SDG# HAQ033

PROJECT# 680-45632-1

METALS FRACTION

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SDG# HAQ033
Fraction: METALS

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CHAIN OF CUSTODY

Serial Number 015054

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: Aqualin	PROJECT NO.	PROJECT LOCATION (STATE)
TAL (LAB) PROJECT MANAGER: Lidya Gulizia	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: Ron Wright	CLIENT PHONE: 8060222-7186	CLIENT FAX: 804-343-0220
CLIENT NAME: GES	CLIENT E-MAIL: rwright@gesonline.com	
CLIENT ADDRESS: 23 South 13th St Suite 201 Richmond VA 23219		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 2

STANDARD REPORT DELIVERY ☒

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	REQUIRED ANALYSIS: 6020 - Lead	NUMBER OF CONTAINERS SUBMITTED	REMARKS
								PRESERVATIVE: Nº		
3-18-09	1620	LSS-1			X			1		Run analyses on
	1630	LSS-2			X			1		LSS-1 through
	1635	LSS-3			X			1		LSS-5, & EB-1
	1640	LSS-4			X			1		
	1650	LSS-5			X			1		HOLD LSS-5
	1655	LSS-6			X			1		through LSS-10,
	1700	LSS-7			X			1		LSS-10 MS,
	1710	LSS-8			X			1		LSS-10 MSD, BD-2,
	1720	LSS-9			X			1		until notice
	1725	LSS-10			X			1		from client
	1725	LSS-10 MS			X			1		
	1725	LSS-10 MSD			X			1		

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	3-18-09	1830						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	03/19/09	0852	YES ○ NO ○		68045632	

TAL8240-680 (1207)

Serial Number 015055

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: Aqualon	PROJECT NO.	PROJECT LOCATION (STATE)
TAL (LAB) PROJECT MANAGER: Lidya Gulizia	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: Erin Wright	CLIENT PHONE: 866.222-7786	CLIENT FAX
CLIENT NAME: GES	CLIENT E-MAIL: ewright@gesonline.com	
CLIENT ADDRESS: 23 South 13th St Suite 201 Richmond VA 23219		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 2 OF 2

STANDARD REPORT DELIVERY ☒

DATE DUE

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

REQUIRED ANALYSIS / PRESERVATIVE / NUMBER OF CONTAINERS SUBMITTED

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	6020 Lead (NP)	6020 Lead (HN)								REMARKS
–	–	BD-2			X			1									HOLD BD-2
3-18-09	1745	EB-1		X					1								until notice
																	from client to
																	analyze
																	Run EB-1

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	3-18-09	1830						
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	031909	0852	YES ○ NO ○		68045632	2.0 TEMP

TAL8240-680 (1207)

CASE NARRATIVE

CASE NARRATIVE
Metals Fraction (6020)
SDG: HAQ033
Test America Lab Reference No.: 680-45632-1
Project: Hercules – Aqualon LSS Soils 3/18/09

I. RECEIPT
No receipt or storage anomalies were noted.

II. HOLDING TIMES
A. Sample Preparation: All holding times were met.
B. Sample Analysis: All holding times were met.

III. METHODS
Preparation: SW-846 3005A/3050B
Cleanup: none
Analysis: SW-846 6020

IV. PREPARATION
Sample preparation proceeded normally. Aqueous samples were prepared in batch 680-133353 for ICPMS metals (3005A). Soil/ solid samples were prepared in batch 680-133309 for ICPMS metals (3050B).

V. ANALYSIS

A. Calibration: All initial calibration criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes: A laboratory control standard (LCS) for ICPMS metals was digested in each of the prep batches and analyzed with the samples in this package. All acceptance criteria were met.

Sample 680-45632-1, a client sample from SDGHAQ032, was used as the batch matrix spike/ matrix spike duplicate (MS/MSD) for the ICPMS metals analysis of batch 680-133353. All acceptance criteria were met.

Sample 680-45632-4 was used as the batch MS/MSD for the ICPMS metals analysis of batch 680-133309. The MS/MSD percent recoveries were outside of control limits for lead due to abundance (the parent sample level was at least four times the spike level). This is denoted by a "4" qualifier. The MS/MSD relative percent difference (%RPD) was outside of control limits for lead. This is denoted by a "4" qualifier.

D. Samples: All acceptance criteria were met.

E. Other: Sample 680-45632-1 was used as the batch serial dilution and post-digestion spike for the ICPMS metals analysis of batch 680-133353. Sample 680-45632-4 was used as the batch serial dilution and post-digestion spike for the ICPMS metals analysis of batch 680-133309. All acceptance criteria were met.

SAMPLE INFORMATION SUMMARY

COVER PAGE
METALS

Lab Name: TestAmerica Savannah Job Number: 680-45632-1

SDG No.: HAQ033

Project: Hercules Aqualon LSS Soils 3/18/09

Client Sample ID	Lab Sample ID
LSS-1	680-45632-1
LSS-2	680-45632-2
LSS-3	680-45632-3
LSS-4	680-45632-4
LSS-5	680-45632-5
EB-1	680-45632-12

Comments:

SAMPLE RESULTS

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LSS-1

Lab Sample ID: 680-45632-1

Lab Name: TestAmerica Savannah

Job No.: 680-45632-1

SDG ID.: HAQ033

Matrix: Solid

Date Sampled: 03/18/2009 16:20

Reporting Basis: DRY

Date Received: 03/19/2009 08:52

% Solids: 77.9

CAS No.	Analyte	Conc.	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	17000	350	100	ug/Kg			1	6020

FORM IA-IN

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LSS-2

Lab Sample ID: 680-45632-2

Lab Name: TestAmerica Savannah

Job No.: 680-45632-1

SDG ID.: HAQ033

Matrix: Solid

Date Sampled: 03/18/2009 16:30

Reporting Basis: DRY

Date Received: 03/19/2009 08:52

% Solids: 81.0

CAS No.	Analyte	Conc.	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	18000	350	100	ug/Kg			1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LSS-3

Lab Sample ID: 680-45632-3

Lab Name: TestAmerica Savannah

Job No.: 680-45632-1

SDG ID.: HAQ033

Matrix: Solid

Date Sampled: 03/18/2009 16:35

Reporting Basis: DRY

Date Received: 03/19/2009 08:52

% Solids: 80.0

CAS No.	Analyte	Conc.	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	22000	370	110	ug/Kg			1	6020

FORM IA-IN

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LSS-4

Lab Sample ID: 680-45632-4

Lab Name: TestAmerica Savannah

Job No.: 680-45632-1

SDG ID.: HAQ033

Matrix: Solid

Date Sampled: 03/18/2009 16:40

Reporting Basis: DRY

Date Received: 03/19/2009 08:52

% Solids: 81.4

CAS No.	Analyte	Conc.	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	45000	320	94	ug/Kg			1	6020

FORM IA-IN

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: LSS-5

Lab Sample ID: 680-45632-5

Lab Name: TestAmerica Savannah

Job No.: 680-45632-1

SDG ID.: HAQ033

Matrix: Solid

Date Sampled: 03/18/2009 16:50

Reporting Basis: DRY

Date Received: 03/19/2009 08:52

% Solids: 83.1

CAS No.	Analyte	Conc.	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	18000	340	100	ug/Kg			1	6020

FORM IA-IN

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: EB-1
Lab Sample ID: 680-45632-12
Lab Name: TestAmerica Savannah
Job No.: 680-45632-1
SDG ID.: HAQ033
Matrix: Water
Date Sampled: 03/18/2009 17:45
Reporting Basis: WET
Date Received: 03/19/2009 08:52

CAS No.	Analyte	Conc.	RL	MDL	Units	C	Q	DIL	Method
7439-92-1	Lead	0.19	1.5	0.15	ug/L	J		1	6020

FORM IA-IN

QUALITY CONTROL RESULTS

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

INITIAL CALIBRATION VERIFICATIONS

Initial Calibration Verification Source: MS ICVwk_00040

Analyte	ICV 680-133669/7 03/23/2009 13:05											
	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R
Pb	40		40.0	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

FORM II-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

CONTINUING CALIBRATION VERIFICATIONS

Continuing Calibration Verification Source: MS CCV cpi_00047

Analyte	CCV 680-133669/15 03/23/2009 13:59				CCV 680-133669/25 03/23/2009 15:07				CCV 680-133669/27 03/23/2009 23:48			
	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R
Pb	49		50.0	98	49		50.0	98	49		50.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

FORM II-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

CONTINUING CALIBRATION VERIFICATIONS

Continuing Calibration Verification Source: MS CCV cpi_00047

Analyte	CCV 680-133669/34 03/24/2009 0:35				CCV 680-133669/36 03/24/2009 15:45				CCV 680-133669/43 03/24/2009 16:32			
	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R
Pb	48		50.0	96	48		50.0	96	48		50.0	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

FORM II-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

CONTINUING CALIBRATION VERIFICATIONS

Continuing Calibration Verification Source: MS CCV cpi_00047

Analyte	CCV 680-133669/66 03/24/2009 21:50				CCV 680-133669/78 03/24/2009 23:10							
	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R
Pb	46		50.0	92	46		50.0	92				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

FORM II-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

INITIAL CALIBRATION VERIFICATIONS

Initial Calibration Verification Source: MS ICVwk_00040

Analyte	ICV 680-133655/7 03/25/2009 13:21											
	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R
Pb	39		40.0	97								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

FORM II-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

CONTINUING CALIBRATION VERIFICATIONS

Continuing Calibration Verification Source: MS CCV cpi_00047

Analyte	CCV 680-133655/15 03/25/2009 14:16				CCV 680-133655/25 03/25/2009 15:23				CCV 680-133655/37 03/25/2009 16:43			
	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R
Pb	49		50.0	97	48		50.0	96	46		50.0	92

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

FORM II-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

CONTINUING CALIBRATION VERIFICATIONS

Continuing Calibration Verification Source: MS CCV cpi_00047

Analyte	CCV 680-133655/49 03/25/2009 18:04											
	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R	Found	C	Spike Amt.	%R
Pb	45		50.0	91								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

FORM II-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Analysis Method: 6020 Instrument ID: ICPMSA

Lab Sample ID: CRI 680-133655/9 Concentration Units: ug/L

CRQL Check Standard Source: MS RL WK_00076

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Lead	0.300	0.29	J	97	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

3A-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

INITIAL CALIBRATION BLANK

Analyte	RL	ICB 680-133669/8 03/23/2009 13:12							
		Found	C	Found	C	Found	C	Found	C
Pb	0.30	0.30	U						

Italicized analytes were not requested for this sequence.

FORM III-IN

3A-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

CONTINUING CALIBRATION BLANKS

Analyte	RL	CCB 680-133669/16 03/23/2009 14:06		CCB 680-133669/26 03/23/2009 15:14		CCB 680-133669/28 03/23/2009 23:54		CCB 680-133669/35 03/24/2009 00:42	
		Found	C	Found	C	Found	C	Found	C
Pb	0.30	0.30	U	0.30	U	0.30	U	0.30	U

Italicized analytes were not requested for this sequence.

FORM III-IN

3A-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

CONTINUING CALIBRATION BLANKS

Analyte	RL	CCB 680-133669/37 03/24/2009 15:51		CCB 680-133669/44 03/24/2009 16:40		CCB 680-133669/67 03/24/2009 21:56		CCB 680-133669/79 03/24/2009 23:17	
		Found	C	Found	C	Found	C	Found	C
Pb	0.30	0.30	U	0.30	U	0.30	U	0.30	U

Italicized analytes were not requested for this sequence.

FORM III-IN

3A-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

INITIAL CALIBRATION BLANK

Analyte	RL	ICB 680-133655/8 03/25/2009 13:28							
		Found	C	Found	C	Found	C	Found	C
Pb	0.30	0.30	U						

Italicized analytes were not requested for this sequence.

FORM III-IN

3A-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L DataFile Name:

CONTINUING CALIBRATION BLANKS

Analyte	RL	CCB 680-133655/16 03/25/2009 14:22		CCB 680-133655/26 03/25/2009 15:29		CCB 680-133655/38 03/25/2009 16:50		CCB 680-133655/50 03/25/2009 18:10	
		Found	C	Found	C	Found	C	Found	C
Pb	0.30	0.30	U	0.30	U	0.30	U	0.30	U

Italicized analytes were not requested for this sequence.

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/Kg Lab Sample ID: MB 680-133309/8-A

Instrument Code: ICPMSA Batch No.: 133655

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	300	U		6020

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Concentration Units: ug/L Lab Sample ID: MB 680-133353/20-A

Instrument Code: ICPMSA Batch No.: 133669

CAS No.	Analyte	Concentration	C	Q	Method
7439-92-1	Lead	1.5	U		6020

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Lab Sample ID: ICSA 680-133669/17 Instrument ID: ICPMSA

Lab File ID: ICS Source: MS_ICSA_wk_00020

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Pb		**0.0868**	
Ag		*0.0699*	
Al	*100000*	*90910*	*91*
As		*0.154*	
B		*0.462*	
Ba		*1.46*	
Be		*0.0024*	
Ca	*100000*	*96990*	*97*
Cd		*-0.0628*	
Co		*0.182*	
Cr		*1.02*	
Cu		*0.0977*	
Fe	*100000*	*95310*	*95*
Hg		*0.0199*	
Mg	*100000*	*91030*	*91*
Mn		*2.18*	
Mo	*2000*	*2048*	*102*
Na	*100000*	*95060*	*95*
Ni		*0.675*	
Sb		*0.189*	
Se		*0.0604*	
Sn		*0.0620*	
Sr		*2.60*	
Ti	*2000*	*2105*	*105*
Tl		*0.0327*	
V		*0.0635*	
Zn		*2.86*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Lab Sample ID: ICSA 680-133669/29 Instrument ID: ICPMSA

Lab File ID: ICS Source: MS_ICSA_wk_00020

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Pb		**0.0884**	
Ag		*0.0623*	
Al	*100000*	*89270*	*89*
As		*0.124*	
B		*0.422*	
Ba		*1.43*	
Be		*0.0058*	
Ca	*100000*	*95450*	*95*
Cd		*0.303*	
Co		*0.161*	
Cr		*0.939*	
Cu		*0.0690*	
Fe	*100000*	*95470*	*95*
Hg		*0.0247*	
Mg	*100000*	*90170*	*90*
Mn		*2.06*	
Mo	*2000*	*2114*	*106*
Na	*100000*	*92910*	*93*
Ni		*0.599*	
Sb		*0.216*	
Se		*0.0423*	
Sn		*0.0580*	
Sr		*2.53*	
Ti	*2000*	*2148*	*107*
Tl		*0.0302*	
V		*0.0621*	
Zn		*2.74*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Lab Sample ID: ICSA 680-133669/38 Instrument ID: ICPMSA

Lab File ID: ICS Source: MS_ICSA_wk_00020

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Pb		**0.0879**	
Ag		0.0632	
Al	100000	92650	93
As		0.154	
B		0.390	
Ba		1.49	
Be		0.0107	
Ca	100000	98830	99
Cd		-0.301	
Co		0.146	
Cr		0.973	
Cu		0.0251	
Fe	100000	95680	96
Hg		0.0245	
Mg	100000	93450	93
Mn		2.14	
Mo	2000	2168	108
Na	100000	95630	96
Ni		0.595	
Sb		0.223	
Se		0.0565	
Sn		0.0697	
Sr		2.58	
Ti	2000	2156	108
Tl		0.0391	
V		0.0535	
Zn		2.54	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Lab Sample ID: ICSA 680-133655/17 Instrument ID: ICPMSA

Lab File ID: ICS Source: MS_ICSA_wk_00020

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Pb		**0.0926**	
Ag		0.0533	
Al	100000	92580	93
As		0.112	
B		0.760	
Ba		1.49	
Be		0.0029	
Ca	100000	98560	99
Cd		-0.158	
Co		0.152	
Cr		1.01	
Cu		0.110	
Fe	100000	96140	96
Hg		0.0254	
K	100000	100200	100
Mg	100000	94240	94
Mn		2.17	
Mo	2000	2092	105
Na	100000	97590	98
Ni		0.625	
Sb		0.213	
Se		0.0678	
Sn		0.0846	
Sr		2.68	
Ti	2000	2173	109
Tl		0.0400	
V		0.0358	
Zn		2.84	

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: LSS-4 MS

Lab ID: 680-45632-4 MS

Lab Name: TestAmerica Savannah

Job No.: 680-45632-1

SDG No.: HAQ033

Matrix: Solid

Concentration Units: ug/Kg

% Solids: 81.4

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Lead	52600		45000		5340	148	75-125	4	6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 680-45623-C-1-B MS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR C		Sample Result (SR) C		Spike Added (SA)	%R	Control Limit %R	Q	Method
Lead	51.0		2.0		50.0	98	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: LSS-4 MSD

Lab ID: 680-45632-4 MSD

Lab Name: TestAmerica Savannah

Job No.: 680-45632-1

SDG No.: HAQ033

Matrix: Solid

Concentration Units: ug/Kg

% Solids: 81.4

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	41900	5340	-54	75-125	23	20	4	6020

SRD = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 680-45623-C-1-C MSD

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Lead	50.3		50.0	97	75-125	1	20		6020

SRD = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: LSS-4 PDS

Lab ID: 680-45632-4 PDS

Lab Name: TestAmerica Savannah

Job No.: 680-45632-1

SDG No.: HAQ033

Matrix: Solid

Concentration Units: ug/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Lead	67000		45000		21400	104	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 680-45623-C-1-A PDS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Lead	103		2.0		100	101	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
LAB CONTROL SPIKE
METALS

Lab ID: LCS 680-133309/9-A

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

Sample Matrix: Solid LCS Source: MS lcslcpi_00011

Analyte	Solid(ug/Kg)							
	True	Found	C	%R	Limits		Q	Method
Lead	5000	4840		97	75	125		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SPIKE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 680-133353/21-A

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

Sample Matrix: Water LCS Source: MS lcslcpi_00011

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Lead	50.0	44.4		89	75	125		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 680-45632-4

SDG No: HAQ033

Lab Name: TestAmerica Savannah Job No: 680-45632-1

Matrix: Solid Concentration Units: ug/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	45000		45000		0.51		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 680-45623-C-1-A SD

SDG No: HAQ033

Lab Name: TestAmerica Savannah Job No: 680-45632-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Lead	2.0		1.8	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Savannah Job Number: 680-45632-1

SDG Number: HAQ033

Matrix: Solid Instrument ID: ICPMSA

Analysis Method: 6020 MDL Date: 08/04/2007 00:00

Prep Method: 3050B

Leach Method:

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Lead		0.3	0.088

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Savannah Job Number: 680-45632-1

SDG Number: HAQ033

Matrix: Water Instrument ID: ICPMSA

Analysis Method: 6020 MDL Date: 08/04/2007 00:00

Prep Method: 3005A

Leach Method:

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Lead		1.5	0.15

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Preparation Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
680-45632-1	03/23/2009 11:11	133309	1.11		1000
680-45632-2	03/23/2009 11:11	133309	1.05		1000
680-45632-3	03/23/2009 11:11	133309	1.02		1000
680-45632-4	03/23/2009 11:11	133309	1.15		1000
680-45632-4 MS	03/23/2009 11:11	133309	1.15		1000
680-45632-4 MSD	03/23/2009 11:11	133309	1.15		1000
MB 680-133309/8-A	03/23/2009 11:11	133309	1.00		1000
LCS 680-133309/9-A	03/23/2009 11:11	133309	1.00		1000
680-45632-5	03/23/2009 11:42	133309	1.06		1000

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Preparation Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
680-45632-12	03/23/2009 14:29	133353		50	250
MB 680-133353/20-A	03/23/2009 14:29	133353		50	250
LCS 680-133353/21-A	03/23/2009 14:29	133353		50	250
680-45623-C-1-B MS	03/23/2009 14:29	133353		50	250
680-45623-C-1-C MSD	03/23/2009 14:29	133353		50	250

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Instrument ID: ICPMSA Method: 6020

Start Date: 03/23/2009 12:24 End Date: 03/25/2009 01:26

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
STD00 680-133669/1 IC			12:24	X																			
STD01 680-133669/2 IC			12:31	X																			
STD02 680-133669/3 IC			12:38	X																			
STD03 680-133669/4 IC			12:45	X																			
STD04 680-133669/5 IC			12:52	X																			
ZZZZZZ			12:58																				
ICV 680-133669/7	1		13:05	X																			
ICB 680-133669/8	1		13:12	X																			
CRI 680-133669/9			13:18																				
CRI 680-133669/10			13:25																				
CRI 680-133669/11			13:32																				
ZZZZZZ			13:39																				
ZZZZZZ			13:46																				
ZZZZZZ			13:53																				
CCV 680-133669/15	1		13:59	X																			
CCB 680-133669/16	1		14:06	X																			
ICSA 680-133669/17	1		14:13	X																			
ICSAB 680-133669/18	1		14:20	X																			
ZZZZZZ			14:27																				
LRA 680-133669/20	1		14:33	X																			
ZZZZZZ			14:40																				
ZZZZZZ			14:47																				
ZZZZZZ			14:54																				
ZZZZZZ			15:00																				
CCV 680-133669/25	1		15:07	X																			
CCB 680-133669/26	1		15:14	X																			
CCV 680-133669/27	1		23:48	X																			
CCB 680-133669/28	1		23:54	X																			
ICSA 680-133669/29	1		00:01	X																			
ICSAB 680-133669/30	1		00:08	X																			
ZZZZZZ			00:15																				
ZZZZZZ			00:21																				
ZZZZZZ			00:28																				
CCV 680-133669/34	1		00:35	X																			
CCB 680-133669/35	1		00:42	X																			
CCV 680-133669/36	1		15:45	X																			
CCB 680-133669/37	1		15:51	X																			
ICSA 680-133669/38	1		15:58	X																			
ICSAB 680-133669/39	1		16:05	X																			
ZZZZZZ			16:12																				
ZZZZZZ			16:19																				
ZZZZZZ			16:26																				

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Instrument ID: ICPMSA Method: 6020

Start Date: 03/23/2009 12:24 End Date: 03/25/2009 01:26

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
CCV 680-133669/43	1		16:32	X																			
CCB 680-133669/44	1		16:40	X																			
CCV 680-133669/45			19:27																				
CCB 680-133669/46			19:34																				
ZZZZZZ			19:41																				
ZZZZZZ			19:48																				
ZZZZZZ			19:55																				
ZZZZZZ			20:02																				
ZZZZZZ			20:09																				
ZZZZZZ			20:15																				
ZZZZZZ			20:22																				
ZZZZZZ			20:29																				
ZZZZZZ			20:36																				
ZZZZZZ			20:42																				
CCV 680-133669/57			20:49																				
CCB 680-133669/58			20:56																				
ZZZZZZ			21:03																				
ZZZZZZ			21:09																				
ZZZZZZ			21:16																				
ZZZZZZ			21:23																				
ZZZZZZ			21:30																				
ZZZZZZ			21:36																				
ZZZZZZ			21:43																				
CCV 680-133669/66	1		21:50	X																			
CCB 680-133669/67	1		21:56	X																			
MB 680-133353/20-A	1	R	22:03	X																			
LCS 680-133353/21-A	1	R	22:10	X																			
680-45632-12	1	R	22:16	X																			
ZZZZZZ			22:23																				
680-45623-C-1-A SD	5	R	22:30	X																			
680-45623-C-1-A PDS	1	R	22:37	X																			
680-45623-C-1-B MS	1	R	22:43	X																			
680-45623-C-1-C MSD	1	R	22:50	X																			
ZZZZZZ			22:57																				
ZZZZZZ			23:04																				
CCV 680-133669/78	1		23:10	X																			
CCB 680-133669/79	1		23:17	X																			
ZZZZZZ			23:24																				
ZZZZZZ			23:31																				
ZZZZZZ			23:37																				
ZZZZZZ			23:44																				
ZZZZZZ			23:51																				

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Instrument ID: ICPMSA Method: 6020

Start Date: 03/23/2009 12:24 End Date: 03/25/2009 01:26

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
ZZZZZZ			23:58																				
ZZZZZZ			00:04																				
ZZZZZZ			00:11																				
ZZZZZZ			00:18																				
ZZZZZZ			00:25																				
CCV 680-133669/90			00:32																				
CCB 680-133669/91			00:38																				
ZZZZZZ			00:45																				
ZZZZZZ			00:52																				
ZZZZZZ			00:58																				
ZZZZZZ			01:05																				
ZZZZZZ			01:12																				
CCV 680-133669/97			01:19																				
CCB 680-133669/98			01:26																				

Prep Types
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Instrument ID: ICPMSA Method: 6020

Start Date: 03/25/2009 12:40 End Date: 03/25/2009 18:10

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
STD01 680-133655/1 IC			12:40	X																			
STD02 680-133655/2 IC			12:47	X																			
STD03 680-133655/3 IC			12:54	X																			
STD04 680-133655/4 IC			13:01	X																			
STD05 680-133655/5 IC			13:07	X																			
ZZZZZZ			13:14																				
ICV 680-133655/7	1		13:21	X																			
ICB 680-133655/8	1		13:28	X																			
CRI 680-133655/9	1		13:35	X																			
ZZZZZZ			13:41																				
ZZZZZZ			13:48																				
ZZZZZZ			13:55																				
ZZZZZZ			14:02																				
ZZZZZZ			14:09																				
CCV 680-133655/15	1		14:16	X																			
CCB 680-133655/16	1		14:22	X																			
ICSA 680-133655/17	1		14:29	X																			
ICSAB 680-133655/18	1		14:36	X																			
ZZZZZZ			14:43																				
LRA 680-133655/20	1		14:49	X																			
ZZZZZZ			14:55																				
ZZZZZZ			15:02																				
ZZZZZZ			15:09																				
ZZZZZZ			15:16																				
CCV 680-133655/25	1		15:23	X																			
CCB 680-133655/26	1		15:29	X																			
MB 680-133309/8-A	1	T	15:36	X																			
LCS 680-133309/9-A	1	T	15:43	X																			
680-45632-1	1	T	15:49	X																			
680-45632-2	1	T	15:56	X																			
680-45632-3	1	T	16:03	X																			
680-45632-4	1	T	16:10	X																			
680-45632-4 SD	5	T	16:16	X																			
680-45632-4 PDS	1	T	16:23	X																			
680-45632-4 MS	1	T	16:30	X																			
680-45632-4 MSD	1	T	16:36	X																			
CCV 680-133655/37	1		16:43	X																			
CCB 680-133655/38	1		16:50	X																			
ZZZZZZ			16:57																				
680-45632-5	1	T	17:03	X																			
ZZZZZZ			17:10																				
ZZZZZZ			17:17																				

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Savannah Job No.: 680-45632-1

SDG No.: HAQ033

Instrument ID: ICPMSA Method: 6020

Start Date: 03/25/2009 12:40 End Date: 03/25/2009 18:10

Lab Sample ID	D/F	Type	Time	Analytes																			
				Pb																			
ZZZZZZ			17:24																				
ZZZZZZ			17:30																				
ZZZZZZ			17:37																				
ZZZZZZ			17:44																				
ZZZZZZ			17:50																				
ZZZZZZ			17:57																				
CCV 680-133655/49	1		18:04	X																			
CCB 680-133655/50	1		18:10	X																			

Prep Types
T = Total/NA

FORM XIII-IN

EXTRACTION / PREPARATION LOGS

Metals Worksheet

Batch Number: 680-133309
Method: 3050B
Analyst: Hardy, Donnetta

Date Open: Mar 24 2009 10:11AM
Batch End: Mar 24 2009 12:11PM

Lab ID	Client ID	Method Chain	Basis	Initial weight/volume of sample	Final weight/volume of sample	MS lcs1cpi_00011	MS_LCS2_wk_00070	Tef chips_00005
680-45632-A-1	LSS-1	3050B, 6020	T	1.11 g	1000 mL			
680-45632-A-2	LSS-2	3050B, 6020	T	1.05 g	1000 mL			
680-45632-A-3	LSS-3	3050B, 6020	T	1.02 g	1000 mL			
680-45632-A-4	LSS-4	3050B, 6020	T	1.15 g	1000 mL			
680-45632-A-4~MS		3050B, 6020	T	1.15 g	1000 mL	1.00 mL	1.00 mL	
680-45632-A-4~MSD		3050B, 6020	T	1.15 g	1000 mL	1.00 mL	1.00 mL	
680-45703-A-1	Digester Sludge	3050B, 6020	T	1.15 g	1000 mL			
MB~680-133309/8				1.00 g	1000 mL			1.00 g
LCS~680-133309/9				1.00 g	1000 mL	1.00 mL	1.00 mL	1.00 g
680-45632-A-5	LSS-5	3050B, 6020	T	1.06 g	1000 mL			
680-45632-A-6	LSS-6			1.20 g	1000 mL			
680-45632-A-7	LSS-7			1.04 g	1000 mL			
680-45632-A-8	LSS-8			1.06 g	1000 mL			
680-45632-A-9	LSS-9			1.10 g	1000 mL			
680-45632-A-10	LSS-10			1.06 g	1000 mL			
680-45632-A-10~MS	LSS-10			1.06 g	1000 mL	1.00 mL	1.00 mL	
680-45632-A-10~MSD	LSS-10			1.06 g	1000 mL	1.00 mL	1.00 mL	
680-45632-A-11	BD-2			1.12 g	1000 mL			

DigestionTubes:	A809LS234	Oven, Bath or Block Temperature 1:	94 Degrees C
Blank Soil Lot Number:	TEF CHIPS_00005	Oven, Bath or Block Temperature 2:	N/A Degrees C
Balance ID:	5		
Hood ID or number:	FH-8		
Hot Block ID number:	10		
Lot # of hydrochloric acid:	G39A12		
Lot # of Nitric Acid:	G17026		
Logbook ID for diluted Nitric:	N/A		
Hydrogen peroxide lot number:	48139831		
ID number of the thermometer:	MESD1		
Temperature:	94 Degrees C		
Acid used for pH adjustment:	N/A		
Analyst:	DH		
First Start time:	N/A		
First End time:	N/A		
Person's name who witnessed reagent drop:	N/A		

Metals Worksheet

Batch Number: 680-133309
Method: 3050B
Analyst: Hardy, Donnetta

Date Open: Mar 24 2009 10:11AM
Batch End: Mar 24 2009 12:11PM

Lab ID	Client ID	Method Chain	Basis	Analysis comment	Comments
680-45632-A-1	LSS-1	3050B, 6020	T		
680-45632-A-2	LSS-2	3050B, 6020	T		
680-45632-A-3	LSS-3	3050B, 6020	T		
680-45632-A-4	LSS-4	3050B, 6020	T		
680-45632-A-4~MS		3050B, 6020	T		
680-45632-A-4~MSD		3050B, 6020	T		
680-45703-A-1	Digester Sludge	3050B, 6020	T		
MB~680-133309/8					
LCS~680-133309/9					
680-45632-A-5	LSS-5	3050B, 6020	T		
680-45632-A-6	LSS-6				
680-45632-A-7	LSS-7				
680-45632-A-8	LSS-8				
680-45632-A-9	LSS-9				
680-45632-A-10	LSS-10				
680-45632-A-10~MS	LSS-10				
680-45632-A-10~MSD	LSS-10				
680-45632-A-11	BD-2				

Batch Comment: N/A

Metals Worksheet

Batch Number: 680-133353
Method: 3005A
Analyst: Alpuche, Rosalie

Date Open: Mar 23 2009 2:29PM
Batch End: Mar 24 2009 10:46AM

Lab ID	Client ID	Method Chain	Basis	Initial pH	Initial weight/volume of sample	Final weight/volume of sample	MS lcs1cpi_00011	MS_LCS2_wk_00070
680-45632-A-12	EB-1	3005A, 6020	R	<2	50 mL	250 mL		
680-45623-C-1	SDBSW-3	3005A, 6020	R	<2	50 mL	250 mL		
680-45623-C-2	BD-1	3005A, 6020	R	<2	50 mL	250 mL		
640-21188-D-2	0610-352-2 (9-24")	3005A, 6020	R	<2	50 mL	250 mL		
640-21188-D-3	0610-352-3 (24-32")	3005A, 6020	R	<2	50 mL	250 mL		
640-21189-C-2	PS101506I	3005A, 6020	R	<2	50 mL	250 mL		
640-21189-C-3	PS101506PR	3005A, 6020	R	<2	50 mL	250 mL		
640-21189-C-4	WS101506E	3005A, 6020	R	<2	50 mL	250 mL		
660-28254-AB-1	Composite	3005A, 6020	R	<2	50 mL	250 mL		
660-28254-AA-2	Grab	3005A, 6020	R	<2	50 mL	250 mL		
660-28254-AA-3		3005A, 6020	R	<2	50 mL	250 mL		
660-28254-AA-4		3005A, 6020	R	<2	50 mL	250 mL		
660-28254-AA-5		3005A, 6020	R	<2	50 mL	250 mL		
660-28254-AB-6		3005A, 6020	R	<2	50 mL	250 mL		
660-28254-AA-7		3005A, 6020	R	<2	50 mL	250 mL		
660-28254-AB-8		3005A, 6020	R	<2	50 mL	250 mL		
640-21208-D-2		3005A, 6020	R	<2	50 mL	250 mL		
640-21208-D-3		3005A, 6020	R	<2	50 mL	250 mL		
640-21208-D-4		3005A, 6020	R	<2	50 mL	250 mL		
MB~680-133353/20				<2	50 mL	250 mL		
LCS~680-133353/21				<2	50 mL	250 mL	0.50 mL	0.50 mL
680-45623-C-1~MS	SDBSW-3	3005A, 6020	R	<2	50 mL	250 mL	0.50 mL	0.50 mL
680-45623-C-1~MSD	SDBSW-3	3005A, 6020	R	<2	50 mL	250 mL	0.50 mL	0.50 mL

DigestionTubes:	A805LS309
Hot Block ID number:	7
Hood ID or number:	FH 10
Lot # of Nitric Acid:	G17026
Lot # of hydrochloric acid:	G39A12
Oven, Bath or Block Temperature 1:	96
ID number of the thermometer:	MELP1
Oven, Bath or Block Temperature 2:	N/A
First Start time:	N/A
First End time:	N/A

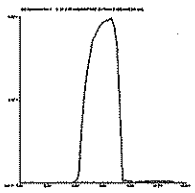
RAW DATA

200.8 QC Tune Report

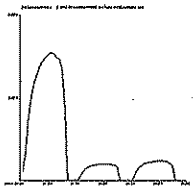
Data File: C:\ICPCHEM\1\DATA\09C23100.B\001TUNE.D
Date Acquired: Mar 23 2009 11:32 am
Acq. Method: TN200_8.M
Operator: BB
Sample Name: 100 ppb tune check
Misc Info:
Vial Number: 1305
Current Method: C:\ICPCHEM\1\METHODS\TN200_8.M

RSD (%)

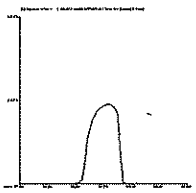
Element	Actual	Required	Flag
9 Be	0.98	5.00	
24 Mg	0.62	5.00	
59 Co	1.56	5.00	
115 In	1.32	5.00	
208 Pb	1.06	5.00	



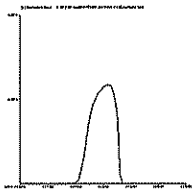
9 Be
Mass Calib.
Actual: 9.05
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.70
Required: 1.00
Flag:



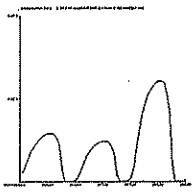
24 Mg
Mass Calib.
Actual: 24.05
Required: 23.90 - 24.10
Flag:
Peak Width
Actual: 0.70
Required: 1.00
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 1.00
Flag:



115 In
Mass Calib.
Actual: 115.05
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.65
Required: 1.00
Flag:



208 Pb
Mass Calib.
Actual: 208.00
Required: 207.90 - 208.10
Flag:
Peak Width
Actual: 0.65
Required: 1.00
Flag:

Tune Result: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\002CA
Date Acquired: Mar 23 2009 11:37 am
Operator: BB
Sample Name: CalBlk
Misc Info:
Vial Number: 1
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 11:42 am
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	672406.88	A	9629.00	1.43
9	Be	51.11	P	21.43	41.93
11	B	6685.24	P	300.40	4.49
23	Na	175033.91	P	2879.00	1.64
24	Mg	5310.16	P	115.10	2.17
27	Al	2558.14	P	73.46	2.87
39	K	3238.31	P	247.50	7.64
40	Ca	24731.75	P	828.50	3.35
45	Sc	315243.31	P	4158.00	1.32
45	Sc	22694.53	P	849.40	3.74
45	Sc	863181.50	A	11130.00	1.29
47	Ti	67.78	P	21.43	31.62
51	V	51.11	P	5.09	9.96
52	Cr	117.78	P	5.09	4.32
55	Mn	1291.23	P	18.36	1.42
56	Fe	12762.35	P	69.34	0.54
59	Co	302.24	P	90.09	29.81
60	Ni	74.82	P	8.41	11.25
63	Cu	288.16	P	28.38	9.85
65	Cu	149.26	P	6.12	4.10
65	Cu	520.03	P	25.17	4.84
66	Zn	946.74	P	75.36	7.96
68	Zn	756.72	P	27.28	3.61
70	Ge	8965.07	P	316.80	3.53
74	Ge	117294.20	P	834.70	0.71
74	Ge	20487.59	P	665.60	3.25
74	Ge	220756.50	P	2394.00	1.08
75	As	4.22	P	0.51	12.06
78	Se	7.00	P	0.33	4.76
88	Sr	673.38	P	55.48	8.24
89	Y	1252555.00	A	12110.00	0.97
90	Zr	375.58	P	13.47	3.59
91	Zr	87.78	P	1.92	2.19
95	Mo	364.47	P	28.35	7.78
107	Ag	50.00	P	20.28	40.56
111	Cd	17.56	P	9.61	54.74
115	In	1412595.00	A	27640.00	1.96
118	Sn	377.80	P	28.35	7.50
121	Sb	90.00	P	6.67	7.41
137	Ba	132.23	P	3.85	2.91
159	Tb	2097048.00	A	40050.00	1.91
201	Hg	12.33	P	1.45	11.78
202	Hg	28.89	P	2.84	9.81
203	Tl	1744.61	P	117.00	6.71
205	Tl	4026.44	P	96.43	2.39
208	Pb	1426.77	P	164.80	11.55
209	Bi	1373798.00	A	34260.00	2.49
232	Th	113.34	P	33.83	29.85
238	U	1376.81	P	92.45	6.71

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\003CA
Date Acquired: Mar 23 2009 11:44 am
Operator: BB
Sample Name: CalBlk
Misc Info:
Vial Number: 1
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 11:42 am
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	662908.88	A	8051.00	1.21
9	Be	33.33	P	3.33	10.00
11	B	4507.59	P	166.70	3.70
23	Na	208819.70	P	533.60	0.26
24	Mg	6188.37	P	457.00	7.38
27	Al	2720.39	P	30.01	1.10
39	K	3658.43	P	142.60	3.90
40	Ca	19970.26	P	50.17	0.25
45	Sc	331689.00	P	3100.00	0.93
45	Sc	24403.13	P	734.10	3.01
45	Sc	883546.13	A	4010.00	0.45
47	Ti	63.34	P	29.63	46.78
51	V	58.15	P	2.31	3.98
52	Cr	145.93	P	21.73	14.89
55	Mn	1499.04	P	20.37	1.36
56	Fe	15484.30	P	560.00	3.62
59	Co	298.91	P	55.42	18.54
60	Ni	56.30	P	14.16	25.15
63	Cu	241.12	P	12.81	5.31
65	Cu	108.89	P	5.88	5.40
65	Cu	495.59	P	54.30	10.96
66	Zn	635.60	P	7.70	1.21
68	Zn	551.15	P	27.15	4.93
70	Ge	9565.88	P	270.90	2.83
74	Ge	122010.80	P	876.20	0.72
74	Ge	21487.73	P	569.80	2.65
74	Ge	224708.41	P	2049.00	0.91
75	As	3.56	P	0.96	27.07
78	Se	6.00	P	0.88	14.70
88	Sr	680.05	P	14.53	2.14
89	Y	1267818.00	A	10150.00	0.80
90	Zr	412.25	P	37.47	9.09
91	Zr	100.00	P	26.03	26.03
95	Mo	327.80	P	26.95	8.22
107	Ag	74.45	P	12.62	16.95
111	Cd	14.25	P	6.92	48.59
115	In	1433997.00	A	22050.00	1.54
118	Sn	308.91	P	26.74	8.66
121	Sb	108.89	P	1.93	1.77
137	Ba	94.45	P	42.86	45.38
159	Tb	2123985.00	A	3949.00	0.19
201	Hg	9.56	P	1.35	14.10
202	Hg	23.67	P	2.08	8.80
203	Tl	595.03	P	6.01	1.01
205	Tl	1306.80	P	46.32	3.54
208	Pb	904.50	P	62.04	6.86
209	Bi	1390580.00	A	13500.00	0.97
232	Th	155.56	P	17.10	10.99
238	U	498.92	P	46.71	9.36

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\009CA
Date Acquired:	Mar 23 2009 12:24 pm
Operator:	BB
Sample Name:	CALBLK
Misc Info:	
Vial Number:	4
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update:	Mar 23 2009 12:22 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	643928.69	A	11860.00	1.84
9	Be	3.33	P	0.00	0.00
11	B	2170.26	P	113.20	5.22
23	Na	136584.09	P	1211.00	0.89
24	Mg	415.58	P	48.23	11.61
27	Al	421.13	P	32.03	7.61
39	K	3345.02	P	63.48	1.90
40	Ca	9660.58	P	196.50	2.03
45	Sc	329114.31	P	644.40	0.20
45	Sc	23924.88	P	632.50	2.64
45	Sc	872836.13	A	425.40	0.05
47	Ti	12.22	P	12.62	103.25
51	V	43.70	P	5.01	11.46
52	Cr	128.89	P	9.69	7.52
55	Mn	466.69	P	47.26	10.13
56	Fe	2184.33	P	538.70	24.66
59	Co	75.56	P	15.75	20.85
60	Ni	57.04	P	3.90	6.84
63	Cu	207.41	P	9.96	4.80
65	Cu	98.15	P	7.80	7.95
65	Cu	396.69	P	26.04	6.56
66	Zn	596.70	P	40.56	6.80
68	Zn	545.59	P	30.25	5.54
70	Ge	9422.80	P	167.40	1.78
74	Ge	122381.70	P	455.30	0.37
74	Ge	21667.30	P	436.60	2.02
74	Ge	224459.20	P	1271.00	0.57
75	As	3.22	P	0.69	21.54
78	Se	1.89	P	0.51	26.96
88	Sr	131.12	P	20.37	15.54
89	Y	1247150.00	A	9657.00	0.77
90	Zr	403.36	P	40.56	10.06
91	Zr	117.78	P	45.26	38.43
95	Mo	68.89	P	10.18	14.78
107	Ag	26.67	P	5.77	21.65
111	Cd	-0.04	P	0.01	14.78
115	In	1396207.00	A	15160.00	1.09
118	Sn	107.78	P	17.11	15.88
121	Sb	31.11	P	11.71	37.64
137	Ba	35.56	P	12.62	35.49
159	Tb	2071474.00	A	15420.00	0.74
201	Hg	9.78	P	1.95	19.97
202	Hg	21.11	P	1.07	5.07
203	Tl	65.00	P	12.58	19.35
205	Tl	155.56	P	20.37	13.09
208	Pb	366.69	P	31.80	8.67
209	Bi	1349994.00	A	17870.00	1.32
232	Th	68.89	P	25.02	36.32
238	U	21.11	P	1.93	9.12

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\010CALS.D\010CALS.D#
Date Acquired: Mar 23 2009 12:31 pm
Operator: BB
Sample Name: Cal Std 0.5/50
Misc Info: 1/200 ms cal std 00054
Vial Number: 4501
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:29 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	653529.63	A	7897.00	1.21
7 (Li)	49750.17	P	208.10	0.42
9 Be	1666.84	P	79.39	4.76
11 B	5481.34	P	69.31	1.26
23 Na	258725.80	P	1770.00	0.68
24 Mg	106191.80	P	801.20	0.75
27 Al	10478.95	P	269.10	2.57
39 K	9410.41	P	512.10	5.44
40 Ca	235652.09	P	1566.00	0.66
45 Sc	329771.50	P	3443.00	1.04
45 Sc	23956.03	P	771.50	3.22
45 Sc	878418.63	A	12240.00	1.39
47 Ti	632.27	P	76.04	12.03
51 V	708.92	P	18.36	2.59
52 Cr	1054.87	P	33.53	3.18
55 Mn	116227.00	P	453.30	0.39
56 Fe	430330.69	P	3937.00	0.91
59 Co	8204.02	P	75.03	0.91
60 Ni	434.09	P	20.68	4.76
63 Cu	1243.78	P	33.60	2.70
65 Cu	627.43	P	3.57	0.57
65 Cu	2311.41	P	7.70	0.33
66 Zn	1801.31	P	74.57	4.14
68 Zn	1402.36	P	115.30	8.22
70 Ge	59299.62	P	385.90	0.65
70 Ge	9405.38	P	262.60	2.79
70 Ge	114184.20	P	1550.00	1.36
72 Ge	158559.80	P	2539.00	1.60
74 Ge	121668.80	P	1056.00	0.87
74 Ge	21610.52	P	621.50	2.88
74 Ge	223589.00	P	3195.00	1.43
75 As	73.22	P	5.34	7.29
78 Se	138.78	P	3.91	2.81
88 Sr	11763.65	P	104.30	0.89
89 Y	1255517.00	A	17550.00	1.40
90 Zr	45810.43	P	1527.00	3.33
91 Zr	10130.03	P	224.40	2.22
95 Mo	2046.91	P	62.28	3.04
107 Ag	6060.60	P	113.50	1.87
111 Cd	1386.68	P	1.95	0.14
115 In	1411511.00	A	40250.00	2.85
118 Sn	3949.69	P	51.04	1.29
121 Sb	4312.04	P	50.05	1.16
137 Ba	1904.67	P	26.75	1.40
159 Tb	2075581.00	A	15190.00	0.73
166 Er	35.56	P	9.62	27.06
201 Hg	45.33	P	2.33	5.15
202 Hg	104.22	P	4.55	4.37
203 Tl	1257.88	P	33.39	2.65
205 Tl	2899.38	P	41.68	1.44
206 (Pb)	5199.16	P	225.10	4.33
207 (Pb)	3995.30	P	87.23	2.18
208 Pb	19230.36	P	590.80	3.07
209 Bi	1363619.00	A	29020.00	2.13
232 Th	18239.73	P	253.90	1.39
238 U	18858.55	P	484.80	2.57

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	653529.56	1.21	643928.69	101.5	60 - 125	
45 Sc	329771.50	1.04	329114.28	100.2	60 - 125	
45 Sc	878418.63	1.39	872836.06	100.6	60 - 125	
74 Ge	121668.83	0.87	122981.69	99.4	60 - 125	
74 Ge	21610.52	2.88	21667.30	99.7	60 - 125	
74 Ge	223588.98	1.43	224459.19	99.6	60 - 125	
89 Y	1255517.30	1.40	1247149.90	100.7	60 - 125	
115 In	1411511.10	2.85	1396206.60	101.1	60 - 125	
159 Tb	2075580.60	0.73	2071474.10	100.2	60 - 125	
209 Bi	1363618.50	2.13	1349994.40	101.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\011CALS.D\011CALS.D#
Date Acquired: Mar 23 2009 12:38 pm
Operator: BB
Sample Name: Cal Std 1.0/100
Misc Info: 1/100 ms cal std 00054
Vial Number: 4502
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:36 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	670980.81	A	15500.00	2.31
7 (Li)	58586.55	P	744.70	1.27
9 Be	3329.44	P	42.35	1.27
11 B	9412.54	P	170.00	1.81
23 Na	399237.31	P	925.90	0.23
24 Mg	213689.30	P	2156.00	1.01
27 Al	20124.69	P	422.20	2.10
39 K	15984.72	P	389.30	2.44
40 Ca	460703.19	P	5282.00	1.15
45 Sc	332657.91	P	2220.00	0.67
45 Sc	24321.10	P	710.30	2.92
45 Sc	896649.50	A	9733.00	1.09
47 Ti	1314.56	P	58.73	4.47
51 V	1339.72	P	45.14	3.37
52 Cr	1952.39	P	36.72	1.88
55 Mn	234959.50	P	825.50	0.35
56 Fe	871413.38	A	12220.00	1.40
59 Co	16651.28	P	268.80	1.61
60 Ni	890.78	P	76.00	8.53
63 Cu	2279.86	P	31.71	1.39
65 Cu	1138.96	P	29.21	2.56
65 Cu	4086.37	P	242.90	5.94
66 Zn	2980.46	P	127.10	4.26
68 Zn	2262.51	P	75.83	3.35
70 Ge	59804.19	P	659.70	1.10
70 Ge	9572.54	P	189.90	1.98
70 Ge	115453.30	P	927.50	0.80
72 Ge	159924.50	P	1137.00	0.71
74 Ge	122804.70	P	744.00	0.61
74 Ge	21778.95	P	261.60	1.20
74 Ge	225086.20	P	1594.00	0.71
75 As	169.78	P	13.79	8.12
78 Se	269.89	P	15.64	5.79
88 Sr	23518.07	P	148.70	0.63
89 Y	1268004.00	A	6823.00	0.54
90 Zr	110480.70	P	2451.00	2.22
91 Zr	24722.71	P	380.90	1.54
95 Mo	4011.91	P	165.20	4.12
107 Ag	12206.44	P	138.80	1.14
111 Cd	2766.91	P	33.97	1.23
115 In	1430384.00	A	20860.00	1.46
118 Sn	7718.29	P	128.90	1.67
121 Sb	8599.98	P	340.70	3.96
137 Ba	3909.66	P	78.22	2.00
159 Tb	2112627.00	A	19780.00	0.94
166 Er	38.89	P	13.88	35.69
201 Hg	84.56	P	6.31	7.46
202 Hg	188.45	P	9.15	4.86
203 Tl	2333.62	P	76.52	3.28
205 Tl	5640.51	P	234.20	4.15
206 (Pb)	10410.59	P	152.60	1.47
207 (Pb)	7854.13	P	151.80	1.93
208 Pb	38207.00	P	992.60	2.60
209 Bi	1381228.00	A	11100.00	0.80
232 Th	37203.95	P	1048.00	2.82
238 U	38233.17	P	542.20	1.42

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	670980.81	2.31	643928.69	104.2	60 - 125	
45 Sc	332657.91	0.67	329114.28	101.1	60 - 125	
45 Sc	896649.44	1.09	872836.06	102.7	60 - 125	
74 Ge	122804.73	0.61	122381.69	100.3	60 - 125	
74 Ge	21778.95	1.20	21667.30	100.5	60 - 125	
74 Ge	225086.19	0.71	224459.19	100.3	60 - 125	
89 Y	1268003.80	0.54	1247149.90	101.7	60 - 125	
115 In	1430384.40	1.46	1396206.60	102.4	60 - 125	
159 Tb	2112627.50	0.94	2071474.10	102.0	60 - 125	
209 Bi	1381228.40	0.80	1349994.40	102.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\012CALS.D\012CALS.D#
Date Acquired: Mar 23 2009 12:45 pm
Operator: BB
Sample Name: Cal Std 50/5000
Misc Info: 1/2 ms cal std 00054
Vial Number: 4503
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:43 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	658731.31	A	9513.00	1.44
7 (Li)	882012.69	A	11840.00	1.34
9 Be	171223.41	P	2006.00	1.17
11 B	379821.00	P	5322.00	1.40
23 Na	15011120.00	A	157300.00	1.05
24 Mg	10355010.00	A	93710.00	0.90
27 Al	981555.13	A	6176.00	0.63
39 K	656490.00	A	20710.00	3.15
40 Ca	22562290.00	A	211400.00	0.94
45 Sc	331982.50	P	2163.00	0.65
45 Sc	24360.84	P	626.10	2.57
45 Sc	883408.19	A	14900.00	1.69
47 Ti	60849.84	P	659.60	1.08
51 V	63958.32	P	840.80	1.31
52 Cr	87292.92	P	1342.00	1.54
55 Mn	11395980.00	A	185800.00	1.63
56 Fe	41229952.00	A	299800.00	0.73
59 Co	842924.81	A	612.00	0.07
60 Ni	37443.49	P	618.40	1.65
63 Cu	100188.20	P	1267.00	1.26
65 Cu	50534.91	P	933.70	1.85
65 Cu	173912.20	P	1732.00	1.00
66 Zn	116834.80	P	145.60	0.12
68 Zn	82962.52	P	1425.00	1.72
70 Ge	60572.44	P	622.80	1.03
70 Ge	9801.24	P	208.50	2.13
70 Ge	114113.10	P	1911.00	1.67
72 Ge	156958.09	P	511.50	0.33
74 Ge	120110.80	P	543.70	0.45
74 Ge	21008.40	P	432.70	2.06
74 Ge	217283.09	P	2757.00	1.27
75 As	7852.41	P	180.20	2.29
78 Se	14020.88	P	74.15	0.53
88 Sr	1216778.00	A	12340.00	1.01
89 Y	1245724.00	A	14780.00	1.19
90 Zr	6880951.00	A	74490.00	1.08
91 Zr	1561117.00	A	19450.00	1.25
95 Mo	194590.30	P	2184.00	1.12
107 Ag	594320.38	P	10440.00	1.76
111 Cd	132975.30	P	1782.00	1.34
115 In	1398132.00	A	22900.00	1.64
118 Sn	377573.00	P	5595.00	1.48
121 Sb	418097.41	P	5184.00	1.24
137 Ba	185903.91	P	1625.00	0.87
159 Tb	2101679.00	A	32000.00	1.52
166 Er	28.89	P	1.93	6.66
201 Hg	3386.50	P	35.46	1.05
202 Hg	7748.25	P	113.00	1.46
203 Tl	113074.80	P	1586.00	1.40
205 Tl	267780.00	P	2656.00	0.99
206 (Pb)	501304.91	P	5601.00	1.12
207 (Pb)	382942.50	P	5571.00	1.45
208 Pb	1904864.00	A	21220.00	1.11
209 Bi	1332380.00	A	15830.00	1.19
232 Th	1996985.00	A	22260.00	1.11
238 U	1998294.00	A	29870.00	1.49

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	658731.31	1.44	643928.69	102.3	60 - 125	
45 Sc	331982.53	0.65	329114.28	100.9	60 - 125	
45 Sc	883408.19	1.69	872836.06	101.2	60 - 125	
74 Ge	120110.80	0.45	122381.69	98.1	60 - 125	
74 Ge	21008.40	2.06	21667.30	97.0	60 - 125	
74 Ge	217283.11	1.27	224459.19	96.8	60 - 125	
89 Y	1245724.00	1.19	1247149.90	99.9	60 - 125	
115 In	1398132.30	1.64	1396206.60	100.1	60 - 125	
159 Tb	2101679.30	1.52	2071474.10	101.5	60 - 125	
209 Bi	1332380.10	1.19	1349994.40	98.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\013CALS.D\013CALS.D#
Date Acquired: Mar 23 2009 12:52 pm
Operator: BB
Sample Name: Cal Std 100/10000
Misc Info: ms cal std 00054
Vial Number: 4504
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:50 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	637212.38	A	10260.00	1.61
7 (Li)	1647391.00	A	8203.00	0.50
9 Be	338238.00	P	3251.00	0.96
11 B	785471.31	A	1290.00	0.16
23 Na	29023500.00	A	225900.00	0.78
24 Mg	19973690.00	A	118300.00	0.59
27 Al	1867800.00	A	27510.00	1.47
39 K	1265600.00	A	37560.00	2.97
40 Ca	43510328.00	A	395500.00	0.91
45 Sc	321602.50	P	2166.00	0.67
45 Sc	24324.84	P	673.30	2.77
45 Sc	871144.13	A	7731.00	0.89
47 Ti	118718.30	P	344.30	0.29
51 V	124353.80	P	2710.00	2.18
52 Cr	169347.80	P	3926.00	2.32
55 Mn	22252800.00	A	36870.00	0.17
56 Fe	79377488.00	A	1069000.00	1.35
59 Co	1626144.00	A	20100.00	1.24
60 Ni	72033.47	P	1510.00	2.10
63 Cu	191475.41	P	2303.00	1.20
65 Cu	95726.96	P	856.80	0.90
65 Cu	332404.09	P	3193.00	0.96
66 Zn	224738.30	P	803.10	0.36
68 Zn	159232.59	P	1357.00	0.85
70 Ge	59389.62	P	463.30	0.78
70 Ge	9959.49	P	183.90	1.85
70 Ge	112429.80	P	699.00	0.62
72 Ge	151153.09	P	1901.00	1.26
74 Ge	116076.10	P	1147.00	0.99
74 Ge	20274.27	P	473.70	2.34
74 Ge	210850.91	P	1450.00	0.69
75 As	14986.28	P	352.50	2.35
78 Se	27511.68	P	231.90	0.84
88 Sr	2355102.00	A	8334.00	0.35
89 Y	1226428.00	A	9316.00	0.76
90 Zr	13657190.00	A	125800.00	0.92
91 Zr	3060910.00	A	22340.00	0.73
95 Mo	380885.50	P	1999.00	0.52
107 Ag	1149910.00	A	5754.00	0.50
111 Cd	257910.50	P	2276.00	0.88
115 In	1357268.00	A	10370.00	0.76
118 Sn	771452.63	A	4582.00	0.59
121 Sb	845051.19	A	11980.00	1.42
137 Ba	363366.50	P	1435.00	0.39
159 Tb	2081295.00	A	24650.00	1.18
166 Er	34.45	P	13.47	39.11
201 Hg	6674.92	P	90.20	1.35
202 Hg	15148.13	P	202.00	1.33
203 Tl	222773.80	P	3512.00	1.58
205 Tl	529956.81	P	5161.00	0.97
206 (Pb)	1025576.00	A	8117.00	0.79
207 (Pb)	781417.69	A	16710.00	2.14
208 Pb	3794226.00	A	47210.00	1.24
209 Bi	1299328.00	A	21400.00	1.65
232 Th	3896851.00	A	45890.00	1.18
238 U	3925890.00	A	56020.00	1.43

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	637212.38	1.61	643928.69	99.0	60 - 125	
45 Sc	321602.44	0.67	329114.28	97.7	60 - 125	
45 Sc	871144.13	0.89	872836.06	99.8	60 - 125	
74 Ge	116076.13	0.99	122381.69	94.8	60 - 125	
74 Ge	20274.27	2.34	21667.30	93.6	60 - 125	
74 Ge	210850.88	0.69	224459.19	93.9	60 - 125	
89 Y	1226427.90	0.76	1247149.90	98.3	60 - 125	
115 In	1357268.30	0.76	1396206.60	97.2	60 - 125	
159 Tb	2081295.40	1.18	2071474.10	100.5	60 - 125	
209 Bi	1299327.90	1.65	1349994.40	96.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\014_BLK.D\014_BLK.D#
Date Acquired: Mar 23 2009 12:58 pm
Operator: BB
Sample Name: BLANK
Misc Info:
Vial Number: 1
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: Blank
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.01778 ug/l	10.84	#VALUE!	
11 B	1.869 ug/l	7.04	#VALUE!	
23 Na	3.07 ug/l	6.05	#VALUE!	
24 Mg	7.588 ug/l	8.34	#VALUE!	
27 Al	1.458 ug/l	3.38	#VALUE!	
39 K	0.9846 ug/l	22.18	#VALUE!	
40 Ca	6.759 ug/l	11.22	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.05177 ug/l	19.31	#VALUE!	
51 V	0.02386 ug/l	53.48	#VALUE!	
52 Cr	0.02412 ug/l	28.91	#VALUE!	
55 Mn	0.1768 ug/l	16.29	#VALUE!	
56 Fe	6.886 ug/l	12.40	#VALUE!	
59 Co	0.01763 ug/l	18.25	#VALUE!	
60 Ni	0.02086 ug/l	74.83	#VALUE!	
63 Cu	0.03146 ug/l	39.67	#VALUE!	
65 Cu	0.04224 ug/l	50.31	#VALUE!	
65 Cu	0.0246 ug/l	39.56	#VALUE!	
66 Zn	0.02312 ug/l	99.96	#VALUE!	
68 Zn	0.0258 ug/l	157.87	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.05062 ug/l	26.29	#VALUE!	
78 Se	0.124 ug/l	8.98	#VALUE!	
88 Sr	0.03398 ug/l	13.72	#VALUE!	
90 Zr	0.4256 ug/l	6.32	#VALUE!	
91 Zr	0.4316 ug/l	9.27	#VALUE!	
95 Mo	0.1958 ug/l	9.73	#VALUE!	
107 Ag	0.02138 ug/l	29.30	#VALUE!	
111 Cd	0.01797 ug/l	25.26	#VALUE!	
118 Sn	0.08444 ug/l	16.39	#VALUE!	
121 Sb	0.03804 ug/l	8.35	#VALUE!	
137 Ba	0.02227 ug/l	73.87	#VALUE!	
201 Hg	0.05981 ug/l	12.69	#VALUE!	
202 Hg	0.06249 ug/l	7.23	#VALUE!	
203 Tl	0.04721 ug/l	12.82	#VALUE!	
205 Tl	0.04983 ug/l	5.42	#VALUE!	
208 Pb	0.02399 ug/l	9.77	#VALUE!	
232 Th	0.08555 ug/l	6.65	#VALUE!	
238 U	0.02602 ug/l	17.18	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	671053.88	1.79	643928.69	104.2	60 - 125	
45 Sc	315949.91	0.54	329114.28	96.0	60 - 125	
45 Sc	865513.94	0.70	872836.06	99.2	60 - 125	
74 Ge	116039.20	1.25	122381.69	94.8	60 - 125	
74 Ge	20709.77	2.59	21667.30	95.6	60 - 125	
74 Ge	215538.22	1.29	224459.19	96.0	60 - 125	
89 Y	1223072.30	2.07	1247149.90	98.1	60 - 125	
115 In	1386758.10	0.71	1396206.60	99.3	60 - 125	
159 Tb	2079427.60	1.21	2071474.10	100.4	60 - 125	
209 Bi	1365126.50	1.03	1349994.40	101.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

ICV QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\015_ICV.D\015_ICV.D#
Date Acquired:	Mar 23 2009 01:05 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	ICV
Misc Info:	MS ICVWK 000039
Vial Number:	4505
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	ICV
Dilution Factor:	1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)	Flag
9 Be	38.91	ug/l	1.40	40.00	90 - 110	
11 B	76.09	ug/l	0.47	80.00	90 - 110	
23 Na	4106	ug/l	0.80	4000.00	90 - 110	
24 Mg	4141	ug/l	0.48	4000.00	90 - 110	
27 Al	421.8	ug/l	0.28	400.00	90 - 110	
39 K	3945	ug/l	2.88	4000.00	90 - 110	
40 Ca	4023	ug/l	0.28	4000.00	90 - 110	
45 Sc	--------	ug/l	--------	---	90 - 110	
47 Ti	39.4	ug/l	1.92	40.00	90 - 110	
51 V	40.33	ug/l	0.46	40.00	90 - 110	
52 Cr	39.07	ug/l	0.08	40.00	90 - 110	
55 Mn	405.7	ug/l	0.57	400.00	90 - 110	
56 Fe	4091	ug/l	0.39	4000.00	90 - 110	
59 Co	39.91	ug/l	0.46	40.00	90 - 110	
60 Ni	40.07	ug/l	0.79	40.00	90 - 110	
63 Cu	37.4	ug/l	0.80	40.00	90 - 110	
65 Cu	37.08	ug/l	0.67	40.00	90 - 110	
65 Cu	37.52	ug/l	0.35	40.00	90 - 110	
66 Zn	40.89	ug/l	0.35	40.00	90 - 110	
68 Zn	40.67	ug/l	1.20	40.00	90 - 110	
70 Ge	--------	ug/l	--------	---	90 - 110	
75 As	39.32	ug/l	0.60	40.00	90 - 110	
78 Se	40.67	ug/l	0.58	40.00	90 - 110	
88 Sr	42.38	ug/l	0.70	40.00	90 - 110	
90 Zr	7.595	ug/l	12.99	40.00	90 - 110	FAIL
91 Zr	7.578	ug/l	13.65	40.00	90 - 110	FAIL
95 Mo	38.83	ug/l	0.11	40.00	90 - 110	
107 Ag	39.45	ug/l	0.25	40.00	90 - 110	
111 Cd	40.57	ug/l	0.96	40.00	90 - 110	
118 Sn	37.33	ug/l	0.58	40.00	90 - 110	
121 Sb	37.07	ug/l	0.68	40.00	90 - 110	
137 Ba	40.24	ug/l	0.54	40.00	90 - 110	
201 Hg	2.013	ug/l	1.38	2.00	90 - 110	
202 Hg	2.005	ug/l	1.30	2.00	90 - 110	
203 Tl	8.16	ug/l	0.16	8.00	90 - 110	
205 Tl	8.225	ug/l	0.55	8.00	90 - 110	
208 Pb	40.3	ug/l	0.48	40.00	90 - 110	
232 Th	0.1208	ug/l	12.51	40.00	90 - 110	
238 U	0.009388	ug/l	13.97	40.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	675761.88	1.36	643928.69	104.9	60 - 125	
45 Sc	323482.53	0.11	329114.28	98.3	60 - 125	
45 Sc	861224.19	1.36	872836.06	98.7	60 - 125	
74 Ge	116356.08	0.68	122381.69	95.1	60 - 125	
74 Ge	20679.34	1.65	21667.30	95.4	60 - 125	
74 Ge	211851.83	0.90	224459.19	94.4	60 - 125	
89 Y	1212606.40	0.37	1247149.90	97.2	60 - 125	
115 In	1382277.40	0.93	1396206.60	99.0	60 - 125	
159 Tb	2077030.00	0.51	2071474.10	100.3	60 - 125	
209 Bi	1328360.30	1.49	1349994.40	98.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\016_CCB.D\016_CCB.D#
Date Acquired: Mar 23 2009 01:12 pm
Operator: BB
Sample Name: ICB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.0002814 ug/l	200.11	#VALUE!	
11 B	0.7364 ug/l	9.64	#VALUE!	
23 Na	-13.67 ug/l	1.54	#VALUE!	
24 Mg	0.06467 ug/l	45.29	#VALUE!	
27 Al	0.01029 ug/l	219.63	#VALUE!	
39 K	-2.957 ug/l	12.49	#VALUE!	
40 Ca	0.03422 ug/l	178.38	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.01226 ug/l	122.10	#VALUE!	
51 V	-0.002783 ug/l	28.66	#VALUE!	
52 Cr	0.001512 ug/l	699.74	#VALUE!	
55 Mn	0.001542 ug/l	64.70	#VALUE!	
56 Fe	0.5926 ug/l	2.01	#VALUE!	
59 Co	-0.0006673 ug/l	95.52	#VALUE!	
60 Ni	-0.004366 ug/l	207.12	#VALUE!	
63 Cu	-0.009868 ug/l	75.06	#VALUE!	
65 Cu	0.008017 ug/l	146.69	#VALUE!	
65 Cu	-0.01286 ug/l	55.11	#VALUE!	
66 Zn	0.01011 ug/l	162.31	#VALUE!	
68 Zn	0.00312 ug/l	476.92	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.00762 ug/l	210.10	#VALUE!	
78 Se	0.03511 ug/l	8.62	#VALUE!	
88 Sr	0.0002259 ug/l	111.86	#VALUE!	
90 Zr	-0.01558 ug/l	20.49	#VALUE!	
91 Zr	-0.01659 ug/l	28.43	#VALUE!	
95 Mo	0.06958 ug/l	3.28	#VALUE!	
107 Ag	0.003124 ug/l	19.41	#VALUE!	
111 Cd	0.0003508 ug/l	203.02	#VALUE!	
118 Sn	0.02295 ug/l	27.78	#VALUE!	
121 Sb	0.1852 ug/l	4.14	#VALUE!	
137 Ba	0.00367 ug/l	94.01	#VALUE!	
201 Hg	0.04269 ug/l	10.47	#VALUE!	
202 Hg	0.03778 ug/l	8.15	#VALUE!	
203 Tl	0.006969 ug/l	13.15	#VALUE!	
205 Tl	0.006522 ug/l	19.15	#VALUE!	
208 Pb	0.002088 ug/l	49.23	#VALUE!	
232 Th	0.002587 ug/l	17.21	#VALUE!	
238 U	0.001108 ug/l	41.69	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	670678.19	0.90	643928.69	104.2	60 - 125	
45 Sc	317798.19	0.87	329114.28	96.6	60 - 125	
45 Sc	872727.38	1.42	872836.06	100.0	60 - 125	
74 Ge	116327.59	0.64	122381.69	95.1	60 - 125	
74 Ge	21268.83	2.57	21667.30	98.2	60 - 125	
74 Ge	218263.56	1.28	224459.19	97.2	60 - 125	
89 Y	1238664.80	1.72	1247149.90	99.3	60 - 125	
115 In	1414940.50	1.13	1396206.60	101.3	60 - 125	
159 Tb	2094969.80	1.38	2071474.10	101.1	60 - 125	
209 Bi	1381505.80	1.28	1349994.40	102.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

QCS QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\017_QCS.D\017_QCS.D#
Date Acquired: Mar 23 2009 01:18 pm
Operator: BB
Sample Name: RL
Misc Info: ms rl wk_00075
Vial Number: 4506
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: QCS
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	1.19 ug/l	1.98	---	##### - #####	
9 Be	0.10 ug/l	10.67	---	##### - #####	
11 B	4.87 ug/l	3.41	---	##### - #####	
23 Na	31.99 ug/l	2.14	---	##### - #####	
24 Mg	51.31 ug/l	1.08	---	##### - #####	
27 Al	10.46 ug/l	1.39	---	##### - #####	
39 K	44.71 ug/l	3.05	---	##### - #####	
40 Ca	51.11 ug/l	0.25	---	##### - #####	
45 Sc	-------- ug/l	--------	---	##### - #####	
47 Ti	1.04 ug/l	2.14	---	##### - #####	
51 V	1.06 ug/l	3.74	---	##### - #####	
52 Cr	0.97 ug/l	2.26	---	##### - #####	
55 Mn	0.98 ug/l	1.28	---	##### - #####	
56 Fe	5.44 ug/l	1.41	---	##### - #####	
59 Co	0.94 ug/l	2.46	---	##### - #####	
60 Ni	1.04 ug/l	4.58	---	##### - #####	
63 Cu	1.01 ug/l	1.26	---	##### - #####	
65 Cu	1.02 ug/l	3.01	---	##### - #####	
65 Cu	1.03 ug/l	4.46	---	##### - #####	
66 Zn	1.10 ug/l	6.37	---	##### - #####	
68 Zn	1.06 ug/l	10.37	---	##### - #####	
70 Ge	-------- ug/l	--------	---	##### - #####	
70 Ge	-------- ug/l	--------	---	##### - #####	
70 Ge	-------- ug/l	--------	---	##### - #####	
72 Ge	-------- ug/l	--------	---	##### - #####	
75 As	1.05 ug/l	3.79	---	##### - #####	
78 Se	0.51 ug/l	2.63	---	##### - #####	
88 Sr	0.96 ug/l	0.37	---	##### - #####	
90 Zr	6.98 ug/l	0.81	---	##### - #####	
91 Zr	6.84 ug/l	0.45	---	##### - #####	
95 Mo	1.00 ug/l	4.21	---	##### - #####	
107 Ag	1.03 ug/l	1.19	---	##### - #####	
111 Cd	0.51 ug/l	6.36	---	##### - #####	
118 Sn	1.13 ug/l	1.82	---	##### - #####	
121 Sb	0.57 ug/l	2.26	---	##### - #####	
137 Ba	0.98 ug/l	5.03	---	##### - #####	
166 Er	-------- ug/l	--------	---	##### - #####	
201 Hg	0.10 ug/l	4.74	---	##### - #####	
202 Hg	0.10 ug/l	4.22	---	##### - #####	
203 Tl	0.21 ug/l	2.17	---	##### - #####	
205 Tl	0.20 ug/l	1.73	---	##### - #####	
206 (Pb)	-------- ug/l	--------	---	##### - #####	
207 (Pb)	-------- ug/l	--------	---	##### - #####	
208 Pb	0.30 ug/l	1.64	---	##### - #####	
232 Th	0.88 ug/l	0.78	---	##### - #####	
238 U	0.94 ug/l	1.05	---	##### - #####	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	680898.94	0.65	643928.69	105.7	60 - 125	
45 Sc	322361.91	0.43	329114.28	97.9	60 - 125	
45 Sc	881505.00	0.88	872836.06	101.0	60 - 125	
74 Ge	116829.16	1.06	122381.69	95.5	60 - 125	
74 Ge	21228.04	2.31	21667.30	98.0	60 - 125	
74 Ge	220076.33	1.27	224459.19	98.0	60 - 125	
89 Y	1245532.00	0.79	1247149.90	99.9	60 - 125	
115 In	1419069.90	0.45	1396206.60	101.6	60 - 125	
159 Tb	2113966.80	0.73	2071474.10	102.1	60 - 125	
209 Bi	1392004.60	1.00	1349994.40	103.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failure: 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\018SMPL.D\018SMPL.D#
Date Acquired:	Mar 23 2009 01:25 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RL 1/5
Misc Info:	1/5 ms rl wk_00075
Vial Number:	4507
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	5.00
Autodil Factor:	Undiluted
Final Dil Factor:	5.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.096	0.0192	ug/l	30.57	#VALUE!	
11	B	# 3	5.725	1.145	ug/l	6.37	#VALUE!	
23	Na	# 1	-42.94	-8.588	ug/l	1.92	#VALUE!	
24	Mg	# 1	51.5	10.3	ug/l	0.96	#VALUE!	
27	Al	# 1	12.135	2.427	ug/l	2.89	#VALUE!	
39	K	# 2	27.75	5.55	ug/l	9.90	#VALUE!	
40	Ca	# 1	53	10.6	ug/l	1.88	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	1.157	0.2314	ug/l	15.12	#VALUE!	
51	V	# 2	1.1725	0.2345	ug/l	3.70	#VALUE!	
52	Cr	# 2	1.0905	0.2181	ug/l	3.53	#VALUE!	
55	Mn	# 3	1.017	0.2034	ug/l	5.25	#VALUE!	
56	Fe	# 1	5.805	1.161	ug/l	2.38	#VALUE!	
59	Co	# 3	0.936	0.1872	ug/l	1.75	#VALUE!	
60	Ni	# 2	0.954	0.1908	ug/l	4.22	#VALUE!	
63	Cu	# 2	1.0055	0.2011	ug/l	6.27	#VALUE!	
65	Cu	# 2	0.824	0.1648	ug/l	11.43	#VALUE!	
65	Cu	# 3	0.9935	0.1987	ug/l	13.30	#VALUE!	
66	Zn	# 3	0.936	0.1872	ug/l	10.33	#VALUE!	
68	Zn	# 3	1.1075	0.2215	ug/l	6.70	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.9405	0.1881	ug/l	8.89	#VALUE!	
78	Se	# 1	0.5455	0.1091	ug/l	6.41	#VALUE!	
88	Sr	# 3	0.9845	0.1969	ug/l	3.20	#VALUE!	
90	Zr	# 3	7.715	1.543	ug/l	0.84	#VALUE!	
91	Zr	# 3	7.64	1.528	ug/l	1.60	#VALUE!	
95	Mo	# 3	1.0545	0.2109	ug/l	6.79	#VALUE!	
107	Ag	# 3	1.037	0.2074	ug/l	3.12	#VALUE!	
111	Cd	# 3	0.47945	0.09589	ug/l	11.02	#VALUE!	
118	Sn	# 3	1.1395	0.2279	ug/l	6.54	#VALUE!	
121	Sb	# 3	0.6565	0.1313	ug/l	4.07	#VALUE!	
137	Ba	# 3	1.0065	0.2013	ug/l	1.89	#VALUE!	
201	Hg	# 3	0.16355	0.03271	ug/l	9.34	#VALUE!	
202	Hg	# 3	0.15745	0.03149	ug/l	2.59	#VALUE!	
203	Tl	# 3	0.20905	0.04181	ug/l	4.11	#VALUE!	
205	Tl	# 3	0.21495	0.04299	ug/l	5.76	#VALUE!	
208	Pb	# 3	0.302	0.0604	ug/l	4.06	#VALUE!	
232	Th	# 3	0.949	0.1898	ug/l	0.23	#VALUE!	
238	U	# 3	0.948	0.1896	ug/l	1.28	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	658122.06	1.63	643928.69	102.2	60 - 125	
45	Sc	# 1	314610.97	0.67	329114.28	95.6	60 - 125	
45	Sc	# 3	869046.94	0.68	872836.06	99.6	60 - 125	
74	Ge	# 1	115496.90	1.03	122381.69	94.4	60 - 125	
74	Ge	# 2	21581.92	2.89	21667.30	99.6	60 - 125	
74	Ge	# 3	218702.28	1.34	224459.19	97.4	60 - 125	
89	Y	# 3	1232047.80	0.87	1247149.90	98.8	60 - 125	
115	In	# 3	1411873.50	1.16	1396206.60	101.1	60 - 125	
159	Tb	# 3	2086980.10	0.43	2071474.10	100.7	60 - 125	
209	Bi	# 3	1358448.10	1.65	1349994.40	100.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\019SMPL.D\019SMPL.D#
Date Acquired:	Mar 23 2009 01:32 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RL 1/10
Misc Info:	1/10 ms rl wk_00075
Vial Number:	4508
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	10.00
Autodil Factor:	Undiluted
Final Dil Factor:	10.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.1148	0.01148	ug/l	48.47	#VALUE!	
11	B	# 3	5.284	0.5284	ug/l	5.96	#VALUE!	
23	Na	# 1	-140.1	-14.01	ug/l	0.75	#VALUE!	
24	Mg	# 1	52.57	5.257	ug/l	3.51	#VALUE!	
27	Al	# 1	14.48	1.448	ug/l	3.54	#VALUE!	
39	K	# 2	19.03	1.903	ug/l	63.64	#VALUE!	
40	Ca	# 1	65.69	6.569	ug/l	1.07	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	1.204	0.1204	ug/l	7.46	#VALUE!	
51	V	# 2	1.06	0.106	ug/l	12.45	#VALUE!	
52	Cr	# 2	1.157	0.1157	ug/l	11.63	#VALUE!	
55	Mn	# 3	1.021	0.1021	ug/l	2.94	#VALUE!	
56	Fe	# 1	6.367	0.6367	ug/l	5.54	#VALUE!	
59	Co	# 3	0.899	0.0899	ug/l	2.29	#VALUE!	
60	Ni	# 2	1.038	0.1038	ug/l	20.57	#VALUE!	
63	Cu	# 2	0.875	0.0875	ug/l	5.93	#VALUE!	
65	Cu	# 2	0.7753	0.07753	ug/l	12.55	#VALUE!	
65	Cu	# 3	1.012	0.1012	ug/l	8.00	#VALUE!	
66	Zn	# 3	1.35	0.135	ug/l	8.17	#VALUE!	
68	Zn	# 3	0.9181	0.09181	ug/l	21.17	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.035	0.1035	ug/l	7.17	#VALUE!	
78	Se	# 1	0.4244	0.04244	ug/l	24.08	#VALUE!	
88	Sr	# 3	0.9504	0.09504	ug/l	4.65	#VALUE!	
90	Zr	# 3	7.965	0.7965	ug/l	1.09	#VALUE!	
91	Zr	# 3	7.589	0.7589	ug/l	4.22	#VALUE!	
95	Mo	# 3	1.18	0.118	ug/l	18.70	#VALUE!	
107	Ag	# 3	1.077	0.1077	ug/l	8.36	#VALUE!	
111	Cd	# 3	0.5559	0.05559	ug/l	2.72	#VALUE!	
118	Sn	# 3	1.138	0.1138	ug/l	3.92	#VALUE!	
121	Sb	# 3	0.7004	0.07004	ug/l	10.93	#VALUE!	
137	Ba	# 3	0.9974	0.09974	ug/l	10.45	#VALUE!	
201	Hg	# 3	0.2155	0.02155	ug/l	25.56	#VALUE!	
202	Hg	# 3	0.1935	0.01935	ug/l	15.46	#VALUE!	
203	Tl	# 3	0.1807	0.01807	ug/l	11.49	#VALUE!	
205	Tl	# 3	0.1947	0.01947	ug/l	5.94	#VALUE!	
208	Pb	# 3	0.2837	0.02837	ug/l	3.35	#VALUE!	
232	Th	# 3	0.9967	0.09967	ug/l	3.17	#VALUE!	
238	U	# 3	0.9432	0.09432	ug/l	4.72	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	652594.13	1.58	643928.69	101.3	60 - 125	
45	Sc	# 1	311082.25	0.63	329114.28	94.5	60 - 125	
45	Sc	# 3	883826.31	1.70	872836.06	101.3	60 - 125	
74	Ge	# 1	114350.06	0.78	122381.69	93.4	60 - 125	
74	Ge	# 2	21226.18	2.08	21667.30	98.0	60 - 125	
74	Ge	# 3	220309.92	1.34	224459.19	98.2	60 - 125	
89	Y	# 3	1244778.10	1.76	1247149.90	99.8	60 - 125	
115	In	# 3	1406491.00	1.27	1396206.60	100.7	60 - 125	
159	Tb	# 3	2086044.50	1.26	2071474.10	100.7	60 - 125	
209	Bi	# 3	1349285.50	1.59	1349994.40	99.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\020SMPL.D\020SMPL.D#
Date Acquired:	Mar 23 2009 01:39 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RL 1/50
Misc Info:	1/50 ms rl wk_00075
Vial Number:	4509
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	50.00
Autodil Factor:	Undiluted
Final Dil Factor:	50.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0012125	-2.425E-005	ug/l	6940.20	#VALUE!	
11	B	# 3	5.185	0.1037	ug/l	26.77	#VALUE!	
23	Na	# 1	-881	-17.62	ug/l	1.63	#VALUE!	
24	Mg	# 1	56.35	1.127	ug/l	5.71	#VALUE!	
27	Al	# 1	28.565	0.5713	ug/l	9.20	#VALUE!	
39	K	# 2	-66.7	-1.334	ug/l	76.16	#VALUE!	
40	Ca	# 1	114.05	2.281	ug/l	2.33	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	1.992	0.03984	ug/l	22.07	#VALUE!	
51	V	# 2	1.046	0.02092	ug/l	28.55	#VALUE!	
52	Cr	# 2	1.7135	0.03427	ug/l	26.95	#VALUE!	
55	Mn	# 3	1.2295	0.02459	ug/l	13.88	#VALUE!	
56	Fe	# 1	8.01	0.1602	ug/l	1.94	#VALUE!	
59	Co	# 3	0.8555	0.01711	ug/l	22.39	#VALUE!	
60	Ni	# 2	2.3565	0.04713	ug/l	15.42	#VALUE!	
63	Cu	# 2	1.177	0.02354	ug/l	18.73	#VALUE!	
65	Cu	# 2	0.9115	0.01823	ug/l	59.90	#VALUE!	
65	Cu	# 3	-0.1108	-0.002216	ug/l	804.15	#VALUE!	
66	Zn	# 3	0.10575	0.002115	ug/l	1350.80	#VALUE!	
68	Zn	# 3	1.734	0.03468	ug/l	79.61	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.4765	0.02953	ug/l	41.42	#VALUE!	
78	Se	# 1	0.6635	0.01327	ug/l	28.39	#VALUE!	
88	Sr	# 3	0.992	0.01984	ug/l	11.78	#VALUE!	
90	Zr	# 3	13.49	0.2698	ug/l	6.71	#VALUE!	
91	Zr	# 3	13.7	0.274	ug/l	3.88	#VALUE!	
95	Mo	# 3	1.4865	0.02973	ug/l	7.01	#VALUE!	
107	Ag	# 3	1.234	0.02468	ug/l	15.44	#VALUE!	
111	Cd	# 3	0.48	0.0096	ug/l	21.35	#VALUE!	
118	Sn	# 3	1.475	0.0295	ug/l	22.15	#VALUE!	
121	Sb	# 3	1.271	0.02542	ug/l	21.38	#VALUE!	
137	Ba	# 3	1.0265	0.02053	ug/l	63.18	#VALUE!	
201	Hg	# 3	0.4728	0.009456	ug/l	0.73	#VALUE!	
202	Hg	# 3	0.5565	0.01113	ug/l	10.98	#VALUE!	
203	Tl	# 3	0.14095	0.002819	ug/l	28.88	#VALUE!	
205	Tl	# 3	0.16535	0.003307	ug/l	20.15	#VALUE!	
208	Pb	# 3	0.2404	0.004808	ug/l	26.02	#VALUE!	
232	Th	# 3	1.2835	0.02567	ug/l	2.39	#VALUE!	
238	U	# 3	0.9615	0.01923	ug/l	2.07	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	659204.19	1.67	643928.69	102.4	60 - 125	
45	Sc	# 1	305947.09	0.10	329114.28	93.0	60 - 125	
45	Sc	# 3	877866.88	1.85	872836.06	100.6	60 - 125	
74	Ge	# 1	113989.12	1.14	122381.69	93.1	60 - 125	
74	Ge	# 2	20847.42	3.33	21667.30	96.2	60 - 125	
74	Ge	# 3	220692.08	1.10	224459.19	98.3	60 - 125	
89	Y	# 3	1245774.50	1.88	1247149.90	99.9	60 - 125	
115	In	# 3	1399898.80	1.64	1396206.60	100.3	60 - 125	
159	Tb	# 3	2068125.00	1.40	2071474.10	99.8	60 - 125	
209	Bi	# 3	1346370.40	1.83	1349994.40	99.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\021SMPL.D\021SMPL.D#
Date Acquired:	Mar 23 2009 01:46 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RL Zn B Fe
Misc Info:	MSBFEZN 000011
Vial Number:	4511
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.0002727	0.0002727	ug/l	530.62	#VALUE!	
11	B	# 3	18.38	18.38	ug/l	2.32	#VALUE!	
23	Na	# 1	-18.33	-18.33	ug/l	2.09	#VALUE!	
24	Mg	# 1	0.7198	0.7198	ug/l	7.22	#VALUE!	
27	Al	# 1	0.9633	0.9633	ug/l	7.28	#VALUE!	
39	K	# 2	-4.068	-4.068	ug/l	21.39	#VALUE!	
40	Ca	# 1	2.919	2.919	ug/l	0.66	#VALUE!	
45	Sc	# 2	----	--------	ug/l	---------	#VALUE!	
47	Ti	# 3	0.02289	0.02289	ug/l	20.86	#VALUE!	
51	V	# 2	0.0009457	0.0009457	ug/l	380.56	#VALUE!	
52	Cr	# 2	0.01675	0.01675	ug/l	92.84	#VALUE!	
55	Mn	# 3	0.001965	0.001965	ug/l	146.21	#VALUE!	
56	Fe	# 1	21.44	21.44	ug/l	0.36	#VALUE!	
59	Co	# 3	-0.001841	-0.001841	ug/l	12.75	#VALUE!	
60	Ni	# 2	-0.01236	-0.01236	ug/l	93.93	#VALUE!	
63	Cu	# 2	-0.01999	-0.01999	ug/l	32.57	#VALUE!	
65	Cu	# 2	-0.007563	-0.007563	ug/l	42.22	#VALUE!	
65	Cu	# 3	-0.02727	-0.02727	ug/l	19.59	#VALUE!	
66	Zn	# 3	4.415	4.415	ug/l	2.35	#VALUE!	
68	Zn	# 3	4.224	4.224	ug/l	2.22	#VALUE!	
70	Ge	# 2	----	--------	ug/l	---------	#VALUE!	
75	As	# 2	-0.004895	-0.004895	ug/l	185.74	#VALUE!	
78	Se	# 1	0.002784	0.002784	ug/l	237.36	#VALUE!	
88	Sr	# 3	0.001938	0.001938	ug/l	43.43	#VALUE!	
90	Zr	# 3	0.1061	0.1061	ug/l	2.95	#VALUE!	
91	Zr	# 3	0.1089	0.1089	ug/l	18.57	#VALUE!	
95	Mo	# 3	0.004793	0.004793	ug/l	110.12	#VALUE!	
107	Ag	# 3	0.00313	0.00313	ug/l	78.50	#VALUE!	
111	Cd	# 3	0.0008201	0.0008201	ug/l	174.49	#VALUE!	
118	Sn	# 3	0.00847	0.00847	ug/l	30.92	#VALUE!	
121	Sb	# 3	0.0139	0.0139	ug/l	24.30	#VALUE!	
137	Ba	# 3	0.0001393	0.0001393	ug/l	1694.90	#VALUE!	
201	Hg	# 3	0.005218	0.005218	ug/l	21.83	#VALUE!	
202	Hg	# 3	0.006438	0.006438	ug/l	8.40	#VALUE!	
203	Tl	# 3	-0.002683	-0.002683	ug/l	39.47	#VALUE!	
205	Tl	# 3	-0.002319	-0.002319	ug/l	2.91	#VALUE!	
208	Pb	# 3	-0.002067	-0.002067	ug/l	50.27	#VALUE!	
232	Th	# 3	0.004624	0.004624	ug/l	19.80	#VALUE!	
238	U	# 3	-0.0002804	-0.0002804	ug/l	26.54	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	673119.06	0.75	643928.69	104.5	60 - 125	
45	Sc	# 1	314442.66	0.95	329114.28	95.5	60 - 125	
45	Sc	# 3	883601.88	0.73	872836.06	101.2	60 - 125	
74	Ge	# 1	115670.74	0.95	122381.69	94.5	60 - 125	
74	Ge	# 2	21128.27	4.03	21667.30	97.5	60 - 125	
74	Ge	# 3	222766.38	1.62	224459.19	99.2	60 - 125	
89	Y	# 3	1254433.10	2.34	1247149.90	100.6	60 - 125	
115	In	# 3	1418856.30	1.39	1396206.60	101.6	60 - 125	
159	Tb	# 3	2098532.00	2.52	2071474.10	101.3	60 - 125	
209	Bi	# 3	1386862.10	2.71	1349994.40	102.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\022SMPL.D\022SMPL.D#
Date Acquired:	Mar 23 2009 01:53 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	.5
Misc Info:	1/200 ms cal std 00054
Vial Number:	4501
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.4744	0.4744	ug/l	4.84	#VALUE!	
11	B	# 3	0.9959	0.9959	ug/l	3.93	#VALUE!	
23	Na	# 1	31.86	31.86	ug/l	0.60	#VALUE!	
24	Mg	# 1	52.52	52.52	ug/l	0.84	#VALUE!	
27	Al	# 1	5.199	5.199	ug/l	3.20	#VALUE!	
39	K	# 2	44.48	44.48	ug/l	1.95	#VALUE!	
40	Ca	# 1	50.38	50.38	ug/l	0.74	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.5083	0.5083	ug/l	2.82	#VALUE!	
51	V	# 2	0.4752	0.4752	ug/l	7.69	#VALUE!	
52	Cr	# 2	0.5122	0.5122	ug/l	4.65	#VALUE!	
55	Mn	# 3	4.945	4.945	ug/l	1.26	#VALUE!	
56	Fe	# 1	51.89	51.89	ug/l	0.13	#VALUE!	
59	Co	# 3	0.4705	0.4705	ug/l	1.69	#VALUE!	
60	Ni	# 2	0.4745	0.4745	ug/l	3.42	#VALUE!	
63	Cu	# 2	0.4969	0.4969	ug/l	3.54	#VALUE!	
65	Cu	# 2	0.5255	0.5255	ug/l	2.11	#VALUE!	
65	Cu	# 3	0.512	0.512	ug/l	1.81	#VALUE!	
66	Zn	# 3	0.5088	0.5088	ug/l	6.99	#VALUE!	
68	Zn	# 3	0.4993	0.4993	ug/l	3.33	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.4596	0.4596	ug/l	13.91	#VALUE!	
78	Se	# 1	0.4713	0.4713	ug/l	5.26	#VALUE!	
88	Sr	# 3	0.4833	0.4833	ug/l	0.86	#VALUE!	
90	Zr	# 3	3.53	3.53	ug/l	0.18	#VALUE!	
91	Zr	# 3	3.477	3.477	ug/l	1.02	#VALUE!	
95	Mo	# 3	0.4892	0.4892	ug/l	7.08	#VALUE!	
107	Ag	# 3	0.5017	0.5017	ug/l	2.95	#VALUE!	
111	Cd	# 3	0.5088	0.5088	ug/l	2.68	#VALUE!	
118	Sn	# 3	0.4857	0.4857	ug/l	1.83	#VALUE!	
121	Sb	# 3	0.4888	0.4888	ug/l	5.87	#VALUE!	
137	Ba	# 3	0.4856	0.4856	ug/l	4.19	#VALUE!	
201	Hg	# 3	0.03255	0.03255	ug/l	12.32	#VALUE!	
202	Hg	# 3	0.03039	0.03039	ug/l	6.36	#VALUE!	
203	Tl	# 3	0.1043	0.1043	ug/l	3.16	#VALUE!	
205	Tl	# 3	0.09759	0.09759	ug/l	3.84	#VALUE!	
208	Pb	# 3	0.4984	0.4984	ug/l	2.20	#VALUE!	
232	Th	# 3	0.4413	0.4413	ug/l	1.83	#VALUE!	
238	U	# 3	0.4535	0.4535	ug/l	0.78	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	682142.25	0.44	643928.69	105.9	60 - 125	
45	Sc	# 1	315371.09	0.47	329114.28	95.8	60 - 125	
45	Sc	# 3	881874.38	1.50	872836.06	101.0	60 - 125	
74	Ge	# 1	115665.30	0.94	122381.69	94.5	60 - 125	
74	Ge	# 2	21279.98	2.90	21667.30	98.2	60 - 125	
74	Ge	# 3	222422.05	1.66	224459.19	99.1	60 - 125	
89	Y	# 3	1255695.30	1.69	1247149.90	100.7	60 - 125	
115	In	# 3	1415939.50	1.59	1396206.60	101.4	60 - 125	
159	Tb	# 3	2088838.90	0.92	2071474.10	100.8	60 - 125	
209	Bi	# 3	1379491.80	2.11	1349994.40	102.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\023_CCV.D\023_CCV.D#
Date Acquired: Mar 23 2009 01:59 pm
Operator: BB
Sample Name: CCV 50/5000
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.		RSD(%)	Expected	QC Range(%)		Flag
9	Be	# 3	50.37	ug/l	0.95	50.00	90 -	110	
11	B	# 3	94.54	ug/l	1.19	100.00	90 -	110	
23	Na	# 1	4970	ug/l	1.03	5000.00	90 -	110	
24	Mg	# 1	5003	ug/l	1.10	5000.00	90 -	110	
27	Al	# 1	501.9	ug/l	0.90	500.00	90 -	110	
39	K	# 2	4994	ug/l	1.23	5000.00	90 -	110	
40	Ca	# 1	4961	ug/l	0.61	5000.00	90 -	110	
45	Sc	# 2	--------	ug/l	--------	---	##### -	#####	
47	Ti	# 3	50.26	ug/l	0.59	50.00	90 -	110	
51	V	# 2	49.54	ug/l	0.70	50.00	90 -	110	
52	Cr	# 2	49.55	ug/l	1.00	50.00	90 -	110	
55	Mn	# 3	494.7	ug/l	0.52	500.00	90 -	110	
56	Fe	# 1	5006	ug/l	0.50	5000.00	90 -	110	
59	Co	# 3	49.45	ug/l	0.20	50.00	90 -	110	
60	Ni	# 2	49.87	ug/l	0.60	50.00	90 -	110	
63	Cu	# 2	50.15	ug/l	0.91	50.00	90 -	110	
65	Cu	# 2	49.86	ug/l	1.20	50.00	90 -	110	
65	Cu	# 3	49.94	ug/l	0.16	50.00	90 -	110	
66	Zn	# 3	50.22	ug/l	0.41	50.00	90 -	110	
68	Zn	# 3	49.98	ug/l	0.56	50.00	90 -	110	
70	Ge	# 2	--------	ug/l	--------	---	##### -	#####	
75	As	# 2	49.68	ug/l	0.50	50.00	90 -	110	
78	Se	# 1	48.8	ug/l	0.32	50.00	90 -	110	
88	Sr	# 3	50.25	ug/l	0.81	50.00	90 -	110	
90	Zr	# 3	492.3	ug/l	0.43	500.00	90 -	110	
91	Zr	# 3	500.2	ug/l	0.65	500.00	90 -	110	
95	Mo	# 3	49.76	ug/l	0.37	50.00	90 -	110	
107	Ag	# 3	50.13	ug/l	0.50	50.00	90 -	110	
111	Cd	# 3	50.52	ug/l	1.01	50.00	90 -	110	
118	Sn	# 3	50.2	ug/l	0.36	50.00	90 -	110	
121	Sb	# 3	48.63	ug/l	0.48	50.00	90 -	110	
137	Ba	# 3	49.9	ug/l	0.70	50.00	90 -	110	
201	Hg	# 3	2.737	ug/l	1.24	2.50	90 -	110	
202	Hg	# 3	2.748	ug/l	0.49	2.50	90 -	110	
203	Tl	# 3	9.881	ug/l	0.48	10.00	90 -	110	
205	Tl	# 3	9.83	ug/l	0.69	10.00	90 -	110	
208	Pb	# 3	49.03	ug/l	0.41	50.00	90 -	110	
232	Th	# 3	49.55	ug/l	1.20	---	##### -	#####	
238	U	# 3	49.41	ug/l	1.01	---	##### -	#####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)		Flag
6	Li	# 3	662956.44	1.12	643928.69	103.0	60 -	125	
45	Sc	# 1	312738.75	0.66	329114.28	95.0	60 -	125	
45	Sc	# 3	892814.88	1.70	872836.06	102.3	60 -	125	
74	Ge	# 1	115328.45	0.80	122381.69	94.2	60 -	125	
74	Ge	# 2	20762.45	3.43	21667.30	95.8	60 -	125	
74	Ge	# 3	220962.63	1.16	224459.19	98.4	60 -	125	
89	Y	# 3	1265968.00	2.14	1247149.90	101.5	60 -	125	
115	In	# 3	1405758.90	1.95	1396206.60	100.7	60 -	125	
159	Tb	# 3	2148456.50	1.49	2071474.10	103.7	60 -	125	
209	Bi	# 3	1355579.60	1.28	1349994.40	100.4	60 -	125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\024_CCB.D\024_CCB.D#
Date Acquired: Mar 23 2009 02:06 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.003284 ug/l	43.64	#VALUE!	
11 B	0.8366 ug/l	3.55	#VALUE!	
23 Na	-17.59 ug/l	0.69	#VALUE!	
24 Mg	0.2482 ug/l	7.69	#VALUE!	
27 Al	0.08545 ug/l	28.30	#VALUE!	
39 K	-3.278 ug/l	16.10	#VALUE!	
40 Ca	0.2563 ug/l	27.66	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.01244 ug/l	23.88	#VALUE!	
51 V	-0.002071 ug/l	156.49	#VALUE!	
52 Cr	0.008059 ug/l	170.74	#VALUE!	
55 Mn	0.03697 ug/l	44.87	#VALUE!	
56 Fe	0.6717 ug/l	2.43	#VALUE!	
59 Co	0.002106 ug/l	54.89	#VALUE!	
60 Ni	-0.0159 ug/l	19.28	#VALUE!	
63 Cu	-0.001033 ug/l	775.12	#VALUE!	
65 Cu	0.01636 ug/l	106.91	#VALUE!	
65 Cu	-0.01667 ug/l	123.34	#VALUE!	
66 Zn	-0.002453 ug/l	929.07	#VALUE!	
68 Zn	0.02198 ug/l	186.26	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.009937 ug/l	64.03	#VALUE!	
78 Se	0.0391 ug/l	7.99	#VALUE!	
88 Sr	0.004648 ug/l	46.08	#VALUE!	
90 Zr	0.4019 ug/l	3.60	#VALUE!	
91 Zr	0.3957 ug/l	7.92	#VALUE!	
95 Mo	0.08274 ug/l	10.70	#VALUE!	
107 Ag	0.008135 ug/l	46.64	#VALUE!	
111 Cd	0.004824 ug/l	67.79	#VALUE!	
118 Sn	0.03502 ug/l	18.34	#VALUE!	
121 Sb	0.01848 ug/l	26.50	#VALUE!	
137 Ba	0.001672 ug/l	146.29	#VALUE!	
201 Hg	0.03071 ug/l	18.73	#VALUE!	
202 Hg	0.03178 ug/l	5.79	#VALUE!	
203 Tl	0.02032 ug/l	32.60	#VALUE!	
205 Tl	0.02047 ug/l	14.78	#VALUE!	
208 Pb	0.004931 ug/l	32.23	#VALUE!	
232 Th	0.06209 ug/l	7.74	#VALUE!	
238 U	0.007859 ug/l	32.60	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	700604.31	0.95	643928.69	108.8	60 - 125	
45 Sc	318123.16	0.98	329114.28	96.7	60 - 125	
45 Sc	895615.38	1.93	872836.06	102.6	60 - 125	
74 Ge	115367.41	0.99	122381.69	94.3	60 - 125	
74 Ge	21318.16	3.50	21667.30	98.4	60 - 125	
74 Ge	220679.77	1.72	224459.19	98.3	60 - 125	
89 Y	1270306.50	1.60	1247149.90	101.9	60 - 125	
115 In	1444498.60	1.87	1396206.60	103.5	60 - 125	
159 Tb	2136715.00	2.71	2071474.10	103.1	60 - 125	
209 Bi	1398156.10	1.59	1349994.40	103.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\025SMPL.D\025SMPL.D#
Date Acquired:	Mar 23 2009 02:13 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	ICSA
Misc Info:	MSICSA 00020
Vial Number:	1106
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.002415	0.002415	ug/l	64.56	#VALUE!	
11	B	# 3	0.4616	0.4616	ug/l	6.84	#VALUE!	
23	Na	# 1	95060	95060	ug/l	0.95	#VALUE!	
24	Mg	# 1	91030	91030	ug/l	0.76	#VALUE!	
27	Al	# 1	90910	90910	ug/l	0.56	#VALUE!	
39	K	# 2	100100	100100	ug/l	0.17	#VALUE!	
40	Ca	# 1	96990	96990	ug/l	0.53	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	2105	2105	ug/l	1.13	#VALUE!	
51	V	# 2	0.06351	0.06351	ug/l	14.14	#VALUE!	
52	Cr	# 2	1.016	1.016	ug/l	3.34	#VALUE!	
55	Mn	# 3	2.182	2.182	ug/l	0.07	#VALUE!	
56	Fe	# 1	95310	95310	ug/l	0.67	#VALUE!	
59	Co	# 3	0.1824	0.1824	ug/l	9.22	#VALUE!	
60	Ni	# 2	0.675	0.675	ug/l	4.95	#VALUE!	
63	Cu	# 2	0.09773	0.09773	ug/l	2.64	#VALUE!	
65	Cu	# 2	0.256	0.256	ug/l	11.29	#VALUE!	
65	Cu	# 3	1.716	1.716	ug/l	4.30	#VALUE!	
66	Zn	# 3	2.856	2.856	ug/l	2.22	#VALUE!	
68	Zn	# 3	1.426	1.426	ug/l	2.94	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.1537	0.1537	ug/l	5.71	#VALUE!	
78	Se	# 1	0.06038	0.06038	ug/l	13.15	#VALUE!	
88	Sr	# 3	2.595	2.595	ug/l	0.62	#VALUE!	
90	Zr	# 3	4.039	4.039	ug/l	9.85	#VALUE!	
91	Zr	# 3	4.031	4.031	ug/l	11.12	#VALUE!	
95	Mo	# 3	2048	2048	ug/l	0.51	#VALUE!	
107	Ag	# 3	0.0699	0.0699	ug/l	3.69	#VALUE!	
111	Cd	# 3	-0.0628	-0.0628	ug/l	176.59	#VALUE!	
118	Sn	# 3	0.06202	0.06202	ug/l	6.80	#VALUE!	
121	Sb	# 3	0.1885	0.1885	ug/l	8.01	#VALUE!	
137	Ba	# 3	1.462	1.462	ug/l	2.16	#VALUE!	
201	Hg	# 3	0.01801	0.01801	ug/l	18.06	#VALUE!	
202	Hg	# 3	0.0199	0.0199	ug/l	15.57	#VALUE!	
203	Tl	# 3	0.0343	0.0343	ug/l	1.60	#VALUE!	
205	Tl	# 3	0.0327	0.0327	ug/l	6.96	#VALUE!	
208	Pb	# 3	0.08677	0.08677	ug/l	2.87	#VALUE!	
232	Th	# 3	0.08749	0.08749	ug/l	9.74	#VALUE!	
238	U	# 3	0.003486	0.003486	ug/l	8.02	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	627582.31	2.41	643928.69	97.5	60 - 125	
45	Sc	# 1	302112.41	1.46	329114.28	91.8	60 - 125	
45	Sc	# 3	872832.44	0.95	872836.06	100.0	60 - 125	
74	Ge	# 1	98403.89	1.50	122381.69	80.4	60 - 125	
74	Ge	# 2	17972.33	2.95	21667.30	82.9	60 - 125	
74	Ge	# 3	193271.89	1.96	224459.19	86.1	60 - 125	
89	Y	# 3	1257694.60	1.94	1247149.90	100.8	60 - 125	
115	In	# 3	1313727.80	1.75	1396206.60	94.1	60 - 125	
159	Tb	# 3	2113040.00	2.23	2071474.10	102.0	60 - 125	
209	Bi	# 3	1139634.40	1.83	1349994.40	84.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\026SMPL.D\026SMPL.D#
Date Acquired:	Mar 23 2009 02:20 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	ICSAB
Misc Info:	MSICSAB 00022
Vial Number:	1107
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.001385	0.001385	ug/l	47.39	#VALUE!	
11	B	# 3	0.2756	0.2756	ug/l	15.56	#VALUE!	
23	Na	# 1	94380	94380	ug/l	0.93	#VALUE!	
24	Mg	# 1	89850	89850	ug/l	0.97	#VALUE!	
27	Al	# 1	89640	89640	ug/l	0.51	#VALUE!	
39	K	# 2	101600	101600	ug/l	1.04	#VALUE!	
40	Ca	# 1	97110	97110	ug/l	1.05	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	2127	2127	ug/l	0.44	#VALUE!	
51	V	# 2	0.0653	0.0653	ug/l	9.72	#VALUE!	
52	Cr	# 2	22.43	22.43	ug/l	0.54	#VALUE!	
55	Mn	# 3	23.36	23.36	ug/l	0.08	#VALUE!	
56	Fe	# 1	97410	97410	ug/l	0.77	#VALUE!	
59	Co	# 3	19.93	19.93	ug/l	0.83	#VALUE!	
60	Ni	# 2	21.11	21.11	ug/l	0.58	#VALUE!	
63	Cu	# 2	19.45	19.45	ug/l	1.09	#VALUE!	
65	Cu	# 2	19.5	19.5	ug/l	1.22	#VALUE!	
65	Cu	# 3	20.87	20.87	ug/l	0.06	#VALUE!	
66	Zn	# 3	20.67	20.67	ug/l	0.55	#VALUE!	
68	Zn	# 3	18.51	18.51	ug/l	0.76	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	20.13	20.13	ug/l	1.21	#VALUE!	
78	Se	# 1	0.04994	0.04994	ug/l	9.99	#VALUE!	
88	Sr	# 3	2.623	2.623	ug/l	1.66	#VALUE!	
90	Zr	# 3	1.915	1.915	ug/l	5.60	#VALUE!	
91	Zr	# 3	1.912	1.912	ug/l	5.85	#VALUE!	
95	Mo	# 3	2077	2077	ug/l	0.69	#VALUE!	
107	Ag	# 3	16.8	16.8	ug/l	0.50	#VALUE!	
111	Cd	# 3	17.7	17.7	ug/l	0.61	#VALUE!	
118	Sn	# 3	0.05201	0.05201	ug/l	13.35	#VALUE!	
121	Sb	# 3	0.2054	0.2054	ug/l	1.83	#VALUE!	
137	Ba	# 3	1.529	1.529	ug/l	3.43	#VALUE!	
201	Hg	# 3	0.01797	0.01797	ug/l	24.74	#VALUE!	
202	Hg	# 3	0.01896	0.01896	ug/l	13.79	#VALUE!	
203	Tl	# 3	0.02858	0.02858	ug/l	3.44	#VALUE!	
205	Tl	# 3	0.0291	0.0291	ug/l	4.37	#VALUE!	
208	Pb	# 3	0.08809	0.08809	ug/l	3.28	#VALUE!	
232	Th	# 3	0.04481	0.04481	ug/l	5.93	#VALUE!	
238	U	# 3	0.002762	0.002762	ug/l	7.06	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	631447.94	2.77	643928.69	98.1	60 - 125	
45	Sc	# 1	295520.72	2.24	329114.28	89.8	60 - 125	
45	Sc	# 3	881925.69	1.05	872836.06	101.0	60 - 125	
74	Ge	# 1	97415.02	1.97	122381.69	79.6	60 - 125	
74	Ge	# 2	16954.29	3.11	21667.30	78.2	60 - 125	
74	Ge	# 3	194163.41	1.20	224459.19	86.5	60 - 125	
89	Y	# 3	1271073.10	1.95	1247149.90	101.9	60 - 125	
115	In	# 3	1319432.00	1.09	1396206.60	94.5	60 - 125	
159	Tb	# 3	2102152.80	1.46	2071474.10	101.5	60 - 125	
209	Bi	# 3	1122393.40	1.89	1349994.40	83.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\027SMPL.D\027SMPL.D#
Date Acquired:	Mar 23 2009 02:27 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	1PPM
Misc Info:	MS LINNG 00011 1/20
Vial Number:	4510
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step	
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0002619	-0.0002619	ug/l	242.80	#VALUE!	
11	B	# 3	968.9	968.9	ug/l	2.42	#VALUE!	
23	Na	# 1	14.55	14.55	ug/l	135.40	#VALUE!	
24	Mg	# 1	42.17	42.17	ug/l	47.64	#VALUE!	
27	Al	# 1	41.82	41.82	ug/l	48.59	#VALUE!	
39	K	# 2	-6.676	-6.676	ug/l	12.54	#VALUE!	
40	Ca	# 1	43.96	43.96	ug/l	50.27	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	1025	1025	ug/l	1.27	#VALUE!	
51	V	# 2	1082	1082	ug/l	0.37	#VALUE!	
52	Cr	# 2	1030	1030	ug/l	0.19	#VALUE!	
55	Mn	# 3	1016	1016	ug/l	0.05	#VALUE!	
56	Fe	# 1	51.5	51.5	ug/l	43.52	#VALUE!	
59	Co	# 3	988.8	988.8	ug/l	0.75	#VALUE!	
60	Ni	# 2	1051	1051	ug/l	1.04	#VALUE!	
63	Cu	# 2	1088	1088	ug/l	0.79	#VALUE!	
65	Cu	# 2	1089	1089	ug/l	0.60	#VALUE!	
65	Cu	# 3	1061	1061	ug/l	0.78	#VALUE!	
66	Zn	# 3	1042	1042	ug/l	0.59	#VALUE!	
68	Zn	# 3	1057	1057	ug/l	1.24	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.7082	0.7082	ug/l	5.87	#VALUE!	
78	Se	# 1	0.008118	0.008118	ug/l	54.85	#VALUE!	
88	Sr	# 3	1017	1017	ug/l	0.75	#VALUE!	
90	Zr	# 3	4.818	4.818	ug/l	8.92	#VALUE!	
91	Zr	# 3	4.801	4.801	ug/l	6.22	#VALUE!	
95	Mo	# 3	958.9	958.9	ug/l	0.80	#VALUE!	
107	Ag	# 3	0.1022	0.1022	ug/l	5.00	#VALUE!	
111	Cd	# 3	0.008107	0.008107	ug/l	679.54	#VALUE!	
118	Sn	# 3	1010	1010	ug/l	0.75	#VALUE!	
121	Sb	# 3	0.03702	0.03702	ug/l	10.05	#VALUE!	
137	Ba	# 3	1003	1003	ug/l	1.01	#VALUE!	
201	Hg	# 3	0.004213	0.004213	ug/l	20.03	#VALUE!	
202	Hg	# 3	0.006442	0.006442	ug/l	5.71	#VALUE!	
203	Tl	# 3	0.001043	0.001043	ug/l	52.00	#VALUE!	
205	Tl	# 3	0.003	0.003	ug/l	17.61	#VALUE!	
208	Pb	# 3	1003	1003	ug/l	0.83	#VALUE!	
232	Th	# 3	0.03471	0.03471	ug/l	3.26	#VALUE!	
238	U	# 3	0.001593	0.001593	ug/l	24.90	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	591506.00	2.94	643928.69	91.9	60 - 125	
45	Sc	# 1	270472.81	1.08	329114.28	82.2	60 - 125	
45	Sc	# 3	774215.63	1.01	872836.06	88.7	60 - 125	
74	Ge	# 1	99692.95	0.98	122381.69	81.5	60 - 125	
74	Ge	# 2	16896.06	2.83	21667.30	78.0	60 - 125	
74	Ge	# 3	190716.22	1.43	224459.19	85.0	60 - 125	
89	Y	# 3	1131321.30	0.60	1247149.90	90.7	60 - 125	
115	In	# 3	1283326.50	0.80	1396206.60	91.9	60 - 125	
159	Tb	# 3	1951445.80	1.84	2071474.10	94.2	60 - 125	
209	Bi	# 3	1287828.00	1.93	1349994.40	95.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\028SMPL.D\028SMPL.D#
Date Acquired:	Mar 23 2009 02:33 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	2PPM
Misc Info:	MS LINNG 000011 1/10
Vial Number:	4512
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.01642	0.01642	ug/l	159.38	#VALUE!	
11	B	# 3	1928	1928	ug/l	1.15	#VALUE!	
23	Na	# 1	-24.29	-24.29	ug/l	3.98	#VALUE!	
24	Mg	# 1	5.162	5.162	ug/l	20.13	#VALUE!	
27	Al	# 1	5.146	5.146	ug/l	18.12	#VALUE!	
39	K	# 2	-3.007	-3.007	ug/l	41.84	#VALUE!	
40	Ca	# 1	6.422	6.422	ug/l	14.01	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	2021	2021	ug/l	1.06	#VALUE!	
51	V	# 2	2129	2129	ug/l	0.82	#VALUE!	
52	Cr	# 2	1998	1998	ug/l	0.98	#VALUE!	
55	Mn	# 3	2005	2005	ug/l	1.09	#VALUE!	
56	Fe	# 1	6.829	6.829	ug/l	15.77	#VALUE!	
59	Co	# 3	1944	1944	ug/l	0.62	#VALUE!	
60	Ni	# 2	2115	2115	ug/l	1.66	#VALUE!	
63	Cu	# 2	2094	2094	ug/l	1.91	#VALUE!	
65	Cu	# 2	2151	2151	ug/l	1.34	#VALUE!	
65	Cu	# 3	2083	2083	ug/l	0.59	#VALUE!	
66	Zn	# 3	2043	2043	ug/l	0.84	#VALUE!	
68	Zn	# 3	2070	2070	ug/l	0.91	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.435	1.435	ug/l	6.36	#VALUE!	
78	Se	# 1	0.008281	0.008281	ug/l	46.92	#VALUE!	
88	Sr	# 3	2033	2033	ug/l	1.11	#VALUE!	
90	Zr	# 3	4.064	4.064	ug/l	12.24	#VALUE!	
91	Zr	# 3	4.04	4.04	ug/l	11.00	#VALUE!	
95	Mo	# 3	1924	1924	ug/l	0.87	#VALUE!	
107	Ag	# 3	0.1994	0.1994	ug/l	18.14	#VALUE!	
111	Cd	# 3	0.04635	0.04635	ug/l	52.51	#VALUE!	
118	Sn	# 3	2029	2029	ug/l	0.40	#VALUE!	
121	Sb	# 3	0.08194	0.08194	ug/l	35.25	#VALUE!	
137	Ba	# 3	2007	2007	ug/l	1.02	#VALUE!	
201	Hg	# 3	0.00464	0.00464	ug/l	51.79	#VALUE!	
202	Hg	# 3	0.00759	0.00759	ug/l	37.13	#VALUE!	
203	Tl	# 3	0.002843	0.002843	ug/l	145.20	#VALUE!	
205	Tl	# 3	0.01047	0.01047	ug/l	49.74	#VALUE!	
208	Pb	# 3	2001	2001	ug/l	1.53	#VALUE!	
232	Th	# 3	0.04443	0.04443	ug/l	54.58	#VALUE!	
238	U	# 3	0.01603	0.01603	ug/l	138.80	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	550444.44	2.21	643928.69	85.5	60 - 125	
45	Sc	# 1	258526.80	0.41	329114.28	78.6	60 - 125	
45	Sc	# 3	737627.31	1.15	872836.06	84.5	60 - 125	
74	Ge	# 1	95197.46	0.29	122381.69	77.8	60 - 125	
74	Ge	# 2	16235.92	3.65	21667.30	74.9	60 - 125	
74	Ge	# 3	182075.75	1.30	224459.19	81.1	60 - 125	
89	Y	# 3	1078874.00	1.59	1247149.90	86.5	60 - 125	
115	In	# 3	1210221.90	1.34	1396206.60	86.7	60 - 125	
159	Tb	# 3	1897922.00	1.46	2071474.10	91.6	60 - 125	
209	Bi	# 3	1253959.40	1.86	1349994.40	92.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\029SMPL.D\029SMPL.D#
Date Acquired:	Mar 23 2009 02:40 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	Rinse
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0009959	-0.0009959	ug/l	0.00	#VALUE!	
11	B	# 3	19.64	19.64	ug/l	5.99	#VALUE!	
23	Na	# 1	-26.42	-26.42	ug/l	0.77	#VALUE!	
24	Mg	# 1	2.578	2.578	ug/l	2.99	#VALUE!	
27	Al	# 1	2.614	2.614	ug/l	4.04	#VALUE!	
39	K	# 2	-4.66	-4.66	ug/l	20.25	#VALUE!	
40	Ca	# 1	3.098	3.098	ug/l	6.23	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.2081	0.2081	ug/l	9.38	#VALUE!	
51	V	# 2	0.07294	0.07294	ug/l	7.95	#VALUE!	
52	Cr	# 2	0.06059	0.06059	ug/l	10.37	#VALUE!	
55	Mn	# 3	0.07465	0.07465	ug/l	12.29	#VALUE!	
56	Fe	# 1	3.314	3.314	ug/l	1.82	#VALUE!	
59	Co	# 3	0.0684	0.0684	ug/l	20.45	#VALUE!	
60	Ni	# 2	0.06751	0.06751	ug/l	46.57	#VALUE!	
63	Cu	# 2	0.1872	0.1872	ug/l	3.44	#VALUE!	
65	Cu	# 2	0.2049	0.2049	ug/l	16.14	#VALUE!	
65	Cu	# 3	0.3136	0.3136	ug/l	9.62	#VALUE!	
66	Zn	# 3	0.3522	0.3522	ug/l	4.86	#VALUE!	
68	Zn	# 3	0.332	0.332	ug/l	17.82	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.001306	0.001306	ug/l	691.58	#VALUE!	
78	Se	# 1	0.000472	0.000472	ug/l	176.97	#VALUE!	
88	Sr	# 3	0.07539	0.07539	ug/l	15.52	#VALUE!	
90	Zr	# 3	-0.01156	-0.01156	ug/l	25.88	#VALUE!	
91	Zr	# 3	-0.01207	-0.01207	ug/l	63.17	#VALUE!	
95	Mo	# 3	2.046	2.046	ug/l	10.21	#VALUE!	
107	Ag	# 3	0.002526	0.002526	ug/l	57.28	#VALUE!	
111	Cd	# 3	0.003387	0.003387	ug/l	120.76	#VALUE!	
118	Sn	# 3	1.226	1.226	ug/l	6.22	#VALUE!	
121	Sb	# 3	0.002479	0.002479	ug/l	44.21	#VALUE!	
137	Ba	# 3	0.0695	0.0695	ug/l	23.64	#VALUE!	
201	Hg	# 3	0.003648	0.003648	ug/l	70.42	#VALUE!	
202	Hg	# 3	0.004909	0.004909	ug/l	4.16	#VALUE!	
203	Tl	# 3	-0.002996	-0.002996	ug/l	23.34	#VALUE!	
205	Tl	# 3	-0.002577	-0.002577	ug/l	42.10	#VALUE!	
208	Pb	# 3	0.1245	0.1245	ug/l	1.47	#VALUE!	
232	Th	# 3	0.0009526	0.0009526	ug/l	62.59	#VALUE!	
238	U	# 3	-0.0002505	-0.0002505	ug/l	69.66	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	558108.63	1.70	643928.69	86.7	60 - 125	
45	Sc	# 1	252566.16	0.64	329114.28	76.7	60 - 125	
45	Sc	# 3	737653.50	2.14	872836.06	84.5	60 - 125	
74	Ge	# 1	93970.88	1.07	122381.69	76.8	60 - 125	
74	Ge	# 2	16739.18	3.91	21667.30	77.3	60 - 125	
74	Ge	# 3	184605.48	2.46	224459.19	82.2	60 - 125	
89	Y	# 3	1072458.10	1.82	1247149.90	86.0	60 - 125	
115	In	# 3	1238576.00	1.62	1396206.60	88.7	60 - 125	
159	Tb	# 3	1875112.00	1.94	2071474.10	90.5	60 - 125	
209	Bi	# 3	1231487.60	2.06	1349994.40	91.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\030SMPL.D\030SMPL.D#
Date Acquired:	Mar 23 2009 02:47 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	Rinse
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step	
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0006027	-0.0006027	ug/l	112.99	#VALUE!	
11	B	# 3	8.343	8.343	ug/l	4.53	#VALUE!	
23	Na	# 1	-26.15	-26.15	ug/l	1.26	#VALUE!	
24	Mg	# 1	2.578	2.578	ug/l	4.76	#VALUE!	
27	Al	# 1	2.56	2.56	ug/l	2.64	#VALUE!	
39	K	# 2	-4.18	-4.18	ug/l	2.30	#VALUE!	
40	Ca	# 1	2.907	2.907	ug/l	4.00	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.1609	0.1609	ug/l	11.80	#VALUE!	
51	V	# 2	0.05139	0.05139	ug/l	24.15	#VALUE!	
52	Cr	# 2	0.06036	0.06036	ug/l	3.37	#VALUE!	
55	Mn	# 3	0.04503	0.04503	ug/l	14.04	#VALUE!	
56	Fe	# 1	3.055	3.055	ug/l	0.61	#VALUE!	
59	Co	# 3	0.0431	0.0431	ug/l	6.01	#VALUE!	
60	Ni	# 2	0.06052	0.06052	ug/l	28.09	#VALUE!	
63	Cu	# 2	0.1129	0.1129	ug/l	1.02	#VALUE!	
65	Cu	# 2	0.1426	0.1426	ug/l	14.30	#VALUE!	
65	Cu	# 3	0.1521	0.1521	ug/l	2.41	#VALUE!	
66	Zn	# 3	0.2791	0.2791	ug/l	7.25	#VALUE!	
68	Zn	# 3	0.2981	0.2981	ug/l	6.12	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	-0.006224	-0.006224	ug/l	162.28	#VALUE!	
78	Se	# 1	0.002458	0.002458	ug/l	161.19	#VALUE!	
88	Sr	# 3	0.04628	0.04628	ug/l	4.31	#VALUE!	
90	Zr	# 3	-0.01106	-0.01106	ug/l	16.72	#VALUE!	
91	Zr	# 3	-0.01132	-0.01132	ug/l	42.99	#VALUE!	
95	Mo	# 3	0.7889	0.7889	ug/l	2.14	#VALUE!	
107	Ag	# 3	0.003777	0.003777	ug/l	15.95	#VALUE!	
111	Cd	# 3	-0.0002233	-0.0002233	ug/l	365.07	#VALUE!	
118	Sn	# 3	0.4996	0.4996	ug/l	4.45	#VALUE!	
121	Sb	# 3	0.000804	0.000804	ug/l	100.66	#VALUE!	
137	Ba	# 3	0.0474	0.0474	ug/l	3.50	#VALUE!	
201	Hg	# 3	0.004045	0.004045	ug/l	14.06	#VALUE!	
202	Hg	# 3	0.00424	0.00424	ug/l	1.71	#VALUE!	
203	Tl	# 3	-0.002759	-0.002759	ug/l	45.74	#VALUE!	
205	Tl	# 3	-0.003536	-0.003536	ug/l	8.27	#VALUE!	
208	Pb	# 3	0.06808	0.06808	ug/l	5.71	#VALUE!	
232	Th	# 3	0.001672	0.001672	ug/l	44.61	#VALUE!	
238	U	# 3	-2.318E-006	-2.318E-006	ug/l	4082.40	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	548645.81	1.95	643928.69	85.2	60 - 125	
45	Sc	# 1	253172.92	1.16	329114.28	76.9	60 - 125	
45	Sc	# 3	721333.06	2.50	872836.06	82.6	60 - 125	
74	Ge	# 1	94190.27	0.84	122381.69	77.0	60 - 125	
74	Ge	# 2	16582.31	3.67	21667.30	76.5	60 - 125	
74	Ge	# 3	182539.16	1.66	224459.19	81.3	60 - 125	
89	Y	# 3	1058744.00	2.02	1247149.90	84.9	60 - 125	
115	In	# 3	1219122.30	2.33	1396206.60	87.3	60 - 125	
159	Tb	# 3	1847702.90	2.19	2071474.10	89.2	60 - 125	
209	Bi	# 3	1210765.60	2.24	1349994.40	89.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\031SMPL.D\031SMPL.D#
Date Acquired:	Mar 23 2009 02:54 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	Rinse
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.0001413	0.0001413	ug/l	806.79	#VALUE!	
11	B	# 3	4.848	4.848	ug/l	3.04	#VALUE!	
23	Na	# 1	-26.02	-26.02	ug/l	0.41	#VALUE!	
24	Mg	# 1	2.312	2.312	ug/l	2.06	#VALUE!	
27	Al	# 1	2.427	2.427	ug/l	7.08	#VALUE!	
39	K	# 2	-4.422	-4.422	ug/l	31.55	#VALUE!	
40	Ca	# 1	2.879	2.879	ug/l	2.21	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.1147	0.1147	ug/l	36.10	#VALUE!	
51	V	# 2	0.04534	0.04534	ug/l	7.31	#VALUE!	
52	Cr	# 2	0.06208	0.06208	ug/l	8.30	#VALUE!	
55	Mn	# 3	0.0462	0.0462	ug/l	7.44	#VALUE!	
56	Fe	# 1	2.91	2.91	ug/l	1.60	#VALUE!	
59	Co	# 3	0.03592	0.03592	ug/l	15.57	#VALUE!	
60	Ni	# 2	0.0534	0.0534	ug/l	27.88	#VALUE!	
63	Cu	# 2	0.0962	0.0962	ug/l	8.09	#VALUE!	
65	Cu	# 2	0.1111	0.1111	ug/l	32.47	#VALUE!	
65	Cu	# 3	0.1715	0.1715	ug/l	6.75	#VALUE!	
66	Zn	# 3	0.3167	0.3167	ug/l	4.05	#VALUE!	
68	Zn	# 3	0.3096	0.3096	ug/l	7.81	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	-0.001298	-0.001298	ug/l	1453.00	#VALUE!	
78	Se	# 1	0.002971	0.002971	ug/l	205.25	#VALUE!	
88	Sr	# 3	0.043	0.043	ug/l	10.78	#VALUE!	
90	Zr	# 3	-0.00855	-0.00855	ug/l	42.34	#VALUE!	
91	Zr	# 3	-0.0117	-0.0117	ug/l	52.44	#VALUE!	
95	Mo	# 3	0.4881	0.4881	ug/l	2.66	#VALUE!	
107	Ag	# 3	0.003825	0.003825	ug/l	19.57	#VALUE!	
111	Cd	# 3	0.0009968	0.0009968	ug/l	3.61	#VALUE!	
118	Sn	# 3	0.3242	0.3242	ug/l	2.95	#VALUE!	
121	Sb	# 3	0.00167	0.00167	ug/l	73.17	#VALUE!	
137	Ba	# 3	0.04835	0.04835	ug/l	28.17	#VALUE!	
201	Hg	# 3	0.002811	0.002811	ug/l	18.73	#VALUE!	
202	Hg	# 3	0.0034	0.0034	ug/l	23.65	#VALUE!	
203	Tl	# 3	-0.003809	-0.003809	ug/l	21.02	#VALUE!	
205	Tl	# 3	-0.003141	-0.003141	ug/l	15.36	#VALUE!	
208	Pb	# 3	0.05878	0.05878	ug/l	5.13	#VALUE!	
232	Th	# 3	0.001788	0.001788	ug/l	10.23	#VALUE!	
238	U	# 3	-3.865E-005	-3.865E-005	ug/l	164.61	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	560064.88	1.39	643928.69	87.0	60 - 125	
45	Sc	# 1	255637.56	0.75	329114.28	77.7	60 - 125	
45	Sc	# 3	743299.69	1.91	872836.06	85.2	60 - 125	
74	Ge	# 1	94161.47	0.47	122381.69	76.9	60 - 125	
74	Ge	# 2	17067.41	2.84	21667.30	78.8	60 - 125	
74	Ge	# 3	184520.72	1.82	224459.19	82.2	60 - 125	
89	Y	# 3	1070195.30	1.96	1247149.90	85.8	60 - 125	
115	In	# 3	1227998.40	1.75	1396206.60	88.0	60 - 125	
159	Tb	# 3	1872520.80	1.36	2071474.10	90.4	60 - 125	
209	Bi	# 3	1231172.30	2.55	1349994.40	91.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\032SMPL.D\032SMPL.D#
Date Acquired:	Mar 23 2009 03:00 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	Rinse
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0006166	-0.0006166	ug/l	106.55	#VALUE!	
11	B	# 3	3.149	3.149	ug/l	5.09	#VALUE!	
23	Na	# 1	-26.01	-26.01	ug/l	0.87	#VALUE!	
24	Mg	# 1	2.437	2.437	ug/l	2.63	#VALUE!	
27	Al	# 1	2.508	2.508	ug/l	1.60	#VALUE!	
39	K	# 2	-4.277	-4.277	ug/l	26.96	#VALUE!	
40	Ca	# 1	2.926	2.926	ug/l	0.62	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.1115	0.1115	ug/l	17.58	#VALUE!	
51	V	# 2	0.03354	0.03354	ug/l	39.95	#VALUE!	
52	Cr	# 2	0.06129	0.06129	ug/l	23.81	#VALUE!	
55	Mn	# 3	0.04251	0.04251	ug/l	2.39	#VALUE!	
56	Fe	# 1	2.868	2.868	ug/l	2.34	#VALUE!	
59	Co	# 3	0.03489	0.03489	ug/l	6.32	#VALUE!	
60	Ni	# 2	0.0672	0.0672	ug/l	14.84	#VALUE!	
63	Cu	# 2	0.08451	0.08451	ug/l	23.55	#VALUE!	
65	Cu	# 2	0.09404	0.09404	ug/l	8.89	#VALUE!	
65	Cu	# 3	0.1159	0.1159	ug/l	6.40	#VALUE!	
66	Zn	# 3	0.2805	0.2805	ug/l	10.35	#VALUE!	
68	Zn	# 3	0.2982	0.2982	ug/l	1.24	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.003972	0.003972	ug/l	180.61	#VALUE!	
78	Se	# 1	0.003764	0.003764	ug/l	133.53	#VALUE!	
88	Sr	# 3	0.03847	0.03847	ug/l	8.83	#VALUE!	
90	Zr	# 3	-0.009281	-0.009281	ug/l	2.90	#VALUE!	
91	Zr	# 3	-0.01299	-0.01299	ug/l	63.83	#VALUE!	
95	Mo	# 3	0.3786	0.3786	ug/l	4.03	#VALUE!	
107	Ag	# 3	0.00284	0.00284	ug/l	64.89	#VALUE!	
111	Cd	# 3	0.001095	0.001095	ug/l	131.96	#VALUE!	
118	Sn	# 3	0.2218	0.2218	ug/l	1.45	#VALUE!	
121	Sb	# 3	0.00297	0.00297	ug/l	40.57	#VALUE!	
137	Ba	# 3	0.03739	0.03739	ug/l	12.08	#VALUE!	
201	Hg	# 3	0.004706	0.004706	ug/l	63.28	#VALUE!	
202	Hg	# 3	0.002893	0.002893	ug/l	13.03	#VALUE!	
203	Tl	# 3	-0.003262	-0.003262	ug/l	31.42	#VALUE!	
205	Tl	# 3	-0.003516	-0.003516	ug/l	13.20	#VALUE!	
208	Pb	# 3	0.04911	0.04911	ug/l	10.37	#VALUE!	
232	Th	# 3	0.002271	0.002271	ug/l	39.71	#VALUE!	
238	U	# 3	-3.987E-006	-3.987E-006	ug/l	4885.90	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	567690.94	3.98	643928.69	88.2	60 - 125	
45	Sc	# 1	259718.28	0.84	329114.28	78.9	60 - 125	
45	Sc	# 3	742830.69	2.02	872836.06	85.1	60 - 125	
74	Ge	# 1	95733.71	0.60	122381.69	78.2	60 - 125	
74	Ge	# 2	17306.60	4.83	21667.30	79.9	60 - 125	
74	Ge	# 3	184694.53	1.95	224459.19	82.3	60 - 125	
89	Y	# 3	1068790.30	2.54	1247149.90	85.7	60 - 125	
115	In	# 3	1230885.60	1.70	1396206.60	88.2	60 - 125	
159	Tb	# 3	1866657.30	1.66	2071474.10	90.1	60 - 125	
209	Bi	# 3	1221917.40	2.58	1349994.40	90.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\034_CCB.D\034_CCB.D#
Date Acquired: Mar 23 2009 03:14 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.005914 ug/l	50.10	#VALUE!	
11 B	2.272 ug/l	6.57	#VALUE!	
23 Na	-27.34 ug/l	1.07	#VALUE!	
24 Mg	0.9186 ug/l	8.24	#VALUE!	
27 Al	0.4149 ug/l	6.91	#VALUE!	
39 K	-6.085 ug/l	16.47	#VALUE!	
40 Ca	0.8386 ug/l	5.59	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.02776 ug/l	61.92	#VALUE!	
51 V	0.005692 ug/l	123.10	#VALUE!	
52 Cr	0.003882 ug/l	97.68	#VALUE!	
55 Mn	0.08473 ug/l	35.11	#VALUE!	
56 Fe	1.381 ug/l	3.57	#VALUE!	
59 Co	0.007565 ug/l	41.44	#VALUE!	
60 Ni	0.001279 ug/l	1078.20	#VALUE!	
63 Cu	0.02459 ug/l	18.10	#VALUE!	
65 Cu	0.01302 ug/l	43.75	#VALUE!	
65 Cu	0.02991 ug/l	28.24	#VALUE!	
66 Zn	-0.003336 ug/l	127.64	#VALUE!	
68 Zn	0.02574 ug/l	116.98	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.002404 ug/l	447.59	#VALUE!	
78 Se	0.04551 ug/l	16.71	#VALUE!	
88 Sr	0.01065 ug/l	35.02	#VALUE!	
90 Zr	0.4186 ug/l	6.11	#VALUE!	
91 Zr	0.3993 ug/l	9.98	#VALUE!	
95 Mo	0.2199 ug/l	13.66	#VALUE!	
107 Ag	0.01557 ug/l	22.44	#VALUE!	
111 Cd	0.01228 ug/l	13.83	#VALUE!	
118 Sn	0.1239 ug/l	12.06	#VALUE!	
121 Sb	0.02112 ug/l	17.60	#VALUE!	
137 Ba	0.009603 ug/l	88.60	#VALUE!	
201 Hg	0.02868 ug/l	8.31	#VALUE!	
202 Hg	0.02777 ug/l	11.11	#VALUE!	
203 Tl	0.01567 ug/l	15.27	#VALUE!	
205 Tl	0.0176 ug/l	18.15	#VALUE!	
208 Pb	0.02151 ug/l	21.57	#VALUE!	
232 Th	0.06718 ug/l	9.72	#VALUE!	
238 U	0.01274 ug/l	28.05	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	592478.13	3.34	643928.69	92.0	60 - 125	
45 Sc	269541.09	0.61	329114.28	81.9	60 - 125	
45 Sc	768984.94	2.13	872836.06	88.1	60 - 125	
74 Ge	99314.52	0.96	122381.69	81.2	60 - 125	
74 Ge	17858.46	3.04	21667.30	82.4	60 - 125	
74 Ge	190219.31	2.42	224459.19	84.7	60 - 125	
89 Y	1095509.40	2.07	1247149.90	87.8	60 - 125	
115 In	1268955.30	2.83	1396206.60	90.9	60 - 125	
159 Tb	1910844.40	2.83	2071474.10	92.2	60 - 125	
209 Bi	1254010.50	1.60	1349994.40	92.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\110_CCV.D\110_CCV.D#
Date Acquired: Mar 23 2009 11:48 pm
Operator: BB
Sample Name: CCV
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	52.86 ug/l	0.51	50.00	90 - 110	
11	B	# 3	90.51 ug/l	0.32	100.00	90 - 110	
23	Na	# 1	4905 ug/l	0.57	5000.00	90 - 110	
24	Mg	# 1	4950 ug/l	0.41	5000.00	90 - 110	
27	Al	# 1	499.8 ug/l	0.79	500.00	90 - 110	
39	K	# 2	4664 ug/l	3.26	5000.00	90 - 110	
40	Ca	# 1	4931 ug/l	0.82	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	50.53 ug/l	2.00	50.00	90 - 110	
51	V	# 2	47.95 ug/l	1.05	50.00	90 - 110	
52	Cr	# 2	47.66 ug/l	1.32	50.00	90 - 110	
55	Mn	# 3	479.4 ug/l	0.23	500.00	90 - 110	
56	Fe	# 1	5013 ug/l	0.16	5000.00	90 - 110	
59	Co	# 3	49.12 ug/l	0.51	50.00	90 - 110	
60	Ni	# 2	48.83 ug/l	0.52	50.00	90 - 110	
63	Cu	# 2	49.06 ug/l	0.95	50.00	90 - 110	
65	Cu	# 2	48.72 ug/l	1.08	50.00	90 - 110	
65	Cu	# 3	49.95 ug/l	0.70	50.00	90 - 110	
66	Zn	# 3	49.15 ug/l	0.74	50.00	90 - 110	
68	Zn	# 3	48.91 ug/l	0.28	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	49.3 ug/l	0.75	50.00	90 - 110	
78	Se	# 1	47.81 ug/l	0.30	50.00	90 - 110	
88	Sr	# 3	49.14 ug/l	1.54	50.00	90 - 110	
90	Zr	# 3	489.8 ug/l	0.76	500.00	90 - 110	
91	Zr	# 3	498.9 ug/l	1.17	500.00	90 - 110	
95	Mo	# 3	49.89 ug/l	1.03	50.00	90 - 110	
107	Ag	# 3	49.7 ug/l	1.01	50.00	90 - 110	
111	Cd	# 3	49.72 ug/l	0.34	50.00	90 - 110	
118	Sn	# 3	49.28 ug/l	0.29	50.00	90 - 110	
121	Sb	# 3	49.44 ug/l	0.08	50.00	90 - 110	
137	Ba	# 3	49.38 ug/l	1.26	50.00	90 - 110	
201	Hg	# 3	2.916 ug/l	0.39	2.50	90 - 110	Fail
202	Hg	# 3	2.912 ug/l	1.31	2.50	90 - 110	Fail
203	Tl	# 3	9.754 ug/l	0.89	10.00	90 - 110	
205	Tl	# 3	9.709 ug/l	0.35	10.00	90 - 110	
208	Pb	# 3	48.56 ug/l	0.36	50.00	90 - 110	
232	Th	# 3	48.81 ug/l	0.31	---	##### - #####	
238	U	# 3	48.21 ug/l	0.83	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	537318.88	1.44	643928.69	83.4	60 - 125	
45	Sc	# 1	273523.13	0.69	329114.28	83.1	60 - 125	
45	Sc	# 3	757947.31	1.28	872836.06	86.8	60 - 125	
74	Ge	# 1	103224.10	0.82	122381.69	84.3	60 - 125	
74	Ge	# 2	19499.38	2.80	21667.30	90.0	60 - 125	
74	Ge	# 3	191417.56	0.98	224459.19	85.3	60 - 125	
89	Y	# 3	1091935.40	1.58	1247149.90	87.6	60 - 125	
115	In	# 3	1198728.40	1.28	1396206.60	85.9	60 - 125	
159	Tb	# 3	1819744.80	1.53	2071474.10	87.8	60 - 125	
209	Bi	# 3	1150620.60	1.64	1349994.40	85.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Fail**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\111_CCB.D\111_CCB.D#
Date Acquired: Mar 23 2009 11:54 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.003836 ug/l	131.13	#VALUE!	
11 B	0.6706 ug/l	4.36	#VALUE!	
23 Na	-22.46 ug/l	1.00	#VALUE!	
24 Mg	0.2079 ug/l	17.41	#VALUE!	
27 Al	0.09823 ug/l	30.29	#VALUE!	
39 K	-4.038 ug/l	5.35	#VALUE!	
40 Ca	0.0002618 ug/l	21818.00	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.009119 ug/l	72.68	#VALUE!	
51 V	-0.0007043 ug/l	332.81	#VALUE!	
52 Cr	-0.003456 ug/l	30.38	#VALUE!	
55 Mn	0.0394 ug/l	45.69	#VALUE!	
56 Fe	0.6615 ug/l	3.01	#VALUE!	
59 Co	0.001339 ug/l	153.70	#VALUE!	
60 Ni	-0.003933 ug/l	193.36	#VALUE!	
63 Cu	-0.002011 ug/l	235.90	#VALUE!	
65 Cu	-0.005393 ug/l	140.35	#VALUE!	
65 Cu	-0.001065 ug/l	1162.40	#VALUE!	
66 Zn	-0.05193 ug/l	3.69	#VALUE!	
68 Zn	-0.05806 ug/l	8.88	#VALUE!	
70 Ge	--------- ug/l	---------	#VALUE!	
75 As	0.01156 ug/l	88.50	#VALUE!	
78 Se	0.03539 ug/l	24.25	#VALUE!	
88 Sr	0.004539 ug/l	38.22	#VALUE!	
90 Zr	0.3677 ug/l	6.91	#VALUE!	
91 Zr	0.3568 ug/l	4.32	#VALUE!	
95 Mo	0.09819 ug/l	14.41	#VALUE!	
107 Ag	0.01091 ug/l	50.51	#VALUE!	
111 Cd	0.006833 ug/l	20.93	#VALUE!	
118 Sn	0.039 ug/l	35.05	#VALUE!	
121 Sb	0.0211 ug/l	34.89	#VALUE!	
137 Ba	0.004905 ug/l	72.54	#VALUE!	
201 Hg	0.03429 ug/l	2.00	#VALUE!	
202 Hg	0.03554 ug/l	6.16	#VALUE!	
203 Tl	0.01874 ug/l	25.37	#VALUE!	
205 Tl	0.01695 ug/l	23.61	#VALUE!	
208 Pb	0.005709 ug/l	67.16	#VALUE!	
232 Th	0.05254 ug/l	13.30	#VALUE!	
238 U	0.007836 ug/l	27.73	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	576680.63	0.46	643928.69	89.6	60 - 125	
45 Sc	286679.97	0.60	329114.28	87.1	60 - 125	
45 Sc	800842.63	1.69	872836.06	91.8	60 - 125	
74 Ge	108912.54	0.96	122381.69	89.0	60 - 125	
74 Ge	20647.48	3.08	21667.30	95.3	60 - 125	
74 Ge	202734.02	1.74	224459.19	90.3	60 - 125	
89 Y	1127225.40	1.36	1247149.90	90.4	60 - 125	
115 In	1268638.90	1.40	1396206.60	90.9	60 - 125	
159 Tb	1883633.30	2.08	2071474.10	90.9	60 - 125	
209 Bi	1207330.50	1.84	1349994.40	89.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

ICS-A QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\112ICSA.D\112ICSA.D#
Date Acquired: Mar 24 2009 12:01 am
Acq. Method: EPA2002.M
Operator: BB
Sample Name: ICSA
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update: Mar 23 2009 12:56 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.005758 ug/l	14.55	---	
11 B	0.4221 ug/l	3.84	---	
23 Na	92910 ug/l	0.33	1.20	
24 Mg	90170 ug/l	0.22	1.20	
27 Al	89270 ug/l	0.47	1.20	
39 K	91900 ug/l	1.90	1.20	
40 Ca	95450 ug/l	0.19	1.20	
45 Sc	-------- ug/l	--------	---	
47 Ti	2148 ug/l	1.62	1.20	
51 V	0.06209 ug/l	15.98	---	
52 Cr	0.9393 ug/l	1.56	---	
55 Mn	2.058 ug/l	1.09	---	
56 Fe	95470 ug/l	0.58	1.20	
59 Co	0.1614 ug/l	8.48	---	
60 Ni	0.5991 ug/l	4.12	---	
63 Cu	0.06896 ug/l	18.50	---	
65 Cu	0.1845 ug/l	6.76	---	
65 Cu	1.638 ug/l	0.78	---	
66 Zn	2.742 ug/l	0.29	---	
68 Zn	1.38 ug/l	9.40	---	
70 Ge	-------- ug/l	--------	---	
75 As	0.124 ug/l	21.02	---	
78 Se	0.04232 ug/l	18.77	---	
88 Sr	2.528 ug/l	0.63	---	
90 Zr	3.962 ug/l	9.63	---	
91 Zr	3.998 ug/l	9.65	---	
95 Mo	2114 ug/l	0.84	1.20	
107 Ag	0.06227 ug/l	3.92	---	
111 Cd	0.303 ug/l	35.78	---	
118 Sn	0.05801 ug/l	9.61	---	
121 Sb	0.2159 ug/l	5.91	---	
137 Ba	1.432 ug/l	4.26	---	
201 Hg	0.02079 ug/l	12.86	---	
202 Hg	0.02473 ug/l	4.37	---	
203 Tl	0.02813 ug/l	10.30	---	
205 Tl	0.03023 ug/l	12.74	---	
208 Pb	0.08836 ug/l	3.29	---	
232 Th	0.0921 ug/l	12.35	---	
238 U	0.004706 ug/l	8.09	---	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	506998.47	2.26	643928.69	78.7	60 - 125	
45 Sc	263171.78	1.58	329114.28	80.0	60 - 125	
45 Sc	761913.38	1.76	872836.06	87.3	60 - 125	
74 Ge	93218.48	1.84	122381.69	76.2	60 - 125	
74 Ge	17954.51	1.30	21667.30	82.9	60 - 125	
74 Ge	183200.91	1.11	224459.19	81.6	60 - 125	
89 Y	1116710.90	0.32	1247149.90	89.5	60 - 125	
115 In	1149762.10	0.25	1396206.60	82.3	60 - 125	
159 Tb	1845471.90	0.47	2071474.10	89.1	60 - 125	
209 Bi	1021590.90	1.44	1349994.40	75.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\113ICSB.D\113ICSB.D#
Date Acquired: Mar 24 2009 12:08 am
Acq. Method: EPA2002.M
Operator: BB
Sample Name: ICSAB
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update: Mar 23 2009 12:56 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)	Flag
9 Be	0.00	ug/l	54.49	---	##### - #####	
11 B	0.28	ug/l	2.57	---	##### - #####	
23 Na	92490.00	ug/l	0.73	100000.00	80 - 120	
24 Mg	89530.00	ug/l	0.13	100000.00	80 - 120	
27 Al	87930.00	ug/l	0.65	100000.00	80 - 120	
39 K	91730.00	ug/l	0.82	100000.00	80 - 120	
40 Ca	95530.00	ug/l	0.63	100000.00	80 - 120	
45 Sc	--------	ug/l	--------	---	##### - #####	
47 Ti	2164.00	ug/l	0.79	2000.00	80 - 120	
51 V	0.04	ug/l	19.77	---	##### - #####	
52 Cr	20.78	ug/l	0.51	20.00	80 - 120	
55 Mn	21.45	ug/l	0.49	20.00	80 - 120	
56 Fe	96820.00	ug/l	0.99	100000.00	80 - 120	
59 Co	18.65	ug/l	0.66	20.00	80 - 120	
60 Ni	20.03	ug/l	2.56	20.00	80 - 120	
63 Cu	18.70	ug/l	0.65	20.00	80 - 120	
65 Cu	18.86	ug/l	1.28	20.00	80 - 120	
65 Cu	20.02	ug/l	0.19	20.00	80 - 120	
66 Zn	20.42	ug/l	0.70	20.00	80 - 120	
68 Zn	18.14	ug/l	1.32	20.00	80 - 120	
70 Ge	--------	ug/l	--------	---	##### - #####	
75 As	20.56	ug/l	2.20	20.00	80 - 120	
78 Se	0.05	ug/l	19.95	---	##### - #####	
88 Sr	2.57	ug/l	0.22	---	##### - #####	
90 Zr	1.94	ug/l	3.24	---	##### - #####	
91 Zr	1.95	ug/l	2.67	---	##### - #####	
95 Mo	2144.00	ug/l	0.26	2000.00	80 - 120	
107 Ag	17.08	ug/l	0.62	20.00	80 - 120	
111 Cd	18.41	ug/l	0.88	20.00	80 - 120	
118 Sn	0.05	ug/l	13.27	---	##### - #####	
121 Sb	0.21	ug/l	0.90	---	##### - #####	
137 Ba	1.55	ug/l	2.43	---	##### - #####	
201 Hg	0.02	ug/l	8.66	---	##### - #####	
202 Hg	0.02	ug/l	10.30	---	##### - #####	
203 Tl	0.03	ug/l	2.77	---	##### - #####	
205 Tl	0.03	ug/l	12.09	---	##### - #####	
208 Pb	0.08	ug/l	4.47	---	##### - #####	
232 Th	0.04	ug/l	11.25	---	##### - #####	
238 U	0.00	ug/l	38.48	---	##### - #####	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	503369.78	1.22	643928.69	78.2	60 - 125	
45 Sc	255042.64	1.99	329114.28	77.5	60 - 125	
45 Sc	751228.44	2.16	872836.06	86.1	60 - 125	
74 Ge	91024.17	1.83	122381.69	74.4	60 - 125	
74 Ge	16826.33	3.38	21667.30	77.7	60 - 125	
74 Ge	179147.73	0.59	224459.19	79.8	60 - 125	
89 Y	1104978.30	0.49	1247149.90	88.6	60 - 125	
115 In	1133260.60	1.03	1396206.60	81.2	60 - 125	
159 Tb	1824479.40	1.34	2071474.10	88.1	60 - 125	
209 Bi	992624.06	2.03	1349994.40	73.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\114SMPL.D\114SMPL.D#
Date Acquired:	Mar 24 2009 12:15 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RINSE
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0006023	-0.0006023	ug/l	113.20	#VALUE!	
11	B	# 3	0.2155	0.2155	ug/l	18.26	#VALUE!	
23	Na	# 1	-21.48	-21.48	ug/l	12.41	#VALUE!	
24	Mg	# 1	5.952	5.952	ug/l	46.71	#VALUE!	
27	Al	# 1	5.912	5.912	ug/l	48.11	#VALUE!	
39	K	# 2	3.154	3.154	ug/l	286.53	#VALUE!	
40	Ca	# 1	6.177	6.177	ug/l	42.43	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.184	0.184	ug/l	1.83	#VALUE!	
51	V	# 2	0.0394	0.0394	ug/l	8.90	#VALUE!	
52	Cr	# 2	0.0372	0.0372	ug/l	12.71	#VALUE!	
55	Mn	# 3	0.03885	0.03885	ug/l	5.08	#VALUE!	
56	Fe	# 1	11.36	11.36	ug/l	25.65	#VALUE!	
59	Co	# 3	0.03203	0.03203	ug/l	4.58	#VALUE!	
60	Ni	# 2	0.07024	0.07024	ug/l	18.86	#VALUE!	
63	Cu	# 2	0.05895	0.05895	ug/l	31.48	#VALUE!	
65	Cu	# 2	0.06433	0.06433	ug/l	25.31	#VALUE!	
65	Cu	# 3	0.06491	0.06491	ug/l	5.49	#VALUE!	
66	Zn	# 3	0.2108	0.2108	ug/l	15.68	#VALUE!	
68	Zn	# 3	0.2019	0.2019	ug/l	3.25	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.01014	0.01014	ug/l	142.21	#VALUE!	
78	Se	# 1	0.00896	0.00896	ug/l	53.28	#VALUE!	
88	Sr	# 3	0.03299	0.03299	ug/l	8.69	#VALUE!	
90	Zr	# 3	0.02073	0.02073	ug/l	7.10	#VALUE!	
91	Zr	# 3	0.0142	0.0142	ug/l	87.68	#VALUE!	
95	Mo	# 3	1.423	1.423	ug/l	7.85	#VALUE!	
107	Ag	# 3	0.003588	0.003588	ug/l	24.63	#VALUE!	
111	Cd	# 3	0.001625	0.001625	ug/l	180.80	#VALUE!	
118	Sn	# 3	0.07207	0.07207	ug/l	9.47	#VALUE!	
121	Sb	# 3	0.006045	0.006045	ug/l	30.09	#VALUE!	
137	Ba	# 3	0.03987	0.03987	ug/l	11.79	#VALUE!	
201	Hg	# 3	0.007234	0.007234	ug/l	34.70	#VALUE!	
202	Hg	# 3	0.009474	0.009474	ug/l	26.01	#VALUE!	
203	Tl	# 3	-0.002168	-0.002168	ug/l	38.96	#VALUE!	
205	Tl	# 3	-0.001438	-0.001438	ug/l	20.73	#VALUE!	
208	Pb	# 3	0.03293	0.03293	ug/l	9.74	#VALUE!	
232	Th	# 3	0.005952	0.005952	ug/l	11.48	#VALUE!	
238	U	# 3	-5.69E-006	-5.69E-006	ug/l	4332.20	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	532740.13	1.70	643928.69	82.7	60 - 125	
45	Sc	# 1	259401.41	0.80	329114.28	78.8	60 - 125	
45	Sc	# 3	757945.38	2.22	872836.06	86.8	60 - 125	
74	Ge	# 1	100047.70	0.79	122381.69	81.8	60 - 125	
74	Ge	# 2	18046.13	4.29	21667.30	83.3	60 - 125	
74	Ge	# 3	191010.30	0.85	224459.19	85.1	60 - 125	
89	Y	# 3	1075198.60	1.18	1247149.90	86.2	60 - 125	
115	In	# 3	1210328.60	1.56	1396206.60	86.7	60 - 125	
159	Tb	# 3	1800200.40	1.58	2071474.10	86.9	60 - 125	
209	Bi	# 3	1152203.00	1.20	1349994.40	85.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\115SMPL.D\115SMPL.D#
Date Acquired:	Mar 24 2009 12:21 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RINSE
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0006132	-0.0006132	ug/l	108.12	#VALUE!	
11	B	# 3	0.1862	0.1862	ug/l	27.57	#VALUE!	
23	Na	# 1	-21.49	-21.49	ug/l	3.07	#VALUE!	
24	Mg	# 1	6.839	6.839	ug/l	3.42	#VALUE!	
27	Al	# 1	6.715	6.715	ug/l	4.97	#VALUE!	
39	K	# 2	-1.475	-1.475	ug/l	86.78	#VALUE!	
40	Ca	# 1	7.072	7.072	ug/l	2.37	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.162	0.162	ug/l	15.54	#VALUE!	
51	V	# 2	0.03363	0.03363	ug/l	24.78	#VALUE!	
52	Cr	# 2	0.03549	0.03549	ug/l	15.99	#VALUE!	
55	Mn	# 3	0.0422	0.0422	ug/l	6.04	#VALUE!	
56	Fe	# 1	8.251	8.251	ug/l	3.12	#VALUE!	
59	Co	# 3	0.02639	0.02639	ug/l	3.91	#VALUE!	
60	Ni	# 2	0.03608	0.03608	ug/l	49.97	#VALUE!	
63	Cu	# 2	0.07171	0.07171	ug/l	25.95	#VALUE!	
65	Cu	# 2	0.06177	0.06177	ug/l	11.60	#VALUE!	
65	Cu	# 3	0.05816	0.05816	ug/l	6.03	#VALUE!	
66	Zn	# 3	0.1915	0.1915	ug/l	13.66	#VALUE!	
68	Zn	# 3	0.1875	0.1875	ug/l	22.56	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.004133	0.004133	ug/l	84.98	#VALUE!	
78	Se	# 1	0.003386	0.003386	ug/l	129.95	#VALUE!	
88	Sr	# 3	0.03749	0.03749	ug/l	4.84	#VALUE!	
90	Zr	# 3	0.02288	0.02288	ug/l	6.01	#VALUE!	
91	Zr	# 3	0.01327	0.01327	ug/l	44.62	#VALUE!	
95	Mo	# 3	0.644	0.644	ug/l	8.35	#VALUE!	
107	Ag	# 3	0.004587	0.004587	ug/l	23.57	#VALUE!	
111	Cd	# 3	0.001855	0.001855	ug/l	162.86	#VALUE!	
118	Sn	# 3	0.07235	0.07235	ug/l	6.83	#VALUE!	
121	Sb	# 3	0.003477	0.003477	ug/l	80.36	#VALUE!	
137	Ba	# 3	0.0425	0.0425	ug/l	16.62	#VALUE!	
201	Hg	# 3	0.005669	0.005669	ug/l	35.79	#VALUE!	
202	Hg	# 3	0.007304	0.007304	ug/l	10.65	#VALUE!	
203	Tl	# 3	-0.002566	-0.002566	ug/l	19.05	#VALUE!	
205	Tl	# 3	-0.002307	-0.002307	ug/l	25.21	#VALUE!	
208	Pb	# 3	0.03232	0.03232	ug/l	2.82	#VALUE!	
232	Th	# 3	0.006436	0.006436	ug/l	1.17	#VALUE!	
238	U	# 3	-0.0001393	-0.0001393	ug/l	238.69	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	553754.50	3.31	643928.69	86.0	60 - 125	
45	Sc	# 1	263853.59	2.72	329114.28	80.2	60 - 125	
45	Sc	# 3	775046.75	1.07	872836.06	88.8	60 - 125	
74	Ge	# 1	99988.84	1.75	122381.69	81.7	60 - 125	
74	Ge	# 2	18494.55	3.08	21667.30	85.4	60 - 125	
74	Ge	# 3	193649.80	1.85	224459.19	86.3	60 - 125	
89	Y	# 3	1089737.80	2.02	1247149.90	87.4	60 - 125	
115	In	# 3	1223998.10	2.23	1396206.60	87.7	60 - 125	
159	Tb	# 3	1827646.00	1.86	2071474.10	88.2	60 - 125	
209	Bi	# 3	1174402.60	1.21	1349994.40	87.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\116SMPL.D\116SMPL.D#
Date Acquired:	Mar 24 2009 12:28 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RINSE
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.0001456	0.0001456	ug/l	794.64	#VALUE!	
11	B	# 3	0.1696	0.1696	ug/l	6.43	#VALUE!	
23	Na	# 1	-25.47	-25.47	ug/l	0.44	#VALUE!	
24	Mg	# 1	3.407	3.407	ug/l	2.02	#VALUE!	
27	Al	# 1	3.429	3.429	ug/l	2.17	#VALUE!	
39	K	# 2	-2.185	-2.185	ug/l	53.41	#VALUE!	
40	Ca	# 1	3.642	3.642	ug/l	2.17	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.1474	0.1474	ug/l	7.96	#VALUE!	
51	V	# 2	0.04038	0.04038	ug/l	21.98	#VALUE!	
52	Cr	# 2	0.03715	0.03715	ug/l	12.65	#VALUE!	
55	Mn	# 3	0.03912	0.03912	ug/l	4.21	#VALUE!	
56	Fe	# 1	4.285	4.285	ug/l	0.28	#VALUE!	
59	Co	# 3	0.02925	0.02925	ug/l	3.12	#VALUE!	
60	Ni	# 2	0.04395	0.04395	ug/l	21.92	#VALUE!	
63	Cu	# 2	0.05629	0.05629	ug/l	28.28	#VALUE!	
65	Cu	# 2	0.05008	0.05008	ug/l	25.52	#VALUE!	
65	Cu	# 3	0.06056	0.06056	ug/l	15.78	#VALUE!	
66	Zn	# 3	0.1771	0.1771	ug/l	4.05	#VALUE!	
68	Zn	# 3	0.1891	0.1891	ug/l	11.73	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	-0.001608	-0.001608	ug/l	448.76	#VALUE!	
78	Se	# 1	0.002682	0.002682	ug/l	77.55	#VALUE!	
88	Sr	# 3	0.03879	0.03879	ug/l	7.65	#VALUE!	
90	Zr	# 3	0.02105	0.02105	ug/l	23.34	#VALUE!	
91	Zr	# 3	0.01947	0.01947	ug/l	46.49	#VALUE!	
95	Mo	# 3	0.3972	0.3972	ug/l	2.40	#VALUE!	
107	Ag	# 3	0.002483	0.002483	ug/l	35.81	#VALUE!	
111	Cd	# 3	0.003397	0.003397	ug/l	47.63	#VALUE!	
118	Sn	# 3	0.07122	0.07122	ug/l	6.03	#VALUE!	
121	Sb	# 3	0.003461	0.003461	ug/l	57.61	#VALUE!	
137	Ba	# 3	0.04281	0.04281	ug/l	12.58	#VALUE!	
201	Hg	# 3	0.006371	0.006371	ug/l	20.58	#VALUE!	
202	Hg	# 3	0.004862	0.004862	ug/l	19.46	#VALUE!	
203	Tl	# 3	-0.002246	-0.002246	ug/l	32.56	#VALUE!	
205	Tl	# 3	-0.003219	-0.003219	ug/l	5.31	#VALUE!	
208	Pb	# 3	0.03378	0.03378	ug/l	9.06	#VALUE!	
232	Th	# 3	0.005285	0.005285	ug/l	9.11	#VALUE!	
238	U	# 3	-9.194E-005	-9.194E-005	ug/l	226.13	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	565590.56	2.00	643928.69	87.8	60 - 125	
45	Sc	# 1	269347.69	0.59	329114.28	81.8	60 - 125	
45	Sc	# 3	779042.06	0.96	872836.06	89.3	60 - 125	
74	Ge	# 1	102023.37	0.46	122381.69	83.4	60 - 125	
74	Ge	# 2	18643.99	2.40	21667.30	86.0	60 - 125	
74	Ge	# 3	196152.61	1.35	224459.19	87.4	60 - 125	
89	Y	# 3	1112650.30	2.16	1247149.90	89.2	60 - 125	
115	In	# 3	1248062.40	1.68	1396206.60	89.4	60 - 125	
159	Tb	# 3	1859913.30	1.66	2071474.10	89.8	60 - 125	
209	Bi	# 3	1204361.50	1.48	1349994.40	89.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\117_CCV.D\117_CCV.D#
Date Acquired: Mar 24 2009 12:35 am
Operator: BB
Sample Name: CCV
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	51.14 ug/l	1.07	50.00	90 - 110	
11	B	# 3	89.06 ug/l	2.21	100.00	90 - 110	Fail
23	Na	# 1	4875 ug/l	0.92	5000.00	90 - 110	
24	Mg	# 1	4921 ug/l	0.63	5000.00	90 - 110	
27	Al	# 1	496 ug/l	0.76	500.00	90 - 110	
39	K	# 2	4598 ug/l	2.08	5000.00	90 - 110	
40	Ca	# 1	4910 ug/l	0.16	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	48.94 ug/l	1.11	50.00	90 - 110	
51	V	# 2	47.94 ug/l	1.21	50.00	90 - 110	
52	Cr	# 2	47.43 ug/l	2.24	50.00	90 - 110	
55	Mn	# 3	482.5 ug/l	1.18	500.00	90 - 110	
56	Fe	# 1	5005 ug/l	0.14	5000.00	90 - 110	
59	Co	# 3	48.66 ug/l	1.54	50.00	90 - 110	
60	Ni	# 2	48.26 ug/l	2.47	50.00	90 - 110	
63	Cu	# 2	48.67 ug/l	2.69	50.00	90 - 110	
65	Cu	# 2	48.4 ug/l	2.95	50.00	90 - 110	
65	Cu	# 3	49.39 ug/l	1.06	50.00	90 - 110	
66	Zn	# 3	49.36 ug/l	1.33	50.00	90 - 110	
68	Zn	# 3	48.45 ug/l	1.05	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	49.27 ug/l	1.31	50.00	90 - 110	
78	Se	# 1	48.37 ug/l	0.69	50.00	90 - 110	
88	Sr	# 3	49.83 ug/l	1.64	50.00	90 - 110	
90	Zr	# 3	495.4 ug/l	1.34	500.00	90 - 110	
91	Zr	# 3	501.5 ug/l	1.31	500.00	90 - 110	
95	Mo	# 3	49.74 ug/l	1.24	50.00	90 - 110	
107	Ag	# 3	49.39 ug/l	0.84	50.00	90 - 110	
111	Cd	# 3	49.56 ug/l	1.01	50.00	90 - 110	
118	Sn	# 3	49.65 ug/l	0.64	50.00	90 - 110	
121	Sb	# 3	49.56 ug/l	0.77	50.00	90 - 110	
137	Ba	# 3	49.63 ug/l	0.75	50.00	90 - 110	
201	Hg	# 3	2.88 ug/l	1.20	2.50	90 - 110	Fail
202	Hg	# 3	2.868 ug/l	0.94	2.50	90 - 110	Fail
203	Tl	# 3	9.684 ug/l	0.22	10.00	90 - 110	
205	Tl	# 3	9.726 ug/l	0.48	10.00	90 - 110	
208	Pb	# 3	48.21 ug/l	0.20	50.00	90 - 110	
232	Th	# 3	48.93 ug/l	1.20	---	##### - #####	
238	U	# 3	48.87 ug/l	0.89	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	539480.50	2.34	643928.69	83.8	60 - 125	
45	Sc	# 1	265296.00	1.34	329114.28	80.6	60 - 125	
45	Sc	# 3	765382.56	0.77	872836.06	87.7	60 - 125	
74	Ge	# 1	99046.24	0.94	122381.69	80.9	60 - 125	
74	Ge	# 2	18377.76	4.50	21667.30	84.8	60 - 125	
74	Ge	# 3	188685.80	1.10	224459.19	84.1	60 - 125	
89	Y	# 3	1079997.30	1.14	1247149.90	86.6	60 - 125	
115	In	# 3	1193619.50	2.03	1396206.60	85.5	60 - 125	
159	Tb	# 3	1836065.80	1.48	2071474.10	88.6	60 - 125	
209	Bi	# 3	1158697.90	0.78	1349994.40	85.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

3 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Fail**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\118_CCB.D\118_CCB.D#
Date Acquired: Mar 24 2009 12:42 am
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.005633 ug/l	72.75	#VALUE!	
11 B	0.6365 ug/l	12.22	#VALUE!	
23 Na	-28.47 ug/l	0.83	#VALUE!	
24 Mg	0.9334 ug/l	13.79	#VALUE!	
27 Al	0.1882 ug/l	11.08	#VALUE!	
39 K	-4.831 ug/l	7.96	#VALUE!	
40 Ca	0.5949 ug/l	9.31	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.0223 ug/l	64.89	#VALUE!	
51 V	-0.000839 ug/l	1228.80	#VALUE!	
52 Cr	-0.00326 ug/l	61.32	#VALUE!	
55 Mn	0.05805 ug/l	22.60	#VALUE!	
56 Fe	1.399 ug/l	3.33	#VALUE!	
59 Co	0.004504 ug/l	51.55	#VALUE!	
60 Ni	-0.003203 ug/l	448.33	#VALUE!	
63 Cu	0.001634 ug/l	707.47	#VALUE!	
65 Cu	0.01166 ug/l	41.07	#VALUE!	
65 Cu	0.01669 ug/l	67.29	#VALUE!	
66 Zn	-0.04473 ug/l	20.71	#VALUE!	
68 Zn	-0.05281 ug/l	31.83	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.02303 ug/l	18.19	#VALUE!	
78 Se	0.03977 ug/l	14.61	#VALUE!	
88 Sr	0.004665 ug/l	17.81	#VALUE!	
90 Zr	0.3926 ug/l	3.18	#VALUE!	
91 Zr	0.4244 ug/l	4.79	#VALUE!	
95 Mo	0.1813 ug/l	2.25	#VALUE!	
107 Ag	0.01061 ug/l	16.07	#VALUE!	
111 Cd	0.007577 ug/l	13.06	#VALUE!	
118 Sn	0.04629 ug/l	16.42	#VALUE!	
121 Sb	0.01665 ug/l	29.40	#VALUE!	
137 Ba	0.004517 ug/l	105.40	#VALUE!	
201 Hg	0.02364 ug/l	4.40	#VALUE!	
202 Hg	0.03079 ug/l	12.65	#VALUE!	
203 Tl	0.01988 ug/l	7.13	#VALUE!	
205 Tl	0.01627 ug/l	13.81	#VALUE!	
208 Pb	0.005434 ug/l	49.43	#VALUE!	
232 Th	0.04991 ug/l	6.98	#VALUE!	
238 U	0.01015 ug/l	21.43	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	549747.75	1.88	643928.69	85.4	60 - 125	
45 Sc	261860.66	0.62	329114.28	79.6	60 - 125	
45 Sc	752431.06	1.52	872836.06	86.2	60 - 125	
74 Ge	99507.95	0.53	122381.69	81.3	60 - 125	
74 Ge	18369.56	2.83	21667.30	84.8	60 - 125	
74 Ge	190407.69	1.71	224459.19	84.8	60 - 125	
89 Y	1078018.00	1.34	1247149.90	86.4	60 - 125	
115 In	1210784.60	1.90	1396206.60	86.7	60 - 125	
159 Tb	1818184.80	1.92	2071474.10	87.8	60 - 125	
209 Bi	1184245.30	2.20	1349994.40	87.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\161_CCV.D\161_CCV.D#
Date Acquired: Mar 24 2009 03:45 pm
Operator: BB
Sample Name: CCV
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	51.3 ug/l	0.23	50.00	90 - 110	
11	B	# 3	89.57 ug/l	1.44	100.00	90 - 110	Fail
23	Na	# 1	5014 ug/l	0.91	5000.00	90 - 110	
24	Mg	# 1	5068 ug/l	0.67	5000.00	90 - 110	
27	Al	# 1	512.6 ug/l	1.36	500.00	90 - 110	
39	K	# 2	4855 ug/l	1.67	5000.00	90 - 110	
40	Ca	# 1	5020 ug/l	0.64	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	---------	---	##### - #####	
47	Ti	# 3	49.89 ug/l	1.19	50.00	90 - 110	
51	V	# 2	48.34 ug/l	1.54	50.00	90 - 110	
52	Cr	# 2	47.93 ug/l	2.21	50.00	90 - 110	
55	Mn	# 3	472.4 ug/l	1.16	500.00	90 - 110	
56	Fe	# 1	4833 ug/l	0.61	5000.00	90 - 110	
59	Co	# 3	48.05 ug/l	0.85	50.00	90 - 110	
60	Ni	# 2	48.03 ug/l	2.48	50.00	90 - 110	
63	Cu	# 2	48.34 ug/l	3.55	50.00	90 - 110	
65	Cu	# 2	48.11 ug/l	3.40	50.00	90 - 110	
65	Cu	# 3	49.6 ug/l	0.79	50.00	90 - 110	
66	Zn	# 3	48.51 ug/l	0.48	50.00	90 - 110	
68	Zn	# 3	48.31 ug/l	0.55	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	---------	---	##### - #####	
75	As	# 2	49.43 ug/l	1.89	50.00	90 - 110	
78	Se	# 1	46.43 ug/l	0.38	50.00	90 - 110	
88	Sr	# 3	49.88 ug/l	0.73	50.00	90 - 110	
90	Zr	# 3	500.2 ug/l	0.62	500.00	90 - 110	
91	Zr	# 3	506 ug/l	0.43	500.00	90 - 110	
95	Mo	# 3	50.4 ug/l	0.78	50.00	90 - 110	
107	Ag	# 3	49.82 ug/l	0.41	50.00	90 - 110	
111	Cd	# 3	49.81 ug/l	0.32	50.00	90 - 110	
118	Sn	# 3	49.89 ug/l	0.87	50.00	90 - 110	
121	Sb	# 3	49.63 ug/l	1.02	50.00	90 - 110	
137	Ba	# 3	49.63 ug/l	1.20	50.00	90 - 110	
201	Hg	# 3	2.523 ug/l	1.65	2.50	90 - 110	
202	Hg	# 3	2.502 ug/l	0.51	2.50	90 - 110	
203	Tl	# 3	9.593 ug/l	0.50	10.00	90 - 110	
205	Tl	# 3	9.596 ug/l	1.11	10.00	90 - 110	
208	Pb	# 3	47.76 ug/l	0.12	50.00	90 - 110	
232	Th	# 3	48.4 ug/l	0.57	---	##### - #####	
238	U	# 3	48.2 ug/l	0.46	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	547072.81	0.59	643928.69	85.0	60 - 125	
45	Sc	# 1	301713.53	0.24	329114.28	91.7	60 - 125	
45	Sc	# 3	782944.00	1.82	872836.06	89.7	60 - 125	
74	Ge	# 1	110967.91	0.59	122381.69	90.7	60 - 125	
74	Ge	# 2	20289.52	6.33	21667.30	93.6	60 - 125	
74	Ge	# 3	197438.84	0.45	224459.19	88.0	60 - 125	
89	Y	# 3	1085525.60	1.11	1247149.90	87.0	60 - 125	
115	In	# 3	1194574.50	0.31	1396206.60	85.6	60 - 125	
159	Tb	# 3	1819138.90	1.02	2071474.10	87.8	60 - 125	
209	Bi	# 3	1140775.40	1.46	1349994.40	84.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Fail**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\162_CCB.D\162_CCB.D#
Date Acquired: Mar 24 2009 03:51 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.006242 ug/l	71.16	#VALUE!	
11 B	0.775 ug/l	6.72	#VALUE!	
23 Na	-30.71 ug/l	0.27	#VALUE!	
24 Mg	0.6539 ug/l	7.02	#VALUE!	
27 Al	0.06022 ug/l	23.36	#VALUE!	
39 K	-5.434 ug/l	15.55	#VALUE!	
40 Ca	-0.2268 ug/l	8.81	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.009362 ug/l	140.89	#VALUE!	
51 V	-0.005405 ug/l	97.63	#VALUE!	
52 Cr	-0.0005481 ug/l	1374.00	#VALUE!	
55 Mn	0.05472 ug/l	9.92	#VALUE!	
56 Fe	1.092 ug/l	3.61	#VALUE!	
59 Co	0.003683 ug/l	31.09	#VALUE!	
60 Ni	-0.04053 ug/l	26.50	#VALUE!	
63 Cu	-0.04831 ug/l	14.76	#VALUE!	
65 Cu	-0.03986 ug/l	26.94	#VALUE!	
65 Cu	-0.0593 ug/l	15.98	#VALUE!	
66 Zn	-0.158 ug/l	8.82	#VALUE!	
68 Zn	-0.1283 ug/l	9.31	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.02124 ug/l	42.91	#VALUE!	
78 Se	0.05171 ug/l	8.77	#VALUE!	
88 Sr	0.002797 ug/l	25.51	#VALUE!	
90 Zr	0.4206 ug/l	5.96	#VALUE!	
91 Zr	0.451 ug/l	12.20	#VALUE!	
95 Mo	0.1063 ug/l	23.92	#VALUE!	
107 Ag	0.0103 ug/l	15.59	#VALUE!	
111 Cd	0.007825 ug/l	39.08	#VALUE!	
118 Sn	0.04527 ug/l	17.56	#VALUE!	
121 Sb	0.02141 ug/l	17.35	#VALUE!	
137 Ba	0.002404 ug/l	169.93	#VALUE!	
201 Hg	0.03144 ug/l	8.34	#VALUE!	
202 Hg	0.03067 ug/l	11.37	#VALUE!	
203 Tl	0.03037 ug/l	22.54	#VALUE!	
205 Tl	0.02769 ug/l	18.36	#VALUE!	
208 Pb	0.003009 ug/l	22.94	#VALUE!	
232 Th	0.05188 ug/l	12.11	#VALUE!	
238 U	0.01082 ug/l	11.89	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	535805.69	2.13	643928.69	83.2	60 - 125	
45 Sc	288919.56	0.28	329114.28	87.8	60 - 125	
45 Sc	747859.13	0.78	872836.06	85.7	60 - 125	
74 Ge	109008.53	0.11	122381.69	89.1	60 - 125	
74 Ge	20164.87	2.49	21667.30	93.1	60 - 125	
74 Ge	191562.52	1.13	224459.19	85.3	60 - 125	
89 Y	1055844.50	1.18	1247149.90	84.7	60 - 125	
115 In	1180465.90	1.55	1396206.60	84.5	60 - 125	
159 Tb	1759762.00	0.38	2071474.10	85.0	60 - 125	
209 Bi	1137789.80	1.83	1349994.40	84.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

ICS-A QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\163ICSA.D\163ICSA.D#
Date Acquired: Mar 24 2009 03:58 pm
Acq. Method: EPA2002.M
Operator: BB
Sample Name: ICSA
Misc Info:
Vial Number: 1106
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update: Mar 23 2009 12:56 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	High Limit	Flag
9 Be	0.01069	ug/l	70.35	---	
11 B	0.3901	ug/l	11.10	---	
23 Na	95630	ug/l	0.41	1.20	
24 Mg	93450	ug/l	0.78	1.20	
27 Al	92650	ug/l	0.39	1.20	
39 K	96080	ug/l	0.52	1.20	
40 Ca	98830	ug/l	0.71	1.20	
45 Sc	--------	ug/l	--------	---	
47 Ti	2156	ug/l	0.50	1.20	
51 V	0.05348	ug/l	0.78	---	
52 Cr	0.9733	ug/l	3.31	---	
55 Mn	2.137	ug/l	0.79	---	
56 Fe	95680	ug/l	0.40	1.20	
59 Co	0.146	ug/l	4.80	---	
60 Ni	0.5952	ug/l	4.07	---	
63 Cu	0.0251	ug/l	14.45	---	
65 Cu	0.1581	ug/l	16.91	---	
65 Cu	1.353	ug/l	3.76	---	
66 Zn	2.535	ug/l	1.24	---	
68 Zn	1.336	ug/l	7.75	---	
70 Ge	--------	ug/l	--------	---	
75 As	0.1541	ug/l	5.19	---	
78 Se	0.05654	ug/l	17.83	---	
88 Sr	2.578	ug/l	1.54	---	
90 Zr	4.435	ug/l	9.54	---	
91 Zr	4.365	ug/l	8.94	---	
95 Mo	2168	ug/l	1.59	1.20	
107 Ag	0.06317	ug/l	2.89	---	
111 Cd	-0.3011	ug/l	11.60	---	
118 Sn	0.06966	ug/l	8.92	---	
121 Sb	0.2228	ug/l	4.63	---	
137 Ba	1.486	ug/l	1.46	---	
201 Hg	0.02592	ug/l	9.17	---	
202 Hg	0.02451	ug/l	7.44	---	
203 Tl	0.03716	ug/l	0.91	---	
205 Tl	0.03913	ug/l	2.82	---	
208 Pb	0.08788	ug/l	0.92	---	
232 Th	0.08373	ug/l	13.42	---	
238 U	0.009884	ug/l	6.01	---	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	511543.22	0.35	643928.69	79.4	60 - 125	
45 Sc	275436.25	1.68	329114.28	83.7	60 - 125	
45 Sc	760759.25	0.45	872836.06	87.2	60 - 125	
74 Ge	96807.35	1.79	122381.69	79.1	60 - 125	
74 Ge	18129.99	2.89	21667.30	83.7	60 - 125	
74 Ge	180540.50	0.35	224459.19	80.4	60 - 125	
89 Y	1097548.00	2.04	1247149.90	88.0	60 - 125	
115 In	1119924.90	0.96	1396206.60	80.2	60 - 125	
159 Tb	1772126.90	0.52	2071474.10	85.5	60 - 125	
209 Bi	984342.56	1.17	1349994.40	72.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Nnumber of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

ICS-AB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\164ICSB.D\164ICSB.D#
Date Acquired: Mar 24 2009 04:05 pm
Acq. Method: EPA2002.M
Operator: BB
Sample Name: ICSAB
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update: Mar 23 2009 12:56 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Elements

Element		Conc.		RSD(%)	Expected	QC Range(%)	Flag
9	Be	0.01	ug/l	65.51	---	##### - #####	
11	B	0.23	ug/l	15.26	---	##### - #####	
23	Na	95060.00	ug/l	1.19	100000.00	80 - 120	
24	Mg	91880.00	ug/l	1.18	100000.00	80 - 120	
27	Al	90790.00	ug/l	0.88	100000.00	80 - 120	
39	K	95450.00	ug/l	0.75	100000.00	80 - 120	
40	Ca	98040.00	ug/l	0.99	100000.00	80 - 120	
45	Sc	--------	ug/l	--------	---	##### - #####	
47	Ti	2193.00	ug/l	0.59	2000.00	80 - 120	
51	V	0.03	ug/l	13.60	---	##### - #####	
52	Cr	21.34	ug/l	1.46	20.00	80 - 120	
55	Mn	21.96	ug/l	0.50	20.00	80 - 120	
56	Fe	98210.00	ug/l	0.85	100000.00	80 - 120	
59	Co	19.16	ug/l	0.50	20.00	80 - 120	
60	Ni	20.01	ug/l	1.55	20.00	80 - 120	
63	Cu	18.87	ug/l	1.84	20.00	80 - 120	
65	Cu	18.95	ug/l	1.20	20.00	80 - 120	
65	Cu	20.38	ug/l	0.77	20.00	80 - 120	
66	Zn	20.48	ug/l	1.25	20.00	80 - 120	
68	Zn	18.13	ug/l	0.30	20.00	80 - 120	
70	Ge	--------	ug/l	--------	---	##### - #####	
75	As	20.61	ug/l	0.56	20.00	80 - 120	
78	Se	0.04	ug/l	28.70	---	##### - #####	
88	Sr	2.58	ug/l	0.26	---	##### - #####	
90	Zr	2.17	ug/l	4.40	---	##### - #####	
91	Zr	2.18	ug/l	5.78	---	##### - #####	
95	Mo	2203.00	ug/l	0.46	2000.00	80 - 120	
107	Ag	17.73	ug/l	1.55	20.00	80 - 120	
111	Cd	18.23	ug/l	0.96	20.00	80 - 120	
118	Sn	0.05	ug/l	11.23	---	##### - #####	
121	Sb	0.21	ug/l	6.40	---	##### - #####	
137	Ba	1.51	ug/l	2.30	---	##### - #####	
201	Hg	0.02	ug/l	22.77	---	##### - #####	
202	Hg	0.02	ug/l	10.24	---	##### - #####	
203	Tl	0.03	ug/l	0.63	---	##### - #####	
205	Tl	0.03	ug/l	9.32	---	##### - #####	
208	Pb	0.09	ug/l	4.19	---	##### - #####	
232	Th	0.03	ug/l	3.59	---	##### - #####	
238	U	0.00	ug/l	6.72	---	##### - #####	

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	516207.91	0.79	643928.69	80.2	60 - 125	
45	Sc	260190.72	1.67	329114.28	79.1	60 - 125	
45	Sc	739385.44	0.30	872836.06	84.7	60 - 125	
74	Ge	92109.27	1.85	122381.69	75.3	60 - 125	
74	Ge	16454.36	2.66	21667.30	75.9	60 - 125	
74	Ge	175067.45	0.69	224459.19	78.0	60 - 125	
89	Y	1070017.30	1.27	1247149.90	85.8	60 - 125	
115	In	1086064.50	1.35	1396206.60	77.8	60 - 125	
159	Tb	1750766.00	0.71	2071474.10	84.5	60 - 125	
209	Bi	962289.75	1.10	1349994.40	71.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\165SMPL.D\165SMPL.D#
Date Acquired:	Mar 24 2009 04:12 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RINSE
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0001707	-0.0001707	ug/l	418.75	#VALUE!	
11	B	# 3	0.195	0.195	ug/l	16.26	#VALUE!	
23	Na	# 1	-8.418	-8.418	ug/l	13.88	#VALUE!	
24	Mg	# 1	22.11	22.11	ug/l	6.42	#VALUE!	
27	Al	# 1	21.39	21.39	ug/l	4.40	#VALUE!	
39	K	# 2	9.784	9.784	ug/l	2.18	#VALUE!	
40	Ca	# 1	20.9	20.9	ug/l	4.05	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.5125	0.5125	ug/l	11.52	#VALUE!	
51	V	# 2	0.03591	0.03591	ug/l	23.94	#VALUE!	
52	Cr	# 2	0.04185	0.04185	ug/l	15.70	#VALUE!	
55	Mn	# 3	0.04595	0.04595	ug/l	5.99	#VALUE!	
56	Fe	# 1	28	28	ug/l	4.60	#VALUE!	
59	Co	# 3	0.03328	0.03328	ug/l	10.05	#VALUE!	
60	Ni	# 2	0.02243	0.02243	ug/l	60.10	#VALUE!	
63	Cu	# 2	0.01909	0.01909	ug/l	19.07	#VALUE!	
65	Cu	# 2	0.02547	0.02547	ug/l	34.04	#VALUE!	
65	Cu	# 3	-0.0003196	-0.0003196	ug/l	4677.70	#VALUE!	
66	Zn	# 3	0.1286	0.1286	ug/l	12.83	#VALUE!	
68	Zn	# 3	0.05161	0.05161	ug/l	101.01	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	-0.006102	-0.006102	ug/l	44.43	#VALUE!	
78	Se	# 1	0.00146	0.00146	ug/l	209.45	#VALUE!	
88	Sr	# 3	0.0355	0.0355	ug/l	9.77	#VALUE!	
90	Zr	# 3	0.02522	0.02522	ug/l	3.95	#VALUE!	
91	Zr	# 3	0.01649	0.01649	ug/l	55.09	#VALUE!	
95	Mo	# 3	1.821	1.821	ug/l	7.77	#VALUE!	
107	Ag	# 3	0.008186	0.008186	ug/l	12.30	#VALUE!	
111	Cd	# 3	0.00564	0.00564	ug/l	40.50	#VALUE!	
118	Sn	# 3	0.06689	0.06689	ug/l	11.24	#VALUE!	
121	Sb	# 3	0.00227	0.00227	ug/l	122.07	#VALUE!	
137	Ba	# 3	0.04051	0.04051	ug/l	14.64	#VALUE!	
201	Hg	# 3	0.008985	0.008985	ug/l	17.49	#VALUE!	
202	Hg	# 3	0.007886	0.007886	ug/l	15.98	#VALUE!	
203	Tl	# 3	0.000587	0.000587	ug/l	183.30	#VALUE!	
205	Tl	# 3	0.00129	0.00129	ug/l	87.98	#VALUE!	
208	Pb	# 3	0.03279	0.03279	ug/l	1.71	#VALUE!	
232	Th	# 3	0.005569	0.005569	ug/l	13.89	#VALUE!	
238	U	# 3	0.0005252	0.0005252	ug/l	56.30	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	516975.19	1.28	643928.69	80.3	60 - 125	
45	Sc	# 1	263733.34	1.89	329114.28	80.1	60 - 125	
45	Sc	# 3	719560.81	0.86	872836.06	82.4	60 - 125	
74	Ge	# 1	100375.49	1.44	122381.69	82.0	60 - 125	
74	Ge	# 2	17170.49	2.37	21667.30	79.2	60 - 125	
74	Ge	# 3	181578.00	0.29	224459.19	80.9	60 - 125	
89	Y	# 3	1015474.80	1.43	1247149.90	81.4	60 - 125	
115	In	# 3	1130006.60	0.51	1396206.60	80.9	60 - 125	
159	Tb	# 3	1689620.80	0.81	2071474.10	81.6	60 - 125	
209	Bi	# 3	1095205.80	0.56	1349994.40	81.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\166SMPL.D\166SMPL.D#
Date Acquired:	Mar 24 2009 04:19 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RINSE
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element		Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	# 3	-0.0005893	-0.0005893	ug/l	119.51	#VALUE!	
11 B	# 3	0.03411	0.03411	ug/l	29.67	#VALUE!	
23 Na	# 1	-21.99	-21.99	ug/l	1.58	#VALUE!	
24 Mg	# 1	8.109	8.109	ug/l	4.50	#VALUE!	
27 Al	# 1	7.886	7.886	ug/l	3.77	#VALUE!	
39 K	# 2	-1.416	-1.416	ug/l	57.09	#VALUE!	
40 Ca	# 1	7.7	7.7	ug/l	7.49	#VALUE!	
45 Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47 Ti	# 3	0.1598	0.1598	ug/l	25.89	#VALUE!	
51 V	# 2	0.02427	0.02427	ug/l	29.47	#VALUE!	
52 Cr	# 2	0.03582	0.03582	ug/l	16.63	#VALUE!	
55 Mn	# 3	0.02797	0.02797	ug/l	8.39	#VALUE!	
56 Fe	# 1	9.2	9.2	ug/l	4.54	#VALUE!	
59 Co	# 3	0.02099	0.02099	ug/l	17.36	#VALUE!	
60 Ni	# 2	-0.008116	-0.008116	ug/l	58.08	#VALUE!	
63 Cu	# 2	-0.003568	-0.003568	ug/l	289.80	#VALUE!	
65 Cu	# 2	0.003079	0.003079	ug/l	309.65	#VALUE!	
65 Cu	# 3	-0.007776	-0.007776	ug/l	223.38	#VALUE!	
66 Zn	# 3	0.02956	0.02956	ug/l	80.41	#VALUE!	
68 Zn	# 3	0.03113	0.03113	ug/l	88.79	#VALUE!	
70 Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75 As	# 2	-0.003967	-0.003967	ug/l	172.22	#VALUE!	
78 Se	# 1	-0.001422	-0.001422	ug/l	57.89	#VALUE!	
88 Sr	# 3	0.02601	0.02601	ug/l	15.73	#VALUE!	
90 Zr	# 3	0.01728	0.01728	ug/l	13.80	#VALUE!	
91 Zr	# 3	0.01412	0.01412	ug/l	73.58	#VALUE!	
95 Mo	# 3	0.6284	0.6284	ug/l	7.72	#VALUE!	
107 Ag	# 3	0.005392	0.005392	ug/l	18.75	#VALUE!	
111 Cd	# 3	-4.371E-005	-4.371E-005	ug/l	1931.60	#VALUE!	
118 Sn	# 3	0.04319	0.04319	ug/l	14.72	#VALUE!	
121 Sb	# 3	0.0004691	0.0004691	ug/l	312.30	#VALUE!	
137 Ba	# 3	0.01947	0.01947	ug/l	29.99	#VALUE!	
201 Hg	# 3	0.004583	0.004583	ug/l	42.55	#VALUE!	
202 Hg	# 3	0.004547	0.004547	ug/l	27.73	#VALUE!	
203 Tl	# 3	-0.001172	-0.001172	ug/l	51.24	#VALUE!	
205 Tl	# 3	-0.0003646	-0.0003646	ug/l	316.51	#VALUE!	
208 Pb	# 3	0.01922	0.01922	ug/l	3.97	#VALUE!	
232 Th	# 3	0.003258	0.003258	ug/l	11.35	#VALUE!	
238 U	# 3	-0.0001221	-0.0001221	ug/l	166.01	#VALUE!	

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	# 3	524499.50	1.10	643928.69	81.5	60 - 125	
45 Sc	# 1	268073.03	0.47	329114.28	81.5	60 - 125	
45 Sc	# 3	723449.00	0.78	872836.06	82.9	60 - 125	
74 Ge	# 1	101295.45	0.88	122381.69	82.8	60 - 125	
74 Ge	# 2	17868.85	3.07	21667.30	82.5	60 - 125	
74 Ge	# 3	184606.64	0.58	224459.19	82.2	60 - 125	
89 Y	# 3	1025786.90	1.37	1247149.90	82.3	60 - 125	
115 In	# 3	1147889.80	1.11	1396206.60	82.2	60 - 125	
159 Tb	# 3	1722817.00	1.16	2071474.10	83.2	60 - 125	
209 Bi	# 3	1119564.10	1.55	1349994.40	82.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\167SMPL.D\167SMPL.D#
Date Acquired:	Mar 24 2009 04:26 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RINSE
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0009959	-0.0009959	ug/l	0.00	#VALUE!	
11	B	# 3	0.02758	0.02758	ug/l	80.24	#VALUE!	
23	Na	# 1	90.68	90.68	ug/l	86.92	#VALUE!	
24	Mg	# 1	103.2	103.2	ug/l	62.81	#VALUE!	
27	Al	# 1	94.72	94.72	ug/l	63.54	#VALUE!	
39	K	# 2	-4.274	-4.274	ug/l	14.04	#VALUE!	
40	Ca	# 1	111.9	111.9	ug/l	65.34	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.1284	0.1284	ug/l	5.54	#VALUE!	
51	V	# 2	0.02323	0.02323	ug/l	34.51	#VALUE!	
52	Cr	# 2	0.02856	0.02856	ug/l	33.63	#VALUE!	
55	Mn	# 3	0.02858	0.02858	ug/l	10.35	#VALUE!	
56	Fe	# 1	110.7	110.7	ug/l	63.38	#VALUE!	
59	Co	# 3	0.02035	0.02035	ug/l	25.46	#VALUE!	
60	Ni	# 2	-0.0108	-0.0108	ug/l	144.91	#VALUE!	
63	Cu	# 2	-0.002586	-0.002586	ug/l	240.29	#VALUE!	
65	Cu	# 2	-0.004182	-0.004182	ug/l	122.31	#VALUE!	
65	Cu	# 3	-0.009744	-0.009744	ug/l	14.78	#VALUE!	
66	Zn	# 3	0.05124	0.05124	ug/l	53.30	#VALUE!	
68	Zn	# 3	0.06898	0.06898	ug/l	59.87	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.00663	0.00663	ug/l	63.44	#VALUE!	
78	Se	# 1	0.07837	0.07837	ug/l	64.68	#VALUE!	
88	Sr	# 3	0.02279	0.02279	ug/l	5.87	#VALUE!	
90	Zr	# 3	0.01716	0.01716	ug/l	22.63	#VALUE!	
91	Zr	# 3	0.003581	0.003581	ug/l	356.88	#VALUE!	
95	Mo	# 3	0.3832	0.3832	ug/l	3.05	#VALUE!	
107	Ag	# 3	0.002895	0.002895	ug/l	41.83	#VALUE!	
111	Cd	# 3	0.001706	0.001706	ug/l	103.34	#VALUE!	
118	Sn	# 3	0.0413	0.0413	ug/l	1.27	#VALUE!	
121	Sb	# 3	0.00172	0.00172	ug/l	164.19	#VALUE!	
137	Ba	# 3	0.02345	0.02345	ug/l	8.52	#VALUE!	
201	Hg	# 3	0.00339	0.00339	ug/l	56.28	#VALUE!	
202	Hg	# 3	0.003607	0.003607	ug/l	38.92	#VALUE!	
203	Tl	# 3	-0.0008465	-0.0008465	ug/l	31.13	#VALUE!	
205	Tl	# 3	-0.0008016	-0.0008016	ug/l	95.47	#VALUE!	
208	Pb	# 3	0.01997	0.01997	ug/l	18.38	#VALUE!	
232	Th	# 3	0.002603	0.002603	ug/l	41.34	#VALUE!	
238	U	# 3	8.86E-006	8.86E-006	ug/l	1334.80	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	527572.88	2.26	643928.69	81.9	60 - 125	
45	Sc	# 1	274154.16	1.03	329114.28	83.3	60 - 125	
45	Sc	# 3	727721.19	0.86	872836.06	83.4	60 - 125	
74	Ge	# 1	102977.47	0.15	122381.69	84.1	60 - 125	
74	Ge	# 2	17957.48	1.92	21667.30	82.9	60 - 125	
74	Ge	# 3	184617.02	0.79	224459.19	82.2	60 - 125	
89	Y	# 3	1041331.40	0.39	1247149.90	83.5	60 - 125	
115	In	# 3	1147275.30	1.04	1396206.60	82.2	60 - 125	
159	Tb	# 3	1715724.50	1.48	2071474.10	82.8	60 - 125	
209	Bi	# 3	1119453.30	1.04	1349994.40	82.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\168_CCV.D\168_CCV.D#
Date Acquired: Mar 24 2009 04:32 pm
Operator: BB
Sample Name: CCV
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	50.23 ug/l	0.49	50.00	90 - 110	
11	B	# 3	87.2 ug/l	0.17	100.00	90 - 110	Fail
23	Na	# 1	4846 ug/l	0.37	5000.00	90 - 110	
24	Mg	# 1	4922 ug/l	0.43	5000.00	90 - 110	
27	Al	# 1	499.4 ug/l	0.06	500.00	90 - 110	
39	K	# 2	4511 ug/l	1.32	5000.00	90 - 110	
40	Ca	# 1	4907 ug/l	0.48	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	49.49 ug/l	0.60	50.00	90 - 110	
51	V	# 2	48.2 ug/l	1.69	50.00	90 - 110	
52	Cr	# 2	47.85 ug/l	1.33	50.00	90 - 110	
55	Mn	# 3	475.4 ug/l	1.10	500.00	90 - 110	
56	Fe	# 1	4978 ug/l	0.45	5000.00	90 - 110	
59	Co	# 3	47.88 ug/l	0.61	50.00	90 - 110	
60	Ni	# 2	48.05 ug/l	2.45	50.00	90 - 110	
63	Cu	# 2	48.94 ug/l	1.82	50.00	90 - 110	
65	Cu	# 2	48.99 ug/l	2.59	50.00	90 - 110	
65	Cu	# 3	49.3 ug/l	0.55	50.00	90 - 110	
66	Zn	# 3	48.77 ug/l	0.53	50.00	90 - 110	
68	Zn	# 3	48.54 ug/l	1.07	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	48.18 ug/l	1.14	50.00	90 - 110	
78	Se	# 1	46.92 ug/l	0.57	50.00	90 - 110	
88	Sr	# 3	48.71 ug/l	0.89	50.00	90 - 110	
90	Zr	# 3	496.5 ug/l	1.13	500.00	90 - 110	
91	Zr	# 3	503.1 ug/l	1.03	500.00	90 - 110	
95	Mo	# 3	50.17 ug/l	1.09	50.00	90 - 110	
107	Ag	# 3	49.29 ug/l	1.31	50.00	90 - 110	
111	Cd	# 3	49.63 ug/l	0.82	50.00	90 - 110	
118	Sn	# 3	49.45 ug/l	1.11	50.00	90 - 110	
121	Sb	# 3	49.18 ug/l	1.19	50.00	90 - 110	
137	Ba	# 3	49.22 ug/l	0.75	50.00	90 - 110	
201	Hg	# 3	2.513 ug/l	0.77	2.50	90 - 110	
202	Hg	# 3	2.529 ug/l	0.39	2.50	90 - 110	
203	Tl	# 3	9.745 ug/l	0.67	10.00	90 - 110	
205	Tl	# 3	9.754 ug/l	0.95	10.00	90 - 110	
208	Pb	# 3	48.05 ug/l	1.01	50.00	90 - 110	
232	Th	# 3	48.87 ug/l	0.64	---	##### - #####	
238	U	# 3	48.26 ug/l	0.23	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	500249.78	1.12	643928.69	77.7	60 - 125	
45	Sc	# 1	263372.13	0.82	329114.28	80.0	60 - 125	
45	Sc	# 3	712672.75	0.60	872836.06	81.7	60 - 125	
74	Ge	# 1	99614.70	0.81	122381.69	81.4	60 - 125	
74	Ge	# 2	17535.81	3.28	21667.30	80.9	60 - 125	
74	Ge	# 3	178500.02	0.48	224459.19	79.5	60 - 125	
89	Y	# 3	1000293.10	0.69	1247149.90	80.2	60 - 125	
115	In	# 3	1109362.50	1.13	1396206.60	79.5	60 - 125	
159	Tb	# 3	1695504.80	1.50	2071474.10	81.9	60 - 125	
209	Bi	# 3	1079647.40	1.27	1349994.40	80.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Fail**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\169_CCB.D\169_CCB.D#
Date Acquired: Mar 24 2009 04:40 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.001961 ug/l	34.66	#VALUE!	
11 B	0.52 ug/l	17.64	#VALUE!	
23 Na	-31.36 ug/l	0.61	#VALUE!	
24 Mg	0.467 ug/l	21.86	#VALUE!	
27 Al	0.1228 ug/l	72.10	#VALUE!	
39 K	-5.802 ug/l	14.05	#VALUE!	
40 Ca	-0.5045 ug/l	20.85	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.01743 ug/l	52.36	#VALUE!	
51 V	-0.00228 ug/l	161.40	#VALUE!	
52 Cr	-0.002932 ug/l	131.11	#VALUE!	
55 Mn	0.02835 ug/l	9.97	#VALUE!	
56 Fe	0.8259 ug/l	5.50	#VALUE!	
59 Co	0.0004795 ug/l	341.40	#VALUE!	
60 Ni	-0.03821 ug/l	38.58	#VALUE!	
63 Cu	-0.04841 ug/l	23.28	#VALUE!	
65 Cu	-0.03743 ug/l	30.99	#VALUE!	
65 Cu	-0.0445 ug/l	1.26	#VALUE!	
66 Zn	-0.1486 ug/l	12.15	#VALUE!	
68 Zn	-0.1548 ug/l	16.18	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.01859 ug/l	63.80	#VALUE!	
78 Se	0.02538 ug/l	39.64	#VALUE!	
88 Sr	0.001694 ug/l	10.53	#VALUE!	
90 Zr	0.3707 ug/l	4.28	#VALUE!	
91 Zr	0.367 ug/l	5.65	#VALUE!	
95 Mo	0.1835 ug/l	4.12	#VALUE!	
107 Ag	0.005547 ug/l	25.82	#VALUE!	
111 Cd	0.006074 ug/l	26.39	#VALUE!	
118 Sn	0.03009 ug/l	8.22	#VALUE!	
121 Sb	0.01412 ug/l	27.56	#VALUE!	
137 Ba	0.00375 ug/l	3.05	#VALUE!	
201 Hg	0.02808 ug/l	2.83	#VALUE!	
202 Hg	0.02773 ug/l	5.87	#VALUE!	
203 Tl	0.02702 ug/l	12.59	#VALUE!	
205 Tl	0.02615 ug/l	16.54	#VALUE!	
208 Pb	0.002306 ug/l	34.64	#VALUE!	
232 Th	0.04492 ug/l	9.30	#VALUE!	
238 U	0.007249 ug/l	27.00	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	504678.06	1.76	643928.69	78.4	60 - 125	
45 Sc	263320.34	1.00	329114.28	80.0	60 - 125	
45 Sc	704946.38	0.20	872836.06	80.8	60 - 125	
74 Ge	99995.26	1.16	122381.69	81.7	60 - 125	
74 Ge	17765.75	0.74	21667.30	82.0	60 - 125	
74 Ge	181663.78	0.99	224459.19	80.9	60 - 125	
89 Y	1000444.10	1.20	1247149.90	80.2	60 - 125	
115 In	1126543.10	0.86	1396206.60	80.7	60 - 125	
159 Tb	1700813.90	0.89	2071474.10	82.1	60 - 125	
209 Bi	1102214.60	1.51	1349994.40	81.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\215_CCV.D\215_CCV.D#
Date Acquired: Mar 24 2009 09:50 pm
Operator: BB
Sample Name: CCV
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	51.89 ug/l	0.97	50.00	90 - 110	
11	B	# 3	87.1 ug/l	0.76	100.00	90 - 110	Fail
23	Na	# 1	4809 ug/l	0.74	5000.00	90 - 110	
24	Mg	# 1	4861 ug/l	0.75	5000.00	90 - 110	
27	Al	# 1	490.7 ug/l	0.43	500.00	90 - 110	
39	K	# 2	4478 ug/l	0.20	5000.00	90 - 110	Fail
40	Ca	# 1	4905 ug/l	0.32	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	49.53 ug/l	0.52	50.00	90 - 110	
51	V	# 2	48.44 ug/l	0.28	50.00	90 - 110	
52	Cr	# 2	48 ug/l	0.03	50.00	90 - 110	
55	Mn	# 3	467.2 ug/l	0.72	500.00	90 - 110	
56	Fe	# 1	5013 ug/l	0.37	5000.00	90 - 110	
59	Co	# 3	46.24 ug/l	2.68	50.00	90 - 110	
60	Ni	# 2	48.82 ug/l	0.30	50.00	90 - 110	
63	Cu	# 2	49.25 ug/l	1.31	50.00	90 - 110	
65	Cu	# 2	49.42 ug/l	1.07	50.00	90 - 110	
65	Cu	# 3	49.49 ug/l	0.53	50.00	90 - 110	
66	Zn	# 3	48.2 ug/l	0.50	50.00	90 - 110	
68	Zn	# 3	47.57 ug/l	0.81	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	50.46 ug/l	1.09	50.00	90 - 110	
78	Se	# 1	46.85 ug/l	0.69	50.00	90 - 110	
88	Sr	# 3	49.15 ug/l	0.85	50.00	90 - 110	
90	Zr	# 3	494.6 ug/l	0.74	500.00	90 - 110	
91	Zr	# 3	505.4 ug/l	1.08	500.00	90 - 110	
95	Mo	# 3	50.35 ug/l	1.23	50.00	90 - 110	
107	Ag	# 3	49.24 ug/l	0.93	50.00	90 - 110	
111	Cd	# 3	49.65 ug/l	1.50	50.00	90 - 110	
118	Sn	# 3	49.54 ug/l	0.85	50.00	90 - 110	
121	Sb	# 3	49.92 ug/l	1.35	50.00	90 - 110	
137	Ba	# 3	49.77 ug/l	1.68	50.00	90 - 110	
201	Hg	# 3	2.562 ug/l	1.52	2.50	90 - 110	
202	Hg	# 3	2.551 ug/l	0.85	2.50	90 - 110	
203	Tl	# 3	9.479 ug/l	0.92	10.00	90 - 110	
205	Tl	# 3	9.465 ug/l	1.30	10.00	90 - 110	
208	Pb	# 3	45.92 ug/l	0.43	50.00	90 - 110	
232	Th	# 3	48.97 ug/l	0.90	---	##### - #####	
238	U	# 3	48.22 ug/l	0.25	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	449621.50	1.86	643928.69	69.8	60 - 125	
45	Sc	# 1	237042.48	0.95	329114.28	72.0	60 - 125	
45	Sc	# 3	662190.75	1.51	872836.06	75.9	60 - 125	
74	Ge	# 1	91195.88	1.18	122381.69	74.5	60 - 125	
74	Ge	# 2	16478.84	2.49	21667.30	76.1	60 - 125	
74	Ge	# 3	166190.14	0.91	224459.19	74.0	60 - 125	
89	Y	# 3	932914.75	2.12	1247149.90	74.8	60 - 125	
115	In	# 3	1017393.50	1.93	1396206.60	72.9	60 - 125	
159	Tb	# 3	1565746.40	1.58	2071474.10	75.6	60 - 125	
209	Bi	# 3	969885.69	1.14	1349994.40	71.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Fail**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\216_CCB.D\216_CCB.D#
Date Acquired: Mar 24 2009 09:56 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.004868 ug/l	57.25	#VALUE!	
11 B	0.7468 ug/l	6.14	#VALUE!	
23 Na	-32.86 ug/l	1.11	#VALUE!	
24 Mg	0.5269 ug/l	1.82	#VALUE!	
27 Al	0.1528 ug/l	5.97	#VALUE!	
39 K	-7.054 ug/l	32.95	#VALUE!	
40 Ca	-0.3916 ug/l	37.03	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.009348 ug/l	58.16	#VALUE!	
51 V	-0.006013 ug/l	29.20	#VALUE!	
52 Cr	-0.01064 ug/l	50.49	#VALUE!	
55 Mn	0.07351 ug/l	60.96	#VALUE!	
56 Fe	0.9717 ug/l	4.97	#VALUE!	
59 Co	0.005237 ug/l	56.08	#VALUE!	
60 Ni	-0.03958 ug/l	18.14	#VALUE!	
63 Cu	-0.04019 ug/l	12.74	#VALUE!	
65 Cu	-0.0355 ug/l	13.92	#VALUE!	
65 Cu	-0.04876 ug/l	10.96	#VALUE!	
66 Zn	-0.1632 ug/l	3.83	#VALUE!	
68 Zn	-0.1348 ug/l	6.85	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.01112 ug/l	52.80	#VALUE!	
78 Se	0.05483 ug/l	20.41	#VALUE!	
88 Sr	0.006708 ug/l	89.85	#VALUE!	
90 Zr	0.5278 ug/l	4.02	#VALUE!	
91 Zr	0.5328 ug/l	8.91	#VALUE!	
95 Mo	0.1125 ug/l	5.40	#VALUE!	
107 Ag	0.01262 ug/l	36.19	#VALUE!	
111 Cd	0.008685 ug/l	71.07	#VALUE!	
118 Sn	0.07093 ug/l	7.56	#VALUE!	
121 Sb	0.03044 ug/l	16.35	#VALUE!	
137 Ba	0.01244 ug/l	60.27	#VALUE!	
201 Hg	0.03137 ug/l	19.09	#VALUE!	
202 Hg	0.03485 ug/l	10.97	#VALUE!	
203 Tl	0.02898 ug/l	9.72	#VALUE!	
205 Tl	0.03222 ug/l	9.13	#VALUE!	
208 Pb	0.00722 ug/l	39.96	#VALUE!	
232 Th	0.05642 ug/l	3.78	#VALUE!	
238 U	0.01243 ug/l	30.16	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	471963.84	2.17	643928.69	73.3	60 - 125	
45 Sc	239805.73	3.51	329114.28	72.9	60 - 125	
45 Sc	662888.75	0.99	872836.06	75.9	60 - 125	
74 Ge	92230.91	2.57	122381.69	75.4	60 - 125	
74 Ge	17296.96	2.38	21667.30	79.8	60 - 125	
74 Ge	170503.34	1.13	224459.19	76.0	60 - 125	
89 Y	946011.31	0.81	1247149.90	75.9	60 - 125	
115 In	1054303.60	2.16	1396206.60	75.5	60 - 125	
159 Tb	1581005.60	0.80	2071474.10	76.3	60 - 125	
209 Bi	1005304.90	0.82	1349994.40	74.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\217SMPL.D\217SMPL.D#
Date Acquired:	Mar 24 2009 10:03 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	MB 133353 3005
Misc Info:	3005 1/5
Vial Number:	3101
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0005523	-0.0005523	ug/l	139.13	#VALUE!	
11	B	# 3	0.168	0.168	ug/l	15.27	#VALUE!	
23	Na	# 1	-32.24	-32.24	ug/l	0.49	#VALUE!	
24	Mg	# 1	0.8187	0.8187	ug/l	14.96	#VALUE!	
27	Al	# 1	0.8104	0.8104	ug/l	0.10	#VALUE!	
39	K	# 2	-5.037	-5.037	ug/l	24.76	#VALUE!	
40	Ca	# 1	3.176	3.176	ug/l	4.56	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.04563	0.04563	ug/l	12.74	#VALUE!	
51	V	# 2	0.08804	0.08804	ug/l	2.53	#VALUE!	
52	Cr	# 2	0.08659	0.08659	ug/l	14.82	#VALUE!	
55	Mn	# 3	0.007286	0.007286	ug/l	29.22	#VALUE!	
56	Fe	# 1	1.101	1.101	ug/l	8.41	#VALUE!	
59	Co	# 3	-0.002384	-0.002384	ug/l	24.14	#VALUE!	
60	Ni	# 2	0.01207	0.01207	ug/l	59.93	#VALUE!	
63	Cu	# 2	-0.03891	-0.03891	ug/l	31.15	#VALUE!	
65	Cu	# 2	-0.02207	-0.02207	ug/l	82.42	#VALUE!	
65	Cu	# 3	-0.02621	-0.02621	ug/l	23.89	#VALUE!	
66	Zn	# 3	0.06383	0.06383	ug/l	7.08	#VALUE!	
68	Zn	# 3	0.1149	0.1149	ug/l	19.43	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.01761	0.01761	ug/l	21.94	#VALUE!	
78	Se	# 1	0.02086	0.02086	ug/l	36.94	#VALUE!	
88	Sr	# 3	0.0008671	0.0008671	ug/l	160.88	#VALUE!	
90	Zr	# 3	0.9125	0.9125	ug/l	0.46	#VALUE!	
91	Zr	# 3	0.9207	0.9207	ug/l	1.41	#VALUE!	
95	Mo	# 3	0.05591	0.05591	ug/l	15.96	#VALUE!	
107	Ag	# 3	0.004066	0.004066	ug/l	50.37	#VALUE!	
111	Cd	# 3	0.001642	0.001642	ug/l	1.68	#VALUE!	
118	Sn	# 3	0.0389	0.0389	ug/l	10.42	#VALUE!	
121	Sb	# 3	0.01909	0.01909	ug/l	27.83	#VALUE!	
137	Ba	# 3	0.004065	0.004065	ug/l	100.54	#VALUE!	
201	Hg	# 3	0.002234	0.002234	ug/l	89.97	#VALUE!	
202	Hg	# 3	0.004977	0.004977	ug/l	11.70	#VALUE!	
203	Tl	# 3	0.009127	0.009127	ug/l	11.47	#VALUE!	
205	Tl	# 3	0.007938	0.007938	ug/l	17.45	#VALUE!	
208	Pb	# 3	-0.001554	-0.001554	ug/l	76.77	#VALUE!	
232	Th	# 3	0.03291	0.03291	ug/l	8.81	#VALUE!	
238	U	# 3	0.001726	0.001726	ug/l	22.57	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	478598.13	1.14	643928.69	74.3	60 - 125	
45	Sc	# 1	239930.38	0.39	329114.28	72.9	60 - 125	
45	Sc	# 3	654726.25	1.50	872836.06	75.0	60 - 125	
74	Ge	# 1	90920.26	0.98	122381.69	74.3	60 - 125	
74	Ge	# 2	16595.30	4.05	21667.30	76.6	60 - 125	
74	Ge	# 3	166824.34	1.56	224459.19	74.3	60 - 125	
89	Y	# 3	930636.75	0.15	1247149.90	74.6	60 - 125	
115	In	# 3	1036912.50	1.85	1396206.60	74.3	60 - 125	
159	Tb	# 3	1577838.00	0.57	2071474.10	76.2	60 - 125	
209	Bi	# 3	1016366.40	0.99	1349994.40	75.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\218SMPL.D\218SMPL.D#
Date Acquired:	Mar 24 2009 10:10 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	LCS
Misc Info:	3005 1/5
Vial Number:	3102
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	9.834	9.834	ug/l	0.43	#VALUE!	
11	B	# 3	33.13	33.13	ug/l	1.52	#VALUE!	
23	Na	# 1	968	968	ug/l	0.85	#VALUE!	
24	Mg	# 1	1028	1028	ug/l	0.66	#VALUE!	
27	Al	# 1	977.7	977.7	ug/l	1.00	#VALUE!	
39	K	# 2	883.3	883.3	ug/l	0.79	#VALUE!	
40	Ca	# 1	1010	1010	ug/l	1.00	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	18.72	18.72	ug/l	1.55	#VALUE!	
51	V	# 2	19.03	19.03	ug/l	1.65	#VALUE!	
52	Cr	# 2	18.99	18.99	ug/l	0.83	#VALUE!	
55	Mn	# 3	94.68	94.68	ug/l	0.84	#VALUE!	
56	Fe	# 1	1023	1023	ug/l	0.34	#VALUE!	
59	Co	# 3	8.761	8.761	ug/l	1.26	#VALUE!	
60	Ni	# 2	19.7	19.7	ug/l	0.91	#VALUE!	
63	Cu	# 2	19.83	19.83	ug/l	0.34	#VALUE!	
65	Cu	# 2	19.75	19.75	ug/l	1.24	#VALUE!	
65	Cu	# 3	19.38	19.38	ug/l	0.26	#VALUE!	
66	Zn	# 3	19.02	19.02	ug/l	1.25	#VALUE!	
68	Zn	# 3	18.79	18.79	ug/l	2.86	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	20.21	20.21	ug/l	1.46	#VALUE!	
78	Se	# 1	19.33	19.33	ug/l	0.58	#VALUE!	
88	Sr	# 3	17.89	17.89	ug/l	0.90	#VALUE!	
90	Zr	# 3	94.46	94.46	ug/l	0.39	#VALUE!	
91	Zr	# 3	88.07	88.07	ug/l	0.74	#VALUE!	
95	Mo	# 3	19.1	19.1	ug/l	0.80	#VALUE!	
107	Ag	# 3	9.7	9.7	ug/l	0.78	#VALUE!	
111	Cd	# 3	9.463	9.463	ug/l	0.72	#VALUE!	
118	Sn	# 3	18.41	18.41	ug/l	0.64	#VALUE!	
121	Sb	# 3	9.4	9.4	ug/l	1.23	#VALUE!	
137	Ba	# 3	18.9	18.9	ug/l	1.21	#VALUE!	
201	Hg	# 3	0.9045	0.9045	ug/l	2.06	#VALUE!	
202	Hg	# 3	0.8992	0.8992	ug/l	2.51	#VALUE!	
203	Tl	# 3	7.399	7.399	ug/l	1.04	#VALUE!	
205	Tl	# 3	7.335	7.335	ug/l	0.98	#VALUE!	
208	Pb	# 3	8.886	8.886	ug/l	0.82	#VALUE!	
232	Th	# 3	17.53	17.53	ug/l	0.73	#VALUE!	
238	U	# 3	17.44	17.44	ug/l	0.82	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	469966.28	2.24	643928.69	73.0	60 - 125	
45	Sc	# 1	239131.80	0.77	329114.28	72.7	60 - 125	
45	Sc	# 3	662278.44	2.23	872836.06	75.9	60 - 125	
74	Ge	# 1	91476.74	0.95	122381.69	74.7	60 - 125	
74	Ge	# 2	16458.45	2.65	21667.30	76.0	60 - 125	
74	Ge	# 3	166297.08	1.03	224459.19	74.1	60 - 125	
89	Y	# 3	928458.19	1.27	1247149.90	74.4	60 - 125	
115	In	# 3	1032897.30	1.54	1396206.60	74.0	60 - 125	
159	Tb	# 3	1589623.40	1.31	2071474.10	76.7	60 - 125	
209	Bi	# 3	998865.50	1.73	1349994.40	74.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\219SMPL.D\219SMPL.D#
Date Acquired:	Mar 24 2009 10:16 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-12
Misc Info:	3005 1/5
Vial Number:	3103
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.000555	-0.000555	ug/l	137.60	#VALUE!	
11	B	# 3	0.2436	0.2436	ug/l	16.28	#VALUE!	
23	Na	# 1	-29.82	-29.82	ug/l	1.59	#VALUE!	
24	Mg	# 1	1.018	1.018	ug/l	3.15	#VALUE!	
27	Al	# 1	4.433	4.433	ug/l	2.95	#VALUE!	
39	K	# 2	-4.355	-4.355	ug/l	10.43	#VALUE!	
40	Ca	# 1	7.743	7.743	ug/l	1.31	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.09414	0.09414	ug/l	11.78	#VALUE!	
51	V	# 2	0.1087	0.1087	ug/l	14.55	#VALUE!	
52	Cr	# 2	0.7764	0.7764	ug/l	0.38	#VALUE!	
55	Mn	# 3	2.836	2.836	ug/l	1.95	#VALUE!	
56	Fe	# 1	376.4	376.4	ug/l	0.59	#VALUE!	
59	Co	# 3	0.03947	0.03947	ug/l	12.51	#VALUE!	
60	Ni	# 2	1.362	1.362	ug/l	3.97	#VALUE!	
63	Cu	# 2	0.8822	0.8822	ug/l	5.27	#VALUE!	
65	Cu	# 2	0.9131	0.9131	ug/l	2.49	#VALUE!	
65	Cu	# 3	0.8919	0.8919	ug/l	2.12	#VALUE!	
66	Zn	# 3	1.359	1.359	ug/l	5.58	#VALUE!	
68	Zn	# 3	1.396	1.396	ug/l	7.35	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.05962	0.05962	ug/l	2.77	#VALUE!	
78	Se	# 1	0.02245	0.02245	ug/l	4.61	#VALUE!	
88	Sr	# 3	0.02908	0.02908	ug/l	5.80	#VALUE!	
90	Zr	# 3	1.372	1.372	ug/l	5.74	#VALUE!	
91	Zr	# 3	1.366	1.366	ug/l	6.35	#VALUE!	
95	Mo	# 3	0.1056	0.1056	ug/l	4.95	#VALUE!	
107	Ag	# 3	0.006645	0.006645	ug/l	21.45	#VALUE!	
111	Cd	# 3	0.003303	0.003303	ug/l	88.59	#VALUE!	
118	Sn	# 3	0.05607	0.05607	ug/l	5.01	#VALUE!	
121	Sb	# 3	0.01874	0.01874	ug/l	2.12	#VALUE!	
137	Ba	# 3	0.137	0.137	ug/l	32.00	#VALUE!	
201	Hg	# 3	0.005832	0.005832	ug/l	11.65	#VALUE!	
202	Hg	# 3	0.02344	0.02344	ug/l	8.12	#VALUE!	
203	Tl	# 3	0.04454	0.04454	ug/l	11.63	#VALUE!	
205	Tl	# 3	0.04672	0.04672	ug/l	6.28	#VALUE!	
208	Pb	# 3	0.03818	0.03818	ug/l	6.78	#VALUE!	
232	Th	# 3	0.05309	0.05309	ug/l	9.98	#VALUE!	
238	U	# 3	0.004197	0.004197	ug/l	24.57	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	475705.03	1.82	643928.69	73.9	60 - 125	
45	Sc	# 1	237997.20	0.44	329114.28	72.3	60 - 125	
45	Sc	# 3	655164.81	1.16	872836.06	75.1	60 - 125	
74	Ge	# 1	90860.49	0.50	122381.69	74.2	60 - 125	
74	Ge	# 2	16634.59	3.58	21667.30	76.8	60 - 125	
74	Ge	# 3	167386.58	1.38	224459.19	74.6	60 - 125	
89	Y	# 3	925563.75	1.76	1247149.90	74.2	60 - 125	
115	In	# 3	1029785.90	1.83	1396206.60	73.8	60 - 125	
159	Tb	# 3	1565252.00	1.18	2071474.10	75.6	60 - 125	
209	Bi	# 3	1009911.90	1.58	1349994.40	74.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\220SMPL.D\220SMPL.D#
Date Acquired:	Mar 24 2009 10:23 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45623-1
Misc Info:	3005 1/5
Vial Number:	3104
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.04051	0.04051	ug/l	16.78	#VALUE!	
11	B	# 3	4.715	4.715	ug/l	1.63	#VALUE!	
23	Na	# 1	809.8	809.8	ug/l	0.50	#VALUE!	
24	Mg	# 1	424	424	ug/l	1.35	#VALUE!	
27	Al	# 1	223.9	223.9	ug/l	0.54	#VALUE!	
39	K	# 2	733.3	733.3	ug/l	0.93	#VALUE!	
40	Ca	# 1	908.8	908.8	ug/l	0.65	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	3.734	3.734	ug/l	15.91	#VALUE!	
51	V	# 2	1.051	1.051	ug/l	3.55	#VALUE!	
52	Cr	# 2	0.4931	0.4931	ug/l	9.78	#VALUE!	
55	Mn	# 3	69.87	69.87	ug/l	0.59	#VALUE!	
56	Fe	# 1	415.6	415.6	ug/l	0.53	#VALUE!	
59	Co	# 3	0.4469	0.4469	ug/l	1.41	#VALUE!	
60	Ni	# 2	0.8118	0.8118	ug/l	7.45	#VALUE!	
63	Cu	# 2	1.331	1.331	ug/l	2.27	#VALUE!	
65	Cu	# 2	1.367	1.367	ug/l	3.55	#VALUE!	
65	Cu	# 3	1.348	1.348	ug/l	1.93	#VALUE!	
66	Zn	# 3	11.66	11.66	ug/l	1.27	#VALUE!	
68	Zn	# 3	11.58	11.58	ug/l	0.98	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.15	0.15	ug/l	19.39	#VALUE!	
78	Se	# 1	0.06872	0.06872	ug/l	20.05	#VALUE!	
88	Sr	# 3	6.237	6.237	ug/l	0.22	#VALUE!	
90	Zr	# 3	3.525	3.525	ug/l	6.81	#VALUE!	
91	Zr	# 3	3.504	3.504	ug/l	8.36	#VALUE!	
95	Mo	# 3	0.05566	0.05566	ug/l	16.16	#VALUE!	
107	Ag	# 3	0.01071	0.01071	ug/l	29.13	#VALUE!	
111	Cd	# 3	0.03046	0.03046	ug/l	28.62	#VALUE!	
118	Sn	# 3	0.04007	0.04007	ug/l	3.05	#VALUE!	
121	Sb	# 3	0.022	0.022	ug/l	11.20	#VALUE!	
137	Ba	# 3	8.325	8.325	ug/l	0.19	#VALUE!	
201	Hg	# 3	0.008253	0.008253	ug/l	29.06	#VALUE!	
202	Hg	# 3	0.006811	0.006811	ug/l	3.66	#VALUE!	
203	Tl	# 3	0.02004	0.02004	ug/l	8.11	#VALUE!	
205	Tl	# 3	0.01845	0.01845	ug/l	8.85	#VALUE!	
208	Pb	# 3	0.4072	0.4072	ug/l	2.17	#VALUE!	
232	Th	# 3	0.07769	0.07769	ug/l	2.78	#VALUE!	
238	U	# 3	0.02749	0.02749	ug/l	9.39	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	473464.09	1.86	643928.69	73.5	60 - 125	
45	Sc	# 1	239142.70	0.69	329114.28	72.7	60 - 125	
45	Sc	# 3	659347.25	2.30	872836.06	75.5	60 - 125	
74	Ge	# 1	90544.17	0.78	122381.69	74.0	60 - 125	
74	Ge	# 2	16665.74	3.19	21667.30	76.9	60 - 125	
74	Ge	# 3	165764.38	1.26	224459.19	73.9	60 - 125	
89	Y	# 3	934082.38	0.29	1247149.90	74.9	60 - 125	
115	In	# 3	1033093.40	1.21	1396206.60	74.0	60 - 125	
159	Tb	# 3	1577436.50	0.82	2071474.10	76.2	60 - 125	
209	Bi	# 3	1019463.00	1.19	1349994.40	75.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\221SMPL.D\221SMPL.D#
Date Acquired:	Mar 24 2009 10:30 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45623-1L
Misc Info:	3005 1/25
Vial Number:	3105
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	5.00
Autodil Factor:	Undiluted
Final Dil Factor:	5.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.02361	0.004722	ug/l	70.12	#VALUE!	
11	B	# 3	4.047	0.8094	ug/l	3.88	#VALUE!	
23	Na	# 1	612.5	122.5	ug/l	0.60	#VALUE!	
24	Mg	# 1	396	79.2	ug/l	0.70	#VALUE!	
27	Al	# 1	216.95	43.39	ug/l	3.61	#VALUE!	
39	K	# 2	664.5	132.9	ug/l	2.33	#VALUE!	
40	Ca	# 1	885	177	ug/l	0.36	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	3.2775	0.6555	ug/l	8.41	#VALUE!	
51	V	# 2	1.1035	0.2207	ug/l	4.66	#VALUE!	
52	Cr	# 2	0.3722	0.07444	ug/l	7.46	#VALUE!	
55	Mn	# 3	65.05	13.01	ug/l	0.47	#VALUE!	
56	Fe	# 1	395.35	79.07	ug/l	0.32	#VALUE!	
59	Co	# 3	0.4116	0.08232	ug/l	7.82	#VALUE!	
60	Ni	# 2	0.6645	0.1329	ug/l	6.33	#VALUE!	
63	Cu	# 2	1.011	0.2022	ug/l	3.40	#VALUE!	
65	Cu	# 2	1.125	0.225	ug/l	1.10	#VALUE!	
65	Cu	# 3	0.984	0.1968	ug/l	17.57	#VALUE!	
66	Zn	# 3	10.35	2.07	ug/l	5.47	#VALUE!	
68	Zn	# 3	10.27	2.054	ug/l	1.85	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.1452	0.02904	ug/l	38.15	#VALUE!	
78	Se	# 1	0.05225	0.01045	ug/l	28.07	#VALUE!	
88	Sr	# 3	6.23	1.246	ug/l	2.01	#VALUE!	
90	Zr	# 3	2.506	0.5012	ug/l	1.53	#VALUE!	
91	Zr	# 3	2.474	0.4948	ug/l	2.81	#VALUE!	
95	Mo	# 3	0.0538	0.01076	ug/l	18.69	#VALUE!	
107	Ag	# 3	0.007915	0.001583	ug/l	70.69	#VALUE!	
111	Cd	# 3	0.021995	0.004399	ug/l	23.03	#VALUE!	
118	Sn	# 3	0.018435	0.003687	ug/l	7.80	#VALUE!	
121	Sb	# 3	0.02772	0.005544	ug/l	43.78	#VALUE!	
137	Ba	# 3	8.085	1.617	ug/l	3.15	#VALUE!	
201	Hg	# 3	0.03462	0.006924	ug/l	21.92	#VALUE!	
202	Hg	# 3	0.045005	0.009001	ug/l	31.42	#VALUE!	
203	Tl	# 3	0.03539	0.007078	ug/l	18.11	#VALUE!	
205	Tl	# 3	0.03241	0.006482	ug/l	23.40	#VALUE!	
208	Pb	# 3	0.36955	0.07391	ug/l	4.23	#VALUE!	
232	Th	# 3	0.08295	0.01659	ug/l	7.44	#VALUE!	
238	U	# 3	0.026165	0.005233	ug/l	10.15	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	485548.84	0.21	643928.69	75.4	60 - 125	
45	Sc	# 1	246513.36	0.84	329114.28	74.9	60 - 125	
45	Sc	# 3	670744.94	0.92	872836.06	76.8	60 - 125	
74	Ge	# 1	94011.09	1.21	122381.69	76.8	60 - 125	
74	Ge	# 2	17273.21	2.07	21667.30	79.7	60 - 125	
74	Ge	# 3	171101.44	1.21	224459.19	76.2	60 - 125	
89	Y	# 3	946427.50	1.55	1247149.90	75.9	60 - 125	
115	In	# 3	1063384.60	1.70	1396206.60	76.2	60 - 125	
159	Tb	# 3	1602400.80	1.60	2071474.10	77.4	60 - 125	
209	Bi	# 3	1024508.80	0.99	1349994.40	75.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\222SMPL.D\222SMPL.D#
Date Acquired:	Mar 24 2009 10:37 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45623-1A
Misc Info:	3005 1/5
Vial Number:	3106
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	22.11	22.11	ug/l	0.49	#VALUE!	
11	B	# 3	42.14	42.14	ug/l	1.00	#VALUE!	
23	Na	# 1	2962	2962	ug/l	1.03	#VALUE!	
24	Mg	# 1	2576	2576	ug/l	0.79	#VALUE!	
27	Al	# 1	451.4	451.4	ug/l	3.66	#VALUE!	
39	K	# 2	2749	2749	ug/l	1.07	#VALUE!	
40	Ca	# 1	3121	3121	ug/l	0.38	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	25.23	25.23	ug/l	1.41	#VALUE!	
51	V	# 2	22.05	22.05	ug/l	1.09	#VALUE!	
52	Cr	# 2	21.32	21.32	ug/l	0.59	#VALUE!	
55	Mn	# 3	275.7	275.7	ug/l	0.67	#VALUE!	
56	Fe	# 1	2623	2623	ug/l	0.37	#VALUE!	
59	Co	# 3	20.12	20.12	ug/l	0.63	#VALUE!	
60	Ni	# 2	22.49	22.49	ug/l	1.71	#VALUE!	
63	Cu	# 2	23.2	23.2	ug/l	1.49	#VALUE!	
65	Cu	# 2	22.94	22.94	ug/l	1.12	#VALUE!	
65	Cu	# 3	22.84	22.84	ug/l	0.69	#VALUE!	
66	Zn	# 3	32.81	32.81	ug/l	0.80	#VALUE!	
68	Zn	# 3	32.15	32.15	ug/l	1.21	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	21.61	21.61	ug/l	1.03	#VALUE!	
78	Se	# 1	20.74	20.74	ug/l	1.15	#VALUE!	
88	Sr	# 3	26.07	26.07	ug/l	0.51	#VALUE!	
90	Zr	# 3	215.1	215.1	ug/l	1.27	#VALUE!	
91	Zr	# 3	202.1	202.1	ug/l	1.15	#VALUE!	
95	Mo	# 3	21.55	21.55	ug/l	0.39	#VALUE!	
107	Ag	# 3	21.63	21.63	ug/l	1.38	#VALUE!	
111	Cd	# 3	21.28	21.28	ug/l	1.41	#VALUE!	
118	Sn	# 3	20.89	20.89	ug/l	0.37	#VALUE!	
121	Sb	# 3	20.32	20.32	ug/l	0.79	#VALUE!	
137	Ba	# 3	29.62	29.62	ug/l	0.54	#VALUE!	
201	Hg	# 3	1.158	1.158	ug/l	1.00	#VALUE!	
202	Hg	# 3	1.181	1.181	ug/l	1.36	#VALUE!	
203	Tl	# 3	4.171	4.171	ug/l	1.29	#VALUE!	
205	Tl	# 3	4.187	4.187	ug/l	1.39	#VALUE!	
208	Pb	# 3	20.54	20.54	ug/l	0.64	#VALUE!	
232	Th	# 3	19.76	19.76	ug/l	0.48	#VALUE!	
238	U	# 3	19.63	19.63	ug/l	1.12	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	471452.91	1.10	643928.69	73.2	60 - 125	
45	Sc	# 1	241468.52	1.13	329114.28	73.4	60 - 125	
45	Sc	# 3	667813.63	1.68	872836.06	76.5	60 - 125	
74	Ge	# 1	91692.27	0.73	122381.69	74.9	60 - 125	
74	Ge	# 2	16596.04	1.86	21667.30	76.6	60 - 125	
74	Ge	# 3	167485.95	0.21	224459.19	74.6	60 - 125	
89	Y	# 3	948413.63	1.03	1247149.90	76.0	60 - 125	
115	In	# 3	1036703.60	0.73	1396206.60	74.3	60 - 125	
159	Tb	# 3	1569396.40	0.73	2071474.10	75.8	60 - 125	
209	Bi	# 3	999194.06	1.10	1349994.40	74.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\223SMPL.D\223SMPL.D#
Date Acquired:	Mar 24 2009 10:43 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45623-1S
Misc Info:	3005 1/5
Vial Number:	3107
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	10.93	10.93	ug/l	3.33	#VALUE!	
11	B	# 3	42.02	42.02	ug/l	2.85	#VALUE!	
23	Na	# 1	1892	1892	ug/l	0.32	#VALUE!	
24	Mg	# 1	1501	1501	ug/l	1.11	#VALUE!	
27	Al	# 1	1310	1310	ug/l	1.12	#VALUE!	
39	K	# 2	1728	1728	ug/l	0.76	#VALUE!	
40	Ca	# 1	1908	1908	ug/l	0.60	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	25.73	25.73	ug/l	0.51	#VALUE!	
51	V	# 2	21.73	21.73	ug/l	1.65	#VALUE!	
52	Cr	# 2	21.37	21.37	ug/l	1.43	#VALUE!	
55	Mn	# 3	137.3	137.3	ug/l	2.08	#VALUE!	
56	Fe	# 1	1403	1403	ug/l	0.23	#VALUE!	
59	Co	# 3	10.02	10.02	ug/l	1.97	#VALUE!	
60	Ni	# 2	22.06	22.06	ug/l	2.31	#VALUE!	
63	Cu	# 2	22.98	22.98	ug/l	1.08	#VALUE!	
65	Cu	# 2	22.96	22.96	ug/l	1.62	#VALUE!	
65	Cu	# 3	22.77	22.77	ug/l	1.91	#VALUE!	
66	Zn	# 3	29.98	29.98	ug/l	1.41	#VALUE!	
68	Zn	# 3	29.42	29.42	ug/l	1.67	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	21.93	21.93	ug/l	1.28	#VALUE!	
78	Se	# 1	21.35	21.35	ug/l	0.72	#VALUE!	
88	Sr	# 3	25.2	25.2	ug/l	1.33	#VALUE!	
90	Zr	# 3	104.4	104.4	ug/l	1.57	#VALUE!	
91	Zr	# 3	96.16	96.16	ug/l	0.71	#VALUE!	
95	Mo	# 3	21.47	21.47	ug/l	1.07	#VALUE!	
107	Ag	# 3	10.72	10.72	ug/l	1.32	#VALUE!	
111	Cd	# 3	10.7	10.7	ug/l	1.36	#VALUE!	
118	Sn	# 3	20.78	20.78	ug/l	0.27	#VALUE!	
121	Sb	# 3	10.62	10.62	ug/l	0.98	#VALUE!	
137	Ba	# 3	26.74	26.74	ug/l	1.39	#VALUE!	
201	Hg	# 3	0.9967	0.9967	ug/l	2.92	#VALUE!	
202	Hg	# 3	0.9952	0.9952	ug/l	2.06	#VALUE!	
203	Tl	# 3	8.252	8.252	ug/l	0.78	#VALUE!	
205	Tl	# 3	8.268	8.268	ug/l	0.42	#VALUE!	
208	Pb	# 3	10.2	10.2	ug/l	0.86	#VALUE!	
232	Th	# 3	19.36	19.36	ug/l	1.62	#VALUE!	
238	U	# 3	19.45	19.45	ug/l	1.90	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	479790.72	2.26	643928.69	74.5	60 - 125	
45	Sc	# 1	243353.52	0.76	329114.28	73.9	60 - 125	
45	Sc	# 3	671358.19	0.68	872836.06	76.9	60 - 125	
74	Ge	# 1	91826.38	0.87	122381.69	75.0	60 - 125	
74	Ge	# 2	16784.43	2.42	21667.30	77.5	60 - 125	
74	Ge	# 3	168649.86	1.69	224459.19	75.1	60 - 125	
89	Y	# 3	952653.31	1.43	1247149.90	76.4	60 - 125	
115	In	# 3	1041920.70	1.26	1396206.60	74.6	60 - 125	
159	Tb	# 3	1597611.40	1.41	2071474.10	77.1	60 - 125	
209	Bi	# 3	1012785.10	2.12	1349994.40	75.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\224SMPL.D\224SMPL.D#
Date Acquired:	Mar 24 2009 10:50 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45623-1SD
Misc Info:	3005 1/5
Vial Number:	3108
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	10.94	10.94	ug/l	2.34	#VALUE!	
11	B	# 3	41.89	41.89	ug/l	1.96	#VALUE!	
23	Na	# 1	1896	1896	ug/l	0.28	#VALUE!	
24	Mg	# 1	1506	1506	ug/l	0.94	#VALUE!	
27	Al	# 1	1290	1290	ug/l	1.29	#VALUE!	
39	K	# 2	1687	1687	ug/l	1.91	#VALUE!	
40	Ca	# 1	1903	1903	ug/l	0.30	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	23.9	23.9	ug/l	2.14	#VALUE!	
51	V	# 2	21.26	21.26	ug/l	0.69	#VALUE!	
52	Cr	# 2	21.25	21.25	ug/l	1.09	#VALUE!	
55	Mn	# 3	145.6	145.6	ug/l	1.25	#VALUE!	
56	Fe	# 1	1429	1429	ug/l	0.78	#VALUE!	
59	Co	# 3	9.915	9.915	ug/l	0.97	#VALUE!	
60	Ni	# 2	22.15	22.15	ug/l	2.15	#VALUE!	
63	Cu	# 2	22.66	22.66	ug/l	0.67	#VALUE!	
65	Cu	# 2	22.91	22.91	ug/l	1.39	#VALUE!	
65	Cu	# 3	22.28	22.28	ug/l	1.13	#VALUE!	
66	Zn	# 3	29.9	29.9	ug/l	1.18	#VALUE!	
68	Zn	# 3	29.79	29.79	ug/l	1.34	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	21.89	21.89	ug/l	1.73	#VALUE!	
78	Se	# 1	21.32	21.32	ug/l	0.90	#VALUE!	
88	Sr	# 3	25.14	25.14	ug/l	0.50	#VALUE!	
90	Zr	# 3	102.5	102.5	ug/l	0.37	#VALUE!	
91	Zr	# 3	94.84	94.84	ug/l	0.62	#VALUE!	
95	Mo	# 3	20.9	20.9	ug/l	1.77	#VALUE!	
107	Ag	# 3	10.72	10.72	ug/l	1.45	#VALUE!	
111	Cd	# 3	10.56	10.56	ug/l	1.41	#VALUE!	
118	Sn	# 3	20.17	20.17	ug/l	0.71	#VALUE!	
121	Sb	# 3	10.46	10.46	ug/l	2.02	#VALUE!	
137	Ba	# 3	26.65	26.65	ug/l	1.69	#VALUE!	
201	Hg	# 3	0.9769	0.9769	ug/l	3.44	#VALUE!	
202	Hg	# 3	0.9915	0.9915	ug/l	1.74	#VALUE!	
203	Tl	# 3	8.189	8.189	ug/l	0.88	#VALUE!	
205	Tl	# 3	8.151	8.151	ug/l	0.64	#VALUE!	
208	Pb	# 3	10.06	10.06	ug/l	1.52	#VALUE!	
232	Th	# 3	19.02	19.02	ug/l	1.82	#VALUE!	
238	U	# 3	19.07	19.07	ug/l	1.51	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	476429.88	1.11	643928.69	74.0	60 - 125	
45	Sc	# 1	244737.78	0.86	329114.28	74.4	60 - 125	
45	Sc	# 3	675493.31	1.20	872836.06	77.4	60 - 125	
74	Ge	# 1	92302.94	1.07	122381.69	75.4	60 - 125	
74	Ge	# 2	16802.60	2.12	21667.30	77.5	60 - 125	
74	Ge	# 3	169248.45	0.81	224459.19	75.4	60 - 125	
89	Y	# 3	946049.75	0.52	1247149.90	75.9	60 - 125	
115	In	# 3	1042929.70	1.34	1396206.60	74.7	60 - 125	
159	Tb	# 3	1595210.40	1.58	2071474.10	77.0	60 - 125	
209	Bi	# 3	1011289.90	1.75	1349994.40	74.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\225SMPL.D\225SMPL.D#
Date Acquired:	Mar 24 2009 10:57 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45623-2
Misc Info:	3005 1/5
Vial Number:	3109
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.01808	0.01808	ug/l	13.73	#VALUE!	
11	B	# 3	4.835	4.835	ug/l	3.86	#VALUE!	
23	Na	# 1	779	779	ug/l	1.46	#VALUE!	
24	Mg	# 1	374.8	374.8	ug/l	1.20	#VALUE!	
27	Al	# 1	190.8	190.8	ug/l	1.88	#VALUE!	
39	K	# 2	802.2	802.2	ug/l	0.40	#VALUE!	
40	Ca	# 1	723.6	723.6	ug/l	0.27	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	4.367	4.367	ug/l	10.11	#VALUE!	
51	V	# 2	0.5931	0.5931	ug/l	3.84	#VALUE!	
52	Cr	# 2	0.3792	0.3792	ug/l	7.33	#VALUE!	
55	Mn	# 3	23.26	23.26	ug/l	1.32	#VALUE!	
56	Fe	# 1	229.5	229.5	ug/l	0.78	#VALUE!	
59	Co	# 3	0.1691	0.1691	ug/l	0.66	#VALUE!	
60	Ni	# 2	0.6129	0.6129	ug/l	0.48	#VALUE!	
63	Cu	# 2	0.8121	0.8121	ug/l	3.72	#VALUE!	
65	Cu	# 2	0.7876	0.7876	ug/l	2.32	#VALUE!	
65	Cu	# 3	0.8229	0.8229	ug/l	3.51	#VALUE!	
66	Zn	# 3	6.788	6.788	ug/l	0.72	#VALUE!	
68	Zn	# 3	6.782	6.782	ug/l	2.18	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.1197	0.1197	ug/l	4.65	#VALUE!	
78	Se	# 1	0.05406	0.05406	ug/l	34.04	#VALUE!	
88	Sr	# 3	4.632	4.632	ug/l	0.46	#VALUE!	
90	Zr	# 3	2.159	2.159	ug/l	6.25	#VALUE!	
91	Zr	# 3	2.086	2.086	ug/l	8.68	#VALUE!	
95	Mo	# 3	0.08508	0.08508	ug/l	7.44	#VALUE!	
107	Ag	# 3	0.004784	0.004784	ug/l	31.71	#VALUE!	
111	Cd	# 3	0.01393	0.01393	ug/l	6.21	#VALUE!	
118	Sn	# 3	0.05535	0.05535	ug/l	14.53	#VALUE!	
121	Sb	# 3	0.04935	0.04935	ug/l	17.43	#VALUE!	
137	Ba	# 3	4.616	4.616	ug/l	0.46	#VALUE!	
201	Hg	# 3	0.01115	0.01115	ug/l	13.66	#VALUE!	
202	Hg	# 3	0.01074	0.01074	ug/l	17.24	#VALUE!	
203	Tl	# 3	0.06228	0.06228	ug/l	8.63	#VALUE!	
205	Tl	# 3	0.05811	0.05811	ug/l	5.87	#VALUE!	
208	Pb	# 3	0.1175	0.1175	ug/l	1.11	#VALUE!	
232	Th	# 3	0.1351	0.1351	ug/l	7.27	#VALUE!	
238	U	# 3	0.01283	0.01283	ug/l	11.26	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	481135.88	1.73	643928.69	74.7	60 - 125	
45	Sc	# 1	242638.94	0.54	329114.28	73.7	60 - 125	
45	Sc	# 3	669383.31	1.90	872836.06	76.7	60 - 125	
74	Ge	# 1	91599.14	0.37	122381.69	74.8	60 - 125	
74	Ge	# 2	16726.58	2.17	21667.30	77.2	60 - 125	
74	Ge	# 3	167895.75	1.13	224459.19	74.8	60 - 125	
89	Y	# 3	947847.88	1.25	1247149.90	76.0	60 - 125	
115	In	# 3	1043540.90	1.28	1396206.60	74.7	60 - 125	
159	Tb	# 3	1585134.60	0.80	2071474.10	76.5	60 - 125	
209	Bi	# 3	1024438.20	1.50	1349994.40	75.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\226SMPL.D\226SMPL.D#
Date Acquired:	Mar 24 2009 11:04 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	21188-2
Misc Info:	3005 1/5
Vial Number:	3110
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0001443	-0.0001443	ug/l	1022.20	#VALUE!	
11	B	# 3	0.07665	0.07665	ug/l	32.85	#VALUE!	
23	Na	# 1	-30.7	-30.7	ug/l	0.63	#VALUE!	
24	Mg	# 1	0.4005	0.4005	ug/l	1.63	#VALUE!	
27	Al	# 1	0.854	0.854	ug/l	1.79	#VALUE!	
39	K	# 2	-5.674	-5.674	ug/l	20.83	#VALUE!	
40	Ca	# 1	3.94	3.94	ug/l	2.88	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.03726	0.03726	ug/l	32.80	#VALUE!	
51	V	# 2	0.1208	0.1208	ug/l	7.27	#VALUE!	
52	Cr	# 2	0.08817	0.08817	ug/l	2.68	#VALUE!	
55	Mn	# 3	0.01152	0.01152	ug/l	26.00	#VALUE!	
56	Fe	# 1	0.5912	0.5912	ug/l	4.14	#VALUE!	
59	Co	# 3	-0.002442	-0.002442	ug/l	16.47	#VALUE!	
60	Ni	# 2	0.02018	0.02018	ug/l	29.02	#VALUE!	
63	Cu	# 2	0.04112	0.04112	ug/l	18.16	#VALUE!	
65	Cu	# 2	0.04061	0.04061	ug/l	14.63	#VALUE!	
65	Cu	# 3	0.02182	0.02182	ug/l	91.93	#VALUE!	
66	Zn	# 3	0.291	0.291	ug/l	9.58	#VALUE!	
68	Zn	# 3	0.2884	0.2884	ug/l	17.29	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.02055	0.02055	ug/l	36.93	#VALUE!	
78	Se	# 1	0.008661	0.008661	ug/l	61.22	#VALUE!	
88	Sr	# 3	0.01227	0.01227	ug/l	18.09	#VALUE!	
90	Zr	# 3	0.2342	0.2342	ug/l	5.17	#VALUE!	
91	Zr	# 3	0.2096	0.2096	ug/l	5.77	#VALUE!	
95	Mo	# 3	0.03457	0.03457	ug/l	16.93	#VALUE!	
107	Ag	# 3	0.004277	0.004277	ug/l	6.41	#VALUE!	
111	Cd	# 3	0.003247	0.003247	ug/l	86.45	#VALUE!	
118	Sn	# 3	0.01873	0.01873	ug/l	20.76	#VALUE!	
121	Sb	# 3	0.02498	0.02498	ug/l	21.54	#VALUE!	
137	Ba	# 3	0.008491	0.008491	ug/l	113.89	#VALUE!	
201	Hg	# 3	0.004385	0.004385	ug/l	10.09	#VALUE!	
202	Hg	# 3	0.006645	0.006645	ug/l	15.86	#VALUE!	
203	Tl	# 3	0.01815	0.01815	ug/l	6.59	#VALUE!	
205	Tl	# 3	0.01853	0.01853	ug/l	15.55	#VALUE!	
208	Pb	# 3	0.00121	0.00121	ug/l	87.85	#VALUE!	
232	Th	# 3	0.032	0.032	ug/l	10.05	#VALUE!	
238	U	# 3	0.0001168	0.0001168	ug/l	152.63	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	497429.88	1.00	643928.69	77.2	60 - 125	
45	Sc	# 1	245479.03	0.60	329114.28	74.6	60 - 125	
45	Sc	# 3	684303.13	0.72	872836.06	78.4	60 - 125	
74	Ge	# 1	92933.34	0.48	122381.69	75.9	60 - 125	
74	Ge	# 2	16947.25	2.89	21667.30	78.2	60 - 125	
74	Ge	# 3	172618.33	1.47	224459.19	76.9	60 - 125	
89	Y	# 3	957003.19	1.54	1247149.90	76.7	60 - 125	
115	In	# 3	1064521.30	1.00	1396206.60	76.2	60 - 125	
159	Tb	# 3	1624229.90	1.68	2071474.10	78.4	60 - 125	
209	Bi	# 3	1042506.60	0.79	1349994.40	77.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\227_CCV.D\227_CCV.D#
Date Acquired: Mar 24 2009 11:10 pm
Operator: BB
Sample Name: CCV 50/5000
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	52.22 ug/l	1.19	50.00	90 - 110	
11	B	# 3	88.9 ug/l	1.16	100.00	90 - 110	Fail
23	Na	# 1	4861 ug/l	0.93	5000.00	90 - 110	
24	Mg	# 1	4899 ug/l	0.25	5000.00	90 - 110	
27	Al	# 1	494.2 ug/l	0.60	500.00	90 - 110	
39	K	# 2	4470 ug/l	1.98	5000.00	90 - 110	Fail
40	Ca	# 1	4945 ug/l	0.79	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	50.87 ug/l	0.44	50.00	90 - 110	
51	V	# 2	48.27 ug/l	1.16	50.00	90 - 110	
52	Cr	# 2	47.67 ug/l	1.15	50.00	90 - 110	
55	Mn	# 3	475.6 ug/l	0.52	500.00	90 - 110	
56	Fe	# 1	5016 ug/l	0.74	5000.00	90 - 110	
59	Co	# 3	48.68 ug/l	0.65	50.00	90 - 110	
60	Ni	# 2	49.23 ug/l	1.99	50.00	90 - 110	
63	Cu	# 2	49.31 ug/l	2.45	50.00	90 - 110	
65	Cu	# 2	49.23 ug/l	1.26	50.00	90 - 110	
65	Cu	# 3	50.42 ug/l	0.45	50.00	90 - 110	
66	Zn	# 3	48.65 ug/l	1.08	50.00	90 - 110	
68	Zn	# 3	47.97 ug/l	0.57	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	49.84 ug/l	1.13	50.00	90 - 110	
78	Se	# 1	47.61 ug/l	1.13	50.00	90 - 110	
88	Sr	# 3	49.4 ug/l	1.91	50.00	90 - 110	
90	Zr	# 3	498.1 ug/l	0.56	500.00	90 - 110	
91	Zr	# 3	505.4 ug/l	0.58	500.00	90 - 110	
95	Mo	# 3	50.66 ug/l	1.20	50.00	90 - 110	
107	Ag	# 3	49.78 ug/l	0.61	50.00	90 - 110	
111	Cd	# 3	49.42 ug/l	0.60	50.00	90 - 110	
118	Sn	# 3	49.35 ug/l	0.70	50.00	90 - 110	
121	Sb	# 3	49.45 ug/l	1.02	50.00	90 - 110	
137	Ba	# 3	49.78 ug/l	0.81	50.00	90 - 110	
201	Hg	# 3	2.555 ug/l	2.15	2.50	90 - 110	
202	Hg	# 3	2.558 ug/l	0.67	2.50	90 - 110	
203	Tl	# 3	9.605 ug/l	0.74	10.00	90 - 110	
205	Tl	# 3	9.592 ug/l	0.57	10.00	90 - 110	
208	Pb	# 3	46.05 ug/l	0.31	50.00	90 - 110	
232	Th	# 3	48.54 ug/l	1.17	---	##### - #####	
238	U	# 3	47.81 ug/l	0.82	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	470189.22	1.61	643928.69	73.0	60 - 125	
45	Sc	# 1	251238.78	0.65	329114.28	76.3	60 - 125	
45	Sc	# 3	681225.19	1.55	872836.06	78.0	60 - 125	
74	Ge	# 1	95455.10	0.73	122381.69	78.0	60 - 125	
74	Ge	# 2	17566.59	2.59	21667.30	81.1	60 - 125	
74	Ge	# 3	171275.66	0.83	224459.19	76.3	60 - 125	
89	Y	# 3	962661.44	1.06	1247149.90	77.2	60 - 125	
115	In	# 3	1050614.00	0.93	1396206.60	75.2	60 - 125	
159	Tb	# 3	1597858.00	1.55	2071474.10	77.1	60 - 125	
209	Bi	# 3	991558.75	1.80	1349994.40	73.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Fail**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\228_CCB.D\228_CCB.D#
Date Acquired: Mar 24 2009 11:17 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.02913 ug/l	97.22	#VALUE!	
11 B	0.8583 ug/l	6.02	#VALUE!	
23 Na	-29.49 ug/l	0.24	#VALUE!	
24 Mg	4.292 ug/l	1.59	#VALUE!	
27 Al	1.236 ug/l	4.59	#VALUE!	
39 K	-2.555 ug/l	52.64	#VALUE!	
40 Ca	4.098 ug/l	1.40	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.04468 ug/l	47.67	#VALUE!	
51 V	0.03077 ug/l	31.82	#VALUE!	
52 Cr	0.0291 ug/l	4.22	#VALUE!	
55 Mn	0.2818 ug/l	93.22	#VALUE!	
56 Fe	4.714 ug/l	0.52	#VALUE!	
59 Co	0.02431 ug/l	94.57	#VALUE!	
60 Ni	-0.01308 ug/l	60.93	#VALUE!	
63 Cu	0.004659 ug/l	186.59	#VALUE!	
65 Cu	0.0155 ug/l	55.70	#VALUE!	
65 Cu	-0.01395 ug/l	164.66	#VALUE!	
66 Zn	-0.1157 ug/l	35.39	#VALUE!	
68 Zn	-0.0965 ug/l	5.72	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.05023 ug/l	7.70	#VALUE!	
78 Se	0.08258 ug/l	19.97	#VALUE!	
88 Sr	0.03513 ug/l	99.52	#VALUE!	
90 Zr	0.721 ug/l	35.84	#VALUE!	
91 Zr	0.7261 ug/l	35.13	#VALUE!	
95 Mo	0.1307 ug/l	36.65	#VALUE!	
107 Ag	0.03225 ug/l	69.21	#VALUE!	
111 Cd	0.03404 ug/l	82.08	#VALUE!	
118 Sn	0.09704 ug/l	36.21	#VALUE!	
121 Sb	0.05321 ug/l	56.85	#VALUE!	
137 Ba	0.0348 ug/l	95.37	#VALUE!	
201 Hg	0.03815 ug/l	10.60	#VALUE!	
202 Hg	0.04117 ug/l	12.96	#VALUE!	
203 Tl	0.041 ug/l	31.17	#VALUE!	
205 Tl	0.04181 ug/l	7.68	#VALUE!	
208 Pb	0.02612 ug/l	87.98	#VALUE!	
232 Th	0.07809 ug/l	28.95	#VALUE!	
238 U	0.03127 ug/l	79.82	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	489003.44	2.31	643928.69	75.9	60 - 125	
45 Sc	257112.69	0.60	329114.28	78.1	60 - 125	
45 Sc	696892.31	0.78	872836.06	79.8	60 - 125	
74 Ge	98648.29	1.24	122381.69	80.6	60 - 125	
74 Ge	17806.19	2.70	21667.30	82.2	60 - 125	
74 Ge	175379.56	0.29	224459.19	78.1	60 - 125	
89 Y	975587.19	1.27	1247149.90	78.2	60 - 125	
115 In	1082745.60	0.90	1396206.60	77.5	60 - 125	
159 Tb	1608920.80	0.82	2071474.10	77.7	60 - 125	
209 Bi	1020341.80	0.74	1349994.40	75.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\229SMPL.D\229SMPL.D#
Date Acquired:	Mar 24 2009 11:24 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	21188-3
Misc Info:	3005 1/5
Vial Number:	3111
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.001248	0.001248	ug/l	124.44	#VALUE!	
11	B	# 3	82.86	82.86	ug/l	1.57	#VALUE!	
23	Na	# 1	25140	25140	ug/l	1.34	#VALUE!	
24	Mg	# 1	9357	9357	ug/l	0.69	#VALUE!	
27	Al	# 1	15.06	15.06	ug/l	2.93	#VALUE!	
39	K	# 2	16210	16210	ug/l	1.40	#VALUE!	
40	Ca	# 1	23790	23790	ug/l	0.54	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	1.716	1.716	ug/l	5.08	#VALUE!	
51	V	# 2	1.019	1.019	ug/l	3.40	#VALUE!	
52	Cr	# 2	0.6575	0.6575	ug/l	2.67	#VALUE!	
55	Mn	# 3	30.09	30.09	ug/l	1.17	#VALUE!	
56	Fe	# 1	1458	1458	ug/l	0.89	#VALUE!	
59	Co	# 3	0.6812	0.6812	ug/l	0.94	#VALUE!	
60	Ni	# 2	1.641	1.641	ug/l	3.79	#VALUE!	
63	Cu	# 2	1.253	1.253	ug/l	1.69	#VALUE!	
65	Cu	# 2	1.234	1.234	ug/l	1.05	#VALUE!	
65	Cu	# 3	1.314	1.314	ug/l	4.59	#VALUE!	
66	Zn	# 3	5.835	5.835	ug/l	3.55	#VALUE!	
68	Zn	# 3	5.593	5.593	ug/l	3.81	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.377	1.377	ug/l	2.47	#VALUE!	
78	Se	# 1	0.2222	0.2222	ug/l	10.65	#VALUE!	
88	Sr	# 3	163.6	163.6	ug/l	1.20	#VALUE!	
90	Zr	# 3	4.541	4.541	ug/l	9.83	#VALUE!	
91	Zr	# 3	4.404	4.404	ug/l	10.06	#VALUE!	
95	Mo	# 3	0.8117	0.8117	ug/l	2.65	#VALUE!	
107	Ag	# 3	0.01678	0.01678	ug/l	6.40	#VALUE!	
111	Cd	# 3	0.01851	0.01851	ug/l	20.23	#VALUE!	
118	Sn	# 3	0.118	0.118	ug/l	9.67	#VALUE!	
121	Sb	# 3	0.1095	0.1095	ug/l	1.62	#VALUE!	
137	Ba	# 3	2.095	2.095	ug/l	1.73	#VALUE!	
201	Hg	# 3	0.008756	0.008756	ug/l	10.03	#VALUE!	
202	Hg	# 3	0.009303	0.009303	ug/l	16.12	#VALUE!	
203	Tl	# 3	0.01446	0.01446	ug/l	7.39	#VALUE!	
205	Tl	# 3	0.01534	0.01534	ug/l	5.55	#VALUE!	
208	Pb	# 3	0.1272	0.1272	ug/l	1.99	#VALUE!	
232	Th	# 3	0.05225	0.05225	ug/l	8.02	#VALUE!	
238	U	# 3	0.1766	0.1766	ug/l	1.93	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	475941.75	0.39	643928.69	73.9	60 - 125	
45	Sc	# 1	242113.83	0.20	329114.28	73.6	60 - 125	
45	Sc	# 3	689599.19	0.88	872836.06	79.0	60 - 125	
74	Ge	# 1	90052.63	0.90	122381.69	73.6	60 - 125	
74	Ge	# 2	16643.49	2.53	21667.30	76.8	60 - 125	
74	Ge	# 3	169408.59	1.12	224459.19	75.5	60 - 125	
89	Y	# 3	956143.63	1.92	1247149.90	76.7	60 - 125	
115	In	# 3	1032531.30	1.68	1396206.60	74.0	60 - 125	
159	Tb	# 3	1586316.30	1.26	2071474.10	76.6	60 - 125	
209	Bi	# 3	953347.56	0.29	1349994.40	70.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\230SMPL.D\230SMPL.D#
Date Acquired:	Mar 24 2009 11:31 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	21189-2
Misc Info:	3005 1/5
Vial Number:	3112
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.002945	0.002945	ug/l	78.00	#VALUE!	
11	B	# 3	6.429	6.429	ug/l	2.36	#VALUE!	
23	Na	# 1	1546	1546	ug/l	0.32	#VALUE!	
24	Mg	# 1	397.4	397.4	ug/l	0.52	#VALUE!	
27	Al	# 1	120.4	120.4	ug/l	2.60	#VALUE!	
39	K	# 2	-1.245	-1.245	ug/l	123.37	#VALUE!	
40	Ca	# 1	345	345	ug/l	0.44	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	1.745	1.745	ug/l	17.28	#VALUE!	
51	V	# 2	0.2503	0.2503	ug/l	14.43	#VALUE!	
52	Cr	# 2	0.2276	0.2276	ug/l	5.36	#VALUE!	
55	Mn	# 3	0.1153	0.1153	ug/l	2.86	#VALUE!	
56	Fe	# 1	85.83	85.83	ug/l	1.24	#VALUE!	
59	Co	# 3	0.01959	0.01959	ug/l	20.76	#VALUE!	
60	Ni	# 2	0.1083	0.1083	ug/l	2.02	#VALUE!	
63	Cu	# 2	0.05957	0.05957	ug/l	6.74	#VALUE!	
65	Cu	# 2	0.0683	0.0683	ug/l	21.20	#VALUE!	
65	Cu	# 3	0.05239	0.05239	ug/l	27.41	#VALUE!	
66	Zn	# 3	0.324	0.324	ug/l	10.69	#VALUE!	
68	Zn	# 3	0.2674	0.2674	ug/l	31.18	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.2131	0.2131	ug/l	3.32	#VALUE!	
78	Se	# 1	0.06499	0.06499	ug/l	16.31	#VALUE!	
88	Sr	# 3	3.46	3.46	ug/l	2.39	#VALUE!	
90	Zr	# 3	3.091	3.091	ug/l	6.51	#VALUE!	
91	Zr	# 3	2.996	2.996	ug/l	8.09	#VALUE!	
95	Mo	# 3	0.04402	0.04402	ug/l	33.19	#VALUE!	
107	Ag	# 3	0.01033	0.01033	ug/l	9.52	#VALUE!	
111	Cd	# 3	0.008394	0.008394	ug/l	20.80	#VALUE!	
118	Sn	# 3	0.03948	0.03948	ug/l	1.07	#VALUE!	
121	Sb	# 3	0.02928	0.02928	ug/l	14.88	#VALUE!	
137	Ba	# 3	0.3281	0.3281	ug/l	8.56	#VALUE!	
201	Hg	# 3	0.003554	0.003554	ug/l	49.63	#VALUE!	
202	Hg	# 3	0.003624	0.003624	ug/l	53.15	#VALUE!	
203	Tl	# 3	0.009682	0.009682	ug/l	4.21	#VALUE!	
205	Tl	# 3	0.009239	0.009239	ug/l	6.91	#VALUE!	
208	Pb	# 3	0.05955	0.05955	ug/l	7.98	#VALUE!	
232	Th	# 3	0.03723	0.03723	ug/l	6.42	#VALUE!	
238	U	# 3	0.004694	0.004694	ug/l	30.23	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	489085.66	0.88	643928.69	76.0	60 - 125	
45	Sc	# 1	244126.80	0.60	329114.28	74.2	60 - 125	
45	Sc	# 3	661069.63	2.60	872836.06	75.7	60 - 125	
74	Ge	# 1	92089.47	0.89	122381.69	75.2	60 - 125	
74	Ge	# 2	16461.05	2.74	21667.30	76.0	60 - 125	
74	Ge	# 3	166790.39	2.11	224459.19	74.3	60 - 125	
89	Y	# 3	932653.19	2.01	1247149.90	74.8	60 - 125	
115	In	# 3	1040783.80	1.95	1396206.60	74.5	60 - 125	
159	Tb	# 3	1580956.60	1.74	2071474.10	76.3	60 - 125	
209	Bi	# 3	1024885.70	3.18	1349994.40	75.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\231SMPL.D\231SMPL.D#
Date Acquired:	Mar 24 2009 11:37 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	21189-3
Misc Info:	3005 1/5
Vial Number:	3201
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step	
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.002098	0.002098	ug/l	97.00	#VALUE!	
11	B	# 3	4.183	4.183	ug/l	2.28	#VALUE!	
23	Na	# 1	1469	1469	ug/l	0.86	#VALUE!	
24	Mg	# 1	150.7	150.7	ug/l	0.25	#VALUE!	
27	Al	# 1	151	151	ug/l	0.74	#VALUE!	
39	K	# 2	46.75	46.75	ug/l	1.08	#VALUE!	
40	Ca	# 1	166.2	166.2	ug/l	0.99	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.8283	0.8283	ug/l	11.35	#VALUE!	
51	V	# 2	0.2827	0.2827	ug/l	7.45	#VALUE!	
52	Cr	# 2	0.2029	0.2029	ug/l	5.94	#VALUE!	
55	Mn	# 3	0.5984	0.5984	ug/l	2.82	#VALUE!	
56	Fe	# 1	116.4	116.4	ug/l	0.95	#VALUE!	
59	Co	# 3	0.01556	0.01556	ug/l	18.61	#VALUE!	
60	Ni	# 2	0.1271	0.1271	ug/l	12.14	#VALUE!	
63	Cu	# 2	0.01822	0.01822	ug/l	67.18	#VALUE!	
65	Cu	# 2	0.0286	0.0286	ug/l	45.73	#VALUE!	
65	Cu	# 3	0.01067	0.01067	ug/l	149.11	#VALUE!	
66	Zn	# 3	0.3897	0.3897	ug/l	9.97	#VALUE!	
68	Zn	# 3	0.4368	0.4368	ug/l	9.38	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.05797	0.05797	ug/l	9.37	#VALUE!	
78	Se	# 1	0.03372	0.03372	ug/l	12.65	#VALUE!	
88	Sr	# 3	1.086	1.086	ug/l	0.60	#VALUE!	
90	Zr	# 3	0.3237	0.3237	ug/l	4.35	#VALUE!	
91	Zr	# 3	0.3512	0.3512	ug/l	8.28	#VALUE!	
95	Mo	# 3	0.03287	0.03287	ug/l	9.40	#VALUE!	
107	Ag	# 3	0.002268	0.002268	ug/l	50.71	#VALUE!	
111	Cd	# 3	0.003901	0.003901	ug/l	66.68	#VALUE!	
118	Sn	# 3	0.02	0.02	ug/l	43.12	#VALUE!	
121	Sb	# 3	0.03341	0.03341	ug/l	7.13	#VALUE!	
137	Ba	# 3	0.8047	0.8047	ug/l	4.95	#VALUE!	
201	Hg	# 3	0.002454	0.002454	ug/l	81.91	#VALUE!	
202	Hg	# 3	0.0059	0.0059	ug/l	13.85	#VALUE!	
203	Tl	# 3	0.005556	0.005556	ug/l	29.36	#VALUE!	
205	Tl	# 3	0.005373	0.005373	ug/l	23.71	#VALUE!	
208	Pb	# 3	0.05707	0.05707	ug/l	6.58	#VALUE!	
232	Th	# 3	0.04684	0.04684	ug/l	1.33	#VALUE!	
238	U	# 3	0.00693	0.00693	ug/l	20.40	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	483463.22	1.27	643928.69	75.1	60 - 125	
45	Sc	# 1	242230.86	0.56	329114.28	73.6	60 - 125	
45	Sc	# 3	664251.13	0.81	872836.06	76.1	60 - 125	
74	Ge	# 1	92235.06	1.06	122381.69	75.4	60 - 125	
74	Ge	# 2	16801.12	1.34	21667.30	77.5	60 - 125	
74	Ge	# 3	167526.27	0.77	224459.19	74.6	60 - 125	
89	Y	# 3	937905.69	1.16	1247149.90	75.2	60 - 125	
115	In	# 3	1044947.70	0.81	1396206.60	74.8	60 - 125	
159	Tb	# 3	1579573.90	0.81	2071474.10	76.3	60 - 125	
209	Bi	# 3	1013671.10	0.90	1349994.40	75.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\232SMPL.D\232SMPL.D#
Date Acquired:	Mar 24 2009 11:44 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	21189-4
Misc Info:	3005 1/5
Vial Number:	3202
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.002542	0.002542	ug/l	27.35	#VALUE!	
11	B	# 3	1.539	1.539	ug/l	0.36	#VALUE!	
23	Na	# 1	1133	1133	ug/l	0.19	#VALUE!	
24	Mg	# 1	68.43	68.43	ug/l	0.11	#VALUE!	
27	Al	# 1	361.4	361.4	ug/l	1.34	#VALUE!	
39	K	# 2	4.54	4.54	ug/l	41.34	#VALUE!	
40	Ca	# 1	104.9	104.9	ug/l	1.06	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.5517	0.5517	ug/l	12.25	#VALUE!	
51	V	# 2	0.5626	0.5626	ug/l	6.45	#VALUE!	
52	Cr	# 2	0.2668	0.2668	ug/l	9.93	#VALUE!	
55	Mn	# 3	0.4065	0.4065	ug/l	1.33	#VALUE!	
56	Fe	# 1	258.7	258.7	ug/l	0.61	#VALUE!	
59	Co	# 3	0.03494	0.03494	ug/l	5.21	#VALUE!	
60	Ni	# 2	0.2458	0.2458	ug/l	8.67	#VALUE!	
63	Cu	# 2	-0.01848	-0.01848	ug/l	40.37	#VALUE!	
65	Cu	# 2	-0.01591	-0.01591	ug/l	15.61	#VALUE!	
65	Cu	# 3	-0.01674	-0.01674	ug/l	38.89	#VALUE!	
66	Zn	# 3	0.4574	0.4574	ug/l	7.74	#VALUE!	
68	Zn	# 3	0.5234	0.5234	ug/l	5.74	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.1146	0.1146	ug/l	15.49	#VALUE!	
78	Se	# 1	0.03154	0.03154	ug/l	36.53	#VALUE!	
88	Sr	# 3	0.8351	0.8351	ug/l	2.40	#VALUE!	
90	Zr	# 3	0.7691	0.7691	ug/l	2.80	#VALUE!	
91	Zr	# 3	0.7474	0.7474	ug/l	1.82	#VALUE!	
95	Mo	# 3	0.03325	0.03325	ug/l	20.25	#VALUE!	
107	Ag	# 3	0.003607	0.003607	ug/l	23.40	#VALUE!	
111	Cd	# 3	0.006085	0.006085	ug/l	16.63	#VALUE!	
118	Sn	# 3	0.01579	0.01579	ug/l	14.73	#VALUE!	
121	Sb	# 3	0.01195	0.01195	ug/l	14.59	#VALUE!	
137	Ba	# 3	1.224	1.224	ug/l	2.42	#VALUE!	
201	Hg	# 3	0.001612	0.001612	ug/l	74.07	#VALUE!	
202	Hg	# 3	0.005018	0.005018	ug/l	30.13	#VALUE!	
203	Tl	# 3	0.004894	0.004894	ug/l	24.36	#VALUE!	
205	Tl	# 3	0.003874	0.003874	ug/l	38.00	#VALUE!	
208	Pb	# 3	0.01302	0.01302	ug/l	8.76	#VALUE!	
232	Th	# 3	0.05103	0.05103	ug/l	2.81	#VALUE!	
238	U	# 3	0.009832	0.009832	ug/l	23.08	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	481818.31	2.33	643928.69	74.8	60 - 125	
45	Sc	# 1	243697.72	0.83	329114.28	74.0	60 - 125	
45	Sc	# 3	668955.13	1.10	872836.06	76.6	60 - 125	
74	Ge	# 1	91351.39	0.62	122381.69	74.6	60 - 125	
74	Ge	# 2	16883.46	2.38	21667.30	77.9	60 - 125	
74	Ge	# 3	166304.66	1.33	224459.19	74.1	60 - 125	
89	Y	# 3	941108.75	0.47	1247149.90	75.5	60 - 125	
115	In	# 3	1052808.90	1.22	1396206.60	75.4	60 - 125	
159	Tb	# 3	1601832.40	1.65	2071474.10	77.3	60 - 125	
209	Bi	# 3	1011692.10	1.11	1349994.40	74.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\233SMPL.D\233SMPL.D#
Date Acquired:	Mar 24 2009 11:51 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	28254-1
Misc Info:	3005 1/5
Vial Number:	3203
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.002066	0.002066	ug/l	132.24	#VALUE!	
11	B	# 3	4.23	4.23	ug/l	0.63	#VALUE!	
23	Na	# 1	6099	6099	ug/l	0.95	#VALUE!	
24	Mg	# 1	5728	5728	ug/l	1.07	#VALUE!	
27	Al	# 1	4.743	4.743	ug/l	0.57	#VALUE!	
39	K	# 2	288.1	288.1	ug/l	0.50	#VALUE!	
40	Ca	# 1	11930	11930	ug/l	0.43	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.4243	0.4243	ug/l	17.58	#VALUE!	
51	V	# 2	0.2672	0.2672	ug/l	4.40	#VALUE!	
52	Cr	# 2	0.1693	0.1693	ug/l	16.16	#VALUE!	
55	Mn	# 3	6.864	6.864	ug/l	0.88	#VALUE!	
56	Fe	# 1	558	558	ug/l	0.30	#VALUE!	
59	Co	# 3	0.02195	0.02195	ug/l	9.58	#VALUE!	
60	Ni	# 2	0.06377	0.06377	ug/l	22.50	#VALUE!	
63	Cu	# 2	0.1128	0.1128	ug/l	13.07	#VALUE!	
65	Cu	# 2	0.1394	0.1394	ug/l	8.98	#VALUE!	
65	Cu	# 3	0.1388	0.1388	ug/l	22.16	#VALUE!	
66	Zn	# 3	0.7393	0.7393	ug/l	5.51	#VALUE!	
68	Zn	# 3	0.833	0.833	ug/l	13.35	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.04839	0.04839	ug/l	26.72	#VALUE!	
78	Se	# 1	0.02986	0.02986	ug/l	28.56	#VALUE!	
88	Sr	# 3	19.23	19.23	ug/l	1.02	#VALUE!	
90	Zr	# 3	0.318	0.318	ug/l	2.63	#VALUE!	
91	Zr	# 3	0.3233	0.3233	ug/l	8.54	#VALUE!	
95	Mo	# 3	0.05651	0.05651	ug/l	9.00	#VALUE!	
107	Ag	# 3	0.002279	0.002279	ug/l	60.69	#VALUE!	
111	Cd	# 3	0.001067	0.001067	ug/l	90.26	#VALUE!	
118	Sn	# 3	0.02849	0.02849	ug/l	21.99	#VALUE!	
121	Sb	# 3	0.01087	0.01087	ug/l	10.00	#VALUE!	
137	Ba	# 3	2.266	2.266	ug/l	1.99	#VALUE!	
201	Hg	# 3	0.001005	0.001005	ug/l	192.84	#VALUE!	
202	Hg	# 3	0.004091	0.004091	ug/l	6.54	#VALUE!	
203	Tl	# 3	0.0009543	0.0009543	ug/l	65.17	#VALUE!	
205	Tl	# 3	0.002685	0.002685	ug/l	17.28	#VALUE!	
208	Pb	# 3	-0.0009646	-0.0009646	ug/l	32.06	#VALUE!	
232	Th	# 3	0.01531	0.01531	ug/l	10.35	#VALUE!	
238	U	# 3	0.004796	0.004796	ug/l	30.34	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	492737.19	1.44	643928.69	76.5	60 - 125	
45	Sc	# 1	243685.56	0.28	329114.28	74.0	60 - 125	
45	Sc	# 3	678551.00	1.12	872836.06	77.7	60 - 125	
74	Ge	# 1	91780.37	0.17	122381.69	75.0	60 - 125	
74	Ge	# 2	16777.01	2.08	21667.30	77.4	60 - 125	
74	Ge	# 3	169590.20	0.72	224459.19	75.6	60 - 125	
89	Y	# 3	949430.38	1.72	1247149.90	76.1	60 - 125	
115	In	# 3	1043297.60	0.84	1396206.60	74.7	60 - 125	
159	Tb	# 3	1596624.40	0.75	2071474.10	77.1	60 - 125	
209	Bi	# 3	993229.06	1.27	1349994.40	73.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\234SMPL.D\234SMPL.D#
Date Acquired:	Mar 24 2009 11:58 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	28254-2
Misc Info:	3005 1/5
Vial Number:	3204
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.0002602	0.0002602	ug/l	479.25	#VALUE!	
11	B	# 3	31.03	31.03	ug/l	2.12	#VALUE!	
23	Na	# 1	7116	7116	ug/l	0.51	#VALUE!	
24	Mg	# 1	4078	4078	ug/l	0.81	#VALUE!	
27	Al	# 1	12.21	12.21	ug/l	2.14	#VALUE!	
39	K	# 2	280.6	280.6	ug/l	1.08	#VALUE!	
40	Ca	# 1	8639	8639	ug/l	0.24	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.6689	0.6689	ug/l	5.91	#VALUE!	
51	V	# 2	0.4638	0.4638	ug/l	1.98	#VALUE!	
52	Cr	# 2	0.2087	0.2087	ug/l	2.84	#VALUE!	
55	Mn	# 3	4.773	4.773	ug/l	0.41	#VALUE!	
56	Fe	# 1	193.5	193.5	ug/l	0.36	#VALUE!	
59	Co	# 3	0.01185	0.01185	ug/l	7.25	#VALUE!	
60	Ni	# 2	0.0446	0.0446	ug/l	41.70	#VALUE!	
63	Cu	# 2	-0.009357	-0.009357	ug/l	110.93	#VALUE!	
65	Cu	# 2	-0.0006906	-0.0006906	ug/l	1988.10	#VALUE!	
65	Cu	# 3	0.02367	0.02367	ug/l	66.79	#VALUE!	
66	Zn	# 3	0.6757	0.6757	ug/l	6.80	#VALUE!	
68	Zn	# 3	0.6974	0.6974	ug/l	4.71	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.02829	0.02829	ug/l	60.48	#VALUE!	
78	Se	# 1	0.02105	0.02105	ug/l	32.96	#VALUE!	
88	Sr	# 3	17.65	17.65	ug/l	1.12	#VALUE!	
90	Zr	# 3	0.2502	0.2502	ug/l	1.31	#VALUE!	
91	Zr	# 3	0.2287	0.2287	ug/l	11.34	#VALUE!	
95	Mo	# 3	0.03075	0.03075	ug/l	30.86	#VALUE!	
107	Ag	# 3	0.001928	0.001928	ug/l	115.30	#VALUE!	
111	Cd	# 3	0.001617	0.001617	ug/l	0.53	#VALUE!	
118	Sn	# 3	0.009425	0.009425	ug/l	53.59	#VALUE!	
121	Sb	# 3	0.008531	0.008531	ug/l	15.65	#VALUE!	
137	Ba	# 3	1.963	1.963	ug/l	2.56	#VALUE!	
201	Hg	# 3	0.001881	0.001881	ug/l	137.85	#VALUE!	
202	Hg	# 3	0.004239	0.004239	ug/l	32.77	#VALUE!	
203	Tl	# 3	0.0006996	0.0006996	ug/l	149.94	#VALUE!	
205	Tl	# 3	-0.0007477	-0.0007477	ug/l	125.50	#VALUE!	
208	Pb	# 3	0.001044	0.001044	ug/l	110.44	#VALUE!	
232	Th	# 3	0.01319	0.01319	ug/l	11.99	#VALUE!	
238	U	# 3	0.007309	0.007309	ug/l	5.49	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	503650.78	2.04	643928.69	78.2	60 - 125	
45	Sc	# 1	248982.73	0.64	329114.28	75.7	60 - 125	
45	Sc	# 3	687868.56	0.94	872836.06	78.8	60 - 125	
74	Ge	# 1	92024.27	0.95	122381.69	75.2	60 - 125	
74	Ge	# 2	16978.41	1.21	21667.30	78.4	60 - 125	
74	Ge	# 3	167803.45	1.20	224459.19	74.8	60 - 125	
89	Y	# 3	947124.88	1.49	1247149.90	75.9	60 - 125	
115	In	# 3	1066549.60	0.03	1396206.60	76.4	60 - 125	
159	Tb	# 3	1626411.00	1.21	2071474.10	78.5	60 - 125	
209	Bi	# 3	1006754.60	0.83	1349994.40	74.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\235SMPL.D\235SMPL.D#
Date Acquired:	Mar 25 2009 12:04 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	28254-3
Misc Info:	3005 1/5
Vial Number:	3205
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.000586	-0.000586	ug/l	121.16	#VALUE!	
11	B	# 3	18.89	18.89	ug/l	0.05	#VALUE!	
23	Na	# 1	3940	3940	ug/l	0.86	#VALUE!	
24	Mg	# 1	4559	4559	ug/l	0.13	#VALUE!	
27	Al	# 1	4.399	4.399	ug/l	4.56	#VALUE!	
39	K	# 2	395.6	395.6	ug/l	1.47	#VALUE!	
40	Ca	# 1	15890	15890	ug/l	0.57	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.7749	0.7749	ug/l	1.73	#VALUE!	
51	V	# 2	1.083	1.083	ug/l	6.14	#VALUE!	
52	Cr	# 2	0.1257	0.1257	ug/l	6.81	#VALUE!	
55	Mn	# 3	18.71	18.71	ug/l	1.33	#VALUE!	
56	Fe	# 1	1991	1991	ug/l	0.87	#VALUE!	
59	Co	# 3	0.02186	0.02186	ug/l	12.90	#VALUE!	
60	Ni	# 2	0.05823	0.05823	ug/l	35.43	#VALUE!	
63	Cu	# 2	0.00154	0.00154	ug/l	317.01	#VALUE!	
65	Cu	# 2	0.008389	0.008389	ug/l	167.00	#VALUE!	
65	Cu	# 3	0.05931	0.05931	ug/l	21.55	#VALUE!	
66	Zn	# 3	0.5361	0.5361	ug/l	7.72	#VALUE!	
68	Zn	# 3	0.5118	0.5118	ug/l	8.14	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.04966	0.04966	ug/l	22.05	#VALUE!	
78	Se	# 1	0.008545	0.008545	ug/l	34.49	#VALUE!	
88	Sr	# 3	30.05	30.05	ug/l	0.91	#VALUE!	
90	Zr	# 3	0.2128	0.2128	ug/l	2.56	#VALUE!	
91	Zr	# 3	0.2197	0.2197	ug/l	10.93	#VALUE!	
95	Mo	# 3	0.02718	0.02718	ug/l	25.84	#VALUE!	
107	Ag	# 3	0.00217	0.00217	ug/l	59.08	#VALUE!	
111	Cd	# 3	0.004766	0.004766	ug/l	33.13	#VALUE!	
118	Sn	# 3	0.01754	0.01754	ug/l	28.32	#VALUE!	
121	Sb	# 3	0.00687	0.00687	ug/l	15.85	#VALUE!	
137	Ba	# 3	0.9576	0.9576	ug/l	4.48	#VALUE!	
201	Hg	# 3	0.002011	0.002011	ug/l	192.39	#VALUE!	
202	Hg	# 3	0.003868	0.003868	ug/l	15.97	#VALUE!	
203	Tl	# 3	-0.0008412	-0.0008412	ug/l	49.13	#VALUE!	
205	Tl	# 3	-0.0005287	-0.0005287	ug/l	233.40	#VALUE!	
208	Pb	# 3	0.004911	0.004911	ug/l	21.28	#VALUE!	
232	Th	# 3	0.008951	0.008951	ug/l	14.13	#VALUE!	
238	U	# 3	0.001433	0.001433	ug/l	30.09	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	520683.16	0.89	643928.69	80.9	60 - 125	
45	Sc	# 1	252362.58	0.88	329114.28	76.7	60 - 125	
45	Sc	# 3	721263.44	1.14	872836.06	82.6	60 - 125	
74	Ge	# 1	93530.97	0.96	122381.69	76.4	60 - 125	
74	Ge	# 2	17492.78	2.82	21667.30	80.7	60 - 125	
74	Ge	# 3	177438.97	1.27	224459.19	79.1	60 - 125	
89	Y	# 3	1006324.40	1.34	1247149.90	80.7	60 - 125	
115	In	# 3	1097937.60	0.60	1396206.60	78.6	60 - 125	
159	Tb	# 3	1673411.40	0.83	2071474.10	80.8	60 - 125	
209	Bi	# 3	1037349.90	1.31	1349994.40	76.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\236SMPL.D\236SMPL.D#
Date Acquired:	Mar 25 2009 12:11 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	28254-4
Misc Info:	3005 1/5
Vial Number:	3206
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.003123	0.003123	ug/l	59.72	#VALUE!	
11	B	# 3	60.45	60.45	ug/l	0.88	#VALUE!	
23	Na	# 1	8485	8485	ug/l	1.81	#VALUE!	
24	Mg	# 1	1980	1980	ug/l	1.56	#VALUE!	
27	Al	# 1	56.17	56.17	ug/l	1.84	#VALUE!	
39	K	# 2	302.1	302.1	ug/l	0.43	#VALUE!	
40	Ca	# 1	7265	7265	ug/l	0.83	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.3944	0.3944	ug/l	8.16	#VALUE!	
51	V	# 2	7.541	7.541	ug/l	1.68	#VALUE!	
52	Cr	# 2	0.1065	0.1065	ug/l	16.38	#VALUE!	
55	Mn	# 3	8.854	8.854	ug/l	1.15	#VALUE!	
56	Fe	# 1	1726	1726	ug/l	1.59	#VALUE!	
59	Co	# 3	0.01221	0.01221	ug/l	28.81	#VALUE!	
60	Ni	# 2	0.1367	0.1367	ug/l	15.03	#VALUE!	
63	Cu	# 2	0.01408	0.01408	ug/l	44.23	#VALUE!	
65	Cu	# 2	0.02334	0.02334	ug/l	26.71	#VALUE!	
65	Cu	# 3	0.04901	0.04901	ug/l	34.79	#VALUE!	
66	Zn	# 3	2.073	2.073	ug/l	2.13	#VALUE!	
68	Zn	# 3	2.059	2.059	ug/l	3.06	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.02709	0.02709	ug/l	21.45	#VALUE!	
78	Se	# 1	0.01347	0.01347	ug/l	69.04	#VALUE!	
88	Sr	# 3	11.37	11.37	ug/l	1.58	#VALUE!	
90	Zr	# 3	0.2446	0.2446	ug/l	5.95	#VALUE!	
91	Zr	# 3	0.2523	0.2523	ug/l	4.82	#VALUE!	
95	Mo	# 3	0.03975	0.03975	ug/l	19.42	#VALUE!	
107	Ag	# 3	0.001127	0.001127	ug/l	18.90	#VALUE!	
111	Cd	# 3	0.01126	0.01126	ug/l	13.80	#VALUE!	
118	Sn	# 3	0.01697	0.01697	ug/l	33.71	#VALUE!	
121	Sb	# 3	0.005655	0.005655	ug/l	12.07	#VALUE!	
137	Ba	# 3	1.076	1.076	ug/l	3.97	#VALUE!	
201	Hg	# 3	0.0009184	0.0009184	ug/l	251.52	#VALUE!	
202	Hg	# 3	0.00364	0.00364	ug/l	30.66	#VALUE!	
203	Tl	# 3	0.0001327	0.0001327	ug/l	844.76	#VALUE!	
205	Tl	# 3	-0.0003205	-0.0003205	ug/l	69.27	#VALUE!	
208	Pb	# 3	0.001339	0.001339	ug/l	82.90	#VALUE!	
232	Th	# 3	0.008855	0.008855	ug/l	10.52	#VALUE!	
238	U	# 3	0.002846	0.002846	ug/l	23.79	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	517434.06	2.11	643928.69	80.4	60 - 125	
45	Sc	# 1	254613.11	1.20	329114.28	77.4	60 - 125	
45	Sc	# 3	713870.69	0.55	872836.06	81.8	60 - 125	
74	Ge	# 1	94252.97	0.67	122381.69	77.0	60 - 125	
74	Ge	# 2	17382.25	3.29	21667.30	80.2	60 - 125	
74	Ge	# 3	175741.64	1.19	224459.19	78.3	60 - 125	
89	Y	# 3	992596.44	1.81	1247149.90	79.6	60 - 125	
115	In	# 3	1086524.60	0.87	1396206.60	77.8	60 - 125	
159	Tb	# 3	1643526.30	1.36	2071474.10	79.3	60 - 125	
209	Bi	# 3	1030907.60	1.44	1349994.40	76.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\237SMPL.D\237SMPL.D#
Date Acquired:	Mar 25 2009 12:18 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	28254-5
Misc Info:	3005 1/5
Vial Number:	3207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.0002971	0.0002971	ug/l	440.26	#VALUE!	
11	B	# 3	7.47	7.47	ug/l	1.41	#VALUE!	
23	Na	# 1	2922	2922	ug/l	0.26	#VALUE!	
24	Mg	# 1	8141	8141	ug/l	0.51	#VALUE!	
27	Al	# 1	4.86	4.86	ug/l	3.51	#VALUE!	
39	K	# 2	346	346	ug/l	2.00	#VALUE!	
40	Ca	# 1	16430	16430	ug/l	0.34	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.4747	0.4747	ug/l	5.79	#VALUE!	
51	V	# 2	1.476	1.476	ug/l	2.31	#VALUE!	
52	Cr	# 2	0.1733	0.1733	ug/l	5.94	#VALUE!	
55	Mn	# 3	4.166	4.166	ug/l	0.28	#VALUE!	
56	Fe	# 1	9.096	9.096	ug/l	0.62	#VALUE!	
59	Co	# 3	0.02343	0.02343	ug/l	9.32	#VALUE!	
60	Ni	# 2	0.04683	0.04683	ug/l	26.31	#VALUE!	
63	Cu	# 2	0.01273	0.01273	ug/l	43.83	#VALUE!	
65	Cu	# 2	0.01781	0.01781	ug/l	39.24	#VALUE!	
65	Cu	# 3	0.04607	0.04607	ug/l	45.02	#VALUE!	
66	Zn	# 3	0.336	0.336	ug/l	10.31	#VALUE!	
68	Zn	# 3	0.3778	0.3778	ug/l	8.01	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.03421	0.03421	ug/l	18.28	#VALUE!	
78	Se	# 1	0.005166	0.005166	ug/l	44.46	#VALUE!	
88	Sr	# 3	29.15	29.15	ug/l	0.91	#VALUE!	
90	Zr	# 3	0.1714	0.1714	ug/l	4.38	#VALUE!	
91	Zr	# 3	0.1691	0.1691	ug/l	14.65	#VALUE!	
95	Mo	# 3	0.02901	0.02901	ug/l	32.70	#VALUE!	
107	Ag	# 3	0.003087	0.003087	ug/l	43.60	#VALUE!	
111	Cd	# 3	0.006206	0.006206	ug/l	78.88	#VALUE!	
118	Sn	# 3	0.01187	0.01187	ug/l	17.94	#VALUE!	
121	Sb	# 3	0.006151	0.006151	ug/l	25.56	#VALUE!	
137	Ba	# 3	0.9129	0.9129	ug/l	6.95	#VALUE!	
201	Hg	# 3	0.0002593	0.0002593	ug/l	747.40	#VALUE!	
202	Hg	# 3	0.003698	0.003698	ug/l	36.94	#VALUE!	
203	Tl	# 3	-0.0005608	-0.0005608	ug/l	219.86	#VALUE!	
205	Tl	# 3	-0.002196	-0.002196	ug/l	56.79	#VALUE!	
208	Pb	# 3	0.02876	0.02876	ug/l	1.23	#VALUE!	
232	Th	# 3	0.006	0.006	ug/l	11.94	#VALUE!	
238	U	# 3	0.004614	0.004614	ug/l	10.24	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	499520.63	1.75	643928.69	77.6	60 - 125	
45	Sc	# 1	250353.06	0.76	329114.28	76.1	60 - 125	
45	Sc	# 3	681510.56	1.17	872836.06	78.1	60 - 125	
74	Ge	# 1	92415.76	0.53	122381.69	75.5	60 - 125	
74	Ge	# 2	16751.41	1.69	21667.30	77.3	60 - 125	
74	Ge	# 3	167830.95	0.99	224459.19	74.8	60 - 125	
89	Y	# 3	951021.13	1.09	1247149.90	76.3	60 - 125	
115	In	# 3	1030303.20	1.25	1396206.60	73.8	60 - 125	
159	Tb	# 3	1584369.90	1.13	2071474.10	76.5	60 - 125	
209	Bi	# 3	976021.31	0.87	1349994.40	72.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\238SMPL.D\238SMPL.D#
Date Acquired:	Mar 25 2009 12:25 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	28254-6
Misc Info:	3005 1/5
Vial Number:	3208
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element		Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	# 3	-0.0001502	-0.0001502	ug/l	975.37	#VALUE!	
11 B	# 3	11.09	11.09	ug/l	1.05	#VALUE!	
23 Na	# 1	4219	4219	ug/l	0.28	#VALUE!	
24 Mg	# 1	8894	8894	ug/l	0.91	#VALUE!	
27 Al	# 1	4.05	4.05	ug/l	2.13	#VALUE!	
39 K	# 2	333.1	333.1	ug/l	0.40	#VALUE!	
40 Ca	# 1	18700	18700	ug/l	0.45	#VALUE!	
45 Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47 Ti	# 3	0.4449	0.4449	ug/l	4.29	#VALUE!	
51 V	# 2	0.2289	0.2289	ug/l	8.47	#VALUE!	
52 Cr	# 2	0.2003	0.2003	ug/l	4.12	#VALUE!	
55 Mn	# 3	3.616	3.616	ug/l	1.02	#VALUE!	
56 Fe	# 1	17.21	17.21	ug/l	0.83	#VALUE!	
59 Co	# 3	0.02164	0.02164	ug/l	9.01	#VALUE!	
60 Ni	# 2	0.02485	0.02485	ug/l	41.29	#VALUE!	
63 Cu	# 2	-0.02861	-0.02861	ug/l	20.13	#VALUE!	
65 Cu	# 2	-0.02309	-0.02309	ug/l	1.65	#VALUE!	
65 Cu	# 3	0.0402	0.0402	ug/l	9.67	#VALUE!	
66 Zn	# 3	0.1464	0.1464	ug/l	19.56	#VALUE!	
68 Zn	# 3	0.1815	0.1815	ug/l	6.46	#VALUE!	
70 Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75 As	# 2	0.03705	0.03705	ug/l	39.70	#VALUE!	
78 Se	# 1	0.009061	0.009061	ug/l	103.98	#VALUE!	
88 Sr	# 3	222	222	ug/l	0.50	#VALUE!	
90 Zr	# 3	0.2641	0.2641	ug/l	2.73	#VALUE!	
91 Zr	# 3	0.2673	0.2673	ug/l	2.77	#VALUE!	
95 Mo	# 3	0.02631	0.02631	ug/l	14.37	#VALUE!	
107 Ag	# 3	0.001965	0.001965	ug/l	61.88	#VALUE!	
111 Cd	# 3	0.001115	0.001115	ug/l	88.19	#VALUE!	
118 Sn	# 3	0.007505	0.007505	ug/l	47.86	#VALUE!	
121 Sb	# 3	0.004791	0.004791	ug/l	31.35	#VALUE!	
137 Ba	# 3	1.629	1.629	ug/l	3.52	#VALUE!	
201 Hg	# 3	0.0004296	0.0004296	ug/l	718.11	#VALUE!	
202 Hg	# 3	0.00443	0.00443	ug/l	36.89	#VALUE!	
203 Tl	# 3	-0.002228	-0.002228	ug/l	15.83	#VALUE!	
205 Tl	# 3	-0.002218	-0.002218	ug/l	42.54	#VALUE!	
208 Pb	# 3	-0.00281	-0.00281	ug/l	43.20	#VALUE!	
232 Th	# 3	0.006455	0.006455	ug/l	10.62	#VALUE!	
238 U	# 3	0.009649	0.009649	ug/l	8.90	#VALUE!	

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	# 3	497305.78	1.81	643928.69	77.2	60 - 125	
45 Sc	# 1	246707.72	0.61	329114.28	75.0	60 - 125	
45 Sc	# 3	684987.31	1.84	872836.06	78.5	60 - 125	
74 Ge	# 1	90544.90	0.84	122381.69	74.0	60 - 125	
74 Ge	# 2	16725.46	3.03	21667.30	77.2	60 - 125	
74 Ge	# 3	166079.86	0.71	224459.19	74.0	60 - 125	
89 Y	# 3	934797.88	1.41	1247149.90	75.0	60 - 125	
115 In	# 3	1029254.30	1.62	1396206.60	73.7	60 - 125	
159 Tb	# 3	1570465.10	1.49	2071474.10	75.8	60 - 125	
209 Bi	# 3	966552.88	1.53	1349994.40	71.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\239_CCV.D\239_CCV.D#
Date Acquired: Mar 25 2009 12:32 am
Operator: BB
Sample Name: CCV 50/5000
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	52.41 ug/l	1.23	50.00	90 - 110	
11	B	# 3	90.1 ug/l	2.11	100.00	90 - 110	
23	Na	# 1	4840 ug/l	0.46	5000.00	90 - 110	
24	Mg	# 1	4910 ug/l	0.87	5000.00	90 - 110	
27	Al	# 1	495.5 ug/l	1.20	500.00	90 - 110	
39	K	# 2	4552 ug/l	0.71	5000.00	90 - 110	
40	Ca	# 1	4904 ug/l	1.18	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	50 ug/l	2.75	50.00	90 - 110	
51	V	# 2	48.82 ug/l	0.86	50.00	90 - 110	
52	Cr	# 2	48.15 ug/l	1.56	50.00	90 - 110	
55	Mn	# 3	474.5 ug/l	0.28	500.00	90 - 110	
56	Fe	# 1	4991 ug/l	0.65	5000.00	90 - 110	
59	Co	# 3	49.16 ug/l	1.10	50.00	90 - 110	
60	Ni	# 2	49.64 ug/l	2.19	50.00	90 - 110	
63	Cu	# 2	49.98 ug/l	1.73	50.00	90 - 110	
65	Cu	# 2	50.01 ug/l	1.57	50.00	90 - 110	
65	Cu	# 3	50.62 ug/l	0.53	50.00	90 - 110	
66	Zn	# 3	48.35 ug/l	0.80	50.00	90 - 110	
68	Zn	# 3	48.18 ug/l	0.82	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	50.37 ug/l	1.12	50.00	90 - 110	
78	Se	# 1	47.84 ug/l	0.33	50.00	90 - 110	
88	Sr	# 3	49.38 ug/l	0.31	50.00	90 - 110	
90	Zr	# 3	497.8 ug/l	0.62	500.00	90 - 110	
91	Zr	# 3	504.1 ug/l	0.44	500.00	90 - 110	
95	Mo	# 3	50.31 ug/l	0.28	50.00	90 - 110	
107	Ag	# 3	49.61 ug/l	0.65	50.00	90 - 110	
111	Cd	# 3	49.25 ug/l	0.20	50.00	90 - 110	
118	Sn	# 3	49.09 ug/l	0.05	50.00	90 - 110	
121	Sb	# 3	48.91 ug/l	0.33	50.00	90 - 110	
137	Ba	# 3	49.19 ug/l	0.98	50.00	90 - 110	
201	Hg	# 3	2.532 ug/l	0.95	2.50	90 - 110	
202	Hg	# 3	2.522 ug/l	1.57	2.50	90 - 110	
203	Tl	# 3	9.414 ug/l	0.58	10.00	90 - 110	
205	Tl	# 3	9.345 ug/l	0.75	10.00	90 - 110	
208	Pb	# 3	45.38 ug/l	0.54	50.00	90 - 110	
232	Th	# 3	48.76 ug/l	0.80	---	##### - #####	
238	U	# 3	47.57 ug/l	0.60	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	468977.44	2.22	643928.69	72.8	60 - 125	
45	Sc	# 1	251153.55	0.93	329114.28	76.3	60 - 125	
45	Sc	# 3	687371.63	0.85	872836.06	78.8	60 - 125	
74	Ge	# 1	94746.08	0.76	122381.69	77.4	60 - 125	
74	Ge	# 2	17397.83	2.82	21667.30	80.3	60 - 125	
74	Ge	# 3	170771.05	1.11	224459.19	76.1	60 - 125	
89	Y	# 3	958860.31	0.95	1247149.90	76.9	60 - 125	
115	In	# 3	1047617.60	0.95	1396206.60	75.0	60 - 125	
159	Tb	# 3	1567427.30	1.56	2071474.10	75.7	60 - 125	
209	Bi	# 3	960422.06	0.94	1349994.40	71.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\240_CCB.D\240_CCB.D#
Date Acquired: Mar 25 2009 12:38 am
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.006569 ug/l	46.72	#VALUE!	
11 B	0.8068 ug/l	13.75	#VALUE!	
23 Na	-32.29 ug/l	1.07	#VALUE!	
24 Mg	0.699 ug/l	11.56	#VALUE!	
27 Al	0.1705 ug/l	26.69	#VALUE!	
39 K	-7.869 ug/l	12.71	#VALUE!	
40 Ca	-0.07791 ug/l	44.91	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.02167 ug/l	44.26	#VALUE!	
51 V	-0.007718 ug/l	59.12	#VALUE!	
52 Cr	0.000343 ug/l	1703.50	#VALUE!	
55 Mn	0.03939 ug/l	14.43	#VALUE!	
56 Fe	1.168 ug/l	3.47	#VALUE!	
59 Co	0.0005704 ug/l	199.16	#VALUE!	
60 Ni	-0.0335 ug/l	19.02	#VALUE!	
63 Cu	-0.03392 ug/l	10.82	#VALUE!	
65 Cu	-0.02784 ug/l	24.37	#VALUE!	
65 Cu	-0.04634 ug/l	22.64	#VALUE!	
66 Zn	-0.1452 ug/l	9.75	#VALUE!	
68 Zn	-0.1637 ug/l	16.02	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.02214 ug/l	54.70	#VALUE!	
78 Se	0.06364 ug/l	25.64	#VALUE!	
88 Sr	0.002519 ug/l	30.73	#VALUE!	
90 Zr	0.4701 ug/l	3.01	#VALUE!	
91 Zr	0.4666 ug/l	11.10	#VALUE!	
95 Mo	0.102 ug/l	15.93	#VALUE!	
107 Ag	0.008763 ug/l	23.07	#VALUE!	
111 Cd	0.007029 ug/l	83.06	#VALUE!	
118 Sn	0.06442 ug/l	8.72	#VALUE!	
121 Sb	0.02661 ug/l	9.62	#VALUE!	
137 Ba	0.0005326 ug/l	311.68	#VALUE!	
201 Hg	0.03 ug/l	4.98	#VALUE!	
202 Hg	0.03245 ug/l	10.84	#VALUE!	
203 Tl	0.0319 ug/l	14.44	#VALUE!	
205 Tl	0.02643 ug/l	8.26	#VALUE!	
208 Pb	0.003864 ug/l	13.70	#VALUE!	
232 Th	0.05601 ug/l	5.80	#VALUE!	
238 U	0.008282 ug/l	18.10	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	479912.44	1.71	643928.69	74.5	60 - 125	
45 Sc	255700.77	0.56	329114.28	77.7	60 - 125	
45 Sc	689196.69	0.86	872836.06	79.0	60 - 125	
74 Ge	97045.55	1.29	122381.69	79.3	60 - 125	
74 Ge	18011.26	0.66	21667.30	83.1	60 - 125	
74 Ge	175024.78	1.17	224459.19	78.0	60 - 125	
89 Y	970143.00	1.48	1247149.90	77.8	60 - 125	
115 In	1072204.40	1.22	1396206.60	76.8	60 - 125	
159 Tb	1563597.10	0.53	2071474.10	75.5	60 - 125	
209 Bi	1001684.80	2.08	1349994.40	74.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\241SMPL.D\241SMPL.D#
Date Acquired:	Mar 25 2009 12:45 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	28254-7
Misc Info:	3005 1/5
Vial Number:	3209
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.006535	0.006535	ug/l	40.46	#VALUE!	
11	B	# 3	62.93	62.93	ug/l	0.74	#VALUE!	
23	Na	# 1	7741	7741	ug/l	0.69	#VALUE!	
24	Mg	# 1	4399	4399	ug/l	0.32	#VALUE!	
27	Al	# 1	35.22	35.22	ug/l	0.57	#VALUE!	
39	K	# 2	1099	1099	ug/l	0.77	#VALUE!	
40	Ca	# 1	13430	13430	ug/l	1.41	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.3111	0.3111	ug/l	20.84	#VALUE!	
51	V	# 2	0.3057	0.3057	ug/l	6.99	#VALUE!	
52	Cr	# 2	0.1135	0.1135	ug/l	21.82	#VALUE!	
55	Mn	# 3	3.08	3.08	ug/l	0.53	#VALUE!	
56	Fe	# 1	1232	1232	ug/l	0.30	#VALUE!	
59	Co	# 3	0.5748	0.5748	ug/l	2.41	#VALUE!	
60	Ni	# 2	1.194	1.194	ug/l	2.96	#VALUE!	
63	Cu	# 2	0.008612	0.008612	ug/l	172.55	#VALUE!	
65	Cu	# 2	0.01556	0.01556	ug/l	130.40	#VALUE!	
65	Cu	# 3	0.07561	0.07561	ug/l	32.63	#VALUE!	
66	Zn	# 3	11.59	11.59	ug/l	0.89	#VALUE!	
68	Zn	# 3	11.28	11.28	ug/l	0.47	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	2.706	2.706	ug/l	3.69	#VALUE!	
78	Se	# 1	0.143	0.143	ug/l	10.83	#VALUE!	
88	Sr	# 3	166.3	166.3	ug/l	0.56	#VALUE!	
90	Zr	# 3	1.655	1.655	ug/l	4.41	#VALUE!	
91	Zr	# 3	1.668	1.668	ug/l	9.24	#VALUE!	
95	Mo	# 3	22.95	22.95	ug/l	0.95	#VALUE!	
107	Ag	# 3	0.01083	0.01083	ug/l	29.56	#VALUE!	
111	Cd	# 3	0.01786	0.01786	ug/l	56.94	#VALUE!	
118	Sn	# 3	0.04648	0.04648	ug/l	19.67	#VALUE!	
121	Sb	# 3	2.337	2.337	ug/l	1.72	#VALUE!	
137	Ba	# 3	1.756	1.756	ug/l	3.77	#VALUE!	
201	Hg	# 3	0.004333	0.004333	ug/l	80.27	#VALUE!	
202	Hg	# 3	0.006264	0.006264	ug/l	18.63	#VALUE!	
203	Tl	# 3	0.5196	0.5196	ug/l	2.68	#VALUE!	
205	Tl	# 3	0.5197	0.5197	ug/l	2.17	#VALUE!	
208	Pb	# 3	0.01323	0.01323	ug/l	16.08	#VALUE!	
232	Th	# 3	0.04522	0.04522	ug/l	11.76	#VALUE!	
238	U	# 3	0.005356	0.005356	ug/l	19.94	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	480612.38	1.92	643928.69	74.6	60 - 125	
45	Sc	# 1	245182.27	1.08	329114.28	74.5	60 - 125	
45	Sc	# 3	695312.44	1.81	872836.06	79.7	60 - 125	
74	Ge	# 1	92194.63	1.15	122381.69	75.3	60 - 125	
74	Ge	# 2	17476.45	3.41	21667.30	80.7	60 - 125	
74	Ge	# 3	173807.08	0.80	224459.19	77.4	60 - 125	
89	Y	# 3	969131.88	1.09	1247149.90	77.7	60 - 125	
115	In	# 3	1044238.90	1.53	1396206.60	74.8	60 - 125	
159	Tb	# 3	1572328.80	0.81	2071474.10	75.9	60 - 125	
209	Bi	# 3	970589.44	1.38	1349994.40	71.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\242SMPL.D\242SMPL.D#
Date Acquired:	Mar 25 2009 12:52 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	28254-8
Misc Info:	3005 1/5
Vial Number:	3210
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.07686	0.07686	ug/l	14.44	#VALUE!	
11	B	# 3	5.129	5.129	ug/l	2.07	#VALUE!	
23	Na	# 1	2669	2669	ug/l	1.39	#VALUE!	
24	Mg	# 1	408.3	408.3	ug/l	1.99	#VALUE!	
27	Al	# 1	70.11	70.11	ug/l	1.05	#VALUE!	
39	K	# 2	939.9	939.9	ug/l	1.70	#VALUE!	
40	Ca	# 1	7031	7031	ug/l	0.49	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.5003	0.5003	ug/l	11.49	#VALUE!	
51	V	# 2	0.5297	0.5297	ug/l	2.20	#VALUE!	
52	Cr	# 2	0.1373	0.1373	ug/l	13.71	#VALUE!	
55	Mn	# 3	0.1681	0.1681	ug/l	1.41	#VALUE!	
56	Fe	# 1	6.487	6.487	ug/l	2.27	#VALUE!	
59	Co	# 3	0.06951	0.06951	ug/l	4.27	#VALUE!	
60	Ni	# 2	0.476	0.476	ug/l	11.57	#VALUE!	
63	Cu	# 2	0.1093	0.1093	ug/l	15.92	#VALUE!	
65	Cu	# 2	0.1261	0.1261	ug/l	4.56	#VALUE!	
65	Cu	# 3	0.1318	0.1318	ug/l	25.54	#VALUE!	
66	Zn	# 3	0.6358	0.6358	ug/l	8.41	#VALUE!	
68	Zn	# 3	1.341	1.341	ug/l	8.42	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.1798	0.1798	ug/l	3.30	#VALUE!	
78	Se	# 1	0.1133	0.1133	ug/l	13.88	#VALUE!	
88	Sr	# 3	98.35	98.35	ug/l	0.75	#VALUE!	
90	Zr	# 3	1.475	1.475	ug/l	3.60	#VALUE!	
91	Zr	# 3	1.405	1.405	ug/l	5.54	#VALUE!	
95	Mo	# 3	1.196	1.196	ug/l	3.10	#VALUE!	
107	Ag	# 3	0.007569	0.007569	ug/l	27.52	#VALUE!	
111	Cd	# 3	0.01159	0.01159	ug/l	21.92	#VALUE!	
118	Sn	# 3	0.03775	0.03775	ug/l	7.11	#VALUE!	
121	Sb	# 3	0.0472	0.0472	ug/l	10.53	#VALUE!	
137	Ba	# 3	27.9	27.9	ug/l	1.54	#VALUE!	
201	Hg	# 3	0.004266	0.004266	ug/l	67.18	#VALUE!	
202	Hg	# 3	0.008851	0.008851	ug/l	14.34	#VALUE!	
203	Tl	# 3	0.005103	0.005103	ug/l	33.61	#VALUE!	
205	Tl	# 3	0.006678	0.006678	ug/l	14.72	#VALUE!	
208	Pb	# 3	0.04259	0.04259	ug/l	2.71	#VALUE!	
232	Th	# 3	0.02394	0.02394	ug/l	4.72	#VALUE!	
238	U	# 3	0.03007	0.03007	ug/l	1.75	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	467005.56	0.76	643928.69	72.5	60 - 125	
45	Sc	# 1	238922.36	0.94	329114.28	72.6	60 - 125	
45	Sc	# 3	655445.81	1.05	872836.06	75.1	60 - 125	
74	Ge	# 1	90713.50	0.81	122381.69	74.1	60 - 125	
74	Ge	# 2	16908.37	2.18	21667.30	78.0	60 - 125	
74	Ge	# 3	165392.88	0.24	224459.19	73.7	60 - 125	
89	Y	# 3	911192.38	0.46	1247149.90	73.1	60 - 125	
115	In	# 3	1015635.30	0.95	1396206.60	72.7	60 - 125	
159	Tb	# 3	1534073.30	1.14	2071474.10	74.1	60 - 125	
209	Bi	# 3	975338.19	0.87	1349994.40	72.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\243SMPL.D\243SMPL.D#
Date Acquired:	Mar 25 2009 12:58 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	21208-2
Misc Info:	3005 1/5
Vial Number:	3211
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.001734	0.001734	ug/l	207.21	#VALUE!	
11	B	# 3	12.44	12.44	ug/l	2.14	#VALUE!	
23	Na	# 1	3980	3980	ug/l	0.41	#VALUE!	
24	Mg	# 1	1694	1694	ug/l	0.71	#VALUE!	
27	Al	# 1	97.61	97.61	ug/l	0.42	#VALUE!	
39	K	# 2	88.14	88.14	ug/l	0.72	#VALUE!	
40	Ca	# 1	2308	2308	ug/l	1.00	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.3352	0.3352	ug/l	11.70	#VALUE!	
51	V	# 2	0.2902	0.2902	ug/l	4.14	#VALUE!	
52	Cr	# 2	0.1958	0.1958	ug/l	5.89	#VALUE!	
55	Mn	# 3	5.511	5.511	ug/l	1.17	#VALUE!	
56	Fe	# 1	163.8	163.8	ug/l	0.12	#VALUE!	
59	Co	# 3	0.03728	0.03728	ug/l	10.53	#VALUE!	
60	Ni	# 2	0.1206	0.1206	ug/l	25.16	#VALUE!	
63	Cu	# 2	0.2972	0.2972	ug/l	6.33	#VALUE!	
65	Cu	# 2	0.2635	0.2635	ug/l	6.71	#VALUE!	
65	Cu	# 3	0.2875	0.2875	ug/l	18.53	#VALUE!	
66	Zn	# 3	2.253	2.253	ug/l	3.77	#VALUE!	
68	Zn	# 3	2.298	2.298	ug/l	5.00	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.1561	0.1561	ug/l	9.18	#VALUE!	
78	Se	# 1	0.02955	0.02955	ug/l	13.20	#VALUE!	
88	Sr	# 3	13.14	13.14	ug/l	2.38	#VALUE!	
90	Zr	# 3	2.915	2.915	ug/l	8.54	#VALUE!	
91	Zr	# 3	2.761	2.761	ug/l	9.86	#VALUE!	
95	Mo	# 3	0.05659	0.05659	ug/l	10.76	#VALUE!	
107	Ag	# 3	0.007353	0.007353	ug/l	18.56	#VALUE!	
111	Cd	# 3	0.006292	0.006292	ug/l	30.20	#VALUE!	
118	Sn	# 3	0.03878	0.03878	ug/l	12.78	#VALUE!	
121	Sb	# 3	0.04747	0.04747	ug/l	7.68	#VALUE!	
137	Ba	# 3	3.37	3.37	ug/l	0.54	#VALUE!	
201	Hg	# 3	0.003252	0.003252	ug/l	86.50	#VALUE!	
202	Hg	# 3	0.004607	0.004607	ug/l	17.23	#VALUE!	
203	Tl	# 3	0.002617	0.002617	ug/l	82.16	#VALUE!	
205	Tl	# 3	0.003348	0.003348	ug/l	58.72	#VALUE!	
208	Pb	# 3	1.247	1.247	ug/l	1.02	#VALUE!	
232	Th	# 3	0.01781	0.01781	ug/l	8.47	#VALUE!	
238	U	# 3	0.001919	0.001919	ug/l	37.42	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	471643.16	2.21	643928.69	73.2	60 - 125	
45	Sc	# 1	236752.11	0.47	329114.28	71.9	60 - 125	
45	Sc	# 3	650039.63	0.55	872836.06	74.5	60 - 125	
74	Ge	# 1	89891.48	1.06	122381.69	73.5	60 - 125	
74	Ge	# 2	16389.08	3.00	21667.30	75.6	60 - 125	
74	Ge	# 3	164043.16	1.41	224459.19	73.1	60 - 125	
89	Y	# 3	920580.94	2.67	1247149.90	73.8	60 - 125	
115	In	# 3	1011163.80	1.56	1396206.60	72.4	60 - 125	
159	Tb	# 3	1533116.40	1.97	2071474.10	74.0	60 - 125	
209	Bi	# 3	968980.69	1.36	1349994.40	71.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\244SMPL.D\244SMPL.D#
Date Acquired:	Mar 25 2009 01:05 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	21208-3
Misc Info:	3005 1/5
Vial Number:	3212
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.005958	0.005958	ug/l	47.06	#VALUE!	
11	B	# 3	4.17	4.17	ug/l	2.07	#VALUE!	
23	Na	# 1	2147	2147	ug/l	0.82	#VALUE!	
24	Mg	# 1	266.2	266.2	ug/l	0.17	#VALUE!	
27	Al	# 1	172	172	ug/l	0.36	#VALUE!	
39	K	# 2	73.85	73.85	ug/l	2.70	#VALUE!	
40	Ca	# 1	215.3	215.3	ug/l	0.55	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	1.038	1.038	ug/l	1.87	#VALUE!	
51	V	# 2	0.3612	0.3612	ug/l	4.40	#VALUE!	
52	Cr	# 2	0.2407	0.2407	ug/l	4.74	#VALUE!	
55	Mn	# 3	1.053	1.053	ug/l	0.13	#VALUE!	
56	Fe	# 1	92.82	92.82	ug/l	0.31	#VALUE!	
59	Co	# 3	0.01367	0.01367	ug/l	7.72	#VALUE!	
60	Ni	# 2	0.1307	0.1307	ug/l	13.33	#VALUE!	
63	Cu	# 2	0.1296	0.1296	ug/l	14.07	#VALUE!	
65	Cu	# 2	0.1473	0.1473	ug/l	7.22	#VALUE!	
65	Cu	# 3	0.1486	0.1486	ug/l	2.29	#VALUE!	
66	Zn	# 3	1.16	1.16	ug/l	2.13	#VALUE!	
68	Zn	# 3	1.181	1.181	ug/l	2.23	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.08896	0.08896	ug/l	25.25	#VALUE!	
78	Se	# 1	0.04414	0.04414	ug/l	9.14	#VALUE!	
88	Sr	# 3	2.61	2.61	ug/l	0.71	#VALUE!	
90	Zr	# 3	2.149	2.149	ug/l	5.24	#VALUE!	
91	Zr	# 3	2.108	2.108	ug/l	6.20	#VALUE!	
95	Mo	# 3	0.03635	0.03635	ug/l	39.86	#VALUE!	
107	Ag	# 3	0.004272	0.004272	ug/l	32.56	#VALUE!	
111	Cd	# 3	0.009307	0.009307	ug/l	40.22	#VALUE!	
118	Sn	# 3	0.02295	0.02295	ug/l	6.10	#VALUE!	
121	Sb	# 3	0.03864	0.03864	ug/l	13.04	#VALUE!	
137	Ba	# 3	1.071	1.071	ug/l	4.24	#VALUE!	
201	Hg	# 3	0.003491	0.003491	ug/l	66.49	#VALUE!	
202	Hg	# 3	0.005915	0.005915	ug/l	26.26	#VALUE!	
203	Tl	# 3	0.002365	0.002365	ug/l	50.74	#VALUE!	
205	Tl	# 3	0.001384	0.001384	ug/l	110.33	#VALUE!	
208	Pb	# 3	0.7884	0.7884	ug/l	1.79	#VALUE!	
232	Th	# 3	0.02295	0.02295	ug/l	5.53	#VALUE!	
238	U	# 3	0.006576	0.006576	ug/l	20.82	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	461599.72	0.57	643928.69	71.7	60 - 125	
45	Sc	# 1	235184.88	0.36	329114.28	71.5	60 - 125	
45	Sc	# 3	646468.69	0.91	872836.06	74.1	60 - 125	
74	Ge	# 1	89081.02	0.58	122381.69	72.8	60 - 125	
74	Ge	# 2	16372.04	2.49	21667.30	75.6	60 - 125	
74	Ge	# 3	162071.75	1.20	224459.19	72.2	60 - 125	
89	Y	# 3	913260.94	1.50	1247149.90	73.2	60 - 125	
115	In	# 3	1004989.60	1.30	1396206.60	72.0	60 - 125	
159	Tb	# 3	1524485.40	0.86	2071474.10	73.6	60 - 125	
209	Bi	# 3	976183.19	2.09	1349994.40	72.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C23100.B\245SMPL.D\245SMPL.D#
Date Acquired:	Mar 25 2009 01:12 am
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	21208-4
Misc Info:	3005 1/5
Vial Number:	3301
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 23 2009 12:56 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	-0.0001298	-0.0001298	ug/l	1155.60	#VALUE!	
11	B	# 3	-0.006769	-0.006769	ug/l	330.18	#VALUE!	
23	Na	# 1	-33.3	-33.3	ug/l	0.47	#VALUE!	
24	Mg	# 1	0.1929	0.1929	ug/l	15.39	#VALUE!	
27	Al	# 1	3.743	3.743	ug/l	2.64	#VALUE!	
39	K	# 2	-5.451	-5.451	ug/l	12.55	#VALUE!	
40	Ca	# 1	3.188	3.188	ug/l	3.10	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.08672	0.08672	ug/l	13.24	#VALUE!	
51	V	# 2	0.1776	0.1776	ug/l	8.34	#VALUE!	
52	Cr	# 2	0.08165	0.08165	ug/l	23.93	#VALUE!	
55	Mn	# 3	0.01213	0.01213	ug/l	25.61	#VALUE!	
56	Fe	# 1	0.4966	0.4966	ug/l	3.89	#VALUE!	
59	Co	# 3	-0.002154	-0.002154	ug/l	7.36	#VALUE!	
60	Ni	# 2	0.01297	0.01297	ug/l	90.67	#VALUE!	
63	Cu	# 2	0.02838	0.02838	ug/l	33.82	#VALUE!	
65	Cu	# 2	0.03529	0.03529	ug/l	51.49	#VALUE!	
65	Cu	# 3	0.02049	0.02049	ug/l	56.96	#VALUE!	
66	Zn	# 3	0.09206	0.09206	ug/l	20.89	#VALUE!	
68	Zn	# 3	0.1194	0.1194	ug/l	28.00	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.02513	0.02513	ug/l	34.89	#VALUE!	
78	Se	# 1	0.009415	0.009415	ug/l	66.87	#VALUE!	
88	Sr	# 3	0.003399	0.003399	ug/l	41.16	#VALUE!	
90	Zr	# 3	0.1896	0.1896	ug/l	4.34	#VALUE!	
91	Zr	# 3	0.1769	0.1769	ug/l	10.64	#VALUE!	
95	Mo	# 3	0.02123	0.02123	ug/l	24.20	#VALUE!	
107	Ag	# 3	0.001745	0.001745	ug/l	50.34	#VALUE!	
111	Cd	# 3	-1.877E-005	-1.877E-005	ug/l	24.21	#VALUE!	
118	Sn	# 3	0.005058	0.005058	ug/l	46.50	#VALUE!	
121	Sb	# 3	0.01147	0.01147	ug/l	8.90	#VALUE!	
137	Ba	# 3	0.004733	0.004733	ug/l	54.26	#VALUE!	
201	Hg	# 3	0.001212	0.001212	ug/l	91.83	#VALUE!	
202	Hg	# 3	0.004576	0.004576	ug/l	14.94	#VALUE!	
203	Tl	# 3	-0.001095	-0.001095	ug/l	132.60	#VALUE!	
205	Tl	# 3	-0.000996	-0.000996	ug/l	55.48	#VALUE!	
208	Pb	# 3	0.0003747	0.0003747	ug/l	465.44	#VALUE!	
232	Th	# 3	0.005696	0.005696	ug/l	7.30	#VALUE!	
238	U	# 3	-3.712E-005	-3.712E-005	ug/l	697.47	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	486080.19	1.84	643928.69	75.5	60 - 125	
45	Sc	# 1	239693.66	0.12	329114.28	72.8	60 - 125	
45	Sc	# 3	671664.44	0.97	872836.06	77.0	60 - 125	
74	Ge	# 1	91468.48	0.96	122381.69	74.7	60 - 125	
74	Ge	# 2	16799.27	1.74	21667.30	77.5	60 - 125	
74	Ge	# 3	169487.84	0.68	224459.19	75.5	60 - 125	
89	Y	# 3	938207.06	0.26	1247149.90	75.2	60 - 125	
115	In	# 3	1050453.90	1.83	1396206.60	75.2	60 - 125	
159	Tb	# 3	1566877.30	0.71	2071474.10	75.6	60 - 125	
209	Bi	# 3	996792.81	1.28	1349994.40	73.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\246_CCV.D\246_CCV.D#
Date Acquired: Mar 25 2009 01:19 am
Operator: BB
Sample Name: CCV
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element		Conc.	RSD(%)	Expected	QC Range(%)	Flag
9 Be	# 3	52.67 ug/l	1.59	50.00	90 - 110	
11 B	# 3	86.91 ug/l	1.77	100.00	90 - 110	Fail
23 Na	# 1	4816 ug/l	0.30	5000.00	90 - 110	
24 Mg	# 1	4856 ug/l	0.41	5000.00	90 - 110	
27 Al	# 1	493.3 ug/l	0.57	500.00	90 - 110	
39 K	# 2	4486 ug/l	0.28	5000.00	90 - 110	Fail
40 Ca	# 1	4915 ug/l	0.14	5000.00	90 - 110	
45 Sc	# 2	-------- ug/l	--------	---	##### - #####	
47 Ti	# 3	51.32 ug/l	0.88	50.00	90 - 110	
51 V	# 2	48.1 ug/l	1.29	50.00	90 - 110	
52 Cr	# 2	47.39 ug/l	0.68	50.00	90 - 110	
55 Mn	# 3	472.2 ug/l	0.93	500.00	90 - 110	
56 Fe	# 1	4994 ug/l	0.87	5000.00	90 - 110	
59 Co	# 3	47.87 ug/l	4.21	50.00	90 - 110	
60 Ni	# 2	48.86 ug/l	0.82	50.00	90 - 110	
63 Cu	# 2	49.29 ug/l	1.58	50.00	90 - 110	
65 Cu	# 2	48.87 ug/l	0.68	50.00	90 - 110	
65 Cu	# 3	49.98 ug/l	1.04	50.00	90 - 110	
66 Zn	# 3	48 ug/l	0.66	50.00	90 - 110	
68 Zn	# 3	48.02 ug/l	1.23	50.00	90 - 110	
70 Ge	# 2	-------- ug/l	--------	---	##### - #####	
75 As	# 2	50 ug/l	1.24	50.00	90 - 110	
78 Se	# 1	46.79 ug/l	0.59	50.00	90 - 110	
88 Sr	# 3	49.64 ug/l	0.15	50.00	90 - 110	
90 Zr	# 3	494.2 ug/l	0.21	500.00	90 - 110	
91 Zr	# 3	504.3 ug/l	0.58	500.00	90 - 110	
95 Mo	# 3	50.36 ug/l	1.14	50.00	90 - 110	
107 Ag	# 3	49.12 ug/l	0.85	50.00	90 - 110	
111 Cd	# 3	49.27 ug/l	0.39	50.00	90 - 110	
118 Sn	# 3	48.71 ug/l	0.61	50.00	90 - 110	
121 Sb	# 3	49.45 ug/l	1.40	50.00	90 - 110	
137 Ba	# 3	49.38 ug/l	0.96	50.00	90 - 110	
201 Hg	# 3	2.603 ug/l	0.59	2.50	90 - 110	
202 Hg	# 3	2.578 ug/l	0.08	2.50	90 - 110	
203 Tl	# 3	9.493 ug/l	0.55	10.00	90 - 110	
205 Tl	# 3	9.491 ug/l	1.32	10.00	90 - 110	
208 Pb	# 3	45.53 ug/l	0.73	50.00	90 - 110	
232 Th	# 3	48.76 ug/l	0.38	---	##### - #####	
238 U	# 3	47.48 ug/l	0.55	---	##### - #####	

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	# 3	452885.81	1.48	643928.69	70.3	60 - 125	
45 Sc	# 1	244715.25	1.17	329114.28	74.4	60 - 125	
45 Sc	# 3	662893.44	0.61	872836.06	75.9	60 - 125	
74 Ge	# 1	93525.98	1.33	122381.69	76.4	60 - 125	
74 Ge	# 2	17393.76	2.83	21667.30	80.3	60 - 125	
74 Ge	# 3	168391.94	0.80	224459.19	75.0	60 - 125	
89 Y	# 3	943719.44	0.89	1247149.90	75.7	60 - 125	
115 In	# 3	1033631.60	0.98	1396206.60	74.0	60 - 125	
159 Tb	# 3	1552116.60	1.54	2071474.10	74.9	60 - 125	
209 Bi	# 3	959872.38	1.22	1349994.40	71.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Fail**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C23100.B\247_CCB.D\247_CCB.D#
Date Acquired: Mar 25 2009 01:26 am
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 23 2009 12:56 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.004445 ug/l	50.87	#VALUE!	
11 B	0.731 ug/l	13.49	#VALUE!	
23 Na	-26.88 ug/l	1.68	#VALUE!	
24 Mg	5.414 ug/l	5.27	#VALUE!	
27 Al	0.5126 ug/l	8.45	#VALUE!	
39 K	-6.22 ug/l	7.82	#VALUE!	
40 Ca	7.959 ug/l	8.27	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.01054 ug/l	178.56	#VALUE!	
51 V	-0.005341 ug/l	110.97	#VALUE!	
52 Cr	-0.008175 ug/l	94.13	#VALUE!	
55 Mn	0.03671 ug/l	5.70	#VALUE!	
56 Fe	4.124 ug/l	4.89	#VALUE!	
59 Co	0.001312 ug/l	78.89	#VALUE!	
60 Ni	-0.04116 ug/l	35.84	#VALUE!	
63 Cu	-0.03884 ug/l	23.87	#VALUE!	
65 Cu	-0.01729 ug/l	24.23	#VALUE!	
65 Cu	-0.04776 ug/l	15.70	#VALUE!	
66 Zn	-0.1654 ug/l	10.52	#VALUE!	
68 Zn	-0.1273 ug/l	15.47	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.02655 ug/l	13.56	#VALUE!	
78 Se	0.08644 ug/l	15.02	#VALUE!	
88 Sr	0.003369 ug/l	53.13	#VALUE!	
90 Zr	0.5215 ug/l	2.93	#VALUE!	
91 Zr	0.5235 ug/l	10.48	#VALUE!	
95 Mo	0.09308 ug/l	22.76	#VALUE!	
107 Ag	0.008322 ug/l	30.93	#VALUE!	
111 Cd	0.006123 ug/l	80.29	#VALUE!	
118 Sn	0.07058 ug/l	14.79	#VALUE!	
121 Sb	0.02982 ug/l	31.48	#VALUE!	
137 Ba	0.008842 ug/l	56.42	#VALUE!	
201 Hg	0.03367 ug/l	12.81	#VALUE!	
202 Hg	0.03554 ug/l	14.98	#VALUE!	
203 Tl	0.02656 ug/l	18.31	#VALUE!	
205 Tl	0.02755 ug/l	13.04	#VALUE!	
208 Pb	0.004927 ug/l	19.20	#VALUE!	
232 Th	0.05561 ug/l	6.81	#VALUE!	
238 U	0.007949 ug/l	17.11	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	467868.31	2.76	643928.69	72.7	60 - 125	
45 Sc	245505.84	1.04	329114.28	74.6	60 - 125	
45 Sc	663510.69	0.41	872836.06	76.0	60 - 125	
74 Ge	95109.64	0.22	122381.69	77.7	60 - 125	
74 Ge	17601.45	3.18	21667.30	81.2	60 - 125	
74 Ge	169974.02	1.11	224459.19	75.7	60 - 125	
89 Y	947202.69	0.59	1247149.90	75.9	60 - 125	
115 In	1040359.30	0.95	1396206.60	74.5	60 - 125	
159 Tb	1558528.00	0.35	2071474.10	75.2	60 - 125	
209 Bi	989262.81	2.37	1349994.40	73.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C23100.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

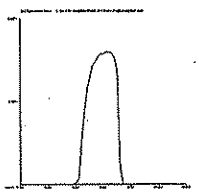
Data Results:
Analytes: Pass
ISTD: Pass

200.8 QC Tune Report

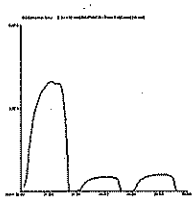
Data File: C:\ICPCHEM\1\DATA\09C25k00.B\001TUNE.D
Date Acquired: Mar 25 2009 11:00 am
Acq. Method: TN200_8.M
Operator: BB
Sample Name: 100 ppb tune check
Misc Info:
Vial Number: 1305
Current Method: C:\ICPCHEM\1\METHODS\TN200_8.M

RSD (%)

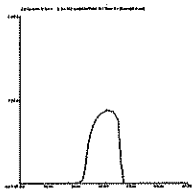
Element	Actual	Required	Flag
9 Be	1.81	5.00	
24 Mg	0.61	5.00	
59 Co	0.68	5.00	
115 In	1.56	5.00	
208 Pb	1.33	5.00	



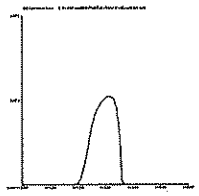
9 Be
Mass Calib.
Actual: 9.05
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.70
Required: 1.00
Flag:



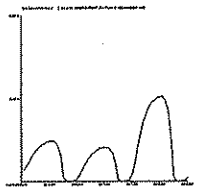
24 Mg
Mass Calib.
Actual: 24.10
Required: 23.90 - 24.10
Flag:
Peak Width
Actual: 0.70
Required: 1.00
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 1.00
Flag:



115 In
Mass Calib.
Actual: 115.05
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.65
Required: 1.00
Flag:



208 Pb
Mass Calib.
Actual: 208.00
Required: 207.90 - 208.10
Flag:
Peak Width
Actual: 0.65
Required: 1.00
Flag:

Tune Result: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\002CA
Date Acquired: Mar 25 2009 11:53 am
Operator: BB
Sample Name: CalBlk
Misc Info:
Vial Number: 1
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 11:57 am
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	503219.00	A	9118.00	1.81
9	Be	25.56	P	6.94	27.15
11	B	980.07	P	83.87	8.56
23	Na	37990.41	P	348.30	0.92
24	Mg	5781.48	P	63.90	1.11
27	Al	4958.94	P	29.90	0.60
39	K	1996.90	P	114.10	5.71
40	Ca	22769.31	P	192.50	0.85
45	Sc	243842.41	P	1287.00	0.53
45	Sc	18685.64	P	1014.00	5.43
45	Sc	754283.81	A	6719.00	0.89
47	Ti	102.23	P	18.36	17.96
51	V	58.15	P	14.16	24.35
52	Cr	117.04	P	17.37	14.84
55	Mn	2203.62	P	115.90	5.26
56	Fe	30963.20	P	305.70	0.99
59	Co	281.13	P	42.86	15.25
60	Ni	34.07	P	8.19	24.04
63	Cu	114.82	P	4.49	3.91
65	Cu	55.93	P	8.34	14.91
65	Cu	232.23	P	15.03	6.47
66	Zn	255.57	P	7.70	3.01
68	Zn	308.91	P	30.97	10.03
70	Ge	7967.00	P	506.40	6.36
74	Ge	100408.10	P	629.10	0.63
74	Ge	18198.95	P	786.30	4.32
74	Ge	202375.20	P	2241.00	1.11
75	As	2.67	P	0.58	21.65
78	Se	4.00	P	0.00	0.00
88	Sr	841.18	P	24.12	2.87
89	Y	1100570.00	A	14560.00	1.32
90	Zr	782.28	P	37.47	4.79
91	Zr	187.79	P	25.24	13.44
95	Mo	297.79	P	50.15	16.84
107	Ag	115.56	P	22.20	19.21
111	Cd	17.60	P	6.94	39.46
115	In	1209037.00	A	11090.00	0.92
118	Sn	164.45	P	15.75	9.58
121	Sb	81.11	P	25.02	30.85
137	Ba	117.78	P	13.47	11.44
159	Tb	1790402.00	A	16550.00	0.92
201	Hg	7.22	P	2.55	35.25
202	Hg	18.11	P	2.52	13.94
203	Tl	198.34	P	14.53	7.33
205	Tl	462.25	P	48.58	10.51
208	Pb	817.83	P	43.51	5.32
209	Bi	1104054.00	A	9235.00	0.84
232	Th	337.80	P	38.35	11.35
238	U	312.24	P	24.57	7.87

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\003CA
Date Acquired:	Mar 25 2009 11:59 am
Operator:	BB
Sample Name:	CalBlk
Misc Info:	
Vial Number:	1
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update:	Mar 25 2009 11:58 am
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	498175.59	A	17300.00	3.47
9	Be	34.45	P	12.62	36.64
11	B	984.52	P	39.06	3.97
23	Na	42742.87	P	478.10	1.12
24	Mg	6188.36	P	44.10	0.71
27	Al	5556.93	P	188.50	3.39
39	K	2100.26	P	60.11	2.86
40	Ca	24872.11	P	417.60	1.68
45	Sc	259364.41	P	2021.00	0.78
45	Sc	19857.37	P	657.00	3.31
45	Sc	760119.69	A	13390.00	1.76
47	Ti	94.45	P	10.71	11.34
51	V	70.00	P	6.19	8.84
52	Cr	144.08	P	8.34	5.79
55	Mn	2248.06	P	103.30	4.60
56	Fe	32481.42	P	600.30	1.85
59	Co	290.02	P	6.67	2.30
60	Ni	33.33	P	10.60	31.80
63	Cu	136.30	P	7.56	5.55
65	Cu	64.82	P	6.70	10.33
65	Cu	212.23	P	30.25	14.25
66	Zn	258.90	P	15.75	6.08
68	Zn	280.01	P	14.53	5.19
70	Ge	8296.83	P	215.30	2.60
74	Ge	103624.30	P	1340.00	1.29
74	Ge	18850.62	P	508.20	2.70
74	Ge	202622.50	P	3268.00	1.61
75	As	4.33	P	2.65	61.06
78	Se	3.11	P	0.51	16.37
88	Sr	821.17	P	16.78	2.04
89	Y	1097473.00	A	14550.00	1.33
90	Zr	915.70	P	342.40	37.39
91	Zr	205.57	P	53.37	25.96
95	Mo	267.79	P	18.96	7.08
107	Ag	91.12	P	21.69	23.81
111	Cd	25.40	P	11.72	46.15
115	In	1208031.00	A	18170.00	1.50
118	Sn	193.34	P	6.67	3.45
121	Sb	70.00	P	5.77	8.25
137	Ba	116.67	P	25.17	21.57
159	Tb	1771007.00	A	18390.00	1.04
201	Hg	5.67	P	0.88	15.56
202	Hg	14.67	P	2.03	13.82
203	Tl	180.56	P	18.96	10.50
205	Tl	413.36	P	38.45	9.30
208	Pb	907.83	P	45.26	4.99
209	Bi	1096737.00	A	18410.00	1.68
232	Th	305.57	P	30.25	9.90
238	U	343.35	P	8.82	2.57

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\004CA
Date Acquired: Mar 25 2009 12:06 pm
Operator: BB
Sample Name: CalBlk
Misc Info:
Vial Number: 1
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 12:04 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	486782.69	A	7306.00	1.50
9	Be	17.78	P	7.70	43.30
11	B	965.63	P	33.73	3.49
23	Na	43486.40	P	163.60	0.38
24	Mg	6288.40	P	26.07	0.41
27	Al	5632.55	P	94.34	1.67
39	K	2155.82	P	106.00	4.92
40	Ca	25663.59	P	498.10	1.94
45	Sc	262473.59	P	2972.00	1.13
45	Sc	19802.46	P	456.10	2.30
45	Sc	757385.69	A	12370.00	1.63
47	Ti	95.56	P	18.36	19.21
51	V	65.93	P	6.12	9.28
52	Cr	142.23	P	12.62	8.87
55	Mn	2079.14	P	13.48	0.65
56	Fe	32727.71	P	193.80	0.59
59	Co	271.13	P	9.62	3.55
60	Ni	37.78	P	4.01	10.60
63	Cu	120.74	P	11.35	9.40
65	Cu	64.08	P	11.19	17.46
65	Cu	228.90	P	42.47	18.55
66	Zn	244.46	P	18.96	7.76
68	Zn	310.02	P	12.02	3.88
70	Ge	8325.00	P	82.99	1.00
74	Ge	104553.20	P	1071.00	1.02
74	Ge	18945.58	P	345.00	1.82
74	Ge	201571.70	P	987.00	0.49
75	As	2.78	P	1.02	36.65
78	Se	4.67	P	0.88	18.90
88	Sr	793.39	P	40.56	5.11
89	Y	1104217.00	A	16370.00	1.48
90	Zr	747.83	P	48.58	6.50
91	Zr	187.79	P	45.26	24.10
95	Mo	254.46	P	11.71	4.60
107	Ag	87.78	P	5.09	5.80
111	Cd	16.51	P	3.33	20.16
115	In	1204052.00	A	11180.00	0.93
118	Sn	202.23	P	20.37	10.07
121	Sb	81.11	P	15.75	19.42
137	Ba	98.89	P	11.71	11.84
159	Tb	1778359.00	A	12780.00	0.72
201	Hg	7.11	P	2.17	30.50
202	Hg	17.44	P	2.59	14.84
203	Tl	132.78	P	14.18	10.68
205	Tl	305.57	P	47.30	15.48
208	Pb	731.15	P	57.19	7.82
209	Bi	1090403.00	A	17940.00	1.65
232	Th	288.91	P	39.07	13.52
238	U	270.02	P	20.00	7.41

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\005CA
Date Acquired:	Mar 25 2009 12:13 pm
Operator:	BB
Sample Name:	CalBlk
Misc Info:	
Vial Number:	2
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update:	Mar 25 2009 12:11 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	499169.81	A	5871.00	1.18
9	Be	10.00	P	5.77	57.74
11	B	985.63	P	75.16	7.63
23	Na	36458.37	P	835.90	2.29
24	Mg	2992.68	P	232.40	7.77
27	Al	1860.24	P	125.40	6.74
39	K	1948.00	P	35.96	1.85
40	Ca	10648.04	P	237.20	2.23
45	Sc	264731.31	P	2757.00	1.04
45	Sc	19785.78	P	437.20	2.21
45	Sc	760577.38	A	10360.00	1.36
47	Ti	55.56	P	15.03	27.05
51	V	61.11	P	5.09	8.33
52	Cr	119.26	P	7.14	5.99
55	Mn	1157.88	P	60.04	5.19
56	Fe	11089.80	P	349.90	3.16
59	Co	143.34	P	12.02	8.39
60	Ni	22.96	P	6.70	29.16
63	Cu	101.85	P	2.31	2.27
65	Cu	58.52	P	1.70	2.90
65	Cu	182.23	P	10.72	5.88
66	Zn	288.90	P	41.41	14.33
68	Zn	327.80	P	22.20	6.77
70	Ge	8378.74	P	205.20	2.45
74	Ge	104901.10	P	1331.00	1.27
74	Ge	18953.02	P	391.20	2.06
74	Ge	201029.59	P	1951.00	0.97
75	As	2.67	P	1.45	54.49
78	Se	2.11	P	0.19	9.12
88	Sr	394.47	P	15.03	3.81
89	Y	1109971.00	A	8880.00	0.80
90	Zr	622.26	P	23.42	3.76
91	Zr	168.90	P	13.47	7.98
95	Mo	138.90	P	16.78	12.08
107	Ag	63.34	P	5.77	9.12
111	Cd	7.69	P	5.10	66.25
115	In	1224362.00	A	18450.00	1.51
118	Sn	122.23	P	10.18	8.33
121	Sb	36.67	P	17.64	48.11
137	Ba	41.11	P	10.71	26.05
159	Tb	1805772.00	A	13960.00	0.77
201	Hg	6.78	P	1.07	15.80
202	Hg	19.11	P	3.66	19.13
203	Tl	97.22	P	5.09	5.24
205	Tl	226.68	P	8.82	3.89
208	Pb	384.46	P	30.25	7.87
209	Bi	1107145.00	A	13450.00	1.21
232	Th	181.12	P	12.62	6.97
238	U	106.67	P	26.67	25.00

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\006CA
Date Acquired:	Mar 25 2009 12:20 pm
Operator:	BB
Sample Name:	CalBlk
Misc Info:	
Vial Number:	2
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update:	Mar 25 2009 12:18 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	508194.69	A	7627.00	1.50
9	Be	12.22	P	1.93	15.75
11	B	1022.30	P	77.28	7.56
23	Na	37788.96	P	154.00	0.41
24	Mg	3204.97	P	57.40	1.79
27	Al	1934.66	P	71.85	3.71
39	K	1945.78	P	112.40	5.78
40	Ca	11370.90	P	542.40	4.77
45	Sc	271114.81	P	1373.00	0.51
45	Sc	20564.01	P	365.00	1.77
45	Sc	781812.13	A	9996.00	1.28
47	Ti	45.56	P	7.70	16.90
51	V	61.85	P	8.41	13.60
52	Cr	112.97	P	14.50	12.84
55	Mn	1092.32	P	100.00	9.15
56	Fe	11560.08	P	325.60	2.82
59	Co	114.45	P	25.46	22.25
60	Ni	31.48	P	4.49	14.26
63	Cu	97.04	P	21.73	22.39
65	Cu	52.59	P	12.64	24.03
65	Cu	187.79	P	6.94	3.70
66	Zn	314.46	P	57.19	18.19
68	Zn	316.68	P	29.06	9.18
70	Ge	8441.74	P	197.80	2.34
74	Ge	106488.60	P	680.80	0.64
74	Ge	19167.42	P	708.20	3.69
74	Ge	202670.50	P	1389.00	0.69
75	As	3.78	P	1.07	28.35
78	Se	3.11	P	2.22	71.33
88	Sr	412.25	P	59.29	14.38
89	Y	1119551.00	A	4179.00	0.37
90	Zr	618.93	P	61.14	9.88
91	Zr	163.34	P	28.48	17.44
95	Mo	116.67	P	12.02	10.30
107	Ag	51.11	P	10.18	19.92
111	Cd	9.93	P	5.78	58.16
115	In	1223926.00	A	21570.00	1.76
118	Sn	121.12	P	17.11	14.13
121	Sb	41.11	P	9.62	23.41
137	Ba	44.45	P	13.88	31.23
159	Tb	1810500.00	A	14270.00	0.79
201	Hg	5.22	P	0.69	13.29
202	Hg	15.22	P	3.03	19.87
203	Tl	87.22	P	7.88	9.03
205	Tl	215.57	P	13.88	6.44
208	Pb	374.46	P	61.68	16.47
209	Bi	1122749.00	A	17130.00	1.53
232	Th	182.23	P	18.95	10.40
238	U	96.67	P	15.28	15.81

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\007CA
Date Acquired:	Mar 25 2009 12:27 pm
Operator:	BB
Sample Name:	CalBlk
Misc Info:	
Vial Number:	2
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update:	Mar 25 2009 12:25 pm
Sample Type:	CalBlk
Total Dil Factor:	1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	521512.69	A	5175.00	0.99
9	Be	6.67	P	8.82	132.28
11	B	1082.31	P	48.23	4.46
23	Na	37690.67	P	394.20	1.05
24	Mg	3202.74	P	60.06	1.88
27	Al	1954.68	P	122.60	6.27
39	K	2021.36	P	198.40	9.82
40	Ca	11333.09	P	507.80	4.48
45	Sc	273564.31	P	2057.00	0.75
45	Sc	20861.88	P	630.60	3.02
45	Sc	788702.81	A	14690.00	1.86
47	Ti	36.67	P	8.82	24.05
51	V	50.74	P	12.49	24.62
52	Cr	123.71	P	5.25	4.25
55	Mn	1074.53	P	56.81	5.29
56	Fe	11069.59	P	210.90	1.91
59	Co	112.23	P	26.74	23.83
60	Ni	27.41	P	7.40	26.99
63	Cu	98.15	P	24.65	25.12
65	Cu	64.45	P	13.65	21.18
65	Cu	177.79	P	7.70	4.33
66	Zn	314.46	P	41.68	13.25
68	Zn	352.24	P	29.13	8.27
70	Ge	8545.89	P	264.50	3.10
74	Ge	107351.90	P	363.60	0.34
74	Ge	19253.08	P	503.70	2.62
74	Ge	206712.70	P	1512.00	0.73
75	As	4.00	P	2.00	50.00
78	Se	2.33	P	1.53	65.49
88	Sr	391.14	P	57.96	14.82
89	Y	1130673.00	A	7965.00	0.70
90	Zr	636.71	P	18.56	2.92
91	Zr	154.45	P	9.62	6.23
95	Mo	128.89	P	11.71	9.08
107	Ag	66.67	P	20.82	31.23
111	Cd	9.92	P	5.77	58.19
115	In	1246750.00	A	15460.00	1.24
118	Sn	117.78	P	18.36	15.59
121	Sb	41.11	P	1.93	4.68
137	Ba	40.00	P	3.33	8.33
159	Tb	1843985.00	A	29130.00	1.58
201	Hg	6.67	P	1.53	22.92
202	Hg	18.33	P	4.26	23.21
203	Tl	75.56	P	3.85	5.09
205	Tl	185.57	P	22.20	11.96
208	Pb	388.91	P	47.42	12.19
209	Bi	1136194.00	A	14460.00	1.27
232	Th	173.34	P	11.55	6.66
238	U	110.01	P	11.55	10.50

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\008CA
Date Acquired: Mar 25 2009 12:34 pm
Operator: BB
Sample Name: CALBLK
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 12:32 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	534165.50	A	10490.00	1.96
9	Be	3.33	P	3.33	99.98
11	B	900.07	P	49.34	5.48
23	Na	23228.66	P	79.26	0.34
24	Mg	183.34	P	27.29	14.89
27	Al	378.92	P	71.92	18.98
39	K	1880.22	P	38.44	2.04
40	Ca	4433.14	P	94.57	2.13
45	Sc	277284.81	P	563.90	0.20
45	Sc	21347.84	P	529.60	2.48
45	Sc	807455.38	A	11930.00	1.48
47	Ti	14.45	P	13.88	96.09
51	V	53.70	P	9.05	16.85
52	Cr	121.11	P	29.46	24.32
55	Mn	378.91	P	8.39	2.21
56	Fe	1572.39	P	88.79	5.65
59	Co	18.89	P	5.09	26.96
60	Ni	27.04	P	6.32	23.37
63	Cu	64.08	P	13.89	21.68
65	Cu	32.59	P	10.56	32.40
65	Cu	115.56	P	24.12	20.87
66	Zn	206.68	P	18.56	8.98
68	Zn	280.01	P	8.82	3.15
70	Ge	8548.47	P	208.90	2.44
74	Ge	108561.40	P	1351.00	1.24
74	Ge	19785.36	P	351.80	1.78
74	Ge	206858.00	P	2844.00	1.37
75	As	2.56	P	0.19	7.53
78	Se	0.67	P	1.16	173.25
88	Sr	68.89	P	3.85	5.59
89	Y	1146744.00	A	19790.00	1.73
90	Zr	617.82	P	26.94	4.36
91	Zr	115.56	P	16.78	14.52
95	Mo	47.78	P	6.94	14.52
107	Ag	22.22	P	15.75	70.87
111	Cd	2.19	P	1.92	87.57
115	In	1264054.00	A	13450.00	1.06
118	Sn	48.89	P	6.94	14.19
121	Sb	17.78	P	8.39	47.19
137	Ba	8.89	P	6.94	78.06
159	Tb	1862987.00	A	20120.00	1.08
201	Hg	4.67	P	0.88	18.90
202	Hg	11.89	P	2.22	18.66
203	Tl	72.78	P	12.51	17.19
205	Tl	148.90	P	13.88	9.32
208	Pb	170.01	P	30.00	17.65
209	Bi	1142263.00	A	25250.00	2.21
232	Th	55.56	P	15.03	27.05
238	U	13.33	P	8.82	66.14

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\009CA
Date Acquired: Mar 25 2009 12:40 pm
Operator: BB
Sample Name: CALBLK
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 12:38 pm
Sample Type: CalBlk
Total Dil Factor: 1.00

QC&ISTD Elements

Element		CPS Mean		SD	RSD(%)
6	Li	531519.69	A	12610.00	2.37
9	Be	0.00	P	0.00	0.00
11	B	870.06	P	39.30	4.52
23	Na	23065.11	P	159.70	0.69
24	Mg	203.34	P	13.33	6.56
27	Al	381.15	P	28.38	7.45
39	K	1911.33	P	36.57	1.91
40	Ca	4392.03	P	113.70	2.59
45	Sc	282316.41	P	3314.00	1.17
45	Sc	21810.82	P	645.10	2.96
45	Sc	802725.81	A	4905.00	0.61
47	Ti	17.78	P	5.09	28.64
51	V	52.59	P	4.63	8.80
52	Cr	123.34	P	9.69	7.85
55	Mn	380.02	P	34.80	9.16
56	Fe	1600.16	P	74.47	4.65
59	Co	35.56	P	5.09	14.32
60	Ni	17.41	P	6.12	35.16
63	Cu	64.45	P	5.88	9.12
65	Cu	33.70	P	2.31	6.86
65	Cu	127.78	P	16.78	13.13
66	Zn	208.90	P	25.02	11.98
68	Zn	280.02	P	26.67	9.52
70	Ge	8902.05	P	218.90	2.46
74	Ge	109028.60	P	726.20	0.67
74	Ge	20216.41	P	509.80	2.52
74	Ge	209704.91	P	2853.00	1.36
75	As	1.33	P	0.33	25.00
78	Se	1.78	P	0.51	28.64
88	Sr	71.11	P	26.74	37.60
89	Y	1159008.00	A	5886.00	0.51
90	Zr	553.37	P	3.34	0.60
91	Zr	145.56	P	25.89	17.79
95	Mo	34.45	P	10.71	31.09
107	Ag	22.22	P	5.09	22.91
111	Cd	-0.02	P	0.01	31.11
115	In	1277749.00	A	2371.00	0.19
118	Sn	57.78	P	21.17	36.64
121	Sb	12.22	P	1.93	15.75
137	Ba	30.00	P	12.02	40.07
159	Tb	1896321.00	A	16070.00	0.85
201	Hg	5.67	P	2.00	35.29
202	Hg	9.89	P	1.02	10.29
203	Tl	45.00	P	12.02	26.71
205	Tl	148.90	P	30.97	20.80
208	Pb	196.68	P	49.78	25.31
209	Bi	1156151.00	A	18950.00	1.64
232	Th	48.89	P	10.18	20.82
238	U	3.33	P	3.33	99.99

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\010CALS.D\010CALS.D#
Date Acquired: Mar 25 2009 12:47 pm
Operator: BB
Sample Name: Cal Std 0.5/50
Misc Info: 1/200 ms cal std 00054
Vial Number: 4501
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 12:45 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	543497.50	A	9702.00	1.79
7 (Li)	41253.75	P	1305.00	3.16
9 Be	1490.15	P	14.53	0.98
11 B	4014.10	P	82.15	2.05
23 Na	149894.00	P	2095.00	1.40
24 Mg	90414.59	P	328.30	0.36
27 Al	9402.57	P	377.40	4.01
39 K	7730.33	P	113.90	1.47
40 Ca	202095.91	P	642.60	0.32
45 Sc	284532.59	P	1146.00	0.40
45 Sc	21828.64	P	503.10	2.30
45 Sc	808655.38	A	5157.00	0.64
47 Ti	571.15	P	61.86	10.83
51 V	676.69	P	30.97	4.58
52 Cr	995.61	P	51.69	5.19
55 Mn	110292.70	P	573.20	0.52
56 Fe	382734.31	P	4124.00	1.08
59 Co	7662.54	P	208.50	2.72
60 Ni	391.49	P	18.67	4.77
63 Cu	1091.54	P	50.85	4.66
65 Cu	577.06	P	37.03	6.42
65 Cu	1870.21	P	65.08	3.48
66 Zn	1631.28	P	93.66	5.74
68 Zn	1359.02	P	70.43	5.18
70 Ge	53380.26	P	95.22	0.18
70 Ge	9051.79	P	249.90	2.76
70 Ge	107616.10	P	1255.00	1.17
72 Ge	148847.91	P	1535.00	1.03
74 Ge	109801.00	P	747.50	0.68
74 Ge	20300.95	P	380.90	1.88
74 Ge	210700.70	P	1836.00	0.87
75 As	77.89	P	5.05	6.48
78 Se	123.67	P	1.16	0.93
88 Sr	11245.43	P	182.00	1.62
89 Y	1170990.00	A	14580.00	1.25
90 Zr	44291.88	P	1459.00	3.29
91 Zr	9625.16	P	280.30	2.91
95 Mo	1930.23	P	70.01	3.63
107 Ag	5528.13	P	104.00	1.88
111 Cd	1288.96	P	73.56	5.71
115 In	1288769.00	A	32940.00	2.56
118 Sn	3543.99	P	70.56	1.99
121 Sb	4208.67	P	13.48	0.32
137 Ba	1769.09	P	103.60	5.86
159 Tb	1905226.00	A	22530.00	1.18
166 Er	33.33	P	12.02	36.06
201 Hg	41.89	P	3.66	8.73
202 Hg	86.11	P	12.62	14.66
203 Tl	1082.30	P	50.15	4.63
205 Tl	2449.25	P	79.34	3.24
206 (Pb)	4463.26	P	74.30	1.66
207 (Pb)	3427.32	P	96.12	2.80
208 Pb	16452.98	P	119.40	0.73
209 Bi	1164494.00	A	11240.00	0.97
232 Th	15433.25	P	301.30	1.95
238 U	15964.07	P	275.90	1.73

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	543497.56	1.79	531519.69	102.3	60 - 125	
45 Sc	284532.56	0.40	282316.44	100.8	60 - 125	
45 Sc	808655.38	0.64	802725.75	100.7	60 - 125	
74 Ge	109800.95	0.68	109028.65	100.7	60 - 125	
74 Ge	20300.95	1.88	20216.41	100.4	60 - 125	
74 Ge	210700.72	0.87	209704.94	100.5	60 - 125	
89 Y	1170989.90	1.25	1159007.90	101.0	60 - 125	
115 In	1288769.00	2.56	1277748.90	100.9	60 - 125	
159 Tb	1905226.40	1.18	1896321.40	100.5	60 - 125	
209 Bi	1164494.10	0.97	1156151.50	100.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\011CALS.D\011CALS.D#
Date Acquired: Mar 25 2009 12:54 pm
Operator: BB
Sample Name: Cal Std 1.0/100
Misc Info: 1/100 ms cal std 00054
Vial Number: 4502
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 12:52 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	527915.69	A	4743.00	0.90
7 (Li)	45497.52	P	471.70	1.04
9 Be	2781.51	P	56.80	2.04
11 B	6428.46	P	223.70	3.48
23 Na	265265.41	P	1954.00	0.74
24 Mg	174661.41	P	768.00	0.44
27 Al	16726.68	P	60.60	0.36
39 K	12903.46	P	242.10	1.88
40 Ca	380275.69	P	1570.00	0.41
45 Sc	283047.91	P	1506.00	0.53
45 Sc	21897.25	P	585.10	2.67
45 Sc	795244.00	A	8035.00	1.01
47 Ti	1066.76	P	93.34	8.75
51 V	1186.74	P	37.24	3.14
52 Cr	1729.77	P	44.93	2.60
55 Mn	207497.80	P	54.84	0.03
56 Fe	772530.88	A	2277.00	0.29
59 Co	14213.83	P	277.20	1.95
60 Ni	753.37	P	53.49	7.10
63 Cu	1963.51	P	86.49	4.40
65 Cu	1012.28	P	37.83	3.74
65 Cu	3445.04	P	44.04	1.28
66 Zn	2364.76	P	19.53	0.83
68 Zn	1811.31	P	37.92	2.09
70 Ge	53387.78	P	307.20	0.58
70 Ge	8785.32	P	254.90	2.90
70 Ge	105437.70	P	1173.00	1.11
72 Ge	147570.80	P	1303.00	0.88
74 Ge	109890.70	P	330.90	0.30
74 Ge	20350.36	P	773.30	3.80
74 Ge	208515.91	P	2045.00	0.98
75 As	152.22	P	10.52	6.91
78 Se	241.34	P	4.91	2.03
88 Sr	20814.48	P	131.00	0.63
89 Y	1148147.00	A	8089.00	0.70
90 Zr	99684.80	P	1255.00	1.26
91 Zr	22390.61	P	226.60	1.01
95 Mo	3557.30	P	131.00	3.68
107 Ag	10619.40	P	187.80	1.77
111 Cd	2394.86	P	34.74	1.45
115 In	1254381.00	A	14300.00	1.14
118 Sn	6779.93	P	62.59	0.92
121 Sb	7797.19	P	239.50	3.07
137 Ba	3282.81	P	123.90	3.77
159 Tb	1859844.00	A	18550.00	1.00
166 Er	32.22	P	5.09	15.80
201 Hg	66.44	P	4.50	6.77
202 Hg	158.56	P	16.41	10.35
203 Tl	1923.53	P	124.20	6.46
205 Tl	4641.12	P	12.03	0.26
206 (Pb)	8344.47	P	45.31	0.54
207 (Pb)	6275.29	P	131.20	2.09
208 Pb	30890.66	P	323.70	1.05
209 Bi	1137016.00	A	9134.00	0.80
232 Th	29765.38	P	678.40	2.28
238 U	29980.64	P	435.20	1.45

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	527915.75	0.90	531519.69	99.3	60 - 125	
45 Sc	283047.91	0.53	282316.44	100.3	60 - 125	
45 Sc	795244.00	1.01	802725.75	99.1	60 - 125	
74 Ge	109890.72	0.30	109028.65	100.8	60 - 125	
74 Ge	20350.36	3.80	20216.41	100.7	60 - 125	
74 Ge	208515.92	0.98	209704.94	99.4	60 - 125	
89 Y	1148147.40	0.70	1159007.90	99.1	60 - 125	
115 In	1254381.10	1.14	1277748.90	98.2	60 - 125	
159 Tb	1859843.50	1.00	1896321.40	98.1	60 - 125	
209 Bi	1137016.30	0.80	1156151.50	98.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\012CALS.D\012CALS.D#
Date Acquired: Mar 25 2009 01:01 pm
Operator: BB
Sample Name: Cal Std 50/5000
Misc Info: 1/2 ms cal std 00054
Vial Number: 4503
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 12:59 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	493337.00	A	9250.00	1.88
7 (Li)	659607.13	A	1731.00	0.26
9 Be	137309.30	P	968.80	0.71
11 B	262397.41	P	2279.00	0.87
23 Na	11501750.00	A	215100.00	1.87
24 Mg	8116497.00	A	71770.00	0.88
27 Al	766229.00	A	10460.00	1.37
39 K	556715.88	A	16210.00	2.91
40 Ca	18095400.00	A	228800.00	1.26
45 Sc	272260.59	P	1941.00	0.71
45 Sc	21707.66	P	459.40	2.12
45 Sc	777774.38	A	9027.00	1.16
47 Ti	53961.18	P	397.00	0.74
51 V	58494.52	P	1614.00	2.76
52 Cr	78908.64	P	1367.00	1.73
55 Mn	10374370.00	A	26660.00	0.26
56 Fe	35212752.00	A	293400.00	0.83
59 Co	748482.69	A	5695.00	0.76
60 Ni	33916.49	P	721.90	2.13
63 Cu	91530.00	P	2254.00	2.46
65 Cu	45953.20	P	829.50	1.81
65 Cu	157763.00	P	773.80	0.49
66 Zn	106826.40	P	573.00	0.54
68 Zn	75219.38	P	1258.00	1.67
70 Ge	53178.78	P	458.70	0.86
70 Ge	9145.57	P	406.30	4.44
70 Ge	106292.20	P	473.10	0.45
72 Ge	145227.70	P	920.70	0.63
74 Ge	106066.60	P	897.60	0.85
74 Ge	19778.30	P	331.30	1.68
74 Ge	203335.20	P	2385.00	1.17
75 As	7370.91	P	191.60	2.60
78 Se	11539.09	P	60.70	0.53
88 Sr	1054334.00	A	9482.00	0.90
89 Y	1118735.00	A	13400.00	1.20
90 Zr	6261675.00	A	63420.00	1.01
91 Zr	1431416.00	A	10840.00	0.76
95 Mo	176199.30	P	2778.00	1.58
107 Ag	514181.19	P	4535.00	0.88
111 Cd	115138.80	P	882.90	0.77
115 In	1219375.00	A	26250.00	2.15
118 Sn	327292.91	P	4386.00	1.34
121 Sb	385286.81	P	5386.00	1.40
137 Ba	162625.59	P	1926.00	1.18
159 Tb	1827007.00	A	15180.00	0.83
166 Er	35.56	P	7.70	21.65
201 Hg	2905.26	P	83.92	2.89
202 Hg	6532.17	P	53.87	0.82
203 Tl	89923.68	P	868.20	0.97
205 Tl	213140.09	P	2623.00	1.23
206 (Pb)	400418.00	P	3199.00	0.80
207 (Pb)	305222.19	P	2313.00	0.76
208 Pb	1523142.00	A	4424.00	0.29
209 Bi	1081016.00	A	7298.00	0.68
232 Th	1570350.00	A	18370.00	1.17
238 U	1547835.00	A	30060.00	1.94

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	493336.97	1.88	531519.69	92.8	60 - 125	
45 Sc	272260.59	0.71	282316.44	96.4	60 - 125	
45 Sc	777774.38	1.16	802725.75	96.9	60 - 125	
74 Ge	106066.59	0.85	109028.65	97.3	60 - 125	
74 Ge	19778.30	1.68	20216.41	97.8	60 - 125	
74 Ge	203335.23	1.17	209704.94	97.0	60 - 125	
89 Y	1118735.40	1.20	1159007.90	96.5	60 - 125	
115 In	1219375.00	2.15	1277748.90	95.4	60 - 125	
159 Tb	1827007.30	0.83	1896321.40	96.3	60 - 125	
209 Bi	1081015.60	0.68	1156151.50	93.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\013CALS.D\013CALS.D#
Date Acquired: Mar 25 2009 01:07 pm
Operator: BB
Sample Name: Cal Std 100/10000
Misc Info: ms cal std 00054
Vial Number: 4504
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:06 pm
Sample Type: CalStd
Total Dil Factor: 1.00

QC&ISTD Elements

Element	CPS Mean		SD	RSD(%)
6 Li	465793.31	A	6478.00	1.39
7 (Li)	1218261.00	A	10060.00	0.83
9 Be	265741.50	P	2329.00	0.88
11 B	515011.91	A	13100.00	2.54
23 Na	21769590.00	A	126900.00	0.58
24 Mg	15324980.00	A	208900.00	1.36
27 Al	1445480.00	A	22680.00	1.57
39 K	1094803.00	A	30630.00	2.80
40 Ca	34719360.00	A	482300.00	1.39
45 Sc	261823.70	P	1512.00	0.58
45 Sc	21230.62	P	493.60	2.32
45 Sc	762105.13	A	10790.00	1.42
47 Ti	105547.20	P	58.38	0.06
51 V	114010.30	P	2646.00	2.32
52 Cr	152809.91	P	3200.00	2.09
55 Mn	20131990.00	A	98820.00	0.49
56 Fe	67713880.00	A	707200.00	1.04
59 Co	1447691.00	A	14010.00	0.97
60 Ni	65093.21	P	908.60	1.40
63 Cu	176511.30	P	4114.00	2.33
65 Cu	88327.07	P	1575.00	1.78
65 Cu	305581.50	P	3086.00	1.01
66 Zn	206497.50	P	1759.00	0.85
68 Zn	145565.70	P	969.80	0.67
70 Ge	53131.98	P	779.10	1.47
70 Ge	9355.72	P	44.77	0.48
70 Ge	105245.20	P	375.20	0.36
72 Ge	142083.70	P	1466.00	1.03
74 Ge	103157.70	P	971.50	0.94
74 Ge	19042.75	P	534.10	2.80
74 Ge	198737.00	P	1357.00	0.68
75 As	14412.86	P	236.40	1.64
78 Se	22284.06	P	239.10	1.07
88 Sr	2024951.00	A	13590.00	0.67
89 Y	1091959.00	A	14790.00	1.35
90 Zr	12356610.00	A	129900.00	1.05
91 Zr	2763397.00	A	27620.00	1.00
95 Mo	344927.00	P	2955.00	0.86
107 Ag	997381.69	A	8188.00	0.82
111 Cd	220637.09	P	1900.00	0.86
115 In	1161736.00	A	13550.00	1.17
118 Sn	635318.81	P	6255.00	0.98
121 Sb	785030.00	A	7417.00	0.94
137 Ba	315350.19	P	2484.00	0.79
159 Tb	1769570.00	A	21660.00	1.22
166 Er	27.78	P	5.09	18.33
201 Hg	5723.97	P	85.66	1.50
202 Hg	12921.92	P	184.30	1.43
203 Tl	175654.91	P	2516.00	1.43
205 Tl	412629.81	P	6335.00	1.53
206 (Pb)	811597.88	A	13750.00	1.69
207 (Pb)	590833.63	P	7842.00	1.33
208 Pb	2985175.00	A	29560.00	0.99
209 Bi	1044727.00	A	15020.00	1.44
232 Th	3010872.00	A	21520.00	0.71
238 U	2982947.00	A	35820.00	1.20

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	465793.28	1.39	531519.69	87.6	60 - 125	
45 Sc	261823.73	0.58	282316.44	92.7	60 - 125	
45 Sc	762105.13	1.42	802725.75	94.9	60 - 125	
74 Ge	103157.71	0.94	109028.65	94.6	60 - 125	
74 Ge	19042.75	2.80	20216.41	94.2	60 - 125	
74 Ge	198737.02	0.68	209704.94	94.8	60 - 125	
89 Y	1091958.50	1.35	1159007.90	94.2	60 - 125	
115 In	1161735.80	1.17	1277748.90	90.9	60 - 125	
159 Tb	1769570.60	1.22	1896321.40	93.3	60 - 125	
209 Bi	1044726.60	1.44	1156151.50	90.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

--- :Element Failures --- :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\014_BLK.D\014_BLK.D#
Date Acquired: Mar 25 2009 01:14 pm
Operator: BB
Sample Name: BLANK
Misc Info:
Vial Number: 1
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: Blank
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.02486 ug/l	34.98	#VALUE!	
11 B	2.007 ug/l	9.87	#VALUE!	
23 Na	11.78 ug/l	1.97	#VALUE!	
24 Mg	5.211 ug/l	1.51	#VALUE!	
27 Al	3.832 ug/l	0.74	#VALUE!	
39 K	7.716 ug/l	14.68	#VALUE!	
40 Ca	7.559 ug/l	1.89	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.0783 ug/l	43.49	#VALUE!	
51 V	0.03404 ug/l	27.49	#VALUE!	
52 Cr	0.0257 ug/l	23.81	#VALUE!	
55 Mn	0.2723 ug/l	21.91	#VALUE!	
56 Fe	6.223 ug/l	1.31	#VALUE!	
59 Co	0.03136 ug/l	28.27	#VALUE!	
60 Ni	0.04922 ug/l	17.35	#VALUE!	
63 Cu	0.06657 ug/l	5.77	#VALUE!	
65 Cu	0.05133 ug/l	7.59	#VALUE!	
65 Cu	0.06369 ug/l	15.47	#VALUE!	
66 Zn	0.06826 ug/l	32.39	#VALUE!	
68 Zn	0.04798 ug/l	23.26	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.07382 ug/l	20.39	#VALUE!	
78 Se	0.1052 ug/l	5.37	#VALUE!	
88 Sr	0.05318 ug/l	11.65	#VALUE!	
90 Zr	0.5634 ug/l	7.97	#VALUE!	
91 Zr	0.5679 ug/l	11.78	#VALUE!	
95 Mo	0.2765 ug/l	8.08	#VALUE!	
107 Ag	0.03232 ug/l	34.65	#VALUE!	
111 Cd	0.02568 ug/l	19.18	#VALUE!	
118 Sn	0.1555 ug/l	3.83	#VALUE!	
121 Sb	0.06499 ug/l	10.63	#VALUE!	
137 Ba	0.04068 ug/l	25.79	#VALUE!	
201 Hg	0.06471 ug/l	11.64	#VALUE!	
202 Hg	0.06541 ug/l	4.98	#VALUE!	
203 Tl	0.08043 ug/l	13.13	#VALUE!	
205 Tl	0.08075 ug/l	4.56	#VALUE!	
208 Pb	0.04142 ug/l	9.91	#VALUE!	
232 Th	0.0869 ug/l	12.05	#VALUE!	
238 U	0.03555 ug/l	19.15	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	508076.34	2.66	531519.69	95.6	60 - 125	
45 Sc	265947.19	0.44	282316.44	94.2	60 - 125	
45 Sc	777010.19	1.60	802725.75	96.8	60 - 125	
74 Ge	106588.31	0.52	109028.65	97.8	60 - 125	
74 Ge	19855.85	3.13	20216.41	98.2	60 - 125	
74 Ge	205310.94	1.88	209704.94	97.9	60 - 125	
89 Y	1116789.50	1.50	1159007.90	96.4	60 - 125	
115 In	1217652.90	1.52	1277748.90	95.3	60 - 125	
159 Tb	1812255.60	1.66	1896321.40	95.6	60 - 125	
209 Bi	1098456.60	1.51	1156151.50	95.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

ICV QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\015_ICV.D\015_ICV.D#
Date Acquired: Mar 25 2009 01:21 pm
Acq. Method: EPA2002.M
Operator: BB
Sample Name: ICV
Misc Info: MS ICVWK 000039
Vial Number: 4505
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update: Mar 25 2009 01:12 pm
Sample Type: ICV
Dilution Factor: 1.00

QC Elements

Element	Conc.		RSD(%)	Expected	QC Range(%)	Flag
9 Be	39.3	ug/l	1.82	40.00	90 - 110	
11 B	76.37	ug/l	1.41	80.00	90 - 110	
23 Na	4058	ug/l	0.24	4000.00	90 - 110	
24 Mg	4095	ug/l	0.62	4000.00	90 - 110	
27 Al	407.4	ug/l	0.87	400.00	90 - 110	
39 K	3844	ug/l	1.20	4000.00	90 - 110	
40 Ca	3972	ug/l	0.30	4000.00	90 - 110	
45 Sc	--------	ug/l	--------	---	90 - 110	
47 Ti	39.17	ug/l	0.54	40.00	90 - 110	
51 V	40.11	ug/l	1.68	40.00	90 - 110	
52 Cr	39.12	ug/l	1.78	40.00	90 - 110	
55 Mn	403.8	ug/l	0.89	400.00	90 - 110	
56 Fe	4067	ug/l	0.13	4000.00	90 - 110	
59 Co	37.92	ug/l	0.92	40.00	90 - 110	
60 Ni	40.45	ug/l	2.35	40.00	90 - 110	
63 Cu	37.37	ug/l	2.51	40.00	90 - 110	
65 Cu	37.41	ug/l	3.00	40.00	90 - 110	
65 Cu	37.6	ug/l	0.64	40.00	90 - 110	
66 Zn	40.49	ug/l	0.28	40.00	90 - 110	
68 Zn	40.92	ug/l	0.54	40.00	90 - 110	
70 Ge	--------	ug/l	--------	---	90 - 110	
75 As	40.54	ug/l	1.88	40.00	90 - 110	
78 Se	40.26	ug/l	0.79	40.00	90 - 110	
88 Sr	42.4	ug/l	0.45	40.00	90 - 110	
90 Zr	8.653	ug/l	13.18	40.00	90 - 110	FAIL
91 Zr	8.667	ug/l	13.14	40.00	90 - 110	FAIL
95 Mo	39.25	ug/l	0.52	40.00	90 - 110	
107 Ag	39.26	ug/l	0.90	40.00	90 - 110	
111 Cd	40.92	ug/l	0.79	40.00	90 - 110	
118 Sn	37.66	ug/l	0.64	40.00	90 - 110	
121 Sb	37.49	ug/l	0.50	40.00	90 - 110	
137 Ba	40.33	ug/l	0.63	40.00	90 - 110	
201 Hg	2.012	ug/l	0.83	2.00	90 - 110	
202 Hg	2.032	ug/l	0.13	2.00	90 - 110	
203 Tl	8.131	ug/l	1.13	8.00	90 - 110	
205 Tl	8.183	ug/l	0.93	8.00	90 - 110	
208 Pb	38.96	ug/l	1.34	40.00	90 - 110	
232 Th	0.1111	ug/l	14.63	40.00	90 - 110	
238 U	0.006164	ug/l	13.22	40.00	90 - 110	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	496227.22	1.79	531519.69	93.4	60 - 125	
45 Sc	268559.69	0.70	282316.44	95.1	60 - 125	
45 Sc	760001.69	0.85	802725.75	94.7	60 - 125	
74 Ge	105585.27	1.13	109028.65	96.8	60 - 125	
74 Ge	19513.85	4.24	20216.41	96.5	60 - 125	
74 Ge	199765.88	0.78	209704.94	95.3	60 - 125	
89 Y	1088258.90	0.58	1159007.90	93.9	60 - 125	
115 In	1183370.50	0.66	1277748.90	92.6	60 - 125	
159 Tb	1787055.40	1.10	1896321.40	94.2	60 - 125	
209 Bi	1067874.50	1.50	1156151.50	92.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\016_CCB.D\016_CCB.D#
Date Acquired: Mar 25 2009 01:28 pm
Operator: BB
Sample Name: ICB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.04398 ug/l	21.36	#VALUE!	
11 B	1.161 ug/l	10.53	#VALUE!	
23 Na	3.199 ug/l	4.49	#VALUE!	
24 Mg	3.021 ug/l	3.36	#VALUE!	
27 Al	0.2707 ug/l	19.15	#VALUE!	
39 K	3.759 ug/l	17.52	#VALUE!	
40 Ca	2.971 ug/l	2.77	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.02762 ug/l	66.15	#VALUE!	
51 V	0.01684 ug/l	68.23	#VALUE!	
52 Cr	0.02217 ug/l	36.42	#VALUE!	
55 Mn	0.3693 ug/l	6.88	#VALUE!	
56 Fe	3.6 ug/l	2.88	#VALUE!	
59 Co	0.0361 ug/l	2.69	#VALUE!	
60 Ni	0.03848 ug/l	19.34	#VALUE!	
63 Cu	0.03183 ug/l	12.25	#VALUE!	
65 Cu	0.03859 ug/l	15.60	#VALUE!	
65 Cu	0.03474 ug/l	6.65	#VALUE!	
66 Zn	0.04997 ug/l	63.48	#VALUE!	
68 Zn	0.02185 ug/l	151.58	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.05445 ug/l	20.99	#VALUE!	
78 Se	0.0623 ug/l	18.75	#VALUE!	
88 Sr	0.03568 ug/l	3.72	#VALUE!	
90 Zr	0.2302 ug/l	9.06	#VALUE!	
91 Zr	0.2221 ug/l	13.99	#VALUE!	
95 Mo	0.1331 ug/l	11.68	#VALUE!	
107 Ag	0.03835 ug/l	7.31	#VALUE!	
111 Cd	0.02944 ug/l	43.44	#VALUE!	
118 Sn	0.08607 ug/l	11.31	#VALUE!	
121 Sb	0.2002 ug/l	5.41	#VALUE!	
137 Ba	0.02735 ug/l	17.86	#VALUE!	
201 Hg	0.05101 ug/l	7.35	#VALUE!	
202 Hg	0.0477 ug/l	3.06	#VALUE!	
203 Tl	0.03804 ug/l	11.66	#VALUE!	
205 Tl	0.03422 ug/l	1.55	#VALUE!	
208 Pb	0.04161 ug/l	2.55	#VALUE!	
232 Th	0.02555 ug/l	2.99	#VALUE!	
238 U	0.02668 ug/l	15.49	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	493578.00	2.37	531519.69	92.9	60 - 125	
45 Sc	266541.72	0.84	282316.44	94.4	60 - 125	
45 Sc	769245.00	1.51	802725.75	95.8	60 - 125	
74 Ge	105134.05	0.99	109028.65	96.4	60 - 125	
74 Ge	19747.90	2.96	20216.41	97.7	60 - 125	
74 Ge	203980.81	1.47	209704.94	97.3	60 - 125	
89 Y	1110640.00	1.17	1159007.90	95.8	60 - 125	
115 In	1209149.50	0.54	1277748.90	94.6	60 - 125	
159 Tb	1786900.40	0.68	1896321.40	94.2	60 - 125	
209 Bi	1092524.30	1.12	1156151.50	94.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

QCS QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\017_QCS.D\017_QCS.D#
Date Acquired: Mar 25 2009 01:35 pm
Operator: BB
Sample Name: RL
Misc Info: ms rl wk_00075
Vial Number: 4506
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: QCS
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	Expected	QC Range(%)	Flag
7 (Li)	1.01 ug/l	6.25	---	##### - #####	
9 Be	0.11 ug/l	5.76	---	##### - #####	
11 B	5.12 ug/l	1.15	---	##### - #####	
23 Na	50.76 ug/l	1.83	---	##### - #####	
24 Mg	50.28 ug/l	0.61	---	##### - #####	
27 Al	10.22 ug/l	1.82	---	##### - #####	
39 K	48.09 ug/l	1.76	---	##### - #####	
40 Ca	50.38 ug/l	0.26	---	##### - #####	
45 Sc	-------- ug/l	--------	---	##### - #####	
47 Ti	0.97 ug/l	4.27	---	##### - #####	
51 V	1.05 ug/l	3.38	---	##### - #####	
52 Cr	0.95 ug/l	7.14	---	##### - #####	
55 Mn	0.98 ug/l	1.03	---	##### - #####	
56 Fe	5.27 ug/l	0.43	---	##### - #####	
59 Co	0.96 ug/l	1.50	---	##### - #####	
60 Ni	1.01 ug/l	3.62	---	##### - #####	
63 Cu	1.03 ug/l	2.13	---	##### - #####	
65 Cu	0.98 ug/l	4.35	---	##### - #####	
65 Cu	1.07 ug/l	1.25	---	##### - #####	
66 Zn	1.08 ug/l	2.69	---	##### - #####	
68 Zn	0.97 ug/l	3.63	---	##### - #####	
70 Ge	-------- ug/l	--------	---	##### - #####	
70 Ge	-------- ug/l	--------	---	##### - #####	
70 Ge	-------- ug/l	--------	---	##### - #####	
72 Ge	-------- ug/l	--------	---	##### - #####	
75 As	1.04 ug/l	4.19	---	##### - #####	
78 Se	0.50 ug/l	2.95	---	##### - #####	
88 Sr	0.97 ug/l	0.61	---	##### - #####	
90 Zr	6.31 ug/l	1.50	---	##### - #####	
91 Zr	6.19 ug/l	0.54	---	##### - #####	
95 Mo	0.99 ug/l	1.74	---	##### - #####	
107 Ag	1.03 ug/l	2.24	---	##### - #####	
111 Cd	0.48 ug/l	0.73	---	##### - #####	
118 Sn	1.12 ug/l	2.47	---	##### - #####	
121 Sb	0.52 ug/l	2.26	---	##### - #####	
137 Ba	0.97 ug/l	4.43	---	##### - #####	
166 Er	-------- ug/l	--------	---	##### - #####	
201 Hg	0.10 ug/l	4.59	---	##### - #####	
202 Hg	0.10 ug/l	1.84	---	##### - #####	
203 Tl	0.22 ug/l	3.23	---	##### - #####	
205 Tl	0.21 ug/l	4.05	---	##### - #####	
206 (Pb)	-------- ug/l	--------	---	##### - #####	
207 (Pb)	-------- ug/l	--------	---	##### - #####	
208 Pb	0.29 ug/l	1.54	---	##### - #####	
232 Th	0.88 ug/l	1.04	---	##### - #####	
238 U	0.94 ug/l	0.57	---	##### - #####	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	522013.16	2.73	531519.69	98.2	60 - 125	
45 Sc	266870.63	0.64	282316.44	94.5	60 - 125	
45 Sc	780725.69	1.78	802725.75	97.3	60 - 125	
74 Ge	105710.55	0.69	109028.65	97.0	60 - 125	
74 Ge	19863.63	3.03	20216.41	98.3	60 - 125	
74 Ge	205266.56	0.83	209704.94	97.9	60 - 125	
89 Y	1116175.80	2.57	1159007.90	96.3	60 - 125	
115 In	1244604.00	1.15	1277748.90	97.4	60 - 125	
159 Tb	1846896.30	1.03	1896321.40	97.4	60 - 125	
209 Bi	1126023.30	1.05	1156151.50	97.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failure: 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\018SMPL.D\018SMPL.D#
Date Acquired:	Mar 25 2009 01:41 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RL 1/5
Misc Info:	1/5 ms zl wk_00075
Vial Number:	4507
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	5.00
Autodil Factor:	Undiluted
Final Dil Factor:	5.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.09115	0.01823	ug/l	10.43	#VALUE!	
11	B	# 3	6.55	1.31	ug/l	4.33	#VALUE!	
23	Na	# 1	52.65	10.53	ug/l	2.87	#VALUE!	
24	Mg	# 1	52.65	10.53	ug/l	0.88	#VALUE!	
27	Al	# 1	12.335	2.467	ug/l	2.56	#VALUE!	
39	K	# 2	41.72	8.344	ug/l	8.66	#VALUE!	
40	Ca	# 1	52.7	10.54	ug/l	1.71	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.969	0.1938	ug/l	10.40	#VALUE!	
51	V	# 2	1.0815	0.2163	ug/l	6.92	#VALUE!	
52	Cr	# 2	0.9415	0.1883	ug/l	8.63	#VALUE!	
55	Mn	# 3	1.029	0.2058	ug/l	2.61	#VALUE!	
56	Fe	# 1	5.835	1.167	ug/l	3.09	#VALUE!	
59	Co	# 3	0.982	0.1964	ug/l	0.92	#VALUE!	
60	Ni	# 2	1.005	0.201	ug/l	5.44	#VALUE!	
63	Cu	# 2	1.1255	0.2251	ug/l	3.99	#VALUE!	
65	Cu	# 2	1.114	0.2228	ug/l	7.53	#VALUE!	
65	Cu	# 3	1.1125	0.2225	ug/l	7.18	#VALUE!	
66	Zn	# 3	1.0895	0.2179	ug/l	6.96	#VALUE!	
68	Zn	# 3	1.0855	0.2171	ug/l	19.06	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.1475	0.2295	ug/l	5.25	#VALUE!	
78	Se	# 1	0.49315	0.09863	ug/l	27.36	#VALUE!	
88	Sr	# 3	0.971	0.1942	ug/l	3.11	#VALUE!	
90	Zr	# 3	7.525	1.505	ug/l	2.34	#VALUE!	
91	Zr	# 3	7.59	1.518	ug/l	2.52	#VALUE!	
95	Mo	# 3	1.0915	0.2183	ug/l	9.50	#VALUE!	
107	Ag	# 3	1.0775	0.2155	ug/l	4.00	#VALUE!	
111	Cd	# 3	0.4921	0.09842	ug/l	14.82	#VALUE!	
118	Sn	# 3	1.2415	0.2483	ug/l	3.29	#VALUE!	
121	Sb	# 3	0.6395	0.1279	ug/l	4.51	#VALUE!	
137	Ba	# 3	0.928	0.1856	ug/l	10.88	#VALUE!	
201	Hg	# 3	0.15855	0.03171	ug/l	12.15	#VALUE!	
202	Hg	# 3	0.17	0.034	ug/l	1.75	#VALUE!	
203	Tl	# 3	0.24615	0.04923	ug/l	6.16	#VALUE!	
205	Tl	# 3	0.2413	0.04826	ug/l	8.57	#VALUE!	
208	Pb	# 3	0.31305	0.06261	ug/l	6.05	#VALUE!	
232	Th	# 3	0.9565	0.1913	ug/l	0.94	#VALUE!	
238	U	# 3	0.953	0.1906	ug/l	2.30	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	547715.75	1.36	531519.69	103.0	60 - 125	
45	Sc	# 1	281034.72	0.84	282316.44	99.5	60 - 125	
45	Sc	# 3	814037.13	1.34	802725.75	101.4	60 - 125	
74	Ge	# 1	109378.35	0.78	109028.65	100.3	60 - 125	
74	Ge	# 2	20534.33	2.66	20216.41	101.6	60 - 125	
74	Ge	# 3	210673.69	1.50	209704.94	100.5	60 - 125	
89	Y	# 3	1164797.50	1.71	1159007.90	100.5	60 - 125	
115	In	# 3	1288858.10	1.00	1277748.90	100.9	60 - 125	
159	Tb	# 3	1899899.10	1.00	1896321.40	100.2	60 - 125	
209	Bi	# 3	1169986.40	1.40	1156151.50	101.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\019SMPL.D\019SMPL.D#
Date Acquired:	Mar 25 2009 01:48 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RL 1/10
Misc Info:	1/10 ms rl wk_00075
Vial Number:	4508
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	10.00
Autodil Factor:	Undiluted
Final Dil Factor:	10.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.1131	0.01131	ug/l	25.33	#VALUE!	
11	B	# 3	7.376	0.7376	ug/l	5.62	#VALUE!	
23	Na	# 1	54.47	5.447	ug/l	2.45	#VALUE!	
24	Mg	# 1	54.16	5.416	ug/l	1.11	#VALUE!	
27	Al	# 1	16.98	1.698	ug/l	7.89	#VALUE!	
39	K	# 2	47.42	4.742	ug/l	21.04	#VALUE!	
40	Ca	# 1	67.88	6.788	ug/l	1.65	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.9653	0.09653	ug/l	7.52	#VALUE!	
51	V	# 2	0.8318	0.08318	ug/l	15.30	#VALUE!	
52	Cr	# 2	1.025	0.1025	ug/l	8.00	#VALUE!	
55	Mn	# 3	1.158	0.1158	ug/l	5.91	#VALUE!	
56	Fe	# 1	9.15	0.915	ug/l	0.47	#VALUE!	
59	Co	# 3	0.9976	0.09976	ug/l	7.58	#VALUE!	
60	Ni	# 2	1.024	0.1024	ug/l	9.99	#VALUE!	
63	Cu	# 2	1.103	0.1103	ug/l	11.69	#VALUE!	
65	Cu	# 2	1.216	0.1216	ug/l	8.36	#VALUE!	
65	Cu	# 3	1.363	0.1363	ug/l	6.62	#VALUE!	
66	Zn	# 3	1.059	0.1059	ug/l	25.31	#VALUE!	
68	Zn	# 3	0.9995	0.09995	ug/l	24.27	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.079	0.1079	ug/l	13.23	#VALUE!	
78	Se	# 1	0.5786	0.05786	ug/l	17.49	#VALUE!	
88	Sr	# 3	1.023	0.1023	ug/l	3.53	#VALUE!	
90	Zr	# 3	7.949	0.7949	ug/l	0.36	#VALUE!	
91	Zr	# 3	7.962	0.7962	ug/l	6.15	#VALUE!	
95	Mo	# 3	1.189	0.1189	ug/l	3.42	#VALUE!	
107	Ag	# 3	1.089	0.1089	ug/l	5.20	#VALUE!	
111	Cd	# 3	0.4736	0.04736	ug/l	13.65	#VALUE!	
118	Sn	# 3	1.225	0.1225	ug/l	0.58	#VALUE!	
121	Sb	# 3	0.6733	0.06733	ug/l	2.15	#VALUE!	
137	Ba	# 3	1.125	0.1125	ug/l	11.16	#VALUE!	
201	Hg	# 3	0.2183	0.02183	ug/l	3.50	#VALUE!	
202	Hg	# 3	0.2465	0.02465	ug/l	11.82	#VALUE!	
203	Tl	# 3	0.2539	0.02539	ug/l	8.05	#VALUE!	
205	Tl	# 3	0.2287	0.02287	ug/l	3.66	#VALUE!	
208	Pb	# 3	0.3338	0.03338	ug/l	7.59	#VALUE!	
232	Th	# 3	0.9678	0.09678	ug/l	4.34	#VALUE!	
238	U	# 3	0.9282	0.09282	ug/l	0.66	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	547857.94	1.05	531519.69	103.1	60 - 125	
45	Sc	# 1	287041.13	0.52	282316.44	101.7	60 - 125	
45	Sc	# 3	819628.56	0.38	802725.75	102.1	60 - 125	
74	Ge	# 1	110762.49	1.36	109028.65	101.6	60 - 125	
74	Ge	# 2	20806.98	4.11	20216.41	102.9	60 - 125	
74	Ge	# 3	211250.56	1.05	209704.94	100.7	60 - 125	
89	Y	# 3	1177282.10	1.15	1159007.90	101.6	60 - 125	
115	In	# 3	1296105.00	1.23	1277748.90	101.4	60 - 125	
159	Tb	# 3	1924897.60	0.91	1896321.40	101.5	60 - 125	
209	Bi	# 3	1176210.30	0.87	1156151.50	101.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\020SMPL.D\020SMPL.D#
Date Acquired:	Mar 25 2009 01:55 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RL 1/50
Misc Info:	1/50 ms rl wk_00075
Vial Number:	4509
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	50.00
Autodil Factor:	Undiluted
Final Dil Factor:	50.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.19845	0.003969	ug/l	55.98	#VALUE!	
11	B	# 3	13.88	0.2776	ug/l	17.45	#VALUE!	
23	Na	# 1	99.7	1.994	ug/l	5.54	#VALUE!	
24	Mg	# 1	73.95	1.479	ug/l	2.27	#VALUE!	
27	Al	# 1	39.46	0.7892	ug/l	13.25	#VALUE!	
39	K	# 2	-13.78	-0.2756	ug/l	226.49	#VALUE!	
40	Ca	# 1	135.6	2.712	ug/l	1.35	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	1.4705	0.02941	ug/l	16.74	#VALUE!	
51	V	# 2	0.71	0.0142	ug/l	58.63	#VALUE!	
52	Cr	# 2	1.1645	0.02329	ug/l	5.93	#VALUE!	
55	Mn	# 3	1.4855	0.02971	ug/l	5.30	#VALUE!	
56	Fe	# 1	15.385	0.3077	ug/l	2.23	#VALUE!	
59	Co	# 3	1.0195	0.02039	ug/l	22.58	#VALUE!	
60	Ni	# 2	2.4185	0.04837	ug/l	34.51	#VALUE!	
63	Cu	# 2	1.9085	0.03817	ug/l	3.37	#VALUE!	
65	Cu	# 2	1.3755	0.02751	ug/l	10.19	#VALUE!	
65	Cu	# 3	1.825	0.0365	ug/l	28.49	#VALUE!	
66	Zn	# 3	11.12	0.2224	ug/l	15.12	#VALUE!	
68	Zn	# 3	9.79	0.1958	ug/l	13.91	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.704	0.03408	ug/l	21.47	#VALUE!	
78	Se	# 1	0.976	0.01952	ug/l	28.92	#VALUE!	
88	Sr	# 3	1.1495	0.02299	ug/l	8.98	#VALUE!	
90	Zr	# 3	14.415	0.2883	ug/l	4.96	#VALUE!	
91	Zr	# 3	13.47	0.2694	ug/l	11.72	#VALUE!	
95	Mo	# 3	1.506	0.03012	ug/l	22.53	#VALUE!	
107	Ag	# 3	1.1825	0.02365	ug/l	9.76	#VALUE!	
111	Cd	# 3	0.814	0.01628	ug/l	22.54	#VALUE!	
118	Sn	# 3	1.7875	0.03575	ug/l	7.90	#VALUE!	
121	Sb	# 3	1.241	0.02482	ug/l	9.89	#VALUE!	
137	Ba	# 3	0.804	0.01608	ug/l	4.45	#VALUE!	
201	Hg	# 3	0.5675	0.01135	ug/l	6.86	#VALUE!	
202	Hg	# 3	0.672	0.01344	ug/l	11.53	#VALUE!	
203	Tl	# 3	0.4411	0.008822	ug/l	12.10	#VALUE!	
205	Tl	# 3	0.3344	0.006688	ug/l	10.95	#VALUE!	
208	Pb	# 3	0.41215	0.008243	ug/l	5.17	#VALUE!	
232	Th	# 3	1.341	0.02682	ug/l	4.41	#VALUE!	
238	U	# 3	1.0055	0.02011	ug/l	11.31	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	551502.38	0.76	531519.69	103.8	60 - 125	
45	Sc	# 1	285497.25	0.40	282316.44	101.1	60 - 125	
45	Sc	# 3	812957.44	0.97	802725.75	101.3	60 - 125	
74	Ge	# 1	110078.41	0.71	109028.65	101.0	60 - 125	
74	Ge	# 2	20782.86	3.01	20216.41	102.8	60 - 125	
74	Ge	# 3	209523.34	0.94	209704.94	99.9	60 - 125	
89	Y	# 3	1165708.10	0.84	1159007.90	100.6	60 - 125	
115	In	# 3	1293763.40	0.99	1277748.90	101.3	60 - 125	
159	Tb	# 3	1929279.10	1.21	1896321.40	101.7	60 - 125	
209	Bi	# 3	1163461.00	1.32	1156151.50	100.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\021SMPL.D\021SMPL.D#
Date Acquired:	Mar 25 2009 02:02 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	RL Zn B Fe
Misc Info:	MSBFEZN 000011
Vial Number:	4511
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.005423	0.005423	ug/l	33.60	#VALUE!	
11	B	# 3	19.67	19.67	ug/l	1.00	#VALUE!	
23	Na	# 1	1.284	1.284	ug/l	17.37	#VALUE!	
24	Mg	# 1	1.526	1.526	ug/l	2.12	#VALUE!	
27	Al	# 1	1.223	1.223	ug/l	6.42	#VALUE!	
39	K	# 2	-0.7083	-0.7083	ug/l	99.32	#VALUE!	
40	Ca	# 1	3.722	3.722	ug/l	2.95	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.01635	0.01635	ug/l	19.06	#VALUE!	
51	V	# 2	-0.004475	-0.004475	ug/l	172.76	#VALUE!	
52	Cr	# 2	-0.003018	-0.003018	ug/l	217.03	#VALUE!	
55	Mn	# 3	0.05845	0.05845	ug/l	11.23	#VALUE!	
56	Fe	# 1	21.02	21.02	ug/l	1.47	#VALUE!	
59	Co	# 3	0.00617	0.00617	ug/l	21.38	#VALUE!	
60	Ni	# 2	-0.0001748	-0.0001748	ug/l	1730.00	#VALUE!	
63	Cu	# 2	0.008627	0.008627	ug/l	83.36	#VALUE!	
65	Cu	# 2	0.008139	0.008139	ug/l	60.14	#VALUE!	
65	Cu	# 3	0.003125	0.003125	ug/l	277.50	#VALUE!	
66	Zn	# 3	4.344	4.344	ug/l	3.22	#VALUE!	
68	Zn	# 3	4.119	4.119	ug/l	1.48	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.0153	0.0153	ug/l	63.22	#VALUE!	
78	Se	# 1	0.008504	0.008504	ug/l	62.58	#VALUE!	
88	Sr	# 3	0.007061	0.007061	ug/l	11.79	#VALUE!	
90	Zr	# 3	0.1373	0.1373	ug/l	8.90	#VALUE!	
91	Zr	# 3	0.1374	0.1374	ug/l	11.12	#VALUE!	
95	Mo	# 3	0.01586	0.01586	ug/l	17.43	#VALUE!	
107	Ag	# 3	0.009517	0.009517	ug/l	37.43	#VALUE!	
111	Cd	# 3	0.005862	0.005862	ug/l	53.46	#VALUE!	
118	Sn	# 3	0.016	0.016	ug/l	15.03	#VALUE!	
121	Sb	# 3	0.01474	0.01474	ug/l	20.21	#VALUE!	
137	Ba	# 3	0.004664	0.004664	ug/l	91.92	#VALUE!	
201	Hg	# 3	0.007313	0.007313	ug/l	47.98	#VALUE!	
202	Hg	# 3	0.00835	0.00835	ug/l	8.39	#VALUE!	
203	Tl	# 3	0.004505	0.004505	ug/l	42.53	#VALUE!	
205	Tl	# 3	0.001803	0.001803	ug/l	41.12	#VALUE!	
208	Pb	# 3	0.006526	0.006526	ug/l	8.31	#VALUE!	
232	Th	# 3	0.008261	0.008261	ug/l	8.49	#VALUE!	
238	U	# 3	0.00463	0.00463	ug/l	3.22	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	550308.31	1.50	531519.69	103.5	60 - 125	
45	Sc	# 1	288658.56	1.34	282316.44	102.2	60 - 125	
45	Sc	# 3	818432.00	0.61	802725.75	102.0	60 - 125	
74	Ge	# 1	111682.16	1.55	109028.65	102.4	60 - 125	
74	Ge	# 2	20881.53	2.68	20216.41	103.3	60 - 125	
74	Ge	# 3	212926.73	1.54	209704.94	101.5	60 - 125	
89	Y	# 3	1176477.50	1.26	1159007.90	101.5	60 - 125	
115	In	# 3	1295653.90	1.08	1277748.90	101.4	60 - 125	
159	Tb	# 3	1930247.60	0.88	1896321.40	101.8	60 - 125	
209	Bi	# 3	1183764.30	1.37	1156151.50	102.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\022SMPL.D\022SMPL.D#
Date Acquired:	Mar 25 2009 02:09 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	.5
Misc Info:	1/200 ms cal std 00054
Vial Number:	4501
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.5232	0.5232	ug/l	1.90	#VALUE!	
11	B	# 3	1.359	1.359	ug/l	3.34	#VALUE!	
23	Na	# 1	55.7	55.7	ug/l	1.15	#VALUE!	
24	Mg	# 1	56.88	56.88	ug/l	0.37	#VALUE!	
27	Al	# 1	6.053	6.053	ug/l	3.54	#VALUE!	
39	K	# 2	52.19	52.19	ug/l	0.77	#VALUE!	
40	Ca	# 1	54.86	54.86	ug/l	0.07	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.5851	0.5851	ug/l	2.64	#VALUE!	
51	V	# 2	0.5167	0.5167	ug/l	4.94	#VALUE!	
52	Cr	# 2	0.5349	0.5349	ug/l	2.78	#VALUE!	
55	Mn	# 3	5.147	5.147	ug/l	1.49	#VALUE!	
56	Fe	# 1	53.72	53.72	ug/l	0.67	#VALUE!	
59	Co	# 3	0.5045	0.5045	ug/l	2.78	#VALUE!	
60	Ni	# 2	0.5595	0.5595	ug/l	6.41	#VALUE!	
63	Cu	# 2	0.5817	0.5817	ug/l	1.98	#VALUE!	
65	Cu	# 2	0.5845	0.5845	ug/l	5.68	#VALUE!	
65	Cu	# 3	0.5545	0.5545	ug/l	4.32	#VALUE!	
66	Zn	# 3	0.6771	0.6771	ug/l	3.39	#VALUE!	
68	Zn	# 3	0.6527	0.6527	ug/l	5.66	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.547	0.547	ug/l	10.77	#VALUE!	
78	Se	# 1	0.5481	0.5481	ug/l	6.06	#VALUE!	
88	Sr	# 3	0.5063	0.5063	ug/l	0.94	#VALUE!	
90	Zr	# 3	3.485	3.485	ug/l	2.54	#VALUE!	
91	Zr	# 3	3.457	3.457	ug/l	2.49	#VALUE!	
95	Mo	# 3	0.4952	0.4952	ug/l	1.65	#VALUE!	
107	Ag	# 3	0.5388	0.5388	ug/l	1.96	#VALUE!	
111	Cd	# 3	0.5512	0.5512	ug/l	8.73	#VALUE!	
118	Sn	# 3	0.5087	0.5087	ug/l	3.74	#VALUE!	
121	Sb	# 3	0.4761	0.4761	ug/l	1.44	#VALUE!	
137	Ba	# 3	0.5112	0.5112	ug/l	3.04	#VALUE!	
201	Hg	# 3	0.03381	0.03381	ug/l	8.86	#VALUE!	
202	Hg	# 3	0.03392	0.03392	ug/l	2.28	#VALUE!	
203	Tl	# 3	0.1091	0.1091	ug/l	6.98	#VALUE!	
205	Tl	# 3	0.1119	0.1119	ug/l	5.10	#VALUE!	
208	Pb	# 3	0.5044	0.5044	ug/l	1.34	#VALUE!	
232	Th	# 3	0.4603	0.4603	ug/l	0.67	#VALUE!	
238	U	# 3	0.474	0.474	ug/l	0.94	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	552758.94	0.58	531519.69	104.0	60 - 125	
45	Sc	# 1	290124.97	0.62	282316.44	102.8	60 - 125	
45	Sc	# 3	826170.75	1.86	802725.75	102.9	60 - 125	
74	Ge	# 1	111382.34	0.41	109028.65	102.2	60 - 125	
74	Ge	# 2	20990.22	2.57	20216.41	103.8	60 - 125	
74	Ge	# 3	212016.95	0.58	209704.94	101.1	60 - 125	
89	Y	# 3	1180419.00	0.51	1159007.90	101.8	60 - 125	
115	In	# 3	1291328.40	0.78	1277748.90	101.1	60 - 125	
159	Tb	# 3	1936094.50	1.66	1896321.40	102.1	60 - 125	
209	Bi	# 3	1175851.10	1.38	1156151.50	101.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\023_CCV.D\023_CCV.D#
Date Acquired: Mar 25 2009 02:16 pm
Operator: BB
Sample Name: CCV 50/5000
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element		Conc.	RSD(%)	Expected	QC Range(%)	Flag
9 Be	# 3	48.09 ug/l	2.78	50.00	90 - 110	
11 B	# 3	96.71 ug/l	2.08	100.00	90 - 110	
23 Na	# 1	5011 ug/l	0.72	5000.00	90 - 110	
24 Mg	# 1	4971 ug/l	0.39	5000.00	90 - 110	
27 Al	# 1	497.7 ug/l	1.48	500.00	90 - 110	
39 K	# 2	4965 ug/l	2.86	5000.00	90 - 110	
40 Ca	# 1	4915 ug/l	0.31	5000.00	90 - 110	
45 Sc	# 2	-------- ug/l	--------	---	##### - #####	
47 Ti	# 3	48.73 ug/l	1.69	50.00	90 - 110	
51 V	# 2	48.19 ug/l	0.51	50.00	90 - 110	
52 Cr	# 2	48.33 ug/l	0.45	50.00	90 - 110	
55 Mn	# 3	492 ug/l	0.65	500.00	90 - 110	
56 Fe	# 1	4865 ug/l	0.65	5000.00	90 - 110	
59 Co	# 3	50.25 ug/l	1.03	50.00	90 - 110	
60 Ni	# 2	48.8 ug/l	1.05	50.00	90 - 110	
63 Cu	# 2	48.72 ug/l	0.46	50.00	90 - 110	
65 Cu	# 2	48.7 ug/l	1.45	50.00	90 - 110	
65 Cu	# 3	49.59 ug/l	0.76	50.00	90 - 110	
66 Zn	# 3	49.72 ug/l	0.64	50.00	90 - 110	
68 Zn	# 3	49.22 ug/l	0.64	50.00	90 - 110	
70 Ge	# 2	-------- ug/l	--------	---	##### - #####	
75 As	# 2	49.55 ug/l	0.83	50.00	90 - 110	
78 Se	# 1	50.47 ug/l	0.46	50.00	90 - 110	
88 Sr	# 3	49.36 ug/l	1.53	50.00	90 - 110	
90 Zr	# 3	476.9 ug/l	1.42	500.00	90 - 110	
91 Zr	# 3	483.2 ug/l	1.51	500.00	90 - 110	
95 Mo	# 3	47.11 ug/l	1.04	50.00	90 - 110	
107 Ag	# 3	48.01 ug/l	0.49	50.00	90 - 110	
111 Cd	# 3	48.99 ug/l	0.65	50.00	90 - 110	
118 Sn	# 3	48.7 ug/l	0.50	50.00	90 - 110	
121 Sb	# 3	45.5 ug/l	0.61	50.00	90 - 110	
137 Ba	# 3	47.66 ug/l	0.42	50.00	90 - 110	
201 Hg	# 3	2.353 ug/l	0.48	2.50	90 - 110	
202 Hg	# 3	2.382 ug/l	1.00	2.50	90 - 110	
203 Tl	# 3	9.758 ug/l	0.59	10.00	90 - 110	
205 Tl	# 3	9.783 ug/l	0.66	10.00	90 - 110	
208 Pb	# 3	48.74 ug/l	1.20	50.00	90 - 110	
232 Th	# 3	48.32 ug/l	1.56	---	##### - #####	
238 U	# 3	48.03 ug/l	1.32	---	##### - #####	

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	# 3	524983.81	2.90	531519.69	98.8	60 - 125	
45 Sc	# 1	281835.75	0.62	282316.44	99.8	60 - 125	
45 Sc	# 3	810479.94	1.89	802725.75	101.0	60 - 125	
74 Ge	# 1	109084.45	0.73	109028.65	100.1	60 - 125	
74 Ge	# 2	20666.02	2.06	20216.41	102.2	60 - 125	
74 Ge	# 3	209597.69	0.35	209704.94	99.9	60 - 125	
89 Y	# 3	1165223.60	1.56	1159007.90	100.5	60 - 125	
115 In	# 3	1264233.60	0.73	1277748.90	98.9	60 - 125	
159 Tb	# 3	1894955.60	1.90	1896321.40	99.9	60 - 125	
209 Bi	# 3	1136642.50	0.63	1156151.50	98.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\024_CCB.D\024_CCB.D#
Date Acquired: Mar 25 2009 02:22 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.007787 ug/l	12.93	#VALUE!	
11 B	0.8993 ug/l	7.42	#VALUE!	
23 Na	0.3091 ug/l	43.35	#VALUE!	
24 Mg	0.5597 ug/l	14.48	#VALUE!	
27 Al	0.04717 ug/l	68.07	#VALUE!	
39 K	0.2381 ug/l	127.59	#VALUE!	
40 Ca	0.5341 ug/l	12.78	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.01612 ug/l	74.75	#VALUE!	
51 V	-0.01085 ug/l	58.20	#VALUE!	
52 Cr	0.006078 ug/l	79.55	#VALUE!	
55 Mn	0.03798 ug/l	8.16	#VALUE!	
56 Fe	1.006 ug/l	3.26	#VALUE!	
59 Co	0.003565 ug/l	13.53	#VALUE!	
60 Ni	0.005603 ug/l	128.45	#VALUE!	
63 Cu	0.01706 ug/l	48.09	#VALUE!	
65 Cu	0.008223 ug/l	102.36	#VALUE!	
65 Cu	0.007135 ug/l	14.70	#VALUE!	
66 Zn	-0.0009535 ug/l	769.80	#VALUE!	
68 Zn	-0.01255 ug/l	155.54	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.03063 ug/l	26.32	#VALUE!	
78 Se	0.06485 ug/l	0.38	#VALUE!	
88 Sr	0.003526 ug/l	20.77	#VALUE!	
90 Zr	0.6539 ug/l	3.57	#VALUE!	
91 Zr	0.6238 ug/l	4.93	#VALUE!	
95 Mo	0.1093 ug/l	14.31	#VALUE!	
107 Ag	0.006529 ug/l	13.80	#VALUE!	
111 Cd	0.004061 ug/l	102.27	#VALUE!	
118 Sn	0.07468 ug/l	6.70	#VALUE!	
121 Sb	0.03044 ug/l	7.31	#VALUE!	
137 Ba	-0.0006011 ug/l	503.91	#VALUE!	
201 Hg	0.02877 ug/l	16.46	#VALUE!	
202 Hg	0.02738 ug/l	7.77	#VALUE!	
203 Tl	0.03703 ug/l	7.29	#VALUE!	
205 Tl	0.03458 ug/l	16.32	#VALUE!	
208 Pb	0.005474 ug/l	29.67	#VALUE!	
232 Th	0.06824 ug/l	10.50	#VALUE!	
238 U	0.00919 ug/l	8.02	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	537573.56	1.42	531519.69	101.1	60 - 125	
45 Sc	281293.47	0.85	282316.44	99.6	60 - 125	
45 Sc	820418.06	2.18	802725.75	102.2	60 - 125	
74 Ge	109261.93	0.79	109028.65	100.2	60 - 125	
74 Ge	20734.27	3.03	20216.41	102.6	60 - 125	
74 Ge	211754.47	1.32	209704.94	101.0	60 - 125	
89 Y	1171659.40	1.10	1159007.90	101.1	60 - 125	
115 In	1275149.00	1.14	1277748.90	99.8	60 - 125	
159 Tb	1899129.80	1.14	1896321.40	100.1	60 - 125	
209 Bi	1146565.90	1.46	1156151.50	99.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\025SMPL.D\025SMPL.D#
Date Acquired:	Mar 25 2009 02:29 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	ICSA
Misc Info:	MSICSA 00020
Vial Number:	1106
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.002914	0.002914	ug/l	23.46	#VALUE!	
11	B	# 3	0.7595	0.7595	ug/l	9.64	#VALUE!	
23	Na	# 1	97590	97590	ug/l	1.20	#VALUE!	
24	Mg	# 1	94240	94240	ug/l	1.15	#VALUE!	
27	Al	# 1	92580	92580	ug/l	0.68	#VALUE!	
39	K	# 2	100200	100200	ug/l	0.57	#VALUE!	
40	Ca	# 1	98560	98560	ug/l	0.65	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	2173	2173	ug/l	0.38	#VALUE!	
51	V	# 2	0.03575	0.03575	ug/l	19.42	#VALUE!	
52	Cr	# 2	1.012	1.012	ug/l	1.77	#VALUE!	
55	Mn	# 3	2.17	2.17	ug/l	0.60	#VALUE!	
56	Fe	# 1	96140	96140	ug/l	0.61	#VALUE!	
59	Co	# 3	0.1521	0.1521	ug/l	8.01	#VALUE!	
60	Ni	# 2	0.625	0.625	ug/l	7.29	#VALUE!	
63	Cu	# 2	0.1095	0.1095	ug/l	5.32	#VALUE!	
65	Cu	# 2	0.1977	0.1977	ug/l	4.92	#VALUE!	
65	Cu	# 3	1.491	1.491	ug/l	2.08	#VALUE!	
66	Zn	# 3	2.844	2.844	ug/l	1.97	#VALUE!	
68	Zn	# 3	1.518	1.518	ug/l	3.70	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.1123	0.1123	ug/l	2.72	#VALUE!	
78	Se	# 1	0.06776	0.06776	ug/l	20.07	#VALUE!	
88	Sr	# 3	2.68	2.68	ug/l	1.48	#VALUE!	
90	Zr	# 3	4.737	4.737	ug/l	10.75	#VALUE!	
91	Zr	# 3	4.73	4.73	ug/l	10.68	#VALUE!	
95	Mo	# 3	2092	2092	ug/l	0.39	#VALUE!	
107	Ag	# 3	0.05333	0.05333	ug/l	4.51	#VALUE!	
111	Cd	# 3	-0.1582	-0.1582	ug/l	42.78	#VALUE!	
118	Sn	# 3	0.08456	0.08456	ug/l	5.60	#VALUE!	
121	Sb	# 3	0.2126	0.2126	ug/l	1.47	#VALUE!	
137	Ba	# 3	1.494	1.494	ug/l	0.89	#VALUE!	
201	Hg	# 3	0.02466	0.02466	ug/l	13.03	#VALUE!	
202	Hg	# 3	0.02536	0.02536	ug/l	2.68	#VALUE!	
203	Tl	# 3	0.04229	0.04229	ug/l	9.69	#VALUE!	
205	Tl	# 3	0.03998	0.03998	ug/l	4.31	#VALUE!	
208	Pb	# 3	0.09257	0.09257	ug/l	3.54	#VALUE!	
232	Th	# 3	0.08488	0.08488	ug/l	5.23	#VALUE!	
238	U	# 3	0.003738	0.003738	ug/l	10.50	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	478515.25	1.36	531519.69	90.0	60 - 125	
45	Sc	# 1	269278.19	1.24	282316.44	95.4	60 - 125	
45	Sc	# 3	770543.63	0.70	802725.75	96.0	60 - 125	
74	Ge	# 1	97441.34	1.49	109028.65	89.4	60 - 125	
74	Ge	# 2	18351.39	3.28	20216.41	90.8	60 - 125	
74	Ge	# 3	187952.94	0.37	209704.94	89.6	60 - 125	
89	Y	# 3	1114715.10	0.72	1159007.90	96.2	60 - 125	
115	In	# 3	1135630.10	0.76	1277748.90	88.9	60 - 125	
159	Tb	# 3	1793461.60	1.69	1896321.40	94.6	60 - 125	
209	Bi	# 3	942715.19	0.82	1156151.50	81.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\026SMPL.D\026SMPL.D#
Date Acquired:	Mar 25 2009 02:36 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	ICSAB
Misc Info:	MSICSAB 00022
Vial Number:	1107
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.008342	0.008342	ug/l	22.96	#VALUE!	
11	B	# 3	0.5576	0.5576	ug/l	6.90	#VALUE!	
23	Na	# 1	98320	98320	ug/l	1.67	#VALUE!	
24	Mg	# 1	94710	94710	ug/l	1.07	#VALUE!	
27	Al	# 1	93030	93030	ug/l	0.90	#VALUE!	
39	K	# 2	99320	99320	ug/l	0.63	#VALUE!	
40	Ca	# 1	98910	98910	ug/l	0.47	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	2179	2179	ug/l	0.93	#VALUE!	
51	V	# 2	0.04348	0.04348	ug/l	26.96	#VALUE!	
52	Cr	# 2	22.1	22.1	ug/l	1.13	#VALUE!	
55	Mn	# 3	22.14	22.14	ug/l	0.60	#VALUE!	
56	Fe	# 1	98460	98460	ug/l	0.43	#VALUE!	
59	Co	# 3	19.74	19.74	ug/l	0.47	#VALUE!	
60	Ni	# 2	21	21	ug/l	0.80	#VALUE!	
63	Cu	# 2	19.81	19.81	ug/l	1.39	#VALUE!	
65	Cu	# 2	19.55	19.55	ug/l	0.95	#VALUE!	
65	Cu	# 3	20.64	20.64	ug/l	0.72	#VALUE!	
66	Zn	# 3	20.85	20.85	ug/l	0.56	#VALUE!	
68	Zn	# 3	19.11	19.11	ug/l	1.52	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	21.04	21.04	ug/l	2.07	#VALUE!	
78	Se	# 1	0.04271	0.04271	ug/l	5.21	#VALUE!	
88	Sr	# 3	2.722	2.722	ug/l	0.54	#VALUE!	
90	Zr	# 3	2.203	2.203	ug/l	3.30	#VALUE!	
91	Zr	# 3	2.228	2.228	ug/l	5.21	#VALUE!	
95	Mo	# 3	2107	2107	ug/l	1.10	#VALUE!	
107	Ag	# 3	17.61	17.61	ug/l	1.13	#VALUE!	
111	Cd	# 3	18.36	18.36	ug/l	1.18	#VALUE!	
118	Sn	# 3	0.06705	0.06705	ug/l	11.62	#VALUE!	
121	Sb	# 3	0.2035	0.2035	ug/l	3.39	#VALUE!	
137	Ba	# 3	1.494	1.494	ug/l	3.24	#VALUE!	
201	Hg	# 3	0.02182	0.02182	ug/l	2.92	#VALUE!	
202	Hg	# 3	0.02502	0.02502	ug/l	2.86	#VALUE!	
203	Tl	# 3	0.03675	0.03675	ug/l	8.05	#VALUE!	
205	Tl	# 3	0.03239	0.03239	ug/l	14.89	#VALUE!	
208	Pb	# 3	0.0922	0.0922	ug/l	1.62	#VALUE!	
232	Th	# 3	0.04215	0.04215	ug/l	4.22	#VALUE!	
238	U	# 3	0.003025	0.003025	ug/l	28.58	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	478632.81	1.27	531519.69	90.0	60 - 125	
45	Sc	# 1	252469.05	2.10	282316.44	89.4	60 - 125	
45	Sc	# 3	755481.38	1.41	802725.75	94.1	60 - 125	
74	Ge	# 1	93076.13	2.58	109028.65	85.4	60 - 125	
74	Ge	# 2	16965.76	3.24	20216.41	83.9	60 - 125	
74	Ge	# 3	185403.92	0.77	209704.94	88.4	60 - 125	
89	Y	# 3	1101011.80	0.84	1159007.90	95.0	60 - 125	
115	In	# 3	1120986.50	1.10	1277748.90	87.7	60 - 125	
159	Tb	# 3	1757360.10	0.86	1896321.40	92.7	60 - 125	
209	Bi	# 3	909302.38	1.75	1156151.50	78.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\027SMPL.D\027SMPL.D#
Date Acquired:	Mar 25 2009 02:43 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	1PPM
Misc Info:	MS LINNG 00011 1/20
Vial Number:	4510
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.0008311	0.0008311	ug/l	173.26	#VALUE!	
11	B	# 3	965.2	965.2	ug/l	1.19	#VALUE!	
23	Na	# 1	22.2	22.2	ug/l	91.08	#VALUE!	
24	Mg	# 1	18.78	18.78	ug/l	106.07	#VALUE!	
27	Al	# 1	18.75	18.75	ug/l	102.72	#VALUE!	
39	K	# 2	3.881	3.881	ug/l	33.16	#VALUE!	
40	Ca	# 1	19.79	19.79	ug/l	98.64	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	1025	1025	ug/l	0.54	#VALUE!	
51	V	# 2	1095	1095	ug/l	1.05	#VALUE!	
52	Cr	# 2	1039	1039	ug/l	0.22	#VALUE!	
55	Mn	# 3	1012	1012	ug/l	0.55	#VALUE!	
56	Fe	# 1	24	24	ug/l	83.75	#VALUE!	
59	Co	# 3	984.4	984.4	ug/l	0.25	#VALUE!	
60	Ni	# 2	1047	1047	ug/l	1.61	#VALUE!	
63	Cu	# 2	1084	1084	ug/l	0.94	#VALUE!	
65	Cu	# 2	1080	1080	ug/l	0.44	#VALUE!	
65	Cu	# 3	1049	1049	ug/l	0.39	#VALUE!	
66	Zn	# 3	1033	1033	ug/l	0.78	#VALUE!	
68	Zn	# 3	1046	1046	ug/l	0.91	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.7584	0.7584	ug/l	10.07	#VALUE!	
78	Se	# 1	0.008534	0.008534	ug/l	84.44	#VALUE!	
88	Sr	# 3	1011	1011	ug/l	0.54	#VALUE!	
90	Zr	# 3	5.152	5.152	ug/l	9.94	#VALUE!	
91	Zr	# 3	5.087	5.087	ug/l	9.14	#VALUE!	
95	Mo	# 3	955.8	955.8	ug/l	0.72	#VALUE!	
107	Ag	# 3	0.09694	0.09694	ug/l	5.65	#VALUE!	
111	Cd	# 3	-0.1078	-0.1078	ug/l	32.76	#VALUE!	
118	Sn	# 3	1019	1019	ug/l	0.90	#VALUE!	
121	Sb	# 3	0.04191	0.04191	ug/l	8.65	#VALUE!	
137	Ba	# 3	1007	1007	ug/l	0.96	#VALUE!	
201	Hg	# 3	0.00731	0.00731	ug/l	17.87	#VALUE!	
202	Hg	# 3	0.01073	0.01073	ug/l	1.32	#VALUE!	
203	Tl	# 3	0.006473	0.006473	ug/l	18.86	#VALUE!	
205	Tl	# 3	0.009614	0.009614	ug/l	15.88	#VALUE!	
208	Pb	# 3	1004	1004	ug/l	1.46	#VALUE!	
232	Th	# 3	0.03402	0.03402	ug/l	3.13	#VALUE!	
238	U	# 3	0.003092	0.003092	ug/l	21.16	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	476389.00	0.96	531519.69	89.6	60 - 125	
45	Sc	# 1	242001.39	0.81	282316.44	85.7	60 - 125	
45	Sc	# 3	716924.13	0.47	802725.75	89.3	60 - 125	
74	Ge	# 1	96157.76	1.11	109028.65	88.2	60 - 125	
74	Ge	# 2	16880.48	2.66	20216.41	83.5	60 - 125	
74	Ge	# 3	187159.52	1.26	209704.94	89.2	60 - 125	
89	Y	# 3	1055429.50	2.06	1159007.90	91.1	60 - 125	
115	In	# 3	1153165.90	2.32	1277748.90	90.2	60 - 125	
159	Tb	# 3	1771799.50	2.45	1896321.40	93.4	60 - 125	
209	Bi	# 3	1086969.00	1.80	1156151.50	94.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\028SMPL.D\028SMPL.D#
Date Acquired:	Mar 25 2009 02:49 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	2PPM
Misc Info:	MS LINNG 000011 1/10
Vial Number:	4512
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.003751	0.003751	ug/l	33.46	#VALUE!	
11	B	# 3	1937	1937	ug/l	1.57	#VALUE!	
23	Na	# 1	10.81	10.81	ug/l	29.18	#VALUE!	
24	Mg	# 1	10.02	10.02	ug/l	31.40	#VALUE!	
27	Al	# 1	10.05	10.05	ug/l	31.32	#VALUE!	
39	K	# 2	8.266	8.266	ug/l	4.22	#VALUE!	
40	Ca	# 1	11.11	11.11	ug/l	28.00	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	2023	2023	ug/l	0.72	#VALUE!	
51	V	# 2	2147	2147	ug/l	0.92	#VALUE!	
52	Cr	# 2	2007	2007	ug/l	0.79	#VALUE!	
55	Mn	# 3	2048	2048	ug/l	0.67	#VALUE!	
56	Fe	# 1	11.14	11.14	ug/l	29.52	#VALUE!	
59	Co	# 3	1975	1975	ug/l	0.38	#VALUE!	
60	Ni	# 2	2119	2119	ug/l	0.89	#VALUE!	
63	Cu	# 2	2096	2096	ug/l	0.51	#VALUE!	
65	Cu	# 2	2124	2124	ug/l	0.75	#VALUE!	
65	Cu	# 3	2070	2070	ug/l	0.47	#VALUE!	
66	Zn	# 3	2044	2044	ug/l	0.62	#VALUE!	
68	Zn	# 3	2079	2079	ug/l	0.26	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.418	1.418	ug/l	3.69	#VALUE!	
78	Se	# 1	0.01169	0.01169	ug/l	103.08	#VALUE!	
88	Sr	# 3	2043	2043	ug/l	0.98	#VALUE!	
90	Zr	# 3	4.171	4.171	ug/l	7.57	#VALUE!	
91	Zr	# 3	4.243	4.243	ug/l	8.25	#VALUE!	
95	Mo	# 3	1886	1886	ug/l	0.84	#VALUE!	
107	Ag	# 3	0.1754	0.1754	ug/l	4.70	#VALUE!	
111	Cd	# 3	-0.2605	-0.2605	ug/l	18.12	#VALUE!	
118	Sn	# 3	2023	2023	ug/l	0.73	#VALUE!	
121	Sb	# 3	0.06847	0.06847	ug/l	15.00	#VALUE!	
137	Ba	# 3	1996	1996	ug/l	1.09	#VALUE!	
201	Hg	# 3	0.007983	0.007983	ug/l	36.74	#VALUE!	
202	Hg	# 3	0.007733	0.007733	ug/l	13.18	#VALUE!	
203	Tl	# 3	0.005774	0.005774	ug/l	43.64	#VALUE!	
205	Tl	# 3	0.01203	0.01203	ug/l	26.97	#VALUE!	
208	Pb	# 3	2041	2041	ug/l	0.76	#VALUE!	
232	Th	# 3	0.03239	0.03239	ug/l	5.39	#VALUE!	
238	U	# 3	0.003675	0.003675	ug/l	6.90	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	478854.53	0.76	531519.69	90.1	60 - 125	
45	Sc	# 1	244399.88	0.81	282316.44	86.6	60 - 125	
45	Sc	# 3	713767.13	1.04	802725.75	88.9	60 - 125	
74	Ge	# 1	95905.48	0.61	109028.65	88.0	60 - 125	
74	Ge	# 2	17073.33	2.95	20216.41	84.5	60 - 125	
74	Ge	# 3	185380.55	1.13	209704.94	88.4	60 - 125	
89	Y	# 3	1055047.40	1.65	1159007.90	91.0	60 - 125	
115	In	# 3	1160442.10	0.47	1277748.90	90.8	60 - 125	
159	Tb	# 3	1793172.30	0.59	1896321.40	94.6	60 - 125	
209	Bi	# 3	1123046.00	1.96	1156151.50	97.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\029SMPL.D\029SMPL.D#
Date Acquired:	Mar 25 2009 02:55 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	Rinse
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step	
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.0004045	0.0004045	ug/l	173.18	#VALUE!	
11	B	# 3	20.53	20.53	ug/l	8.33	#VALUE!	
23	Na	# 1	6.277	6.277	ug/l	4.24	#VALUE!	
24	Mg	# 1	4.422	4.422	ug/l	1.57	#VALUE!	
27	Al	# 1	4.317	4.317	ug/l	1.86	#VALUE!	
39	K	# 2	3.087	3.087	ug/l	13.07	#VALUE!	
40	Ca	# 1	5.3	5.3	ug/l	1.52	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.3144	0.3144	ug/l	7.02	#VALUE!	
51	V	# 2	0.1026	0.1026	ug/l	17.02	#VALUE!	
52	Cr	# 2	0.08329	0.08329	ug/l	5.20	#VALUE!	
55	Mn	# 3	0.09621	0.09621	ug/l	3.80	#VALUE!	
56	Fe	# 1	4.999	4.999	ug/l	0.40	#VALUE!	
59	Co	# 3	0.08294	0.08294	ug/l	5.07	#VALUE!	
60	Ni	# 2	0.1743	0.1743	ug/l	11.20	#VALUE!	
63	Cu	# 2	0.2623	0.2623	ug/l	3.91	#VALUE!	
65	Cu	# 2	0.283	0.283	ug/l	1.77	#VALUE!	
65	Cu	# 3	0.3325	0.3325	ug/l	9.60	#VALUE!	
66	Zn	# 3	0.4242	0.4242	ug/l	2.16	#VALUE!	
68	Zn	# 3	0.4322	0.4322	ug/l	3.12	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.01745	0.01745	ug/l	13.09	#VALUE!	
78	Se	# 1	0.0003739	0.0003739	ug/l	428.46	#VALUE!	
88	Sr	# 3	0.09156	0.09156	ug/l	6.48	#VALUE!	
90	Zr	# 3	-0.02355	-0.02355	ug/l	10.52	#VALUE!	
91	Zr	# 3	-0.02781	-0.02781	ug/l	18.69	#VALUE!	
95	Mo	# 3	2.388	2.388	ug/l	10.96	#VALUE!	
107	Ag	# 3	0.001873	0.001873	ug/l	58.30	#VALUE!	
111	Cd	# 3	0.002231	0.002231	ug/l	280.50	#VALUE!	
118	Sn	# 3	2.119	2.119	ug/l	8.16	#VALUE!	
121	Sb	# 3	0.005258	0.005258	ug/l	42.09	#VALUE!	
137	Ba	# 3	0.0957	0.0957	ug/l	14.48	#VALUE!	
201	Hg	# 3	0.006149	0.006149	ug/l	13.93	#VALUE!	
202	Hg	# 3	0.006894	0.006894	ug/l	9.97	#VALUE!	
203	Tl	# 3	0.002147	0.002147	ug/l	43.22	#VALUE!	
205	Tl	# 3	-0.0005326	-0.0005326	ug/l	47.52	#VALUE!	
208	Pb	# 3	0.1471	0.1471	ug/l	1.27	#VALUE!	
232	Th	# 3	0.001364	0.001364	ug/l	82.33	#VALUE!	
238	U	# 3	0.0003912	0.0003912	ug/l	41.92	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	482464.69	2.23	531519.69	90.8	60 - 125	
45	Sc	# 1	248040.53	0.45	282316.44	87.9	60 - 125	
45	Sc	# 3	727941.63	1.61	802725.75	90.7	60 - 125	
74	Ge	# 1	97316.44	0.71	109028.65	89.3	60 - 125	
74	Ge	# 2	17570.68	2.64	20216.41	86.9	60 - 125	
74	Ge	# 3	188751.63	2.13	209704.94	90.0	60 - 125	
89	Y	# 3	1072941.60	1.55	1159007.90	92.6	60 - 125	
115	In	# 3	1195192.00	1.18	1277748.90	93.5	60 - 125	
159	Tb	# 3	1795465.10	1.09	1896321.40	94.7	60 - 125	
209	Bi	# 3	1110453.60	2.18	1156151.50	96.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\030SMPL.D\030SMPL.D#
Date Acquired:	Mar 25 2009 03:02 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	Rinse
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0	0	ug/l	0.00	#VALUE!	
11	B	# 3	7.894	7.894	ug/l	2.93	#VALUE!	
23	Na	# 1	14.77	14.77	ug/l	0.27	#VALUE!	
24	Mg	# 1	12.66	12.66	ug/l	0.43	#VALUE!	
27	Al	# 1	12.38	12.38	ug/l	1.56	#VALUE!	
39	K	# 2	58.65	58.65	ug/l	145.15	#VALUE!	
40	Ca	# 1	13.29	13.29	ug/l	1.78	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.1433	0.1433	ug/l	12.83	#VALUE!	
51	V	# 2	2.315	2.315	ug/l	146.57	#VALUE!	
52	Cr	# 2	2.188	2.188	ug/l	144.65	#VALUE!	
55	Mn	# 3	0.05123	0.05123	ug/l	3.21	#VALUE!	
56	Fe	# 1	13.06	13.06	ug/l	0.46	#VALUE!	
59	Co	# 3	0.03634	0.03634	ug/l	9.14	#VALUE!	
60	Ni	# 2	2.416	2.416	ug/l	139.20	#VALUE!	
63	Cu	# 2	2.474	2.474	ug/l	135.37	#VALUE!	
65	Cu	# 2	2.509	2.509	ug/l	135.27	#VALUE!	
65	Cu	# 3	0.2111	0.2111	ug/l	13.79	#VALUE!	
66	Zn	# 3	0.3727	0.3727	ug/l	10.66	#VALUE!	
68	Zn	# 3	0.3388	0.3388	ug/l	9.43	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.0233	0.0233	ug/l	92.36	#VALUE!	
78	Se	# 1	0.000327	0.000327	ug/l	1280.40	#VALUE!	
88	Sr	# 3	0.03845	0.03845	ug/l	11.89	#VALUE!	
90	Zr	# 3	-0.02549	-0.02549	ug/l	3.37	#VALUE!	
91	Zr	# 3	-0.02474	-0.02474	ug/l	43.98	#VALUE!	
95	Mo	# 3	0.8716	0.8716	ug/l	7.61	#VALUE!	
107	Ag	# 3	0.002352	0.002352	ug/l	82.74	#VALUE!	
111	Cd	# 3	0.002664	0.002664	ug/l	84.61	#VALUE!	
118	Sn	# 3	0.8058	0.8058	ug/l	3.85	#VALUE!	
121	Sb	# 3	0.006045	0.006045	ug/l	19.07	#VALUE!	
137	Ba	# 3	0.03128	0.03128	ug/l	3.88	#VALUE!	
201	Hg	# 3	0.005458	0.005458	ug/l	12.75	#VALUE!	
202	Hg	# 3	0.008869	0.008869	ug/l	12.80	#VALUE!	
203	Tl	# 3	0.0004513	0.0004513	ug/l	320.41	#VALUE!	
205	Tl	# 3	-0.0014	-0.0014	ug/l	19.95	#VALUE!	
208	Pb	# 3	0.07003	0.07003	ug/l	5.94	#VALUE!	
232	Th	# 3	0.001289	0.001289	ug/l	33.95	#VALUE!	
238	U	# 3	0.0003567	0.0003567	ug/l	60.98	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	483180.34	1.52	531519.69	90.9	60 - 125	
45	Sc	# 1	249874.14	0.47	282316.44	88.5	60 - 125	
45	Sc	# 3	730082.63	1.78	802725.75	91.0	60 - 125	
74	Ge	# 1	98025.66	0.47	109028.65	89.9	60 - 125	
74	Ge	# 2	18206.49	1.90	20216.41	90.1	60 - 125	
74	Ge	# 3	187707.28	1.94	209704.94	89.5	60 - 125	
89	Y	# 3	1060061.60	2.05	1159007.90	91.5	60 - 125	
115	In	# 3	1182016.30	1.25	1277748.90	92.5	60 - 125	
159	Tb	# 3	1801418.90	1.13	1896321.40	95.0	60 - 125	
209	Bi	# 3	1104438.80	1.05	1156151.50	95.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\031SMPL.D\031SMPL.D#
Date Acquired:	Mar 25 2009 03:09 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	Rinse
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil. Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0	0	ug/l	0.00	#VALUE!	
11	B	# 3	4.423	4.423	ug/l	1.81	#VALUE!	
23	Na	# 1	4.875	4.875	ug/l	7.09	#VALUE!	
24	Mg	# 1	2.784	2.784	ug/l	1.08	#VALUE!	
27	Al	# 1	2.747	2.747	ug/l	3.30	#VALUE!	
39	K	# 2	1.19	1.19	ug/l	73.40	#VALUE!	
40	Ca	# 1	3.716	3.716	ug/l	2.28	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.1336	0.1336	ug/l	4.04	#VALUE!	
51	V	# 2	0.02921	0.02921	ug/l	11.73	#VALUE!	
52	Cr	# 2	0.03431	0.03431	ug/l	19.87	#VALUE!	
55	Mn	# 3	0.04688	0.04688	ug/l	5.88	#VALUE!	
56	Fe	# 1	3.198	3.198	ug/l	0.73	#VALUE!	
59	Co	# 3	0.03572	0.03572	ug/l	9.92	#VALUE!	
60	Ni	# 2	0.14	0.14	ug/l	13.24	#VALUE!	
63	Cu	# 2	0.1655	0.1655	ug/l	7.31	#VALUE!	
65	Cu	# 2	0.1721	0.1721	ug/l	11.00	#VALUE!	
65	Cu	# 3	0.1876	0.1876	ug/l	18.88	#VALUE!	
66	Zn	# 3	0.3419	0.3419	ug/l	4.45	#VALUE!	
68	Zn	# 3	0.3376	0.3376	ug/l	9.07	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.006989	0.006989	ug/l	47.55	#VALUE!	
78	Se	# 1	0.002487	0.002487	ug/l	100.64	#VALUE!	
88	Sr	# 3	0.03656	0.03656	ug/l	3.21	#VALUE!	
90	Zr	# 3	-0.02479	-0.02479	ug/l	18.10	#VALUE!	
91	Zr	# 3	-0.02806	-0.02806	ug/l	16.47	#VALUE!	
95	Mo	# 3	0.5251	0.5251	ug/l	6.99	#VALUE!	
107	Ag	# 3	0.002695	0.002695	ug/l	6.19	#VALUE!	
111	Cd	# 3	0.001512	0.001512	ug/l	150.60	#VALUE!	
118	Sn	# 3	0.4497	0.4497	ug/l	1.02	#VALUE!	
121	Sb	# 3	0.00406	0.00406	ug/l	19.39	#VALUE!	
137	Ba	# 3	0.04065	0.04065	ug/l	14.82	#VALUE!	
201	Hg	# 3	0.004549	0.004549	ug/l	12.15	#VALUE!	
202	Hg	# 3	0.00709	0.00709	ug/l	19.72	#VALUE!	
203	Tl	# 3	0.0003616	0.0003616	ug/l	175.80	#VALUE!	
205	Tl	# 3	-0.001722	-0.001722	ug/l	54.22	#VALUE!	
208	Pb	# 3	0.05673	0.05673	ug/l	3.80	#VALUE!	
232	Th	# 3	0.0021	0.0021	ug/l	23.49	#VALUE!	
238	U	# 3	0.0003219	0.0003219	ug/l	30.70	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	479621.72	1.21	531519.69	90.2	60 - 125	
45	Sc	# 1	251036.66	0.76	282316.44	88.9	60 - 125	
45	Sc	# 3	723716.31	1.16	802725.75	90.2	60 - 125	
74	Ge	# 1	97395.52	1.29	109028.65	89.3	60 - 125	
74	Ge	# 2	18005.72	3.67	20216.41	89.1	60 - 125	
74	Ge	# 3	188895.56	1.45	209704.94	90.1	60 - 125	
89	Y	# 3	1062212.50	0.78	1159007.90	91.6	60 - 125	
115	In	# 3	1181227.90	1.31	1277748.90	92.4	60 - 125	
159	Tb	# 3	1785573.30	0.59	1896321.40	94.2	60 - 125	
209	Bi	# 3	1102615.60	1.98	1156151.50	95.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\032SMPL.D\032SMPL.D#
Date Acquired:	Mar 25 2009 03:16 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	Rinse
Misc Info:	
Vial Number:	1207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.0004086	0.0004086	ug/l	173.20	#VALUE!	
11	B	# 3	2.853	2.853	ug/l	1.56	#VALUE!	
23	Na	# 1	5.021	5.021	ug/l	5.02	#VALUE!	
24	Mg	# 1	2.857	2.857	ug/l	3.39	#VALUE!	
27	Al	# 1	2.704	2.704	ug/l	2.75	#VALUE!	
39	K	# 2	1.716	1.716	ug/l	86.95	#VALUE!	
40	Ca	# 1	3.674	3.674	ug/l	1.85	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.1081	0.1081	ug/l	13.07	#VALUE!	
51	V	# 2	0.0216	0.0216	ug/l	53.61	#VALUE!	
52	Cr	# 2	0.03226	0.03226	ug/l	48.51	#VALUE!	
55	Mn	# 3	0.04306	0.04306	ug/l	5.13	#VALUE!	
56	Fe	# 1	3.182	3.182	ug/l	0.71	#VALUE!	
59	Co	# 3	0.03164	0.03164	ug/l	13.03	#VALUE!	
60	Ni	# 2	0.1265	0.1265	ug/l	11.00	#VALUE!	
63	Cu	# 2	0.1448	0.1448	ug/l	8.34	#VALUE!	
65	Cu	# 2	0.1287	0.1287	ug/l	18.14	#VALUE!	
65	Cu	# 3	0.1726	0.1726	ug/l	4.08	#VALUE!	
66	Zn	# 3	0.3544	0.3544	ug/l	17.57	#VALUE!	
68	Zn	# 3	0.3213	0.3213	ug/l	19.80	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.01805	0.01805	ug/l	12.31	#VALUE!	
78	Se	# 1	-0.001249	-0.001249	ug/l	219.30	#VALUE!	
88	Sr	# 3	0.03781	0.03781	ug/l	1.10	#VALUE!	
90	Zr	# 3	-0.02217	-0.02217	ug/l	2.58	#VALUE!	
91	Zr	# 3	-0.02218	-0.02218	ug/l	40.86	#VALUE!	
95	Mo	# 3	0.4248	0.4248	ug/l	8.60	#VALUE!	
107	Ag	# 3	0.0008455	0.0008455	ug/l	176.23	#VALUE!	
111	Cd	# 3	0.0011	0.0011	ug/l	0.92	#VALUE!	
118	Sn	# 3	0.3349	0.3349	ug/l	1.35	#VALUE!	
121	Sb	# 3	0.002409	0.002409	ug/l	55.54	#VALUE!	
137	Ba	# 3	0.0284	0.0284	ug/l	12.67	#VALUE!	
201	Hg	# 3	0.006091	0.006091	ug/l	35.96	#VALUE!	
202	Hg	# 3	0.007155	0.007155	ug/l	11.24	#VALUE!	
203	Tl	# 3	-0.0002375	-0.0002375	ug/l	107.79	#VALUE!	
205	Tl	# 3	-0.002392	-0.002392	ug/l	51.13	#VALUE!	
208	Pb	# 3	0.05305	0.05305	ug/l	2.12	#VALUE!	
232	Th	# 3	0.001892	0.001892	ug/l	39.32	#VALUE!	
238	U	# 3	0.0001142	0.0001142	ug/l	3.23	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	483820.47	0.83	531519.69	91.0	60 - 125	
45	Sc	# 1	251006.23	0.87	282316.44	88.9	60 - 125	
45	Sc	# 3	716570.69	1.13	802725.75	89.3	60 - 125	
74	Ge	# 1	97957.08	0.39	109028.65	89.8	60 - 125	
74	Ge	# 2	18306.88	2.19	20216.41	90.6	60 - 125	
74	Ge	# 3	187471.06	2.14	209704.94	89.4	60 - 125	
89	Y	# 3	1061840.80	1.50	1159007.90	91.6	60 - 125	
115	In	# 3	1174248.10	1.59	1277748.90	91.9	60 - 125	
159	Tb	# 3	1776038.30	1.51	1896321.40	93.7	60 - 125	
209	Bi	# 3	1087812.10	1.70	1156151.50	94.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\033_CCV.D\033_CCV.D#
Date Acquired: Mar 25 2009 03:23 pm
Operator: BB
Sample Name: CCV 50/5000
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	48.72 ug/l	2.38	50.00	90 - 110	
11	B	# 3	99.54 ug/l	0.64	100.00	90 - 110	
23	Na	# 1	4934 ug/l	0.33	5000.00	90 - 110	
24	Mg	# 1	4902 ug/l	0.78	5000.00	90 - 110	
27	Al	# 1	492.1 ug/l	1.12	500.00	90 - 110	
39	K	# 2	4599 ug/l	1.23	5000.00	90 - 110	
40	Ca	# 1	4856 ug/l	0.33	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	48.3 ug/l	1.06	50.00	90 - 110	
51	V	# 2	47.55 ug/l	1.52	50.00	90 - 110	
52	Cr	# 2	47.88 ug/l	0.74	50.00	90 - 110	
55	Mn	# 3	492.9 ug/l	0.49	500.00	90 - 110	
56	Fe	# 1	4901 ug/l	0.76	5000.00	90 - 110	
59	Co	# 3	49.18 ug/l	0.24	50.00	90 - 110	
60	Ni	# 2	48.67 ug/l	0.09	50.00	90 - 110	
63	Cu	# 2	48.52 ug/l	0.39	50.00	90 - 110	
65	Cu	# 2	48.68 ug/l	0.42	50.00	90 - 110	
65	Cu	# 3	48.96 ug/l	1.40	50.00	90 - 110	
66	Zn	# 3	49.79 ug/l	0.41	50.00	90 - 110	
68	Zn	# 3	49.45 ug/l	0.13	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	49.05 ug/l	0.53	50.00	90 - 110	
78	Se	# 1	50.3 ug/l	0.49	50.00	90 - 110	
88	Sr	# 3	49.2 ug/l	0.69	50.00	90 - 110	
90	Zr	# 3	474.7 ug/l	0.76	500.00	90 - 110	
91	Zr	# 3	481.1 ug/l	0.99	500.00	90 - 110	
95	Mo	# 3	47.22 ug/l	0.50	50.00	90 - 110	
107	Ag	# 3	47.88 ug/l	0.90	50.00	90 - 110	
111	Cd	# 3	48.96 ug/l	2.16	50.00	90 - 110	
118	Sn	# 3	48.95 ug/l	1.27	50.00	90 - 110	
121	Sb	# 3	45.47 ug/l	1.27	50.00	90 - 110	
137	Ba	# 3	48.05 ug/l	2.23	50.00	90 - 110	
201	Hg	# 3	2.354 ug/l	1.38	2.50	90 - 110	
202	Hg	# 3	2.384 ug/l	0.14	2.50	90 - 110	
203	Tl	# 3	9.73 ug/l	1.43	10.00	90 - 110	
205	Tl	# 3	9.779 ug/l	0.93	10.00	90 - 110	
208	Pb	# 3	47.79 ug/l	2.21	50.00	90 - 110	
232	Th	# 3	48.48 ug/l	0.33	---	##### - #####	
238	U	# 3	48.94 ug/l	0.46	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	463258.94	3.13	531519.69	87.2	60 - 125	
45	Sc	# 1	249224.77	1.24	282316.44	88.3	60 - 125	
45	Sc	# 3	727274.94	1.62	802725.75	90.6	60 - 125	
74	Ge	# 1	97766.98	0.95	109028.65	89.7	60 - 125	
74	Ge	# 2	18123.29	1.92	20216.41	89.6	60 - 125	
74	Ge	# 3	188098.11	1.50	209704.94	89.7	60 - 125	
89	Y	# 3	1054958.30	1.30	1159007.90	91.0	60 - 125	
115	In	# 3	1155843.00	1.83	1277748.90	90.5	60 - 125	
159	Tb	# 3	1768345.60	1.76	1896321.40	93.3	60 - 125	
209	Bi	# 3	1065029.00	1.96	1156151.50	92.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\034_CCB.D\034_CCB.D#
Date Acquired: Mar 25 2009 03:29 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.004618 ug/l	16.33	#VALUE!	
11 B	2.163 ug/l	8.37	#VALUE!	
23 Na	0.8034 ug/l	28.57	#VALUE!	
24 Mg	1.022 ug/l	7.03	#VALUE!	
27 Al	0.5281 ug/l	2.80	#VALUE!	
39 K	1.322 ug/l	116.87	#VALUE!	
40 Ca	0.8911 ug/l	4.23	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.06818 ug/l	21.14	#VALUE!	
51 V	0.01149 ug/l	154.31	#VALUE!	
52 Cr	0.008697 ug/l	41.61	#VALUE!	
55 Mn	0.0532 ug/l	10.76	#VALUE!	
56 Fe	1.478 ug/l	2.47	#VALUE!	
59 Co	0.02638 ug/l	8.21	#VALUE!	
60 Ni	0.02449 ug/l	9.00	#VALUE!	
63 Cu	0.04465 ug/l	5.71	#VALUE!	
65 Cu	0.05145 ug/l	22.35	#VALUE!	
65 Cu	0.05652 ug/l	11.65	#VALUE!	
66 Zn	0.05654 ug/l	16.33	#VALUE!	
68 Zn	0.04023 ug/l	22.38	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.03003 ug/l	25.80	#VALUE!	
78 Se	0.05369 ug/l	12.63	#VALUE!	
88 Sr	0.02885 ug/l	10.45	#VALUE!	
90 Zr	0.5943 ug/l	1.77	#VALUE!	
91 Zr	0.5678 ug/l	3.78	#VALUE!	
95 Mo	0.2954 ug/l	4.87	#VALUE!	
107 Ag	0.005455 ug/l	8.40	#VALUE!	
111 Cd	0.001761 ug/l	100.34	#VALUE!	
118 Sn	0.2526 ug/l	4.11	#VALUE!	
121 Sb	0.02579 ug/l	10.60	#VALUE!	
137 Ba	0.02566 ug/l	17.18	#VALUE!	
201 Hg	0.02525 ug/l	15.89	#VALUE!	
202 Hg	0.02569 ug/l	9.89	#VALUE!	
203 Tl	0.03727 ug/l	20.41	#VALUE!	
205 Tl	0.03465 ug/l	4.24	#VALUE!	
208 Pb	0.04031 ug/l	2.42	#VALUE!	
232 Th	0.07266 ug/l	8.51	#VALUE!	
238 U	0.007866 ug/l	17.75	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	475753.38	2.24	531519.69	89.5	60 - 125	
45 Sc	251773.09	0.79	282316.44	89.2	60 - 125	
45 Sc	722746.56	1.84	802725.75	90.0	60 - 125	
74 Ge	98958.06	0.55	109028.65	90.8	60 - 125	
74 Ge	18350.31	3.60	20216.41	90.8	60 - 125	
74 Ge	189348.36	1.20	209704.94	90.3	60 - 125	
89 Y	1059908.90	1.55	1159007.90	91.4	60 - 125	
115 In	1161881.80	2.34	1277748.90	90.9	60 - 125	
159 Tb	1756981.00	1.31	1896321.40	92.7	60 - 125	
209 Bi	1065864.60	1.33	1156151.50	92.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\035SMPL.D\035SMPL.D#
Date Acquired:	Mar 25 2009 03:36 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	MB 133309 6020
Misc Info:	3050 1/10
Vial Number:	2101
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.002993	0.002993	ug/l	89.81	#VALUE!	
11	B	# 3	1.449	1.449	ug/l	2.66	#VALUE!	
23	Na	# 1	2.116	2.116	ug/l	24.58	#VALUE!	
24	Mg	# 1	1.489	1.489	ug/l	4.50	#VALUE!	
27	Al	# 1	1.769	1.769	ug/l	6.14	#VALUE!	
39	K	# 2	1.849	1.849	ug/l	40.20	#VALUE!	
40	Ca	# 1	4.955	4.955	ug/l	4.13	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	0.06776	0.06776	ug/l	12.56	#VALUE!	
51	V	# 2	0.06614	0.06614	ug/l	11.02	#VALUE!	
52	Cr	# 2	0.1208	0.1208	ug/l	14.50	#VALUE!	
55	Mn	# 3	0.03297	0.03297	ug/l	1.62	#VALUE!	
56	Fe	# 1	2.021	2.021	ug/l	3.27	#VALUE!	
59	Co	# 3	0.002913	0.002913	ug/l	80.12	#VALUE!	
60	Ni	# 2	0.1165	0.1165	ug/l	19.73	#VALUE!	
63	Cu	# 2	0.09828	0.09828	ug/l	9.38	#VALUE!	
65	Cu	# 2	0.1078	0.1078	ug/l	13.01	#VALUE!	
65	Cu	# 3	0.1159	0.1159	ug/l	25.86	#VALUE!	
66	Zn	# 3	0.2045	0.2045	ug/l	16.26	#VALUE!	
68	Zn	# 3	0.2308	0.2308	ug/l	4.57	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	0.02309	0.02309	ug/l	38.31	#VALUE!	
78	Se	# 1	0.02197	0.02197	ug/l	39.04	#VALUE!	
88	Sr	# 3	0.0129	0.0129	ug/l	8.10	#VALUE!	
90	Zr	# 3	1.131	1.131	ug/l	5.64	#VALUE!	
91	Zr	# 3	1.129	1.129	ug/l	11.12	#VALUE!	
95	Mo	# 3	0.2153	0.2153	ug/l	1.99	#VALUE!	
107	Ag	# 3	0.004819	0.004819	ug/l	50.20	#VALUE!	
111	Cd	# 3	0.002871	0.002871	ug/l	92.58	#VALUE!	
118	Sn	# 3	1.718	1.718	ug/l	2.48	#VALUE!	
121	Sb	# 3	0.01709	0.01709	ug/l	19.63	#VALUE!	
137	Ba	# 3	0.01993	0.01993	ug/l	10.31	#VALUE!	
201	Hg	# 3	0.006422	0.006422	ug/l	14.61	#VALUE!	
202	Hg	# 3	0.008567	0.008567	ug/l	1.62	#VALUE!	
203	Tl	# 3	0.01349	0.01349	ug/l	23.07	#VALUE!	
205	Tl	# 3	0.01118	0.01118	ug/l	18.51	#VALUE!	
208	Pb	# 3	0.03493	0.03493	ug/l	5.32	#VALUE!	
232	Th	# 3	0.05475	0.05475	ug/l	4.68	#VALUE!	
238	U	# 3	0.003406	0.003406	ug/l	18.86	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	471587.97	2.08	531519.69	88.7	60 - 125	
45	Sc	# 1	243722.56	2.51	282316.44	86.3	60 - 125	
45	Sc	# 3	708652.88	2.06	802725.75	88.3	60 - 125	
74	Ge	# 1	95570.32	1.58	109028.65	87.7	60 - 125	
74	Ge	# 2	17773.91	2.58	20216.41	87.9	60 - 125	
74	Ge	# 3	185547.36	1.23	209704.94	88.5	60 - 125	
89	Y	# 3	1032295.10	1.36	1159007.90	89.1	60 - 125	
115	In	# 3	1135042.90	1.37	1277748.90	88.8	60 - 125	
159	Tb	# 3	1718991.30	1.04	1896321.40	90.6	60 - 125	
209	Bi	# 3	1053373.90	0.89	1156151.50	91.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\036SMPL.D\036SMPL.D#
Date Acquired:	Mar 25 2009 03:43 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	LCS
Misc Info:	3050 1/10
Vial Number:	2102
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	4.776	4.776	ug/l	2.89	#VALUE!	
11	B	# 3	19.68	19.68	ug/l	1.74	#VALUE!	
23	Na	# 1	522.4	522.4	ug/l	1.13	#VALUE!	
24	Mg	# 1	522.7	522.7	ug/l	1.18	#VALUE!	
27	Al	# 1	497.7	497.7	ug/l	1.67	#VALUE!	
39	K	# 2	465	465	ug/l	0.76	#VALUE!	
40	Ca	# 1	515.9	515.9	ug/l	0.71	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	9.564	9.564	ug/l	0.74	#VALUE!	
51	V	# 2	9.505	9.505	ug/l	2.21	#VALUE!	
52	Cr	# 2	9.92	9.92	ug/l	1.16	#VALUE!	
55	Mn	# 3	51.47	51.47	ug/l	0.52	#VALUE!	
56	Fe	# 1	509.3	509.3	ug/l	1.38	#VALUE!	
59	Co	# 3	4.732	4.732	ug/l	1.91	#VALUE!	
60	Ni	# 2	10.08	10.08	ug/l	0.84	#VALUE!	
63	Cu	# 2	10.13	10.13	ug/l	1.36	#VALUE!	
65	Cu	# 2	9.979	9.979	ug/l	0.79	#VALUE!	
65	Cu	# 3	10.16	10.16	ug/l	2.42	#VALUE!	
66	Zn	# 3	9.911	9.911	ug/l	2.65	#VALUE!	
68	Zn	# 3	10.01	10.01	ug/l	2.88	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	9.73	9.73	ug/l	2.09	#VALUE!	
78	Se	# 1	9.57	9.57	ug/l	0.63	#VALUE!	
88	Sr	# 3	9.646	9.646	ug/l	0.96	#VALUE!	
90	Zr	# 3	46.14	46.14	ug/l	0.71	#VALUE!	
91	Zr	# 3	45.41	45.41	ug/l	0.38	#VALUE!	
95	Mo	# 3	9.551	9.551	ug/l	1.27	#VALUE!	
107	Ag	# 3	4.898	4.898	ug/l	1.38	#VALUE!	
111	Cd	# 3	4.928	4.928	ug/l	2.38	#VALUE!	
118	Sn	# 3	11	11	ug/l	1.38	#VALUE!	
121	Sb	# 3	4.645	4.645	ug/l	0.41	#VALUE!	
137	Ba	# 3	9.764	9.764	ug/l	1.14	#VALUE!	
201	Hg	# 3	0.4489	0.4489	ug/l	4.69	#VALUE!	
202	Hg	# 3	0.4326	0.4326	ug/l	2.15	#VALUE!	
203	Tl	# 3	3.961	3.961	ug/l	2.27	#VALUE!	
205	Tl	# 3	3.978	3.978	ug/l	0.79	#VALUE!	
208	Pb	# 3	4.842	4.842	ug/l	1.35	#VALUE!	
232	Th	# 3	9.222	9.222	ug/l	0.91	#VALUE!	
238	U	# 3	9.287	9.287	ug/l	1.31	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	467482.53	3.09	531519.69	88.0	60 - 125	
45	Sc	# 1	244586.00	0.74	282316.44	86.6	60 - 125	
45	Sc	# 3	709644.94	0.88	802725.75	88.4	60 - 125	
74	Ge	# 1	96226.10	0.65	109028.65	88.3	60 - 125	
74	Ge	# 2	17907.43	2.94	20216.41	88.6	60 - 125	
74	Ge	# 3	184505.89	2.00	209704.94	88.0	60 - 125	
89	Y	# 3	1030974.90	1.67	1159007.90	89.0	60 - 125	
115	In	# 3	1133400.40	1.81	1277748.90	88.7	60 - 125	
159	Tb	# 3	1729600.10	0.96	1896321.40	91.2	60 - 125	
209	Bi	# 3	1053556.10	1.22	1156151.50	91.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\037SMPL.D\037SMPL.D#
Date Acquired:	Mar 25 2009 03:49 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-1
Misc Info:	3050 1/10
Vial Number:	2103
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.5211	0.5211	ug/l	2.56	#VALUE!	
11	B	# 3	2.302	2.302	ug/l	2.73	#VALUE!	
23	Na	# 1	149.6	149.6	ug/l	0.45	#VALUE!	
24	Mg	# 1	1061	1061	ug/l	0.23	#VALUE!	
27	Al	# 1	14640	14640	ug/l	0.44	#VALUE!	
39	K	# 2	743.5	743.5	ug/l	0.27	#VALUE!	
40	Ca	# 1	1630	1630	ug/l	0.45	#VALUE!	
45	Sc	# 2	----	---------	ug/l	---------	#VALUE!	
47	Ti	# 3	266	266	ug/l	0.99	#VALUE!	
51	V	# 2	41.59	41.59	ug/l	0.23	#VALUE!	
52	Cr	# 2	24.74	24.74	ug/l	0.25	#VALUE!	
55	Mn	# 3	89.82	89.82	ug/l	0.39	#VALUE!	
56	Fe	# 1	19180	19180	ug/l	0.40	#VALUE!	
59	Co	# 3	4.396	4.396	ug/l	0.56	#VALUE!	
60	Ni	# 2	8.094	8.094	ug/l	3.18	#VALUE!	
63	Cu	# 2	14.52	14.52	ug/l	0.88	#VALUE!	
65	Cu	# 2	14.54	14.54	ug/l	2.31	#VALUE!	
65	Cu	# 3	14.74	14.74	ug/l	0.49	#VALUE!	
66	Zn	# 3	36.75	36.75	ug/l	1.48	#VALUE!	
68	Zn	# 3	37.91	37.91	ug/l	0.73	#VALUE!	
70	Ge	# 2	----	---------	ug/l	---------	#VALUE!	
75	As	# 2	1.699	1.699	ug/l	3.75	#VALUE!	
78	Se	# 1	0.2414	0.2414	ug/l	12.86	#VALUE!	
88	Sr	# 3	15.27	15.27	ug/l	0.82	#VALUE!	
90	Zr	# 3	3.48	3.48	ug/l	4.11	#VALUE!	
91	Zr	# 3	3.37	3.37	ug/l	1.95	#VALUE!	
95	Mo	# 3	0.4778	0.4778	ug/l	9.60	#VALUE!	
107	Ag	# 3	0.03877	0.03877	ug/l	5.86	#VALUE!	
111	Cd	# 3	0.06001	0.06001	ug/l	18.13	#VALUE!	
118	Sn	# 3	2.425	2.425	ug/l	1.87	#VALUE!	
121	Sb	# 3	0.2248	0.2248	ug/l	5.91	#VALUE!	
137	Ba	# 3	65.13	65.13	ug/l	1.26	#VALUE!	
201	Hg	# 3	0.02802	0.02802	ug/l	2.72	#VALUE!	
202	Hg	# 3	0.03348	0.03348	ug/l	7.58	#VALUE!	
203	Tl	# 3	0.1933	0.1933	ug/l	2.65	#VALUE!	
205	Tl	# 3	0.1972	0.1972	ug/l	1.77	#VALUE!	
208	Pb	# 3	14.49	14.49	ug/l	0.79	#VALUE!	
232	Th	# 3	6.209	6.209	ug/l	0.55	#VALUE!	
238	U	# 3	1.156	1.156	ug/l	0.87	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	472230.97	1.18	531519.69	88.8	60 - 125	
45	Sc	# 1	273697.59	1.05	282316.44	96.9	60 - 125	
45	Sc	# 3	825730.88	2.58	802725.75	102.9	60 - 125	
74	Ge	# 1	95067.45	0.56	109028.65	87.2	60 - 125	
74	Ge	# 2	17717.54	2.87	20216.41	87.6	60 - 125	
74	Ge	# 3	187013.80	1.20	209704.94	89.2	60 - 125	
89	Y	# 3	1193957.10	2.64	1159007.90	103.0	60 - 125	
115	In	# 3	1132782.30	1.02	1277748.90	88.7	60 - 125	
159	Tb	# 3	1744184.60	0.78	1896321.40	92.0	60 - 125	
209	Bi	# 3	1039822.90	2.11	1156151.50	89.9	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\038SMPL.D\038SMPL.D#
Date Acquired:	Mar 25 2009 03:56 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-2
Misc Info:	3050 1/10
Vial Number:	2104
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.5329	0.5329	ug/l	6.56	#VALUE!	
11	B	# 3	2.993	2.993	ug/l	21.43	#VALUE!	
23	Na	# 1	1767	1767	ug/l	0.14	#VALUE!	
24	Mg	# 1	712.4	712.4	ug/l	0.86	#VALUE!	
27	Al	# 1	23000	23000	ug/l	1.08	#VALUE!	
39	K	# 2	508.8	508.8	ug/l	2.71	#VALUE!	
40	Ca	# 1	780.7	780.7	ug/l	0.38	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	225.1	225.1	ug/l	3.53	#VALUE!	
51	V	# 2	56.93	56.93	ug/l	1.96	#VALUE!	
52	Cr	# 2	29.19	29.19	ug/l	2.04	#VALUE!	
55	Mn	# 3	58.44	58.44	ug/l	1.07	#VALUE!	
56	Fe	# 1	23660	23660	ug/l	0.49	#VALUE!	
59	Co	# 3	5.673	5.673	ug/l	9.09	#VALUE!	
60	Ni	# 2	7.634	7.634	ug/l	3.63	#VALUE!	
63	Cu	# 2	8.416	8.416	ug/l	2.81	#VALUE!	
65	Cu	# 2	8.469	8.469	ug/l	1.28	#VALUE!	
65	Cu	# 3	8.843	8.843	ug/l	6.38	#VALUE!	
66	Zn	# 3	25.34	25.34	ug/l	0.44	#VALUE!	
68	Zn	# 3	25.92	25.92	ug/l	0.26	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	2.258	2.258	ug/l	2.27	#VALUE!	
78	Se	# 1	0.3399	0.3399	ug/l	3.48	#VALUE!	
88	Sr	# 3	9.828	9.828	ug/l	3.99	#VALUE!	
90	Zr	# 3	4.724	4.724	ug/l	13.68	#VALUE!	
91	Zr	# 3	4.727	4.727	ug/l	17.88	#VALUE!	
95	Mo	# 3	1.458	1.458	ug/l	88.48	#VALUE!	
107	Ag	# 3	0.07048	0.07048	ug/l	117.37	#VALUE!	
111	Cd	# 3	0.06711	0.06711	ug/l	99.33	#VALUE!	
118	Sn	# 3	2.56	2.56	ug/l	19.82	#VALUE!	
121	Sb	# 3	0.2057	0.2057	ug/l	36.58	#VALUE!	
137	Ba	# 3	34.8	34.8	ug/l	0.52	#VALUE!	
201	Hg	# 3	0.03739	0.03739	ug/l	11.42	#VALUE!	
202	Hg	# 3	0.04281	0.04281	ug/l	10.12	#VALUE!	
203	Tl	# 3	0.2906	0.2906	ug/l	8.27	#VALUE!	
205	Tl	# 3	0.2906	0.2906	ug/l	8.02	#VALUE!	
208	Pb	# 3	15.14	15.14	ug/l	1.61	#VALUE!	
232	Th	# 3	6.349	6.349	ug/l	0.18	#VALUE!	
238	U	# 3	1.152	1.152	ug/l	5.59	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	504873.13	3.45	531519.69	95.0	60 - 125	
45	Sc	# 1	291604.69	1.16	282316.44	103.3	60 - 125	
45	Sc	# 3	879190.38	2.78	802725.75	109.5	60 - 125	
74	Ge	# 1	99663.91	1.34	109028.65	91.4	60 - 125	
74	Ge	# 2	18597.66	2.63	20216.41	92.0	60 - 125	
74	Ge	# 3	197784.13	3.08	209704.94	94.3	60 - 125	
89	Y	# 3	1158260.30	1.76	1159007.90	99.9	60 - 125	
115	In	# 3	1183921.40	2.83	1277748.90	92.7	60 - 125	
159	Tb	# 3	1805126.40	3.10	1896321.40	95.2	60 - 125	
209	Bi	# 3	1048986.00	2.68	1156151.50	90.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\039SMPL.D\039SMPL.D#
Date Acquired:	Mar 25 2009 04:03 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-3
Misc Info:	3050 1/10
Vial Number:	2105
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.5269	0.5269	ug/l	3.42	#VALUE!	
11	B	# 3	2.004	2.004	ug/l	2.77	#VALUE!	
23	Na	# 1	171.3	171.3	ug/l	1.05	#VALUE!	
24	Mg	# 1	744.6	744.6	ug/l	0.97	#VALUE!	
27	Al	# 1	12000	12000	ug/l	0.72	#VALUE!	
39	K	# 2	500.9	500.9	ug/l	1.38	#VALUE!	
40	Ca	# 1	1202	1202	ug/l	0.23	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	246.8	246.8	ug/l	1.69	#VALUE!	
51	V	# 2	32.85	32.85	ug/l	1.65	#VALUE!	
52	Cr	# 2	19.23	19.23	ug/l	1.51	#VALUE!	
55	Mn	# 3	115.3	115.3	ug/l	1.01	#VALUE!	
56	Fe	# 1	11170	11170	ug/l	0.92	#VALUE!	
59	Co	# 3	6.077	6.077	ug/l	0.57	#VALUE!	
60	Ni	# 2	8.004	8.004	ug/l	1.90	#VALUE!	
63	Cu	# 2	41.99	41.99	ug/l	1.57	#VALUE!	
65	Cu	# 2	41.83	41.83	ug/l	1.11	#VALUE!	
65	Cu	# 3	42.47	42.47	ug/l	0.49	#VALUE!	
66	Zn	# 3	27.93	27.93	ug/l	0.18	#VALUE!	
68	Zn	# 3	30.17	30.17	ug/l	1.56	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	2.516	2.516	ug/l	4.15	#VALUE!	
78	Se	# 1	0.2381	0.2381	ug/l	8.64	#VALUE!	
88	Sr	# 3	12.36	12.36	ug/l	0.92	#VALUE!	
90	Zr	# 3	2.7	2.7	ug/l	1.62	#VALUE!	
91	Zr	# 3	2.638	2.638	ug/l	1.75	#VALUE!	
95	Mo	# 3	0.4849	0.4849	ug/l	1.56	#VALUE!	
107	Ag	# 3	0.5285	0.5285	ug/l	0.75	#VALUE!	
111	Cd	# 3	0.05292	0.05292	ug/l	3.56	#VALUE!	
118	Sn	# 3	2.213	2.213	ug/l	2.03	#VALUE!	
121	Sb	# 3	0.2501	0.2501	ug/l	1.98	#VALUE!	
137	Ba	# 3	96.99	96.99	ug/l	0.51	#VALUE!	
201	Hg	# 3	0.05518	0.05518	ug/l	9.48	#VALUE!	
202	Hg	# 3	0.05809	0.05809	ug/l	3.93	#VALUE!	
203	Tl	# 3	0.167	0.167	ug/l	3.38	#VALUE!	
205	Tl	# 3	0.1657	0.1657	ug/l	1.34	#VALUE!	
208	Pb	# 3	18.2	18.2	ug/l	0.43	#VALUE!	
232	Th	# 3	4.753	4.753	ug/l	0.59	#VALUE!	
238	U	# 3	1.138	1.138	ug/l	1.38	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	510597.28	1.37	531519.69	96.1	60 - 125	
45	Sc	# 1	273275.19	1.28	282316.44	96.8	60 - 125	
45	Sc	# 3	862772.56	1.51	802725.75	107.5	60 - 125	
74	Ge	# 1	96604.63	0.95	109028.65	88.6	60 - 125	
74	Ge	# 2	18291.67	3.67	20216.41	90.5	60 - 125	
74	Ge	# 3	197814.16	1.83	209704.94	94.3	60 - 125	
89	Y	# 3	1245617.90	2.00	1159007.90	107.5	60 - 125	
115	In	# 3	1207066.90	2.09	1277748.90	94.5	60 - 125	
159	Tb	# 3	1824237.90	1.36	1896321.40	96.2	60 - 125	
209	Bi	# 3	1072609.60	1.70	1156151.50	92.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\040SMPL.D\040SMPL.D#
Date Acquired:	Mar 25 2009 04:10 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-4
Misc Info:	3050 1/10
Vial Number:	2106
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.5657	0.5657	ug/l	1.91	#VALUE!	
11	B	# 3	1.812	1.812	ug/l	0.94	#VALUE!	
23	Na	# 1	92.15	92.15	ug/l	0.84	#VALUE!	
24	Mg	# 1	804.3	804.3	ug/l	0.48	#VALUE!	
27	Al	# 1	18020	18020	ug/l	0.80	#VALUE!	
39	K	# 2	477.5	477.5	ug/l	0.56	#VALUE!	
40	Ca	# 1	788.7	788.7	ug/l	0.67	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	217.4	217.4	ug/l	1.01	#VALUE!	
51	V	# 2	58.84	58.84	ug/l	0.48	#VALUE!	
52	Cr	# 2	33.97	33.97	ug/l	0.77	#VALUE!	
55	Mn	# 3	51.36	51.36	ug/l	0.64	#VALUE!	
56	Fe	# 1	22470	22470	ug/l	0.45	#VALUE!	
59	Co	# 3	5.584	5.584	ug/l	0.64	#VALUE!	
60	Ni	# 2	8.854	8.854	ug/l	1.15	#VALUE!	
63	Cu	# 2	19	19	ug/l	0.39	#VALUE!	
65	Cu	# 2	18.87	18.87	ug/l	1.13	#VALUE!	
65	Cu	# 3	19.06	19.06	ug/l	0.46	#VALUE!	
66	Zn	# 3	35.8	35.8	ug/l	0.93	#VALUE!	
68	Zn	# 3	37.45	37.45	ug/l	1.15	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	3.402	3.402	ug/l	3.50	#VALUE!	
78	Se	# 1	0.4652	0.4652	ug/l	3.14	#VALUE!	
88	Sr	# 3	9.751	9.751	ug/l	0.63	#VALUE!	
90	Zr	# 3	2.489	2.489	ug/l	1.16	#VALUE!	
91	Zr	# 3	2.514	2.514	ug/l	3.58	#VALUE!	
95	Mo	# 3	1.186	1.186	ug/l	4.02	#VALUE!	
107	Ag	# 3	0.09562	0.09562	ug/l	2.62	#VALUE!	
111	Cd	# 3	0.03361	0.03361	ug/l	25.99	#VALUE!	
118	Sn	# 3	3.157	3.157	ug/l	2.17	#VALUE!	
121	Sb	# 3	0.4406	0.4406	ug/l	5.01	#VALUE!	
137	Ba	# 3	97.92	97.92	ug/l	0.97	#VALUE!	
201	Hg	# 3	0.111	0.111	ug/l	4.61	#VALUE!	
202	Hg	# 3	0.112	0.112	ug/l	2.77	#VALUE!	
203	Tl	# 3	0.1956	0.1956	ug/l	4.05	#VALUE!	
205	Tl	# 3	0.188	0.188	ug/l	0.38	#VALUE!	
208	Pb	# 3	41.9	41.9	ug/l	0.48	#VALUE!	
232	Th	# 3	6.135	6.135	ug/l	0.34	#VALUE!	
238	U	# 3	1.305	1.305	ug/l	0.37	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	514086.81	2.57	531519.69	96.7	60 - 125	
45	Sc	# 1	305649.84	1.45	282316.44	108.3	60 - 125	
45	Sc	# 3	894802.50	0.63	802725.75	111.5	60 - 125	
74	Ge	# 1	103909.32	1.53	109028.65	95.3	60 - 125	
74	Ge	# 2	18991.20	2.39	20216.41	93.9	60 - 125	
74	Ge	# 3	199090.48	2.01	209704.94	94.9	60 - 125	
89	Y	# 3	1231786.10	1.73	1159007.90	106.3	60 - 125	
115	In	# 3	1201282.40	2.21	1277748.90	94.0	60 - 125	
159	Tb	# 3	1831053.10	0.98	1896321.40	96.6	60 - 125	
209	Bi	# 3	1055075.10	2.28	1156151.50	91.3	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\041SMPL.D\041SMPL.D#
Date Acquired:	Mar 25 2009 04:16 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-4L
Misc Info:	3050 1/50
Vial Number:	2107
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	5.00
Autodil Factor:	Undiluted
Final Dil Factor:	5.00

Tune Step	
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.612	0.1224	ug/l	11.64	#VALUE!	
11	B	# 3	3.5075	0.7015	ug/l	5.91	#VALUE!	
23	Na	# 1	91.7	18.34	ug/l	1.54	#VALUE!	
24	Mg	# 1	859	171.8	ug/l	0.64	#VALUE!	
27	Al	# 1	19620	3924	ug/l	0.38	#VALUE!	
39	K	# 2	448.25	89.65	ug/l	6.54	#VALUE!	
40	Ca	# 1	885.5	177.1	ug/l	0.63	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	247.05	49.41	ug/l	1.62	#VALUE!	
51	V	# 2	55.45	11.09	ug/l	2.23	#VALUE!	
52	Cr	# 2	32.52	6.504	ug/l	0.51	#VALUE!	
55	Mn	# 3	47.385	9.477	ug/l	0.80	#VALUE!	
56	Fe	# 1	24520	4904	ug/l	0.47	#VALUE!	
59	Co	# 3	5.59	1.118	ug/l	0.22	#VALUE!	
60	Ni	# 2	12.935	2.587	ug/l	2.51	#VALUE!	
63	Cu	# 2	18.64	3.728	ug/l	1.46	#VALUE!	
65	Cu	# 2	18.76	3.752	ug/l	0.61	#VALUE!	
65	Cu	# 3	18.95	3.79	ug/l	1.50	#VALUE!	
66	Zn	# 3	36.38	7.276	ug/l	0.32	#VALUE!	
68	Zn	# 3	39.055	7.811	ug/l	0.53	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	3.172	0.6344	ug/l	1.73	#VALUE!	
78	Se	# 1	0.47515	0.09503	ug/l	12.37	#VALUE!	
88	Sr	# 3	10.34	2.068	ug/l	0.24	#VALUE!	
90	Zr	# 3	2.8415	0.5683	ug/l	11.72	#VALUE!	
91	Zr	# 3	2.516	0.5032	ug/l	2.04	#VALUE!	
95	Mo	# 3	1.287	0.2574	ug/l	7.28	#VALUE!	
107	Ag	# 3	0.09375	0.01875	ug/l	13.83	#VALUE!	
111	Cd	# 3	0.04126	0.008252	ug/l	47.13	#VALUE!	
118	Sn	# 3	3.235	0.647	ug/l	3.41	#VALUE!	
121	Sb	# 3	0.44265	0.08853	ug/l	10.36	#VALUE!	
137	Ba	# 3	96.4	19.28	ug/l	1.87	#VALUE!	
201	Hg	# 3	0.1292	0.02584	ug/l	13.55	#VALUE!	
202	Hg	# 3	0.13035	0.02607	ug/l	4.47	#VALUE!	
203	Tl	# 3	0.1915	0.0383	ug/l	2.66	#VALUE!	
205	Tl	# 3	0.19615	0.03923	ug/l	3.00	#VALUE!	
208	Pb	# 3	42.115	8.423	ug/l	0.54	#VALUE!	
232	Th	# 3	5.885	1.177	ug/l	0.64	#VALUE!	
238	U	# 3	1.266	0.2532	ug/l	2.35	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	490575.97	4.18	531519.69	92.3	60 - 125	
45	Sc	# 1	260126.86	0.53	282316.44	92.1	60 - 125	
45	Sc	# 3	767289.00	1.95	802725.75	95.6	60 - 125	
74	Ge	# 1	99128.52	0.46	109028.65	90.9	60 - 125	
74	Ge	# 2	18147.77	2.41	20216.41	89.8	60 - 125	
74	Ge	# 3	191840.23	1.74	209704.94	91.5	60 - 125	
89	Y	# 3	1095463.40	2.15	1159007.90	94.5	60 - 125	
115	In	# 3	1179178.40	2.09	1277748.90	92.3	60 - 125	
159	Tb	# 3	1778283.90	1.89	1896321.40	93.8	60 - 125	
209	Bi	# 3	1071820.30	2.07	1156151.50	92.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\042SMPL.D\042SMPL.D#
Date Acquired:	Mar 25 2009 04:23 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-4A
Misc Info:	3050 1/10
Vial Number:	2108
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element		Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	# 3	19.71	19.71	ug/l	1.90	#VALUE!	
11 B	# 3	41.34	41.34	ug/l	0.91	#VALUE!	
23 Na	# 1	1969	1969	ug/l	0.15	#VALUE!	
24 Mg	# 1	2666	2666	ug/l	0.33	#VALUE!	
27 Al	# 1	19180	19180	ug/l	0.18	#VALUE!	
39 K	# 2	2462	2462	ug/l	1.22	#VALUE!	
40 Ca	# 1	2672	2672	ug/l	0.14	#VALUE!	
45 Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47 Ti	# 3	236.1	236.1	ug/l	0.22	#VALUE!	
51 V	# 2	81.31	81.31	ug/l	0.89	#VALUE!	
52 Cr	# 2	55.51	55.51	ug/l	1.04	#VALUE!	
55 Mn	# 3	247.3	247.3	ug/l	1.23	#VALUE!	
56 Fe	# 1	25470	25470	ug/l	0.70	#VALUE!	
59 Co	# 3	24.83	24.83	ug/l	1.93	#VALUE!	
60 Ni	# 2	30.02	30.02	ug/l	1.42	#VALUE!	
63 Cu	# 2	40.25	40.25	ug/l	1.04	#VALUE!	
65 Cu	# 2	40.47	40.47	ug/l	1.20	#VALUE!	
65 Cu	# 3	39.17	39.17	ug/l	2.23	#VALUE!	
66 Zn	# 3	53.41	53.41	ug/l	0.74	#VALUE!	
68 Zn	# 3	56.03	56.03	ug/l	0.80	#VALUE!	
70 Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75 As	# 2	23.59	23.59	ug/l	1.19	#VALUE!	
78 Se	# 1	20.64	20.64	ug/l	0.64	#VALUE!	
88 Sr	# 3	26.84	26.84	ug/l	2.87	#VALUE!	
90 Zr	# 3	172.1	172.1	ug/l	1.34	#VALUE!	
91 Zr	# 3	162	162	ug/l	1.32	#VALUE!	
95 Mo	# 3	20.14	20.14	ug/l	0.60	#VALUE!	
107 Ag	# 3	17.38	17.38	ug/l	0.38	#VALUE!	
111 Cd	# 3	18.99	18.99	ug/l	2.48	#VALUE!	
118 Sn	# 3	22.28	22.28	ug/l	0.55	#VALUE!	
121 Sb	# 3	18.01	18.01	ug/l	0.62	#VALUE!	
137 Ba	# 3	117.9	117.9	ug/l	0.69	#VALUE!	
201 Hg	# 3	1.11	1.11	ug/l	2.69	#VALUE!	
202 Hg	# 3	1.131	1.131	ug/l	0.45	#VALUE!	
203 Tl	# 3	4.036	4.036	ug/l	0.35	#VALUE!	
205 Tl	# 3	4.057	4.057	ug/l	1.41	#VALUE!	
208 Pb	# 3	62.72	62.72	ug/l	0.70	#VALUE!	
232 Th	# 3	26.04	26.04	ug/l	1.78	#VALUE!	
238 U	# 3	19.64	19.64	ug/l	1.51	#VALUE!	

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	# 3	487647.19	1.58	531519.69	91.7	60 - 125	
45 Sc	# 1	309365.94	1.40	282316.44	109.6	60 - 125	
45 Sc	# 3	880259.25	0.51	802725.75	109.7	60 - 125	
74 Ge	# 1	103993.35	1.70	109028.65	95.4	60 - 125	
74 Ge	# 2	19103.96	2.27	20216.41	94.5	60 - 125	
74 Ge	# 3	195376.42	1.05	209704.94	93.2	60 - 125	
89 Y	# 3	1221390.90	1.03	1159007.90	105.4	60 - 125	
115 In	# 3	1187065.30	0.54	1277748.90	92.9	60 - 125	
159 Tb	# 3	1804324.40	1.01	1896321.40	95.1	60 - 125	
209 Bi	# 3	1040435.40	1.52	1156151.50	90.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\043SMPL.D\043SMPL.D#
Date Acquired:	Mar 25 2009 04:30 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-4S
Misc Info:	3050 1/10
Vial Number:	2109
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	5.254	5.254	ug/l	0.55	#VALUE!	
11	B	# 3	19.35	19.35	ug/l	1.46	#VALUE!	
23	Na	# 1	547	547	ug/l	0.74	#VALUE!	
24	Mg	# 1	1379	1379	ug/l	0.93	#VALUE!	
27	Al	# 1	19870	19870	ug/l	0.31	#VALUE!	
39	K	# 2	970.9	970.9	ug/l	0.73	#VALUE!	
40	Ca	# 1	1415	1415	ug/l	0.84	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	224.2	224.2	ug/l	0.79	#VALUE!	
51	V	# 2	61	61	ug/l	0.79	#VALUE!	
52	Cr	# 2	44.61	44.61	ug/l	0.27	#VALUE!	
55	Mn	# 3	111.9	111.9	ug/l	0.58	#VALUE!	
56	Fe	# 1	21650	21650	ug/l	0.33	#VALUE!	
59	Co	# 3	9.511	9.511	ug/l	1.08	#VALUE!	
60	Ni	# 2	20.39	20.39	ug/l	1.15	#VALUE!	
63	Cu	# 2	31	31	ug/l	1.08	#VALUE!	
65	Cu	# 2	31.09	31.09	ug/l	1.01	#VALUE!	
65	Cu	# 3	30.45	30.45	ug/l	0.34	#VALUE!	
66	Zn	# 3	41.43	41.43	ug/l	0.22	#VALUE!	
68	Zn	# 3	43.25	43.25	ug/l	0.99	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	11.99	11.99	ug/l	0.87	#VALUE!	
78	Se	# 1	9.218	9.218	ug/l	0.10	#VALUE!	
88	Sr	# 3	19.3	19.3	ug/l	0.32	#VALUE!	
90	Zr	# 3	29.2	29.2	ug/l	0.80	#VALUE!	
91	Zr	# 3	28.87	28.87	ug/l	0.97	#VALUE!	
95	Mo	# 3	12.52	12.52	ug/l	1.85	#VALUE!	
107	Ag	# 3	4.794	4.794	ug/l	1.11	#VALUE!	
111	Cd	# 3	4.713	4.713	ug/l	2.19	#VALUE!	
118	Sn	# 3	11.68	11.68	ug/l	0.21	#VALUE!	
121	Sb	# 3	4.184	4.184	ug/l	0.38	#VALUE!	
137	Ba	# 3	84.93	84.93	ug/l	1.18	#VALUE!	
201	Hg	# 3	0.5122	0.5122	ug/l	3.74	#VALUE!	
202	Hg	# 3	0.5098	0.5098	ug/l	1.06	#VALUE!	
203	Tl	# 3	3.895	3.895	ug/l	0.67	#VALUE!	
205	Tl	# 3	3.935	3.935	ug/l	1.05	#VALUE!	
208	Pb	# 3	49.29	49.29	ug/l	0.74	#VALUE!	
232	Th	# 3	15.43	15.43	ug/l	1.04	#VALUE!	
238	U	# 3	10.37	10.37	ug/l	1.51	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	500705.34	0.80	531519.69	94.2	60 - 125	
45	Sc	# 1	291110.28	1.69	282316.44	103.1	60 - 125	
45	Sc	# 3	885969.88	0.94	802725.75	110.4	60 - 125	
74	Ge	# 1	98563.94	2.11	109028.65	90.4	60 - 125	
74	Ge	# 2	18585.04	2.88	20216.41	91.9	60 - 125	
74	Ge	# 3	196748.33	0.85	209704.94	93.8	60 - 125	
89	Y	# 3	1242179.30	0.95	1159007.90	107.2	60 - 125	
115	In	# 3	1193035.90	1.78	1277748.90	93.4	60 - 125	
159	Tb	# 3	1797038.50	1.38	1896321.40	94.8	60 - 125	
209	Bi	# 3	1033500.50	2.51	1156151.50	89.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\044SMPL.D\044SMPL.D#
Date Acquired:	Mar 25 2009 04:36 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-4SD
Misc Info:	3050 1/10
Vial Number:	2110
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	5.296	5.296	ug/l	1.91	#VALUE!	
11	B	# 3	19.07	19.07	ug/l	2.52	#VALUE!	
23	Na	# 1	539.2	539.2	ug/l	0.40	#VALUE!	
24	Mg	# 1	1333	1333	ug/l	0.66	#VALUE!	
27	Al	# 1	20660	20660	ug/l	0.29	#VALUE!	
39	K	# 2	940.3	940.3	ug/l	1.26	#VALUE!	
40	Ca	# 1	1301	1301	ug/l	0.75	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	236.8	236.8	ug/l	0.55	#VALUE!	
51	V	# 2	59.96	59.96	ug/l	1.43	#VALUE!	
52	Cr	# 2	41.2	41.2	ug/l	1.41	#VALUE!	
55	Mn	# 3	101	101	ug/l	0.78	#VALUE!	
56	Fe	# 1	18420	18420	ug/l	0.35	#VALUE!	
59	Co	# 3	9.378	9.378	ug/l	1.15	#VALUE!	
60	Ni	# 2	19.74	19.74	ug/l	0.45	#VALUE!	
63	Cu	# 2	26.51	26.51	ug/l	0.98	#VALUE!	
65	Cu	# 2	26.34	26.34	ug/l	1.21	#VALUE!	
65	Cu	# 3	26.68	26.68	ug/l	0.55	#VALUE!	
66	Zn	# 3	38.47	38.47	ug/l	0.86	#VALUE!	
68	Zn	# 3	39.56	39.56	ug/l	1.36	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	11.07	11.07	ug/l	2.04	#VALUE!	
78	Se	# 1	9.056	9.056	ug/l	2.39	#VALUE!	
88	Sr	# 3	19.05	19.05	ug/l	0.72	#VALUE!	
90	Zr	# 3	31.88	31.88	ug/l	1.64	#VALUE!	
91	Zr	# 3	31.51	31.51	ug/l	1.95	#VALUE!	
95	Mo	# 3	9.964	9.964	ug/l	1.63	#VALUE!	
107	Ag	# 3	4.934	4.934	ug/l	1.31	#VALUE!	
111	Cd	# 3	4.826	4.826	ug/l	1.83	#VALUE!	
118	Sn	# 3	11.88	11.88	ug/l	2.06	#VALUE!	
121	Sb	# 3	4.437	4.437	ug/l	0.81	#VALUE!	
137	Ba	# 3	81.1	81.1	ug/l	1.25	#VALUE!	
201	Hg	# 3	0.5117	0.5117	ug/l	3.41	#VALUE!	
202	Hg	# 3	0.5272	0.5272	ug/l	2.31	#VALUE!	
203	Tl	# 3	4.008	4.008	ug/l	1.41	#VALUE!	
205	Tl	# 3	4.062	4.062	ug/l	0.59	#VALUE!	
208	Pb	# 3	39.22	39.22	ug/l	0.67	#VALUE!	
232	Th	# 3	15.24	15.24	ug/l	0.47	#VALUE!	
238	U	# 3	10.76	10.76	ug/l	0.23	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	492806.66	1.85	531519.69	92.7	60 - 125	
45	Sc	# 1	296710.16	2.26	282316.44	105.1	60 - 125	
45	Sc	# 3	883519.25	0.53	802725.75	110.1	60 - 125	
74	Ge	# 1	99877.74	2.04	109028.65	91.6	60 - 125	
74	Ge	# 2	18942.23	3.46	20216.41	93.7	60 - 125	
74	Ge	# 3	197661.56	1.61	209704.94	94.3	60 - 125	
89	Y	# 3	1217892.10	1.87	1159007.90	105.1	60 - 125	
115	In	# 3	1181640.90	1.70	1277748.90	92.5	60 - 125	
159	Tb	# 3	1777000.00	1.13	1896321.40	93.7	60 - 125	
209	Bi	# 3	1019524.40	1.34	1156151.50	88.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\045_CCV.D\045_CCV.D#
Date Acquired: Mar 25 2009 04:43 pm
Operator: BB
Sample Name: CCV 50/5000
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	52.87 ug/l	0.32	50.00	90 - 110	
11	B	# 3	101.6 ug/l	1.87	100.00	90 - 110	
23	Na	# 1	4743 ug/l	4.22	5000.00	90 - 110	
24	Mg	# 1	4715 ug/l	4.46	5000.00	90 - 110	
27	Al	# 1	473.7 ug/l	5.31	500.00	90 - 110	
39	K	# 2	4455 ug/l	1.75	5000.00	90 - 110	Fail
40	Ca	# 1	4741 ug/l	4.41	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	49.82 ug/l	2.11	50.00	90 - 110	
51	V	# 2	48.29 ug/l	0.87	50.00	90 - 110	
52	Cr	# 2	48.03 ug/l	0.19	50.00	90 - 110	
55	Mn	# 3	481.2 ug/l	0.33	500.00	90 - 110	
56	Fe	# 1	4863 ug/l	4.01	5000.00	90 - 110	
59	Co	# 3	50.08 ug/l	0.68	50.00	90 - 110	
60	Ni	# 2	50.47 ug/l	0.35	50.00	90 - 110	
63	Cu	# 2	49.84 ug/l	0.70	50.00	90 - 110	
65	Cu	# 2	50.34 ug/l	0.39	50.00	90 - 110	
65	Cu	# 3	50.21 ug/l	0.74	50.00	90 - 110	
66	Zn	# 3	48.97 ug/l	0.95	50.00	90 - 110	
68	Zn	# 3	48.51 ug/l	0.59	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	50.38 ug/l	1.20	50.00	90 - 110	
78	Se	# 1	48.75 ug/l	3.42	50.00	90 - 110	
88	Sr	# 3	48.9 ug/l	1.76	50.00	90 - 110	
90	Zr	# 3	484.2 ug/l	0.57	500.00	90 - 110	
91	Zr	# 3	493.3 ug/l	1.36	500.00	90 - 110	
95	Mo	# 3	47.83 ug/l	1.14	50.00	90 - 110	
107	Ag	# 3	48.42 ug/l	0.97	50.00	90 - 110	
111	Cd	# 3	48.52 ug/l	0.98	50.00	90 - 110	
118	Sn	# 3	48.47 ug/l	0.72	50.00	90 - 110	
121	Sb	# 3	45.9 ug/l	1.01	50.00	90 - 110	
137	Ba	# 3	48.41 ug/l	1.59	50.00	90 - 110	
201	Hg	# 3	2.477 ug/l	1.73	2.50	90 - 110	
202	Hg	# 3	2.445 ug/l	0.79	2.50	90 - 110	
203	Tl	# 3	9.607 ug/l	0.61	10.00	90 - 110	
205	Tl	# 3	9.569 ug/l	0.73	10.00	90 - 110	
208	Pb	# 3	45.82 ug/l	0.68	50.00	90 - 110	
232	Th	# 3	49.07 ug/l	0.19	---	##### - #####	
238	U	# 3	48.75 ug/l	0.49	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	396566.69	2.03	531519.69	74.6	60 - 125	
45	Sc	# 1	245783.34	3.14	282316.44	87.1	60 - 125	
45	Sc	# 3	679945.31	2.81	802725.75	84.7	60 - 125	
74	Ge	# 1	98435.25	2.65	109028.65	90.3	60 - 125	
74	Ge	# 2	17721.24	1.75	20216.41	87.7	60 - 125	
74	Ge	# 3	180109.56	1.04	209704.94	85.9	60 - 125	
89	Y	# 3	1000377.60	2.13	1159007.90	86.3	60 - 125	
115	In	# 3	1087629.60	2.19	1277748.90	85.1	60 - 125	
159	Tb	# 3	1646994.50	1.69	1896321.40	86.9	60 - 125	
209	Bi	# 3	949237.88	1.37	1156151.50	82.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Fail
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\046_CCB.D\046_CCB.D#
Date Acquired: Mar 25 2009 04:50 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.006698 ug/l	68.26	#VALUE!	
11 B	1.219 ug/l	3.03	#VALUE!	
23 Na	-0.5233 ug/l	33.19	#VALUE!	
24 Mg	1.708 ug/l	3.56	#VALUE!	
27 Al	5.888 ug/l	6.63	#VALUE!	
39 K	0.3729 ug/l	299.01	#VALUE!	
40 Ca	1.671 ug/l	1.80	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.04731 ug/l	60.50	#VALUE!	
51 V	0.004394 ug/l	100.00	#VALUE!	
52 Cr	0.01655 ug/l	47.80	#VALUE!	
55 Mn	0.07536 ug/l	35.17	#VALUE!	
56 Fe	7.321 ug/l	2.83	#VALUE!	
59 Co	0.007226 ug/l	55.12	#VALUE!	
60 Ni	0.01964 ug/l	14.42	#VALUE!	
63 Cu	0.03389 ug/l	4.36	#VALUE!	
65 Cu	0.0235 ug/l	34.23	#VALUE!	
65 Cu	0.01754 ug/l	50.86	#VALUE!	
66 Zn	0.02116 ug/l	81.29	#VALUE!	
68 Zn	0.02127 ug/l	58.44	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.04308 ug/l	3.81	#VALUE!	
78 Se	0.05608 ug/l	6.85	#VALUE!	
88 Sr	0.007449 ug/l	34.88	#VALUE!	
90 Zr	0.7399 ug/l	7.35	#VALUE!	
91 Zr	0.7346 ug/l	4.72	#VALUE!	
95 Mo	0.1365 ug/l	5.98	#VALUE!	
107 Ag	0.009848 ug/l	36.00	#VALUE!	
111 Cd	0.008209 ug/l	40.97	#VALUE!	
118 Sn	0.1132 ug/l	11.28	#VALUE!	
121 Sb	0.03454 ug/l	30.17	#VALUE!	
137 Ba	0.01402 ug/l	85.88	#VALUE!	
201 Hg	0.03462 ug/l	18.26	#VALUE!	
202 Hg	0.03294 ug/l	10.16	#VALUE!	
203 Tl	0.04973 ug/l	6.51	#VALUE!	
205 Tl	0.03999 ug/l	12.70	#VALUE!	
208 Pb	0.02078 ug/l	22.52	#VALUE!	
232 Th	0.07207 ug/l	13.30	#VALUE!	
238 U	0.01114 ug/l	28.64	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	445148.28	2.08	531519.69	83.8	60 - 125	
45 Sc	252819.30	1.08	282316.44	89.6	60 - 125	
45 Sc	699263.81	1.17	802725.75	87.1	60 - 125	
74 Ge	100918.54	1.30	109028.65	92.6	60 - 125	
74 Ge	18395.16	2.44	20216.41	91.0	60 - 125	
74 Ge	185551.88	1.47	209704.94	88.5	60 - 125	
89 Y	1029518.90	1.10	1159007.90	88.8	60 - 125	
115 In	1129532.10	1.88	1277748.90	88.4	60 - 125	
159 Tb	1683361.90	1.51	1896321.40	88.8	60 - 125	
209 Bi	996957.69	2.06	1156151.50	86.2	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\047SMPL.D\047SMPL.D#
Date Acquired:	Mar 25 2009 04:57 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45703-1
Misc Info:	3050 1/10
Vial Number:	2111
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element		Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	# 3	0.003479	0.003479	ug/l	20.98	#VALUE!	
11 B	# 3	1.152	1.152	ug/l	8.49	#VALUE!	
23 Na	# 1	523.1	523.1	ug/l	0.99	#VALUE!	
24 Mg	# 1	28.77	28.77	ug/l	1.79	#VALUE!	
27 Al	# 1	31.93	31.93	ug/l	2.38	#VALUE!	
39 K	# 2	98.66	98.66	ug/l	1.72	#VALUE!	
40 Ca	# 1	63.07	63.07	ug/l	0.18	#VALUE!	
45 Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47 Ti	# 3	1.933	1.933	ug/l	5.13	#VALUE!	
51 V	# 2	0.09921	0.09921	ug/l	12.38	#VALUE!	
52 Cr	# 2	1.022	1.022	ug/l	1.13	#VALUE!	
55 Mn	# 3	0.73	0.73	ug/l	1.40	#VALUE!	
56 Fe	# 1	66.18	66.18	ug/l	0.53	#VALUE!	
59 Co	# 3	0.05936	0.05936	ug/l	5.80	#VALUE!	
60 Ni	# 2	0.4113	0.4113	ug/l	6.62	#VALUE!	
63 Cu	# 2	0.406	0.406	ug/l	2.96	#VALUE!	
65 Cu	# 2	0.3953	0.3953	ug/l	1.30	#VALUE!	
65 Cu	# 3	0.3861	0.3861	ug/l	1.92	#VALUE!	
66 Zn	# 3	2.009	2.009	ug/l	4.44	#VALUE!	
68 Zn	# 3	1.94	1.94	ug/l	4.62	#VALUE!	
70 Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75 As	# 2	0.03783	0.03783	ug/l	25.31	#VALUE!	
78 Se	# 1	0.01701	0.01701	ug/l	59.20	#VALUE!	
88 Sr	# 3	0.1821	0.1821	ug/l	0.75	#VALUE!	
90 Zr	# 3	2.702	2.702	ug/l	4.93	#VALUE!	
91 Zr	# 3	2.732	2.732	ug/l	7.86	#VALUE!	
95 Mo	# 3	0.1428	0.1428	ug/l	8.07	#VALUE!	
107 Ag	# 3	0.07563	0.07563	ug/l	10.50	#VALUE!	
111 Cd	# 3	0.008174	0.008174	ug/l	38.39	#VALUE!	
118 Sn	# 3	1.309	1.309	ug/l	0.42	#VALUE!	
121 Sb	# 3	0.2391	0.2391	ug/l	1.41	#VALUE!	
137 Ba	# 3	0.5048	0.5048	ug/l	5.70	#VALUE!	
201 Hg	# 3	0.01061	0.01061	ug/l	35.73	#VALUE!	
202 Hg	# 3	0.01053	0.01053	ug/l	11.49	#VALUE!	
203 Tl	# 3	0.01919	0.01919	ug/l	12.58	#VALUE!	
205 Tl	# 3	0.01894	0.01894	ug/l	10.64	#VALUE!	
208 Pb	# 3	0.05967	0.05967	ug/l	6.15	#VALUE!	
232 Th	# 3	0.04761	0.04761	ug/l	8.32	#VALUE!	
238 U	# 3	0.007037	0.007037	ug/l	19.55	#VALUE!	

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	# 3	458479.16	1.77	531519.69	86.3	60 - 125	
45 Sc	# 1	253359.58	0.76	282316.44	89.7	60 - 125	
45 Sc	# 3	706751.31	0.84	802725.75	88.0	60 - 125	
74 Ge	# 1	98185.59	0.59	109028.65	90.1	60 - 125	
74 Ge	# 2	17870.68	1.32	20216.41	88.4	60 - 125	
74 Ge	# 3	182571.75	1.48	209704.94	87.1	60 - 125	
89 Y	# 3	1014663.80	0.95	1159007.90	87.5	60 - 125	
115 In	# 3	1123431.30	1.70	1277748.90	87.9	60 - 125	
159 Tb	# 3	1680476.10	0.90	1896321.40	88.6	60 - 125	
209 Bi	# 3	1015136.90	1.75	1156151.50	87.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\048SMPL.D\048SMPL.D#
Date Acquired:	Mar 25 2009 05:03 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-5
Misc Info:	3050 1/10
Vial Number:	2112
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element		Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	# 3	0.582	0.582	ug/l	1.03	#VALUE!	
11 B	# 3	1.47	1.47	ug/l	2.61	#VALUE!	
23 Na	# 1	85.4	85.4	ug/l	1.38	#VALUE!	
24 Mg	# 1	1016	1016	ug/l	0.66	#VALUE!	
27 Al	# 1	10000	10000	ug/l	0.71	#VALUE!	
39 K	# 2	518.8	518.8	ug/l	1.02	#VALUE!	
40 Ca	# 1	1173	1173	ug/l	0.91	#VALUE!	
45 Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47 Ti	# 3	255.4	255.4	ug/l	1.51	#VALUE!	
51 V	# 2	29.46	29.46	ug/l	0.83	#VALUE!	
52 Cr	# 2	19.54	19.54	ug/l	1.69	#VALUE!	
55 Mn	# 3	91.72	91.72	ug/l	0.54	#VALUE!	
56 Fe	# 1	9920	9920	ug/l	0.65	#VALUE!	
59 Co	# 3	4.175	4.175	ug/l	1.06	#VALUE!	
60 Ni	# 2	7.311	7.311	ug/l	1.20	#VALUE!	
63 Cu	# 2	14.52	14.52	ug/l	1.20	#VALUE!	
65 Cu	# 2	14.62	14.62	ug/l	2.16	#VALUE!	
65 Cu	# 3	14.72	14.72	ug/l	1.44	#VALUE!	
66 Zn	# 3	37.79	37.79	ug/l	0.91	#VALUE!	
68 Zn	# 3	38.22	38.22	ug/l	0.45	#VALUE!	
70 Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75 As	# 2	1.661	1.661	ug/l	5.98	#VALUE!	
78 Se	# 1	0.2236	0.2236	ug/l	11.89	#VALUE!	
88 Sr	# 3	9.293	9.293	ug/l	0.31	#VALUE!	
90 Zr	# 3	2.216	2.216	ug/l	0.47	#VALUE!	
91 Zr	# 3	2.243	2.243	ug/l	1.96	#VALUE!	
95 Mo	# 3	0.3755	0.3755	ug/l	2.40	#VALUE!	
107 Ag	# 3	0.1555	0.1555	ug/l	6.62	#VALUE!	
111 Cd	# 3	0.04614	0.04614	ug/l	23.65	#VALUE!	
118 Sn	# 3	2.075	2.075	ug/l	2.29	#VALUE!	
121 Sb	# 3	0.1852	0.1852	ug/l	7.41	#VALUE!	
137 Ba	# 3	48.99	48.99	ug/l	1.00	#VALUE!	
201 Hg	# 3	0.03918	0.03918	ug/l	13.75	#VALUE!	
202 Hg	# 3	0.04042	0.04042	ug/l	0.84	#VALUE!	
203 Tl	# 3	0.153	0.153	ug/l	0.78	#VALUE!	
205 Tl	# 3	0.1521	0.1521	ug/l	5.57	#VALUE!	
208 Pb	# 3	15.89	15.89	ug/l	0.35	#VALUE!	
232 Th	# 3	5.845	5.845	ug/l	0.39	#VALUE!	
238 U	# 3	1.093	1.093	ug/l	1.06	#VALUE!	

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	# 3	487719.25	2.93	531519.69	91.8	60 - 125	
45 Sc	# 1	277730.59	0.68	282316.44	98.4	60 - 125	
45 Sc	# 3	799775.19	1.55	802725.75	99.6	60 - 125	
74 Ge	# 1	98931.68	0.83	109028.65	90.7	60 - 125	
74 Ge	# 2	18139.96	3.15	20216.41	89.7	60 - 125	
74 Ge	# 3	188124.78	0.89	209704.94	89.7	60 - 125	
89 Y	# 3	1290326.30	0.98	1159007.90	111.3	60 - 125	
115 In	# 3	1143832.90	1.53	1277748.90	89.5	60 - 125	
159 Tb	# 3	1772911.90	0.98	1896321.40	93.5	60 - 125	
209 Bi	# 3	1029741.90	1.50	1156151.50	89.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\049SMPL.D\049SMPL.D#
Date Acquired:	Mar 25 2009 05:10 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-6
Misc Info:	3050 1/10
Vial Number:	2201
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.6635	0.6635	ug/l	1.82	#VALUE!	
11	B	# 3	1.545	1.545	ug/l	6.00	#VALUE!	
23	Na	# 1	37.44	37.44	ug/l	0.14	#VALUE!	
24	Mg	# 1	910.7	910.7	ug/l	1.22	#VALUE!	
27	Al	# 1	12710	12710	ug/l	0.67	#VALUE!	
39	K	# 2	618.4	618.4	ug/l	0.87	#VALUE!	
40	Ca	# 1	1399	1399	ug/l	0.40	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	187.1	187.1	ug/l	0.87	#VALUE!	
51	V	# 2	43.72	43.72	ug/l	1.04	#VALUE!	
52	Cr	# 2	24.1	24.1	ug/l	0.69	#VALUE!	
55	Mn	# 3	50.54	50.54	ug/l	0.66	#VALUE!	
56	Fe	# 1	14190	14190	ug/l	0.58	#VALUE!	
59	Co	# 3	3.846	3.846	ug/l	0.65	#VALUE!	
60	Ni	# 2	7.691	7.691	ug/l	1.99	#VALUE!	
63	Cu	# 2	14.47	14.47	ug/l	0.94	#VALUE!	
65	Cu	# 2	14.48	14.48	ug/l	0.33	#VALUE!	
65	Cu	# 3	14.8	14.8	ug/l	0.24	#VALUE!	
66	Zn	# 3	33.38	33.38	ug/l	0.33	#VALUE!	
68	Zn	# 3	34	34	ug/l	0.35	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.768	1.768	ug/l	7.81	#VALUE!	
78	Se	# 1	0.328	0.328	ug/l	7.19	#VALUE!	
88	Sr	# 3	12.55	12.55	ug/l	0.03	#VALUE!	
90	Zr	# 3	1.98	1.98	ug/l	2.31	#VALUE!	
91	Zr	# 3	2.049	2.049	ug/l	2.69	#VALUE!	
95	Mo	# 3	0.3896	0.3896	ug/l	4.11	#VALUE!	
107	Ag	# 3	0.05222	0.05222	ug/l	5.65	#VALUE!	
111	Cd	# 3	0.03422	0.03422	ug/l	18.39	#VALUE!	
118	Sn	# 3	2.146	2.146	ug/l	0.78	#VALUE!	
121	Sb	# 3	0.1617	0.1617	ug/l	5.41	#VALUE!	
137	Ba	# 3	45.99	45.99	ug/l	0.77	#VALUE!	
201	Hg	# 3	0.03541	0.03541	ug/l	6.07	#VALUE!	
202	Hg	# 3	0.03507	0.03507	ug/l	4.83	#VALUE!	
203	Tl	# 3	0.1723	0.1723	ug/l	1.62	#VALUE!	
205	Tl	# 3	0.1753	0.1753	ug/l	4.21	#VALUE!	
208	Pb	# 3	15.39	15.39	ug/l	0.32	#VALUE!	
232	Th	# 3	5.659	5.659	ug/l	0.65	#VALUE!	
238	U	# 3	1.29	1.29	ug/l	0.45	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	505021.34	1.34	531519.69	95.0	60 - 125	
45	Sc	# 1	297369.84	1.60	282316.44	105.3	60 - 125	
45	Sc	# 3	870119.13	1.53	802725.75	108.4	60 - 125	
74	Ge	# 1	101747.23	1.46	109028.65	93.3	60 - 125	
74	Ge	# 2	18764.21	2.41	20216.41	92.8	60 - 125	
74	Ge	# 3	194335.86	0.94	209704.94	92.7	60 - 125	
89	Y	# 3	1282559.00	0.89	1159007.90	110.7	60 - 125	
115	In	# 3	1186950.40	1.37	1277748.90	92.9	60 - 125	
159	Tb	# 3	1818560.60	1.49	1896321.40	95.9	60 - 125	
209	Bi	# 3	1038747.60	1.41	1156151.50	89.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\050SMPL.D\050SMPL.D#
Date Acquired:	Mar 25 2009 05:17 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-7
Misc Info:	3050 1/10
Vial Number:	2202
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element		Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	# 3	0.6231	0.6231	ug/l	3.29	#VALUE!	
11 B	# 3	1.487	1.487	ug/l	2.18	#VALUE!	
23 Na	# 1	157.7	157.7	ug/l	0.20	#VALUE!	
24 Mg	# 1	453.2	453.2	ug/l	1.47	#VALUE!	
27 Al	# 1	9725	9725	ug/l	0.71	#VALUE!	
39 K	# 2	355.9	355.9	ug/l	0.72	#VALUE!	
40 Ca	# 1	788.5	788.5	ug/l	1.08	#VALUE!	
45 Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47 Ti	# 3	133.9	133.9	ug/l	1.34	#VALUE!	
51 V	# 2	23.74	23.74	ug/l	0.37	#VALUE!	
52 Cr	# 2	14.28	14.28	ug/l	1.10	#VALUE!	
55 Mn	# 3	85.68	85.68	ug/l	1.51	#VALUE!	
56 Fe	# 1	9332	9332	ug/l	0.27	#VALUE!	
59 Co	# 3	5.939	5.939	ug/l	1.15	#VALUE!	
60 Ni	# 2	5.061	5.061	ug/l	1.59	#VALUE!	
63 Cu	# 2	2.124	2.124	ug/l	1.00	#VALUE!	
65 Cu	# 2	2.17	2.17	ug/l	3.57	#VALUE!	
65 Cu	# 3	2.236	2.236	ug/l	3.03	#VALUE!	
66 Zn	# 3	17.06	17.06	ug/l	0.88	#VALUE!	
68 Zn	# 3	18.14	18.14	ug/l	0.29	#VALUE!	
70 Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75 As	# 2	1.542	1.542	ug/l	4.95	#VALUE!	
78 Se	# 1	0.3982	0.3982	ug/l	2.94	#VALUE!	
88 Sr	# 3	7.456	7.456	ug/l	0.41	#VALUE!	
90 Zr	# 3	1.684	1.684	ug/l	4.05	#VALUE!	
91 Zr	# 3	1.678	1.678	ug/l	2.73	#VALUE!	
95 Mo	# 3	0.3525	0.3525	ug/l	4.05	#VALUE!	
107 Ag	# 3	0.02102	0.02102	ug/l	20.13	#VALUE!	
111 Cd	# 3	0.01598	0.01598	ug/l	47.32	#VALUE!	
118 Sn	# 3	1.73	1.73	ug/l	3.94	#VALUE!	
121 Sb	# 3	0.07326	0.07326	ug/l	8.78	#VALUE!	
137 Ba	# 3	48.1	48.1	ug/l	1.09	#VALUE!	
201 Hg	# 3	0.02566	0.02566	ug/l	6.82	#VALUE!	
202 Hg	# 3	0.02648	0.02648	ug/l	7.27	#VALUE!	
203 Tl	# 3	0.157	0.157	ug/l	1.78	#VALUE!	
205 Tl	# 3	0.1602	0.1602	ug/l	1.99	#VALUE!	
208 Pb	# 3	9.48	9.48	ug/l	0.64	#VALUE!	
232 Th	# 3	3.989	3.989	ug/l	1.30	#VALUE!	
238 U	# 3	0.7531	0.7531	ug/l	0.63	#VALUE!	

ISTD Elements

Element		CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	# 3	525066.38	1.94	531519.69	98.8	60 - 125	
45 Sc	# 1	269612.53	1.04	282316.44	95.5	60 - 125	
45 Sc	# 3	839575.38	1.57	802725.75	104.6	60 - 125	
74 Ge	# 1	97698.85	1.19	109028.65	89.6	60 - 125	
74 Ge	# 2	18392.94	3.88	20216.41	91.0	60 - 125	
74 Ge	# 3	197626.48	2.40	209704.94	94.2	60 - 125	
89 Y	# 3	1394502.10	2.58	1159007.90	120.3	60 - 125	
115 In	# 3	1226444.80	2.44	1277748.90	96.0	60 - 125	
159 Tb	# 3	1873475.80	1.87	1896321.40	98.8	60 - 125	
209 Bi	# 3	1084377.40	2.21	1156151.50	93.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\051SMPL.D\051SMPL.D#
Date Acquired:	Mar 25 2009 05:24 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-8
Misc Info:	3050 1/10
Vial Number:	2203
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step
1 babh2.u
2 babhe.u
3 babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.4972	0.4972	ug/l	6.76	#VALUE!	
11	B	# 3	1.755	1.755	ug/l	0.47	#VALUE!	
23	Na	# 1	993.1	993.1	ug/l	1.29	#VALUE!	
24	Mg	# 1	796.8	796.8	ug/l	0.79	#VALUE!	
27	Al	# 1	11450	11450	ug/l	0.22	#VALUE!	
39	K	# 2	521.8	521.8	ug/l	0.99	#VALUE!	
40	Ca	# 1	578.2	578.2	ug/l	0.29	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	247.6	247.6	ug/l	0.92	#VALUE!	
51	V	# 2	30.07	30.07	ug/l	1.33	#VALUE!	
52	Cr	# 2	16.35	16.35	ug/l	1.45	#VALUE!	
55	Mn	# 3	219.3	219.3	ug/l	0.77	#VALUE!	
56	Fe	# 1	10370	10370	ug/l	0.42	#VALUE!	
59	Co	# 3	4.117	4.117	ug/l	0.65	#VALUE!	
60	Ni	# 2	7.353	7.353	ug/l	2.45	#VALUE!	
63	Cu	# 2	11.57	11.57	ug/l	0.91	#VALUE!	
65	Cu	# 2	11.65	11.65	ug/l	0.69	#VALUE!	
65	Cu	# 3	11.72	11.72	ug/l	2.10	#VALUE!	
66	Zn	# 3	31.4	31.4	ug/l	0.72	#VALUE!	
68	Zn	# 3	32.63	32.63	ug/l	0.27	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	2.037	2.037	ug/l	4.87	#VALUE!	
78	Se	# 1	0.2592	0.2592	ug/l	13.43	#VALUE!	
88	Sr	# 3	8.082	8.082	ug/l	0.14	#VALUE!	
90	Zr	# 3	1.241	1.241	ug/l	1.22	#VALUE!	
91	Zr	# 3	1.224	1.224	ug/l	1.29	#VALUE!	
95	Mo	# 3	0.4291	0.4291	ug/l	3.09	#VALUE!	
107	Ag	# 3	0.02931	0.02931	ug/l	12.41	#VALUE!	
111	Cd	# 3	0.06109	0.06109	ug/l	9.75	#VALUE!	
118	Sn	# 3	2.307	2.307	ug/l	1.72	#VALUE!	
121	Sb	# 3	0.1977	0.1977	ug/l	6.02	#VALUE!	
137	Ba	# 3	57.57	57.57	ug/l	0.74	#VALUE!	
201	Hg	# 3	0.04357	0.04357	ug/l	6.54	#VALUE!	
202	Hg	# 3	0.04414	0.04414	ug/l	2.33	#VALUE!	
203	Tl	# 3	0.148	0.148	ug/l	3.01	#VALUE!	
205	Tl	# 3	0.1433	0.1433	ug/l	4.50	#VALUE!	
208	Pb	# 3	16.48	16.48	ug/l	0.31	#VALUE!	
232	Th	# 3	4.487	4.487	ug/l	0.86	#VALUE!	
238	U	# 3	1.387	1.387	ug/l	0.78	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	529521.19	2.05	531519.69	99.6	60 - 125	
45	Sc	# 1	289877.22	1.55	282316.44	102.7	60 - 125	
45	Sc	# 3	884884.69	1.35	802725.75	110.2	60 - 125	
74	Ge	# 1	100451.28	1.16	109028.65	92.1	60 - 125	
74	Ge	# 2	19053.50	2.71	20216.41	94.2	60 - 125	
74	Ge	# 3	201052.45	1.61	209704.94	95.9	60 - 125	
89	Y	# 3	1346097.60	0.96	1159007.90	116.1	60 - 125	
115	In	# 3	1229202.80	1.92	1277748.90	96.2	60 - 125	
159	Tb	# 3	1875511.40	1.32	1896321.40	98.9	60 - 125	
209	Bi	# 3	1068530.50	1.17	1156151.50	92.4	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\052SMPL.D\052SMPL.D#
Date Acquired:	Mar 25 2009 05:30 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-9
Misc Info:	3050 1/10
Vial Number:	2204
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.9054	0.9054	ug/l	4.54	#VALUE!	
11	B	# 3	1.812	1.812	ug/l	0.66	#VALUE!	
23	Na	# 1	150	150	ug/l	0.38	#VALUE!	
24	Mg	# 1	1128	1128	ug/l	0.55	#VALUE!	
27	Al	# 1	15650	15650	ug/l	1.23	#VALUE!	
39	K	# 2	622.7	622.7	ug/l	1.51	#VALUE!	
40	Ca	# 1	1714	1714	ug/l	0.24	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	262.3	262.3	ug/l	0.64	#VALUE!	
51	V	# 2	45.23	45.23	ug/l	1.98	#VALUE!	
52	Cr	# 2	27.57	27.57	ug/l	1.05	#VALUE!	
55	Mn	# 3	58.36	58.36	ug/l	1.26	#VALUE!	
56	Fe	# 1	15820	15820	ug/l	1.11	#VALUE!	
59	Co	# 3	4.663	4.663	ug/l	0.42	#VALUE!	
60	Ni	# 2	11	11	ug/l	1.67	#VALUE!	
63	Cu	# 2	30.11	30.11	ug/l	1.21	#VALUE!	
65	Cu	# 2	29.94	29.94	ug/l	1.09	#VALUE!	
65	Cu	# 3	30.38	30.38	ug/l	0.56	#VALUE!	
66	Zn	# 3	44.95	44.95	ug/l	0.68	#VALUE!	
68	Zn	# 3	46.03	46.03	ug/l	0.36	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	2.073	2.073	ug/l	3.15	#VALUE!	
78	Se	# 1	0.2983	0.2983	ug/l	6.03	#VALUE!	
88	Sr	# 3	17.12	17.12	ug/l	0.74	#VALUE!	
90	Zr	# 3	2.106	2.106	ug/l	0.83	#VALUE!	
91	Zr	# 3	2.127	2.127	ug/l	2.32	#VALUE!	
95	Mo	# 3	0.52	0.52	ug/l	5.44	#VALUE!	
107	Ag	# 3	0.1414	0.1414	ug/l	1.42	#VALUE!	
111	Cd	# 3	0.05374	0.05374	ug/l	14.32	#VALUE!	
118	Sn	# 3	2.239	2.239	ug/l	2.29	#VALUE!	
121	Sb	# 3	0.2075	0.2075	ug/l	4.76	#VALUE!	
137	Ba	# 3	65.57	65.57	ug/l	0.82	#VALUE!	
201	Hg	# 3	0.04368	0.04368	ug/l	10.01	#VALUE!	
202	Hg	# 3	0.04547	0.04547	ug/l	1.35	#VALUE!	
203	Tl	# 3	0.2241	0.2241	ug/l	1.36	#VALUE!	
205	Tl	# 3	0.2245	0.2245	ug/l	0.52	#VALUE!	
208	Pb	# 3	18.7	18.7	ug/l	0.15	#VALUE!	
232	Th	# 3	6.291	6.291	ug/l	0.97	#VALUE!	
238	U	# 3	1.721	1.721	ug/l	0.87	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	525950.69	2.03	531519.69	99.0	60 - 125	
45	Sc	# 1	311184.44	1.74	282316.44	110.2	60 - 125	
45	Sc	# 3	920847.19	0.54	802725.75	114.7	60 - 125	
74	Ge	# 1	103337.94	1.51	109028.65	94.8	60 - 125	
74	Ge	# 2	19312.03	2.79	20216.41	95.5	60 - 125	
74	Ge	# 3	200327.52	1.04	209704.94	95.5	60 - 125	
89	Y	# 3	1438191.80	1.06	1159007.90	124.1	60 - 125	
115	In	# 3	1221223.80	1.98	1277748.90	95.6	60 - 125	
159	Tb	# 3	1868698.50	1.57	1896321.40	98.5	60 - 125	
209	Bi	# 3	1061758.10	1.62	1156151.50	91.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\053SMPL.D\053SMPL.D#
Date Acquired:	Mar 25 2009 05:37 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-10
Misc Info:	3050 1/10
Vial Number:	2205
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.5132	0.5132	ug/l	1.85	#VALUE!	
11	B	# 3	1.055	1.055	ug/l	5.11	#VALUE!	
23	Na	# 1	57.43	57.43	ug/l	1.32	#VALUE!	
24	Mg	# 1	1105	1105	ug/l	0.98	#VALUE!	
27	Al	# 1	20540	20540	ug/l	0.33	#VALUE!	
39	K	# 2	578.2	578.2	ug/l	0.72	#VALUE!	
40	Ca	# 1	1420	1420	ug/l	1.12	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	174	174	ug/l	1.05	#VALUE!	
51	V	# 2	53.4	53.4	ug/l	0.05	#VALUE!	
52	Cr	# 2	35.47	35.47	ug/l	0.85	#VALUE!	
55	Mn	# 3	39.02	39.02	ug/l	0.98	#VALUE!	
56	Fe	# 1	17390	17390	ug/l	0.85	#VALUE!	
59	Co	# 3	3.65	3.65	ug/l	0.32	#VALUE!	
60	Ni	# 2	9.464	9.464	ug/l	2.02	#VALUE!	
63	Cu	# 2	16.11	16.11	ug/l	1.30	#VALUE!	
65	Cu	# 2	16.11	16.11	ug/l	1.58	#VALUE!	
65	Cu	# 3	16.24	16.24	ug/l	0.52	#VALUE!	
66	Zn	# 3	33.62	33.62	ug/l	0.72	#VALUE!	
68	Zn	# 3	34.38	34.38	ug/l	0.65	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.329	1.329	ug/l	2.96	#VALUE!	
78	Se	# 1	0.1992	0.1992	ug/l	12.13	#VALUE!	
88	Sr	# 3	14.48	14.48	ug/l	0.68	#VALUE!	
90	Zr	# 3	1.482	1.482	ug/l	0.51	#VALUE!	
91	Zr	# 3	1.448	1.448	ug/l	4.02	#VALUE!	
95	Mo	# 3	0.2502	0.2502	ug/l	5.92	#VALUE!	
107	Ag	# 3	0.02786	0.02786	ug/l	9.03	#VALUE!	
111	Cd	# 3	0.0188	0.0188	ug/l	7.52	#VALUE!	
118	Sn	# 3	2.159	2.159	ug/l	2.94	#VALUE!	
121	Sb	# 3	0.04956	0.04956	ug/l	10.04	#VALUE!	
137	Ba	# 3	45.07	45.07	ug/l	0.53	#VALUE!	
201	Hg	# 3	0.02316	0.02316	ug/l	10.92	#VALUE!	
202	Hg	# 3	0.02314	0.02314	ug/l	7.30	#VALUE!	
203	Tl	# 3	0.2577	0.2577	ug/l	3.67	#VALUE!	
205	Tl	# 3	0.2526	0.2526	ug/l	4.45	#VALUE!	
208	Pb	# 3	19.07	19.07	ug/l	0.65	#VALUE!	
232	Th	# 3	7.776	7.776	ug/l	0.68	#VALUE!	
238	U	# 3	1.284	1.284	ug/l	1.43	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	525532.31	2.31	531519.69	98.9	60 - 125	
45	Sc	# 1	317618.69	0.87	282316.44	112.5	60 - 125	
45	Sc	# 3	941862.25	1.27	802725.75	117.3	60 - 125	
74	Ge	# 1	101334.63	1.84	109028.65	92.9	60 - 125	
74	Ge	# 2	18992.34	2.68	20216.41	93.9	60 - 125	
74	Ge	# 3	198776.81	0.95	209704.94	94.8	60 - 125	
89	Y	# 3	1249598.50	0.75	1159007.90	107.8	60 - 125	
115	In	# 3	1200111.10	1.65	1277748.90	93.9	60 - 125	
159	Tb	# 3	1830865.80	1.38	1896321.40	96.5	60 - 125	
209	Bi	# 3	1038525.10	1.09	1156151.50	89.8	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\054SMPL.D\054SMPL.D#
Date Acquired:	Mar 25 2009 05:44 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-10S
Misc Info:	3050 1/10
Vial Number:	2206
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	5.271	5.271	ug/l	1.14	#VALUE!	
11	B	# 3	18.82	18.82	ug/l	2.22	#VALUE!	
23	Na	# 1	497	497	ug/l	1.16	#VALUE!	
24	Mg	# 1	1452	1452	ug/l	1.17	#VALUE!	
27	Al	# 1	21100	21100	ug/l	0.98	#VALUE!	
39	K	# 2	1006	1006	ug/l	1.30	#VALUE!	
40	Ca	# 1	1664	1664	ug/l	0.52	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	197.2	197.2	ug/l	1.47	#VALUE!	
51	V	# 2	60.06	60.06	ug/l	0.69	#VALUE!	
52	Cr	# 2	42.9	42.9	ug/l	0.21	#VALUE!	
55	Mn	# 3	89.71	89.71	ug/l	0.19	#VALUE!	
56	Fe	# 1	16780	16780	ug/l	0.20	#VALUE!	
59	Co	# 3	8.522	8.522	ug/l	0.74	#VALUE!	
60	Ni	# 2	20.13	20.13	ug/l	1.05	#VALUE!	
63	Cu	# 2	26.86	26.86	ug/l	0.59	#VALUE!	
65	Cu	# 2	26.84	26.84	ug/l	0.73	#VALUE!	
65	Cu	# 3	26.96	26.96	ug/l	0.39	#VALUE!	
66	Zn	# 3	41.82	41.82	ug/l	0.41	#VALUE!	
68	Zn	# 3	42.83	42.83	ug/l	0.56	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	10.25	10.25	ug/l	1.36	#VALUE!	
78	Se	# 1	8.911	8.911	ug/l	0.98	#VALUE!	
88	Sr	# 3	21.2	21.2	ug/l	0.81	#VALUE!	
90	Zr	# 3	24.2	24.2	ug/l	1.00	#VALUE!	
91	Zr	# 3	24.22	24.22	ug/l	1.60	#VALUE!	
95	Mo	# 3	9.438	9.438	ug/l	1.01	#VALUE!	
107	Ag	# 3	4.909	4.909	ug/l	0.83	#VALUE!	
111	Cd	# 3	4.711	4.711	ug/l	1.51	#VALUE!	
118	Sn	# 3	11.56	11.56	ug/l	0.32	#VALUE!	
121	Sb	# 3	4.047	4.047	ug/l	0.30	#VALUE!	
137	Ba	# 3	52.23	52.23	ug/l	0.37	#VALUE!	
201	Hg	# 3	0.46	0.46	ug/l	0.89	#VALUE!	
202	Hg	# 3	0.4549	0.4549	ug/l	1.20	#VALUE!	
203	Tl	# 3	3.964	3.964	ug/l	1.93	#VALUE!	
205	Tl	# 3	4.004	4.004	ug/l	1.66	#VALUE!	
208	Pb	# 3	25.84	25.84	ug/l	1.37	#VALUE!	
232	Th	# 3	15.94	15.94	ug/l	0.29	#VALUE!	
238	U	# 3	10.54	10.54	ug/l	0.21	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	512948.75	0.60	531519.69	96.5	60 - 125	
45	Sc	# 1	309262.63	2.05	282316.44	109.5	60 - 125	
45	Sc	# 3	921186.13	1.58	802725.75	114.8	60 - 125	
74	Ge	# 1	102030.24	1.81	109028.65	93.6	60 - 125	
74	Ge	# 2	18903.28	2.41	20216.41	93.5	60 - 125	
74	Ge	# 3	196676.17	0.94	209704.94	93.8	60 - 125	
89	Y	# 3	1243970.30	1.57	1159007.90	107.3	60 - 125	
115	In	# 3	1197724.50	1.17	1277748.90	93.7	60 - 125	
159	Tb	# 3	1802720.60	1.07	1896321.40	95.1	60 - 125	
209	Bi	# 3	1029131.30	0.88	1156151.50	89.0	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\055SMPL.D\055SMPL.D#
Date Acquired:	Mar 25 2009 05:50 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-10SD
Misc Info:	3050 1/10
Vial Number:	2207
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

Tune Step	
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	5.333	5.333	ug/l	2.56	#VALUE!	
11	B	# 3	18.89	18.89	ug/l	0.57	#VALUE!	
23	Na	# 1	484.8	484.8	ug/l	0.46	#VALUE!	
24	Mg	# 1	1335	1335	ug/l	0.47	#VALUE!	
27	Al	# 1	20260	20260	ug/l	0.28	#VALUE!	
39	K	# 2	939.6	939.6	ug/l	1.08	#VALUE!	
40	Ca	# 1	1543	1543	ug/l	0.34	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	235.3	235.3	ug/l	1.22	#VALUE!	
51	V	# 2	60.03	60.03	ug/l	0.62	#VALUE!	
52	Cr	# 2	40.01	40.01	ug/l	0.83	#VALUE!	
55	Mn	# 3	91.84	91.84	ug/l	0.55	#VALUE!	
56	Fe	# 1	18500	18500	ug/l	0.42	#VALUE!	
59	Co	# 3	8.442	8.442	ug/l	0.52	#VALUE!	
60	Ni	# 2	19.7	19.7	ug/l	1.04	#VALUE!	
63	Cu	# 2	26.78	26.78	ug/l	0.68	#VALUE!	
65	Cu	# 2	26.66	26.66	ug/l	0.76	#VALUE!	
65	Cu	# 3	27.1	27.1	ug/l	0.95	#VALUE!	
66	Zn	# 3	41.29	41.29	ug/l	0.86	#VALUE!	
68	Zn	# 3	41.91	41.91	ug/l	0.29	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	10.14	10.14	ug/l	3.78	#VALUE!	
78	Se	# 1	8.948	8.948	ug/l	1.40	#VALUE!	
88	Sr	# 3	19.92	19.92	ug/l	0.19	#VALUE!	
90	Zr	# 3	26.68	26.68	ug/l	0.89	#VALUE!	
91	Zr	# 3	26.41	26.41	ug/l	0.39	#VALUE!	
95	Mo	# 3	9.607	9.607	ug/l	2.26	#VALUE!	
107	Ag	# 3	4.823	4.823	ug/l	1.41	#VALUE!	
111	Cd	# 3	4.77	4.77	ug/l	0.72	#VALUE!	
118	Sn	# 3	11.52	11.52	ug/l	0.33	#VALUE!	
121	Sb	# 3	4.214	4.214	ug/l	0.12	#VALUE!	
137	Ba	# 3	56.01	56.01	ug/l	0.29	#VALUE!	
201	Hg	# 3	0.5069	0.5069	ug/l	4.01	#VALUE!	
202	Hg	# 3	0.5157	0.5157	ug/l	0.51	#VALUE!	
203	Tl	# 3	3.946	3.946	ug/l	1.86	#VALUE!	
205	Tl	# 3	3.956	3.956	ug/l	0.84	#VALUE!	
208	Pb	# 3	26.5	26.5	ug/l	0.89	#VALUE!	
232	Th	# 3	16.44	16.44	ug/l	0.20	#VALUE!	
238	U	# 3	10.5	10.5	ug/l	0.48	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	486380.16	1.80	531519.69	91.5	60 - 125	
45	Sc	# 1	310597.91	2.04	282316.44	110.0	60 - 125	
45	Sc	# 3	888956.75	0.79	802725.75	110.7	60 - 125	
74	Ge	# 1	102708.18	1.64	109028.65	94.2	60 - 125	
74	Ge	# 2	19113.99	1.85	20216.41	94.5	60 - 125	
74	Ge	# 3	193682.78	1.08	209704.94	92.4	60 - 125	
89	Y	# 3	1224523.10	0.86	1159007.90	105.7	60 - 125	
115	In	# 3	1164672.60	0.70	1277748.90	91.2	60 - 125	
159	Tb	# 3	1765523.80	0.73	1896321.40	93.1	60 - 125	
209	Bi	# 3	1000449.60	1.53	1156151.50	86.5	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\056SMPL.D\056SMPL.D#
Date Acquired:	Mar 25 2009 05:57 pm
Acq. Method:	EPA2002.M
Operator:	BB
Sample Name:	45632-11
Misc Info:	3050 1/10
Vial Number:	2208
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal. Update:	Mar 25 2009 01:12 pm
Sample Type:	Sample
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

	Tune Step
1	babh2.u
2	babhe.u
3	babnorm.u

QC Elements

Element			Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9	Be	# 3	0.5822	0.5822	ug/l	2.96	#VALUE!	
11	B	# 3	1.43	1.43	ug/l	3.00	#VALUE!	
23	Na	# 1	57.35	57.35	ug/l	0.09	#VALUE!	
24	Mg	# 1	848.1	848.1	ug/l	0.16	#VALUE!	
27	Al	# 1	16800	16800	ug/l	1.13	#VALUE!	
39	K	# 2	434.8	434.8	ug/l	1.43	#VALUE!	
40	Ca	# 1	1246	1246	ug/l	0.61	#VALUE!	
45	Sc	# 2	----	--------	ug/l	--------	#VALUE!	
47	Ti	# 3	171.7	171.7	ug/l	0.64	#VALUE!	
51	V	# 2	43.03	43.03	ug/l	0.75	#VALUE!	
52	Cr	# 2	28.36	28.36	ug/l	0.57	#VALUE!	
55	Mn	# 3	42.38	42.38	ug/l	0.32	#VALUE!	
56	Fe	# 1	15140	15140	ug/l	0.53	#VALUE!	
59	Co	# 3	3.679	3.679	ug/l	1.07	#VALUE!	
60	Ni	# 2	7.782	7.782	ug/l	0.17	#VALUE!	
63	Cu	# 2	28.55	28.55	ug/l	0.92	#VALUE!	
65	Cu	# 2	28.72	28.72	ug/l	0.93	#VALUE!	
65	Cu	# 3	28.91	28.91	ug/l	0.97	#VALUE!	
66	Zn	# 3	30.47	30.47	ug/l	0.09	#VALUE!	
68	Zn	# 3	31.82	31.82	ug/l	1.47	#VALUE!	
70	Ge	# 2	----	--------	ug/l	--------	#VALUE!	
75	As	# 2	1.939	1.939	ug/l	4.22	#VALUE!	
78	Se	# 1	0.2748	0.2748	ug/l	10.07	#VALUE!	
88	Sr	# 3	13	13	ug/l	0.33	#VALUE!	
90	Zr	# 3	2.492	2.492	ug/l	9.49	#VALUE!	
91	Zr	# 3	2.412	2.412	ug/l	3.86	#VALUE!	
95	Mo	# 3	0.3494	0.3494	ug/l	8.04	#VALUE!	
107	Ag	# 3	0.3785	0.3785	ug/l	3.36	#VALUE!	
111	Cd	# 3	0.03847	0.03847	ug/l	31.30	#VALUE!	
118	Sn	# 3	2.345	2.345	ug/l	2.06	#VALUE!	
121	Sb	# 3	0.2212	0.2212	ug/l	2.09	#VALUE!	
137	Ba	# 3	65.02	65.02	ug/l	1.25	#VALUE!	
201	Hg	# 3	0.1064	0.1064	ug/l	4.91	#VALUE!	
202	Hg	# 3	0.1041	0.1041	ug/l	2.33	#VALUE!	
203	Tl	# 3	0.232	0.232	ug/l	3.82	#VALUE!	
205	Tl	# 3	0.2274	0.2274	ug/l	3.62	#VALUE!	
208	Pb	# 3	22.72	22.72	ug/l	1.10	#VALUE!	
232	Th	# 3	6.42	6.42	ug/l	0.65	#VALUE!	
238	U	# 3	1.149	1.149	ug/l	0.48	#VALUE!	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	478276.41	1.21	531519.69	90.0	60 - 125	
45	Sc	# 1	289230.06	1.20	282316.44	102.4	60 - 125	
45	Sc	# 3	871751.25	1.67	802725.75	108.6	60 - 125	
74	Ge	# 1	97412.35	1.55	109028.65	89.3	60 - 125	
74	Ge	# 2	18224.92	2.92	20216.41	90.1	60 - 125	
74	Ge	# 3	190635.17	1.83	209704.94	90.9	60 - 125	
89	Y	# 3	1238466.30	1.29	1159007.90	106.9	60 - 125	
115	In	# 3	1146060.50	1.79	1277748.90	89.7	60 - 125	
159	Tb	# 3	1732824.40	0.39	1896321.40	91.4	60 - 125	
209	Bi	# 3	990356.94	1.84	1156151.50	85.7	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass

CCV QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\057_CCV.D\057_CCV.D#
Date Acquired: Mar 25 2009 06:04 pm
Operator: BB
Sample Name: CCV 50/5000
Misc Info:
Vial Number: 3
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	52.52 ug/l	0.90	50.00	90 - 110	
11	B	# 3	101.8 ug/l	1.04	100.00	90 - 110	
23	Na	# 1	4831 ug/l	1.37	5000.00	90 - 110	
24	Mg	# 1	4833 ug/l	1.00	5000.00	90 - 110	
27	Al	# 1	483.6 ug/l	0.74	500.00	90 - 110	
39	K	# 2	4522 ug/l	0.64	5000.00	90 - 110	
40	Ca	# 1	4837 ug/l	0.60	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	48.81 ug/l	0.88	50.00	90 - 110	
51	V	# 2	48.46 ug/l	0.52	50.00	90 - 110	
52	Cr	# 2	48.35 ug/l	0.29	50.00	90 - 110	
55	Mn	# 3	483.1 ug/l	0.62	500.00	90 - 110	
56	Fe	# 1	4937 ug/l	0.30	5000.00	90 - 110	
59	Co	# 3	50.53 ug/l	0.98	50.00	90 - 110	
60	Ni	# 2	50.54 ug/l	0.29	50.00	90 - 110	
63	Cu	# 2	50.4 ug/l	0.70	50.00	90 - 110	
65	Cu	# 2	50.44 ug/l	1.10	50.00	90 - 110	
65	Cu	# 3	51.09 ug/l	1.02	50.00	90 - 110	
66	Zn	# 3	48.75 ug/l	0.45	50.00	90 - 110	
68	Zn	# 3	48.51 ug/l	0.99	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	50.05 ug/l	1.66	50.00	90 - 110	
78	Se	# 1	50.09 ug/l	1.17	50.00	90 - 110	
88	Sr	# 3	49.35 ug/l	0.53	50.00	90 - 110	
90	Zr	# 3	485.5 ug/l	0.99	500.00	90 - 110	
91	Zr	# 3	490.6 ug/l	0.45	500.00	90 - 110	
95	Mo	# 3	47.65 ug/l	0.87	50.00	90 - 110	
107	Ag	# 3	48.25 ug/l	0.48	50.00	90 - 110	
111	Cd	# 3	48.14 ug/l	1.24	50.00	90 - 110	
118	Sn	# 3	48.28 ug/l	0.80	50.00	90 - 110	
121	Sb	# 3	45.63 ug/l	0.26	50.00	90 - 110	
137	Ba	# 3	48.1 ug/l	1.04	50.00	90 - 110	
201	Hg	# 3	2.414 ug/l	1.76	2.50	90 - 110	
202	Hg	# 3	2.417 ug/l	1.65	2.50	90 - 110	
203	Tl	# 3	9.429 ug/l	0.07	10.00	90 - 110	
205	Tl	# 3	9.552 ug/l	0.50	10.00	90 - 110	
208	Pb	# 3	45.49 ug/l	0.73	50.00	90 - 110	
232	Th	# 3	48.29 ug/l	0.75	---	##### - #####	
238	U	# 3	47.95 ug/l	0.45	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	403811.00	2.13	531519.69	76.0	60 - 125	
45	Sc	# 1	244734.34	1.32	282316.44	86.7	60 - 125	
45	Sc	# 3	697110.44	1.58	802725.75	86.8	60 - 125	
74	Ge	# 1	97664.70	1.27	109028.65	89.6	60 - 125	
74	Ge	# 2	17866.25	2.30	20216.41	88.4	60 - 125	
74	Ge	# 3	180886.59	1.00	209704.94	86.3	60 - 125	
89	Y	# 3	1007474.30	2.07	1159007.90	86.9	60 - 125	
115	In	# 3	1094525.50	1.45	1277748.90	85.7	60 - 125	
159	Tb	# 3	1636934.90	1.56	1896321.40	86.3	60 - 125	
209	Bi	# 3	949655.06	1.46	1156151.50	82.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: **Pass**
ISTD: **Pass**

CCV QC Report

Data File:	C:\ICPCHEM\1\DATA\09C25k00.B\057_CCV.D\057_CCV.D#
Date Acquired:	Mar 25 2009 06:04 pm
Operator:	BB
Sample Name:	CCV 50/5000
Misc Info:	
Vial Number:	3
Current Method:	C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File:	C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update:	Mar 25 2009 01:12 pm
Sample Type:	CCV
Total Dil Factor:	1.00

QC Elements

Element			Conc.	RSD(%)	Expected	QC Range(%)	Flag
9	Be	# 3	52.52 ug/l	0.90	50.00	90 - 110	
11	B	# 3	101.8 ug/l	1.04	100.00	90 - 110	
23	Na	# 1	4831 ug/l	1.37	5000.00	90 - 110	
24	Mg	# 1	4833 ug/l	1.00	5000.00	90 - 110	
27	Al	# 1	483.6 ug/l	0.74	500.00	90 - 110	
39	K	# 2	4522 ug/l	0.64	5000.00	90 - 110	
40	Ca	# 1	4837 ug/l	0.60	5000.00	90 - 110	
45	Sc	# 2	-------- ug/l	--------	---	##### - #####	
47	Ti	# 3	48.81 ug/l	0.88	50.00	90 - 110	
51	V	# 2	48.46 ug/l	0.52	50.00	90 - 110	
52	Cr	# 2	48.35 ug/l	0.29	50.00	90 - 110	
55	Mn	# 3	483.1 ug/l	0.62	500.00	90 - 110	
56	Fe	# 1	4937 ug/l	0.30	5000.00	90 - 110	
59	Co	# 3	50.53 ug/l	0.98	50.00	90 - 110	
60	Ni	# 2	50.54 ug/l	0.29	50.00	90 - 110	
63	Cu	# 2	50.4 ug/l	0.70	50.00	90 - 110	
65	Cu	# 2	50.44 ug/l	1.10	50.00	90 - 110	
65	Cu	# 3	51.09 ug/l	1.02	50.00	90 - 110	
66	Zn	# 3	48.75 ug/l	0.45	50.00	90 - 110	
68	Zn	# 3	48.51 ug/l	0.99	50.00	90 - 110	
70	Ge	# 2	-------- ug/l	--------	---	##### - #####	
75	As	# 2	50.05 ug/l	1.66	50.00	90 - 110	
78	Se	# 1	50.09 ug/l	1.17	50.00	90 - 110	
88	Sr	# 3	49.35 ug/l	0.53	50.00	90 - 110	
90	Zr	# 3	485.5 ug/l	0.99	500.00	90 - 110	
91	Zr	# 3	490.6 ug/l	0.45	500.00	90 - 110	
95	Mo	# 3	47.65 ug/l	0.87	50.00	90 - 110	
107	Ag	# 3	48.25 ug/l	0.48	50.00	90 - 110	
111	Cd	# 3	48.14 ug/l	1.24	50.00	90 - 110	
118	Sn	# 3	48.28 ug/l	0.80	50.00	90 - 110	
121	Sb	# 3	45.63 ug/l	0.26	50.00	90 - 110	
137	Ba	# 3	48.1 ug/l	1.04	50.00	90 - 110	
201	Hg	# 3	2.414 ug/l	1.76	2.50	90 - 110	
202	Hg	# 3	2.417 ug/l	1.65	2.50	90 - 110	
203	Tl	# 3	9.429 ug/l	0.07	10.00	90 - 110	
205	Tl	# 3	9.552 ug/l	0.50	10.00	90 - 110	
208	Pb	# 3	45.49 ug/l	0.73	50.00	90 - 110	
232	Th	# 3	48.29 ug/l	0.75	---	##### - #####	
238	U	# 3	47.95 ug/l	0.45	---	##### - #####	

ISTD Elements

Element			CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	# 3	403811.00	2.13	531519.69	76.0	60 - 125	
45	Sc	# 1	244734.34	1.32	282316.44	86.7	60 - 125	
45	Sc	# 3	697110.44	1.58	802725.75	86.8	60 - 125	
74	Ge	# 1	97664.70	1.27	109028.65	89.6	60 - 125	
74	Ge	# 2	17866.25	2.30	20216.41	88.4	60 - 125	
74	Ge	# 3	180886.59	1.00	209704.94	86.3	60 - 125	
89	Y	# 3	1007474.30	2.07	1159007.90	86.9	60 - 125	
115	In	# 3	1094525.50	1.45	1277748.90	85.7	60 - 125	
159	Tb	# 3	1636934.90	1.56	1896321.40	86.3	60 - 125	
209	Bi	# 3	949655.06	1.46	1156151.50	82.1	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:

Analytes: Pass
ISTD: Pass

CCB QC Report

Data File: C:\ICPCHEM\1\DATA\09C25k00.B\058_CCB.D\058_CCB.D#
Date Acquired: Mar 25 2009 06:10 pm
Operator: BB
Sample Name: CCB
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\EPA2002.M
Calibration File: C:\ICPCHEM\1\CALIB\EPA2002.C
Last Cal Update: Mar 25 2009 01:12 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Elements

Element	Conc.	RSD(%)	High Limit	Flag
9 Be	0.003223 ug/l	27.92	#VALUE!	
11 B	1.133 ug/l	12.42	#VALUE!	
23 Na	1.764 ug/l	15.69	#VALUE!	
24 Mg	6.174 ug/l	10.61	#VALUE!	
27 Al	43.47 ug/l	7.20	#VALUE!	
39 K	0.8133 ug/l	118.44	#VALUE!	
40 Ca	6.582 ug/l	8.87	#VALUE!	
45 Sc	-------- ug/l	--------	#VALUE!	
47 Ti	0.01784 ug/l	77.07	#VALUE!	
51 V	0.05328 ug/l	61.22	#VALUE!	
52 Cr	0.05397 ug/l	67.56	#VALUE!	
55 Mn	0.02428 ug/l	23.52	#VALUE!	
56 Fe	41.06 ug/l	7.83	#VALUE!	
59 Co	0.002746 ug/l	92.13	#VALUE!	
60 Ni	0.04129 ug/l	46.14	#VALUE!	
63 Cu	0.05346 ug/l	55.46	#VALUE!	
65 Cu	0.07128 ug/l	50.59	#VALUE!	
65 Cu	0.005359 ug/l	168.09	#VALUE!	
66 Zn	0.02722 ug/l	17.12	#VALUE!	
68 Zn	0.02135 ug/l	25.13	#VALUE!	
70 Ge	-------- ug/l	--------	#VALUE!	
75 As	0.05652 ug/l	32.40	#VALUE!	
78 Se	0.08395 ug/l	28.28	#VALUE!	
88 Sr	0.002231 ug/l	63.51	#VALUE!	
90 Zr	0.6629 ug/l	5.96	#VALUE!	
91 Zr	0.6656 ug/l	2.53	#VALUE!	
95 Mo	0.1195 ug/l	4.21	#VALUE!	
107 Ag	0.004137 ug/l	47.45	#VALUE!	
111 Cd	0.004622 ug/l	90.11	#VALUE!	
118 Sn	0.08519 ug/l	10.71	#VALUE!	
121 Sb	0.02444 ug/l	22.89	#VALUE!	
137 Ba	0.003108 ug/l	72.72	#VALUE!	
201 Hg	0.02998 ug/l	5.69	#VALUE!	
202 Hg	0.03021 ug/l	10.80	#VALUE!	
203 Tl	0.03989 ug/l	10.77	#VALUE!	
205 Tl	0.03587 ug/l	11.89	#VALUE!	
208 Pb	0.009059 ug/l	23.81	#VALUE!	
232 Th	0.06386 ug/l	11.56	#VALUE!	
238 U	0.006489 ug/l	34.44	#VALUE!	

ISTD Elements

Element	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	435851.16	3.35	531519.69	82.0	60 - 125	
45 Sc	255664.34	0.40	282316.44	90.6	60 - 125	
45 Sc	705994.06	2.69	802725.75	87.9	60 - 125	
74 Ge	101529.55	0.74	109028.65	93.1	60 - 125	
74 Ge	18426.66	1.76	20216.41	91.1	60 - 125	
74 Ge	183164.66	0.89	209704.94	87.3	60 - 125	
89 Y	1017344.40	1.69	1159007.90	87.8	60 - 125	
115 In	1115019.30	0.82	1277748.90	87.3	60 - 125	
159 Tb	1652342.80	0.85	1896321.40	87.1	60 - 125	
209 Bi	966034.13	1.96	1156151.50	83.6	60 - 125	

ISTD Ref File : C:\ICPCHEM\1\DATA\09C25k00.B\009CALB.D\009CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Data Results:
Analytes: Pass
ISTD: Pass