	4.668e+006	4.668e+006
2	Cl	4.04	4.04	4.04	9.168e+006	9.168e+006	9.168e+006
3	NO2	4.84	4.84	4.84	6.680e+006	6.680e+006	6.680e+006
4	Br	6.14	6.14	6.14	1.266e+006	1.266e+006	1.266e+006
5	NO3	7.06	7.06	7.06	8.380e+006	8.380e+006	8.380e+006
6	HPO4	8.73	8.73	8.73	2.695e+006	2.695e+006	2.695e+006
7	SO4	10.79	10.79	10.79	1.230e+007	1.230e+007	1.230e+007

Data File :	Net\DATA\05049801\data0008.dxd	Report Date:	5/5/98 3:07:19 PM
Sample Name:	AUTOCAL 8	Collected :	5/4/98 10:17:54 PM
Inject # :	8	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/5/98 3:07:19 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Parameter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	10.000	4668296	2.78	0.00	2	4.68
3	Cl	25.000	9167669	4.04	0.00	2	2.61
4	NO2	10.000	6679643	4.84	0.00	2	3.76
5	Br	10.000	1265559	6.14	0.00	2	2.22
6	NO3	10.000	8379552	7.06	0.00	2	3.22
7	HPO4	10.000	2694581	8.73	0.00	2	3.32
8	SO4	50.000	12297654	10.79	0.00	2	0.00
	Totals	125.000	45152955				

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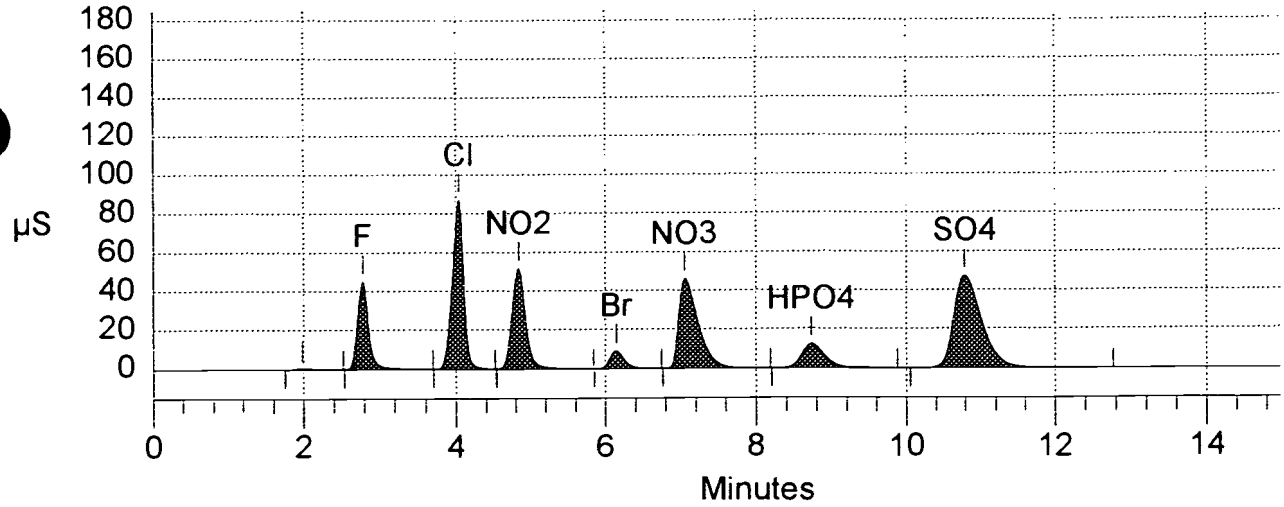
File: data0008.dxd Sample AUTOCAL 8



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Schedule: \PEAKNET\SCHEDULE\050498CA.SCH
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Sample Name	Collection Date	Dilution Factor	F Area	Cl Area	NO2 Area	Br Area	NO3 Area	HPO4 Are	SO4 Area
AUTOCAL 1	5/11/98 19:29	1	0	0	0	0	0	0	0
AUTOCAL 2	5/11/98 19:46	1	36637	64695	52872	9897	60830	11596	96329
AUTOCAL 3	5/11/98 20:04	1	76530	130926	108300	21478	126374	27296	185720
AUTOCAL 4	5/11/98 20:22	1	194273	333055	281004	55158	314642	84167	460138
AUTOCAL 5	5/11/98 21:17	1	406753	709037	595221	112130	652409	199586	955417
AUTOCAL 6	5/11/98 21:35	1	857900	1478686	1240922	233204	1376523	438687	2017893
AUTOCAL 7	5/11/98 21:52	1	2260432	4143209	3256657	590464	3764180	1186369	5527780
AUTOCAL 8	5/11/98 22:10	1	4651006	9141828	6727866	1245327	8339898	2635845	12205280
		low correl	**0.9997**	**0.9995**	**0.9996**	**0.9999**	**0.9998**	**0.9963**	**0.9998**
		correl	**0.9998**	**0.9987**	**0.9998**	**0.9997**	**0.9987**	**0.9987**	**0.9987**
		std % rec	**100.00**	**102.40**	**101.00**	**95.00**	**100.00**	**101.00**	**104.80**
			98.50	**98.00**	**97.00**	**99.00**	**100.00**	**89.00**	**99.30**
			97.20	**96.08**	**96.60**	**99.40**	**97.60**	**91.20**	**97.32**
			94.70	**93.56**	**95.80**	**97.00**	**93.50**	**93.40**	**93.22**
			95.75	**88.94**	**95.85**	**97.25**	**90.25**	**92.05**	**90.26**
			98.50	**93.96**	**98.18**	**96.44**	**93.54**	**93.54**	**93.78**
			100.56	**101.74**	**100.62**	**100.96**	**101.80**	**101.76**	**101.75**

Calibration Date/Time 98-May-11 19:29 to 98-May-11 22:10

	AUTOCAL 1	AUTOCAL 2	AUTOCAL 3	AUTOCAL 4	AUTOCAL 5	AUTOCAL 6	AUTOCAL 7	AUTOCAL 8
F Area	**0**	**36637**	**76530**	**194273**	**406753**	**857900**	**2260432**	**4651006**
Cl Area	0	64695	130926	333055	709037	1478686	4143209	9141828
NO2 Area	**0**	**52872**	**108300**	**281004**	**595221**	**1240922**	**3256657**	**6727866**
Br Area	0	9897	21478	55158	112130	233204	590464	1245327
NO3 Area	**0**	**60830**	**126374**	**314642**	**652409**	**1376523**	**3764180**	**8339898**
HPO4 Area	0	11596	27296	84167	199586	438687	1186369	2635845
SO4 Area	**0**	**96329**	**185720**	**460138**	**955417**	**2017893**	**5527780**	**12205280**

	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Fl Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
Cl Conc	0	0.25	0.5	1.25	2.5	5	12.5	25
NO2 Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
Br Conc	0	0.1	0.2	0.5	1	2	5	10
NO3 Conc	**0**	**0.1**	**0.2**	**0.5**	**1**	**2**	**5**	**10**
HPO4 Conc	0	0.1	0.2	0.5	1	2	5	10
SO4 Conc	**0**	**0.5**	**1**	**2.5**	**5**	**10**	**25**	**50**

Low Calibration Curve Autocal 1 - 5

Parameter	Slope	Intercept	Cor. Coef
F	**2.4521e-06**	**0.00974**	**0.99973**
Cl	**3.5198e-06**	**0.02870**	**0.99951**
NO_2	1.6737e-06	0.01273	0.99956
Br	8.8724e-06	0.00748	0.99993
NO_3	**1.5316e-06**	**0.00642**	**0.99984**
HPO_4	**4.8979e-06**	**0.04394**	**0.99630**
SO_4	5.2465e-06	0.01872	0.99980

High Calibration Curve Autocal 1 - 8

Parameter	Slope	Intercept	Cor. Coef
F	**2.1461e-06**	**0.07414**	**0.99983**
Cl	**2.7390e-06**	**0.39644**	**0.99868**
NO_2	1.4846e-06	0.07434	0.99982
Br	8.0527e-06	0.06741	0.99969
NO_3	**1.2026e-06**	**0.15001**	**0.99868**
HPO_4	**3.7935e-06**	**0.17653**	**0.99874**
SO_4	4.1079e-06	0.73632	0.99873

Sample Areas less than L5 area are calculated using the low calibration.
Sample Areas between L5 area and the L8 are calculated using the high calibration.

Concentration = (Slope)*(area)+Intercept
y = (mx+b)

100

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD #
AUTOCAL 1 11-May-98 19:29													
	367	F	0	1	0.010			0.1	mg/L				
	223	Cl	0	1	0.029			0.25	mg/L				
	507	NO_2	0	1	0.013			0.05	mg/L				
	192	Br	0	1	0.007			0.05	mg/L				
	508	NO_3	0	1	0.006			0.05	mg/L				
	539	HPO_4	0	1	0.044			0.05	mg/L				
	681	SO_4	0	1	0.019			0.25	mg/L				
AUTOCAL 2 11-May-98 19:46													
	367	F	36637	1	0.100			0.1	mg/L				
	223	Cl	64695	1	0.256			0.25	mg/L				
	507	NO_2	52872	1	0.101			0.05	mg/L				
	192	Br	9897	1	0.095			0.05	mg/L				
	508	NO_3	60830	1	0.100			0.05	mg/L				
	539	HPO_4	11596	1	0.101			0.05	mg/L				
	681	SO_4	96329	1	0.524			0.25	mg/L				
AUTOCAL 3 11-May-98 20:04													
	367	F	76530	1	0.197			0.1	mg/L				
	223	Cl	130926	1	0.490			0.25	mg/L				
	507	NO_2	108300	1	0.194			0.05	mg/L				
	192	Br	21478	1	0.198			0.05	mg/L				
	508	NO_3	126374	1	0.200			0.05	mg/L				
	539	HPO_4	27296	1	0.178			0.05	mg/L				
	681	SO_4	185720	1	0.993			0.25	mg/L				
AUTOCAL 4 11-May-98 20:22													
	367	F	194273	1	0.486			0.1	mg/L				
	223	Cl	333055	1	1.201			0.25	mg/L				
	507	NO_2	281004	1	0.483			0.05	mg/L				
	192	Br	55158	1	0.497			0.05	mg/L				
	508	NO_3	314642	1	0.488			0.05	mg/L				
	539	HPO_4	84167	1	0.456			0.05	mg/L				
	681	SO_4	460138	1	2.433			0.25	mg/L				
AUTOCAL 5 11-May-98 21:17													
	367	F	406753	1	0.947			0.1	mg/L				
	223	Cl	709037	1	2.339			0.25	mg/L				
	507	NO_2	595221	1	0.958			0.05	mg/L				
	192	Br	112130	1	0.970			0.05	mg/L				
	508	NO_3	652409	1	0.935			0.05	mg/L				
	539	HPO_4	199586	1	0.934			0.05	mg/L				
	681	SO_4	955417	1	4.661			0.25	mg/L				
AUTOCAL 6 11-May-98 21:35													
	367	F	857900	1	1.915			0.1	mg/L				
	223	Cl	1478686	1	4.447			0.25	mg/L				
	507	NO_2	1240922	1	1.917			0.05	mg/L				
	192	Br	233204	1	1.945			0.05	mg/L				
	508	NO_3	1376523	1	1.805			0.05	mg/L				
	539	HPO_4	438687	1	1.841			0.05	mg/L				
	681	SO_4	2017893	1	9.026			0.25	mg/L				
AUTOCAL 7 11-May-98 21:52													
	367	F	2260432	1	4.925			0.1	mg/L				
	223	Cl	4143209	1	11.745			0.25	mg/L				
	507	NO_2	3256657	1	4.909			0.05	mg/L				
	192	Br	590464	1	4.822			0.05	mg/L				
	508	NO_3	3764180	1	4.677			0.05	mg/L				
	539	HPO_4	1186369	1	4.677			0.05	mg/L				
	681	SO_4	5527780	1	23.444			0.25	mg/L				

Test ID	Sample	Analyte	Area	Dil'n	Conc.	Result	RQL	DL	Units	Samp	Spike	Rec	RPD	#
	AUTOCAL 8	**11-May-98 22:10**												
	367	F	4651006	1	10.056			0.1	mg/L					
	223	Cl	9141828	1	25.436			0.25	mg/L					
	507	NO_2	6727866	1	10.062			0.05	mg/L					
	192	Br	1245327	1	10.096			0.05	mg/L					
	508	NO_3	8339898	1	10.180			0.05	mg/L					
	539	HPO_4	2635845	1	10.176			0.05	mg/L					
	681	SO_4	12205280	1	50.875			0.25	mg/L					

********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05119801\data0001.dxd	Report Date:	5/12/98 8:57:34 PM
Sample Name:	AUTOCAL 1	Collected :	5/11/98 7:29:22 PM
Inject # :	1	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/11/98 7:46:52 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	1	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE

Data File :	Net\DATA\05119801\data0001.dxd	Report Date:	5/12/98 8:57:34 PM
Sample Name:	AUTOCAL 1	Collected :	5/11/98 7:29:22 PM
Inject # :	1	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/12/98 8:57:34 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
Totals		0.000	0				

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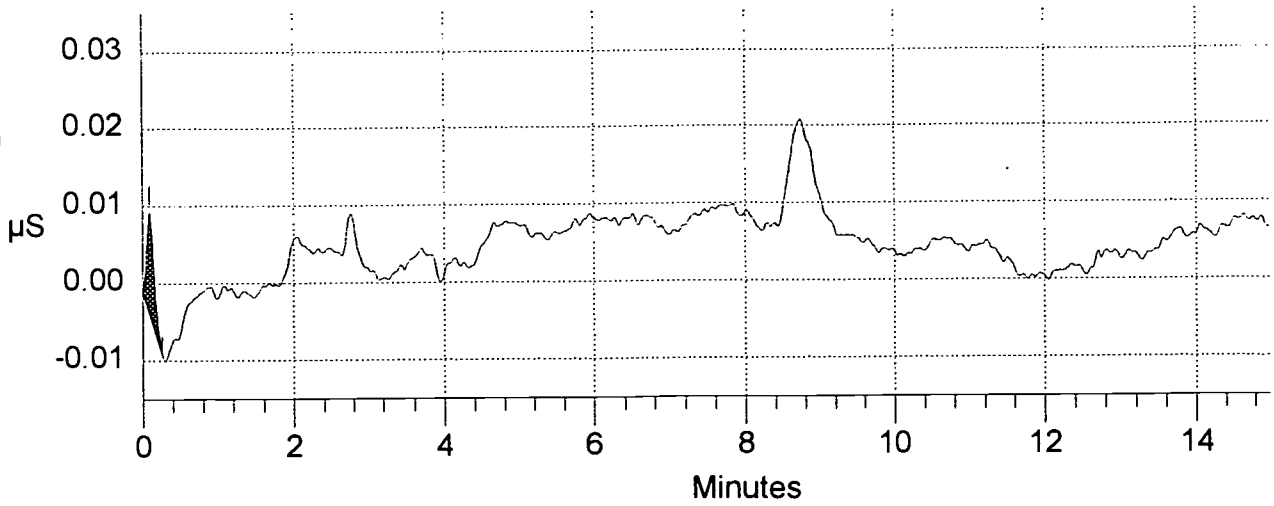
File: data0001.dxd Sample AUTOCAL 1



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********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05119801\data0002.dxd	Report Date:	5/12/98 8:57:35 PM
Sample Name:	AUTOCAL 2	Collected :	5/11/98 7:46:59 PM
Inject # :	2	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/11/98 8:04:28 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	2	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.72	2.72	2.72	3.664e+004	3.664e+004	3.664e+004
2	Cl	3.92	3.92	3.92	6.470e+004	6.470e+004	6.470e+004
3	NO2	4.74	4.74	4.74	5.287e+004	5.287e+004	5.287e+004
4	Br	6.10	6.10	6.10	9.897e+003	9.897e+003	9.897e+003
5	NO3	7.22	7.22	7.22	6.083e+004	6.083e+004	6.083e+004
6	HPO4	8.69	8.69	8.69	1.160e+004	1.160e+004	1.160e+004
7	SO4	10.73	10.73	10.73	9.633e+004	9.633e+004	9.633e+004

Data File :	Net\DATA\05119801\data0002.dxd	Report Date:	5/12/98 8:57:35 PM
Sample Name:	AUTOCAL 2	Collected :	5/11/98 7:46:59 PM
Inject # :	2	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/12/98 8:57:35 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.100	36637	2.72	0.00	1	4.76
3	Cl	0.250	64695	3.92	0.00	1	2.84
4	NO2	0.100	52872	4.74	0.00	1	3.93
5	Br	0.100	9897	6.10	0.00	1	2.69
6	NO3	0.100	60830	7.22	0.00	1	2.93
7	HPO4	0.100	11596	8.69	0.00	1	3.32
8	SO4	0.500	96329	10.73	0.00	1	0.00
	Totals	1.250	332855				

Schedule: \PEAKNET\SCHEDULE\051198CA.SCH
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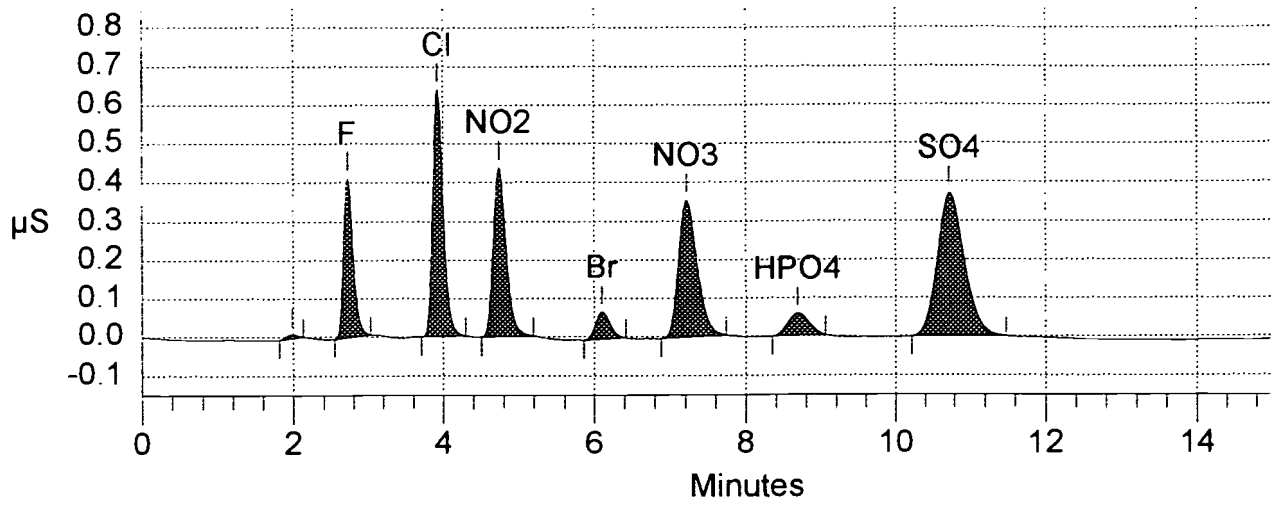
File: data0002.dxd Sample AUTOCAL 2



Schedule: \PEAKNET\SCHEDULE\051198CA.SCH
Release 4.30 Page 2 of 2 5/12/98 8:57:35 PM

********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05119801\data0003.dxd	Report Date:	5/12/98 8:57:36 PM
Sample Name:	AUTOCAL 3	Collected :	5/11/98 8:04:34 PM
Inject # :	3	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/11/98 8:22:02 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	3	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.72	2.72	2.72	7.653e+004	7.653e+004	7.653e+004
2	Cl	3.91	3.91	3.91	1.309e+005	1.309e+005	1.309e+005
3	NO2	4.72	4.72	4.72	1.083e+005	1.083e+005	1.083e+005
4	Br	6.07	6.07	6.07	2.148e+004	2.148e+004	2.148e+004
5	NO3	7.18	7.18	7.18	1.264e+005	1.264e+005	1.264e+005
6	HPO4	8.69	8.69	8.69	2.730e+004	2.730e+004	2.730e+004
7	SO4	10.75	10.75	10.75	1.857e+005	1.857e+005	1.857e+005

Data File :	Net\DATA\05119801\data0003.dxd	Report Date:	5/12/98 8:57:36 PM
Sample Name:	AUTOCAL 3	Collected :	5/11/98 8:04:34 PM
Inject # :	3	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/12/98 8:57:36 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.200	76530	2.72	0.00	1	4.72
3	Cl	0.500	130926	3.91	0.00	1	2.80
4	NO2	0.200	108300	4.72	0.00	1	3.91
5	Br	0.200	21478	6.07	0.00	1	2.65
6	NO3	0.200	126374	7.18	0.00	1	2.90
7	HPO4	0.200	27296	8.69	0.00	1	3.26
8	SO4	1.000	185720	10.75	0.00	1	0.00
	Totals	2.500	676625				

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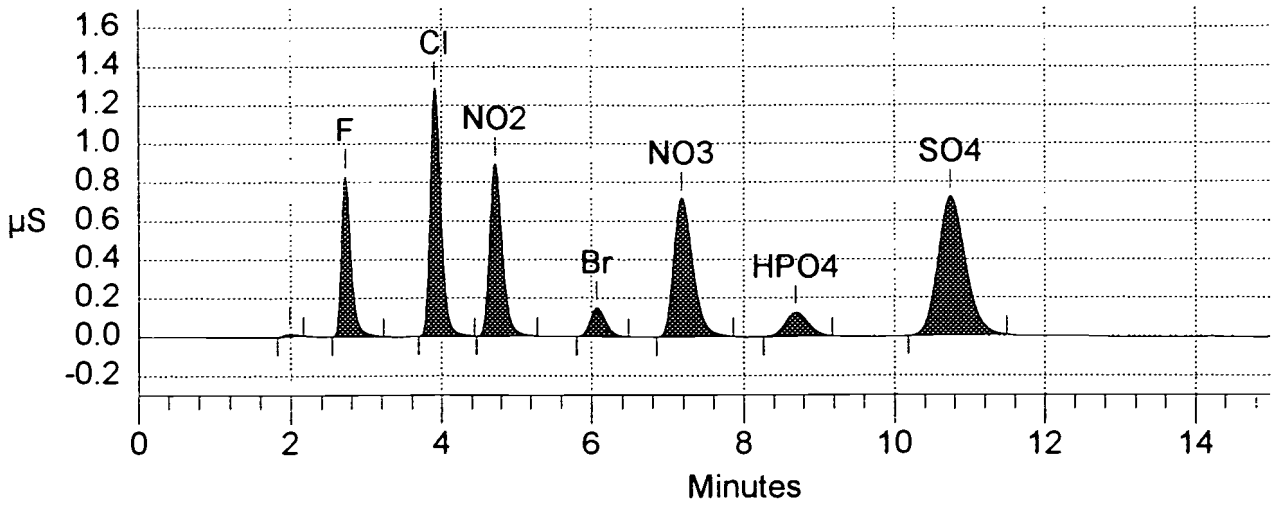
File: data0003.dxd Sample AUTOCAL 3



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Schedule: \PEAKNET\SCHEDULE\051198CA.SCH
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********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05119801\data0004.dxd	Report Date:	5/12/98 8:57:36 PM
Sample Name:	AUTOCAL 4	Collected :	5/11/98 8:22:08 PM
Inject # :	4	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/11/98 8:39:40 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	4	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.71	2.71	2.71	1.943e+005	1.943e+005	1.943e+005
2	Cl	3.90	3.90	3.90	3.331e+005	3.331e+005	3.331e+005
3	NO2	4.71	4.71	4.71	2.810e+005	2.810e+005	2.810e+005
4	Br	6.05	6.05	6.05	5.516e+004	5.516e+004	5.516e+004
5	NO3	7.14	7.14	7.14	3.146e+005	3.146e+005	3.146e+005
6	HPO4	8.67	8.67	8.67	8.417e+004	8.417e+004	8.417e+004
7	SO4	10.73	10.73	10.73	4.601e+005	4.601e+005	4.601e+005

Data File :	Net\DATA\05119801\data0004.dxd	Report Date:	5/12/98 8:57:37 PM
Sample Name:	AUTOCAL 4	Collected :	5/11/98 8:22:08 PM
Inject # :	4	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/12/98 8:57:36 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00		1500	5.00	0.51

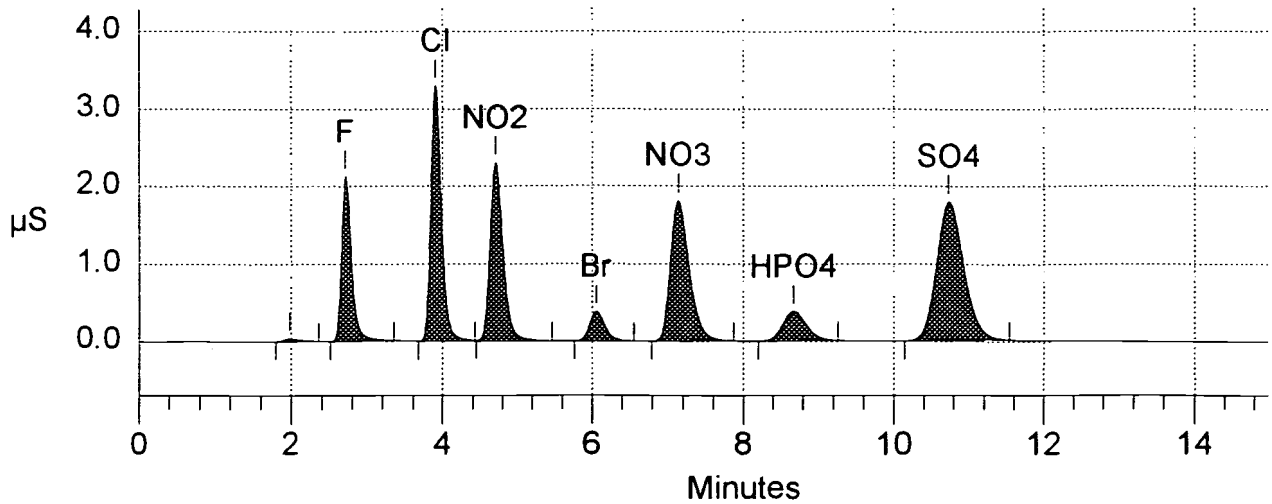
Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	0.500	194273	2.71	0.00	1	4.83
3	Cl	1.250	333055	3.90	0.00	2	2.80
4	NO2	0.500	281004	4.71	0.00	2	3.85
5	Br	0.500	55158	6.05	0.00	1	2.62
6	NO3	0.500	314642	7.14	0.00	1	2.95
7	HPO4	0.500	84167	8.67	0.00	1	3.28
8	SO4	2.500	460138	10.73	0.00	1	0.00
	Totals	6.250	1722437				

Schedule: \PEAKNET\SCHEDULE\051198CA.SCH
Release 4.30 Page 1 of 2 5/12/98 8:57:37 PM

File: data0004.dxd Sample AUTOCAL 4



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Schedule: \PEAKNET\SCHEDULE\051198CA.SCH
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********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05119801\data0005.dxd	Report Date:	5/12/98 8:57:37 PM
Sample Name:	AUTOCAL 5	Collected :	5/11/98 9:17:47 PM
Inject # :	5	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/11/98 9:35:19 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	5	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.74	2.74	2.74	4.068e+005	4.068e+005	4.068e+005
2	Cl	3.95	3.95	3.95	7.090e+005	7.090e+005	7.090e+005
3	NO2	4.75	4.75	4.75	5.952e+005	5.952e+005	5.952e+005
4	Br	6.10	6.10	6.10	1.121e+005	1.121e+005	1.121e+005
5	NO3	7.16	7.16	7.16	6.524e+005	6.524e+005	6.524e+005
6	HPO4	8.70	8.70	8.70	1.996e+005	1.996e+005	1.996e+005
7	SO4	10.79	10.79	10.79	9.554e+005	9.554e+005	9.554e+005

Data File :	Net\DATA\05119801\data0005.dxd	Report Date:	5/12/98 8:57:38 PM
Sample Name:	AUTOCAL 5	Collected :	5/11/98 9:17:47 PM
Inject # :	5	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/12/98 8:57:37 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	1.000	406753	2.74	0.00	1	4.91
3	Cl	2.500	709037	3.95	0.00	2	2.80
4	NO2	1.000	595221	4.75	0.00	2	3.91
5	Br	1.000	112130	6.10	0.00	2	2.56
6	NO3	1.000	652409	7.16	0.00	1	2.92
7	HPO4	1.000	199586	8.70	0.00	1	3.26
8	SO4	5.000	955417	10.79	0.00	1	0.00
	Totals	12.500	3630553				

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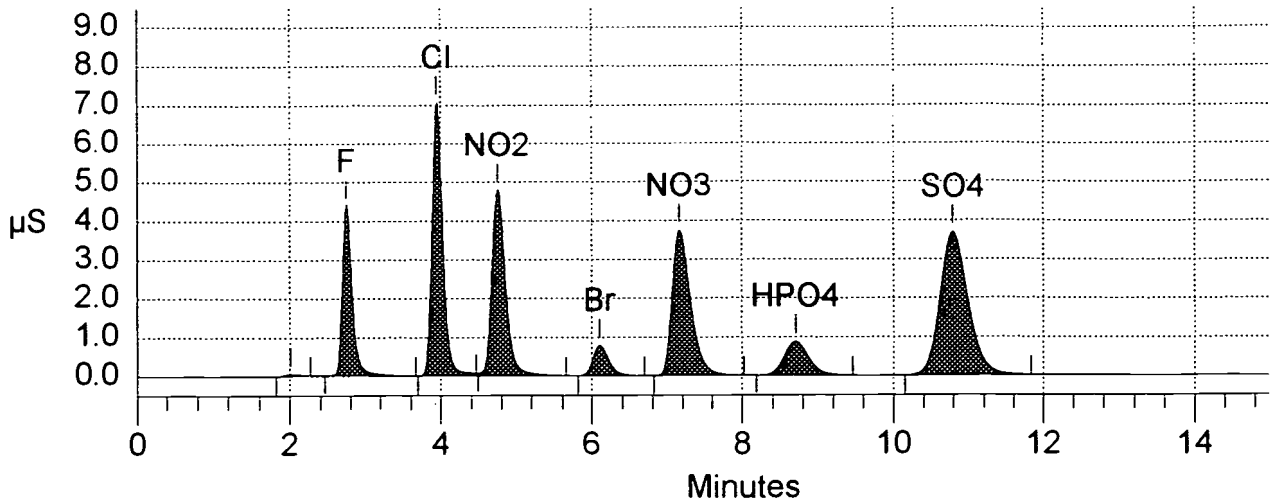
File: data0005.dxd Sample AUTOCAL 5



Schedule: \PEAKNET\SCHEDULE\051198CA.SCH
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********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05119801\data0006.dxd	Report Date:	5/12/98 8:57:38 PM
Sample Name:	AUTOCAL 6	Collected :	5/11/98 9:35:24 PM
Inject # :	6	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/11/98 9:52:53 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	6	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.77	2.77	2.77	8.579e+005	8.579e+005	8.579e+005
2	Cl	3.98	3.98	3.98	1.479e+006	1.479e+006	1.479e+006
3	NO2	4.79	4.79	4.79	1.241e+006	1.241e+006	1.241e+006
4	Br	6.13	6.13	6.13	2.332e+005	2.332e+005	2.332e+005
5	NO3	7.16	7.16	7.16	1.377e+006	1.377e+006	1.377e+006
6	HPO4	8.72	8.72	8.72	4.387e+005	4.387e+005	4.387e+005
7	SO4	10.81	10.81	10.81	2.018e+006	2.018e+006	2.018e+006

Data File :	Net\DATA\05119801\data0006.dxd	Report Date:	5/12/98 8:57:39 PM
Sample Name:	AUTOCAL 6	Collected :	5/11/98 9:35:24 PM
Inject # :	6	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/12/98 8:57:38 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	2.000	857900	2.77	0.00	2	4.97
3	Cl	5.000	1478686	3.98	0.00	2	2.86
4	NO2	2.000	1240922	4.79	0.00	2	3.91
5	Br	2.000	233204	6.13	0.00	2	2.49
6	NO3	2.000	1376523	7.16	0.00	2	2.96
7	HPO4	2.000	438687	8.72	0.00	2	3.29
8	SO4	10.000	2017893	10.81	0.00	1	0.00
	Totals	25.000	7643815				

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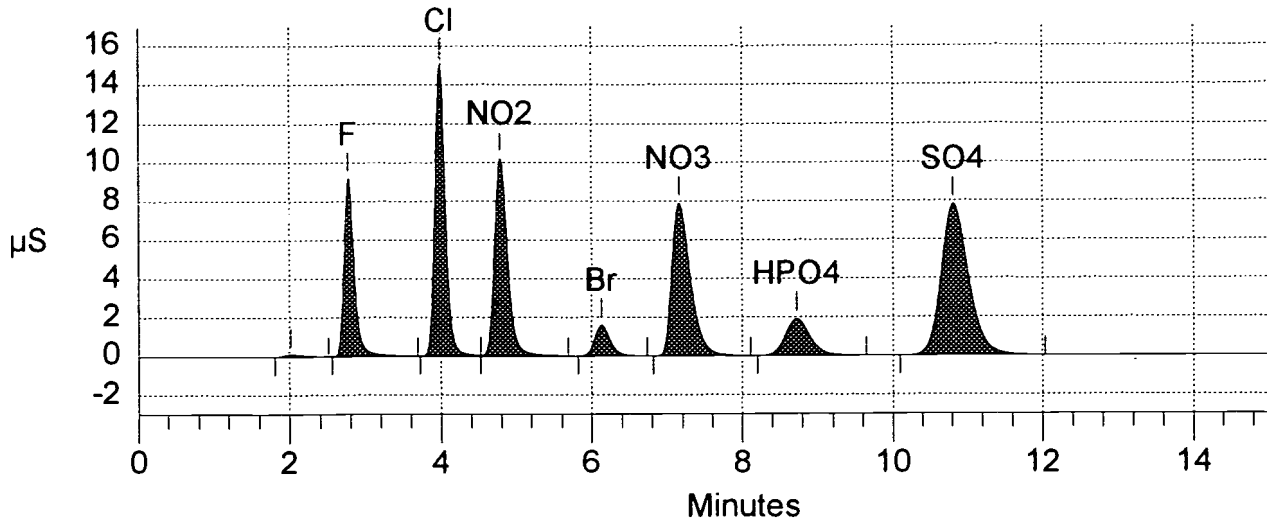
File: data0006.dxd Sample AUTOCAL 6



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Schedule: \PEAKNET\SCHEDULE\051198CA.SCH
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********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05119801\data0007.dxd	Report Date:	5/12/98 8:57:39 PM
Sample Name:	AUTOCAL 7	Collected :	5/11/98 9:52:58 PM
Inject # :	7	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/11/98 10:10:31 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	7	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.76	2.76	2.76	2.260e+006	2.260e+006	2.260e+006
2	Cl	3.99	3.99	3.99	4.143e+006	4.143e+006	4.143e+006
3	NO2	4.78	4.78	4.78	3.257e+006	3.257e+006	3.257e+006
4	Br	6.11	6.11	6.11	5.905e+005	5.905e+005	5.905e+005
5	NO3	7.08	7.08	7.08	3.764e+006	3.764e+006	3.764e+006
6	HPO4	8.67	8.67	8.67	1.186e+006	1.186e+006	1.186e+006
7	SO4	10.74	10.74	10.74	5.528e+006	5.528e+006	5.528e+006

Data File :	Net\DATA\05119801\data0007.dxd	Report Date:	5/12/98 8:57:40 PM
Sample Name:	AUTOCAL 7	Collected :	5/11/98 9:52:58 PM
Inject # :	7	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/12/98 8:57:39 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51	

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	5.000	2260432	2.76	0.00	2	4.88
3	Cl	12.500	4143209	3.99	0.00	2	2.73
4	NO2	5.000	3256657	4.78	0.00	2	3.88
5	Br	5.000	590464	6.11	0.00	2	2.36
6	NO3	5.000	3764180	7.08	0.00	2	3.07
7	HPO4	5.000	1186369	8.67	0.00	2	3.32
8	SO4	25.000	5527780	10.74	0.00	1	0.00
	Totals	62.500	20729090				

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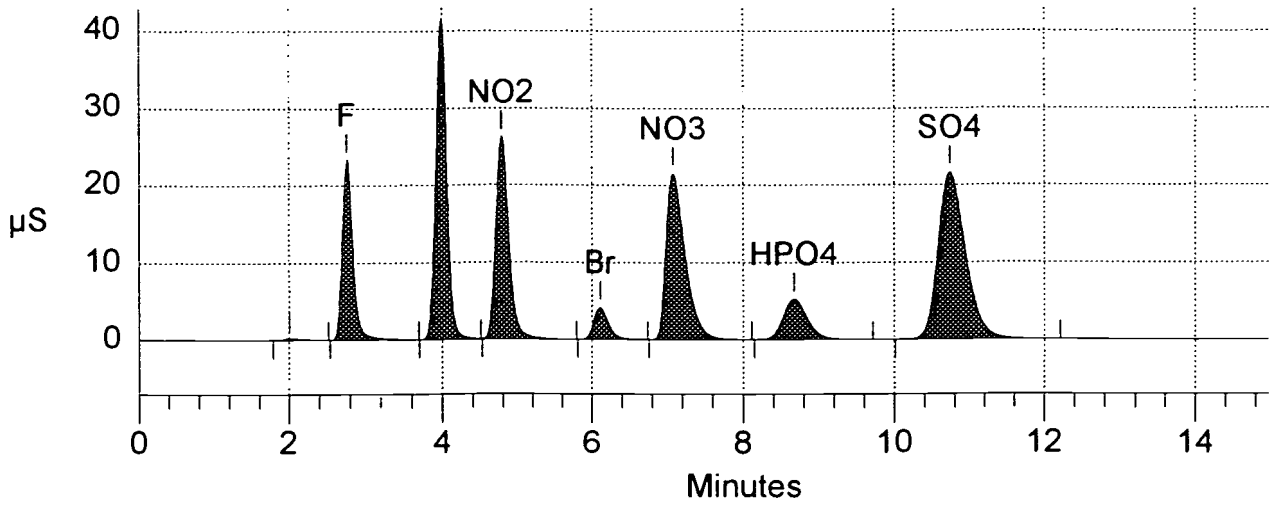
Schedule: \PEAKNET\SCHEDULE\051198CA.SCH

File: data0007.dxd Sample AUTOCAL 7



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Schedule: \PEAKNET\SCHEDULE\051198CA.SCH
Release 4.30 Page 2 of 2 5/12/98 8:57:40 PM

********** AUTOMATIC CALIBRATION UPDATE **********

Data File :	Net\DATA\05119801\data0008.dxd	Report Date:	5/12/98 8:57:40 PM
Sample Name:	AUTOCAL 8	Collected :	5/11/98 10:10:36 PM
Inject # :	8	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Last Update:	5/11/98 10:28:08 PM
System Name:	DX-500	Detector :	CD20
Cal. Level :	8	Analyst :	

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	2.78	2.78	2.78	4.651e+006	4.651e+006	4.651e+006
2	Cl	4.02	4.02	4.02	9.142e+006	9.142e+006	9.142e+006
3	NO2	4.82	4.82	4.82	6.728e+006	6.728e+006	6.728e+006
4	Br	6.11	6.11	6.11	1.245e+006	1.245e+006	1.245e+006
5	NO3	7.03	7.03	7.03	8.340e+006	8.340e+006	8.340e+006
6	HPO4	8.64	8.64	8.64	2.636e+006	2.636e+006	2.636e+006
7	SO4	10.67	10.67	10.67	1.221e+007	1.221e+007	1.221e+007

Data File :	Net\DATA\05119801\data0008.dxd	Report Date:	5/12/98 8:57:41 PM
Sample Name:	AUTOCAL 8	Collected :	5/11/98 10:10:36 PM
Inject # :	8	Vial # :	
Method File:	c:\peaknet\method\as14_an1.met	Calibrated :	5/12/98 8:57:40 PM
System Name:	DX-500	Detector :	CD20
Column Type:	AS9-SC (4 x 250 mm)	Operator :	MAA-4317
Data Points:	4500	Rate :	5.00 Hz
Module Name:	ID:24 04 47	Moduleware :	2.10

Calibration	Volume	Dilution	Start	Stop	Area	Reject	Pk. Width	Threshold
External	1	1	0.00	15.00	1500	5.00	0.51	

Filter type: Moving Average Size:19 points (3.8 sec) 1 iteration(s)

********** Component Report: Components Found **********

Pk. Num	Para-meter	Est. Conc.	Area	Ret Time	% Delta RT	Baseline Code	Resolution
2	F	10.000	4651006	2.78	0.00	2	4.56
3	Cl	25.000	9141828	4.02	0.00	2	2.57
4	NO2	10.000	6727866	4.82	0.00	2	3.70
5	Br	10.000	1245327	6.11	0.00	2	2.22
6	NO3	10.000	8339898	7.03	0.00	2	3.11
7	HPO4	10.000	2635845	8.64	0.00	2	3.26
8	SO4	50.000	12205280	10.67	0.00	1	0.00
	Totals	125.000	44947050				

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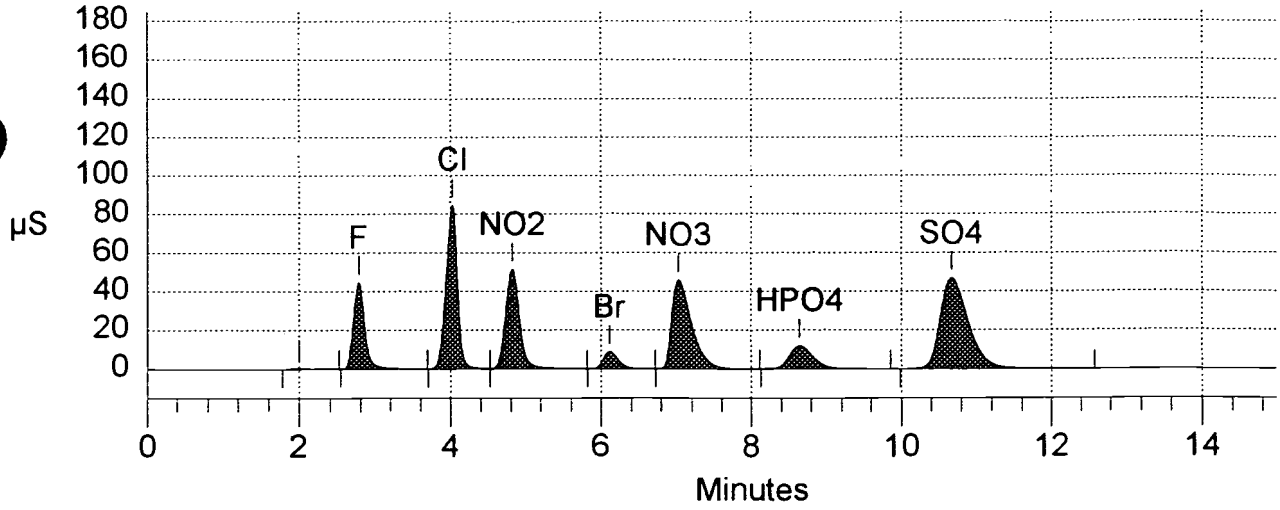
File: data0008.dxd Sample AUTOCAL 8



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Schedule: \PEAKNET\SCHEDULE\051198CA.SCH
Release 4.30 Page 2 of 2 5/12/98 8:57:41 PM

QUALITY ASSURANCE REPORT

ok.

Service Location
HERITAGE ENVIRONMENTAL SERVICES, LLC
COMMERCIAL LABORATORY OPERATIONS
7901 W. MORRIS ST.
INDIANAPOLIS, IN 46231
(317)243-8304

Report Date
08-JUN-98

Submitter
INDIANA DEPARTMENT OF ENVIRONMENTAL MGMT
.
P O BOX 6015
INDIANAPOLIS, IN 46206

Client ID	Lab ID	Date-Time Sampled	Date Received	Date Complete	Description
DK10963	A441373	06-MAY-98 10:55	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK10964	A441374	06-MAY-98 12:20	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK10965	A441375	06-MAY-98 14:10	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK10966	A441376	06-MAY-98 15:00	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK10967	A441377	06-MAY-98 16:20	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK10968	A441378	06-MAY-98 17:00	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK10969	A441379	06-MAY-98 18:00	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK10970	A441380	06-MAY-98 12:00	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK10971	A441381	06-MAY-98 14:00	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK10972	A441382	06-MAY-98 15:20	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11727	A441383	06-MAY-98 11:20	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11728	A441384	06-MAY-98 12:51	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11729	A441385	06-MAY-98 13:46	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11730	A441386	06-MAY-98 14:51	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11731	A441387	06-MAY-98 15:56	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11732	A441388	06-MAY-98 10:38	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11733	A441389	06-MAY-98 11:39	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11023	A441390	06-MAY-98 10:20	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11024	A441396	06-MAY-98 11:55	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026

HERITAGE ENVIRONMENTAL SERVICES, LLC

Client ID	Lab ID	Date-Time Sampled	Date Received	Date Complete	Description
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11025	A441397	06-MAY-98 13:02	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11026	A441398	06-MAY-98 14:07	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11027	A441399	06-MAY-98 15:00	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11028	A441400	06-MAY-98 15:50	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11029	A441401	06-MAY-98 08:54	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11030	A441402	06-MAY-98 09:40	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2
DK11031	A441403	06-MAY-98 10:45	08-MAY-98	08-JUN-98	DESCRIPTION: DK11727-DK12026
					DESCRIPTION: WATERS - GROUP IA - TASKS 1 & 2

26 samples

5 ms/msds

3 dupes.

HERITAGE ENVIRONMENTAL SERVICES, LLC

NITROGEN, NITRATE-NITRITE EPA 353.2 G113.3

Run: R348108 Analyst.: C PEREGRINE Run Date...: 11-MAY-98 Instrument: AUTO-ANALYZER
ANALYTICAL Reviewer: B SHRAKE Review Date: 12-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q831987		NITROGEN, NITRATE-NITRITE			-.005	mg/L		
CDL01	Q831988		NITROGEN, NITRATE-NITRITE	0.05		0.0495	mg/L	99	
ICV01	Q831989		NITROGEN, NITRATE-NITRITE	0.514		0.554	mg/L	107.8	
CCV	Q831995		NITROGEN, NITRATE-NITRITE	1		1.04	mg/L	104	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
SPI01	Q831998	A441374	NITROGEN, NITRATE-NITRITE	0	1	1.01	mg/L	101	
DPS01	Q831999	A441374	NITROGEN, NITRATE-NITRITE	0	1	1.01	mg/L	101	0
CCV	Q832000		NITROGEN, NITRATE-NITRITE	1		1.01	mg/L	101	
BLA01	Q832001		NITROGEN, NITRATE-NITRITE			-.0045	mg/L		
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
DUP01	Q832002	A441375	NITROGEN, NITRATE-NITRITE	0		BDL	mg/L		
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SPI01	Q832003	A441381	NITROGEN, NITRATE-NITRITE	0	1	0.934	mg/L	93.4	
DPS01	Q832004	A441381	NITROGEN, NITRATE-NITRITE	0	1	0.93	mg/L	93	.4
CCV	Q832005		NITROGEN, NITRATE-NITRITE	1		1.01	mg/L	101	
BLA01	Q832006		NITROGEN, NITRATE-NITRITE			-.0048	mg/L		
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
DUP01	Q832007	A441382	NITROGEN, NITRATE-NITRITE	0		BDL	mg/L		
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SPI01	Q832008	A441388	NITROGEN, NITRATE-NITRITE	0	1	0.98	mg/L	98	
DPS01	Q832009	A441388	NITROGEN, NITRATE-NITRITE	0	1	0.978	mg/L	97.8	.2
CCV	Q832010		NITROGEN, NITRATE-NITRITE	1		1.02	mg/L	102	
BLA01	Q832011		NITROGEN, NITRATE-NITRITE			-.0057	mg/L		
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
DUP01	Q832012	A441389	NITROGEN, NITRATE-NITRITE	0		BDL	mg/L		
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
SPI01	Q832013	A441400	NITROGEN, NITRATE-NITRITE	0.603	1	1.61	mg/L	100.7	
DPS01	Q832014	A441400	NITROGEN, NITRATE-NITRITE	0.603	1	1.62	mg/L	101.7	1
CCV	Q832015		NITROGEN, NITRATE-NITRITE	1		1.02	mg/L	102	
BLA01	Q832016		NITROGEN, NITRATE-NITRITE			-.0055	mg/L		
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
DUP01	Q832017	A441401	NITROGEN, NITRATE-NITRITE	7.5		7.4	mg/L		1.3
CCV	Q832019		NITROGEN, NITRATE-NITRITE	1		1.02	mg/L	102	
BLA01	Q832020		NITROGEN, NITRATE-NITRITE			-.0065	mg/L		
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
SPI01	Q832021	A441403	NITROGEN, NITRATE-NITRITE	2.43	1	3.46	mg/L	103	
DPS01	Q832022	A441403	NITROGEN, NITRATE-NITRITE	2.43	1	3.49	mg/L	106	2.9
CCV	Q832023		NITROGEN, NITRATE-NITRITE	1		1	mg/L	100	
BLA01	Q832024		NITROGEN, NITRATE-NITRITE			-.0061	mg/L		

KJELDAHL NITROGEN, TOTAL (TKN), ION SELECTIVE ELECT EPA 351.4 G202.6

Run: R349049 Analyst.: K BUNCH Run Date...: 26-MAY-98
ANALYTICAL Reviewer: B SHRAKE Review Date: 27-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q838405		NITROGEN, KJELDAHL			0.0518	mg/L		
ICV01	Q838406		NITROGEN, KJELDAHL	0.572		0.613	mg/L	107.2	
CDL01	Q838407		NITROGEN, KJELDAHL	0.1		0.0991	mg/L	99.1	
LFB01	Q838409		NITROGEN, KJELDAHL	10.6		12.3	mg/L	116	
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
CCV	Q838410		NITROGEN, KJELDAHL	1		0.919	mg/L	91.9	
BLA01	Q838411		NITROGEN, KJELDAHL			0.0498	mg/L		
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
SPI01	Q838412	A441382	NITROGEN, KJELDAHL	1.68	2.12	4	mg/L	109.4	
CCV	Q838413		NITROGEN, KJELDAHL	1		0.957	mg/L	95.7	
BLA01	Q838414		NITROGEN, KJELDAHL			0.0459	mg/L		
DPS01	Q838415	A441382	NITROGEN, KJELDAHL	1.68	2.12	3.81	mg/L	100.5	8.5
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
CCV	Q838416		NITROGEN, KJELDAHL	1		0.997	mg/L	99.7	
BLA01	Q838417		NITROGEN, KJELDAHL			0.0459	mg/L		
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
DUP01	Q838418	A441390	NITROGEN, KJELDAHL	0.31		0.31	mg/L		0
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
CCV	Q838419		NITROGEN, KJELDAHL	1		0.883	mg/L	88.3	
BLA01	Q838420		NITROGEN, KJELDAHL			0.0407	mg/L		
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q838422		NITROGEN, KJELDAHL	1		0.997	mg/L	99.7	
BLA01	Q838423		NITROGEN, KJELDAHL			0.039	mg/L		

CHLORIDE BY ION CHROMATOGRAPHY EPA 300.0 G300.2

Run: R348055 Analyst.: M ADKINS Run Date...: 08-MAY-98 Instrument: IC
ANALYTICAL Reviewer: E WERNZ Review Date: 12-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q831525		CHLORIDE			< 0.1	mg/L		
CCVL	Q831526		CHLORIDE	1.25		1.28	mg/L	102.4	
CCVH	Q831527		CHLORIDE	12.5		11.9	mg/L	95.2	
LFB01	Q831528		CHLORIDE	2.5		2.49	mg/L	99.6	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
CCVL	Q831537		CHLORIDE	1.25		1.3	mg/L	104	
CCVH	Q831538		CHLORIDE	12.5		11.9	mg/L	95.2	
BLA01	Q831539		CHLORIDE			< 0.1	mg/L		
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SPI01	Q831540	A441375	CHLORIDE	5.43	2.5	8.29	mg/L	114.4	
DPS01	Q831541	A441375	CHLORIDE	5.43	2.5	8.27	mg/L	113.6	.7
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
CCVL	Q831542		CHLORIDE	1.25		1.33	mg/L	106.4	
CCVH	Q831543		CHLORIDE	12.5		11.8	mg/L	94.4	
BLA01	Q831544		CHLORIDE			< 0.1	mg/L		
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SPI01	Q831545	A441383	CHLORIDE	11.8	2.5	14.5	mg/L	108	
DPS01	Q831546	A441383	CHLORIDE	11.8	2.5	14.6	mg/L	112	3.6
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
CCVL	Q831547		CHLORIDE	1.25		1.35	mg/L	108	
CCVH	Q831548		CHLORIDE	12.5		11.8	mg/L	94.4	
BLA01	Q831549		CHLORIDE			< 0.1	mg/L		
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SPI01	Q831550	A441396	CHLORIDE	3.6	2.5	6.17	mg/L	102.8	
DPS01	Q831551	A441396	CHLORIDE	3.6	2.5	6.11	mg/L	100.4	2.4
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
CCVL	Q831552		CHLORIDE	1.25		1.31	mg/L	104.8	
CCVH	Q831553		CHLORIDE	12.5		11.9	mg/L	95.2	

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q831554		CHLORIDE			< 0.1	mg/L		

Run: R348268 Analyst.: M ADKINS Run Date...: 11-MAY-98 Instrument: IC
ANALYTICAL Reviewer: E WERNZ Review Date: 13-MAY-98

BLA01	Q833030		CHLORIDE			< 0.1	mg/L		
CCVL	Q833031		CHLORIDE	1.25		1.21	mg/L	96.8	
CCVH	Q833032		CHLORIDE	12.5		12	mg/L	96	
LFB01	Q833033		CHLORIDE	2.5		2.5	mg/L	100	
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SPI01	Q833034	A441387	CHLORIDE	26.4	12.5	39.5	mg/L	104.8	
DPS01	Q833035	A441387	CHLORIDE	26.4	12.5	39.4	mg/L	104	.8
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
CCVL	Q833036		CHLORIDE	1.25		1.22	mg/L	97.6	
CCVH	Q833037		CHLORIDE	12.5		11.8	mg/L	94.4	
BLA01	Q833038		CHLORIDE			< 0.1	mg/L		

SULFATE BY ION CHROMATOGRAPHY EPA 300.0 G300.7

Run: R348055 Analyst.: M ADKINS Run Date...: 08-MAY-98 Instrument: IC
ANALYTICAL Reviewer: E WERNZ Review Date: 12-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q831525		SULFATE			< 0.1	mg/L		
CCVL	Q831526		SULFATE	2.5		2.44	mg/L	97.6	
CCVH	Q831527		SULFATE	25		23.2	mg/L	92.8	
LFB01	Q831528		SULFATE	5		4.94	mg/L	98.8	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
CCVL	Q831537		SULFATE	2.5		2.43	mg/L	97.2	
CCVH	Q831538		SULFATE	25		23.4	mg/L	93.6	
BLA01	Q831539		SULFATE			< 0.1	mg/L		
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SPI01	Q831540	A441375	SULFATE	7.96	5	13.3	mg/L	106.8	
DPS01	Q831541	A441375	SULFATE	7.96	5	13.4	mg/L	108.8	1.9
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
CCVL	Q831542		SULFATE	2.5		2.45	mg/L	98	
CCVH	Q831543		SULFATE	25		23	mg/L	92	
BLA01	Q831544		SULFATE			< 0.1	mg/L		
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SPI01	Q831545	A441383	SULFATE	25.4	5	30.6	mg/L	104	
DPS01	Q831546	A441383	SULFATE	25.4	5	30.7	mg/L	106	1.9
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
CCVL	Q831547		SULFATE	2.5		2.47	mg/L	98.8	
CCVH	Q831548		SULFATE	25		23.1	mg/L	92.4	
BLA01	Q831549		SULFATE			< 0.1	mg/L		
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q831550	A441396	SULFATE	12.9	5	18	mg/L	102	
DPS01	Q831551	A441396	SULFATE	12.9	5	18	mg/L	102	0
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
CCVL	Q831552		SULFATE	2.5		2.42	mg/L	96.8	
CCVH	Q831553		SULFATE	25		23.2	mg/L	92.8	
BLA01	Q831554		SULFATE			< 0.1	mg/L		

Run: R348268 Analyst.: M ADKINS Run Date...: 11-MAY-98 Instrument: IC
ANALYTICAL Reviewer: E WERNZ Review Date: 13-MAY-98

BLA01	Q833030		SULFATE			< 0.1	mg/L		
CCVL	Q833031		SULFATE	2.5		2.53	mg/L	101.2	
CCVH	Q833032		SULFATE	25		23.6	mg/L	94.4	
LFB01	Q833033		SULFATE	5		4.72	mg/L	94.4	
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SPI01	Q833034	A441387	SULFATE	50.9	25	75.7	mg/L	99.2	
DPS01	Q833035	A441387	SULFATE	50.9	25	75.5	mg/L	98.4	.8
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
CCVL	Q833036		SULFATE	2.5		2.46	mg/L	98.4	
CCVH	Q833037		SULFATE	25		23.5	mg/L	94	
BLA01	Q833038		SULFATE			< 0.1	mg/L		

HARDNESS EDTA TITRIMETRIC EPA 130.2 G621.0

Run: R348384 Analyst.: K WHITFIELD Run Date...: 14-MAY-98
ANALYTICAL Reviewer: B SHRAKE Review Date: 15-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q833996		HARDNESS			0	mg/L		
LFB01	Q833997		HARDNESS	73.6		70.6	mg/L	95.9	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SPI01	Q833998	A441373	HARDNESS	140	500	612	mg/L	94.4	
DPS01	Q833999	A441373	HARDNESS	140	500	627	mg/L	97.4	3.1
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
CCV	Q834000		HARDNESS	1000		984	mg/L	98.4	
BLA01	Q834001		HARDNESS			0	mg/L		
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SPI01	Q834002	A441381	HARDNESS	150	500	647	mg/L	99.4	
DPS01	Q834003	A441381	HARDNESS	150	500	639	mg/L	97.8	1.6
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
CCV	Q834004		HARDNESS	1000		988	mg/L	98.8	
BLA01	Q834005		HARDNESS			0	mg/L		

Run: R348899 Analyst.: R STANLEY Run Date...: 19-MAY-98
ANALYTICAL Reviewer: K FULLMER Review Date: 22-MAY-98

BLA01	Q837395		HARDNESS			0	mg/L		
LFB01	Q837396		HARDNESS	73.6		74.5	mg/L	101.2	
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
SPI01	Q837397	A441390	HARDNESS	180	500	655	mg/L	95	
DPS01	Q837398	A441390	HARDNESS	180	500	692	mg/L	102.4	7.5
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
CCV	Q837399		HARDNESS	1000		976	mg/L	97.6	
BLA01	Q837400		HARDNESS			0	mg/L		
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SPI01	Q837403	A441402	HARDNESS	170	500	660	mg/L	98	
DPS01	Q837404	A441402	HARDNESS	170	500	662	mg/L	98.4	.4
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
DUP01	Q837405	A442384	HARDNESS	420		420	mg/L		0
CCV	Q837406		HARDNESS	1000		988	mg/L	98.8	
BLA01	Q837407		HARDNESS			0	mg/L		

BARIUM ICP EPA 200.7 M404.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R348490 Analyst.: S PUGH Run Date...: 18-MAY-98
PREP Reviewer: W WATNESS Review Date: 19-MAY-98

QC Type	Lab ID	Source	Anal Run
LCS	Q834622	SPEX	R348563
BLA02	Q834623	NA	R348563
SPI02	Q834624	A441373	R348563
DPS02	Q834625	A441373	R348563
SAMPLE	A441373	Rep: 0	R348563
SAMPLE	A441374	Rep: 0	R348563
SAMPLE	A441375	Rep: 0	R348563
SAMPLE	A441376	Rep: 0	R348563
SAMPLE	A441377	Rep: 0	R348563
SAMPLE	A441378	Rep: 0	R348563
SAMPLE	A441379	Rep: 0	R348563
SAMPLE	A441380	Rep: 0	R348563
SAMPLE	A441381	Rep: 0	R348563
SAMPLE	A441382	Rep: 0	R348563
SAMPLE	A441383	Rep: 0	R348563
SAMPLE	A441384	Rep: 0	R348563
SAMPLE	A441385	Rep: 0	R348563
SAMPLE	A441386	Rep: 0	R348563

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Anal Run
SAMPLE	A441387	Rep: 0	R348563
SAMPLE	A441388	Rep: 0	R348563
SAMPLE	A441389	Rep: 0	R348563

Run: R348740 Analyst.: T NEED, JR. Run Date...: 21-MAY-98
PREP Reviewer: W WATNESS Review Date: 22-MAY-98

SAMPLE	A441390	Rep: 0	R348818
SAMPLE	A441396	Rep: 0	R348818
SAMPLE	A441397	Rep: 0	R348818
SAMPLE	A441398	Rep: 0	R348818
SAMPLE	A441399	Rep: 0	R348818
SAMPLE	A441400	Rep: 0	R348818
SAMPLE	A441401	Rep: 0	R348818
SAMPLE	A441402	Rep: 0	R348818
SAMPLE	A441403	Rep: 0	R348818
LCS	Q836545	SPEX	R348818
BLA02	Q836546	NA	R348818
SPI02	Q836547	A441390	R348818
DPS02	Q836548	A441390	R348818

Run: R348563 Analyst.: A STOCKBURGER Run Date...: 18-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 19-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q835214	INORGAN	BARIUM	5.00		5.00	mg/L	100	
BLA01	Q835215	NA	BARIUM			< 0.00400	mg/L		
ICV01	Q835217	PERKIN	BARIUM	1		1.00	mg/L	100	
CDL01	Q835221	INORGAN	BARIUM	10		10.1	mg/L	101	
ICS-A	Q835223	PERKIN	BARIUM	0.500		0.482	mg/L	96	
BLA02	Q834623	NA	BARIUM			< 0.00400	mg/L		
LCS	Q834622	SPEX	BARIUM	20.0		19.3	mg/L	97	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SPI02	Q834624	A441373	BARIUM	0.367	2.00	2.35	mg/L	99	
DPS02	Q834625	A441373	BARIUM	0.367	2.00	2.35	mg/L	99	0
CCV	Q835226	INORGAN	BARIUM	5.00		5.05	mg/L	101	
BLA01	Q835227	NA	BARIUM			< 0.00400	mg/L		
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
CCV	Q835228	INORGAN	BARIUM	5.00		4.98	mg/L	100	
BLA01	Q835229	NA	BARIUM			< 0.00400	mg/L		
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
CCV	Q835230	INORGAN	BARIUM	5.00		5.00	mg/L	100	
BLA01	Q835231	NA	BARIUM			< 0.00400	mg/L		
ICS-A	Q835238	PERKIN	BARIUM	0.500		0.488	mg/L	98	

HERITAGE ENVIRONMENTAL SERVICES, LLC

Run: R348818 Analyst.: A STOCKBURGER Run Date...: 21-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q836869	INORGAN	BARIUM	5.00		4.89	mg/L	98	
BLA01	Q836870	NA	BARIUM			< 0.00400	mg/L		
ICV01	Q836872	PERKIN	BARIUM	1		0.992	mg/L	99	
CDL01	Q836876	INORGAN	BARIUM	10		9.82	mg/L	98	
ICS-A	Q836878	PERKIN	BARIUM	0.500		0.474	mg/L	95	
BLA02	Q836546	NA	BARIUM			< 0.00400	mg/L		
LCS	Q836545	SPEX	BARIUM	20.0		18.9	mg/L	95	
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
SPI02	Q836547	A441390	BARIUM	0.0219	2.00	1.92	mg/L	95	
DPS02	Q836548	A441390	BARIUM	0.0219	2.00	1.86	mg/L	92	3
CCV	Q836890	INORGAN	BARIUM	5.00		4.81	mg/L	96	
BLA01	Q836891	NA	BARIUM			< 0.00400	mg/L		
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
CCV	Q836892	INORGAN	BARIUM	5.00		4.86	mg/L	97	
BLA01	Q836893	NA	BARIUM			< 0.00400	mg/L		
ICS-A	Q836896	PERKIN	BARIUM	0.500		0.472	mg/L	94	

CALCIUM ICP EPA 200.7 M409.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R348490 Analyst.: S PUGH Run Date...: 18-MAY-98
PREP Reviewer: W WATNESS Review Date: 19-MAY-98

QC Type	Lab ID	Source	Anal Run
LCS	Q834622	SPEX	R348563
BLA02	Q834623	NA	R348563
SPI02	Q834624	A441373	R348563
DPS02	Q834625	A441373	R348563
SAMPLE	A441373	Rep: 0	R348563
SAMPLE	A441374	Rep: 0	R348563
SAMPLE	A441375	Rep: 0	R348563
SAMPLE	A441376	Rep: 0	R348563
SAMPLE	A441377	Rep: 0	R348563
SAMPLE	A441378	Rep: 0	R348563
SAMPLE	A441379	Rep: 0	R348563
SAMPLE	A441380	Rep: 0	R348563
SAMPLE	A441381	Rep: 0	R348563
SAMPLE	A441382	Rep: 0	R348563
SAMPLE	A441383	Rep: 0	R348563
SAMPLE	A441384	Rep: 0	R348563
SAMPLE	A441385	Rep: 0	R348563
SAMPLE	A441386	Rep: 0	R348563
SAMPLE	A441387	Rep: 0	R348563
SAMPLE	A441388	Rep: 0	R348563
SAMPLE	A441389	Rep: 0	R348563

HERITAGE ENVIRONMENTAL SERVICES, LLC

Run: R348740 Analyst.: T NEED, JR. Run Date...: 21-MAY-98
PREP Reviewer: W WATNESS Review Date: 22-MAY-98

QC Type	Lab ID	Source	Anal Run
SAMPLE	A441390	Rep: 0	R348818
SAMPLE	A441396	Rep: 0	R348818
SAMPLE	A441397	Rep: 0	R348818
SAMPLE	A441398	Rep: 0	R348818
SAMPLE	A441399	Rep: 0	R348818
SAMPLE	A441400	Rep: 0	R348818
SAMPLE	A441401	Rep: 0	R348818
SAMPLE	A441402	Rep: 0	R348818
SAMPLE	A441403	Rep: 0	R348818
LCS	Q836545	SPEX	R348818
BLA02	Q836546	NA	R348818
SPI02	Q836547	A441390	R348818
DPS02	Q836548	A441390	R348818

Run: R348563 Analyst.: A STOCKBURGER Run Date...: 18-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 19-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q835214	INORGAN	CALCIUM	50.0		49.1	mg/L	98	
BLA01	Q835215	NA	CALCIUM			< 0.0800	mg/L		
ICV01	Q835218	SPEX	CALCIUM	20		19.7	mg/L	99	
ICS-A	Q835222	PERKIN-	CALCIUM	500		482.	mg/L	96	
BLA02	Q834623	NA	CALCIUM			< 0.0800	mg/L		
LCS	Q834622	SPEX	CALCIUM	100		94.7	mg/L	95	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SPI02	Q834624	A441373	CALCIUM	63.6	100	160.	mg/L	96	
DPS02	Q834625	A441373	CALCIUM	63.6	100	161.	mg/L	97	1
CCV	Q835226	INORGAN	CALCIUM	50.0		49.5	mg/L	99	
BLA01	Q835227	NA	CALCIUM			< 0.0800	mg/L		
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
CCV	Q835228	INORGAN	CALCIUM	50.0		49.0	mg/L	98	
BLA01	Q835229	NA	CALCIUM			< 0.0800	mg/L		
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
CCV	Q835230	INORGAN	CALCIUM	50.0		49.0	mg/L	98	
BLA01	Q835231	NA	CALCIUM			< 0.0800	mg/L		
ICS-A	Q835237	PERKIN-	CALCIUM	500		473.	mg/L	95	

Run: R348818 Analyst.: A STOCKBURGER Run Date...: 21-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-MAY-98

CCV	Q836869	INORGAN	CALCIUM	50.0		49.0	mg/L	98	
BLA01	Q836870	NA	CALCIUM			< 0.0800	mg/L		

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q836873	SPEX	CALCIUM	20		20.0	mg/L	100	
ICS-A	Q836877	PERKIN-	CALCIUM	500		464.	mg/L	93	
BLA02	Q836546	NA	CALCIUM			< 0.0800	mg/L		
LCS	Q836545	SPEX	CALCIUM	100		90.5	mg/L	91	
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
SPI02	Q836547	A441390	CALCIUM	79.4	100	170.	mg/L	91	
DPS02	Q836548	A441390	CALCIUM	79.4	100	165.	mg/L	86	6
CCV	Q836890	INORGAN	CALCIUM	50.0		47.0	mg/L	94	
BLA01	Q836891	NA	CALCIUM			< 0.0800	mg/L		
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
CCV	Q836892	INORGAN	CALCIUM	50.0		47.0	mg/L	94	
BLA01	Q836893	NA	CALCIUM			< 0.0800	mg/L		
ICS-A	Q836895	PERKIN-	CALCIUM	500		444.	mg/L	89	

IRON ICP EPA 200.7 M415.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R348490 Analyst.: S PUGH Run Date...: 18-MAY-98
PREP Reviewer: W WATNESS Review Date: 19-MAY-98

QC Type	Lab ID	Source	Anal Run
LCS	Q834622	SPEX	R348563
BLA02	Q834623	NA	R348563
SPI02	Q834624	A441373	R348563
DPS02	Q834625	A441373	R348563
SAMPLE	A441373	Rep: 0	R348563
SAMPLE	A441374	Rep: 0	R348563
SAMPLE	A441375	Rep: 0	R348563
SAMPLE	A441376	Rep: 0	R348563
SAMPLE	A441377	Rep: 0	R348563
SAMPLE	A441378	Rep: 0	R348563
SAMPLE	A441379	Rep: 0	R348563
SAMPLE	A441380	Rep: 0	R348563
SAMPLE	A441381	Rep: 0	R348563
SAMPLE	A441382	Rep: 0	R348563
SAMPLE	A441383	Rep: 0	R348563
SAMPLE	A441384	Rep: 0	R348563
SAMPLE	A441385	Rep: 0	R348563
SAMPLE	A441386	Rep: 0	R348563
SAMPLE	A441387	Rep: 0	R348563
SAMPLE	A441388	Rep: 0	R348563
SAMPLE	A441389	Rep: 0	R348563

Run: R348740 Analyst.: T NEED, JR. Run Date...: 21-MAY-98
PREP Reviewer: W WATNESS Review Date: 22-MAY-98

SAMPLE	A441390	Rep: 0	R348818
SAMPLE	A441396	Rep: 0	R348818
SAMPLE	A441397	Rep: 0	R348818

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Anal Run
SAMPLE	A441398	Rep: 0	R348818
SAMPLE	A441399	Rep: 0	R348818
SAMPLE	A441400	Rep: 0	R348818
SAMPLE	A441401	Rep: 0	R348818
SAMPLE	A441402	Rep: 0	R348818
SAMPLE	A441403	Rep: 0	R348818
LCS	Q836545	SPEX	R348818
BLA02	Q836546	NA	R348818
SPI02	Q836547	A441390	R348818
DPS02	Q836548	A441390	R348818

Run: R348563 Analyst.: A STOCKBURGER Run Date...: 18-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 19-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q835214	INORGAN	IRON	5.00		4.95	mg/L	99	
BLA01	Q835215	NA	IRON			< 0.0100	mg/L		
ICV01	Q835216	PERKIN	IRON	1		1.01	mg/L	101	
CDL01	Q835221	INORGAN	IRON	10		10.0	mg/L	100	
ICS-A	Q835222	PERKIN-	IRON	200		185.	mg/L	93	
BLA02	Q834623	NA	IRON			0.0125	mg/L		
LCS	Q834622	SPEX	IRON	10.0		8.66	mg/L	87	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SPI02	Q834624	A441373	IRON	0.618	1.00	1.51	mg/L	89	
DPS02	Q834625	A441373	IRON	0.618	1.00	1.51	mg/L	89	0
CCV	Q835226	INORGAN	IRON	5.00		4.95	mg/L	99	
BLA01	Q835227	NA	IRON			< 0.0100	mg/L		
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
CCV	Q835228	INORGAN	IRON	5.00		4.88	mg/L	98	
BLA01	Q835229	NA	IRON			< 0.0100	mg/L		
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
CCV	Q835230	INORGAN	IRON	5.00		4.89	mg/L	98	
BLA01	Q835231	NA	IRON			< 0.0100	mg/L		
ICS-A	Q835237	PERKIN-	IRON	200		181.	mg/L	91	

Run: R348818 Analyst.: A STOCKBURGER Run Date...: 21-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-MAY-98

CCV	Q836869	INORGAN	IRON	5.00		4.88	mg/L	98	
BLA01	Q836870	NA	IRON			< 0.0100	mg/L		
ICV01	Q836871	PERKIN	IRON	1		1.03	mg/L	103	
CDL01	Q836876	INORGAN	IRON	10		9.96	mg/L	100	
ICS-A	Q836877	PERKIN-	IRON	200		177.	mg/L	89	
BLA02	Q836546	NA	IRON			0.0117	mg/L		

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LCS	Q836545	SPEX	IRON	10.0		8.30	mg/L	83	
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
SPI02	Q836547	A441390	IRON	0.230	1.00	1.06	mg/L	83	
DPS02	Q836548	A441390	IRON	0.23	1	1.03	mg/L	80	4
CCV	Q836890	INORGAN	IRON	5.00		4.71	mg/L	94	
BLA01	Q836891	NA	IRON			< 0.0100	mg/L		
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
CCV	Q836892	INORGAN	IRON	5.00		4.74	mg/L	95	
BLA01	Q836893	NA	IRON			< 0.0100	mg/L		
ICS-A	Q836895	PERKIN-	IRON	200		170.	mg/L	85	

MAGNESIUM ICP EPA 200.7 M418.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R348490 Analyst.: S PUGH Run Date...: 18-MAY-98
PREP Reviewer: W WATNESS Review Date: 19-MAY-98

QC Type	Lab ID	Source	Anal Run
LCS	Q834622	SPEX	R348563
BLA02	Q834623	NA	R348563
SPI02	Q834624	A441373	R348563
DPS02	Q834625	A441373	R348563
SAMPLE	A441373	Rep: 0	R348563
SAMPLE	A441374	Rep: 0	R348563
SAMPLE	A441375	Rep: 0	R348563
SAMPLE	A441376	Rep: 0	R348563
SAMPLE	A441377	Rep: 0	R348563
SAMPLE	A441378	Rep: 0	R348563
SAMPLE	A441379	Rep: 0	R348563
SAMPLE	A441380	Rep: 0	R348563
SAMPLE	A441381	Rep: 0	R348563
SAMPLE	A441382	Rep: 0	R348563
SAMPLE	A441383	Rep: 0	R348563
SAMPLE	A441384	Rep: 0	R348563
SAMPLE	A441385	Rep: 0	R348563
SAMPLE	A441386	Rep: 0	R348563
SAMPLE	A441387	Rep: 0	R348563
SAMPLE	A441388	Rep: 0	R348563
SAMPLE	A441389	Rep: 0	R348563

Run: R348740 Analyst.: T NEED, JR. Run Date...: 21-MAY-98
PREP Reviewer: W WATNESS Review Date: 22-MAY-98

SAMPLE	A441390	Rep: 0	R348818
SAMPLE	A441396	Rep: 0	R348818
SAMPLE	A441397	Rep: 0	R348818
SAMPLE	A441398	Rep: 0	R348818
SAMPLE	A441399	Rep: 0	R348818
SAMPLE	A441400	Rep: 0	R348818

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Anal Run
SAMPLE	A441401	Rep: 0	R348818
SAMPLE	A441402	Rep: 0	R348818
SAMPLE	A441403	Rep: 0	R348818
LCS	Q836545	SPEX	R348818
BLA02	Q836546	NA	R348818
SPI02	Q836547	A441390	R348818
DPS02	Q836548	A441390	R348818

Run: R348563 Analyst.: A STOCKBURGER Run Date...: 18-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 19-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q835214	INORGAN	MAGNESIUM	50.0		49.4	mg/L	99	
BLA01	Q835215	NA	MAGNESIUM			< 0.0800	mg/L		
ICV01	Q835218	SPEX	MAGNESIUM	20		19.5	mg/L	98	
ICS-A	Q835222	PERKIN-	MAGNESIUM	500		500.	mg/L	100	
BLA02	Q834623	NA	MAGNESIUM			< 0.0800	mg/L		
LCS	Q834622	SPEX	MAGNESIUM	100		94.7	mg/L	95	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SPI02	Q834624	A441373	MAGNESIUM	26.2	100	125.	mg/L	99	
DPS02	Q834625	A441373	MAGNESIUM	26.2	100	125.	mg/L	99	0
CCV	Q835226	INORGAN	MAGNESIUM	50.0		49.9	mg/L	100	
BLA01	Q835227	NA	MAGNESIUM			< 0.0800	mg/L		
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
CCV	Q835228	INORGAN	MAGNESIUM	50.0		49.3	mg/L	99	
BLA01	Q835229	NA	MAGNESIUM			< 0.0800	mg/L		
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
CCV	Q835230	INORGAN	MAGNESIUM	50.0		49.6	mg/L	99	
BLA01	Q835231	NA	MAGNESIUM			< 0.0800	mg/L		
ICS-A	Q835237	PERKIN-	MAGNESIUM	500		499.	mg/L	100	

Run: R348818 Analyst.: A STOCKBURGER Run Date...: 21-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-MAY-98

CCV	Q836869	INORGAN	MAGNESIUM	50.0		48.9	mg/L	98	
BLA01	Q836870	NA	MAGNESIUM			< 0.0800	mg/L		
ICV01	Q836873	SPEX	MAGNESIUM	20		19.5	mg/L	98	
ICS-A	Q836877	PERKIN-	MAGNESIUM	500		487.	mg/L	97	
BLA02	Q836546	NA	MAGNESIUM			< 0.0800	mg/L		
LCS	Q836545	SPEX	MAGNESIUM	100		93.5	mg/L	94	
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
SPI02	Q836547	A441390	MAGNESIUM	39.5	100	136.	mg/L	97	
DPS02	Q836548	A441390	MAGNESIUM	39.5	100	132.	mg/L	93	5
CCV	Q836890	INORGAN	MAGNESIUM	50.0		48.4	mg/L	97	

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q836891	NA	MAGNESIUM			< 0.0800	mg/L		
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
CCV	Q836892	INORGAN	MAGNESIUM	50.0		48.8	mg/L	98	
BLA01	Q836893	NA	MAGNESIUM			< 0.0800	mg/L		
ICS-A	Q836895	PERKIN-	MAGNESIUM	500		480.	mg/L	96	

POTASSIUM ICP EPA 200.7 M426.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R348490 Analyst.: S PUGH Run Date...: 18-MAY-98
PREP Reviewer: W WATNESS Review Date: 19-MAY-98

QC Type	Lab ID	Source	Anal Run
LCS	Q834622	SPEX	R348563
BLA02	Q834623	NA	R348563
SPI02	Q834624	A441373	R348563
DPS02	Q834625	A441373	R348563
SAMPLE	A441373	Rep: 0	R348563
SAMPLE	A441374	Rep: 0	R348563
SAMPLE	A441375	Rep: 0	R348563
SAMPLE	A441376	Rep: 0	R348563
SAMPLE	A441377	Rep: 0	R348563
SAMPLE	A441378	Rep: 0	R348563
SAMPLE	A441379	Rep: 0	R348563
SAMPLE	A441380	Rep: 0	R348563
SAMPLE	A441381	Rep: 0	R348563
SAMPLE	A441382	Rep: 0	R348563
SAMPLE	A441383	Rep: 0	R348563
SAMPLE	A441384	Rep: 0	R348563
SAMPLE	A441385	Rep: 0	R348563
SAMPLE	A441386	Rep: 0	R348563
SAMPLE	A441387	Rep: 0	R348563
SAMPLE	A441388	Rep: 0	R348563
SAMPLE	A441389	Rep: 0	R348563

Run: R348740 Analyst.: T NEED, JR. Run Date...: 21-MAY-98
PREP Reviewer: W WATNESS Review Date: 22-MAY-98

SAMPLE	A441390	Rep: 0	R348818
SAMPLE	A441396	Rep: 0	R348818
SAMPLE	A441397	Rep: 0	R348818
SAMPLE	A441398	Rep: 0	R348818
SAMPLE	A441399	Rep: 0	R348818
SAMPLE	A441400	Rep: 0	R348818
SAMPLE	A441401	Rep: 0	R348818
SAMPLE	A441402	Rep: 0	R348818
SAMPLE	A441403	Rep: 0	R348818
LCS	Q836545	SPEX	R348818
BLA02	Q836546	NA	R348818

HERITAGE ENVIRONMENTAL SERVICES, LLC

QC Type	Lab ID	Source	Anal Run
SPI02	Q836547	A441390	R348818
DPS02	Q836548	A441390	R348818

Run: R348563 Analyst.: A STOCKBURGER Run Date...: 18-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 19-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q835214	INORGAN	POTASSIUM	50		50.4	mg/L	101	
BLA01	Q835215	NA	POTASSIUM			< 0.0800	mg/L		
ICV01	Q835217	PERKIN	POTASSIUM	10		10.0	mg/L	100	
ICV01	Q835218	SPEX	POTASSIUM	20		19.8	mg/L	99	
BLA02	Q834623	NA	POTASSIUM			< 0.0800	mg/L		
LCS	Q834622	SPEX	POTASSIUM	100		97.1	mg/L	97	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SPI02	Q834624	A441373	POTASSIUM	1.63	100	104.	mg/L	102	
DPS02	Q834625	A441373	POTASSIUM	1.63	100	104.	mg/L	102	0
CCV	Q835226	INORGAN	POTASSIUM	50		51.0	mg/L	102	
BLA01	Q835227	NA	POTASSIUM			< 0.0800	mg/L		
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
CCV	Q835228	INORGAN	POTASSIUM	50		50.5	mg/L	101	
BLA01	Q835229	NA	POTASSIUM			< 0.0800	mg/L		
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
CCV	Q835230	INORGAN	POTASSIUM	50		50.7	mg/L	101	
BLA01	Q835231	NA	POTASSIUM			< 0.0800	mg/L		

Run: R348818 Analyst.: A STOCKBURGER Run Date...: 21-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-MAY-98

CCV	Q836869	INORGAN	POTASSIUM	50		50.8	mg/L	102	
BLA01	Q836870	NA	POTASSIUM			< 0.0800	mg/L		
ICV01	Q836872	PERKIN	POTASSIUM	10		9.96	mg/L	100	
ICV01	Q836873	SPEX	POTASSIUM	20		19.9	mg/L	100	
BLA02	Q836546	NA	POTASSIUM			< 0.0800	mg/L		
LCS	Q836545	SPEX	POTASSIUM	100		99.6	mg/L	100	
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
SPI02	Q836547	A441390	POTASSIUM	0.922	100	104.	mg/L	103	
DPS02	Q836548	A441390	POTASSIUM	0.922	100	102.	mg/L	101	2
CCV	Q836890	INORGAN	POTASSIUM	50		50.5	mg/L	101	
BLA01	Q836891	NA	POTASSIUM			< 0.0800	mg/L		
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
CCV	Q836892	INORGAN	POTASSIUM	50		51.1	mg/L	102	
BLA01	Q836893	NA	POTASSIUM			< 0.0800	mg/L		

SODIUM ICP EPA 200.7 M431.3

Prep: FAA OR ICP ACID DIGESTION EPA 200.0

Run: R348490 Analyst.: S PUGH Run Date...: 18-MAY-98
PREP Reviewer: W WATNESS Review Date: 19-MAY-98

QC Type	Lab ID	Source	Anal Run
LCS	Q834622	SPEX	R348563
BLA02	Q834623	NA	R348563
SPI02	Q834624	A441373	R348563
DPS02	Q834625	A441373	R348563
SAMPLE	A441373	Rep: 0	R348563
SAMPLE	A441374	Rep: 0	R348563
SAMPLE	A441375	Rep: 0	R348563
SAMPLE	A441376	Rep: 0	R348563
SAMPLE	A441377	Rep: 0	R348563
SAMPLE	A441378	Rep: 0	R348563
SAMPLE	A441379	Rep: 0	R348563
SAMPLE	A441380	Rep: 0	R348563
SAMPLE	A441381	Rep: 0	R348563
SAMPLE	A441382	Rep: 0	R348563
SAMPLE	A441383	Rep: 0	R348563
SAMPLE	A441384	Rep: 0	R348563
SAMPLE	A441385	Rep: 0	R348563
SAMPLE	A441386	Rep: 0	R348563
SAMPLE	A441387	Rep: 0	R348563
SAMPLE	A441388	Rep: 0	R348563
SAMPLE	A441389	Rep: 0	R348563

Run: R348740 Analyst.: T NEED, JR. Run Date...: 21-MAY-98
PREP Reviewer: W WATNESS Review Date: 22-MAY-98

SAMPLE	A441390	Rep: 0	R348818
SAMPLE	A441396	Rep: 0	R348818
SAMPLE	A441397	Rep: 0	R348818
SAMPLE	A441398	Rep: 0	R348818
SAMPLE	A441399	Rep: 0	R348818
SAMPLE	A441400	Rep: 0	R348818
SAMPLE	A441401	Rep: 0	R348818
SAMPLE	A441402	Rep: 0	R348818
SAMPLE	A441403	Rep: 0	R348818
LCS	Q836545	SPEX	R348818
BLA02	Q836546	NA	R348818
SPI02	Q836547	A441390	R348818
DPS02	Q836548	A441390	R348818

Run: R348563 Analyst.: A STOCKBURGER Run Date...: 18-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 19-MAY-98

QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q835214	INORGAN	SODIUM	50		50.6	mg/L	101	
BLA01	Q835215	NA	SODIUM			< 0.0800	mg/L		

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QC Type	Lab ID	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q835217	PERKIN	SODIUM	1		1.02	mg/L	102	
ICV01	Q835218	SPEX	SODIUM	20		19.9	mg/L	100	
BLA02	Q834623	NA	SODIUM			< 0.0800	mg/L		
LCS	Q834622	SPEX	SODIUM	100		107.	mg/L	107	
SAMPLE	A441373		See Cert. of Analysis, Rep: 0						
SPI02	Q834624	A441373	SODIUM	41.4	100	143.	mg/L	102	
DPS02	Q834625	A441373	SODIUM	41.4	100	143.	mg/L	102	0
CCV	Q835226	INORGAN	SODIUM	50		50.4	mg/L	101	
BLA01	Q835227	NA	SODIUM			< 0.0800	mg/L		
SAMPLE	A441374		See Cert. of Analysis, Rep: 0						
SAMPLE	A441375		See Cert. of Analysis, Rep: 0						
SAMPLE	A441376		See Cert. of Analysis, Rep: 0						
SAMPLE	A441377		See Cert. of Analysis, Rep: 0						
SAMPLE	A441378		See Cert. of Analysis, Rep: 0						
SAMPLE	A441379		See Cert. of Analysis, Rep: 0						
SAMPLE	A441380		See Cert. of Analysis, Rep: 0						
CCV	Q835228	INORGAN	SODIUM	50		49.8	mg/L	100	
BLA01	Q835229	NA	SODIUM			< 0.0800	mg/L		
SAMPLE	A441381		See Cert. of Analysis, Rep: 0						
SAMPLE	A441382		See Cert. of Analysis, Rep: 0						
SAMPLE	A441383		See Cert. of Analysis, Rep: 0						
SAMPLE	A441384		See Cert. of Analysis, Rep: 0						
SAMPLE	A441385		See Cert. of Analysis, Rep: 0						
SAMPLE	A441386		See Cert. of Analysis, Rep: 0						
SAMPLE	A441387		See Cert. of Analysis, Rep: 0						
SAMPLE	A441388		See Cert. of Analysis, Rep: 0						
SAMPLE	A441389		See Cert. of Analysis, Rep: 0						
CCV	Q835230	INORGAN	SODIUM	50		49.5	mg/L	99	
BLA01	Q835231	NA	SODIUM			< 0.0800	mg/L		

Run: R348818 Analyst.: A STOCKBURGER Run Date...: 21-MAY-98 Instrument: ICP
ANALYTICAL Reviewer: S ENDERSON Review Date: 22-MAY-98

CCV	Q836869	INORGAN	SODIUM	50		50.0	mg/L	100	
BLA01	Q836870	NA	SODIUM			< 0.0800	mg/L		
ICV01	Q836872	PERKIN	SODIUM	1		1.02	mg/L	102	
ICV01	Q836873	SPEX	SODIUM	20		19.8	mg/L	99	
BLA02	Q836546	NA	SODIUM			< 0.0800	mg/L		
LCS	Q836545	SPEX	SODIUM	100		108.	mg/L	108	
SAMPLE	A441390		See Cert. of Analysis, Rep: 0						
SPI02	Q836547	A441390	SODIUM	3.39	100	104.	mg/L	101	
DPS02	Q836548	A441390	SODIUM	3.39	100	102.	mg/L	99	2
CCV	Q836890	INORGAN	SODIUM	50		49.5	mg/L	99	
BLA01	Q836891	NA	SODIUM			< 0.0800	mg/L		
SAMPLE	A441396		See Cert. of Analysis, Rep: 0						
SAMPLE	A441397		See Cert. of Analysis, Rep: 0						
SAMPLE	A441398		See Cert. of Analysis, Rep: 0						
SAMPLE	A441399		See Cert. of Analysis, Rep: 0						
SAMPLE	A441400		See Cert. of Analysis, Rep: 0						
SAMPLE	A441401		See Cert. of Analysis, Rep: 0						
SAMPLE	A441402		See Cert. of Analysis, Rep: 0						
SAMPLE	A441403		See Cert. of Analysis, Rep: 0						
CCV	Q836892	INORGAN	SODIUM	50		50.3	mg/L	101	
BLA01	Q836893	NA	SODIUM			< 0.0800	mg/L		

QC Sample Comments

< Less Than Lower Detection Limit
BDL Below Detection Limit

Approved by: GABusch