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# **Level IV Data Package**

**MWH Group 230066**

**Method: CR6010**

2802090001

2802090002

2802090003

2802090004

2802090005

2802090006

2802090007

# ICP SUMMARY SHEET

File ID: 080227  
Date Started: 2/27/08  
Analyst ID: CSK

## SAMPLE ID

LINEARITY	(17:13)	Wash	(17:24)	2802200171	(17:56)
2802220550	(18:06)	2802200048	(18:23)	2802220412	(18:27)
28022200580	(18:32)	2802220424_5	(18:36)	2802090004_2	(18:40)
2802090005_2	(18:45)	2802090006_2	(18:49)	2802090007_2	(18:54)
2802150089_5	(18:58)	2802150090_2	(19:02)	2802150092_2	(19:20)
2802150095_5	(19:24)				

COMMENT:

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Analyst: CSK  
2-28-08

Approved By: WBN

Peer Review: BKL 2/28/08

BATCH NUMBER for 080227

Test Parameter:

SCA YR AG AL B BA BE CA CD CO CR CU FE K MG MN MO NA NI PB

Batch ID: 2802200171

2802200171	2802220550	28022200048
2802220412	2802200580	2802220424_5X
2802090004_2X	2802090005_2X	2802090006_2X
2802090007_20X	2802150089_5X	2802150090_2X
2802150092_2X	2802150095_5X	

EPA 200.7/6010B QC Check List

Analyst Cyle Analysis Date 2-27-08 Reviewer/Date 2-28-08

Instrument Perkin Elmer Optima 4300DV

- All sample analyzed within 6 month holding time  
 All sample raw concentration below the high standard or linear range or marked for dilution and rerun

Initial and closing QC

- ICV within +/- 5%  
 Linearity check +/- 10%  
 ICSAB +/- 20%  
 QCS +/- 5%  
 MRL +/- 50%

Middle, closing and batch QC

- FilterCheck < 1/2 MRL  
 MBLANK < 1/2 MRL  
 LCS +/- 15%  
 MS/MSD +/- 30% (200.7) +/- 25% (6010B)  
 CCV/MCV/ECV +/- 10%  
 ICB/CCB/ECB < 1/2 MRL  
 CCB ran after the CCV

General QC

- RPD between MS/MSD is within +/- 20%  
 RPD between LCS/LCSD is within +/- 20%  
 Internal standards 60 TO 125%  
 All pH of the samples are < 2

No more than 20 samples per batch

MS is run at frequency of 1 every 10 samples and MSD is run at frequency of 1 every 20 samples

N/A QIR needed for failed QC

N/A Special Det Code noted on the cover sheet

gA R value for multi point calibration is > 0.995

N/A Proper MRL check ran for special low MRL samples

Reagent and Standards used for  
Optima 4300 DV  
Updated 01/11/08

Int: Cyle  
Date: 2-28-08

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
ICV	2/27/08	17:10	1	10.014	10	95-105	100%
LINEARITY	2/27/08	17:13	1	0.0025	.0025		
ICSA	2/27/08	17:17	1	-0.0002	ND	80-120	
ICSAB	2/27/08	17:20	1	.25236	.252	80-120	100%
Wash	2/27/08	17:24	1	-0.0002	ND		
QC-25 1ppm	2/27/08	17:27	1	1.0124	1.0		
CCV	2/27/08	17:31	1	5.2645	5.26	90-110	105%
ICB	2/27/08	17:34	1	-0.0002	ND		
MRL	2/27/08	17:40	1	0.0102	.0102 ✓	50-150	102%
MBLANK2007	2/27/08	17:44	1	-0.0002	ND		
MRL2007	2/27/08	17:48	1	0.0101	.0101		
LCS2007	2/27/08	17:52	1	.99392	.994 ✓	85-115	99.3%
LCSD2007	2/27/08	17:54	1	.98040	.98 ✓	85-115	98.0%
2802200171	2/27/08	17:56	1	-0.0001	ND		
2802200171MS	2/27/08	18:00	1	1.0105	1.01 ✓ [ 1.011 ]	101%	
2802200171MSD	2/27/08	18:03	1	.99510	.995 ✓ [ 0.995 ]	99.5%	
2802200171T	2/27/08	18:03	1		1.00	70 - 130	
2802220550	2/27/08	18:06	1	0.0005	0.0005		
2802220550MS	2/27/08	18:10	1	1.0312	1.03 ✓ [ 1.031 ]	103%	
2802220550MSD	2/27/08	18:13	1	.99306	.993 ✓ [ 0.993 ]	99.3%	
2802220550T	2/27/08	18:13	1		1.00	70 - 130	
CCV	2/27/08	18:17	1	5.2218	5.22	90-110	104%
CCB	2/27/08	18:20	1	0.0000	0		
2802200048	2/27/08	18:23	1	0.0006	0.0005		
2802220412	2/27/08	18:27	1	0.0120	.012		
2802200580	2/27/08	18:32	1	0.0005	0.0005		
2802220424_5X	2/27/08	18:36	5	.64251	.640 ✓		
2802090004_2X	2/27/08	18:40	2	0.0518	.052 ✓		
2802090005_2X	2/27/08	18:45	2	0.0222	.022 ✓		
2802090006_2X	2/27/08	18:49	2	0.0611	.061 ✓		
2802090007_20X	2/27/08	18:54	20	14.807	15 ✓		
2802150089_5X	2/27/08	18:58	5	0.0961	.096 ✓		
2802150090_2X	2/27/08	19:02	2	0.0254	.025 ✓		
GCV	2/27/08	19:07	1	5.3809	5.38	90-110	107%
GCB	2/27/08	19:12	1	0.0001	0.0000		
MCV	2/27/08	19:16	1	2.6242	2.62	90-110	104%
2802150092_2X	2/27/08	19:20	2	0.0023	.0023 ✓		
2802150095_5X	2/27/08	19:24	5	1.3889	1.4 ✓		
ECV	2/27/08	19:28	1	5.2620	5.26	90-110	105%
ECB	2/27/08	19:37	1	0.0000	0.0000		
MCV	2/27/08	19:50	1	N/A	N/A		

## Landscape Summary

File ID: 080227

Analyst: CSK

Date: 2/27/08 Analyst: CSK Page: 1

Landscape Summary File ID: 080227

Analyst: CSK

Date: 2/27/0

Page: 2

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Analysis Begun

Start Time: 2/27/2008 20:06:27

Plasma On Time: 2/27/2008 16:14:00

Logged In Analyst: Charley Kay

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N2121801 Autosampler Model: AS-93plus

Sample Information File: C:\pe\Charley Kay\Sample Information\080227A.sif

Batch ID: 080227A

Results Data Set: 080227A

Results Library: C:\pe\Charley Kay\Results\Results.mdb

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Sequence No.: 1

Autosampler Location: 0

Sample ID: Calib Blank 1

Date Collected: 2/27/2008 20:06:29

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Mean Data: Calib Blank 1

**Mean Corrected**

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
Sca	970902.5	34711.05	3.58%	100	%
Yr	379113.9	8574.73	2.26%	100	%
Agt	487.0	235.55	48.37%	[0.00]	mg/L
Alt	16.1	7.95	49.31%	[0.00]	mg/L
B <sub>t</sub>	969.0	1.64	0.17%	[0.00]	mg/L
B <sub>at</sub>	-33.1	3.10	9.36%	[0.00]	mg/L
Bet	-1893.0	182.27	9.63%	[0.00]	mg/L
Cat	762.2	37.04	4.86%	[0.00]	mg/L
Cdt	62.0	3.09	4.99%	[0.00]	mg/L
Cot	-66.8	1.56	2.34%	[0.00]	mg/L
Crt	212.9	11.98	5.63%	[0.00]	mg/L
Cut	1325.8	156.73	11.82%	[0.00]	mg/L
Fet	-4.0	2.98	74.82%	[0.00]	mg/L
K <sub>t</sub>	327.8	14.38	4.39%	[0.00]	mg/L
Mgt	-46.1	2.07	4.48%	[0.00]	mg/L
Mnt	56.4	4.48	7.94%	[0.00]	mg/L
Mot	23.4	2.99	12.79%	[0.00]	mg/L
Nat	208.6	58.97	28.27%	[0.00]	mg/L
Nit	-66.2	0.22	0.33%	[0.00]	mg/L
Pbt	2.6	4.13	159.00%	[0.00]	mg/L
V <sub>t</sub>	132.0	5.26	3.98%	[0.00]	mg/L
Znt	87.3	0.80	0.91%	[0.00]	mg/L

Sequence No.: 2  
 Sample ID: Standard 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 2/27/2008 20:09:55  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: Standard 2

Analyte	Mean Corrected	Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sca	597996.9	77229.57	12.91%	61.6 %		
Yr	234930.3	23308.77	9.92%	62.0 %		
Agf	-139.2	162.11	116.46%		[2]	mg/L
						No calibration curve because standard intensity and concentration values are not in the same order.
Alt	44.6	0.37	0.82%		[10]	mg/L
B_t	303.3	224.08	73.88%		[5.02]	mg/L
Bat	-15.7	11.36	72.39%		[10]	mg/L
						No calibration curve because standard intensity and concentration values are not in the same order.
Bet	-451.5	138.83	30.75%		[4.01]	mg/L
						No calibration curve because standard intensity and concentration values are not in the same order.
Cat	242.0	109.78	45.36%		[100]	mg/L
Cdt	31.4	17.33	55.20%		[5.01]	mg/L
Cot	-37.4	2.77	7.42%		[10]	mg/L
						No calibration curve because standard intensity and concentration values are not in the same order.
Crt	76.5	37.87	49.53%		[9.97]	mg/L
Cut	322.1	58.36	18.12%		[10]	mg/L
Fet	-6.2	2.45	39.75%		[9.98]	mg/L
						No calibration curve because standard intensity and concentration values are not in the same order.
Kt	89.3	77.98	87.34%		[100]	mg/L
Mgt	-23.6	4.68	19.84%		[100]	mg/L
						No calibration curve because standard intensity and concentration values are not in the same order.
Mnt	29.3	12.76	43.53%		[10]	mg/L
Mot	12.4	9.46	76.32%		[9.98]	mg/L
Nat	753.3	58.18	7.72%		[100]	mg/L
Nit	-32.9	18.41	55.98%		[10]	mg/L
						No calibration curve because standard intensity and concentration values are not in the same order.
Pbt	-5.9	3.32	56.36%		[10]	mg/L
						No calibration curve because standard intensity and concentration values are not in the same order.
Vt	53.1	8.93	16.81%		[10]	mg/L
Znt	50.6	21.01	41.48%		[10]	mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al	1	Lin, Calc Int	0.0	4.465	0.00000	1.000000	
B	1	Lin, Calc Int	0.0	60.42	0.00000	1.000000	
Ca	1	Lin, Calc Int	0.0	2.420	0.00000	1.000000	
Cd	1	Lin, Calc Int	0.0	6.266	0.00000	1.000000	
Cr	1	Lin, Calc Int	-0.0	7.669	0.00000	1.000000	
Cu	1	Lin, Calc Int	0.0	32.21	0.00000	1.000000	
K	1	Lin, Calc Int	0.0	0.8928	0.00000	1.000000	
Mn	1	Lin, Calc Int	-0.0	2.932	0.00000	1.000000	
Mo	1	Lin, Calc Int	0.0	1.242	0.00000	1.000000	
Na	1	Lin, Calc Int	0.0	7.533	0.00000	1.000000	
V	1	Lin, Calc Int	0.0	5.312	0.00000	1.000000	
Zn	1	Lin, Calc Int	0.0	5.064	0.00000	1.000000	

=====

2/27/2008 16:34:44 Hg ReAlign... Actual peak offset (nm): 0.003  
Drift (nm): -0.000 Slit adjustment: 2

=====

Align View XY Axial for analyte Mn 257.610

X-position	Y-position	Intensity
-2.0	15.0	291294.4
-1.6	15.0	416457.8
-1.2	15.0	554916.6
-0.8	15.0	695427.4
-0.4	15.0	785238.1
0.0	15.0	799314.5
0.4	15.0	763815.6
0.8	15.0	679201.4
1.2	15.0	546237.4
1.6	15.0	417003.8
2.0	15.0	300553.6
0.0	10.0	7737.0
0.0	10.5	23927.4
0.0	11.0	40779.9
0.0	11.5	63178.0
0.0	12.0	94945.3
0.0	12.5	210252.5
0.0	13.0	294258.0
0.0	13.5	403901.2
0.0	14.0	523466.2
0.0	14.5	752424.5
0.0	15.0	810757.1
0.0	15.5	802732.3
0.0	16.0	739680.6
0.0	16.5	503805.1
0.0	17.0	368045.1
0.0	17.5	273298.9
0.0	18.0	192686.3
0.0	18.5	115932.1
0.0	19.0	26902.4
0.0	19.5	14838.2
0.0	20.0	14730.0
-0.8	15.0	700330.5
-0.4	15.0	780642.8
0.0	15.0	833694.7
0.4	15.0	770671.7
0.8	15.0	661932.4
0.0	13.0	304165.1
0.0	13.5	395032.0
0.0	14.0	518080.4
0.0	14.5	718209.8
0.0	15.0	798676.6
0.0	15.5	785590.1
0.0	16.0	690320.6
0.0	16.5	501154.5
0.0	17.0	372001.8

=====

2/27/2008 16:41:38 aligned for analyte Mn 257.610

X viewing position set to 0.0 mm having Peak intensity 798676.6 for Axial viewing  
Y viewing position set to 15.0 mm having Peak intensity 798676.6 for Axial viewing

=====

Align View X Radial for analyte Mn 257.610

X-position	Y-position	Intensity
-7.0	15.0	245.2
-6.5	15.0	362.1
-6.0	15.0	487.1
-5.5	15.0	640.9
-5.0	15.0	872.6
-4.5	15.0	1277.5
-4.0	15.0	2016.8
-3.5	15.0	3246.0
-3.0	15.0	5186.3
-2.5	15.0	7915.9
-2.0	15.0	10471.9

-1.5	15.0	13445.1
-1.0	15.0	16766.1
-0.5	15.0	19786.5
0.0	15.0	21245.6
0.5	15.0	20074.3
1.0	15.0	18441.3
1.5	15.0	17552.0
2.0	15.0	14811.0
2.5	15.0	11351.4
3.0	15.0	6788.6
3.5	15.0	5087.3
4.0	15.0	4530.4
4.5	15.0	3679.4
5.0	15.0	2854.3
5.5	15.0	2370.6
6.0	15.0	2088.9
6.5	15.0	1857.4
7.0	15.0	1686.0

2/27/2008 16:48:18 aligned for analyte Mn 257.610  
X viewing position set to 0.0 mm having Peak intensity 21245.6 for Radial viewing

---

Analysis Begun

Start Time: 2/27/2008 17:03:21

Plasma On Time: 2/27/2008 16:14:00

Logged In Analyst: Charley Kay

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N2121801Autosampler Model: AS-93plus

Sample Information File: C:\pe\Charley Kay\Sample Information\080227.sif

Batch ID: 080227

Results Data Set: 080227

Results Library: C:\pe\Charley Kay\Results\Results.mdb

---

Sequence No.: 1

Autosampler Location: 0

Sample ID: Calib Blank 1

Date Collected: 2/27/2008 17:03:38

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

---

Mean Data: Calib Blank 1

Analyte	Mean Corrected		Calib		
	Intensity	Std.Dev.	RSD	Conc.	Units
Sca	463016.5	341.63	0.07%	100	%
Yr	201604.1	610.44	0.30%	100	%
Agt	429.1	87.17	20.32%	[0.00]	mg/L
Alt	42.4	21.20	49.97%	[0.00]	mg/L
B <sub>t</sub>	223.7	8.05	3.60%	[0.00]	mg/L
B <sub>at</sub>	-37.8	7.57	20.05%	[0.00]	mg/L
Bet	-3969.2	23.74	0.60%	[0.00]	mg/L
Cat	420.4	3.57	0.85%	[0.00]	mg/L
Cdt	56.3	1.72	3.05%	[0.00]	mg/L
Cot	-75.6	5.92	7.84%	[0.00]	mg/L
Crt	316.0	2.30	0.73%	[0.00]	mg/L
Cut	2074.0	75.37	3.63%	[0.00]	mg/L
Fet	-8.3	2.59	31.07%	[0.00]	mg/L
Kt	242.6	81.51	33.60%	[0.00]	mg/L
Mgt	-40.2	1.18	2.95%	[0.00]	mg/L
Mnt	1631.3	46.88	2.87%	[0.00]	mg/L
Mot	30.5	1.42	4.65%	[0.00]	mg/L
Nat	95.6	29.52	30.88%	[0.00]	mg/L
Nit	-72.8	5.17	7.10%	[0.00]	mg/L
Pbt	-9.3	4.75	51.06%	[0.00]	mg/L
V <sub>t</sub>	190.7	12.79	6.71%	[0.00]	mg/L
Znt	120.7	3.08	2.55%	[0.00]	mg/L

Sequence No.: 2  
 Sample ID: Standard 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 2/27/2008 17:07:01  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: Standard 2

Analyte	Mean Corrected		Calib		
	Intensity	Std.Dev.	RSD	Conc.	Units
Sca	406434.7	1132.50	0.28%	87.8	%
Yr	183667.4	3459.85	1.88%	91.1	%
Agt	585723.9	1952.40	0.33%	[2]	mg/L
Alt	40427.7	140.87	0.35%	[10]	mg/L
B <sub>t</sub>	163715.1	315.57	0.19%	[5.02]	mg/L
B <sub>a</sub>	759100.1	1511.15	0.20%	[10]	mg/L
Bet	12741399.2	4853.59	0.04%	[4.01]	mg/L
Ca <sub>t</sub>	588507.2	575.41	0.10%	[100]	mg/L
Cdt	140450.3	305.26	0.22%	[5.01]	mg/L
Cot	273903.9	364.88	0.13%	[10]	mg/L
Cr <sub>t</sub>	826122.8	1520.64	0.18%	[9.97]	mg/L
Cut	3853969.3	45357.79	1.18%	[10]	mg/L
Fet	7334.1	219.55	2.99%	[9.98]	mg/L
Kt	126763.2	446.38	0.35%	[100]	mg/L
Mgt	236021.3	470.70	0.20%	[100]	mg/L
Mnt	5913074.4	33959.84	0.57%	[10]	mg/L
Mo <sub>t</sub>	131995.9	574.53	0.44%	[9.98]	mg/L
Nat	394494.9	1442.96	0.37%	[100]	mg/L
Nit	235520.2	744.31	0.32%	[10]	mg/L
Pbt	51987.3	272.95	0.53%	[10]	mg/L
Vt	1777982.9	11369.72	0.64%	[10]	mg/L
Zn <sub>t</sub>	507659.9	1777.97	0.35%	[10]	mg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag	1	Lin, Calc Int	0.0	292900	0.00000	1.000000	
Al	1	Lin, Calc Int	0.0	4043	0.00000	1.000000	
B <sub>t</sub>	1	Lin, Calc Int	0.0	32610	0.00000	1.000000	
B <sub>a</sub>	1	Lin, Calc Int	0.0	75910	0.00000	1.000000	
Be	1	Lin, Calc Int	0.0	3177000	0.00000	1.000000	
Ca	1	Lin, Calc Int	0.0	5885	0.00000	1.000000	
Cd	1	Lin, Calc Int	0.0	28030	0.00000	1.000000	
Co	1	Lin, Calc Int	0.0	27390	0.00000	1.000000	
Cr	1	Lin, Calc Int	0.0	82860	0.00000	1.000000	
Cu	1	Lin, Calc Int	0.0	385400	0.00000	1.000000	
Fe	1	Lin, Calc Int	0.0	734.9	0.00000	1.000000	
K	1	Lin, Calc Int	0.0	1268	0.00000	1.000000	
Mg	1	Lin, Calc Int	-0.0	2360	0.00000	1.000000	
Mn	1	Lin, Calc Int	0.0	591300	0.00000	1.000000	
Mo	1	Lin, Calc Int	-0.0	13230	0.00000	1.000000	
Na	1	Lin, Calc Int	0.0	3945	0.00000	1.000000	
Ni	1	Lin, Calc Int	0.0	23550	0.00000	1.000000	
Pb	1	Lin, Calc Int	0.0	5199	0.00000	1.000000	
V	1	Lin, Calc Int	0.0	177800	0.00000	1.000000	
Zn	1	Lin, Calc Int	-0.0	50770	0.00000	1.000000	

Sequence No.: 3  
 Sample ID: ICV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 2/27/2008 17:10:16  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	403120.5	87.1 %	1.06			1.21%
Yr	182987.6	90.8 %	1.27			1.40%
Agt	587463.2	2.01 mg/L	0.002	2.01 mg/L	0.002	0.12%
QC value within limits for Ag		Recovery = 100.30%				
Alt	40902.1	10.1 mg/L	0.02	10.1 mg/L	0.02	0.15%
QC value within limits for Al		Recovery = 101.17%				
B_t	164547.3	5.03 mg/L	0.009	5.03 mg/L	0.009	0.19%
QC value within limits for B		Recovery = 100.50%				
Bat	763949.1	10.1 mg/L	0.03	10.1 mg/L	0.03	0.26%
QC value within limits for Ba		Recovery = 100.64%				
Bet	12791840.3	4.03 mg/L	0.065	4.03 mg/L	0.065	1.61%
QC value within limits for Be		Recovery = 100.65%				
Cat	594892.6	101 mg/L	0.1	101 mg/L	0.1	0.13%
QC value within limits for Ca		Recovery = 101.09%				
Cdt	141059.8	5.07 mg/L	0.006	5.07 mg/L	0.006	0.12%
QC value within limits for Cd		Recovery = 101.41%				
Cot	274985.4	10.0 mg/L	0.02	10.0 mg/L	0.02	0.19%
QC value within limits for Co		Recovery = 100.39%				
Crt	829794.1	10.0 mg/L	0.03	10.0 mg/L	0.03	0.32%
QC value within limits for Cr		Recovery = 100.14%				
Cut	3907204.7	10.1 mg/L	0.16	10.1 mg/L	0.16	1.56%
QC value within limits for Cu		Recovery = 101.48%				
Fet	7323.8	9.97 mg/L	0.240	9.97 mg/L	0.240	2.41%
QC value within limits for Fe		Recovery = 99.66%				
Kt	127669.8	101 mg/L	0.3	101 mg/L	0.3	0.26%
QC value within limits for K		Recovery = 100.72%				
Mgt	238987.7	101 mg/L	0.0	101 mg/L	0.0	0.02%
QC value within limits for Mg		Recovery = 101.26%				
Mnt	5992974.9	10.1 mg/L	0.12	10.1 mg/L	0.12	1.15%
QC value within limits for Mn		Recovery = 101.35%				
Mot	132625.4	10.0 mg/L	0.01	10.0 mg/L	0.01	0.13%
QC value within limits for Mo		Recovery = 100.28%				
Nat	398457.7	101 mg/L	0.5	101 mg/L	0.5	0.51%
QC value within limits for Na		Recovery = 101.00%				
Nit	236026.2	10.0 mg/L	0.01	10.0 mg/L	0.01	0.12%
QC value within limits for Ni		Recovery = 100.21%				
Pbt	52083.0	10.0 mg/L	0.02	10.0 mg/L	0.02	0.24%
QC value within limits for Pb		Recovery = 100.18%				
Vt	1802547.0	10.2 mg/L	0.12	10.2 mg/L	0.12	1.15%
QC value within limits for V		Recovery = 101.93%				
Znt	509136.0	9.96 mg/L	0.017	9.96 mg/L	0.017	0.17%
QC value within limits for Zn		Recovery = 99.61%				
All analyte(s) passed QC.						

Sequence No.: 6  
 Sample ID: ICSAB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 11  
 Date Collected: 2/27/2008 17:20:52  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	393886.7	85.1 %	0.32			0.38%
Yr	180293.4	89.4 %	0.50			0.56%
Agt	81834.2	0.279 mg/L	0.0013	0.279 mg/L	0.0013	0.45%
	QC value less than the lower limit for Ag	Recovery = 55.89%				
Alt	1005974.3	249 mg/L	0.3	249 mg/L	0.3	0.11%
	QC value within limits for Al	Recovery = 99.53%				
B_t	100.1	0.00258 mg/L	0.000239	0.00258 mg/L	0.000239	9.27%
	QC value within limits for B	Recovery = Not calculated				
Bat	19979.1	0.263 mg/L	0.0006	0.263 mg/L	0.0006	0.24%
	QC value within limits for Ba	Recovery = 105.28%				
Bet	787507.0	0.248 mg/L	0.0007	0.248 mg/L	0.0007	0.27%
	QC value within limits for Be	Recovery = 99.14%				
Cat	1482933.9	252 mg/L	0.6	252 mg/L	0.6	0.22%
	QC value within limits for Ca	Recovery = 100.79%				
Cdt	14132.4	0.505 mg/L	0.0017	0.505 mg/L	0.0017	0.33%
	QC value within limits for Cd	Recovery = 101.01%				
Cot	6672.2	0.244 mg/L	0.0016	0.244 mg/L	0.0016	0.64%
	QC value within limits for Co	Recovery = 97.44%				
Crt	20910.9	0.252 mg/L	0.0009	0.252 mg/L	0.0009	0.38%
	QC value within limits for Cr	Recovery = 100.94%				
Cut	95561.0	0.248 mg/L	0.0012	0.248 mg/L	0.0012	0.49%
	QC value within limits for Cu	Recovery = 99.27%				
Fet	72745.2	99.0 mg/L	0.12	99.0 mg/L	0.12	0.13%
	QC value within limits for Fe	Recovery = 98.99%				
Kt	275.1	0.217 mg/L	0.0201	0.217 mg/L	0.0201	9.28%
	QC value within limits for K	Recovery = Not calculated				
Mgt	575772.1	244 mg/L	0.1	244 mg/L	0.1	0.04%
	QC value within limits for Mg	Recovery = 97.58%				
Mnt	154203.1	0.261 mg/L	0.0003	0.261 mg/L	0.0003	0.10%
	QC value within limits for Mn	Recovery = 104.31%				
Mot	1.8	0.00014 mg/L	0.000163	0.00014 mg/L	0.000163	119.95%
	QC value within limits for Mo	Recovery = Not calculated				
Nat	296.0	0.0750 mg/L	0.01343	0.0750 mg/L	0.01343	17.90%
	QC value within limits for Na	Recovery = Not calculated				
Nit	11217.3	0.476 mg/L	0.0013	0.476 mg/L	0.0013	0.26%
	QC value within limits for Ni	Recovery = 95.26%				
Pbt	2411.1	0.464 mg/L	0.0048	0.464 mg/L	0.0048	1.03%
	QC value within limits for Pb	Recovery = 92.76%				
Vt	44237.9	0.250 mg/L	0.0005	0.250 mg/L	0.0005	0.22%
	QC value within limits for V	Recovery = 100.08%				
Znt	27807.0	0.545 mg/L	0.0015	0.545 mg/L	0.0015	0.27%
	QC value within limits for Zn	Recovery = 108.90%				
	QC Failed. Continue with analysis.					

Sequence No.: 7  
 Sample ID: Wash  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/27/2008 17:24:34  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: Wash

Analyte	Mean Corrected Intensity	Calib.	Sample		
	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sca	458588.2	99.0 %	0.05		0.05%
Yr	199046.1	98.7 %	0.41		0.42%
Agt	-109.7	-0.00037 mg/L	0.000023	-0.00037 mg/L	0.000023 6.15%
QC value within limits for Ag		Recovery = Not calculated			
Alt	-14.3	-0.00354 mg/L	0.002578	-0.00354 mg/L	0.002578 72.80%
QC value within limits for Al		Recovery = Not calculated			
B <sub>t</sub>	288.0	0.00883 mg/L	0.000005	0.00883 mg/L	0.000005 0.06%
QC value within limits for B		Recovery = Not calculated			
Bat	-0.5	-0.00001 mg/L	0.000023	-0.00001 mg/L	0.000023 371.70%
QC value within limits for Ba		Recovery = Not calculated			
Bet	-108.7	-0.00003 mg/L	0.000008	-0.00003 mg/L	0.000008 23.51%
QC value within limits for Be		Recovery = Not calculated			
Cat	-1.9	-0.00033 mg/L	0.000061	-0.00033 mg/L	0.000061 18.47%
QC value within limits for Ca		Recovery = Not calculated			
Cdt	7.0	0.00025 mg/L	0.000180	0.00025 mg/L	0.000180 71.53%
QC value within limits for Cd		Recovery = Not calculated			
Cot	2.0	0.00007 mg/L	0.000077	0.00007 mg/L	0.000077 107.64%
QC value within limits for Co		Recovery = Not calculated			
Crt	-13.2	-0.00016 mg/L	0.000031	-0.00016 mg/L	0.000031 19.18%
QC value within limits for Cr		Recovery = Not calculated			
Cut	-44.4	-0.00012 mg/L	0.000336	-0.00012 mg/L	0.000336 291.23%
QC value within limits for Cu		Recovery = Not calculated			
Fet	7.7	0.0104 mg/L	0.00020	0.0104 mg/L	0.00020 1.92%
QC value within limits for Fe		Recovery = Not calculated			
Kt	69.0	0.0544 mg/L	0.01429	0.0544 mg/L	0.01429 26.26%
QC value within limits for K		Recovery = Not calculated			
Mgt	4.6	0.00197 mg/L	0.000738	0.00197 mg/L	0.000738 37.51%
QC value within limits for Mg		Recovery = Not calculated			
Mnt	-1190.6	-0.00201 mg/L	0.000015	-0.00201 mg/L	0.000015 0.74%
QC value within limits for Mn		Recovery = Not calculated			
Mot	2.7	0.00020 mg/L	0.000057	0.00020 mg/L	0.000057 28.12%
QC value within limits for Mo		Recovery = Not calculated			
Nat	-195.5	-0.0495 mg/L	0.01004	-0.0495 mg/L	0.01004 20.25%
QC value within limits for Na		Recovery = Not calculated			
Nit	2.0	0.00008 mg/L	0.000007	0.00008 mg/L	0.000007 8.68%
QC value within limits for Ni		Recovery = Not calculated			
Pbt	0.6	0.00011 mg/L	0.000015	0.00011 mg/L	0.000015 12.94%
QC value within limits for Pb		Recovery = Not calculated			
Vt	-9.0	-0.00005 mg/L	0.000157	-0.00005 mg/L	0.000157 304.53%
QC value within limits for V		Recovery = Not calculated			
Znt	-8.0	-0.00016 mg/L	0.000046	-0.00016 mg/L	0.000046 29.03%
QC value within limits for Zn		Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: QC-25 1ppm  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 12  
 Date Collected: 2/27/2008 17:27:56  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: QC-25 1ppm

Analyte	Mean Corrected		Calib.	Sample			RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	Std.Dev.	
Sca	447133.7	96.6 %	0.58				0.60%
Yr	193307.7	95.9 %	0.92				0.96%
Agt	285352.8	0.974 mg/L	0.0006	0.974 mg/L	0.0006	0.0006	0.07%
QC value within limits for Ag		Recovery = 97.44%					
Alt	4119.3	1.02 mg/L	0.005	1.02 mg/L	0.005	0.005	0.54%
QC value within limits for Al		Recovery = 101.89%					
B_t	31579.1	0.966 mg/L	0.0108	0.966 mg/L	0.0108	0.0108	1.12%
QC value within limits for B		Recovery = 96.62%					
Bat	80890.7	1.07 mg/L	0.004	1.07 mg/L	0.004	0.004	0.42%
QC value within limits for Ba		Recovery = 106.56%					
Bet	3171978.5	0.998 mg/L	0.0038	0.998 mg/L	0.0038	0.0038	0.38%
QC value within limits for Be		Recovery = 99.83%					
Cat	6101.9	1.04 mg/L	0.011	1.04 mg/L	0.011	0.011	1.08%
QC value within limits for Ca		Recovery = 103.68%					
Cdt	27487.4	0.985 mg/L	0.0099	0.985 mg/L	0.0099	0.0099	1.01%
QC value within limits for Cd		Recovery = 98.46%					
Cot	28901.4	1.06 mg/L	0.011	1.06 mg/L	0.011	0.011	1.04%
QC value within limits for Co		Recovery = 105.52%					
Crt	83888.6	1.01 mg/L	0.003	1.01 mg/L	0.003	0.003	0.32%
QC value within limits for Cr		Recovery = 101.24%					
Cut	392128.1	1.02 mg/L	0.003	1.02 mg/L	0.003	0.003	0.34%
QC value within limits for Cu		Recovery = 101.85%					
Fet	752.8	1.02 mg/L	0.016	1.02 mg/L	0.016	0.016	1.52%
QC value within limits for Fe		Recovery = 102.44%					
Kt	12502.9	9.86 mg/L	0.087	9.86 mg/L	0.087	0.087	0.88%
QC value within limits for K		Recovery = 98.63%					
Mgt	2520.3	1.07 mg/L	0.010	1.07 mg/L	0.010	0.010	0.93%
QC value within limits for Mg		Recovery = 106.78%					
Mnt	627706.9	1.06 mg/L	0.003	1.06 mg/L	0.003	0.003	0.30%
QC value within limits for Mn		Recovery = 106.16%					
Mot	12825.1	0.970 mg/L	0.0078	0.970 mg/L	0.0078	0.0078	0.80%
QC value within limits for Mo		Recovery = 96.97%					
Nat	3889.5	0.986 mg/L	0.0017	0.986 mg/L	0.0017	0.0017	0.17%
QC value within limits for Na		Recovery = 98.59%					
Nit	25259.5	1.07 mg/L	0.011	1.07 mg/L	0.011	0.011	0.99%
QC value within limits for Ni		Recovery = 107.25%					
Pbt	5455.8	1.05 mg/L	0.019	1.05 mg/L	0.019	0.019	1.79%
QC value within limits for Pb		Recovery = 104.95%					
Vt	174796.5	0.989 mg/L	0.0020	0.989 mg/L	0.0020	0.0020	0.20%
QC value within limits for V		Recovery = 98.87%					
Znt	53392.0	1.04 mg/L	0.009	1.04 mg/L	0.009	0.009	0.87%
QC value within limits for Zn		Recovery = 104.44%					

All analyte(s) passed QC.

Sequence No.: 9  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/27/2008 17:31:41  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	418253.1	90.3 %	0.15			0.16%
Yr	185384.5	92.0 %	1.04			1.13%
Agt	283542.6	0.968 mg/L	0.0072	0.968 mg/L	0.0072	0.74%
QC value within limits for Ag		Recovery = 96.82%				
Alt	21315.6	5.27 mg/L	0.002	5.27 mg/L	0.002	0.04%
QC value within limits for Al		Recovery = 105.45%				
B_t	85102.0	2.60 mg/L	0.025	2.60 mg/L	0.025	0.97%
QC value within limits for B		Recovery = 103.95%				
Bat	399835.5	5.27 mg/L	0.040	5.27 mg/L	0.040	0.77%
QC value within limits for Ba		Recovery = 105.34%				
Bet	6696669.3	2.11 mg/L	0.001	2.11 mg/L	0.001	0.05%
QC value within limits for Be		Recovery = 105.38%				
Cat	310114.9	52.7 mg/L	0.06	52.7 mg/L	0.06	0.11%
QC value within limits for Ca		Recovery = 105.39%				
Cdt	58563.2	2.11 mg/L	0.015	2.11 mg/L	0.015	0.72%
QC value within limits for Cd		Recovery = 105.48%				
Cot	144881.6	5.29 mg/L	0.041	5.29 mg/L	0.041	0.77%
QC value within limits for Co		Recovery = 105.79%				
Crt	436227.0	5.26 mg/L	0.045	5.26 mg/L	0.045	0.85%
QC value within limits for Cr		Recovery = 105.29%				
Cut	2016382.2	5.24 mg/L	0.006	5.24 mg/L	0.006	0.12%
QC value within limits for Cu		Recovery = 104.74%				
Fee	3867.1	5.26 mg/L	0.055	5.26 mg/L	0.055	1.04%
QC value within limits for Fe		Recovery = 105.25%				
Kt	65040.0	51.3 mg/L	0.20	51.3 mg/L	0.20	0.40%
QC value within limits for K		Recovery = 102.62%				
Mgt	124775.6	52.9 mg/L	0.18	52.9 mg/L	0.18	0.34%
QC value within limits for Mg		Recovery = 105.73%				
Mnt	3155580.4	5.34 mg/L	0.020	5.34 mg/L	0.020	0.37%
QC value within limits for Mn		Recovery = 106.73%				
Mot	68467.2	5.18 mg/L	0.046	5.18 mg/L	0.046	0.89%
QC value within limits for Mo		Recovery = 103.53%				
Nat	203971.7	51.7 mg/L	0.16	51.7 mg/L	0.16	0.32%
QC value within limits for Na		Recovery = 103.41%				
Nit	124870.9	5.30 mg/L	0.055	5.30 mg/L	0.055	1.03%
QC value within limits for Ni		Recovery = 106.04%				
Pbt	27448.8	5.28 mg/L	0.042	5.28 mg/L	0.042	0.79%
QC value within limits for Pb		Recovery = 105.60%				
Vt	925566.9	5.23 mg/L	0.019	5.23 mg/L	0.019	0.36%
QC value within limits for V		Recovery = 104.70%				
Znt	271252.5	5.31 mg/L	0.047	5.31 mg/L	0.047	0.89%
QC value within limits for Zn		Recovery = 106.14%				

All analyte(s) passed QC.

Sequence No.: 10  
 Sample ID: ICB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/27/2008 17:34:51  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	458292.3	99.0 %	1.01			1.02%
Yr	198740.2	98.6 %	0.06			0.06%
Agt	-163.7	-0.00056 mg/L	0.000448	-0.00056 mg/L	0.000448	80.08%
	QC value within limits for Ag	Recovery = Not calculated				
Alt	11.5	0.00284 mg/L	0.008581	0.00284 mg/L	0.008581	302.29%
	QC value within limits for Al	Recovery = Not calculated				
B <sub>t</sub>	644.9	0.0198 mg/L	0.00100	0.0198 mg/L	0.00100	5.07%
	QC value within limits for B <sub>t</sub>	Recovery = Not calculated				
Bat	5.0	0.00007 mg/L	0.000031	0.00007 mg/L	0.000031	46.49%
	QC value within limits for Ba	Recovery = Not calculated				
Bet	-26.7	-0.00001 mg/L	0.000000	-0.00001 mg/L	0.000000	5.65%
	QC value within limits for Be	Recovery = Not calculated				
Cat	7.5	0.00127 mg/L	0.001110	0.00127 mg/L	0.001110	87.56%
	QC value within limits for Ca	Recovery = Not calculated				
Cdt	8.6	0.00031 mg/L	0.000182	0.00031 mg/L	0.000182	59.52%
	QC value within limits for Cd	Recovery = Not calculated				
Cot	0.0	0.00000 mg/L	0.000249	0.00000 mg/L	0.000249	>999.9%
	QC value within limits for Co	Recovery = Not calculated				
Crt	-12.6	-0.00015 mg/L	0.000044	-0.00015 mg/L	0.000044	29.02%
	QC value within limits for Cr	Recovery = Not calculated				
Cut	-157.7	-0.00041 mg/L	0.000273	-0.00041 mg/L	0.000273	66.65%
	QC value within limits for Cu	Recovery = Not calculated				
Fet	3.8	0.00518 mg/L	0.000095	0.00518 mg/L	0.000095	1.84%
	QC value within limits for Fe	Recovery = Not calculated				
Kt	85.4	0.0673 mg/L	0.01169	0.0673 mg/L	0.01169	17.36%
	QC value within limits for K	Recovery = Not calculated				
Mgt	4.3	0.00184 mg/L	0.001132	0.00184 mg/L	0.001132	61.63%
	QC value within limits for Mg	Recovery = Not calculated				
Mnt	-1192.2	-0.00202 mg/L	0.000028	-0.00202 mg/L	0.000028	1.38%
	QC value within limits for Mn	Recovery = Not calculated				
Mot	5.9	0.00044 mg/L	0.000247	0.00044 mg/L	0.000247	55.68%
	QC value within limits for Mo	Recovery = Not calculated				
Nat	-204.6	-0.0519 mg/L	0.00305	-0.0519 mg/L	0.00305	5.88%
	QC value within limits for Na	Recovery = Not calculated				
Nit	6.9	0.00029 mg/L	0.000213	0.00029 mg/L	0.000213	73.25%
	QC value within limits for Ni	Recovery = Not calculated				
Pbt	6.3	0.00120 mg/L	0.000410	0.00120 mg/L	0.000410	34.07%
	QC value within limits for Pb	Recovery = Not calculated				
Vt	0.1	0.00000 mg/L	0.000025	0.00000 mg/L	0.000025	>999.9%
	QC value within limits for V	Recovery = Not calculated				
Znt	3.8	0.00007 mg/L	0.000054	0.00007 mg/L	0.000054	75.01%
	QC value within limits for Zn	Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: MRL  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 20  
 Date Collected: 2/27/2008 17:38:14  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MRL

Analyte	Mean Corrected		Calib.	Sample			RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	Std.Dev.	
Sca	454868.0	98.2 %	0.86				0.87%
Yr	195730.5	97.1 %	0.56				0.58%
Agt	2738.8	0.00935 mg/L	0.000258	0.00935 mg/L	0.000258	0.000258	2.76%
QC value within limits for Ag		Recovery = 93.52%					
Alt	233.2	0.0577 mg/L	0.00451	0.0577 mg/L	0.00451	0.00451	7.82%
QC value within limits for Al		Recovery = 115.38%					
B_t	1990.0	0.0609 mg/L	0.00070	0.0609 mg/L	0.00070	0.00070	1.14%
QC value within limits for B		Recovery = 121.83%					
Bat	1581.1	0.0208 mg/L	0.00021	0.0208 mg/L	0.00021	0.00021	1.01%
QC value within limits for Ba		Recovery = 104.14%					
Bet	3236.1	0.00102 mg/L	0.000020	0.00102 mg/L	0.000020	0.000020	1.96%
QC value within limits for Be		Recovery = 101.85%					
Cat	6154.2	1.05 mg/L	0.006	1.05 mg/L	0.006	0.006	0.56%
QC value within limits for Ca		Recovery = 104.57%					
Cdt	176.3	0.00649 mg/L	0.000046	0.00649 mg/L	0.000046	0.000046	0.71%
QC value within limits for Cd		Recovery = 129.90%					
Cot	1442.2	0.0527 mg/L	0.00051	0.0527 mg/L	0.00051	0.00051	0.96%
QC value within limits for Co		Recovery = 105.31%					
Crt	823.5	0.00994 mg/L	0.000211	0.00994 mg/L	0.000211	0.000211	2.13%
QC value within limits for Cr		Recovery = 99.39%					
Cut	3900.0	0.0102 mg/L	0.00023	0.0102 mg/L	0.00023	0.00023	2.30%
QC value within limits for Cu		Recovery = 101.69%					
Fet	20.7	0.0282 mg/L	0.00071	0.0282 mg/L	0.00071	0.00071	2.51%
QC value within limits for Fe		Recovery = 140.85%					
Kt	1317.6	1.04 mg/L	0.034	1.04 mg/L	0.034	0.034	3.31%
QC value within limits for K		Recovery = 103.94%					
Mgt	256.2	0.109 mg/L	0.0007	0.109 mg/L	0.0007	0.0007	0.60%
QC value within limits for Mg		Recovery = 108.56%					
Mnt	87.2	0.00015 mg/L	0.000017	0.00015 mg/L	0.000017	0.000017	11.36%
QC value less than the lower limit for Mn		Recovery = 7.38%					
Mot	261.6	0.0198 mg/L	0.00020	0.0198 mg/L	0.00020	0.00020	1.04%
QC value within limits for Mo		Recovery = 98.90%					
Nat	3863.4	0.979 mg/L	0.0176	0.979 mg/L	0.0176	0.0176	1.79%
QC value within limits for Na		Recovery = 97.93%					
Nit	510.6	0.0217 mg/L	0.00036	0.0217 mg/L	0.00036	0.00036	1.68%
QC value within limits for Ni		Recovery = 108.41%					
Pbt	108.8	0.0209 mg/L	0.00097	0.0209 mg/L	0.00097	0.00097	4.62%
QC value within limits for Pb		Recovery = 104.68%					
Vt	354.3	0.00205 mg/L	0.000010	0.00205 mg/L	0.000010	0.000010	0.51%
QC value within limits for V		Recovery = 102.38%					
Znt	1051.9	0.0206 mg/L	0.00037	0.0206 mg/L	0.00037	0.00037	1.79%
QC value within limits for Zn		Recovery = 102.86%					
QC Failed. Retry.							

Sequence No.: 12  
 Sample ID: MRL  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 20  
 Date Collected: 2/27/2008 17:40:52  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MRL

Analyte	Mean Corrected		Calib.	Sample			RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	Std.Dev.	
Sca	452268.5	97.7 %	0.61				0.63%
Yr	199021.6	98.7 %	0.24				0.24%
Agt	2800.6	0.00956 mg/L	0.000021	0.00956 mg/L	0.000021	0.000021	0.22%
QC value within limits for Ag		Recovery = 95.63%					
Alt	217.7	0.0538 mg/L	0.00510	0.0538 mg/L	0.00510	0.00510	9.47%

QC value within limits for Al		Recovery = 107.69%				
B_t	1934.0	0.0592 mg/L	0.00042	0.0592 mg/L	0.00042	0.71%
QC value within limits for B		Recovery = 118.39%				
Bat	1585.4	0.0209 mg/L	0.00012	0.0209 mg/L	0.00012	0.57%
QC value within limits for Ba		Recovery = 104.42%				
Bet	3203.1	0.00101 mg/L	0.000014	0.00101 mg/L	0.000014	1.43%
QC value within limits for Be		Recovery = 100.81%				
Cat	6067.1	1.03 mg/L	0.000	1.03 mg/L	0.000	0.03%
QC value within limits for Ca		Recovery = 103.09%				
Cdt	176.0	0.00648 mg/L	0.000124	0.00648 mg/L	0.000124	1.91%
QC value within limits for Cd		Recovery = 129.68%				
Cot	1451.2	0.0530 mg/L	0.00054	0.0530 mg/L	0.00054	1.03%
QC value within limits for Co		Recovery = 105.96%				
Crt	846.1	0.0102 mg/L	0.00004	0.0102 mg/L	0.00004	0.39%
QC value within limits for Cr		Recovery = 102.11%				
Cut	3901.9	0.0102 mg/L	0.00008	0.0102 mg/L	0.00008	0.79%
QC value within limits for Cu		Recovery = 101.75%				
Fet	19.0	0.0259 mg/L	0.00357	0.0259 mg/L	0.00357	13.82%
QC value within limits for Fe		Recovery = 129.26%				
Kt	1299.7	1.03 mg/L	0.047	1.03 mg/L	0.047	4.55%
QC value within limits for K		Recovery = 102.53%				
Mgt	253.1	0.107 mg/L	0.0001	0.107 mg/L	0.0001	0.08%
QC value within limits for Mg		Recovery = 107.22%				
Mnt	91.3	0.00015 mg/L	0.000008	0.00015 mg/L	0.000008	4.91%
QC value less than the lower limit for Mn		Recovery = 7.72%				
Mot	265.9	0.0201 mg/L	0.00013	0.0201 mg/L	0.00013	0.62%
QC value within limits for Mo		Recovery = 100.51%				
Nat	3789.6	0.961 mg/L	0.0144	0.961 mg/L	0.0144	1.50%
QC value within limits for Na		Recovery = 96.06%				
Nit	508.4	0.0216 mg/L	0.00024	0.0216 mg/L	0.00024	1.10%
QC value within limits for Ni		Recovery = 107.94%				
Pbt	107.0	0.0206 mg/L	0.00046	0.0206 mg/L	0.00046	2.24%
QC value within limits for Pb		Recovery = 102.90%				
Vt	357.7	0.00207 mg/L	0.000018	0.00207 mg/L	0.000018	0.87%
QC value within limits for V		Recovery = 103.40%				
Znt	1056.4	0.0207 mg/L	0.00001	0.0207 mg/L	0.00001	0.06%
QC value within limits for Zn		Recovery = 103.31%				
QC Failed. Continue with analysis.						

User canceled analysis.

=====

Analysis Begun

Start Time: 2/27/2008 17:44:54

Logged In Analyst: Charley Kay

Spectrometer Model: Optima 4300 DV, S/N 077N2121801Autosampler Model: AS-93plus

Plasma On Time: 2/27/2008 16:14:00

Technique: ICP Continuous

Sample Information File: C:\pe\Charley Kay\Sample Information\080227.sif

Batch ID: 080227

Results Data Set: 080227

Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 13

Sample ID: MBLANK2007

Analyst:

Initial Sample Wt:

Dilution: 1X

Autosampler Location: 38

Date Collected: 2/27/2008 17:44:55

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: MBLANK2007

Analyte	Mean Corrected		Calib.	Sample			RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	Std.Dev.	
Sca	455670.8	98.4 %	0.06				0.06%
Yr	200845.4	99.6 %	0.81				0.81%
Ag†	-64.5	-0.00022 mg/L	0.000020	-0.00022 mg/L	0.000020	9.27%	
Alt	23.1	0.00571 mg/L	0.000420	0.00571 mg/L	0.000420	7.35%	
B <sub>t</sub>	237.0	0.00727 mg/L	0.000105	0.00727 mg/L	0.000105	1.44%	
B <sub>at</sub>	1.2	0.00002 mg/L	0.000031	0.00002 mg/L	0.000031	201.72%	
Bet	-125.4	-0.00004 mg/L	0.000022	-0.00004 mg/L	0.000022	55.79%	
Cat	127.8	0.0217 mg/L	0.00177	0.0217 mg/L	0.00177	8.13%	
Cdt	4.3	0.00015 mg/L	0.000086	0.00015 mg/L	0.000086	55.80%	
Cot	5.5	0.00020 mg/L	0.000249	0.00020 mg/L	0.000249	123.41%	
Crt	-20.7	-0.00025 mg/L	0.000084	-0.00025 mg/L	0.000084	33.78%	
Cut	-82.6	-0.00021 mg/L	0.000100	-0.00021 mg/L	0.000100	46.83%	
Fet	4.4	0.00599 mg/L	0.000598	0.00599 mg/L	0.000598	9.97%	
K†	21.9	0.0173 mg/L	0.06208	0.0173 mg/L	0.06208	359.53%	
Mgt	4.3	0.00184 mg/L	0.000261	0.00184 mg/L	0.000261	14.21%	
Mnt	-1262.4	-0.00213 mg/L	0.000017	-0.00213 mg/L	0.000017	0.80%	
Mot	1.3	0.00010 mg/L	0.000026	0.00010 mg/L	0.000026	25.10%	
Nat	-34.0	-0.00861 mg/L	0.015193	-0.00861 mg/L	0.015193	176.51%	
Nit	8.2	0.00035 mg/L	0.000015	0.00035 mg/L	0.000015	4.19%	
Pbt	-1.4	-0.00027 mg/L	0.000151	-0.00027 mg/L	0.000151	56.71%	
V†	48.4	0.00027 mg/L	0.000253	0.00027 mg/L	0.000253	93.39%	
Znt	139.8	0.00275 mg/L	0.000103	0.00275 mg/L	0.000103	3.73%	

Sequence No.: 14  
 Sample ID: MRL2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 39  
 Date Collected: 2/27/2008 17:48:30  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MRL2007

Analyte	Mean Corrected		Calib.	Sample			RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	Std.Dev.	
Sca	453701.3	98.0 %	0.37				0.37%
Yr	201378.1	99.9 %	1.26				1.26%
Agt	2820.9	0.00963 mg/L	0.000095	0.00963 mg/L	0.000095		0.99%
Alt	223.4	0.0553 mg/L	0.00301	0.0553 mg/L	0.00301		5.45%
B <sub>t</sub>	1783.1	0.0546 mg/L	0.00042	0.0546 mg/L	0.00042		0.77%
Bat	1611.1	0.0212 mg/L	0.00013	0.0212 mg/L	0.00013		0.62%
Bet	3192.6	0.00100 mg/L	0.000049	0.00100 mg/L	0.000049		4.87%
Cat	6209.2	1.06 mg/L	0.009	1.06 mg/L	0.009		0.82%
Cdt	179.3	0.00661 mg/L	0.000194	0.00661 mg/L	0.000194		2.93%
Cot	1510.0	0.0551 mg/L	0.00050	0.0551 mg/L	0.00050		0.91%
Crt	835.9	0.0101 mg/L	0.00009	0.0101 mg/L	0.00009		0.91%
Cut	4107.1	0.0107 mg/L	0.00010	0.0107 mg/L	0.00010		0.95%
Fet	20.1	0.0273 mg/L	0.00139	0.0273 mg/L	0.00139		5.08%
Kt	1313.8	1.04 mg/L	0.069	1.04 mg/L	0.069		6.68%
Mgt	252.3	0.107 mg/L	0.0013	0.107 mg/L	0.0013		1.24%
Mnt	46.9	0.00008 mg/L	0.000024	0.00008 mg/L	0.000024		30.10%
Mot	263.2	0.0199 mg/L	0.00008	0.0199 mg/L	0.00008		0.39%
Nat	4034.0	1.02 mg/L	0.004	1.02 mg/L	0.004		0.37%
Nit	522.7	0.0222 mg/L	0.00024	0.0222 mg/L	0.00024		1.08%
Pbt	111.4	0.0214 mg/L	0.00093	0.0214 mg/L	0.00093		4.32%
Vt	348.3	0.00201 mg/L	0.000221	0.00201 mg/L	0.000221		10.97%
Znt	1227.2	0.0240 mg/L	0.00003	0.0240 mg/L	0.00003		0.11%

Sequence No.: 15  
 Sample ID: LCS2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 40  
 Date Collected: 2/27/2008 17:52:05  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCS2007

Analyte	Mean Corrected		Calib.	Sample			RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	Std.Dev.	
Sca	431350.6	93.2 %	0.48				0.51%
Yr	194501.2	96.5 %	0.39				0.41%
Agt	139619.9	0.477 mg/L	0.0003	0.477 mg/L	0.0003	0.0003	0.05%
Alt	7746.5	1.92 mg/L	0.032	1.92 mg/L	0.032	0.032	1.66%
B <sub>t</sub>	15853.6	0.484 mg/L	0.0003	0.484 mg/L	0.0003	0.0003	0.07%
Bat	76023.0	1.00 mg/L	0.001	1.00 mg/L	0.001	0.001	0.13%
Bet	161399.6	0.0508 mg/L	0.00016	0.0508 mg/L	0.00016	0.00016	0.32%
Cat	287577.8	48.9 mg/L	0.06	48.9 mg/L	0.06	0.06	0.11%
Cdt	5649.4	0.205 mg/L	0.0003	0.205 mg/L	0.0003	0.0003	0.14%
Cot	27654.6	1.01 mg/L	0.005	1.01 mg/L	0.005	0.005	0.45%
Crt	82357.1	0.994 mg/L	0.0011	0.994 mg/L	0.0011	0.0011	0.11%
Cut	389967.8	1.01 mg/L	0.003	1.01 mg/L	0.003	0.003	0.25%
Fet	3604.4	4.90 mg/L	0.019	4.90 mg/L	0.019	0.019	0.39%
Kt	23632.0	18.6 mg/L	0.37	18.6 mg/L	0.37	0.37	2.00%
Mgt	46633.3	19.8 mg/L	0.25	19.8 mg/L	0.25	0.25	1.28%
Mnt	301674.3	0.510 mg/L	0.0018	0.510 mg/L	0.0018	0.0018	0.36%
Mot	13011.7	0.984 mg/L	0.0006	0.984 mg/L	0.0006	0.0006	0.06%
Nat	191303.6	48.5 mg/L	0.23	48.5 mg/L	0.23	0.23	0.47%
Nit	11944.1	0.507 mg/L	0.0032	0.507 mg/L	0.0032	0.0032	0.64%
Pbt	5145.1	0.990 mg/L	0.0039	0.990 mg/L	0.0039	0.0039	0.39%
Vt	175065.7	0.990 mg/L	0.0010	0.990 mg/L	0.0010	0.0010	0.10%
Znt	52380.1	1.03 mg/L	0.000	1.03 mg/L	0.000	0.000	0.05%

Sequence No.: 16  
 Sample ID: LCSD2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 41  
 Date Collected: 2/27/2008 17:54:28  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCSD2007

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	
Sca	424021.6	91.6 %	0.44			0.48%
Yr	189269.3	93.9 %	1.84			1.96%
Agt	138801.7	0.474 mg/L	0.0006	0.474 mg/L	0.0006	0.14%
Alt	7764.1	1.92 mg/L	0.049	1.92 mg/L	0.049	2.55%
B <sub>t</sub>	15984.3	0.488 mg/L	0.0026	0.488 mg/L	0.0026	0.52%
Baf	75658.1	0.997 mg/L	0.0064	0.997 mg/L	0.0064	0.64%
Bet	161010.0	0.0507 mg/L	0.00021	0.0507 mg/L	0.00021	0.41%
Cat	290233.1	49.3 mg/L	0.14	49.3 mg/L	0.14	0.29%
Cdt	5681.8	0.207 mg/L	0.0003	0.207 mg/L	0.0003	0.15%
Cot	27670.9	1.01 mg/L	0.006	1.01 mg/L	0.006	0.64%
Crt	81237.5	0.980 mg/L	0.0015	0.980 mg/L	0.0015	0.16%
Cut	387932.2	1.01 mg/L	0.002	1.01 mg/L	0.002	0.17%
Fet	3631.3	4.94 mg/L	0.113	4.94 mg/L	0.113	2.29%
Kt	23799.6	18.8 mg/L	0.56	18.8 mg/L	0.56	2.96%
Mgt	47485.2	20.1 mg/L	0.47	20.1 mg/L	0.47	2.33%
Mnt	300167.5	0.508 mg/L	0.0014	0.508 mg/L	0.0014	0.27%
Mot	12963.0	0.980 mg/L	0.0040	0.980 mg/L	0.0040	0.41%
Nat	190734.5	48.3 mg/L	0.28	48.3 mg/L	0.28	0.59%
Nit	11908.9	0.506 mg/L	0.0070	0.506 mg/L	0.0070	1.39%
Pbt	5175.1	0.995 mg/L	0.0052	0.995 mg/L	0.0052	0.52%
Vt	174525.1	0.987 mg/L	0.0023	0.987 mg/L	0.0023	0.23%
Znt	52431.6	1.03 mg/L	0.007	1.03 mg/L	0.007	0.64%

Sequence No.: 17  
 Sample ID: 2802200171  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 42  
 Date Collected: 2/27/2008 17:56:51  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802200171

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	
Sca	433018.1	93.5 %	0.98			1.04%
Yr	193787.3	96.1 %	0.03			0.03%
Agt	-6.2	-0.00002 mg/L	0.000140	-0.00002 mg/L	0.000140	657.07%
Alt	467.1	0.116 mg/L	0.0055	0.116 mg/L	0.0055	4.74%
B_t	2940.1	0.0902 mg/L	0.00086	0.0902 mg/L	0.00086	0.95%
Bat	3076.8	0.0405 mg/L	0.00047	0.0405 mg/L	0.00047	1.16%
Bet	-386.6	-0.00012 mg/L	0.000004	-0.00012 mg/L	0.000004	3.25%
Cat	244981.4	41.6 mg/L	0.07	41.6 mg/L	0.07	0.17%
Cdt	-5.6	-0.00020 mg/L	0.000066	-0.00020 mg/L	0.000066	33.32%
Cot	5.6	0.00020 mg/L	0.000142	0.00020 mg/L	0.000142	69.60%
Crt	-10.4	-0.00013 mg/L	0.000082	-0.00013 mg/L	0.000082	65.31%
Cut	1415.8	0.00367 mg/L	0.000039	0.00367 mg/L	0.000039	1.08%
Fet	74.5	0.101 mg/L	0.0048	0.101 mg/L	0.0048	4.72%
Kt	2383.9	1.88 mg/L	0.094	1.88 mg/L	0.094	5.02%
Mgt	39894.1	16.9 mg/L	0.06	16.9 mg/L	0.06	0.36%
Mnt	1545.6	0.00261 mg/L	0.000072	0.00261 mg/L	0.000072	2.75%
Mot	48.7	0.00368 mg/L	0.000165	0.00368 mg/L	0.000165	4.48%
Nat	109580.5	27.8 mg/L	0.10	27.8 mg/L	0.10	0.35%
Nit	5.3	0.00022 mg/L	0.000317	0.00022 mg/L	0.000317	141.89%
Pbt	-14.9	-0.00286 mg/L	0.001632	-0.00286 mg/L	0.001632	57.07%
Vt	943.2	0.00530 mg/L	0.000006	0.00530 mg/L	0.000006	0.11%
Znt	285.3	0.00562 mg/L	0.000085	0.00562 mg/L	0.000085	1.52%

Sequence No.: 18  
 Sample ID: 2802200171MS  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 43  
 Date Collected: 2/27/2008 18:00:26  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802200171MS

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	417073.8	90.1 %	0.39			0.43%
Yr	187555.9	93.0 %	0.51			0.55%
Agt	141961.4	0.485 mg/L	0.0019	0.485 mg/L	0.0019	0.39%
Alt	8410.1	2.08 mg/L	0.014	2.08 mg/L	0.014	0.67%
B_t	19137.5	0.585 mg/L	0.0096	0.585 mg/L	0.0096	1.65%
Bat	80505.3	1.06 mg/L	0.014	1.06 mg/L	0.014	1.30%
Bet	164886.5	0.0519 mg/L	0.00019	0.0519 mg/L	0.00019	0.37%
Cat	527089.3	89.6 mg/L	0.53	89.6 mg/L	0.53	0.59%
Cdt	5810.4	0.211 mg/L	0.0030	0.211 mg/L	0.0030	1.44%
Cot	27828.8	1.02 mg/L	0.013	1.02 mg/L	0.013	1.30%
Crt	83733.1	1.01 mg/L	0.015	1.01 mg/L	0.015	1.44%
Cut	396717.1	1.03 mg/L	0.010	1.03 mg/L	0.010	0.99%
Fet	3755.0	5.11 mg/L	0.019	5.11 mg/L	0.019	0.37%
Kt	26528.3	20.9 mg/L	0.14	20.9 mg/L	0.14	0.66%
Mgt	85901.5	36.4 mg/L	0.40	36.4 mg/L	0.40	1.10%
Mnt	308802.6	0.522 mg/L	0.0015	0.522 mg/L	0.0015	0.28%
Mot	13235.1	1.00 mg/L	0.018	1.00 mg/L	0.018	1.79%
Nat	301862.6	76.5 mg/L	0.49	76.5 mg/L	0.49	0.64%
Nit	11857.0	0.503 mg/L	0.0072	0.503 mg/L	0.0072	1.43%
Pbt	5197.0	1.000 mg/L	0.0101	1.000 mg/L	0.0101	1.01%
Vt	178435.5	1.01 mg/L	0.002	1.01 mg/L	0.002	0.16%
Znt	53379.5	1.05 mg/L	0.014	1.05 mg/L	0.014	1.38%

Sequence No.: 19  
 Sample ID: 2802200171MSD  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 44  
 Date Collected: 2/27/2008 18:03:31  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802200171MSD

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	
Sca	424946.4	91.8 %	1.25			1.36%
Yr	194081.0	96.3 %	0.17			0.18%
Agt	142046.9	0.485 mg/L	0.0001	0.485 mg/L	0.0001	0.01%
Alt	8215.8	2.03 mg/L	0.012	2.03 mg/L	0.012	0.60%
B <sub>t</sub>	18757.6	0.573 mg/L	0.0061	0.573 mg/L	0.0061	1.06%
Bat	79715.2	1.05 mg/L	0.001	1.05 mg/L	0.001	0.14%
Bet	164712.2	0.0518 mg/L	0.00010	0.0518 mg/L	0.00010	0.19%
Cat	524190.9	89.1 mg/L	0.18	89.1 mg/L	0.18	0.20%
Cdt	5680.0	0.206 mg/L	0.0047	0.206 mg/L	0.0047	2.25%
Cot	27297.7	0.997 mg/L	0.0128	0.997 mg/L	0.0128	1.29%
Crt	82454.9	0.995 mg/L	0.0015	0.995 mg/L	0.0015	0.15%
Cut	396142.3	1.03 mg/L	0.001	1.03 mg/L	0.001	0.10%
Fet	3683.7	5.01 mg/L	0.035	5.01 mg/L	0.035	0.70%
Kt	26081.0	20.6 mg/L	0.06	20.6 mg/L	0.06	0.30%
Mgt	84004.1	35.6 mg/L	0.35	35.6 mg/L	0.35	0.98%
Mnt	309433.0	0.523 mg/L	0.0012	0.523 mg/L	0.0012	0.23%
Mot	12988.8	0.982 mg/L	0.0163	0.982 mg/L	0.0163	1.66%
Nat	300341.9	76.1 mg/L	0.34	76.1 mg/L	0.34	0.45%
Nit	11638.2	0.494 mg/L	0.0063	0.494 mg/L	0.0063	1.28%
Pbt	5086.3	0.978 mg/L	0.0092	0.978 mg/L	0.0092	0.94%
Vt	178682.7	1.01 mg/L	0.001	1.01 mg/L	0.001	0.08%
Znt	52309.8	1.03 mg/L	0.015	1.03 mg/L	0.015	1.42%

Sequence No.: 20  
 Sample ID: 2802220550  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 45  
 Date Collected: 2/27/2008 18:06:36  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802220550

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	
Sca	421600.8	91.1 %	0.35			0.38%
Yr	195535.0	97.0 %	0.03			0.03%
Agt	-160.4	-0.00055 mg/L	0.000059	-0.00055 mg/L	0.000059	10.73%
Alt	301.1	0.0745 mg/L	0.00088	0.0745 mg/L	0.00088	1.18%
B_t	9610.4	0.295 mg/L	0.0031	0.295 mg/L	0.0031	1.06%
Bat	4965.3	0.0654 mg/L	0.00023	0.0654 mg/L	0.00023	0.35%
Bet	-615.8	-0.00019 mg/L	0.000000	-0.00019 mg/L	0.000000	0.01%
Cat	437026.2	74.3 mg/L	0.13	74.3 mg/L	0.13	0.18%
Cdt	-13.4	-0.00047 mg/L	0.000018	-0.00047 mg/L	0.000018	3.78%
Cot	33.1	0.00121 mg/L	0.000067	0.00121 mg/L	0.000067	5.53%
Crt	44.7	0.00054 mg/L	0.000069	0.00054 mg/L	0.000069	12.84%
Cut	7503.6	0.0195 mg/L	0.00010	0.0195 mg/L	0.00010	0.54%
Fet	101.1	0.138 mg/L	0.0029	0.138 mg/L	0.0029	2.10%
Kt	12633.0	9.97 mg/L	0.023	9.97 mg/L	0.023	0.23%
Mgt	57573.7	24.4 mg/L	0.05	24.4 mg/L	0.05	0.20%
Mnt	68393.9	0.116 mg/L	0.0003	0.116 mg/L	0.0003	0.26%
Mot	159.2	0.0120 mg/L	0.00042	0.0120 mg/L	0.00042	3.45%
Nat	401158.5	102 mg/L	0.5	102 mg/L	0.5	0.45%
Nit	112.7	0.00479 mg/L	0.000396	0.00479 mg/L	0.000396	8.28%
Pbt	-14.9	-0.00287 mg/L	0.000010	-0.00287 mg/L	0.000010	0.36%
Vt	726.7	0.00409 mg/L	0.000029	0.00409 mg/L	0.000029	0.71%
Znt	2352.1	0.0463 mg/L	0.00036	0.0463 mg/L	0.00036	0.77%

Sequence No.: 21  
 Sample ID: 2802220550MS  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 46  
 Date Collected: 2/27/2008 18:10:53  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802220550MS

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	
Sca	402867.9	87.0 %	0.23			0.26%
Yr	184778.1	91.7 %	0.37			0.41%
Agt	145163.3	0.496 mg/L	0.0003	0.496 mg/L	0.0003	0.05%
Alt	8312.2	2.06 mg/L	0.039	2.06 mg/L	0.039	1.88%
B <sub>t</sub>	26021.7	0.796 mg/L	0.0048	0.796 mg/L	0.0048	0.60%
B <sub>at</sub>	82736.2	1.09 mg/L	0.002	1.09 mg/L	0.002	0.17%
Bet	167326.0	0.0527 mg/L	0.00004	0.0527 mg/L	0.00004	0.08%
Cat	712793.4	121 mg/L	0.1	121 mg/L	0.1	0.07%
Cdt	5948.4	0.216 mg/L	0.0001	0.216 mg/L	0.0001	0.05%
Cot	28497.1	1.04 mg/L	0.009	1.04 mg/L	0.009	0.82%
Crt	85450.7	1.03 mg/L	0.007	1.03 mg/L	0.007	0.72%
Cut	418706.7	1.09 mg/L	0.002	1.09 mg/L	0.002	0.22%
Fet	3838.6	5.22 mg/L	0.064	5.22 mg/L	0.064	1.22%
Kt	36892.4	29.1 mg/L	0.45	29.1 mg/L	0.45	1.53%
Mgt	103384.6	43.8 mg/L	0.70	43.8 mg/L	0.70	1.59%
Mnt	378037.3	0.639 mg/L	0.0008	0.639 mg/L	0.0008	0.13%
Mot	13665.0	1.03 mg/L	0.003	1.03 mg/L	0.003	0.30%
Nat	585883.9	149 mg/L	0.7	149 mg/L	0.7	0.46%
Nit	12352.6	0.524 mg/L	0.0043	0.524 mg/L	0.0043	0.82%
Pbt	5261.2	1.01 mg/L	0.003	1.01 mg/L	0.003	0.30%
Vt	182044.9	1.03 mg/L	0.000	1.03 mg/L	0.000	0.04%
Znt	56831.2	1.12 mg/L	0.007	1.12 mg/L	0.007	0.62%

Sequence No.: 22  
 Sample ID: 2802220550MSD  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 47  
 Date Collected: 2/27/2008 18:13:59  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802220550MSD

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Sample			RSD
				Conc.	Units	Std.Dev.	
Sca	415019.7	89.6 %	0.44				0.49%
Yr	188164.1	93.3 %	0.54				0.58%
Agt	142309.5	0.486 mg/L	0.0001	0.486	mg/L	0.0001	0.03%
Alt	8111.8	2.01 mg/L	0.011	2.01	mg/L	0.011	0.52%
B <sub>t</sub>	24999.6	0.765 mg/L	0.0093	0.765	mg/L	0.0093	1.21%
B <sub>at</sub>	81070.0	1.07 mg/L	0.001	1.07	mg/L	0.001	0.06%
Bet	163699.7	0.0515 mg/L	0.00003	0.0515	mg/L	0.00003	0.05%
Cat	696741.7	118 mg/L	0.2	118	mg/L	0.2	0.15%
Cdt	5723.3	0.208 mg/L	0.0020	0.208	mg/L	0.0020	0.94%
Cot	27437.3	1.00 mg/L	0.004	1.00	mg/L	0.004	0.37%
Crt	82285.9	0.993 mg/L	0.0067	0.993	mg/L	0.0067	0.67%
Cut	406652.8	1.06 mg/L	0.001	1.06	mg/L	0.001	0.12%
Fet	3734.0	5.08 mg/L	0.025	5.08	mg/L	0.025	0.49%
Kt	36228.3	28.6 mg/L	0.16	28.6	mg/L	0.16	0.55%
Mgt	100779.7	42.7 mg/L	0.01	42.7	mg/L	0.01	0.01%
Mnt	369726.5	0.625 mg/L	0.0003	0.625	mg/L	0.0003	0.05%
Mot	13139.7	0.993 mg/L	0.0066	0.993	mg/L	0.0066	0.67%
Nat	570876.3	145 mg/L	0.1	145	mg/L	0.1	0.09%
Nit	11844.4	0.503 mg/L	0.0002	0.503	mg/L	0.0002	0.04%
Pbt	5094.7	0.980 mg/L	0.0066	0.980	mg/L	0.0066	0.67%
Vt	178420.6	1.01 mg/L	0.001	1.01	mg/L	0.001	0.14%
Znt	54569.0	1.07 mg/L	0.006	1.07	mg/L	0.006	0.58%

Sequence No.: 23  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/27/2008 18:17:05  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	421071.3	90.9 %	0.03			0.03%
Yr	187130.1	92.8 %	0.38			0.41%
Agt	281677.0	0.962 mg/L	0.0001	0.962 mg/L	0.0001	0.01%
QC value within limits for Ag		Recovery = 96.18%				
Alt	20952.1	5.18 mg/L	0.011	5.18 mg/L	0.011	0.22%
QC value within limits for Al		Recovery = 103.65%				
B <sub>t</sub>	84063.8	2.57 mg/L	0.001	2.57 mg/L	0.001	0.03%
QC value within limits for B <sub>t</sub>		Recovery = 102.68%				
Bat	396902.9	5.23 mg/L	0.021	5.23 mg/L	0.021	0.40%
QC value within limits for Ba		Recovery = 104.57%				
Bet	6706291.1	2.11 mg/L	0.008	2.11 mg/L	0.008	0.40%
QC value within limits for Be		Recovery = 105.53%				
Cat	306378.8	52.1 mg/L	0.01	52.1 mg/L	0.01	0.02%
QC value within limits for Ca		Recovery = 104.12%				
Cdt	57970.3	2.09 mg/L	0.005	2.09 mg/L	0.005	0.22%
QC value within limits for Cd		Recovery = 104.41%				
Cot	143323.1	5.23 mg/L	0.012	5.23 mg/L	0.012	0.24%
QC value within limits for Co		Recovery = 104.65%				
Crt	432686.1	5.22 mg/L	0.004	5.22 mg/L	0.004	0.09%
QC value within limits for Cr		Recovery = 104.44%				
cut	2046094.4	5.31 mg/L	0.003	5.31 mg/L	0.003	0.05%
QC value within limits for Cu		Recovery = 106.28%				
Fet	3840.4	5.23 mg/L	0.046	5.23 mg/L	0.046	0.88%
QC value within limits for Fe		Recovery = 104.52%				
Kt	64114.2	50.6 mg/L	0.27	50.6 mg/L	0.27	0.54%
QC value within limits for K		Recovery = 101.16%				
Mgt	122865.0	52.1 mg/L	0.06	52.1 mg/L	0.06	0.12%
QC value within limits for Mg		Recovery = 104.11%				
Mnt	3150777.5	5.33 mg/L	0.001	5.33 mg/L	0.001	0.01%
QC value within limits for Mn		Recovery = 106.57%				
Mot	68128.3	5.15 mg/L	0.022	5.15 mg/L	0.022	0.42%
QC value within limits for Mo		Recovery = 103.02%				
Nat	200427.0	50.8 mg/L	0.21	50.8 mg/L	0.21	0.42%
QC value within limits for Na		Recovery = 101.61%				
Nit	124113.5	5.27 mg/L	0.000	5.27 mg/L	0.000	0.01%
QC value within limits for Ni		Recovery = 105.40%				
Pbt	27216.5	5.24 mg/L	0.001	5.24 mg/L	0.001	0.01%
QC value within limits for Pb		Recovery = 104.70%				
Vt	927169.1	5.24 mg/L	0.007	5.24 mg/L	0.007	0.12%
QC value within limits for V		Recovery = 104.87%				
Znt	269445.5	5.27 mg/L	0.008	5.27 mg/L	0.008	0.15%
QC value within limits for Zn		Recovery = 105.43%				

All analyte(s) passed QC.

Sequence No.: 24  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/27/2008 18:20:17  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib.	Sample Conc. Units	Std.Dev.	RSD
Sca	447296.6	96.6 %	0.57		0.59%
Yr	194731.7	96.6 %	1.09		1.12%
Agt	-81.1	-0.00028 mg/L	0.000272	-0.00028 mg/L	0.000272 98.37%
QC value within limits for Ag		Recovery = Not calculated			
Alt	21.5	0.00531 mg/L	0.003205	0.00531 mg/L	0.003205 60.32%
QC value within limits for Al		Recovery = Not calculated			
B_t	548.9	0.0168 mg/L	0.00121	0.0168 mg/L	0.00121 7.21%
QC value within limits for B		Recovery = Not calculated			
Bat	1.1	0.00001 mg/L	0.000055	0.00001 mg/L	0.000055 383.00%
QC value within limits for Ba		Recovery = Not calculated			
Bet	-75.2	-0.00002 mg/L	0.000001	-0.00002 mg/L	0.000001 4.95%
QC value within limits for Be		Recovery = Not calculated			
Cat	20.1	0.00342 mg/L	0.000527	0.00342 mg/L	0.000527 15.41%
QC value within limits for Ca		Recovery = Not calculated			
Cdt	9.7	0.00035 mg/L	0.000112	0.00035 mg/L	0.000112 32.38%
QC value within limits for Cd		Recovery = Not calculated			
Cot	1.3	0.00005 mg/L	0.000226	0.00005 mg/L	0.000226 480.74%
QC value within limits for Co		Recovery = Not calculated			
Crt	0.2	0.00000 mg/L	0.000013	0.00000 mg/L	0.000013 577.52%
QC value within limits for Cr		Recovery = Not calculated			
Cut	-82.9	-0.00022 mg/L	0.000114	-0.00022 mg/L	0.000114 53.04%
QC value within limits for Cu		Recovery = Not calculated			
Fet	4.8	0.00651 mg/L	0.002249	0.00651 mg/L	0.002249 34.53%
QC value within limits for Fe		Recovery = Not calculated			
Kt	78.6	0.0620 mg/L	0.02362	0.0620 mg/L	0.02362 38.08%
QC value within limits for K		Recovery = Not calculated			
Mgt	1.5	0.00065 mg/L	0.002274	0.00065 mg/L	0.002274 350.23%
QC value within limits for Mg		Recovery = Not calculated			
Mnt	-1221.7	-0.00207 mg/L	0.000021	-0.00207 mg/L	0.000021 1.01%
QC value within limits for Mn		Recovery = Not calculated			
Mot	10.4	0.00079 mg/L	0.000283	0.00079 mg/L	0.000283 35.88%
QC value within limits for Mo		Recovery = Not calculated			
Nat	-133.9	-0.0339 mg/L	0.00855	-0.0339 mg/L	0.00855 25.19%
QC value within limits for Na		Recovery = Not calculated			
Nit	0.7	0.00003 mg/L	0.000386	0.00003 mg/L	0.000386 >999.9%
QC value within limits for Ni		Recovery = Not calculated			
Pbt	7.2	0.00139 mg/L	0.000132	0.00139 mg/L	0.000132 9.49%
QC value within limits for Pb		Recovery = Not calculated			
Vt	59.9	0.00034 mg/L	0.000133	0.00034 mg/L	0.000133 39.40%
QC value within limits for V		Recovery = Not calculated			
Znt	6.6	0.00013 mg/L	0.000191	0.00013 mg/L	0.000191 147.75%
QC value within limits for Zn		Recovery = Not calculated			

All analyte(s) passed QC.

Sequence No.: 29  
 Sample ID: 2802090004\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 52  
 Date Collected: 2/27/2008 18:40:56  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802090004\_2X

Analyte	Mean Corrected		Calib.	Sample			RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	Std.Dev.	
Sca	394316.0	85.2 %	0.24				0.28%
Yr	182521.0	90.5 %	0.70				0.77%
Agt	-232.0	-0.00079 mg/L	0.000290	-0.00158 mg/L	0.000580	36.59%	
Alt	5594.3	1.38 mg/L	0.007	2.77 mg/L	0.014	0.50%	
B_t	53962.5	1.65 mg/L	0.003	3.31 mg/L	0.007	0.20%	
Bat	1279.2	0.0169 mg/L	0.00012	0.0337 mg/L	0.00023	0.70%	
Bet	-674.0	-0.00021 mg/L	0.000002	-0.00042 mg/L	0.000004	0.98%	
Cat	715379.7	122 mg/L	0.7	243 mg/L	1.4	0.59%	
Cdt	25.2	0.00090 mg/L	0.000013	0.00180 mg/L	0.000026	1.43%	
Cot	6.9	0.00025 mg/L	0.000171	0.00050 mg/L	0.000341	67.77%	
Crt	2147.9	0.0259 mg/L	0.00023	0.0518 mg/L	0.00046	0.89%	
Cut	766.0	0.00199 mg/L	0.000018	0.00398 mg/L	0.000035	0.89%	
Fet	485.4	0.660 mg/L	0.0056	1.32 mg/L	0.011	0.84%	
Kt	8027.6	6.33 mg/L	0.064	12.7 mg/L	0.13	1.02%	
Mgt	141185.4	59.8 mg/L	0.06	120 mg/L	0.1	0.10%	
Mnt	40397.4	0.0683 mg/L	0.00000	0.137 mg/L	0.00000	0.00%	
Moi	177.7	0.0134 mg/L	0.00016	0.0269 mg/L	0.00033	1.21%	
Nat	1634773.1	414 mg/L	3.0	829 mg/L	6.0	0.72%	
Nit	35.5	0.00151 mg/L	0.000094	0.00302 mg/L	0.000189	6.26%	
Pbt	-24.2	-0.00466 mg/L	0.001075	-0.00931 mg/L	0.002151	23.10%	
Vt	3767.7	0.0213 mg/L	0.00018	0.0427 mg/L	0.00037	0.86%	
Znt	996.7	0.0196 mg/L	0.00007	0.0392 mg/L	0.00015	0.37%	

Sequence No.: 30  
 Sample ID: 2802090005\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 53  
 Date Collected: 2/27/2008 18:45:18  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802090005\_2X

Analyte	Mean Corrected	Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units		
Sca	393887.3	85.1 %	1.21			1.43%
Yr	185127.9	91.8 %	0.99			1.08%
Agt	-136.7	-0.00047 mg/L	0.000087	-0.00093 mg/L	0.000174	18.61%
Alt	2197.0	0.543 mg/L	0.0039	1.09 mg/L	0.008	0.72%
B_t	42750.7	1.31 mg/L	0.003	2.62 mg/L	0.005	0.20%
Bat	1053.6	0.0139 mg/L	0.00006	0.0278 mg/L	0.00012	0.43%
Bet	-483.2	-0.00015 mg/L	0.000006	-0.00030 mg/L	0.000013	4.24%
Cat	1225803.9	208 mg/L	0.4	417 mg/L	0.8	0.20%
Cdt	1.1	0.00004 mg/L	0.000089	0.00007 mg/L	0.000178	240.06%
Cot	-6.7	-0.00024 mg/L	0.000101	-0.00049 mg/L	0.000203	41.52%
Crt	919.2	0.0111 mg/L	0.00025	0.0222 mg/L	0.00050	2.27%
Cut	236.9	0.00061 mg/L	0.000072	0.00123 mg/L	0.000145	11.80%
Fet	10.2	0.0139 mg/L	0.00638	0.0278 mg/L	0.01276	45.89%
Kt	9205.3	7.26 mg/L	0.103	14.5 mg/L	0.21	1.42%
Mgt	192167.6	81.4 mg/L	0.21	163 mg/L	0.4	0.26%
Mnt	50311.7	0.0851 mg/L	0.00013	0.170 mg/L	0.0003	0.16%
Mot	52.4	0.00396 mg/L	0.000777	0.00792 mg/L	0.001553	19.61%
Nat	985839.2	250 mg/L	0.6	500 mg/L	1.1	0.23%
Nit	29.6	0.00126 mg/L	0.000113	0.00251 mg/L	0.000226	8.97%
Pbt	-36.6	-0.00703 mg/L	0.002076	-0.0141 mg/L	0.00415	29.52%
Vt	204.4	0.00121 mg/L	0.000024	0.00242 mg/L	0.000049	2.02%
Znt	93.0	0.00182 mg/L	0.000099	0.00364 mg/L	0.000199	5.45%

Sequence No.: 31  
 Sample ID: 2802090006\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 54  
 Date Collected: 2/27/2008 18:49:40  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802090006\_2X

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	
Sca	398427.1	86.1 %	0.66			0.77%
Yr	185113.0	91.8 %	0.45			0.49%
Agt	-178.8	-0.00061 mg/L	0.000167	-0.00122 mg/L	0.000334	27.34%
Alt	9211.7	2.28 mg/L	0.014	4.56 mg/L	0.028	0.62%
B <sub>t</sub>	43979.7	1.35 mg/L	0.002	2.70 mg/L	0.004	0.13%
B <sub>a</sub>	827.0	0.0109 mg/L	0.00002	0.0218 mg/L	0.00004	0.18%
Bet	-323.5	-0.00010 mg/L	0.000007	-0.00020 mg/L	0.000014	7.09%
Cat	1058019.5	180 mg/L	0.9	360 mg/L	1.9	0.52%
Cdt	6.6	0.00024 mg/L	0.000071	0.00048 mg/L	0.000142	29.76%
Cot	5.7	0.00021 mg/L	0.000194	0.00041 mg/L	0.000388	93.90%
Crt	2530.5	0.0305 mg/L	0.00001	0.0611 mg/L	0.00001	0.02%
Cut	546.2	0.00142 mg/L	0.000113	0.00284 mg/L	0.000225	7.94%
Fet	164.6	0.224 mg/L	0.0018	0.448 mg/L	0.0036	0.80%
Kt	6148.3	4.85 mg/L	0.154	9.70 mg/L	0.309	3.19%
Mgt	191703.3	81.2 mg/L	0.54	162 mg/L	1.1	0.66%
Mnt	36605.1	0.0619 mg/L	0.00042	0.124 mg/L	0.0008	0.68%
Mot	39.9	0.00302 mg/L	0.000267	0.00603 mg/L	0.000535	8.87%
Nat	1177547.8	298 mg/L	1.1	597 mg/L	2.1	0.35%
Nit	28.5	0.00121 mg/L	0.000562	0.00242 mg/L	0.001123	46.37%
Pbt	-32.0	-0.00615 mg/L	0.000902	-0.0123 mg/L	0.00180	14.67%
Vt	1462.5	0.00839 mg/L	0.000062	0.0168 mg/L	0.00012	0.74%
Znt	394.7	0.00777 mg/L	0.000016	0.0155 mg/L	0.00003	0.21%

Sequence No.: 32  
 Sample ID: 2802090007\_20X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 20X

Autosampler Location: 55  
 Date Collected: 2/27/2008 18:54:02  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802090007\_20X

Analyte	Mean Corrected		Calib.	Sample			RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	Std.Dev.	
Sca	425273.0	91.8 %	0.92				1.00%
Yr	190856.9	94.7 %	0.46				0.48%
Agt	-88.3	-0.00030 mg/L	0.000375	-0.00603 mg/L	0.007491	124.28%	
Alt	25.9	0.00640 mg/L	0.009023	0.128 mg/L	0.1805	141.02%	
B <sub>t</sub>	14666.1	0.450 mg/L	0.0006	8.99 mg/L	0.013	0.14%	
B <sub>a</sub>	165.9	0.00219 mg/L	0.000050	0.0437 mg/L	0.00100	2.29%	
Bet	-922.5	-0.00029 mg/L	0.000004	-0.00581 mg/L	0.000076	1.30%	
Cat	205932.9	35.0 mg/L	0.31	700 mg/L	6.2	0.88%	
Cdt	-6.4	-0.00023 mg/L	0.000148	-0.00462 mg/L	0.002961	64.11%	
Cot	-7.5	-0.00027 mg/L	0.000055	-0.00544 mg/L	0.001099	20.19%	
Crt	61347.0	0.740 mg/L	0.0005	14.8 mg/L	0.01	0.07%	
Cut	85.8	0.00022 mg/L	0.000096	0.00445 mg/L	0.001919	43.14%	
Fet	3.0	0.00409 mg/L	0.003113	0.0818 mg/L	0.06225	76.09%	
Kt	3011.9	2.38 mg/L	0.064	47.5 mg/L	1.27	2.68%	
Mgt	44332.0	18.8 mg/L	0.04	376 mg/L	0.8	0.21%	
Mnt	171.5	0.00029 mg/L	0.000023	0.00580 mg/L	0.000451	7.77%	
Mot	11.7	0.00088 mg/L	0.000113	0.0177 mg/L	0.00226	12.80%	
Nat	334673.6	84.8 mg/L	0.14	1700 mg/L	2.9	0.17%	
Nit	-5.4	-0.00023 mg/L	0.000220	-0.00460 mg/L	0.004405	95.77%	
Pbt	-20.3	-0.00391 mg/L	0.000315	-0.0782 mg/L	0.00629	8.05%	
Vt	-280.6	0.00251 mg/L	0.000148	0.0501 mg/L	0.00296	5.91%	
Znt	35.2	0.00069 mg/L	0.000107	0.0139 mg/L	0.00215	15.46%	

Sequence No.: 35  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/27/2008 19:07:07  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	411403.9	88.9 %	0.50			0.56%
Yr	183986.0	91.3 %	0.36			0.40%
Agt	290576.6	0.992 mg/L	0.0010	0.992 mg/L	0.0010	0.10%
QC value within limits for Ag		Recovery = 99.22%				
Alt	21155.9	5.23 mg/L	0.024	5.23 mg/L	0.024	0.46%
QC value within limits for Al		Recovery = 104.66%				
B_t	87724.1	2.68 mg/L	0.006	2.68 mg/L	0.006	0.22%
QC value within limits for B		Recovery = 107.16%				
Bat	409137.6	5.39 mg/L	0.007	5.39 mg/L	0.007	0.14%
QC value within limits for Ba		Recovery = 107.80%				
Bet	6916871.2	2.18 mg/L	0.020	2.18 mg/L	0.020	0.91%
QC value within limits for Be		Recovery = 108.84%				
Cat	307440.8	52.2 mg/L	0.06	52.2 mg/L	0.06	0.11%
QC value within limits for Ca		Recovery = 104.48%				
Cdt	59880.0	2.16 mg/L	0.003	2.16 mg/L	0.003	0.12%
QC value within limits for Cd		Recovery = 107.84%				
Cot	147493.3	5.38 mg/L	0.011	5.38 mg/L	0.011	0.21%
QC value within limits for Co		Recovery = 107.70%				
Crt	445870.5	5.38 mg/L	0.004	5.38 mg/L	0.004	0.08%
QC value within limits for Cr		Recovery = 107.62%				
Cut	2064416.6	5.36 mg/L	0.005	5.36 mg/L	0.005	0.10%
QC value within limits for Cu		Recovery = 107.23%				
Fet	3866.2	5.26 mg/L	0.032	5.26 mg/L	0.032	0.61%
QC value within limits for Fe		Recovery = 105.22%				
Kt	64703.9	51.0 mg/L	0.27	51.0 mg/L	0.27	0.53%
QC value within limits for K		Recovery = 102.09%				
Mgt	123189.8	52.2 mg/L	0.16	52.2 mg/L	0.16	0.30%
QC value within limits for Mg		Recovery = 104.39%				
Mnt	3193026.6	5.40 mg/L	0.000	5.40 mg/L	0.000	0.00%
QC value within limits for Mn		Recovery = 108.00%				
Mot	70226.7	5.31 mg/L	0.002	5.31 mg/L	0.002	0.04%
QC value within limits for Mo		Recovery = 106.19%				
Nat	203350.4	51.5 mg/L	0.18	51.5 mg/L	0.18	0.35%
QC value within limits for Na		Recovery = 103.09%				
Nit	127953.3	5.43 mg/L	0.006	5.43 mg/L	0.006	0.11%
QC value within limits for Ni		Recovery = 108.66%				
Pbt	28215.9	5.43 mg/L	0.005	5.43 mg/L	0.005	0.10%
QC value within limits for Pb		Recovery = 108.55%				
Vt	936555.3	5.30 mg/L	0.010	5.30 mg/L	0.010	0.19%
QC value within limits for V		Recovery = 105.94%				
Znt	278360.9	5.45 mg/L	0.010	5.45 mg/L	0.010	0.19%
QC value within limits for Zn		Recovery = 108.92%				

All analyte(s) passed QC.

Sequence No.: 36  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/27/2008 19:10:20  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units	Std.Dev.		
Sca	445895.1	96.3 %	1.37				1.42%
Yr	194808.2	96.6 %	0.02				0.02%
Agt	-78.6	-0.00027 mg/L	0.000072	-0.00027 mg/L	0.000072	26.87%	
QC value within limits for Ag		Recovery = Not calculated					
Alt	0.0	0.00000 mg/L	0.004239	0.00000 mg/L	0.004239	>999.9%	
QC value within limits for Al		Recovery = Not calculated					
B_t	904.7	0.0277 mg/L	0.00179	0.0277 mg/L	0.00179	6.45%	
QC value greater than the upper limit for B		Recovery = Not calculated					
Bat	-0.6	-0.00001 mg/L	0.000065	-0.00001 mg/L	0.000065	797.78%	
QC value within limits for Ba		Recovery = Not calculated					
Bet	-161.0	-0.00005 mg/L	0.000015	-0.00005 mg/L	0.000015	29.85%	
QC value within limits for Be		Recovery = Not calculated					
Cat	27.5	0.00466 mg/L	0.000837	0.00466 mg/L	0.000837	17.94%	
QC value within limits for Ca		Recovery = Not calculated					
Cdt	7.0	0.00025 mg/L	0.000034	0.00025 mg/L	0.000034	13.70%	
QC value within limits for Cd		Recovery = Not calculated					
Cot	-0.6	-0.00002 mg/L	0.000110	-0.00002 mg/L	0.000110	519.84%	
QC value within limits for Co		Recovery = Not calculated					
Crt	7.7	0.00009 mg/L	0.000086	0.00009 mg/L	0.000086	92.81%	
QC value within limits for Cr		Recovery = Not calculated					
Cut	-13.5	-0.00004 mg/L	0.000003	-0.00004 mg/L	0.000003	8.89%	
QC value within limits for Cu		Recovery = Not calculated					
Fet	1.6	0.00220 mg/L	0.004127	0.00220 mg/L	0.004127	187.99%	
QC value within limits for Fe		Recovery = Not calculated					
Kt	143.8	0.113 mg/L	0.0168	0.113 mg/L	0.0168	14.82%	
QC value within limits for K		Recovery = Not calculated					
Mgt	3.7	0.00157 mg/L	0.000459	0.00157 mg/L	0.000459	29.14%	
QC value within limits for Mg		Recovery = Not calculated					
Mnt	-1294.9	-0.00219 mg/L	0.000043	-0.00219 mg/L	0.000043	1.95%	
QC value within limits for Mn		Recovery = Not calculated					
Mot	8.3	0.00063 mg/L	0.000008	0.00063 mg/L	0.000008	1.30%	
QC value within limits for Mo		Recovery = Not calculated					
Nat	204.9	0.0519 mg/L	0.00936	0.0519 mg/L	0.00936	18.02%	
QC value within limits for Na		Recovery = Not calculated					
Nit	5.9	0.00025 mg/L	0.000058	0.00025 mg/L	0.000058	23.14%	
QC value within limits for Ni		Recovery = Not calculated					
Pbt	-1.7	-0.00033 mg/L	0.000537	-0.00033 mg/L	0.000537	165.22%	
QC value within limits for Pb		Recovery = Not calculated					
Vt	21.8	0.00012 mg/L	0.000144	0.00012 mg/L	0.000144	116.97%	
QC value within limits for V		Recovery = Not calculated					
Znt	2.4	0.00005 mg/L	0.000030	0.00005 mg/L	0.000030	65.18%	
QC value within limits for Zn		Recovery = Not calculated					
QC Failed. Retry.							

Sequence No.: 37  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/27/2008 19:12:53  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units	Std.Dev.		
Sca	447248.9	96.6 %	0.33				0.35%
Yr	193518.5	96.0 %	0.35				0.36%
Agt	-93.2	-0.00032 mg/L	0.000127	-0.00032 mg/L	0.000127	39.80%	
QC value within limits for Ag		Recovery = Not calculated					
Alt	35.8	0.00886 mg/L	0.003251	0.00886 mg/L	0.003251	36.70%	

	QC value within limits for Al	Recovery = Not calculated				
B_t	639.5	0.0196 mg/L	0.00063	0.0196 mg/L	0.00063	3.19%
Bat	0.4	0.00001 mg/L	0.000084	0.00001 mg/L	0.000084	>999.9%
Bet	-163.1	-0.00005 mg/L	0.000018	-0.00005 mg/L	0.000018	34.71%
Cat	29.2	0.00497 mg/L	0.001068	0.00497 mg/L	0.001068	21.49%
Cdt	4.5	0.00016 mg/L	0.000124	0.00016 mg/L	0.000124	78.14%
Cot	-1.7	-0.00006 mg/L	0.000278	-0.00006 mg/L	0.000278	442.88%
Crt	6.8	0.00008 mg/L	0.000106	0.00008 mg/L	0.000106	128.33%
Cut	19.0	0.00005 mg/L	0.000004	0.00005 mg/L	0.000004	8.48%
Fet	0.6	0.00082 mg/L	0.002758	0.00082 mg/L	0.002758	335.98%
Kt	86.0	0.0679 mg/L	0.00308	0.0679 mg/L	0.00308	4.54%
Mgt	3.9	0.00165 mg/L	0.000785	0.00165 mg/L	0.000785	47.66%
Mnt	-1322.7	-0.00224 mg/L	0.000018	-0.00224 mg/L	0.000018	0.81%
Mot	1.0	0.00008 mg/L	0.000452	0.00008 mg/L	0.000452	584.39%
Nat	71.9	0.0182 mg/L	0.00608	0.0182 mg/L	0.00608	33.35%
Nit	0.1	0.00000 mg/L	0.000213	0.00000 mg/L	0.000213	>999.9%
Pbt	-8.7	-0.00167 mg/L	0.000973	-0.00167 mg/L	0.000973	58.22%
Vt	-17.6	-0.00010 mg/L	0.000127	-0.00010 mg/L	0.000127	129.38%
Znt	-1.2	-0.00002 mg/L	0.000133	-0.00002 mg/L	0.000133	555.52%
	QC value within limits for Zn	Recovery = Not calculated				
	All analyte(s) passed QC.					

Sequence No.: 38  
 Sample ID: MCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 2/27/2008 19:16:16  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	424207.6	91.6 %	0.98			1.07%
Yr	188520.7	93.5 %	0.42			0.45%
Agt	147829.1	0.505 mg/L	0.0065	0.505 mg/L	0.0065	1.29%
QC value within limits for Ag		Recovery = 100.95%				
Alt	10364.3	2.56 mg/L	0.002	2.56 mg/L	0.002	0.08%
QC value within limits for Al		Recovery = 102.55%				
B_t	41913.1	1.28 mg/L	0.018	1.28 mg/L	0.018	1.41%
QC value within limits for B_t		Recovery = 102.39%				
Bat	202445.1	2.67 mg/L	0.006	2.67 mg/L	0.006	0.24%
QC value within limits for Ba		Recovery = 106.68%				
Bet	3401508.8	1.07 mg/L	0.002	1.07 mg/L	0.002	0.20%
QC value within limits for Be		Recovery = 107.05%				
Cat	151994.9	25.8 mg/L	0.06	25.8 mg/L	0.06	0.23%
QC value within limits for Ca		Recovery = 103.31%				
Cdt	28968.9	1.04 mg/L	0.014	1.04 mg/L	0.014	1.39%
QC value within limits for Cd		Recovery = 104.36%				
Cot	72311.4	2.64 mg/L	0.040	2.64 mg/L	0.040	1.50%
QC value within limits for Co		Recovery = 105.60%				
Crt	217444.1	2.62 mg/L	0.001	2.62 mg/L	0.001	0.02%
QC value within limits for Cr		Recovery = 104.97%				
Cut	1027008.0	2.67 mg/L	0.005	2.67 mg/L	0.005	0.20%
QC value within limits for Cu		Recovery = 106.69%				
Fet	1895.4	2.58 mg/L	0.008	2.58 mg/L	0.008	0.30%
QC value within limits for Fe		Recovery = 103.17%				
Kt	31530.6	24.9 mg/L	0.00	24.9 mg/L	0.00	0.01%
QC value within limits for K		Recovery = 99.49%				
Mgt	61268.8	26.0 mg/L	0.10	26.0 mg/L	0.10	0.38%
QC value within limits for Mg		Recovery = 103.84%				
Mnt	1602006.2	2.71 mg/L	0.008	2.71 mg/L	0.008	0.28%
QC value within limits for Mn		Recovery = 108.37%				
Mot	34129.6	2.58 mg/L	0.039	2.58 mg/L	0.039	1.53%
QC value within limits for Mo		Recovery = 103.22%				
Nat	99942.6	25.3 mg/L	0.03	25.3 mg/L	0.03	0.12%
QC value within limits for Na		Recovery = 101.34%				
Nit	62774.9	2.67 mg/L	0.038	2.67 mg/L	0.038	1.42%
QC value within limits for Ni		Recovery = 106.61%				
Pbt	13848.6	2.66 mg/L	0.041	2.66 mg/L	0.041	1.53%
QC value within limits for Pb		Recovery = 106.55%				
Vt	462750.8	2.62 mg/L	0.002	2.62 mg/L	0.002	0.09%
QC value within limits for V		Recovery = 104.69%				
Znt	135975.3	2.66 mg/L	0.038	2.66 mg/L	0.038	1.45%
QC value within limits for Zn		Recovery = 106.41%				

All analyte(s) passed QC.

**Sample Information Detail Report**  
**Document Name: 080227A**

**File Description**  
080227A

**Parameters Common to All Samples**

Batch ID	080227A
Volume Units	mL
Weight Units	g

**Parameters That Vary By Sample**

Sample No	A/S Location	Sample ID	Initial Sample Wt.
1	16	MRL/2	
2	18	FILTERCHECK	
3	38	MBLANK	
4	39	LCS	
5	40	LCSD	
6	41	2802270142	
7	42	2802270142MS	
8	43	2802270142MSD	
9	44	2802270143	
10	45	2802270182	
11	46	2802270191	
12	47	2802200187	
13	48	2802200579	
14	49	2802200590	
15	50	2802200593	
16	51	2802200601	
17	52	2802200616	
18	53	2802220457	
19	54	2802220457MS	
20	55	2802220457MSD	
21	56	2802250088	
22	57	2802260010	
23	58	2802260012	
24	59	2802260014	
25	60	2802260015	
26	61	2802260021	
27	62	2802260025	
28	63	2802220425_10X	
29	64	2802220430_20X	
30	65	MBLANK2007	
31	21	MRL	
32	66	MRL2007	
33	67	LCSD2007	
34	68	2802150061_2X	
35	69	2802150061_2XMS	
36	70	2802150061_2XMSD	
37	71	2802150067_2X	
38	72	2802150067_2XMS	
39	73	2802150067_2XMSD	
40	74	2802150062_2X	
41	75	2802150064_2X	
42	76	2802150065_2X	
43	77	2802150070_2X	
44	78	2802150071_2X	
45	79	2802150072_2X	
46	80	2802150075_2X	
47	81	2802150076_2X	
48	82	2802150077_2X	
49	83	2802150078_2X	
50	84	2802150079_2X	
51	85	2802150080_2X	
52	86	2802150081_2X	
53	87	2802150082_2X	
54	88		

**Sample Information Detail Report**  
**Document Name: 080227A**

55            89            2802150085\_2X  
56            90            2802150086\_2X  
57            91            2802150087\_2X  
58            92            2802150088\_2X

<b>Sample No</b>	<b>Sample Prep. Vol.</b>	<b>Aliquot Volume</b>	<b>Diluted To Vol.</b>
1		1	1
2		1	1
3		1	1
4		1	1
5		1	1
6		1	1
7		1	1
8		1	1
9		1	1
10		1	1
11		1	1
12		1	1
13		1	1
14		1	1
15		1	1
16		1	1
17		1	1
18		1	1
19		1	1
20		1	1
21		1	1
22		1	1
23		1	1
24		1	1
25		1	1
26		1	1
27		1	1
28		1	10
29		1	20
30		1	1
31		1	1
32		1	1
33		1	1
34		1	1
35		1	2
36		1	2
37		1	2
38		1	2
39		1	2
40		1	2
41		1	2
42		1	2
43		1	2
44		1	2
45		1	2
46		1	2
47		1	2
48		1	2
49		1	2
50		1	2
51		1	2
52		1	2
53		1	2
54		1	2
55		1	2
56		1	2
57		1	2
58		1	2

Fet	1.2	0.00157 mg/L	0.002629	0.00157 mg/L	0.002629	167.85%		
Kt	153.2	QC value within limits for Fe	Recovery = Not calculated	0.121 mg/L	0.0443	0.121 mg/L	0.0443	36.67%
Mgt	-0.1	QC value within limits for K	Recovery = Not calculated	-0.00003 mg/L	0.000087	-0.00003 mg/L	0.000087	250.47%
Mnt	-1345.5	QC value within limits for Mg	Recovery = Not calculated	-0.00228 mg/L	0.000022	-0.00228 mg/L	0.000022	0.96%
Mot	5.5	QC value within limits for Mn	Recovery = Not calculated	0.00042 mg/L	0.000127	0.00042 mg/L	0.000127	30.42%
Nat	277.4	QC value within limits for Mo	Recovery = Not calculated	0.0703 mg/L	0.00828	0.0703 mg/L	0.00828	11.78%
Nit	3.4	QC value within limits for Na	Recovery = Not calculated	0.00014 mg/L	0.000036	0.00014 mg/L	0.000036	24.94%
Pbt	-6.3	QC value within limits for Ni	Recovery = Not calculated	-0.00122 mg/L	0.000650	-0.00122 mg/L	0.000650	53.51%
Vt	20.2	QC value within limits for Pb	Recovery = Not calculated	0.00011 mg/L	0.000577	0.00011 mg/L	0.000577	508.26%
Znt	-0.2	QC value within limits for V	Recovery = Not calculated	-0.00001 mg/L	0.000099	-0.00001 mg/L	0.000099	>999.9%
		QC value within limits for Zn	Recovery = Not calculated					
All analyte(s) passed QC.								

Sequence No.: 41  
 Sample ID: ECV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/27/2008 19:28:48  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ECV

Analyte	Mean Corrected		Calib.	Sample		RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	
Sca	413420.6	89.3 %	1.51			1.69%
Yr	185910.9	92.2 %	0.07			0.08%
Agt	284858.2	0.973 mg/L	0.0152	0.973 mg/L	0.0152	1.57%
QC value within limits for Ag		Recovery = 97.27%				
Alt	21013.8	5.20 mg/L	0.020	5.20 mg/L	0.020	0.39%
QC value within limits for Al		Recovery = 103.96%				
B_t	85361.9	2.61 mg/L	0.051	2.61 mg/L	0.051	1.96%
QC value within limits for B		Recovery = 104.27%				
Bat	401742.9	5.29 mg/L	0.086	5.29 mg/L	0.086	1.62%
QC value within limits for Ba		Recovery = 105.85%				
Bet	6877970.1	2.16 mg/L	0.039	2.16 mg/L	0.039	1.81%
QC value within limits for Be		Recovery = 108.23%				
Cat	303356.2	51.5 mg/L	0.20	51.5 mg/L	0.20	0.38%
QC value within limits for Ca		Recovery = 103.09%				
Cdt	58836.1	2.12 mg/L	0.034	2.12 mg/L	0.034	1.61%
QC value within limits for Cd		Recovery = 105.96%				
Cot	144663.5	5.28 mg/L	0.084	5.28 mg/L	0.084	1.59%
QC value within limits for Co		Recovery = 105.63%				
Crt	436020.1	5.26 mg/L	0.091	5.26 mg/L	0.091	1.73%
QC value within limits for Cr		Recovery = 105.24%				
Cut	2069681.7	5.38 mg/L	0.002	5.38 mg/L	0.002	0.04%
QC value within limits for Cu		Recovery = 107.51%				
Fet	3817.1	5.19 mg/L	0.064	5.19 mg/L	0.064	1.23%
QC value within limits for Fe		Recovery = 103.88%				
Kt	64122.0	50.6 mg/L	0.24	50.6 mg/L	0.24	0.48%
QC value within limits for K		Recovery = 101.17%				
Mgt	121703.5	51.6 mg/L	0.18	51.6 mg/L	0.18	0.34%
QC value within limits for Mg		Recovery = 103.13%				
Mnt	3176513.4	5.37 mg/L	0.018	5.37 mg/L	0.018	0.34%
QC value within limits for Mn		Recovery = 107.44%				
Mot	68964.7	5.21 mg/L	0.097	5.21 mg/L	0.097	1.87%
QC value within limits for Mo		Recovery = 104.29%				
Nat	202407.9	51.3 mg/L	0.03	51.3 mg/L	0.03	0.06%
QC value within limits for Na		Recovery = 102.62%				
Nit	125102.3	5.31 mg/L	0.100	5.31 mg/L	0.100	1.88%
QC value within limits for Ni		Recovery = 106.23%				
Pbt	27598.3	5.31 mg/L	0.097	5.31 mg/L	0.097	1.83%
QC value within limits for Pb		Recovery = 106.17%				
Vt	933789.0	5.28 mg/L	0.016	5.28 mg/L	0.016	0.31%
QC value within limits for V		Recovery = 105.62%				
Znt	272520.6	5.33 mg/L	0.092	5.33 mg/L	0.092	1.73%
QC value within limits for Zn		Recovery = 106.64%				

All analyte(s) passed QC.

Sequence No.: 42  
 Sample ID: ECB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/27/2008 19:32:01  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ECB

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc.	Units		
Sca	443265.6	95.7 %	0.59				0.62%
Yr	196244.1	97.3 %	0.14				0.15%
Agt	-136.0	-0.00046 mg/L	0.000217	-0.00046	mg/L	0.000217	46.68%
QC value within limits for Ag		Recovery = Not calculated					
Alt	-5.2	-0.00128 mg/L	0.005883	-0.00128	mg/L	0.005883	460.98%
QC value within limits for Al		Recovery = Not calculated					
B_t	945.9	0.0290 mg/L	0.00112	0.0290	mg/L	0.00112	3.85%
QC value greater than the upper limit for B		Recovery = Not calculated					
Bat	-0.7	-0.00001 mg/L	0.000036	-0.00001	mg/L	0.000036	383.16%
QC value within limits for Ba		Recovery = Not calculated					
Bet	-173.3	-0.00005 mg/L	0.000028	-0.00005	mg/L	0.000028	51.55%
QC value within limits for Be		Recovery = Not calculated					
Cat	20.2	0.00342 mg/L	0.000811	0.00342	mg/L	0.000811	23.68%
QC value within limits for Ca		Recovery = Not calculated					
Cdt	10.9	0.00039 mg/L	0.000092	0.00039	mg/L	0.000092	23.81%
QC value within limits for Cd		Recovery = Not calculated					
Cot	3.8	0.00014 mg/L	0.000055	0.00014	mg/L	0.000055	39.91%
QC value within limits for Co		Recovery = Not calculated					
Crt	5.2	0.00006 mg/L	0.000076	0.00006	mg/L	0.000076	119.94%
QC value within limits for Cr		Recovery = Not calculated					
Cut	14.3	0.00004 mg/L	0.000154	0.00004	mg/L	0.000154	413.85%
QC value within limits for Cu		Recovery = Not calculated					
Fet	-0.2	-0.00025 mg/L	0.000996	-0.00025	mg/L	0.000996	393.12%
QC value within limits for Fe		Recovery = Not calculated					
Kt	79.9	0.0630 mg/L	0.02741	0.0630	mg/L	0.02741	43.49%
QC value within limits for K		Recovery = Not calculated					
Mgt	1.5	0.00065 mg/L	0.000967	0.00065	mg/L	0.000967	148.09%
QC value within limits for Mg		Recovery = Not calculated					
Mnt	-1338.8	-0.00226 mg/L	0.000006	-0.00226	mg/L	0.000006	0.26%
QC value within limits for Mn		Recovery = Not calculated					
Mot	7.0	0.00053 mg/L	0.000144	0.00053	mg/L	0.000144	27.13%
QC value within limits for Mo		Recovery = Not calculated					
Nat	536.2	0.136 mg/L	0.0095	0.136	mg/L	0.0095	6.97%
QC value within limits for Na		Recovery = Not calculated					
Nit	0.1	0.00001 mg/L	0.000241	0.00001	mg/L	0.000241	>999.9%
QC value within limits for Ni		Recovery = Not calculated					
Pbt	-4.2	-0.00081 mg/L	0.000005	-0.00081	mg/L	0.000005	0.59%
QC value within limits for Pb		Recovery = Not calculated					
Vt	3.3	0.00002 mg/L	0.000082	0.00002	mg/L	0.000082	428.62%
QC value within limits for V		Recovery = Not calculated					
Znt	2.8	0.00005 mg/L	0.000060	0.00005	mg/L	0.000060	109.55%
QC value within limits for Zn		Recovery = Not calculated					
QC Failed. Retry.							

Sequence No.: 43  
 Sample ID: ECB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/27/2008 19:34:34  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ECB

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc.	Units		
Sca	444845.8	96.1 %	0.38				0.39%
Yr	196557.8	97.5 %	0.48				0.49%
Agt	-263.0	-0.00090 mg/L	0.000047	-0.00090	mg/L	0.000047	5.24%
QC value within limits for Ag		Recovery = Not calculated					
Alt	30.1	0.00745 mg/L	0.000227	0.00745	mg/L	0.000227	3.05%

	QC value within limits for Al	Recovery = Not calculated					
B_t	689.7	0.0211 mg/L	0.00061	0.0211 mg/L	0.00061	2.90%	
QC value greater than the upper limit for B	Recovery = Not calculated						
Bat	3.1	0.00004 mg/L	0.000033	0.00004 mg/L	0.000033	83.18%	
QC value within limits for Ba	Recovery = Not calculated						
Bet	-135.7	-0.00004 mg/L	0.000028	-0.00004 mg/L	0.000028	65.73%	
QC value within limits for Be	Recovery = Not calculated						
Cat	23.6	0.00401 mg/L	0.000172	0.00401 mg/L	0.000172	4.29%	
QC value within limits for Ca	Recovery = Not calculated						
Cdt	8.2	0.00029 mg/L	0.000148	0.00029 mg/L	0.000148	50.66%	
QC value within limits for Cd	Recovery = Not calculated						
Cot	-5.6	-0.00020 mg/L	0.000359	-0.00020 mg/L	0.000359	177.27%	
QC value within limits for Co	Recovery = Not calculated						
Crt	1.4	0.00002 mg/L	0.000063	0.00002 mg/L	0.000063	379.61%	
QC value within limits for Cr	Recovery = Not calculated						
Cut	13.2	0.00003 mg/L	0.000022	0.00003 mg/L	0.000022	63.96%	
QC value within limits for Cu	Recovery = Not calculated						
Fet	1.6	0.00222 mg/L	0.000334	0.00222 mg/L	0.000334	15.07%	
QC value within limits for Fe	Recovery = Not calculated						
Kt	79.4	0.0626 mg/L	0.01204	0.0626 mg/L	0.01204	19.23%	
QC value within limits for K	Recovery = Not calculated						
Mgt	0.7	0.00030 mg/L	0.001236	0.00030 mg/L	0.001236	418.95%	
QC value within limits for Mg	Recovery = Not calculated						
Mnt	-1338.5	-0.00226 mg/L	0.000002	-0.00226 mg/L	0.000002	0.08%	
QC value within limits for Mn	Recovery = Not calculated						
Mot	9.2	0.00070 mg/L	0.000126	0.00070 mg/L	0.000126	18.10%	
QC value within limits for Mo	Recovery = Not calculated						
Nat	432.0	0.110 mg/L	0.0031	0.110 mg/L	0.0031	2.86%	
QC value within limits for Na	Recovery = Not calculated						
Nit	6.1	0.00026 mg/L	0.000501	0.00026 mg/L	0.000501	192.83%	
QC value within limits for Ni	Recovery = Not calculated						
Pbt	-6.8	-0.00130 mg/L	0.000106	-0.00130 mg/L	0.000106	8.15%	
QC value within limits for Pb	Recovery = Not calculated						
Vt	13.3	0.00008 mg/L	0.000044	0.00008 mg/L	0.000044	58.92%	
QC value within limits for V	Recovery = Not calculated						
Znt	0.6	0.00001 mg/L	0.000016	0.00001 mg/L	0.000016	151.35%	
QC value within limits for Zn	Recovery = Not calculated						
QC Failed. Retry.							

Sequence No.: 44

Sample ID: ECB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 0

Date Collected: 2/27/2008 19:37:07

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Mean Data: ECB

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Sca	451374.4	97.5	%	0.23			0.24%
Yr	195020.3	96.7	%	0.49			0.51%
Agt	-89.1	-0.00030	mg/L	0.000374	-0.00030	mg/L	123.11%
QC value within limits for Ag	Recovery = Not calculated						
Alt	6.1	0.00150	mg/L	0.008621	0.00150	mg/L	0.008621
QC value within limits for Al	Recovery = Not calculated						
B_t	554.6	0.0170	mg/L	0.00011	0.0170	mg/L	0.00011
QC value within limits for B	Recovery = Not calculated						
Bat	3.3	0.00004	mg/L	0.000015	0.00004	mg/L	0.000015
QC value within limits for Ba	Recovery = Not calculated						
Bet	-164.1	-0.00005	mg/L	0.000014	-0.00005	mg/L	0.000014
QC value within limits for Be	Recovery = Not calculated						
Cat	29.1	0.00495	mg/L	0.001131	0.00495	mg/L	0.001131
QC value within limits for Ca	Recovery = Not calculated						
Cdt	3.3	0.00012	mg/L	0.000096	0.00012	mg/L	0.000096
QC value within limits for Cd	Recovery = Not calculated						
Cot	4.0	0.00014	mg/L	0.000140	0.00014	mg/L	0.000140
QC value within limits for Co	Recovery = Not calculated						
Crt	3.4	0.00004	mg/L	0.000088	0.00004	mg/L	0.000088
QC value within limits for Cr	Recovery = Not calculated						
Cut	-128.0	-0.00033	mg/L	0.000032	-0.00033	mg/L	0.000032
QC value within limits for Cu	Recovery = Not calculated						

**Analytical Sequence**

Method: 200.7&amp;6010\_070703

Seq.	Loc.	ID	Status
1	0	Calib Blank 1	Applied
2	15	Standard 2	Applied
3	15	ICV	QC Passed
4	9	LINEARITY	QC Passed
5	10	ICSA	QC Passed
6	11	ICSAB	QC Failed
7	0	Wash	QC Passed
8	12	QC-25 1ppm	QC Passed
9	4	CCV	QC Passed
10	0	ICB	QC Passed
11	20	MRL	QC Failed
12	20	MRL	QC Failed
13	38	MBLANK2007	Analyzed
14	39	MRL2007	Analyzed
15	40	LCS2007	Analyzed
16	41	LCSD2007	Analyzed
17	42	2802200171	Analyzed
18	43	2802200171MS	Analyzed
19	44	2802200171MSD	Analyzed
20	45	2802220550	Analyzed
21	46	2802220550MS	Analyzed
22	47	2802220550MSD	Analyzed
23	4	CCV	QC Passed
24	0	CCB	QC Passed
25	48	2802200048	Analyzed
26	49	2802220412	Analyzed
27	50	2802200580	Analyzed
28	51	2802220424_5X	Analyzed
29	52	2802090004_2X	Analyzed
30	53	2802090005_2X	Analyzed
31	54	2802090006_2X	Analyzed
32	55	2802090007_20X	Analyzed
33	56	2802150089_5X	Analyzed
34	57	2802150090_2X	Analyzed
35	4	CCV	QC Passed
36	0	CCB	QC Failed
37	0	CCB	QC Passed
38	5	MCV	QC Passed
39	58	2802150092_2X	Analyzed
40	59	2802150095_5X	Analyzed
41	4	ECV	QC Passed
42	0	ECB	QC Failed
43	0	ECB	QC Failed
44	0	ECB	QC Passed

# ICP SUMMARY SHEET

File ID: 080229  
Date Started: 2/29/08  
Analyst ID: WHB

## SAMPLE ID

2802070595	(7:25)	LINEARITY	(8:04)	Wash	(8:15)
SOULTION CHE	(8:46)	2802070519_2	(8:56)	2802080261_2	(9:07)
2802080260_2	(9:26)	2802070518_2	(9:30)	2802080254_2	(9:34)
2802080259_2	(9:38)	2802080262_5	(9:43)	2802080263_5	(9:47)
2802080264_2	(9:51)	2802080265_1	(9:56)	2802080267_1	(10:00)
2802080271_2	(10:22)	2802080272_2	(10:27)	2802082273_2	(10:31)
2802080274_1	(10:35)	2802080277_1	(10:40)	2802080319_5	(10:44)
2802090001_1	(10:48)	2802090002_2	(10:53)	2802090003_2	(10:57)
2802070496_2	(11:25)	2802070497_2	(11:37)	2802070497DU	(11:45)
2802070485_5	(12:03)	2802070485_5	(12:16)	2802070486_2	(12:20)
2802070487_2	(12:24)	2802070488_2	(12:29)	2802070489_2	(12:33)
2802070490_2	(12:37)	2802070491_5	(12:42)	2802070492_2	(12:46)
2802070493_2	(12:51)	2802070494_2	(12:55)	2802070495_2	(13:10)
2802070498_5	(13:15)	2802070500_1	(13:19)	2802070501_1	(13:23)
2802070502_2	(13:28)	2802070503_1	(13:32)	2802070504_2	(13:36)
2802070512_5	(13:40)	2802070495_2	(14:08)	2802070498_5	(14:12)
2802070500_1	(14:16)	2802070501_1	(14:21)	2802070502_2	(14:25)
2802070503_1	(14:29)	2802070504_2	(14:34)	2802070512_5	(14:38)

COMMENT:

"Cr 60/0"

Analyst: WBN

Peer Reviewed By: DYL 3/4/08

Approved By: \_\_\_\_\_

# BATCH NUMBER for 080229

Test Parameter:

SCA SIO2\_A YR AG AL AS B\_ BA BE CA CD CO CR CU FE K MG MN MO

Batch ID: 2802070595

2802070595

Batch ID: 2802070519\_2X

2802070519_2X	2802080261_2X	2802080260_2X
2802070518_2X	2802080254_2X	2802080259_2X
2802080262_5X	2802080263_5X	2802080264_2X
2802080265_10X	2802080267_10X	2802080271_2X
2802080272_2X	2802082273_2X	2802080274_10X
2802080277_10X	2802080319_5X	2802090001_10X
2802090002_2X	2802090003_2X	

Batch ID: 28020470496\_2X

2802070496_2X	2802070497_2X	2802070485_5X
2802070485_5X	2802070486_2X	2802070487_2X
2802070488_2X	2802070489_2X	2802070490_2X
2802070491_5X	2802070492_2X	2802070493_2X
2802070494_2X	2802070495_2X	2802070498_5X
2802070500_10X	2802070501_10X	2802070502_2X
2802070503_10X	2802070504_2X	2802070512_5X
2802070495_2X	2802070498_5X	2802070500_10X
2802070501_10X	2802070502_2X	2802070503_10X
2802070504_2X	2802070512_5X	

EPA 200.7/6010B QC Check List

Analyst WB\ Analysis Date 2/29/08 Reviewer/Date \_\_\_\_\_

Instrument Perkin Elmer Optima 4300DV

All sample analyzed within 6 month holding time

All sample raw concentration below the high standard or linear range or marked for dilution and rerun

Initial and closing QC

ICSV within +/- 5%

Linearity check +/- 10%

ICSAB +/- 20%

QCS +/- 5%

MRL +/- 50%

Middle, closing and batch QC

FilterCheck < 1/2 MRL

MBLANK < 1/2 MRL

LCS +/- 15%

MS/MSD +/- 30% (200.7) +/- 25% (6010B)

CCV/MCV/ECV +/- 10%

ICB/CCB/ECB < 1/2 MRL

CCB ran after the CCV

General QC

RPD between MS/MSD is within +/- 20%

RPD between LCS/LCSD is within +/- 20%

Internal standards 60 TO 125%

All pH of the samples are < 2

No more than 20 samples per batch

MS is run at frequency of 1 every 10 samples and MSD is run at frequency of 1 every 20 samples

ND QIR needed for failed QC

Special Det Code noted on the cover sheet *Cx6010.*

R value for multi point calibration is > 0.995

Proper MRL check ran for special low MRL samples

Reagent and Standards used for  
Optima 4300 DV  
Updated 01/11/08

Int: WB\  
Date: 2/29/08

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
ICV	2/29/08	7:14	1	N/A	N/A		
ICB	2/29/08	7:16	1	N/A	N/A		
MRL	2/29/08	7:17	1	N/A	N/A		
MBLANK	2/29/08	7:19	1	N/A	N/A		
LCS	2/29/08	7:21	1	N/A	N/A		
LCSD	2/29/08	7:23	1	N/A	N/A		
2802070595	2/29/08	7:25	1	N/A	N/A		
2802070595MS	2/29/08	7:27	1	N/A	N/A		
2802070595MSD	2/29/08	7:29	1	N/A	N/A		
ECV	2/29/08	7:31	1	N/A	N/A		
ECB	2/29/08	7:33	1	N/A	N/A		
MRL	2/29/08	7:35	1	N/A	N/A		
ICV	2/29/08	8:00	1	9.9115	9.91	95-105	99.1%
LINEARITY	2/29/08	8:04	1	0.0020	.002		
ICSA	2/29/08	8:07	1	-0.0004	ND	80-120	
ICSAB	2/29/08	8:11	1	.24499	.245	80-120	97.9%
Wash	2/29/08	8:15	1	-0.0003	ND		
QC-25 1ppm	2/29/08	8:21	1	1.0238	1.0		
CCV	2/29/08	8:25	1	5.1487	5.15	90-110	102%
ICB	2/29/08	8:29	1	-0.0003	ND		
MRL	2/29/08	8:35	1	0.0100	.01	50-150	100%
MBLANK	2/29/08	8:39	1	-0.0001	ND		
MRL2007	2/29/08	8:42	1	0.0101	.0101		
SOULTION CHECK	2/29/08	8:46	1	.99813	1.0		
LCS	2/29/08	8:50	1	.98195	.982 ✓	85-115	98.1%
LCSD	2/29/08	8:53	1	.98755	.988 ✓	85-115	98.7% <i>(97.3)</i>
2802070519_2X	2/29/08	8:56	2	-0.0001	ND ✓		
2802070519_2XMS	2/29/08	9:00	2	.99755	.998 ✓	[ 0.998] 49.8 <i>(97.3)</i>	
2802070519_2XMSD	2/29/08	9:04	2	.97297	.973 ✓	[ 0.973] 48.6 <i>(97.3)</i>	
2802070519_2XT	2/29/08	9:04	2		2.00	70 - 130	
2802080261_2X	2/29/08	9:07	2	.30743	.310 ✓	✓ [ 1.015] 50.7 <i>(97.3)</i>	
2802080261_2XMS	2/29/08	9:11	2	1.3228	1.32 ✓		
CCV	2/29/08	9:15	1	5.2616	5.26	90-110	105%
CCB	2/29/08	9:19	1	-0.0000	ND		
2802080261_2XMSD	2/29/08	9:22	2	1.2682	1.27 ✓	[ 0.961] 48.0 <i>(96.1)</i>	
2802080261_2XT	2/29/08	9:22	2		2.00	70 - 130	
2802080260_2X	2/29/08	9:26	2	1.4386	1.4 ✓		
2802070518_2X	2/29/08	9:30	2	2.9282	2.9 ✓		
2802080254_2X	2/29/08	9:34	2	2.5153	2.5 ✓		
2802080259_2X	2/29/08	9:38	2	.10747	.110 ✓		
2802080262_5X	2/29/08	9:43	5	8.2014	8.2 ✓		
2802080263_5X	2/29/08	9:47	5	6.6355	6.6 ✓		
2802080264_2X	2/29/08	9:51	2	4.3717	4.4 ✓		
2802080265_10X	2/29/08	9:56	10	28.998	29 ✓		
2802080267_10X	2/29/08	10:00	10	35.304	35 ✓		
CCV	2/29/08	10:04	1	5.2611	5.26	90-110	105%

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment	
CCB	2/29/08	10:13	1	0.0015	.0015			
MCV	2/29/08	10:19	1	2.6653	2.67	90-110	106%	
2802080271_2X	2/29/08	10:22	2	.13586	.140✓			
2802080272_2X	2/29/08	10:27	2	2.8455	2.8✓			
2802082273_2X	2/29/08	10:31	2	2.7977	2.8✓			
2802080274_10X	2/29/08	10:35	10	33.187	33✓			
2802080277_10X	2/29/08	10:40	10	25.657	26✓			
2802080319_5X	2/29/08	10:44	5	0.0598	.060✓			
2802090001_10X	2/29/08	10:48	10	30.685	31✓			
2802090002_2X	2/29/08	10:53	2	2.7345	2.7✓			
2802090003_2X	2/29/08	10:57	2	4.4851	4.5✓			
MBLANK	2/29/08	11:02	1	0.0023	.0023			
CCV	2/29/08	11:05	1	5.3320	5.33	90-110	106%	
CCB	2/29/08	11:09	1	0.0016	.0016			
MRL	2/29/08	11:12	1	0.0118	.0118	50-150	117%	
MRL2007	2/29/08	11:16	1	0.0112	.0112✓			
LCS	2/29/08	11:19	1	.98253	.983✓	85-115	98.2%	
LCSD	2/29/08	11:22	1	.98138	.981✓	85-115	98.1%	
2802070496_2X	2/29/08	11:25	2	1.2183	1.2✓			
2802070496_2XMS	2/29/08	11:30	2	2.2171	2.22	[ 0.9991-49.9 Q		
2802070496_2XMSD	2/29/08	11:33	2	2.1477	2.15	[ 2.1481-107% ✓		
2802070496_2XT	2/29/08	11:33	2		2.00	70 - 130. 93)		
2802070497_2X	2/29/08	11:37	2	2.9145	2.9✓			
2802070497_2SMS	2/29/08	11:41	1	4.0058	4.01 1.10	[ 4.006] 400-Q		
2802070497DUP_2X	2/29/08	11:45	2	3.8744	3.9 0.91	56/ 108% ✓		
CCV	MSD 24	2/29/08	11:51	1	5.4038	5.4	90-110 108% ✓	
CCB	2/29/08	11:54	1	0.0007	0.0007			
MCV	2/29/08	12:00	1	2.7522	2.75	90-110	110% Q	
2802070485_5X	2/29/08	12:03	5	6.4800	6.5✓			
MCV	2/29/08	12:13	1	2.5850	2.59	90-110	103%	
2802070485_5X	2/29/08	12:16	5	6.4659	6.5			
2802070486_2X	2/29/08	12:20	2	8.5395	8.5✓			
2802070487_2X	2/29/08	12:24	2	.33457	.330✓			
2802070488_2X	2/29/08	12:29	2	4.9611	5.0✓			
2802070489_2X	2/29/08	12:33	2	1.0767	1.1✓			
2802070490_2X	2/29/08	12:37	2	1.2814	1.3✓			
2802070491_5X	2/29/08	12:42	5	3.7685	3.8✓			
2802070492_2X	2/29/08	12:46	2	.36083	.360✓			
2802070493_2X	2/29/08	12:51	2	0.0460	.046✓			
2802070494_2X	2/29/08	12:55	2	.85933	.860✓			
CCV	2/29/08	13:03	1	5.2913	5.29	90-110	105%	
CCB	2/29/08	13:07	1	0.0006	0.0005			
2802070495_2X	2/29/08	13:10	2	3.4718	3.5			
2802070498_5X	2/29/08	13:15	5	11.409	11			
2802070500_10X	2/29/08	13:19	10	21.881	22			
2802070501_10X	2/29/08	13:23	10	23.771	24			
2802070502_2X	2/29/08	13:28	2	.98218	.980			

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
2802070502_10X	2/29/08	13:32	10	27.057	27		
2802070504_2X	2/29/08	13:36	2	-418.23	ND		
2802070512_5X	2/29/08	13:40	5	-37788.	ND		
ECV	2/29/08	13:54	1	-657.53	ND	90-110	-1315% Q
CEV	2/29/08	14:01	1	5.1124	5.11	90-110	102%
CCB	2/29/08	14:04	1	0.0006	0.0005		
2802070495_2X	2/29/08	14:08	2	3.4994	3.5 ✓		
2802070498_5X	2/29/08	14:12	5	11.512	12 ✓		
2802070500_10X	2/29/08	14:16	10	22.026	22 ✓		
2802070501_10X	2/29/08	14:21	10	23.991	24 ✓		
2802070502_2X	2/29/08	14:25	2	.98262	.980 ✓		
2802070503_10X	2/29/08	14:29	10	26.624	27 ✓		
2802070504_2X	2/29/08	14:34	2	.96070	.960 ✓		
2802070512_5X	2/29/08	14:38	5	14.102	14 ✓		
ECV	2/29/08	14:47	1	5.2283	5.23	90-110	104%
ECB	2/29/08	14:50	1	0.0013	.0013		

## Landscape Summary

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Sample ID	Time	SCA	SIO2 A	YR	AG	AL	AS	B	BA	BE	CA	CD
ICV	7:14	N/A	10.7(50)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICB	7:16	N/A	0.0026	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MRL	7:17	N/A	0.047 (.2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MBLINK	7:19	N/A	0.0039	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LCS	7:21	N/A	2.30(10)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LCSD	7:23	N/A	2.30(.10)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2802070595	7:25	N/A	0.0488	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2802070595MS	7:27	N/A	2.388	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2802070595MSD	7:29	N/A	2.301	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ECV	7:31	N/A	5.63(25)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ECB	7:33	N/A	0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MRL	7:35	N/A	0.045 (.2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICV	8:00	N/A	N/A	1.99/2	10.0/10	9.99/10	4.99	9.94/10	3.97/4	9.95/100	4.85/5	
LINEARITY	8:04	N/A	N/A	-0.32	-0.014	0.020	0.002	-0.000	-0.000	292/300	0.000	
ICSA	8:07	N/A	N/A	-0.32	247/250	-1.34	0.004	0.002	-0.000	251/250	0.002	
ICSAB	8:11	N/A	N/A	0.459	240/250	-1.38	-0.001	0.255/	0.245/.25	244/250	0.486/.5	
Wash	8:15	N/A	N/A	-0.012	-0.038	-0.004	0.0064	0.0001	0.0001	0.0052	0.0001	
QC-25 1ppm	8:21	N/A	N/A	0.4328	0.9992	0.9340	0.9265	1.054	0.9636	1.057	0.9581	
CCV	8:25	N/A	N/A	0.959/1	5.0/2/5	4.82/5	2.55	5.16/5	2.09/2	51.2/50	1.98/2	
ICB	8:29	N/A	N/A	-0.011	-0.020	0.0130	0.0187	0.0001	0.0001	0.0018	-0.000	
MRL	8:35	N/A	N/A	0.009/.01	0.054/	0.05	0.094/.1	0.056	0.021/	0.001/.001	1.02/1	0.005/.005
MBLINK	8:39	N/A	N/A	-0.0010	0.0077	0.0061	0.0050	0.0001	0.0001	0.0269	0.0001	
MRL2 <del>0.5</del>	8:42	N/A	N/A	0.009/.01	0.052/	0.05	0.097/.1	0.051	0.020/	0.001/.001	1.04/1	0.005/.005
SOULITION CHECK	8:46	N/A	N/A	N/A	1.871	N/A	0.4859	1.006	0.0519	50.85	0.2092	
LCS	8:50	N/A	N/A	N/A	1.86/2	N/A	0.478	0.982/1	0.051/-0.05	4.9/4/50	0.205/.2	
LCSD	8:53	N/A	N/A	N/A	1.85/2	N/A	0.483	0.996/1	0.051/	50.5/50	0.208/.2	
2802070519_2X	8:56	N/A	N/A	N/A	0.0206	N/A	0.0099	0.0006	0.0003	0.1861	-0.0001	
2802070519_2XMS	9:00	N/A	N/A	N/A	1.922	N/A	0.4757	1.010	0.0519	51.93	0.2067	
2802070519_2XMSD	9:04	N/A	N/A	N/A	1.867	N/A	0.4566	0.9627	0.0506	51.36	0.1970	
2802080261_2X	9:07	N/A	N/A	N/A	-0.0015	N/A	1.317	0.0218	-0.0001	108.4	-0.0000	
2802080261_2XMS	9:11	N/A	N/A	N/A	1.900	N/A	1.804	1.057	0.0535	160.2	0.2155	
CCV	9:15	N/A	N/A	N/A	4.89/5	N/A	2.54	5.26/5	2.14/2	52.0/50	2.08/2	
CCB	9:19	N/A	N/A	N/A	0.0001	N/A	0.0118	0.0000	0.0001	0.0010	0.0004	
2802080261_2XMSD	9:22	N/A	N/A	N/A	1.815	N/A	1.748	1.006	0.0517	155.8	0.2030	
2802080260_2X	9:26	N/A	N/A	N/A	0.0159	N/A	3.050	0.0267	-0.0004	211.1	0.0014	
2802070518_2X	9:30	N/A	N/A	N/A	0.7502	N/A	5.090	0.0335	-0.0006	236.5	0.0007	
2802080254_2X	9:34	N/A	N/A	N/A	0.3176	N/A	3.125	0.0347	-0.0009	421.4	-0.0006	
2802080259_2X	9:38	N/A	N/A	N/A	0.3861	N/A	0.7851	0.0307	-0.0000	86.81	0.0001	
2802080262_5X	9:43	N/A	N/A	N/A	0.2761	N/A	1.741	0.0346	-0.0020	481.1	-0.0007	
2802080263_5X	9:47	N/A	N/A	N/A	0.0984	N/A	5.986	0.0442	-0.0016	593.3	-0.0009	
2802080264_2X	9:51	N/A	N/A	N/A	1.165	N/A	6.275	0.0407	-0.0012	582.3	0.0008	
2802080265_10X	9:56	N/A	N/A	N/A	1.121	N/A	4.969	0.0581	-0.0051	816.3	-0.0037	
2802080267_10X	10:00	N/A	N/A	N/A	6.214	N/A	4.273	0.0574	-0.0052	917.5	-0.0017	
CCV	10:04	N/A	N/A	N/A	4.73/5	N/A	2.59	5.29/5	2.17/2	51.4/50	2.09/2	
CCB	10:13	N/A	N/A	N/A	-0.0084	N/A	0.0300	-0.0001	0.0001	0.0022	0.0002	
MCV	10:19	N/A	N/A	N/A	1.30	2.10(1)	1.10	2.6/4/25	1.0/1	1.0/1	1.0/1	
2802080271_2X	10:22	N/A	N/A	N/A	0.6222	N/A	1.224	0.0228	0.0001	73.81	0.0016	
2802080272_2X	10:27	N/A	N/A	N/A	0.0332	N/A	10.03	0.0128	-0.0005	46.20	0.0062	
2802082273_2X	10:31	N/A	N/A	N/A	0.0338	N/A	N/A	0.0126	N/A	46.12	0.0057	

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Sample ID	Time	SCA	SIO2 A	YR	AG	AL	AS	B	BE	BA	CA	CD
2802080274_10X	10:35	N/A	N/A	N/A	0.0430	N/A	N/A	0.0508	N/A	947.2	- .0024	
2802080277_10X	10:40	N/A	N/A	N/A	-0.0083	N/A	N/A	0.0441	N/A	779.5	- .0053	
2802080319_5X	10:44	N/A	N/A	N/A	0.0010	N/A	N/A	0.1287	N/A	\$1177.9	- .0024	
2802090001_10X	10:48	N/A	N/A	N/A	0.4667	N/A	N/A	0.0522	N/A	765.8	- .0045	
2802090002_2X	10:53	N/A	N/A	N/A	1.164	N/A	N/A	0.0343	N/A	145.1	0.0014	
2802090003_2X	10:57	N/A	N/A	N/A	0.1283	N/A	N/A	0.0365	N/A	87.57	0.0031	
MBLANK	11:02	N/A	N/A	N/A	0.0110	N/A	N/A	-0.0000	N/A	0.0379	- .0000	
CCV	11:05	N/A	N/A	N/A	4.74/5	N/A	N/A	5.36/5	N/A	52.0/50	2.11/2	
CCB	11:09	N/A	N/A	N/A	0.0011	N/A	N/A	-0.0001	N/A	0.0022	0.0004	
MRL	11:12	N/A	N/A	N/A	0.044/.05	N/A	N/A	0.021/.02	N/A	1.04/1	0.007/.005	
MRL2007	11:16	N/A	N/A	N/A	0.034/.05	N/A	N/A	0.021/.02	N/A	1.06/1	0.007/.005	
LCS	11:19	N/A	N/A	N/A	1.65 (2)	N/A	N/A	0.999/1	N/A	47.8/50	0.206/.2	
LCSD	11:22	N/A	N/A	N/A	1.72/2	N/A	N/A	0.998/1	N/A	48.2/50	0.206/.2	
2802070496_2X	11:25	N/A	N/A	N/A	-0.0017	N/A	N/A	0.0176	N/A	463.7	0.0016	
2802070496_2XMS	11:30	N/A	N/A	N/A	1.778	N/A	N/A	1.050	N/A	508.3	0.2232	
2802070496_2XMSD	11:33	N/A	N/A	N/A	1.663	N/A	N/A	1.027	N/A	487.9	0.2156	
2802070497_2X	11:37	N/A	N/A	N/A	-0.0239	N/A	N/A	0.0189	N/A	556.3	0.0012	
2802070497_2SMS	11:41	N/A	N/A	N/A	1.780	N/A	N/A	1.088	N/A	607.0	0.2303	
2802070497_DUP_2X	11:45	N/A	N/A	N/A	1.748	N/A	N/A	1.046	N/A	550.7	0.2217	
CCV	11:51	N/A	N/A	N/A	4.64/5	N/A	N/A	5.44/5	N/A	52.0/50	2.14/2	
CCB	11:54	N/A	N/A	N/A	-0.0077	N/A	N/A	-0.0001	N/A	0.0030	0.0005	
MCV	12:00	N/A	N/A	N/A	2.39/2.5	N/A	N/A	2.79 (2.5)	N/A	26.6/25	1.08/1	
2802070485_5X	12:03	N/A	N/A	N/A	0.0065	N/A	N/A	0.0170	N/A	273.3	- .0001	
MCV	12:13	N/A	N/A	N/A	2.16 (2.5)	N/A	N/A	2.62/2.5	N/A	25.0/25	1.02/1	
2802070485_5X	12:16	N/A	N/A	N/A	0.0171	N/A	N/A	0.0176	N/A	278.6	0.0001	
2802070486_2X	12:20	N/A	N/A	N/A	0.0186	N/A	N/A	0.0376	N/A	298.9	0.0009	
2802070487_2X	12:24	N/A	N/A	N/A	-0.0155	N/A	N/A	0.0277	N/A	216.3	0.0023	
2802070488_2X	12:29	N/A	N/A	N/A	0.1315	N/A	N/A	0.0214	N/A	617.9	0.0104	
2802070489_2X	12:33	N/A	N/A	N/A	0.0952	N/A	N/A	0.0167	N/A	472.8	0.0015	
2802070490_2X	12:37	N/A	N/A	N/A	-0.0066	N/A	N/A	0.0148	N/A	517.2	0.0014	
2802070491_5X	12:42	N/A	N/A	N/A	-0.0021	N/A	N/A	0.0137	N/A	367.2	- .0015	
2802070492_2X	12:46	N/A	N/A	N/A	1.348	N/A	N/A	0.1470	N/A	413.6	0.0495	
2802070493_2X	12:51	N/A	N/A	N/A	0.0105	N/A	N/A	0.0474	N/A	234.2	0.0133	
2802070494_2X	12:55	N/A	N/A	N/A	1.764	N/A	N/A	0.0201	N/A	351.5	0.0015	
CCV	13:03	N/A	N/A	N/A	4.43 (5)	N/A	N/A	5.35/5	N/A	50.8/50	2.10/2	
CCB	13:07	N/A	N/A	N/A	-0.0062	N/A	N/A	-0.0000	N/A	0.0052	0.0005	
2802070495_2X	13:10	N/A	N/A	N/A	2.382	N/A	N/A	0.0325	N/A	367.7	0.0039	
2802070498_5X	13:15	N/A	N/A	N/A	-0.0262	N/A	N/A	0.0325	N/A	669.7	- .0007	
2802070500_10X	13:19	N/A	N/A	N/A	0.0269	N/A	N/A	0.0514	N/A	709.9	- .0046	
2802070501_10X	13:23	N/A	N/A	N/A	0.0176	N/A	N/A	0.0611	N/A	856.0	- .0033	
2802070502_2X	13:28	N/A	N/A	N/A	0.0371	N/A	N/A	0.0410	N/A	417.3	0.0016	
2802070503_10X	13:32	N/A	N/A	N/A	-0.0419	N/A	N/A	0.0586	N/A	882.0	- .0028	
2802070504_2X	13:36	N/A	N/A	N/A	-\$2126E+00	N/A	N/A	-\$8.6741	N/A	\$-2729E+08	-2.8196	
2802070512_5X	13:40	N/A	N/A	N/A	\$1400.2	N/A	N/A	-\$57.6296	N/A	\$174377.9	-56.9125	
ECV	13:54	N/A	N/A	N/A	\$16416 (5)	N/A	N/A	N/A	N/A	\$113467 (50)	N/A	
CCV	14:01	N/A	N/A	N/A	4.26 (5)	N/A	N/A	5.21/5	N/A	48.8/50	2.04/2	
CCB	14:04	N/A	N/A	N/A	-0.0108	N/A	N/A	0.0001	N/A	0.0039	0.0006	
2802070495_2X	14:08	N/A	N/A	N/A	2.283	N/A	N/A	0.0335	N/A	372.6	0.0048	
2802070498_5X	14:12	N/A	N/A	N/A	-0.0593	N/A	N/A	0.0331	N/A	674.3	0.0003	
2802070500_10X	14:16	N/A	N/A	N/A	-0.0493	N/A	N/A	0.0508	N/A	711.6	- .0024	

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Sample ID	Time	SCA	SIO2 A	YR	AG	AI	AS	B	BA	BE	CA	CD
2802070501_10X	14:21	N/A	N/A	N/A	0.0141	N/A	N/A	0.0622	N/A	873.2	- .0035	
2802070502_2X	14:25	N/A	N/A	N/A	0.0460	N/A	N/A	0.0417	N/A	419.8	0.0017	
2802070503_10X	14:29	N/A	N/A	N/A	-.0142	N/A	N/A	0.0571	N/A	884.1	-.0036	
2802070504_2X	14:34	N/A	N/A	N/A	0.2006	N/A	N/A	0.0209	N/A	324.8	0.0039	
2802070512_5X	14:38	N/A	N/A	N/A	0.3891	N/A	N/A	0.0238	N/A	57.91	0.0147	
ECV	14:47	N/A	N/A	N/A	4.10(5)	N/A	N/A	5.33/5	N/A	48.9/50	2.09/2	
ECB	14:50	N/A	N/A	N/A	-.0037	N/A	N/A	0.0001	N/A	0.0059	0.0009	

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Sample ID	Time	CO	CR	CU	FE	K	MG	MN	MO	NA	NI	PB
ICV	7:14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICB	7:16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MRL	7:17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MBLINK	7:19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LCS	7:21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LCSD	7:23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2802070595	7:25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2802070595MSD	7:27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ECV	7:29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ECB	7:31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MRL	7:33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICV	7:35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LINEARITY	8:04	9.94	9.91/10	9.96/10	9.86/10	99.9/100	99.8/100	9.94/10	9.93/10	100/100	9.95/10	9.86/10
ICSA	8:07	0.002	0.002	-0.014	97.6	314	187	0.001	0.001	301/300	-0.000	-0.003
ICSA,B	8:11	0.001	-0.000	-0.015	97.0/100	0.283	234/250	0.002	0.001	0.137	-0.001	-0.037
Wash	8:15	0.235/.25	0.245/.25	0.241/.25	97.0/100	0.132	234/250	0.254/.25	0.001	0.057	0.461/.5	0.449/.5
QC-25 1ppm	8:21	1.053	1.024	0.9944	1.042	9.643	1.075	1.054	0.9786	1.053	1.074	1.054
CCV	8:25	5.19	5.15/5	5.16/5	5.19/5	48.9/50	50.9/50	5.21/5	49.8/50	5.23/5	5.13/5	5.13/5
ICB	8:29	0.0002	-0.0003	-0.0005	0.0096	0.1012	0.0031	-0.014	0.0009	0.0228	0.0002	0.0022
MRL	8:35	0.052/.05	0.010/.01	0.009/.01	0.021/.02	1.02/1	0.108/.1	0.001(-.002)	0.020/.02	1.02/1	0.021/.02	0.023/.02
MBLINK	8:39	0.0000	-0.0001	-0.0003	0.007	0.0119	0.0797	0.0058	-0.0019	0.0005	0.0292	0.0002
MRL205	8:42	0.053/.05	0.010/.01	0.009/.01	0.026/.02	1.02/1	0.104/.1	0.000(-.002)	0.020/.02	1.02/1	0.021/.02	0.021/.02
SOULJON CHECK	8:46	1.023	0.9981	0.9816	5.007	23.65	19.99	N/A	0.9936	48.71	0.5163	1.029
LCS	8:50	0.999/1	0.982/1	0.979/1	4.97/5	18.6/20	19.6/20	N/A	0.966/1	47.3/50	0.505/.5	1.00/1
LCSD	8:53	1.01/1	0.988/1	0.984/1	4.96/5	18.9/20	20.0/20	N/A	0.981/1	48.1/50	0.51/0	1.02/1
2802070519_2X	8:56	0.0002	-0.0001	-0.012	0.0356	0.1151	0.0706	N/A	0.0016	0.2655	-0.0000	0.0001
2802070519_2XMS	9:00	1.024	0.9976	0.9885	5.205	20.00	21.26	N/A	0.9860	49.06	0.5159	1.025
2802070519_2XMSD	9:04	0.9755	0.9730	0.9661	5.083	19.62	20.93	N/A	0.9418	48.53	0.4925	0.9813
2802080261_2X	9:07	-0.0006	0.3074	0.0002	0.0329	5.872	33.48	N/A	0.0129	206.7	0.0001	-0.0048
2802080261_2XMS	9:11	1.041	1.323	1.024	5.205	25.66	54.30	N/A	1.022	252.8	0.5189	1.022
CCV	9:15	5.26	5.25/5	5.10/5	5.22/5	48.2/50	51.0/50	N/A	5.18/5	49.2/50	5.32/5	5.35/5
CCB	9:19	0.0000	-0.0000	-0.007	0.0043	0.0585	0.0021	N/A	0.0011	0.0214	-0.0002	0.0001
2802080261_2XMSD	9:22	0.9932	1.268	0.9875	4.990	24.84	52.87	N/A	0.9792	247.5	0.4957	0.9890
2802080260_2X	9:26	0.0005	1.439	-0.030	29.29	13.23	111.7	N/A	0.0107	550.3	-0.0010	-0.0088
2802070518_2X	9:30	-0.0003	2.928	0.0026	0.3764	14.65	131.4	N/A	0.0180	508.7	0.0021	-0.0113
2802080254_2X	9:34	-0.0003	2.515	0.0010	0.1596	16.04	173.2	N/A	0.0124	563.3	0.0005	-0.0165
2802080259_2X	9:38	-0.0004	0.1075	0.0004	0.2258	6.446	37.37	N/A	0.0100	186.8	-0.0000	-0.0081
2802080262_5X	9:43	-0.0021	8.201	0.0001	0.0825	27.48	242.7	N/A	0.0203	81534.2	-0.0016	-0.0354
2802080263_5X	9:47	0.0002	6.636	-0.015	0.0502	24.44	266.4	N/A	0.0230	81032.3	-0.0009	-0.0297
2802080264_2X	9:51	-0.0000	4.372	0.0053	0.3993	33.17	281.0	N/A	0.0426	\$1103.9	0.0022	-0.0171
2802080265_10X	9:56	0.0001	29.00	0.0009	0.8189	42.42	431.8	N/A	0.0235	\$22336.9	0.0008	-0.0472
2802080267_10X	10:00	0.0013	35.30	-0.0005	0.4895	35.69	471.6	N/A	0.0130	\$2474.7	0.0032	-0.0404
CCV	10:04	5.27	5.26/5	5.18/5	5.16/5	46.8/50	50.1/50	N/A	5.22/5	48.4/50	5.36/5	5.38/5
CCB	10:13	0.0002	0.0015	-0.0009	0.0012	0.0420	0.010	N/A	0.0006	0.1203	-0.0002	-0.0003
MCV	10:19	2.69	2.67/2.5	2.63/2.5	2.63/2.5	23.8/25	25.9/25	N/A	2.64/2.5	24.8/25	2.73/2.5	2.75(2.5)
2802080271_2X	10:22	0.0005	0.1359	0.0009	0.2877	5.305	18.17	N/A	0.0132	0.0011	-0.0060	N/A
2802080272_2X	10:27	0.0002	2.846	0.0006	2.045	18.41	35.78	N/A	0.0259	866.0	0.0005	-0.0092
2802082273_2X	10:31	0.0004	2.798	-0.0005	1.964	18.36	35.81	N/A	0.0261	841.9	0.0001	N/A

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2802080274_10X	10:35	0.0018	33.19	-.0025	0.0250	39.60	459.4	N/A	0.0276	%2297.9	-.0009	N/A
2802080277_10X	10:40	0.0014	25.66	-.0036	-.0120	37.27	398.7	N/A	0.0280	\$1959.0	-.0019	N/A
2802080319_5X	10:44	0.0153	0.0598	0.0138	0.7283	119.6	899.1	N/A	0.5839	\$6826.0	0.0612	N/A
2802090001_10X	10:48	-.0022	30.69	-.0004	0.2415	35.78	377.1	N/A	0.0340	\$2326.6	-.0015	N/A
2802090002_2X	10:53	0.0006	2.735	0.0028	0.4464	16.70	90.13	N/A	0.0233	992.9	0.0031	N/A
2802090003_2X	10:57	0.0001	4.485	0.0007	0.1037	34.20	61.82	N/A	0.0304	\$1156.6	0.0002	N/A
MBLINK	11:02	0.0001	0.0023	-.0007	0.0073	0.2380	0.0032	N/A	0.0004	1.009	0.0002	N/A
CCV	11:05	5.33	5.33/5	5.17/5	5.07/5	46.8/50	50.7/50	N/A	5.30/5	49.0/50	5.42/5	N/A
CCB	11:09	0.0001	0.0016	-.0006	0.0033	0.1917	0.0017	N/A	0.0012	0.2370	0.0001	N/A
MRL	11:12	0.053/ .05	0.012/ .01	0.010/ .01	0.022/ .02	1.04/1	0.107/ .1	N/A	0.021/ .02	1.18/1	0.022/ .02	N/A
MRL2/007	11:16	0.054/ .05	0.011/ .01	0.010/ .01	0.024/ .02	1.02/1	0.108/ .1	N/A	0.021/ .02	1.19/1	0.022/ .02	N/A
LCS	11:19	0.999/1	0.983/1	0.987/1	4.66/5	17.2/20	18.6/20	N/A	0.986/1	44.9/50	0.509/.5	N/A
LCSD	11:22	0.998/1	0.981/1	0.981/1	4.85/5	17.4/20	19.3/20	N/A	0.986/1	45.5/50	0.508/.5	N/A
2802070496_2X	11:25	0.0002	1.218	0.0024	-.0093	19.36	251.9	N/A	0.0654	842.3	-.0001	N/A
2802070496_2XMS	11:30	1.021	2.217	1.075	5.071	39.03	268.5	N/A	1.084	882.0	0.5098	N/A
28020470496_2XMSD	11:33	0.9920	2.148	1.036	4.757	37.19	256.5	N/A	1.058	844.1	0.4967	N/A
2802070497_2X	11:37	0.0003	2.915	0.0006	-.0088	18.41	294.6	N/A	0.0299	780.5	0.0026	N/A
2802070497_2SMS	11:41	1.041	4.006	1.088	4.995	37.47	314.3	N/A	1.086	832.1	0.5212	N/A
2802070497_DUP_2X	11:45	1.011	3.874	1.048	4.945	18.30	293.6	N/A	1.053	778.0	0.5039	N/A
CCV	11:51	5.39	5.40/5	5.34/5	5.13/5	46.1/50	50.4/50	N/A	5.39/5	48.6/50	5.49/5	N/A
CCB	11:54	0.0002	0.0007	-.0004	0.0036	0.2500	-.0004	N/A	0.0014	0.1652	0.0005	N/A
MCV	12:00	2.77	2.75(2.5)	2.73/2.5	2.68/2.5	23.5/25	26.0/25	N/A	2.75/2.5	24.9/25	2.83 (2.5)	N/A
2802070485_5X	12:03	0.0007	6.480	0.0004	0.0218	15.76	133.5	N/A	0.0093	612.2	0.0006	N/A
MCV	12:13	2.59	2.59/2.5	2.55/2.5	2.46/2.5	21.8(25)	24.3/25	N/A	2.57/2.5	23.2/25	2.66/2.5	N/A
2802070485_5X	12:16	0.0012	6.466	0.0009	0.0214	16.08	134.2	N/A	0.0116	626.1	0.0012	N/A
2802070486_2X	12:20	0.0010	8.540	0.0019	0.0200	67.06	176.2	N/A	0.0434	810.89	0.0003	N/A
2802070487_2X	12:24	0.0063	0.3346	0.0020	0.0205	8.359	102.4	N/A	0.1303	826.9	0.0044	N/A
2802070488_2X	12:29	0.0004	4.961	0.0017	0.0778	24.46	373.7	N/A	0.0171	808.5	0.0021	N/A
2802070489_2X	12:33	-.0005	1.077	0.0011	0.0453	20.90	260.6	N/A	0.0867	956.4	0.0006	N/A
2802070490_2X	12:37	0.0001	1.281	0.0009	0.0005	16.49	246.0	N/A	0.0391	740.4	0.0010	N/A
2802070491_5X	12:42	-.0009	3.769	-.0017	-.0067	14.26	236.0	N/A	0.0157	502.3	0.0010	N/A
2802070492_2X	12:46	-.0007	0.3608	0.0032	0.4672	22.59	202.6	N/A	0.0616	465.5	0.0007	N/A
2802070493_2X	12:51	-.0003	0.0460	0.0017	-.0008	17.17	116.1	N/A	0.0815	380.8	0.0019	N/A
2802070494_2X	12:55	0.0009	0.8593	0.0025	0.5763	20.87	236.2	N/A	0.0850	\$1134.3	0.0036	N/A
CCV	13:03	5.29	5.29/5	5.26/5	4.99/5	44.7(50)	48.9/50	N/A	5.29/5	47.6/50	5.40/5	N/A
CCB	13:07	0.0001	0.0006	-.0004	0.0041	0.2434	0.0043	N/A	0.0011	0.1837	0.0002	N/A
2802070495_2X	13:10	0.0015	3.472	0.0076	0.6545	16.30	210.1	N/A	0.0114	480.9	0.0040	N/A
2802070498_5X	13:15	0.0008	11.41	-.0004	0.0025	35.49	414.9	N/A	0.0290	\$1158.2	0.0040	N/A
2802070500_10X	13:19	0.0031	21.88	-.0017	0.0113	67.11	414.2	N/A	0.0454	\$1812.2	0.0076	N/A
2802070501_10X	13:23	0.0023	23.77	-.0005	-.0508	59.41	452.1	N/A	0.0293	\$1758.7	0.0072	N/A
2802070502_2X	13:28	-.0006	0.9822	0.0019	0.7069	38.24	190.8	N/A	0.0289	758.5	0.0009	N/A
2802070503_10X	13:32	0.0015	27.06	0.0007	0.0179	36.49	429.7	N/A	0.0233	\$2043.1	0.0003	N/A
2802070504_2X	13:36	2.145	8-418.2338 %5.0563	-%1789E+01%	-.1862E+07%	-1.1652E+08	N/A	8-58.6206	-\$11119E+09	-\$3039	N/A	
2802070512_5X	13:40	16.11	8-.3779E+01%-81.0597	\$1399.2	\$1333687.2	\$60442.6	N/A	-\$117.3751	\$6541986.0	10.81	N/A	
ECV	13:54	N/A	N/A	818361(5)	\$165252(50)	\$178313 (50)	N/A	N/A	8174487 (50)	N/A	N/A	
CCV	14:01	5.11/5	5.11/5	4.82/5	43.3 (50)	46.9/50	N/A	5.15/5	46.2/50	5.23/5		
CCB	14:04	0.0001	0.0006	-.0002	0.0037	N/A	N/A	0.0016	N/A	0.0007	N/A	
2802070495_2X	14:08	0.0018	3.499	0.0086	0.6599	N/A	N/A	0.0103	N/A	0.0039	N/A	
2802070498_5X	14:12	-.0002	11.51	0.0022	0.0078	N/A	N/A	0.0308	N/A	0.0044	N/A	
2802070512_5X	14:16	0.0037	22.03	0.0001	0.0124	N/A	N/A	0.0385	N/A	0.0064	N/A	

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2802070501_10X	14:21	-0.0000	23.99	-0.0002	0.0347	N/A	N/A	0.0301	N/A	0.0064	N/A	
2802070502_2X	14:25	0.0001	0.9826	0.0026	0.6957	N/A	N/A	0.0301	N/A	0.0014	N/A	
2802070503_10X	14:29	0.0030	26.62	0.0015	-0.0140	N/A	N/A	0.0188	N/A	0.0020	N/A	
2802070504_2X	14:34	-0.0001	0.9607	0.0023	0.2398	N/A	N/A	0.1311	N/A	0.0049	N/A	
2802070512_5X	14:38	0.0067	14.10	0.0067	0.5204	N/A	N/A	0.0366	N/A	0.0048	N/A	
ECV	14:47	5.27	5.23/5	5.41/5	4.96/5	N/A	N/A	5.28/5	N/A	5.40/5	N/A	
ECB	14:50	0.0004	0.0013	-.0001	0.0026	N/A	N/A	0.0024	N/A	0.0009	N/A	

## Landscape Summary

File ID: 080229

Date: 2/29/08 Analyst: WBH Page: 7

Sample ID	Time	SB	SE	TL	V	ZN	ALX	BEX
ICV	7:14	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICB	7:16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MRL	7:17	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MBLINK	7:19	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LCS	7:21	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LCSD	7:23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2802070595MS	7:25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2802070595MSD	7:27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ECV	7:29	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ECB	7:31	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MRL	7:33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICV	8:00	9.67/10	9.85/10	9.91/10	10.0/10	9.88/10	9.98/10	3.97/4
LINEARITY	8:04	0.012	-0.061	0.018	-0.04	0.023	-0.02	-0.00
ICSA	8:07	0.013	-0.067	0.010	-0.005	0.019	N/A	-0.00
ICSAB	8:11	0.011	-0.080	0.005	0.241/.25	0.528/.5	N/A	0.245/.25
Wash	8:15	0.0006	-0.035	-0.018	0.0001	-0.0001	-0.0010	0.0001
QC-25 1ppm	8:21	0.9280	0.9219	1.064	0.9922	1.026	0.9507	0.9636
CCV	8:25	4.81/5	5.01/5	5.28/5	5.12/5	5.21/5	5.02/5	2.09/2
ICB	8:29	0.0076	-0.0057	-0.010	-0.0002	0.0003	-0.0014	0.0001
MRL	8:35	0.045/.05	0.099/.1	0.109/.1	0.002/.002	0.020/.02	0.042/.05	0.001/.001
MBLINK	8:39	0.0018	-0.0020	-0.007	0.0003	0.0025	-0.0001	0.0001
MRL20 <del>D</del>	8:42	0.040/.05	0.095/.1	0.110/.1	0.002/.002	0.023/.02	0.044/.05	0.001/.001
SOUTHEAN CHECK	8:46	N/A	N/A	N/A	0.9889	1.037	N/A	N/A
LCS	8:50	N/A	N/A	N/A	0.976/1	1.02/1	N/A	N/A
LCSD	8:53	N/A	N/A	N/A	0.983/1	1.04/1	N/A	N/A
2802070519_2X	8:56	N/A	N/A	N/A	0.0004	0.0058	N/A	N/A
2802070519_2XMS	9:00	N/A	N/A	N/A	0.9859	1.034	N/A	N/A
2802070519_2XMSD	9:04	N/A	N/A	N/A	0.9628	0.9892	N/A	N/A
2802080261_2X	9:07	N/A	N/A	N/A	0.0465	0.0135	N/A	N/A
2802080261_2XMS	9:11	N/A	N/A	N/A	1.059	1.079	N/A	N/A
CCV	9:15	N/A	N/A	N/A	5.15/5	5.31/5	N/A	N/A
CCB	9:19	N/A	N/A	N/A	0.0001	0.0001	N/A	N/A
2802080261_2XMSD	9:22	N/A	N/A	N/A	1.026	1.036	N/A	N/A
2802080260_2X	9:26	N/A	N/A	N/A	0.0362	0.0203	N/A	N/A
2802070518_2X	9:30	N/A	N/A	N/A	0.0402	0.0183	N/A	N/A
2802080254_2X	9:34	N/A	N/A	N/A	0.0551	0.0159	N/A	N/A
2802080259_2X	9:38	N/A	N/A	N/A	0.0418	0.0078	N/A	N/A
2802080262_2X	9:43	N/A	N/A	N/A	0.0426	0.0082	N/A	N/A
2802080263_2X	9:47	N/A	N/A	N/A	0.0564	0.0088	N/A	N/A
2802080264_2X	9:51	N/A	N/A	N/A	0.0396	0.0251	N/A	N/A
2802080265_10X	9:56	N/A	N/A	N/A	0.0542	0.0333	N/A	N/A
2802080267_10X	10:00	N/A	N/A	N/A	0.0431	0.0457	N/A	N/A
CCV	10:04	N/A	N/A	N/A	5.21/5	5.34/5	N/A	N/A
CCB	10:13	N/A	N/A	N/A	0.0000	-0.0000	N/A	N/A
MCV	10:19	N/A	N/A	N/A	2.62/2.5	2.71/2.5	N/A	N/A
2802080271_2X	10:22	N/A	N/A	N/A	0.0726	0.0146	N/A	N/A
2802080272_2X	10:27	N/A	N/A	N/A	0.1473	0.0264	N/A	N/A
2802082273_2X	10:31	N/A	N/A	N/A	0.1445	0.0137	N/A	N/A

## Landscape Summary

File ID: 080229

Date: 2/29/08

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Analyst: WBH

Sample ID	Time	SB	SE	TL	V	ZN	ALX	BEX
2802080274_10X	10:35	N/A	N/A	N/A	0.0596	0.0233	N/A	N/A
2802080277_10X	10:40	N/A	N/A	N/A	0.0528	0.0175	N/A	N/A
2802080319_5X	10:44	N/A	N/A	N/A	0.0409	0.0604	N/A	N/A
2802090001_10X	10:48	N/A	N/A	N/A	0.0504	0.0261	N/A	N/A
2802090002_2X	10:53	N/A	N/A	N/A	0.0344	0.0133	N/A	N/A
2802090003_2X	10:57	N/A	N/A	N/A	0.0486	0.0058	N/A	N/A
MBLINK	11:02	N/A	N/A	N/A	-0.0002	0.0043	N/A	N/A
CCV	11:05	N/A	N/A	N/A	5.20/5	5.39/5	N/A	N/A
CCB	11:09	N/A	N/A	N/A	0.0001	0.0001	N/A	N/A
MRL	11:12	N/A	N/A	N/A	0.002/.0002	0.022/.02	N/A	N/A
MRL2007	11:16	N/A	N/A	N/A	0.002/.0002	0.024/.02	N/A	N/A
LCS	11:19	N/A	N/A	N/A	0.979/1	1.03/1	N/A	N/A
LCSD	11:22	N/A	N/A	N/A	0.978/1	1.03/1	N/A	N/A
2802070496_2X	11:25	N/A	N/A	N/A	0.0551	0.0139	N/A	N/A
2802070496_21KMS	11:30	N/A	N/A	N/A	1.093	1.094	N/A	N/A
28020470496_2XMSD	11:33	N/A	N/A	N/A	1.056	1.060	N/A	N/A
2802070497_2X	11:37	N/A	N/A	N/A	0.0586	0.0060	N/A	N/A
2802070497_2SMS	11:41	N/A	N/A	N/A	1.121	1.139	N/A	N/A
2802070497_25UP_2X	11:45	N/A	N/A	N/A	1.083	1.089	N/A	N/A
CCV	11:51	N/A	N/A	N/A	5.39/5	5.47/5	N/A	N/A
CCB	11:54	N/A	N/A	N/A	0.0002	0.0002	N/A	N/A
MCV	12:00	N/A	N/A	N/A	2.73/.2.5	2.79(.2.5)	N/A	N/A
2802070485_5X	12:03	N/A	N/A	N/A	0.0245	0.0119	N/A	N/A
MCV	12:13	N/A	N/A	N/A	2.56/.2.5	2.62/.2.5	N/A	N/A
2802070485_5X	12:16	N/A	N/A	N/A	0.0253	0.0123	N/A	N/A
2802070486_2X	12:20	N/A	N/A	N/A	0.0568	0.0089	N/A	N/A
2802070487_2X	12:24	N/A	N/A	N/A	0.0629	0.0094	N/A	N/A
2802070488_2X	12:29	N/A	N/A	N/A	0.0550	0.0076	N/A	N/A
2802070489_2X	12:33	N/A	N/A	N/A	0.0389	0.0087	N/A	N/A
2802070490_2X	12:37	N/A	N/A	N/A	0.0694	0.0081	N/A	N/A
2802070491_5X	12:42	N/A	N/A	N/A	0.0352	0.0042	N/A	N/A
2802070492_2X	12:46	N/A	N/A	N/A	0.0146	0.0137	N/A	N/A
2802070493_2X	12:51	N/A	N/A	N/A	0.0093	0.0271	N/A	N/A
2802070494_2X	12:55	N/A	N/A	N/A	0.0540	0.0146	N/A	N/A
CCV	13:03	N/A	N/A	N/A	5.29/5	5.39/5	N/A	N/A
CCB	13:07	N/A	N/A	N/A	0.0001	0.0001	N/A	N/A
2802070495_2X	13:10	N/A	N/A	N/A	0.0296	0.0319	N/A	N/A
2802070498_5X	13:15	N/A	N/A	N/A	0.0554	0.0120	N/A	N/A
2802070500_10X	13:19	N/A	N/A	N/A	0.0618	0.0228	N/A	N/A
2802070501_10X	13:23	N/A	N/A	N/A	0.0594	0.0292	N/A	N/A
2802070502_2X	13:28	N/A	N/A	N/A	0.0232	0.1292	N/A	N/A
2802070503_10X	13:32	N/A	N/A	N/A	0.0672	0.0274	N/A	N/A
2802070504_2X	13:36	N/A	N/A	N/A	\$-19.4336	\$-6.1564	N/A	N/A
2802070512_5X	13:40	N/A	N/A	N/A	\$-362.6096	\$-115.2821	N/A	N/A
ECV	13:54	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV	14:01	N/A	N/A	N/A	5.13/5	5.23/5	N/A	N/A
CCB	14:04	N/A	N/A	N/A	0.0001	0.0003	N/A	N/A
2802070495_2X	14:08	N/A	N/A	N/A	0.0303	0.0340	N/A	N/A
2802070498_5X	14:12	N/A	N/A	N/A	0.0563	0.0147	N/A	N/A
2802070500_10X	14:16	N/A	N/A	N/A	0.0604	0.0260	N/A	N/A

## Landscape Summary

File ID: 080229 Date: 2/29/08 Analyst: WBH Page: 9

Sample ID	Time	SB	SE	TL	V	ZN	AlX	BEx
2802070501_10X	14:21	N/A	N/A	0.0582	0.0301	N/A	N/A	N/A
2802070502_2X	14:25	N/A	N/A	0.0235	0.1331	N/A	N/A	N/A
2802070503_10X	14:29	N/A	N/A	0.0662	0.0283	N/A	N/A	N/A
2802070504_2X	14:34	N/A	N/A	0.0427	0.0108	N/A	N/A	N/A
2802070512_5X	14:38	N/A	N/A	0.1305	0.0328	N/A	N/A	N/A
ECV	14:47	N/A	N/A	5.33/5	5.39/5	N/A	N/A	N/A
ECB	14:50	N/A	N/A	0.0003	0.0003	N/A	N/A	N/A

=====

Analysis Begun

Start Time: 2/29/2008 07:54:03

Plasma On Time: 2/29/2008 06:50:23

Logged In Analyst: Charley Kay

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N2121801

Autosampler Model: AS-93plus

Sample Information File: C:\pe\Charley Kay\Sample Information\080229A.sif

Batch ID: 080229A

Results Data Set: 080229

Results Library: C:\pe\Charley Kay\Results\Results.mdb

=====

Method Loaded

Method Name: 200.7&amp;6010\_070703

Method Last Saved: 2/5/2008 07:11:20

IEC File: 070703.iec

MSF File:

Method Description: 200.7/6010\_070703

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Al	Lin, Calc Int	Peak Area	Radial	Yr	Yes
As	Lin, Calc Int	Peak Area	Axial	Sca	Yes
B	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Ba	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Be	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Ca	Lin, Calc Int	Peak Area	Radial	Yr	Yes
Cd	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Co	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Cr	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Cu	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Fe	Lin, Calc Int	Peak Area	Radial	Yr	Yes
K	Lin, Calc Int	Peak Area	Radial	Yr	Yes
Mg	Lin, Calc Int	Peak Area	Radial	Yr	Yes
Mn	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Mo	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Na	Lin, Calc Int	Peak Area	Radial	Yr	Yes
Ni	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Pb	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Sb	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Se	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Tl	Lin, Calc Int	Peak Area	Axial	Sca	Yes
V	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Zn	Lin, Calc Int	Peak Area	Axial	Sca	Yes
Sca	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Yr	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Alx	Lin, Calc Int	Peak Area	Axial	Sca	No
Bex	Lin, Calc Int	Peak Area	Axial	Sca	No

=====

Sequence No.: 1

Autosampler Location: 0

Sample ID: Calib Blank 1

Date Collected: 2/29/2008 07:54:04

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

-----

Mean Data: Calib Blank 1

Analyte	Intensity	Std.Dev.	RSD	Calib	
				Conc.	Units
Sca	443133.2	4529.17	1.02%	100	%
Yr	193125.9	314.14	0.16%	100.0	%
Agt	775.1	12.23	1.58%	[0.00]	mg/L
Alt	42.2	8.97	21.26%	[0.00]	mg/L
Ast	6.4	1.56	24.41%	[0.00]	mg/L
B <sup>+</sup>	104.1	5.17	4.96%	[0.00]	mg/L
B <sub>t</sub>	-37.9	4.50	11.86%	[0.00]	mg/L
Bet	-4246.1	28.84	0.68%	[0.00]	mg/L
Cat	425.5	3.29	0.77%	[0.00]	mg/L
Cdt	60.0	6.06	10.10%	[0.00]	mg/L
Cot	-68.4	4.63	6.77%	[0.00]	mg/L
Crt	314.9	11.31	3.59%	[0.00]	mg/L

Cut	2530.6	84.28	3.33%	[0.00] mg/L
Fet	-6.6	1.42	21.70%	[0.00] mg/L
Kt	227.3	15.67	6.90%	[0.00] mg/L
Mgt	-42.0	0.33	0.80%	[0.00] mg/L
Mnt	1357.0	27.40	2.02%	[0.00] mg/L
Mot	24.5	6.50	26.56%	[0.00] mg/L
Nat	-350.5	28.85	8.23%	[0.00] mg/L
Nit	-43.9	7.60	17.31%	[0.00] mg/L
Pbt	-19.4	0.91	4.70%	[0.00] mg/L
Sbt	14.1	2.72	19.24%	[0.00] mg/L
Set	0.1	7.73	>999.9%	[0.00] mg/L
Tlt	-27.7	1.87	6.73%	[0.00] mg/L
Vt	191.4	5.31	2.78%	[0.00] mg/L
Znt	147.6	0.39	0.27%	[0.00] mg/L
Alxt	517.4	51.18	9.89%	[0.00] ug/L
Bext	-4246.1	28.84	0.68%	[0.00] ug/L

Sequence No.: 2  
 Sample ID: Standard 2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 2/29/2008 07:57:27  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: Standard 2

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sca	395782.9	38.10	0.01%	89.3	%
Yr	184152.1	3037.31	1.65%	95.4	%
Agt	566716.9	111.13	0.02%	[2]	mg/L
Alt	35265.3	214.47	0.61%	[10]	mg/L
Ast	20804.3	47.63	0.23%	[10]	mg/L
B_t	158070.7	128.11	0.08%	[5.02]	mg/L
Bat	746973.8	898.17	0.12%	[10]	mg/L
Bet	12594279.0	45314.18	0.36%	[4.01]	mg/L
Cat	496333.8	2070.01	0.42%	[100]	mg/L
Cdt	136275.5	251.57	0.18%	[5.01]	mg/L
Cot	260981.1	513.44	0.20%	[10]	mg/L
Crt	790045.3	74.88	0.01%	[9.97]	mg/L
Cut	3925472.3	4052.66	0.10%	[10]	mg/L
Fet	6211.5	93.16	1.50%	[9.98]	mg/L
Kt	111633.6	1165.03	1.04%	[100]	mg/L
Mgt	192093.7	1163.55	0.61%	[100]	mg/L
Mnt	5763449.0	5234.47	0.09%	[10]	mg/L
Mot	130176.8	83.22	0.06%	[9.98]	mg/L
Nat	392869.3	3276.55	0.83%	[100]	mg/L
Nit	227767.4	11.61	0.01%	[10]	mg/L
Pbt	51035.0	166.09	0.33%	[10]	mg/L
Sbt	19883.7	99.00	0.50%	[10]	mg/L
Set	13303.7	95.83	0.72%	[10]	mg/L
Tlt	28088.4	62.84	0.22%	[10]	mg/L
Vt	1735445.4	402.43	0.02%	[10]	mg/L
Znt	497505.7	61.78	0.01%	[10]	mg/L
Alxt	974441.3	6917.58	0.71%	[10000]	ug/L
Bext	12594279.0	45314.18	0.36%	[4010]	ug/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag	1	Lin, Calc Int	0.0	283400	0.00000	1.000000	
Al	1	Lin, Calc Int	0.0	3527	0.00000	1.000000	
As	1	Lin, Calc Int	0.0	2080	0.00000	1.000000	
B_t	1	Lin, Calc Int	0.0	31490	0.00000	1.000000	
Ba	1	Lin, Calc Int	0.0	74700	0.00000	1.000000	
Be	1	Lin, Calc Int	0.0	3141000	0.00000	1.000000	
Ca	1	Lin, Calc Int	0.0	4963	0.00000	1.000000	
Cd	1	Lin, Calc Int	0.0	27200	0.00000	1.000000	
Co	1	Lin, Calc Int	0.0	26100	0.00000	1.000000	
Cr	1	Lin, Calc Int	0.0	79240	0.00000	1.000000	
Cu	1	Lin, Calc Int	0.0	392500	0.00000	1.000000	
Fe	1	Lin, Calc Int	0.0	622.4	0.00000	1.000000	
K	1	Lin, Calc Int	0.0	1116	0.00000	1.000000	
Mg	1	Lin, Calc Int	-0.0	1921	0.00000	1.000000	
Mn	1	Lin, Calc Int	-0.0	576300	0.00000	1.000000	
Mo	1	Lin, Calc Int	0.0	13040	0.00000	1.000000	
Na	1	Lin, Calc Int	0.0	3929	0.00000	1.000000	
Ni	1	Lin, Calc Int	-0.0	22780	0.00000	1.000000	
Pb	1	Lin, Calc Int	-0.0	5104	0.00000	1.000000	
Sb	1	Lin, Calc Int	-0.0	1988	0.00000	1.000000	
Se	1	Lin, Calc Int	0.0	1330	0.00000	1.000000	
Tl	1	Lin, Calc Int	-0.0	2809	0.00000	1.000000	
V	1	Lin, Calc Int	-0.0	173500	0.00000	1.000000	
Zn	1	Lin, Calc Int	0.0	49750	0.00000	1.000000	
Alx	1	Lin, Calc Int	0.0	97.44	0.00000	1.000000	
Bex	1	Lin, Calc Int	0.0	3141	0.00000	1.000000	

Sequence No.: 3  
 Sample ID: ICV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 2/29/2008 08:00:44  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	401018.7	90.5 %	0.47			0.52%
Yr	178779.6	92.6 %	0.79			0.85%
Agt	563810.5	1.99 mg/L	0.000	1.99 mg/L	0.000	0.01%
QC value within limits for Ag		Recovery = 99.49%				
Alt	35288.6	10.0 mg/L	0.06	10.0 mg/L	0.06	0.61%
QC value within limits for Al		Recovery = 100.07%				
Ast	20396.0	9.80 mg/L	0.065	9.80 mg/L	0.065	0.66%
QC value within limits for As		Recovery = 98.03%				
B_t	157886.9	4.99 mg/L	0.006	4.99 mg/L	0.006	0.12%
QC value within limits for B_		Recovery = 99.88%				
Bat	742172.7	9.94 mg/L	0.024	9.94 mg/L	0.024	0.24%
QC value within limits for Ba		Recovery = 99.36%				
Bet	12475209.3	3.97 mg/L	0.001	3.97 mg/L	0.001	0.01%
QC value within limits for Be		Recovery = 99.30%				
Cat	493883.0	99.5 mg/L	0.39	99.5 mg/L	0.39	0.39%
QC value within limits for Ca		Recovery = 99.51%				
Cdt	135395.7	4.85 mg/L	0.001	4.85 mg/L	0.001	0.03%
QC value within limits for Cd		Recovery = 96.91%				
Cot	259454.9	9.94 mg/L	0.025	9.94 mg/L	0.025	0.25%
QC value within limits for Co		Recovery = 99.42%				
Crt	785413.1	9.91 mg/L	0.008	9.91 mg/L	0.008	0.08%
QC value within limits for Cr		Recovery = 99.12%				
Cut	3904874.3	9.96 mg/L	0.018	9.96 mg/L	0.018	0.18%
QC value within limits for Cu		Recovery = 99.57%				
Fet	6134.4	9.86 mg/L	0.094	9.86 mg/L	0.094	0.95%
QC value within limits for Fe		Recovery = 98.56%				
Kt	111563.1	99.9 mg/L	0.86	99.9 mg/L	0.86	0.86%
QC value within limits for K		Recovery = 99.94%				
Mgt	191801.2	99.8 mg/L	0.43	99.8 mg/L	0.43	0.43%
QC value within limits for Mg		Recovery = 99.85%				
Mnt	5727956.0	9.94 mg/L	0.026	9.94 mg/L	0.026	0.27%
QC value within limits for Mn		Recovery = 99.38%				
Mot	129524.7	9.93 mg/L	0.046	9.93 mg/L	0.046	0.46%
QC value within limits for Mo		Recovery = 99.30%				
Nat	393902.1	100 mg/L	0.9	100 mg/L	0.9	0.94%
QC value within limits for Na		Recovery = 100.26%				
Nit	226665.2	9.95 mg/L	0.025	9.95 mg/L	0.025	0.25%
QC value within limits for Ni		Recovery = 99.52%				
Pbt	50341.0	9.86 mg/L	0.034	9.86 mg/L	0.034	0.35%
QC value within limits for Pb		Recovery = 98.64%				
Sbt	19532.2	9.67 mg/L	0.019	9.67 mg/L	0.019	0.20%
QC value within limits for Sb		Recovery = 96.66%				
Set	13084.6	9.85 mg/L	0.065	9.85 mg/L	0.065	0.66%
QC value within limits for Se		Recovery = 98.54%				
Tlt	27759.0	9.91 mg/L	0.042	9.91 mg/L	0.042	0.42%
QC value within limits for Tl		Recovery = 99.11%				
Vt	1727546.0	10.0 mg/L	0.01	10.0 mg/L	0.01	0.12%
QC value within limits for V		Recovery = 100.09%				
Znt	494724.2	9.88 mg/L	0.016	9.88 mg/L	0.016	0.17%
QC value within limits for Zn		Recovery = 98.76%				
Alxt	972211.7	9980 ug/L	1.7	9.98 mg/L	0.002	0.02%
QC value within limits for Alx		Recovery = 99.77%				
Bext	12475209.3	3970 ug/L	0.5	3.97 mg/L	0.001	0.01%
QC value within limits for Bex		Recovery = 99.30%				

All analyte(s) passed QC.

Sequence No.: 4  
 Sample ID: LINEARITY  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 9  
 Date Collected: 2/29/2008 08:04:01  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LINEARITY

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	380551.1	85.9 %	0.62			0.72%
Yr	175159.4	90.7 %	0.01			0.01%
Agt	-9083.9	-0.0321 mg/L	0.00032	-0.0321 mg/L	0.00032	1.00%
QC value within limits for Ag		Recovery = Not calculated				
Alt	-49.7	-0.0141 mg/L	0.00295	-0.0141 mg/L	0.00295	20.90%
QC value within limits for Al		Recovery = Not calculated				
Ast	-161.3	-0.0186 mg/L	0.00267	-0.0186 mg/L	0.00267	14.41%
QC value within limits for As		Recovery = Not calculated				
B_t	621.3	0.0197 mg/L	0.00164	0.0197 mg/L	0.00164	8.31%
QC value within limits for B		Recovery = Not calculated				
Bat	117.8	0.00158 mg/L	0.000041	0.00158 mg/L	0.000041	2.57%
QC value within limits for Ba		Recovery = Not calculated				
Bet	-895.9	-0.00029 mg/L	0.000023	-0.00029 mg/L	0.000023	8.04%
QC value within limits for Be		Recovery = Not calculated				
Cat	1447215.9	292 mg/L	0.4	292 mg/L	0.4	0.14%
QC value within limits for Ca		Recovery = 97.19%				
Cdt	-27.5	0.00035 mg/L	0.000150	0.00035 mg/L	0.000150	43.38%
QC value within limits for Cd		Recovery = Not calculated				
Cot	58.9	0.00226 mg/L	0.000092	0.00226 mg/L	0.000092	4.10%
QC value within limits for Co		Recovery = Not calculated				
Crt	158.7	0.00200 mg/L	0.000023	0.00200 mg/L	0.000023	1.15%
QC value within limits for Cr		Recovery = Not calculated				
Cut	-5319.6	-0.0135 mg/L	0.00018	-0.0135 mg/L	0.00018	1.33%
QC value within limits for Cu		Recovery = Not calculated				
Fet	60774.6	97.6 mg/L	0.11	97.6 mg/L	0.11	0.12%
QC value within limits for Fe		Recovery = 97.65%				
Kt	350479.2	314 mg/L	2.1	314 mg/L	2.1	0.68%
QC value within limits for K		Recovery = 104.65%				
Mgt	358470.2	187 mg/L	0.0	187 mg/L	0.0	0.02%
QC value within limits for Mg		Recovery = Not calculated				
Mnt	853.7	0.00148 mg/L	0.000048	0.00148 mg/L	0.000048	3.22%
QC value within limits for Mn		Recovery = Not calculated				
Mot	11.9	0.00091 mg/L	0.000227	0.00091 mg/L	0.000227	25.00%
QC value within limits for Mo		Recovery = Not calculated				
Nat	1183396.0	301 mg/L	1.9	301 mg/L	1.9	0.63%
QC value within limits for Na		Recovery = 100.41%				
Nit	-0.2	-0.00001 mg/L	0.000303	-0.00001 mg/L	0.000303	>999.9%
QC value within limits for Ni		Recovery = Not calculated				
Pbt	-17.3	-0.00339 mg/L	0.000445	-0.00339 mg/L	0.000445	13.11%
QC value within limits for Pb		Recovery = Not calculated				
Sbt	23.5	0.0118 mg/L	0.00231	0.0118 mg/L	0.00231	19.63%
QC value within limits for Sb		Recovery = Not calculated				
Set	-334.3	-0.0613 mg/L	0.00668	-0.0613 mg/L	0.00668	10.90%
QC value within limits for Se		Recovery = Not calculated				
Tlt	51.3	0.0183 mg/L	0.00099	0.0183 mg/L	0.00099	5.40%
QC value within limits for Tl		Recovery = Not calculated				
Vt	-765.8	-0.00440 mg/L	0.000462	-0.00440 mg/L	0.000462	10.50%
QC value within limits for V		Recovery = Not calculated				
Znt	1168.9	0.0235 mg/L	0.00014	0.0235 mg/L	0.00014	0.62%
QC value within limits for Zn		Recovery = Not calculated				
Alxt	-150.2	-1.54 ug/L	0.322	-0.00154 mg/L	0.000322	20.89%
QC value within limits for Alx		Recovery = Not calculated				
Bext	-895.9	-0.285 ug/L	0.0229	-0.00029 mg/L	0.000023	8.04%
QC value within limits for Bex		Recovery = Not calculated				

All analyte(s) passed QC.

Sequence No.: 5  
 Sample ID: ICSA  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 10  
 Date Collected: 2/29/2008 08:07:41  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	392357.3	88.5 %	0.14			0.16%
Yr	180027.7	93.2 %	0.03			0.03%
Agt	-9018.7	-0.0318 mg/L	0.00014	-0.0318 mg/L	0.00014	0.43%
QC value within limits for Ag		Recovery = Not calculated				
Alt	871801.2	247 mg/L	3.9	247 mg/L	3.9	1.57%
QC value within limits for Al		Recovery = 98.88%				
Ast	-400.8	-0.134 mg/L	0.0005	-0.134 mg/L	0.0005	0.40%
QC value within limits for As		Recovery = Not calculated				
B_t	137.3	0.00436 mg/L	0.000693	0.00436 mg/L	0.000693	15.90%
QC value within limits for B		Recovery = Not calculated				
Bat	154.3	0.00207 mg/L	0.000074	0.00207 mg/L	0.000074	3.60%
QC value within limits for Ba		Recovery = Not calculated				
Bet	-818.6	-0.00026 mg/L	0.000036	-0.00026 mg/L	0.000036	13.63%
QC value within limits for Be		Recovery = Not calculated				
Cat	1246090.0	251 mg/L	4.0	251 mg/L	4.0	1.59%
QC value within limits for Ca		Recovery = 100.42%				
Cdt	-31.4	0.00220 mg/L	0.000234	0.00220 mg/L	0.000234	10.62%
QC value within limits for Cd		Recovery = Not calculated				
Cot	36.5	0.00140 mg/L	0.000042	0.00140 mg/L	0.000042	2.98%
QC value within limits for Co		Recovery = Not calculated				
Crt	-30.3	-0.00038 mg/L	0.000043	-0.00038 mg/L	0.000043	11.20%
QC value within limits for Cr		Recovery = Not calculated				
Cut	-5738.5	-0.0146 mg/L	0.00010	-0.0146 mg/L	0.00010	0.71%
QC value within limits for Cu		Recovery = Not calculated				
Fet	60376.6	97.0 mg/L	0.14	97.0 mg/L	0.14	0.15%
QC value within limits for Fe		Recovery = 97.01%				
Kt	316.0	0.283 mg/L	0.0049	0.283 mg/L	0.0049	1.72%
QC value within limits for K		Recovery = Not calculated				
Mgt	450106.2	234 mg/L	0.2	234 mg/L	0.2	0.08%
QC value within limits for Mg		Recovery = 93.73%				
Mnt	1228.9	0.00213 mg/L	0.000144	0.00213 mg/L	0.000144	6.75%
QC value within limits for Mn		Recovery = Not calculated				
Mot	14.2	0.00109 mg/L	0.000564	0.00109 mg/L	0.000564	51.97%
QC value within limits for Mo		Recovery = Not calculated				
Nat	538.6	0.137 mg/L	0.0026	0.137 mg/L	0.0026	1.93%
QC value within limits for Na		Recovery = Not calculated				
Nit	-13.7	-0.00060 mg/L	0.000420	-0.00060 mg/L	0.000420	69.97%
QC value within limits for Ni		Recovery = Not calculated				
Pbt	-189.5	-0.0371 mg/L	0.00043	-0.0371 mg/L	0.00043	1.16%
QC value within limits for Pb		Recovery = Not calculated				
Sbt	25.5	0.0128 mg/L	0.00205	0.0128 mg/L	0.00205	16.03%
QC value within limits for Sb		Recovery = Not calculated				
Set	-340.6	-0.0672 mg/L	0.00251	-0.0672 mg/L	0.00251	3.74%
QC value within limits for Se		Recovery = Not calculated				
Tlt	28.6	0.0102 mg/L	0.00524	0.0102 mg/L	0.00524	51.44%
QC value within limits for Tl		Recovery = Not calculated				
Vt	-789.4	-0.00455 mg/L	0.000107	-0.00455 mg/L	0.000107	2.35%
QC value within limits for V		Recovery = Not calculated				
Znt	950.1	0.0191 mg/L	0.00000	0.0191 mg/L	0.00000	0.02%
QC value within limits for Zn		Recovery = Not calculated				
Alxt	Saturated2					
Unable to evaluate QC.						
Bext	-818.6	-0.261 ug/L	0.0355	-0.00026 mg/L	0.000036	13.63%
QC value within limits for Bex		Recovery = Not calculated				

All analyte(s) passed QC. One or more analytes were not evaluated.

Sequence No.: 6  
 Sample ID: ICSAB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 11  
 Date Collected: 2/29/2008 08:11:22  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	392134.3	88.5 %	0.60			0.68%
Yr	183427.7	95.0 %	1.29			1.36%
Agt	130052.4	0.459 mg/L	0.0009	0.459 mg/L	0.0009	0.19%
QC value within limits for Ag		Recovery = 91.79%				
Alt	847463.5	240 mg/L	2.3	240 mg/L	2.3	0.98%
QC value within limits for Al		Recovery = 96.12%				
Ast	-407.8	-0.138 mg/L	0.0007	-0.138 mg/L	0.0007	0.49%
QC value less than the lower limit for As		Recovery = Not calculated				
B_t	-10.4	-0.00081 mg/L	0.000493	-0.00081 mg/L	0.000493	61.10%
QC value within limits for B		Recovery = Not calculated				
Bat	19084.8	0.255 mg/L	0.0006	0.255 mg/L	0.0006	0.23%
QC value within limits for Ba		Recovery = 102.20%				
Bet	767932.9	0.245 mg/L	0.0010	0.245 mg/L	0.0010	0.42%
QC value within limits for Be		Recovery = 97.80%				
Cat	1213389.5	244 mg/L	3.3	244 mg/L	3.3	1.34%
QC value within limits for Ca		Recovery = 97.79%				
Cdt	13108.0	0.486 mg/L	0.0020	0.486 mg/L	0.0020	0.41%
QC value within limits for Cd		Recovery = 97.24%				
Cot	6127.9	0.235 mg/L	0.0005	0.235 mg/L	0.0005	0.22%
QC value within limits for Co		Recovery = 93.92%				
Crt	19414.1	0.245 mg/L	0.0005	0.245 mg/L	0.0005	0.22%
QC value within limits for Cr		Recovery = 98.00%				
Cut	94497.3	0.241 mg/L	0.0015	0.241 mg/L	0.0015	0.61%
QC value within limits for Cu		Recovery = 96.38%				
Fet	60356.1	97.0 mg/L	0.31	97.0 mg/L	0.31	0.32%
QC value within limits for Fe		Recovery = 96.97%				
Kt	147.7	0.132 mg/L	0.0076	0.132 mg/L	0.0076	5.77%
QC value within limits for K		Recovery = Not calculated				
Mgt	448600.3	234 mg/L	0.1	234 mg/L	0.1	0.03%
QC value within limits for Mg		Recovery = 93.41%				
Mnt	146296.9	0.254 mg/L	0.0013	0.254 mg/L	0.0013	0.51%
QC value within limits for Mn		Recovery = 101.53%				
Mot	9.0	0.00069 mg/L	0.000020	0.00069 mg/L	0.000020	2.88%
QC value within limits for Mo		Recovery = Not calculated				
Nat	223.0	0.0568 mg/L	0.01484	0.0568 mg/L	0.01484	26.15%
QC value within limits for Na		Recovery = Not calculated				
Nit	10509.7	0.461 mg/L	0.0009	0.461 mg/L	0.0009	0.20%
QC value within limits for Ni		Recovery = 92.28%				
Pbt	2292.1	0.449 mg/L	0.0007	0.449 mg/L	0.0007	0.15%
QC value within limits for Pb		Recovery = 89.83%				
Sbt	29.8	0.0111 mg/L	0.00003	0.0111 mg/L	0.00003	0.24%
QC value within limits for Sb		Recovery = Not calculated				
Set	-357.4	-0.0799 mg/L	0.00755	-0.0799 mg/L	0.00755	9.45%
QC value within limits for Se		Recovery = Not calculated				
Tlt	13.1	0.00533 mg/L	0.000095	0.00533 mg/L	0.000095	1.78%
QC value within limits for Tl		Recovery = Not calculated				
Vt	41555.1	0.241 mg/L	0.0001	0.241 mg/L	0.0001	0.02%
QC value within limits for V		Recovery = 96.32%				
Znt	26406.9	0.528 mg/L	0.0018	0.528 mg/L	0.0018	0.35%
QC value within limits for Zn		Recovery = 105.53%				
Alxt	Saturated2					
Unable to evaluate QC.						
Bext	767932.9	245 ug/L	1.0	0.245 mg/L	0.0010	0.42%
QC value within limits for Bex		Recovery = 97.80%				
QC Failed. Continue with analysis.						

Sequence No.: 7  
 Sample ID: Wash  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/29/2008 08:15:04  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: Wash

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sca	444828.5	100	%	0.1	-0.00124	mg/L	0.000158 0.09%
Yr	197446.8	102	%	0.4	-0.00378	mg/L	0.005116 0.40%
Agt	-351.7	-0.00124	mg/L	0.000158	-0.00124	mg/L	0.000158 12.77%
QC value within limits for Ag		Recovery = Not calculated					
Alt	-13.3	-0.00378	mg/L	0.005116	-0.00378	mg/L	0.005116 135.19%
QC value within limits for Al		Recovery = Not calculated					
Ast	-0.8	-0.00038	mg/L	0.000532	-0.00038	mg/L	0.000532 138.50%
QC value within limits for As		Recovery = Not calculated					
B <sub>1</sub> t	202.1	0.00642	mg/L	0.000123	0.00642	mg/L	0.000123 1.91%
QC value within limits for B		Recovery = Not calculated					
Bat	5.9	0.00008	mg/L	0.000048	0.00008	mg/L	0.000048 60.14%
QC value within limits for Ba		Recovery = Not calculated					
Bet	269.7	0.00009	mg/L	0.000002	0.00009	mg/L	0.000002 2.39%
QC value within limits for Be		Recovery = Not calculated					
Cat	25.9	0.00521	mg/L	0.000569	0.00521	mg/L	0.000569 10.92%
QC value within limits for Ca		Recovery = Not calculated					
Cdt	2.4	0.00010	mg/L	0.000163	0.00010	mg/L	0.000163 166.86%
QC value within limits for Cd		Recovery = Not calculated					
Cot	6.1	0.00023	mg/L	0.000028	0.00023	mg/L	0.000028 11.85%
QC value within limits for Co		Recovery = Not calculated					
Crt	-21.4	-0.00027	mg/L	0.000021	-0.00027	mg/L	0.000021 7.87%
QC value within limits for Cr		Recovery = Not calculated					
Cut	-271.7	-0.00069	mg/L	0.000091	-0.00069	mg/L	0.000091 13.11%
QC value within limits for Cu		Recovery = Not calculated					
Fet	7.4	0.0119	mg/L	0.00222	0.0119	mg/L	0.00222 18.63%
QC value within limits for Fe		Recovery = Not calculated					
Kt	89.0	0.0797	mg/L	0.02798	0.0797	mg/L	0.02798 35.10%
QC value within limits for K		Recovery = Not calculated					
Mgt	11.1	0.00580	mg/L	0.002072	0.00580	mg/L	0.002072 35.71%
QC value within limits for Mg		Recovery = Not calculated					
Mnt	-1068.1	-0.00185	mg/L	0.000003	-0.00185	mg/L	0.000003 0.15%
QC value within limits for Mn		Recovery = Not calculated					
Mot	5.9	0.00045	mg/L	0.000154	0.00045	mg/L	0.000154 34.20%
QC value within limits for Mo		Recovery = Not calculated					
Nat	114.9	0.0292	mg/L	0.00430	0.0292	mg/L	0.00430 14.72%
QC value within limits for Na		Recovery = Not calculated					
Nit	-4.7	-0.00021	mg/L	0.000338	-0.00021	mg/L	0.000338 163.60%
QC value within limits for Ni		Recovery = Not calculated					
Pbt	5.7	0.00112	mg/L	0.000162	0.00112	mg/L	0.000162 14.44%
QC value within limits for Pb		Recovery = Not calculated					
Sbt	1.2	0.00059	mg/L	0.001029	0.00059	mg/L	0.001029 175.81%
QC value within limits for Sb		Recovery = Not calculated					
Set	-4.6	-0.00345	mg/L	0.000643	-0.00345	mg/L	0.000643 18.62%
QC value within limits for Se		Recovery = Not calculated					
Tlt	-5.2	-0.00183	mg/L	0.000117	-0.00183	mg/L	0.000117 6.37%
QC value within limits for Tl		Recovery = Not calculated					
Vt	21.8	0.00012	mg/L	0.000034	0.00012	mg/L	0.000034 27.50%
QC value within limits for V		Recovery = Not calculated					
Znt	-2.8	-0.00005	mg/L	0.000023	-0.00005	mg/L	0.000023 42.54%
QC value within limits for Zn		Recovery = Not calculated					
Alxt	-92.9	-0.953	ug/L	0.1994	-0.00095	mg/L	0.000199 20.92%
QC value within limits for Alx		Recovery = Not calculated					
Bext	269.7	0.0859	ug/L	0.00205	0.00009	mg/L	0.000002 2.39%
QC value within limits for Bex		Recovery = Not calculated					

All analyte(s) passed QC.

Sequence No.: 8  
 Sample ID: QC-25 1ppm  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 12  
 Date Collected: 2/29/2008 08:18:27  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: QC-25 1ppm

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	448153.6	101 %	0.3			0.27%
Yr	191930.4	99.4 %	1.49			1.50%
Agt	127480.3	0.450 mg/L	0.0008	0.450 mg/L	0.0008	0.17%
	QC value less than the lower limit for Ag	Recovery = 44.99%				
Alt	3544.7	1.01 mg/L	0.015	1.01 mg/L	0.015	1.53%
	QC value within limits for Al	Recovery = 100.52%				
Ast	1941.4	0.933 mg/L	0.0057	0.933 mg/L	0.0057	0.61%
	QC value within limits for As	Recovery = 93.31%				
B_t	29014.7	0.919 mg/L	0.0044	0.919 mg/L	0.0044	0.48%
	QC value within limits for B	Recovery = 91.93%				
Bat	78785.4	1.05 mg/L	0.007	1.05 mg/L	0.007	0.68%
	QC value within limits for Ba	Recovery = 105.47%				
Bet	3024865.0	0.963 mg/L	0.0016	0.963 mg/L	0.0016	0.17%
	QC value within limits for Be	Recovery = 96.31%				
Cat	5241.4	1.06 mg/L	0.041	1.06 mg/L	0.041	3.84%
	QC value within limits for Ca	Recovery = 105.60%				
Cdt	26428.6	0.959 mg/L	0.0064	0.959 mg/L	0.0064	0.67%
	QC value within limits for Cd	Recovery = 95.95%				
Cot	27631.7	1.06 mg/L	0.008	1.06 mg/L	0.008	0.75%
	QC value within limits for Co	Recovery = 105.88%				
Crt	80930.1	1.02 mg/L	0.007	1.02 mg/L	0.007	0.64%
	QC value within limits for Cr	Recovery = 102.13%				
Cut	389652.9	0.994 mg/L	0.0005	0.994 mg/L	0.0005	0.05%
	QC value within limits for Cu	Recovery = 99.36%				
Fet	649.9	1.04 mg/L	0.042	1.04 mg/L	0.042	4.00%
	QC value within limits for Fe	Recovery = 104.42%				
Kt	10835.2	9.71 mg/L	0.013	9.71 mg/L	0.013	0.13%
	QC value within limits for K	Recovery = 97.06%				
Mgt	2064.3	1.07 mg/L	0.041	1.07 mg/L	0.041	3.78%
	QC value within limits for Mg	Recovery = 107.46%				
Mnt	607135.7	1.05 mg/L	0.001	1.05 mg/L	0.001	0.13%
	QC value within limits for Mn	Recovery = 105.34%				
Mot	12765.4	0.979 mg/L	0.0011	0.979 mg/L	0.0011	0.12%
	QC value within limits for Mo	Recovery = 97.87%				
Nat	4132.8	1.05 mg/L	0.022	1.05 mg/L	0.022	2.11%
	QC value within limits for Na	Recovery = 105.20%				
Nit	24433.2	1.07 mg/L	0.009	1.07 mg/L	0.009	0.88%
	QC value within limits for Ni	Recovery = 107.27%				
Pbt	5365.2	1.05 mg/L	0.001	1.05 mg/L	0.001	0.11%
	QC value within limits for Pb	Recovery = 105.13%				
Sbt	1873.9	0.926 mg/L	0.0006	0.926 mg/L	0.0006	0.06%
	QC value within limits for Sb	Recovery = 92.60%				
Set	1228.5	0.925 mg/L	0.0037	0.925 mg/L	0.0037	0.40%
	QC value within limits for Se	Recovery = 92.54%				
Tlt	2976.4	1.06 mg/L	0.003	1.06 mg/L	0.003	0.25%
	QC value within limits for Tl	Recovery = 106.24%				
Vt	170785.6	0.990 mg/L	0.0058	0.990 mg/L	0.0058	0.59%
	QC value within limits for V	Recovery = 98.97%				
Znt	51253.5	1.02 mg/L	0.008	1.02 mg/L	0.008	0.79%
	QC value within limits for Zn	Recovery = 102.29%				
Alxt	93115.5	956 ug/L	8.3	0.956 mg/L	0.0083	0.87%
	QC value within limits for Alx	Recovery = 95.56%				
Bext	3024865.0	963 ug/L	1.6	0.963 mg/L	0.0016	0.17%
	QC value within limits for Bex	Recovery = 96.31%				
	QC Failed. Retry.					

Sequence No.: 9  
 Sample ID: QC-25 1ppm  
 Analyst:

Autosampler Location: 12  
 Date Collected: 2/29/2008 08:21:12  
 Data Type: Original

Initial Sample Wt:  
Dilution:

Initial Sample Vol:  
Sample Prep Vol:

## Mean Data: QC-25 1ppm

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc.			Conc.	Units	
Sca	447280.2	101	%	1.1			1.12%
Yr	195666.5	101	%	2.0			1.99%
Agt	122649.9	0.433	mg/L	0.0074	0.433	mg/L	1.72%
	QC value less than the lower limit for Ag Recovery = 43.28%						
Alt	3523.5	0.999	mg/L	0.0113	0.999	mg/L	0.0113 1.13%
	QC value within limits for Al Recovery = 99.92%						
Ast	1943.3	0.934	mg/L	0.0077	0.934	mg/L	0.0077 0.82%
	QC value within limits for As Recovery = 93.40%						
B_t	29240.6	0.926	mg/L	0.0041	0.926	mg/L	0.0041 0.44%
	QC value within limits for B_ Recovery = 92.65%						
Bat	78762.1	1.05	mg/L	0.006	1.05	mg/L	0.006 0.56%
	QC value within limits for Ba Recovery = 105.44%						
Bet	3026293.5	0.964	mg/L	0.0046	0.964	mg/L	0.0046 0.47%
	QC value within limits for Be Recovery = 96.36%						
Cat	5247.1	1.06	mg/L	0.029	1.06	mg/L	0.029 2.71%
	QC value within limits for Ca Recovery = 105.72%						
Cdt	26392.7	0.958	mg/L	0.0070	0.958	mg/L	0.0070 0.73%
	QC value within limits for Cd Recovery = 95.81%						
Cot	27485.3	1.05	mg/L	0.004	1.05	mg/L	0.004 0.36%
	QC value within limits for Co Recovery = 105.32%						
Crt	81129.4	1.02	mg/L	0.006	1.02	mg/L	0.006 0.58%
	QC value within limits for Cr Recovery = 102.38%						
Cut	389975.1	0.994	mg/L	0.0078	0.994	mg/L	0.0078 0.78%
	QC value within limits for Cu Recovery = 99.44%						
Fet	648.5	1.04	mg/L	0.031	1.04	mg/L	0.031 2.94%
	QC value within limits for Fe Recovery = 104.20%						
Kt	10765.3	9.64	mg/L	0.130	9.64	mg/L	0.130 1.34%
	QC value within limits for K Recovery = 96.43%						
Mgt	2064.8	1.07	mg/L	0.029	1.07	mg/L	0.029 2.74%
	QC value within limits for Mg Recovery = 107.49%						
Mnt	607297.1	1.05	mg/L	0.002	1.05	mg/L	0.002 0.16%
	QC value within limits for Mn Recovery = 105.37%						
Mot	12764.3	0.979	mg/L	0.0116	0.979	mg/L	0.0116 1.19%
	QC value within limits for Mo Recovery = 97.86%						
Nat	4135.4	1.05	mg/L	0.012	1.05	mg/L	0.012 1.17%
	QC value within limits for Na Recovery = 105.26%						
Nit	24458.9	1.07	mg/L	0.007	1.07	mg/L	0.007 0.61%
	QC value within limits for Ni Recovery = 107.39%						
Pbt	5378.3	1.05	mg/L	0.012	1.05	mg/L	0.012 1.09%
	QC value within limits for Pb Recovery = 105.38%						
Sbt	1877.9	0.928	mg/L	0.0104	0.928	mg/L	0.0104 1.12%
	QC value within limits for Sb Recovery = 92.80%						
Set	1223.7	0.922	mg/L	0.0069	0.922	mg/L	0.0069 0.75%
	QC value within limits for Se Recovery = 92.19%						
Tlt	2980.1	1.06	mg/L	0.013	1.06	mg/L	0.013 1.22%
	QC value within limits for Tl Recovery = 106.38%						
Vt	171211.3	0.992	mg/L	0.0051	0.992	mg/L	0.0051 0.52%
	QC value within limits for V Recovery = 99.22%						
Znt	51398.2	1.03	mg/L	0.005	1.03	mg/L	0.005 0.44%
	QC value within limits for Zn Recovery = 102.58%						
Alxt	92638.6	951	ug/L	12.2	0.951	mg/L	0.0122 1.28%
	QC value within limits for Alx Recovery = 95.07%						
Bext	3026293.5	964	ug/L	4.6	0.964	mg/L	0.0046 0.47%
	QC value within limits for Bex Recovery = 96.36%						
	QC Failed. Continue with analysis.						

Sequence No.: 10  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/29/2008 08:25:29  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	415685.4	93.8 %	0.21			0.23%
Yr	188755.8	97.7 %	1.61			1.65%
Ag†	271738.8	0.959 mg/L	0.0003	0.959 mg/L	0.0003	0.04%
QC value within limits for Ag		Recovery = 95.90%				
Alt†	17699.6	5.02 mg/L	0.044	5.02 mg/L	0.044	0.88%
QC value within limits for Al		Recovery = 100.38%				
Ast†	10025.7	4.82 mg/L	0.071	4.82 mg/L	0.071	1.47%
QC value within limits for As		Recovery = 96.37%				
B_t†	80488.3	2.55 mg/L	0.009	2.55 mg/L	0.009	0.35%
QC value within limits for B_		Recovery = 101.83%				
Bat†	385263.4	5.16 mg/L	0.002	5.16 mg/L	0.002	0.05%
QC value within limits for Ba		Recovery = 103.15%				
Bet†	6564881.5	2.09 mg/L	0.024	2.09 mg/L	0.024	1.14%
QC value within limits for Be		Recovery = 104.51%				
Cat†	254217.9	51.2 mg/L	0.09	51.2 mg/L	0.09	0.18%
QC value within limits for Ca		Recovery = 102.44%				
Cdt†	55613.2	1.98 mg/L	0.001	1.98 mg/L	0.001	0.05%
QC value within limits for Cd		Recovery = 99.04%				
Cot†	135330.2	5.19 mg/L	0.002	5.19 mg/L	0.002	0.03%
QC value within limits for Co		Recovery = 103.71%				
Crt†	407997.9	5.15 mg/L	0.010	5.15 mg/L	0.010	0.20%
QC value within limits for Cr		Recovery = 102.97%				
Cut†	2023430.8	5.16 mg/L	0.003	5.16 mg/L	0.003	0.05%
QC value within limits for Cu		Recovery = 103.19%				
Fet†	3232.8	5.19 mg/L	0.039	5.19 mg/L	0.039	0.74%
QC value within limits for Fe		Recovery = 103.88%				
K†	54644.3	48.9 mg/L	0.28	48.9 mg/L	0.28	0.58%
QC value within limits for K		Recovery = 97.90%				
Mgt†	97809.5	50.9 mg/L	0.14	50.9 mg/L	0.14	0.27%
QC value within limits for Mg		Recovery = 101.84%				
Mnt†	3004432.0	5.21 mg/L	0.003	5.21 mg/L	0.003	0.06%
QC value within limits for Mn		Recovery = 104.26%				
Mot†	66514.0	5.10 mg/L	0.001	5.10 mg/L	0.001	0.02%
QC value within limits for Mo		Recovery = 101.99%				
Nat†	195616.8	49.8 mg/L	0.11	49.8 mg/L	0.11	0.23%
QC value within limits for Na		Recovery = 99.58%				
Nit†	119024.5	5.23 mg/L	0.001	5.23 mg/L	0.001	0.02%
QC value within limits for Ni		Recovery = 104.51%				
Pbt†	26174.6	5.13 mg/L	0.068	5.13 mg/L	0.068	1.32%
QC value within limits for Pb		Recovery = 102.57%				
Sbt†	9729.6	4.81 mg/L	0.076	4.81 mg/L	0.076	1.57%
QC value within limits for Sb		Recovery = 96.23%				
Set†	6650.9	5.01 mg/L	0.078	5.01 mg/L	0.078	1.57%
QC value within limits for Se		Recovery = 100.19%				
T1†	14777.2	5.28 mg/L	0.070	5.28 mg/L	0.070	1.32%
QC value within limits for Tl		Recovery = 105.51%				
V†	884187.6	5.12 mg/L	0.008	5.12 mg/L	0.008	0.16%
QC value within limits for V		Recovery = 102.47%				
Znt†	261195.6	5.21 mg/L	0.003	5.21 mg/L	0.003	0.06%
QC value within limits for Zn		Recovery = 104.29%				
Alxt†	489129.8	5020 ug/L	11.7	5.02 mg/L	0.012	0.23%
QC value within limits for Alx		Recovery = 100.39%				
Bext†	6564881.5	2090 ug/L	23.9	2.09 mg/L	0.024	1.14%
QC value within limits for Bex		Recovery = 104.51%				

All analyte(s) passed QC.

### Mean Data: ICB

Sequence No.: 12  
 Sample ID: MRL  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 20  
 Date Collected: 2/29/2008 08:33:17  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MRL

Analyte	Mean Corrected		Calib.	Sample		RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	
Sca	434142.4	98.0 %	0.61			0.62%
Yr	197509.6	102 %	0.6			0.61%
Agt	2559.3	0.00903 mg/L	0.000270	0.00903 mg/L	0.000270	2.99%
QC value within limits for Ag		Recovery = 90.32%				
Alt	179.1	0.0508 mg/L	0.00042	0.0508 mg/L	0.00042	0.82%
QC value within limits for Al		Recovery = 101.57%				
Ast	206.0	0.0990 mg/L	0.00007	0.0990 mg/L	0.00007	0.07%
QC value within limits for As		Recovery = 99.05%				
B_t	1927.9	0.0611 mg/L	0.00017	0.0611 mg/L	0.00017	0.28%
QC value within limits for B		Recovery = 122.24%				
Bat	1575.3	0.0211 mg/L	0.00006	0.0211 mg/L	0.00006	0.30%
QC value within limits for Ba		Recovery = 105.45%				
Bet	3391.9	0.00108 mg/L	0.000022	0.00108 mg/L	0.000022	2.02%
QC value within limits for Be		Recovery = 108.00%				
Cat	5067.4	1.02 mg/L	0.003	1.02 mg/L	0.003	0.30%
QC value within limits for Ca		Recovery = 102.10%				
Cdt	177.6	0.00501 mg/L	0.000222	0.00501 mg/L	0.000222	4.44%
QC value within limits for Cd		Recovery = 100.17%				
Cot	1373.9	0.0526 mg/L	0.00034	0.0526 mg/L	0.00034	0.65%
QC value within limits for Co		Recovery = 105.29%				
Crt	811.1	0.0102 mg/L	0.00000	0.0102 mg/L	0.00000	0.04%
QC value within limits for Cr		Recovery = 102.36%				
Cut	3739.8	0.00958 mg/L	0.000088	0.00958 mg/L	0.000088	0.92%
QC value within limits for Cu		Recovery = 95.77%				
Fet	16.6	0.0267 mg/L	0.00149	0.0267 mg/L	0.00149	5.60%
QC value within limits for Fe		Recovery = 133.28%				
Kt	1136.8	1.02 mg/L	0.014	1.02 mg/L	0.014	1.42%
QC value within limits for K		Recovery = 101.84%				
Mgt	205.6	0.107 mg/L	0.0004	0.107 mg/L	0.0004	0.33%
QC value within limits for Mg		Recovery = 107.02%				
Mnt	407.0	0.00071 mg/L	0.000016	0.00071 mg/L	0.000016	2.33%
QC value less than the lower limit for Mn		Recovery = 35.31%				
Mot	270.8	0.0208 mg/L	0.00000	0.0208 mg/L	0.00000	0.01%
QC value within limits for Mo		Recovery = 103.81%				
Nat	3951.0	1.01 mg/L	0.004	1.01 mg/L	0.004	0.39%
QC value within limits for Na		Recovery = 100.57%				
Nit	482.5	0.0212 mg/L	0.00018	0.0212 mg/L	0.00018	0.86%
QC value within limits for Ni		Recovery = 105.92%				
Pbt	108.1	0.0212 mg/L	0.00080	0.0212 mg/L	0.00080	3.79%
QC value within limits for Pb		Recovery = 105.90%				
Sbt	91.2	0.0457 mg/L	0.00128	0.0457 mg/L	0.00128	2.80%
QC value within limits for Sb		Recovery = 91.31%				
Set	135.7	0.102 mg/L	0.0016	0.102 mg/L	0.0016	1.55%
QC value within limits for Se		Recovery = 102.07%				
Tlt	319.2	0.114 mg/L	0.0018	0.114 mg/L	0.0018	1.58%
QC value within limits for Tl		Recovery = 113.64%				
Vt	342.5	0.00203 mg/L	0.000162	0.00203 mg/L	0.000162	8.00%
QC value within limits for V		Recovery = 101.49%				
Znt	1046.1	0.0209 mg/L	0.00008	0.0209 mg/L	0.00008	0.39%
QC value within limits for Zn		Recovery = 104.41%				
Alxt	4497.9	46.2 ug/L	0.41	0.0462 mg/L	0.00041	0.89%
QC value within limits for Alx		Recovery = 92.32%				
Bext	3391.9	1.08 ug/L	0.022	0.00108 mg/L	0.000022	2.02%
QC value within limits for Bex		Recovery = 108.00%				
QC Failed. Retry.						

Sequence No.: 13  
 Sample ID: MRL  
 Analyst:

Autosampler Location: 20  
 Date Collected: 2/29/2008 08:35:55  
 Data Type: Original

Initial Sample Wt:  
Dilution:

Initial Sample Vol:  
Sample Prep Vol:

## Mean Data: MRL

Analyte	Mean Corrected		Calib.		Sample		RSD
	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	
Sca	446221.8	101	%	0.5			0.46%
Yr	199150.3	103	%	0.6			0.58%
Agt	2457.3	0.00867	mg/L	0.000163	0.00867	mg/L	0.000163
	QC value within limits for Ag	Recovery = 86.72%					
Alt	189.3	0.0537	mg/L	0.00214	0.0537	mg/L	0.00214
	QC value within limits for Al	Recovery = 107.34%					
Ast	196.5	0.0945	mg/L	0.00184	0.0945	mg/L	0.00184
	QC value within limits for As	Recovery = 94.47%					
B_t	1752.4	0.0555	mg/L	0.00062	0.0555	mg/L	0.00062
	QC value within limits for B_t	Recovery = 111.10%					
Bat	1531.5	0.0205	mg/L	0.00012	0.0205	mg/L	0.00012
	QC value within limits for Ba	Recovery = 102.51%					
Bet	3718.8	0.00118	mg/L	0.000000	0.00118	mg/L	0.000000
	QC value within limits for Be	Recovery = 118.41%					
Cat	5078.7	1.02	mg/L	0.004	1.02	mg/L	0.004
	QC value within limits for Ca	Recovery = 102.32%					
Cdt	171.7	0.00487	mg/L	0.000082	0.00487	mg/L	0.000082
	QC value within limits for Cd	Recovery = 97.37%					
Cot	1353.5	0.0519	mg/L	0.00067	0.0519	mg/L	0.00067
	QC value within limits for Co	Recovery = 103.72%					
Crt	793.9	0.0100	mg/L	0.00011	0.0100	mg/L	0.00011
	QC value within limits for Cr	Recovery = 100.18%					
Cut	3486.8	0.00893	mg/L	0.000114	0.00893	mg/L	0.000114
	QC value within limits for Cu	Recovery = 89.32%					
Fet	13.1	0.0211	mg/L	0.00300	0.0211	mg/L	0.00300
	QC value within limits for Fe	Recovery = 105.61%					
Kt	1141.1	1.02	mg/L	0.055	1.02	mg/L	0.055
	QC value within limits for K	Recovery = 102.22%					
Mgt	207.7	0.108	mg/L	0.0015	0.108	mg/L	0.0015
	QC value within limits for Mg	Recovery = 108.14%					
Mnt	315.7	0.00055	mg/L	0.000023	0.00055	mg/L	0.000023
	QC value less than the lower limit for Mn	Recovery = 27.39%					
Mot	264.8	0.0203	mg/L	0.00019	0.0203	mg/L	0.00019
	QC value within limits for Mo	Recovery = 101.51%					
Nat	3993.2	1.02	mg/L	0.000	1.02	mg/L	0.000
	QC value within limits for Na	Recovery = 101.64%					
Nit	481.7	0.0211	mg/L	0.00012	0.0211	mg/L	0.00012
	QC value within limits for Ni	Recovery = 105.74%					
Pbt	115.7	0.0227	mg/L	0.00134	0.0227	mg/L	0.00134
	QC value within limits for Pb	Recovery = 113.33%					
Sbt	89.5	0.0448	mg/L	0.00041	0.0448	mg/L	0.00041
	QC value within limits for Sb	Recovery = 89.65%					
Set	131.0	0.0985	mg/L	0.00258	0.0985	mg/L	0.00258
	QC value within limits for Se	Recovery = 98.51%					
Tlt	306.4	0.109	mg/L	0.0002	0.109	mg/L	0.0002
	QC value within limits for Tl	Recovery = 109.11%					
Vt	340.6	0.00202	mg/L	0.000002	0.00202	mg/L	0.000002
	QC value within limits for V	Recovery = 100.90%					
Znt	1017.0	0.0203	mg/L	0.00034	0.0203	mg/L	0.00034
	QC value within limits for Zn	Recovery = 101.49%					
Alxt	4117.8	42.3	ug/L	0.58	0.0423	mg/L	0.00058
	QC value within limits for Alx	Recovery = 84.52%					
Bext	3718.8	1.18	ug/L	0.000	0.00118	mg/L	0.000000
	QC value within limits for Bex	Recovery = 118.41%					
	QC Failed. Continue with analysis.						

Sequence No.: 14  
 Sample ID: MBLANK  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 38  
 Date Collected: 2/29/2008 08:39:24  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MBLANK

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units	Std.Dev.		
Sca	446527.6	101 %	0.5				0.48%
Yr	203318.3	105 %	0.8				0.75%
Agt	-279.6	-0.00099 mg/L	0.000017	-0.00099 mg/L	0.000017		1.70%
Alt	27.2	0.00772 mg/L	0.003033	0.00772 mg/L	0.003033		39.28%
Ast	12.8	0.00614 mg/L	0.000584	0.00614 mg/L	0.000584		9.52%
B_t	156.4	0.00497 mg/L	0.000151	0.00497 mg/L	0.000151		3.04%
Bat	7.1	0.00010 mg/L	0.000022	0.00010 mg/L	0.000022		23.04%
Bet	379.4	0.00012 mg/L	0.000045	0.00012 mg/L	0.000045		37.10%
Cat	133.8	0.0269 mg/L	0.00167	0.0269 mg/L	0.00167		6.20%
Cdt	6.4	0.00013 mg/L	0.000012	0.00013 mg/L	0.000012		9.17%
Cot	0.8	0.00003 mg/L	0.000064	0.00003 mg/L	0.000064		208.79%
Crt	-11.9	-0.00015 mg/L	0.000067	-0.00015 mg/L	0.000067		44.64%
Cut	-346.5	-0.00088 mg/L	0.000017	-0.00088 mg/L	0.000017		1.94%
Fet	5.6	0.00893 mg/L	0.000287	0.00893 mg/L	0.000287		3.21%
Kt	72.7	0.0651 mg/L	0.01074	0.0651 mg/L	0.01074		16.49%
Mgt	6.2	0.00323 mg/L	0.000270	0.00323 mg/L	0.000270		8.35%
Mnt	-1055.0	-0.00183 mg/L	0.000023	-0.00183 mg/L	0.000023		1.24%
Mot	10.4	0.00080 mg/L	0.000005	0.00080 mg/L	0.000005		0.66%
Nat	100.5	0.0256 mg/L	0.00140	0.0256 mg/L	0.00140		5.48%
Nit	-2.1	-0.00009 mg/L	0.000317	-0.00009 mg/L	0.000317		352.25%
Pbt	5.6	0.00110 mg/L	0.000481	0.00110 mg/L	0.000481		43.81%
Sbt	3.6	0.00183 mg/L	0.002118	0.00183 mg/L	0.002118		115.74%
Set	-2.7	-0.00204 mg/L	0.004304	-0.00204 mg/L	0.004304		210.97%
Tlt	-2.0	-0.00073 mg/L	0.002595	-0.00073 mg/L	0.002595		356.73%
Vt	44.0	0.00025 mg/L	0.000044	0.00025 mg/L	0.000044		17.58%
Znt	123.4	0.00248 mg/L	0.000058	0.00248 mg/L	0.000058		2.35%
Alxt	-6.5	-0.0666 ug/L	0.29260	-0.00007 mg/L	0.000293		439.58%
Bext	379.4	0.121 ug/L	0.0448	0.00012 mg/L	0.000045		37.10%

Sequence No.: 15  
 Sample ID: MRL2007  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 39  
 Date Collected: 2/29/2008 08:42:59  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MRL2007

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc.		Conc.	Units		
Sca	455446.5	103	%	0.5			0.49%
Yr	205252.9	106	%	1.2			1.13%
Agt	2472.5	0.00873	mg/L	0.000019	0.00873	mg/L	0.000019
Alt	182.3	0.0517	mg/L	0.00495	0.0517	mg/L	0.00495
Ast	201.7	0.0970	mg/L	0.00084	0.0970	mg/L	0.00084
B_t	1602.0	0.0508	mg/L	0.00022	0.0508	mg/L	0.00022
Bat	1526.1	0.0204	mg/L	0.00025	0.0204	mg/L	0.00025
Bet	3716.6	0.00118	mg/L	0.000003	0.00118	mg/L	0.000003
Cat	5160.7	1.04	mg/L	0.006	1.04	mg/L	0.006
Cdt	169.5	0.00475	mg/L	0.000104	0.00475	mg/L	0.000104
Cot	1379.1	0.0528	mg/L	0.00052	0.0528	mg/L	0.00052
Crt	801.4	0.0101	mg/L	0.00010	0.0101	mg/L	0.00010
Cut	3588.0	0.00919	mg/L	0.000061	0.00919	mg/L	0.000061
Fet	16.4	0.0263	mg/L	0.00069	0.0263	mg/L	0.00069
Kt	1134.0	1.02	mg/L	0.022	1.02	mg/L	0.022
Mgt	199.7	0.104	mg/L	0.0003	0.104	mg/L	0.0003
Mnt	162.4	0.00028	mg/L	0.000062	0.00028	mg/L	0.000062
Mot	260.1	0.0199	mg/L	0.00033	0.0199	mg/L	0.00033
Nat	4015.4	1.02	mg/L	0.005	1.02	mg/L	0.005
Nit	483.4	0.0212	mg/L	0.00034	0.0212	mg/L	0.00034
Pbt	109.1	0.0214	mg/L	0.00127	0.0214	mg/L	0.00127
Sbt	80.9	0.0405	mg/L	0.00022	0.0405	mg/L	0.00022
Set	126.7	0.0953	mg/L	0.00450	0.0953	mg/L	0.00450
Tlt	308.3	0.110	mg/L	0.0011	0.110	mg/L	0.0011
Vt	364.8	0.00216	mg/L	0.000327	0.00216	mg/L	0.000327
Znt	1163.6	0.0232	mg/L	0.00023	0.0232	mg/L	0.00023
Alxt	4260.4	43.7	ug/L	0.31	0.0437	mg/L	0.00031
Bext	3716.6	1.18	ug/L	0.003	0.00118	mg/L	0.000003

Sequence No.: 16  
 Sample ID: SOULTION CHECK  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 25  
 Date Collected: 2/29/2008 08:46:34  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: SOULTION CHECK

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc.	Units		
Sca	422095.9	95.3 %	1.40				1.47%
Yr	191809.5	99.3 %	0.14				0.14%
Alt	6596.4	1.87 mg/L	0.002	1.87	mg/L	0.002	0.09%
B_t	15364.7	0.486 mg/L	0.0118	0.486	mg/L	0.0118	2.43%
Bat	75171.6	1.01 mg/L	0.021	1.01	mg/L	0.021	2.11%
Bet	162939.7	0.0519 mg/L	0.00016	0.0519	mg/L	0.00016	0.32%
Cat	252366.0	50.8 mg/L	0.13	50.8	mg/L	0.13	0.25%
Cdt	5582.0	0.209 mg/L	0.0047	0.209	mg/L	0.0047	2.25%
Cot	26708.5	1.02 mg/L	0.021	1.02	mg/L	0.021	2.09%
Crt	79094.4	0.998 mg/L	0.0047	0.998	mg/L	0.0047	0.47%
Cut	384955.3	0.982 mg/L	0.0026	0.982	mg/L	0.0026	0.27%
Fet	3116.6	5.01 mg/L	0.003	5.01	mg/L	0.003	0.05%
Kt	26403.4	23.7 mg/L	0.18	23.7	mg/L	0.18	0.75%
Mgt	38393.9	20.0 mg/L	0.01	20.0	mg/L	0.01	0.06%
Mot	12960.2	0.994 mg/L	0.0175	0.994	mg/L	0.0175	1.76%
Nat	191381.3	48.7 mg/L	0.32	48.7	mg/L	0.32	0.66%
Nit	11758.5	0.516 mg/L	0.0106	0.516	mg/L	0.0106	2.06%
Pbt	5250.9	1.03 mg/L	0.033	1.03	mg/L	0.033	3.19%
Vt	170653.9	0.989 mg/L	0.0041	0.989	mg/L	0.0041	0.41%
Znt	51782.6	1.04 mg/L	0.023	1.04	mg/L	0.023	2.20%

Sequence No.: 17  
 Sample ID: LCS  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 40  
 Date Collected: 2/29/2008 08:50:15  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCS

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc.	Units	
Sca	431463.4	97.4 %	0.82			0.85%
Yr	192067.7	99.5 %	1.14			1.14%
Alt	6550.1	1.86 mg/L	0.013	1.86	mg/L	0.013 0.69%
B <sub>+</sub>	15113.6	0.478 mg/L	0.0047	0.478	mg/L	0.0047 0.98%
Bat	73357.0	0.982 mg/L	0.0064	0.982	mg/L	0.0064 0.65%
Bet	161711.8	0.0515 mg/L	0.00011	0.0515	mg/L	0.00011 0.21%
Cat	245401.9	49.4 mg/L	0.20	49.4	mg/L	0.20 0.41%
Cdt	5472.3	0.205 mg/L	0.0009	0.205	mg/L	0.0009 0.42%
Cot	26069.1	0.999 mg/L	0.0074	0.999	mg/L	0.0074 0.74%
Crt	77812.1	0.982 mg/L	0.0023	0.982	mg/L	0.0023 0.23%
Cut	384124.9	0.979 mg/L	0.0028	0.979	mg/L	0.0028 0.29%
Fet	3095.3	4.97 mg/L	0.065	4.97	mg/L	0.065 1.30%
Kt	20771.3	18.6 mg/L	0.06	18.6	mg/L	0.06 0.32%
Mgt	37743.4	19.6 mg/L	0.24	19.6	mg/L	0.24 1.22%
Mot	12600.5	0.966 mg/L	0.0063	0.966	mg/L	0.0063 0.65%
Nat	186003.5	47.3 mg/L	0.04	47.3	mg/L	0.04 0.09%
Nit	11499.8	0.505 mg/L	0.0040	0.505	mg/L	0.0040 0.78%
Pbt	5112.7	1.00 mg/L	0.007	1.00	mg/L	0.007 0.69%
Vt	168460.5	0.976 mg/L	0.0037	0.976	mg/L	0.0037 0.38%
Znt	50988.9	1.02 mg/L	0.008	1.02	mg/L	0.008 0.75%

Sequence No.: 18  
 Sample ID: LCSD  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 1X

Autosampler Location: 41  
 Date Collected: 2/29/2008 08:53:14  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: LCSD

Analyte	Mean Corrected	Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units		
Sca	421575.5	95.1 %	2.11			2.22%
Yr	193439.5	100 %	3.8			3.80%
Alt	6507.9	1.85 mg/L	0.043	1.85 mg/L	0.043	2.32%
B <sub>t</sub>	15258.9	0.483 mg/L	0.0013	0.483 mg/L	0.0013	0.27%
B <sub>a</sub>	74382.6	0.996 mg/L	0.0065	0.996 mg/L	0.0065	0.65%
Bet	161654.8	0.0515 mg/L	0.00000	0.0515 mg/L	0.00000	0.00%
Cat	250678.8	50.5 mg/L	0.37	50.5 mg/L	0.37	0.74%
Cdt	5545.5	0.208 mg/L	0.0008	0.208 mg/L	0.0008	0.38%
Cot	26404.7	1.01 mg/L	0.004	1.01 mg/L	0.004	0.38%
Crt	78256.0	0.988 mg/L	0.0007	0.988 mg/L	0.0007	0.07%
Cut	385907.7	0.984 mg/L	0.0024	0.984 mg/L	0.0024	0.25%
Fet	3089.5	4.96 mg/L	0.092	4.96 mg/L	0.092	1.85%
Kt	21096.9	18.9 mg/L	0.17	18.9 mg/L	0.17	0.91%
Mgt	38503.1	20.0 mg/L	0.41	20.0 mg/L	0.41	2.04%
Mot	12792.4	0.981 mg/L	0.0068	0.981 mg/L	0.0068	0.70%
Nat	188845.7	48.1 mg/L	0.16	48.1 mg/L	0.16	0.33%
Nit	11622.7	0.510 mg/L	0.0047	0.510 mg/L	0.0047	0.92%
Pbt	5180.4	1.02 mg/L	0.009	1.02 mg/L	0.009	0.84%
Vt	169600.7	0.983 mg/L	0.0002	0.983 mg/L	0.0002	0.02%
Znt	51685.3	1.04 mg/L	0.005	1.04 mg/L	0.005	0.47%

Sequence No.: 19  
 Sample ID: 2802070519\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 42  
 Date Collected: 2/29/2008 08:56:53  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802070519\_2X

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc.	Units	
Sca	448060.6	101 %	1.2			1.17%
Yr	202664.8	105 %	2.7			2.53%
Alt	36.3	0.0103 mg/L	0.00222	0.0206 mg/L	0.00444	21.53%
B <sub>t</sub>	156.3	0.00496 mg/L	0.000219	0.00993 mg/L	0.000438	4.41%
Bat	24.1	0.00032 mg/L	0.000033	0.00065 mg/L	0.000066	10.22%
Bet	451.5	0.00014 mg/L	0.000001	0.00029 mg/L	0.000001	0.37%
Cat	461.8	0.0930 mg/L	0.00474	0.186 mg/L	0.0095	5.10%
Cdt	-1.6	-0.00006 mg/L	0.000009	-0.00012 mg/L	0.000019	16.27%
Cot	3.0	0.00012 mg/L	0.000060	0.00023 mg/L	0.000120	51.61%
Crt	-4.3	-0.00005 mg/L	0.000127	-0.00011 mg/L	0.000255	234.50%
Cut	-242.0	-0.00062 mg/L	0.000014	-0.00123 mg/L	0.000028	2.30%
Fet	11.1	0.0178 mg/L	0.00755	0.0356 mg/L	0.01510	42.37%
Kt	64.2	0.0575 mg/L	0.00000	0.115 mg/L	0.0000	0.01%
Mgt	67.8	0.0353 mg/L	0.00273	0.0706 mg/L	0.00547	7.74%
Mot	10.1	0.00078 mg/L	0.000107	0.00156 mg/L	0.000213	13.72%
Nat	521.5	0.133 mg/L	0.0144	0.265 mg/L	0.0289	10.88%
Nit	-0.1	0.00000 mg/L	0.000286	-0.00001 mg/L	0.000572	>999.9%
Pbt	0.1	0.00003 mg/L	0.001229	0.00006 mg/L	0.002457	>999.9%
Vt	38.0	0.00022 mg/L	0.000073	0.00044 mg/L	0.000146	33.32%
Znt	144.6	0.00291 mg/L	0.000071	0.00581 mg/L	0.000142	2.45%

Sequence No.: 20  
 Sample ID: 2802070519\_2XMS  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 43  
 Date Collected: 2/29/2008 09:00:28  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802070519\_2XMS

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc.	Units		
Sca	423508.2	95.6 %	2.62				2.74%
Yr	184900.6	95.7 %	0.41				0.43%
Alt	3388.4	0.961 mg/L	0.0075	1.92	mg/L	0.015	0.78%
B_t	7522.2	0.238 mg/L	0.0053	0.476	mg/L	0.0107	2.24%
Bat	37715.4	0.505 mg/L	0.0140	1.01	mg/L	0.028	2.77%
Bet	81459.1	0.0259 mg/L	0.00008	0.0519	mg/L	0.00015	0.29%
Cat	128872.4	26.0 mg/L	0.04	51.9	mg/L	0.08	0.15%
Cdt	2756.8	0.103 mg/L	0.0031	0.207	mg/L	0.0062	2.99%
Cot	13356.3	0.512 mg/L	0.0146	1.02	mg/L	0.029	2.86%
Crt	39524.4	0.499 mg/L	0.0021	0.998	mg/L	0.0043	0.43%
Cut	193822.5	0.494 mg/L	0.0051	0.988	mg/L	0.0102	1.03%
Fet	1619.6	2.60 mg/L	0.029	5.20	mg/L	0.058	1.12%
Kt	11161.1	10.00 mg/L	0.075	20.0	mg/L	0.15	0.75%
Mgt	20418.8	10.6 mg/L	0.08	21.3	mg/L	0.15	0.71%
Mot	6430.5	0.493 mg/L	0.0135	0.986	mg/L	0.0271	2.75%
Nat	96380.6	24.5 mg/L	0.06	49.1	mg/L	0.12	0.24%
Nit	5875.1	0.258 mg/L	0.0066	0.516	mg/L	0.0132	2.57%
Pbt	2614.9	0.512 mg/L	0.0161	1.02	mg/L	0.032	3.14%
Vt	85074.8	0.493 mg/L	0.0032	0.986	mg/L	0.0065	0.66%
Znt	25810.6	0.517 mg/L	0.0139	1.03	mg/L	0.028	2.69%

Sequence No.: 21  
 Sample ID: 2802070519\_2XMSD  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 44  
 Date Collected: 2/29/2008 09:04:03  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: 2802070519\_2XMSD

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc.	Units		
Sca	431653.6	97.4 %	0.23				0.24%
Yr	185364.5	96.0 %	0.70				0.73%
Alt	3292.6	0.934 mg/L	0.0079	1.87	mg/L	0.016	0.85%
B <sub>t</sub>	7219.8	0.228 mg/L	0.0026	0.457	mg/L	0.0052	1.13%
Bat	35954.2	0.481 mg/L	0.0042	0.963	mg/L	0.0085	0.88%
Bet	79427.3	0.0253 mg/L	0.00003	0.0506	mg/L	0.00006	0.12%
Cat	127452.0	25.7 mg/L	0.10	51.4	mg/L	0.19	0.37%
Cdt	2628.0	0.0985 mg/L	0.00051	0.197	mg/L	0.0010	0.52%
Cot	12729.3	0.488 mg/L	0.0032	0.975	mg/L	0.0065	0.67%
Crt	38550.3	0.486 mg/L	0.0010	0.973	mg/L	0.0020	0.21%
Cut	189436.9	0.483 mg/L	0.0007	0.966	mg/L	0.0015	0.15%
Fet	1581.8	2.54 mg/L	0.015	5.08	mg/L	0.030	0.59%
Kt	10952.9	9.81 mg/L	0.065	19.6	mg/L	0.13	0.66%
Mgt	20099.3	10.5 mg/L	0.09	20.9	mg/L	0.18	0.84%
Mot	6142.4	0.471 mg/L	0.0031	0.942	mg/L	0.0062	0.66%
Nat	95337.9	24.3 mg/L	0.12	48.5	mg/L	0.23	0.48%
Nit	5608.7	0.246 mg/L	0.0023	0.492	mg/L	0.0045	0.92%
Pbt	2503.9	0.491 mg/L	0.0033	0.981	mg/L	0.0066	0.68%
Vt	83076.5	0.481 mg/L	0.0001	0.963	mg/L	0.0003	0.03%
Znt	24689.3	0.495 mg/L	0.0042	0.989	mg/L	0.0084	0.85%

Sequence No.: 22  
 Sample ID: 2802080261\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 45  
 Date Collected: 2/29/2008 09:07:38  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802080261\_2X

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc.	Units	
Sca	419362.4	94.6 %	0.13			0.13%
Yr	194829.9	101 %	1.1			1.11%
Alt	-2.7	-0.00077 mg/L	0.005583	-0.00153 mg/L	0.011166	729.25%
B <sub>t</sub>	20738.1	0.659 mg/L	0.0001	1.32 mg/L	0.000	0.02%
Bat	813.2	0.0109 mg/L	0.00027	0.0218 mg/L	0.00054	2.46%
Bet	-129.5	-0.00004 mg/L	0.000009	-0.00008 mg/L	0.000018	22.36%
Cat	269069.4	54.2 mg/L	0.09	108 mg/L	0.2	0.17%
Cdt	-0.7	-0.00002 mg/L	0.000007	-0.00005 mg/L	0.000014	27.21%
Cot	-7.2	-0.00028 mg/L	0.000185	-0.00055 mg/L	0.000371	67.21%
Crt	12181.0	0.154 mg/L	0.0008	0.307 mg/L	0.0016	0.52%
Cut	33.1	0.00008 mg/L	0.000126	0.00017 mg/L	0.000253	150.40%
Fet	10.2	0.0164 mg/L	0.00056	0.0329 mg/L	0.00113	3.44%
Kt	3277.5	2.94 mg/L	0.052	5.87 mg/L	0.105	1.78%
Mgt	32160.8	16.7 mg/L	0.21	33.5 mg/L	0.41	1.23%
Mot	83.8	0.00643 mg/L	0.000015	0.0129 mg/L	0.00003	0.23%
Nat	406104.8	103 mg/L	0.2	207 mg/L	0.5	0.23%
Nit	0.7	0.00003 mg/L	0.000128	0.00006 mg/L	0.000256	440.84%
Pbt	-12.3	-0.00240 mg/L	0.000137	-0.00480 mg/L	0.000274	5.70%
Vt	3884.2	0.0232 mg/L	0.00046	0.0465 mg/L	0.00093	1.99%
Znt	335.8	0.00675 mg/L	0.000110	0.0135 mg/L	0.00022	1.63%

Sequence No.: 23  
 Sample ID: 2802080261\_2XMS  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 46  
 Date Collected: 2/29/2008 09:11:58  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802080261\_2XMS

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc.	Units		
Sca	410518.0	92.6 %	0.03				0.03%
Yr	192753.7	99.8 %	0.75				0.76%
Alt	3349.9	0.950 mg/L	0.0061	1.90	mg/L	0.012	0.64%
B_t	28430.7	0.902 mg/L	0.0064	1.80	mg/L	0.013	0.71%
Bat	39463.3	0.528 mg/L	0.0013	1.06	mg/L	0.003	0.24%
Bet	84034.4	0.0268 mg/L	0.00001	0.0535	mg/L	0.00002	0.04%
Cat	397585.1	80.1 mg/L	0.25	160	mg/L	0.5	0.31%
Cdt	2876.2	0.108 mg/L	0.0007	0.216	mg/L	0.0013	0.62%
Cot	13587.8	0.521 mg/L	0.0017	1.04	mg/L	0.003	0.32%
Crt	52413.4	0.661 mg/L	0.0028	1.32	mg/L	0.006	0.42%
Cut	200838.1	0.512 mg/L	0.0026	1.02	mg/L	0.005	0.51%
Fet	1619.8	2.60 mg/L	0.021	5.21	mg/L	0.041	0.79%
Kt	14321.0	12.8 mg/L	0.06	25.7	mg/L	0.12	0.47%
Mgt	52150.6	27.1 mg/L	0.09	54.3	mg/L	0.19	0.35%
Mot	6668.6	0.511 mg/L	0.0011	1.02	mg/L	0.002	0.21%
Nat	496589.0	126 mg/L	0.1	253	mg/L	0.1	0.04%
Nit	5909.1	0.259 mg/L	0.0001	0.519	mg/L	0.0001	0.02%
Pbt	2607.3	0.511 mg/L	0.0032	1.02	mg/L	0.006	0.62%
Vt	91264.5	0.530 mg/L	0.0015	1.06	mg/L	0.003	0.27%
Znt	26930.8	0.540 mg/L	0.0024	1.08	mg/L	0.005	0.45%

Sequence No.: 24  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/29/2008 09:15:38  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sca	409820.8	92.5 %	0.50				0.54%
Yr	187772.9	97.2 %	0.13				0.13%
Alt	17230.9	4.89 mg/L	0.011	4.89 mg/L	0.011	0.011	0.23%
QC value within limits for Al		Recovery = 97.72%					
B_t	80418.9	2.54 mg/L	0.026	2.54 mg/L	0.026	0.026	1.01%
QC value within limits for B_t		Recovery = 101.73%					
Bat	392700.6	5.26 mg/L	0.032	5.26 mg/L	0.032	0.032	0.61%
QC value within limits for Ba		Recovery = 105.14%					
Set	6717837.2	2.14 mg/L	0.000	2.14 mg/L	0.000	0.000	0.02%
QC value within limits for Be		Recovery = 106.95%					
Cat	258024.0	52.0 mg/L	0.29	52.0 mg/L	0.29	0.29	0.55%
QC value within limits for Ca		Recovery = 103.97%					
Cdt	56062.5	2.08 mg/L	0.015	2.08 mg/L	0.015	0.015	0.73%
QC value within limits for Cd		Recovery = 104.07%					
Cot	137278.1	5.26 mg/L	0.025	5.26 mg/L	0.025	0.025	0.48%
QC value within limits for Co		Recovery = 105.20%					
Crt	416942.6	5.26 mg/L	0.045	5.26 mg/L	0.045	0.045	0.85%
QC value within limits for Cr		Recovery = 105.23%					
Cut	2000760.2	5.10 mg/L	0.018	5.10 mg/L	0.018	0.018	0.36%
QC value within limits for Cu		Recovery = 102.04%					
Fet	3249.5	5.22 mg/L	0.017	5.22 mg/L	0.017	0.017	0.32%
QC value within limits for Fe		Recovery = 104.42%					
Kt	53837.5	48.2 mg/L	0.02	48.2 mg/L	0.02	0.02	0.05%
QC value within limits for K		Recovery = 96.45%					
Mgt	98058.3	51.0 mg/L	0.06	51.0 mg/L	0.06	0.06	0.12%
QC value within limits for Mg		Recovery = 102.09%					
Mot	67550.1	5.18 mg/L	0.030	5.18 mg/L	0.030	0.030	0.58%
QC value within limits for Mo		Recovery = 103.57%					
Nat	193325.9	49.2 mg/L	0.11	49.2 mg/L	0.11	0.11	0.23%
QC value within limits for Na		Recovery = 98.42%					
Nit	121257.0	5.32 mg/L	0.035	5.32 mg/L	0.035	0.035	0.65%
QC value within limits for Ni		Recovery = 106.47%					
Pbt	27322.2	5.35 mg/L	0.036	5.35 mg/L	0.036	0.036	0.66%
QC value within limits for Pb		Recovery = 107.07%					
Vt	888828.5	5.15 mg/L	0.017	5.15 mg/L	0.017	0.017	0.34%
QC value within limits for V		Recovery = 103.01%					
Znt	265905.6	5.31 mg/L	0.037	5.31 mg/L	0.037	0.037	0.69%
QC value within limits for Zn		Recovery = 106.17%					
All analyte(s) passed QC.							

Sequence No.: 25  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/29/2008 09:19:25  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	436217.7	98.4 %	0.21			0.22%
Yr	201029.0	104 %	0.2			0.16%
Alt	0.4	0.00011 mg/L	0.003764	0.00011 mg/L	0.003764	>999.9%
QC value within limits for Al		Recovery = Not calculated				
B_t	372.6	0.0118 mg/L	0.00027	0.0118 mg/L	0.00027	2.26%
QC value within limits for B_t		Recovery = Not calculated				
Bat	0.3	0.00000 mg/L	0.000064	0.00000 mg/L	0.000064	>999.9%
QC value within limits for Ba		Recovery = Not calculated				
Bet	458.9	0.00015 mg/L	0.000014	0.00015 mg/L	0.000014	9.71%
QC value within limits for Be		Recovery = Not calculated				
Cat	4.7	0.00095 mg/L	0.000943	0.00095 mg/L	0.000943	98.95%
QC value within limits for Ca		Recovery = Not calculated				
Cdt	9.5	0.00035 mg/L	0.000060	0.00035 mg/L	0.000060	17.14%
QC value within limits for Cd		Recovery = Not calculated				
Cot	0.4	0.00001 mg/L	0.000036	0.00001 mg/L	0.000036	250.27%
QC value within limits for Co		Recovery = Not calculated				
Crt	-2.8	-0.00003 mg/L	0.000106	-0.00003 mg/L	0.000106	303.82%
QC value within limits for Cr		Recovery = Not calculated				
Cut	-271.1	-0.00069 mg/L	0.000078	-0.00069 mg/L	0.000078	11.27%
QC value within limits for Cu		Recovery = Not calculated				
Fet	2.7	0.00432 mg/L	0.001641	0.00432 mg/L	0.001641	38.00%
QC value within limits for Fe		Recovery = Not calculated				
Kt	65.3	0.0585 mg/L	0.00643	0.0585 mg/L	0.00643	10.99%
QC value within limits for K		Recovery = Not calculated				
Mgt	4.1	0.00212 mg/L	0.000832	0.00212 mg/L	0.000832	39.27%
QC value within limits for Mg		Recovery = Not calculated				
Mot	14.7	0.00113 mg/L	0.000074	0.00113 mg/L	0.000074	6.52%
QC value within limits for Mo		Recovery = Not calculated				
Nat	84.1	0.0214 mg/L	0.00530	0.0214 mg/L	0.00530	24.78%
QC value within limits for Na		Recovery = Not calculated				
Nit	-4.3	-0.00019 mg/L	0.000111	-0.00019 mg/L	0.000111	58.27%
QC value within limits for Ni		Recovery = Not calculated				
Pbt	3.8	0.00075 mg/L	0.000816	0.00075 mg/L	0.000816	109.00%
QC value within limits for Pb		Recovery = Not calculated				
Vt	10.6	0.00006 mg/L	0.000020	0.00006 mg/L	0.000020	33.54%
QC value within limits for V		Recovery = Not calculated				
Znt	2.6	0.00005 mg/L	0.000092	0.00005 mg/L	0.000092	174.71%
QC value within limits for Zn		Recovery = Not calculated				
All analyte(s) passed QC.						

Sequence No.: 26  
 Sample ID: 2802080261\_2XMSD  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 47  
 Date Collected: 2/29/2008 09:22:48  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802080261\_2XMSD

Analyte	Mean Corrected		Calib.	Sample			RSD
	Intensity	Conc. Units		Std.Dev.	Conc.	Units	
Sca	418708.7	94.5 %	0.74				0.79%
Yr	192708.9	99.8 %	1.00				1.00%
Alt	3200.5	0.908 mg/L	0.0093	1.82	mg/L	0.019	1.03%
B <sub>t</sub>	27557.2	0.874 mg/L	0.0092	1.75	mg/L	0.018	1.05%
Bat	37583.0	0.503 mg/L	0.0060	1.01	mg/L	0.012	1.19%
Bet	81130.7	0.0258 mg/L	0.00005	0.0517	mg/L	0.00011	0.21%
Cat	386738.9	77.9 mg/L	0.06	156	mg/L	0.1	0.08%
Cdt	2709.1	0.102 mg/L	0.0007	0.203	mg/L	0.0014	0.69%
Cot	12960.8	0.497 mg/L	0.0043	0.993	mg/L	0.0086	0.86%
Crt	50251.4	0.634 mg/L	0.0067	1.27	mg/L	0.013	1.05%
Cut	193641.1	0.494 mg/L	0.0002	0.988	mg/L	0.0004	0.04%
Fet	1552.8	2.49 mg/L	0.020	4.99	mg/L	0.039	0.78%
Kt	13862.5	12.4 mg/L	0.13	24.8	mg/L	0.26	1.06%
Mgt	50777.6	26.4 mg/L	0.05	52.9	mg/L	0.10	0.18%
Mot	6386.2	0.490 mg/L	0.0053	0.979	mg/L	0.0107	1.09%
Nat	486164.4	124 mg/L	0.9	247	mg/L	1.7	0.70%
Nit	5644.7	0.248 mg/L	0.0027	0.496	mg/L	0.0053	1.08%
Pbt	2523.6	0.494 mg/L	0.0104	0.989	mg/L	0.0207	2.10%
Vt	88400.8	0.513 mg/L	0.0001	1.03	mg/L	0.000	0.03%
Znt	25852.7	0.518 mg/L	0.0057	1.04	mg/L	0.011	1.10%

Sequence No.: 36  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/29/2008 10:04:53  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCV

Analyte	Mean Corrected		Calib.	Sample		RSD
	Intensity	Conc. Units		Std.Dev.	Conc. Units	
Sca	410798.8	92.7 %	0.03			0.04%
Yr	192889.5	99.9 %	0.15			0.15%
Alt	16690.5	4.73 mg/L	0.012	4.73 mg/L	0.012	0.25%
QC value within limits for Al		Recovery = 94.66%				
B_t	81861.6	2.59 mg/L	0.014	2.59 mg/L	0.014	0.52%
QC value within limits for B_t		Recovery = 103.56%				
Bat	395384.8	5.29 mg/L	0.005	5.29 mg/L	0.005	0.10%
QC value within limits for Ba		Recovery = 105.86%				
Bet	6809368.3	2.17 mg/L	0.017	2.17 mg/L	0.017	0.79%
QC value within limits for Be		Recovery = 108.40%				
Cat	255036.2	51.4 mg/L	0.39	51.4 mg/L	0.39	0.75%
QC value within limits for Ca		Recovery = 102.77%				
Cdt	56408.8	2.09 mg/L	0.003	2.09 mg/L	0.003	0.16%
QC value within limits for Cd		Recovery = 104.71%				
Cot	137560.0	5.27 mg/L	0.009	5.27 mg/L	0.009	0.17%
QC value within limits for Co		Recovery = 105.42%				
Crt	416901.4	5.26 mg/L	0.002	5.26 mg/L	0.002	0.05%
QC value within limits for Cr		Recovery = 105.22%				
Cut	2032533.5	5.18 mg/L	0.003	5.18 mg/L	0.003	0.06%
QC value within limits for Cu		Recovery = 103.66%				
Fet	3209.6	5.16 mg/L	0.012	5.16 mg/L	0.012	0.23%
QC value within limits for Fe		Recovery = 103.14%				
Kt	52253.9	46.8 mg/L	0.09	46.8 mg/L	0.09	0.19%
QC value within limits for K		Recovery = 93.62%				
Mgt	96143.0	50.1 mg/L	0.23	50.1 mg/L	0.23	0.46%
QC value within limits for Mg		Recovery = 100.10%				
Mot	68087.7	5.22 mg/L	0.012	5.22 mg/L	0.012	0.23%
QC value within limits for Mo		Recovery = 104.40%				
Nat	190131.7	48.4 mg/L	0.16	48.4 mg/L	0.16	0.33%
QC value within limits for Na		Recovery = 96.79%				
Nit	122055.2	5.36 mg/L	0.014	5.36 mg/L	0.014	0.27%
QC value within limits for Ni		Recovery = 107.18%				
Pbt	27473.3	5.38 mg/L	0.010	5.38 mg/L	0.010	0.19%
QC value within limits for Pb		Recovery = 107.66%				
Vt	898483.0	5.21 mg/L	0.003	5.21 mg/L	0.003	0.05%
QC value within limits for V		Recovery = 104.13%				
Znt	267389.5	5.34 mg/L	0.014	5.34 mg/L	0.014	0.26%
QC value within limits for Zn		Recovery = 106.76%				

All analyte(s) passed QC.

Sequence No.: 37  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/29/2008 10:08:41  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	424814.7	95.9 %	1.87			1.95%
Yr	197778.7	102 %	1.7			1.68%
Alt	-14.7	-0.00417 mg/L	0.005152	-0.00417 mg/L	0.005152	123.44%
QC value within limits for Al		Recovery = Not calculated				
B_t	1295.5	0.0411 mg/L	0.00173	0.0411 mg/L	0.00173	4.20%
QC value greater than the upper limit for B		Recovery = Not calculated				
Bat	-2.4	-0.00003 mg/L	0.000044	-0.00003 mg/L	0.000044	137.78%
Bet	401.3	0.00013 mg/L	0.000051	0.00013 mg/L	0.000051	39.65%
QC value within limits for Ba		Recovery = Not calculated				
Cat	0.8	0.00017 mg/L	0.002560	0.00017 mg/L	0.002560	>999.9%
QC value within limits for Be		Recovery = Not calculated				
Cdt	10.9	0.00040 mg/L	0.000138	0.00040 mg/L	0.000138	34.41%
QC value within limits for Ca		Recovery = Not calculated				
Cot	0.2	0.00001 mg/L	0.000314	0.00001 mg/L	0.000314	>999.9%
QC value within limits for Co		Recovery = Not calculated				
Crt	214.4	0.00271 mg/L	0.000204	0.00271 mg/L	0.000204	7.55%
QC value within limits for Cr		Recovery = Not calculated				
Cut	-265.2	-0.00068 mg/L	0.000141	-0.00068 mg/L	0.000141	20.87%
QC value within limits for Cu		Recovery = Not calculated				
Fet	1.8	0.00293 mg/L	0.004101	0.00293 mg/L	0.004101	139.89%
QC value within limits for Fe		Recovery = Not calculated				
Kt	123.0	0.110 mg/L	0.0275	0.110 mg/L	0.0275	24.94%
QC value within limits for K		Recovery = Not calculated				
Mgt	3.4	0.00176 mg/L	0.002125	0.00176 mg/L	0.002125	120.42%
QC value within limits for Mg		Recovery = Not calculated				
Mot	14.8	0.00113 mg/L	0.000136	0.00113 mg/L	0.000136	12.07%
QC value within limits for Mo		Recovery = Not calculated				
Nat	525.8	0.134 mg/L	0.0054	0.134 mg/L	0.0054	4.00%
QC value within limits for Na		Recovery = Not calculated				
Nit	2.7	0.00012 mg/L	0.000154	0.00012 mg/L	0.000154	127.81%
QC value within limits for Ni		Recovery = Not calculated				
Pbt	1.7	0.00033 mg/L	0.001130	0.00033 mg/L	0.001130	340.06%
QC value within limits for Pb		Recovery = Not calculated				
Vt	10.5	0.00008 mg/L	0.000046	0.00008 mg/L	0.000046	60.69%
QC value within limits for V		Recovery = Not calculated				
Znt	3.9	0.00008 mg/L	0.000075	0.00008 mg/L	0.000075	98.06%
QC value within limits for Zn		Recovery = Not calculated				
QC Failed. Retry.						

Sequence No.: 38  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/29/2008 10:11:13  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	430428.6	97.1 %	0.84			0.86%
Yr	192937.1	99.9 %	7.26			7.27%
Alt	4.7	0.00133 mg/L	0.009550	0.00133 mg/L	0.009550	718.89%
QC value within limits for Al		Recovery = Not calculated				
B_t	1073.2	0.0341 mg/L	0.00141	0.0341 mg/L	0.00141	4.15%
QC value greater than the upper limit for B		Recovery = Not calculated				
Bat	-3.4	-0.00005 mg/L	0.000110	-0.00005 mg/L	0.000110	240.92%
Bet	388.8	0.00012 mg/L	0.000014	0.00012 mg/L	0.000014	11.05%

Cat	QC value within limits for Be 13.0	Recovery = Not calculated 0.00262 mg/L 0.001195	0.00262 mg/L	0.001195	45.69%
Cdt	QC value within limits for Ca 4.8	Recovery = Not calculated 0.00017 mg/L 0.000271	0.00017 mg/L	0.000271	155.54%
Cot	QC value within limits for Cd -6.6	Recovery = Not calculated -0.00025 mg/L 0.000098	-0.00025 mg/L	0.000098	38.83%
Crt	QC value within limits for Co 142.7	Recovery = Not calculated 0.00180 mg/L 0.000069	0.00180 mg/L	0.000069	3.83%
Cut	QC value within limits for Cr -269.6	Recovery = Not calculated -0.00069 mg/L 0.000069	-0.00069 mg/L	0.000069	10.10%
Fet	QC value within limits for Cu 0.4	Recovery = Not calculated 0.00063 mg/L 0.000404	0.00063 mg/L	0.000404	64.46%
Kt	QC value within limits for Fe 153.2	Recovery = Not calculated 0.137 mg/L 0.0076	0.137 mg/L	0.0076	5.52%
Mgt	QC value within limits for K -0.7	Recovery = Not calculated -0.00035 mg/L 0.001964	-0.00035 mg/L	0.001964	562.87%
Mot	QC value within limits for Mg 8.5	Recovery = Not calculated 0.00065 mg/L 0.000188	0.00065 mg/L	0.000188	28.72%
Nat	QC value within limits for Mo 528.9	Recovery = Not calculated 0.135 mg/L 0.0015	0.135 mg/L	0.0015	1.13%
Nit	QC value within limits for Na 1.9	Recovery = Not calculated 0.00008 mg/L 0.000323	0.00008 mg/L	0.000323	390.36%
Pbt	QC value within limits for Ni -4.9	Recovery = Not calculated -0.00096 mg/L 0.000401	-0.00096 mg/L	0.000401	41.73%
Vt	QC value within limits for Pb 12.2	Recovery = Not calculated 0.00008 mg/L 0.000004	0.00008 mg/L	0.000004	4.75%
Znt	QC value within limits for V -6.3	Recovery = Not calculated -0.00013 mg/L 0.000028	-0.00013 mg/L	0.000028	21.63%
	QC value within limits for Zn	Recovery = Not calculated			
	QC Failed. Retry.				

Sequence No.: 39

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 0

Date Collected: 2/29/2008 10:13:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Mean Data: CCB

Analyte	Mean Corrected		Calib.	Sample		RSD
	Intensity	Conc.		Units	Conc.	
Sca	425880.2	96.1	%	3.91		4.07%
Yr	200231.8	104	%	0.1		0.06%
Alt	-29.5	-0.00838	mg/L	0.005636	-0.00838 mg/L	67.28%
B_t	946.1	0.0300	mg/L	0.00149	0.0300 mg/L	4.97%
Bat	-4.1	-0.00005	mg/L	0.000077	-0.00005 mg/L	139.41%
Bet	400.7	0.00013	mg/L	0.000009	0.00013 mg/L	7.34%
Cat	11.1	0.00223	mg/L	0.000324	0.00223 mg/L	14.52%
Cdt	QC value within limits for Ca 4.2	Recovery = Not calculated 0.00015 mg/L	0.000131	0.00015 mg/L	0.000131	84.67%
Cot	QC value within limits for Cd 4.1	Recovery = Not calculated 0.00016 mg/L	0.000194	0.00016 mg/L	0.000194	123.73%
Crt	QC value within limits for Co 121.8	Recovery = Not calculated 0.00154 mg/L	0.000286	0.00154 mg/L	0.000286	18.63%
Cut	QC value within limits for Cr -345.4	Recovery = Not calculated -0.00088 mg/L	0.000250	-0.00088 mg/L	0.000250	28.45%
Fet	QC value within limits for Cu 0.8	Recovery = Not calculated 0.00122 mg/L	0.002837	0.00122 mg/L	0.002837	232.98%
Kt	QC value within limits for Fe 46.9	Recovery = Not calculated 0.0420 mg/L	0.00111	0.0420 mg/L	0.00111	2.64%
Mgt	QC value within limits for K 2.0	Recovery = Not calculated 0.00102 mg/L	0.000086	0.00102 mg/L	0.000086	8.48%
Mot	QC value within limits for Mg 8.1	Recovery = Not calculated 0.00062 mg/L	0.000357	0.00062 mg/L	0.000357	57.55%
Nat	QC value within limits for Mo 472.7	Recovery = Not calculated 0.120 mg/L	0.0139	0.120 mg/L	0.0139	11.59%
	QC value within limits for Na	Recovery = Not calculated				

Nit	4.4	0.00019 mg/L	0.000261	0.00019 mg/L	0.000261	136.51%
	QC value within limits for Ni	Recovery = Not calculated				
Pbt	-1.7	-0.00032 mg/L	0.000309	-0.00032 mg/L	0.000309	95.51%
	QC value within limits for Pb	Recovery = Not calculated				
Vt	4.6	0.00004 mg/L	0.000019	0.00004 mg/L	0.000019	54.05%
	QC value within limits for V	Recovery = Not calculated				
Znt	-1.0	-0.00002 mg/L	0.000267	-0.00002 mg/L	0.000267	>999.9%
	QC value within limits for Zn	Recovery = Not calculated				
	QC Failed. Continue with analysis.					

Sequence No.: 40  
 Sample ID: MCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 2/29/2008 10:17:07  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	408138.9	92.1 %	1.65			1.80%
Yr	194844.7	101 %	0.3			0.29%
Alt	8518.2	2.42 mg/L	0.010	2.42 mg/L	0.010	0.41%
	QC value within limits for Al	Recovery = 96.62%				
B_t	40818.3	1.29 mg/L	0.017	1.29 mg/L	0.017	1.33%
	QC value within limits for B_t	Recovery = 103.27%				
Bat	205726.1	2.75 mg/L	0.009	2.75 mg/L	0.009	0.32%
	QC value greater than the upper limit for Ba	Recovery = 110.17%				
Bet	3515314.2	1.12 mg/L	0.006	1.12 mg/L	0.006	0.52%
	QC value greater than the upper limit for Be	Recovery = 111.93%				
Cat	131796.7	26.6 mg/L	0.20	26.6 mg/L	0.20	0.75%
	QC value within limits for Ca	Recovery = 106.22%				
Cdt	28506.6	1.06 mg/L	0.012	1.06 mg/L	0.012	1.17%
	QC value within limits for Cd	Recovery = 105.85%				
Cot	70702.6	2.71 mg/L	0.031	2.71 mg/L	0.031	1.15%
	QC value within limits for Co	Recovery = 108.36%				
Crt	215112.2	2.71 mg/L	0.008	2.71 mg/L	0.008	0.29%
	QC value within limits for Cr	Recovery = 108.58%				
Cut	1046919.5	2.67 mg/L	0.005	2.67 mg/L	0.005	0.18%
	QC value within limits for Cu	Recovery = 106.78%				
Fet	1646.6	2.65 mg/L	0.007	2.65 mg/L	0.007	0.25%
	QC value within limits for Fe	Recovery = 105.83%				
Kt	26531.6	23.8 mg/L	0.23	23.8 mg/L	0.23	0.95%
	QC value within limits for K	Recovery = 95.07%				
Mgt	50052.1	26.1 mg/L	0.17	26.1 mg/L	0.17	0.63%
	QC value within limits for Mg	Recovery = 104.22%				
Mo	34676.3	2.66 mg/L	0.025	2.66 mg/L	0.025	0.95%
	QC value within limits for Mo	Recovery = 106.34%				
Nat	97298.9	24.8 mg/L	0.10	24.8 mg/L	0.10	0.39%
	QC value within limits for Na	Recovery = 99.06%				
Nit	62847.5	2.76 mg/L	0.029	2.76 mg/L	0.029	1.05%
	QC value greater than the upper limit for Ni	Recovery = 110.37%				
Pbt	14140.7	2.77 mg/L	0.043	2.77 mg/L	0.043	1.57%
	QC value greater than the upper limit for Pb	Recovery = 110.83%				
Vt	460600.6	2.67 mg/L	0.008	2.67 mg/L	0.008	0.29%
	QC value within limits for V	Recovery = 106.76%				
Znt	136852.1	2.73 mg/L	0.028	2.73 mg/L	0.028	1.01%
	QC value within limits for Zn	Recovery = 109.28%				
QC Failed. Retry.						

Sequence No.: 41  
 Sample ID: MCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 5  
 Date Collected: 2/29/2008 10:19:13  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: MCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	421330.3	95.1 %	0.13			0.14%
Yr	195651.1	101 %	1.9			1.86%
Alt	8459.3	2.40 mg/L	0.028	2.40 mg/L	0.028	1.16%
	QC value within limits for Al	Recovery = 95.95%				
B_t	40980.8	1.30 mg/L	0.011	1.30 mg/L	0.011	0.81%
	QC value within limits for B_t	Recovery = 103.68%				
Bat	201942.9	2.70 mg/L	0.009	2.70 mg/L	0.009	0.32%
	QC value within limits for Ba	Recovery = 108.14%				
Bet	3457106.7	1.10 mg/L	0.004	1.10 mg/L	0.004	0.33%

	QC value greater than the upper limit for Be	Recovery = 110.07%				
Cat	131245.1	26.4 mg/L	0.19	26.4 mg/L	0.19	0.70%
	QC value within limits for Ca	Recovery = 105.77%				
Cdt	28296.8	1.05 mg/L	0.009	1.05 mg/L	0.009	0.84%
	QC value within limits for Cd	Recovery = 105.07%				
Cot	70107.1	2.69 mg/L	0.018	2.69 mg/L	0.018	0.66%
	QC value within limits for Co	Recovery = 107.45%				
Crt	211206.5	2.67 mg/L	0.013	2.67 mg/L	0.013	0.51%
	QC value within limits for Cr	Recovery = 106.61%				
Cut	1032870.4	2.63 mg/L	0.002	2.63 mg/L	0.002	0.08%
	QC value within limits for Cu	Recovery = 105.35%				
Fet	1634.5	2.63 mg/L	0.026	2.63 mg/L	0.026	0.99%
	QC value within limits for Fe	Recovery = 105.05%				
Kt	26590.2	23.8 mg/L	0.21	23.8 mg/L	0.21	0.90%
	QC value within limits for K	Recovery = 95.28%				
Mgt	49801.0	25.9 mg/L	0.17	25.9 mg/L	0.17	0.65%
	QC value within limits for Mg	Recovery = 103.70%				
Mot	34462.1	2.64 mg/L	0.014	2.64 mg/L	0.014	0.55%
	QC value within limits for Mo	Recovery = 105.68%				
Nat	97494.8	24.8 mg/L	0.28	24.8 mg/L	0.28	1.13%
	QC value within limits for Na	Recovery = 99.26%				
Nit	62265.4	2.73 mg/L	0.024	2.73 mg/L	0.024	0.89%
	QC value within limits for Ni	Recovery = 109.35%				
Pbt	14050.5	2.75 mg/L	0.021	2.75 mg/L	0.021	0.76%
	QC value greater than the upper limit for Pb	Recovery = 110.12%				
Vt	452551.5	2.62 mg/L	0.009	2.62 mg/L	0.009	0.34%
	QC value within limits for V	Recovery = 104.90%				
Znt	135972.1	2.71 mg/L	0.024	2.71 mg/L	0.024	0.90%
	QC value within limits for Zn	Recovery = 108.58%				
QC Failed. Continue with analysis.						

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Sequence No.: 48  
 Sample ID: 2802090001\_10X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 10X

Autosampler Location: 63  
 Date Collected: 2/29/2008 10:48:59  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802090001\_10X

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	
Sca	376226.9	84.9 %	0.12			0.14%
Yr	182128.3	94.3 %	4.82			5.11%
Alt	164.6	0.0467 mg/L	0.00374	0.467 mg/L	0.0374	8.02%
Bat	389.8	0.00522 mg/L	0.000004	0.0522 mg/L	0.00004	0.07%
Cat	380098.6	76.6 mg/L	0.22	766 mg/L	2.2	0.29%
Cdt	-12.3	-0.00045 mg/L	0.000075	-0.00454 mg/L	0.000749	16.50%
Cot	-5.6	-0.00022 mg/L	0.000298	-0.00216 mg/L	0.002980	138.16%
Crt	243158.3	3.07 mg/L	0.009	30.7 mg/L	0.09	0.28%
Cut	-16.0	-0.00004 mg/L	0.000053	-0.00041 mg/L	0.000530	129.67%
Fet	15.0	0.0241 mg/L	0.00132	0.241 mg/L	0.0132	5.46%
Kt	3993.9	3.58 mg/L	0.143	35.8 mg/L	1.43	4.00%
Mgt	72430.7	37.7 mg/L	1.38	377 mg/L	13.8	3.65%
Mot	44.3	0.00340 mg/L	0.000272	0.0340 mg/L	0.00272	8.02%
Nat	914061.2	233 mg/L	2.3	2330 mg/L	23.5	1.01%
Nit	-3.5	-0.00015 mg/L	0.000066	-0.00154 mg/L	0.000662	43.08%
Vt	-2063.1	0.00504 mg/L	0.000082	0.0504 mg/L	0.00082	1.63%
Znt	129.6	0.00261 mg/L	0.000267	0.0261 mg/L	0.00267	10.26%

Sequence No.: 49  
 Sample ID: 2802090002\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 64  
 Date Collected: 2/29/2008 10:53:19  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802090002\_2X

Analyte	Mean Corrected		Calib.	Sample		Std.Dev.	RSD
	Intensity	Conc. Units		Conc.	Units		
Sca	374883.7	84.6 %	1.74				2.06%
Yr	183609.4	95.1 %	0.19				0.20%
Alt	2052.5	0.582 mg/L	0.0109	1.16	mg/L	0.022	1.88%
Bat	1279.6	0.0171 mg/L	0.00013	0.0343	mg/L	0.00027	0.78%
Cat	360105.6	72.6 mg/L	0.17	145	mg/L	0.3	0.23%
Cdt	19.2	0.00071 mg/L	0.000034	0.00141	mg/L	0.000067	4.76%
Cot	7.2	0.00028 mg/L	0.000166	0.00055	mg/L	0.000332	60.34%
Crt	108347.4	1.37 mg/L	0.007	2.73	mg/L	0.015	0.55%
Cut	557.4	0.00142 mg/L	0.000346	0.00284	mg/L	0.000692	24.38%
Fet	138.9	0.223 mg/L	0.0027	0.446	mg/L	0.0053	1.20%
Kt	9319.9	8.35 mg/L	0.013	16.7	mg/L	0.03	0.15%
Mgt	86570.9	45.1 mg/L	0.07	90.1	mg/L	0.14	0.15%
Mot	152.1	0.0117 mg/L	0.00025	0.0233	mg/L	0.00049	2.11%
Nat	1950410.2	496 mg/L	1.2	993	mg/L	2.3	0.23%
Nit	35.3	0.00155 mg/L	0.000969	0.00310	mg/L	0.001937	62.53%
Vt	1674.7	0.0172 mg/L	0.00007	0.0344	mg/L	0.00014	0.41%
Znt	331.2	0.00665 mg/L	0.000003	0.0133	mg/L	0.00001	0.04%

Sequence No.: 50  
 Sample ID: 2802090003\_2X  
 Analyst:  
 Initial Sample Wt:  
 Dilution: 2X

Autosampler Location: 65  
 Date Collected: 2/29/2008 10:57:40  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

Mean Data: 2802090003\_2X

Analyte	Mean Corrected	Calib.	Sample			RSD
	Intensity	Conc. Units	Std.Dev.	Conc.	Units	
Sca	366426.8	82.7 %	0.06			0.07%
Yr	179606.4	93.0 %	3.56			3.83%
Alt	226.3	0.0642 mg/L	0.00059	0.128 mg/L	0.0012	0.92%
Bat	1362.2	0.0182 mg/L	0.00030	0.0365 mg/L	0.00060	1.64%
Cat	217325.8	43.8 mg/L	0.12	87.6 mg/L	0.24	0.27%
Cdt	41.7	0.00153 mg/L	0.000144	0.00306 mg/L	0.000288	9.40%
Cot	1.5	0.00006 mg/L	0.000231	0.00012 mg/L	0.000461	393.92%
Crt	177708.5	2.24 mg/L	0.009	4.49 mg/L	0.018	0.39%
Cut	140.7	0.00036 mg/L	0.000117	0.00072 mg/L	0.000234	32.59%
Fet	32.3	0.0518 mg/L	0.00441	0.104 mg/L	0.0088	8.51%
Kt	19089.5	17.1 mg/L	0.20	34.2 mg/L	0.40	1.18%
Mgt	59373.2	30.9 mg/L	0.49	61.8 mg/L	0.97	1.57%
Mot	198.0	0.0152 mg/L	0.00036	0.0304 mg/L	0.00072	2.37%
Nat	2272008.0	578 mg/L	0.2	1160 mg/L	0.4	0.03%
Nit	2.4	0.00010 mg/L	0.000390	0.00021 mg/L	0.000780	377.20%
Vt	2073.3	0.0243 mg/L	0.00017	0.0486 mg/L	0.00035	0.71%
Znt	145.2	0.00292 mg/L	0.000221	0.00584 mg/L	0.000443	7.59%

Sequence No.: 92  
 Sample ID: ECV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/29/2008 14:41:53  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ECV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	398422.8	89.9 %	0.27			0.30%
Yr	196191.0	102 %	0.4			0.35%
Alt	14898.3	4.22 mg/L	0.015	4.22 mg/L	0.015	0.35%
	QC value less than the lower limit for Al	Recovery = 84.49%				
Bat	396565.9	5.31 mg/L	0.025	5.31 mg/L	0.025	0.47%
	QC value within limits for Ba	Recovery = 106.18%				
Cat	248100.4	50.0 mg/L	0.23	50.0 mg/L	0.23	0.46%
	QC value within limits for Ca	Recovery = 99.97%				
Cdt	56187.0	2.09 mg/L	0.006	2.09 mg/L	0.006	0.29%
	QC value within limits for Cd	Recovery = 104.30%				
Cot	136789.8	5.24 mg/L	0.015	5.24 mg/L	0.015	0.29%
	QC value within limits for Co	Recovery = 104.83%				
Crt	412517.9	5.21 mg/L	0.001	5.21 mg/L	0.001	0.02%
	QC value within limits for Cr	Recovery = 104.12%				
Cut	2017983.3	5.15 mg/L	0.149	5.15 mg/L	0.149	2.89%
	QC value within limits for Cu	Recovery = 102.91%				
Fet	3014.7	4.84 mg/L	0.009	4.84 mg/L	0.009	0.18%
	QC value within limits for Fe	Recovery = 96.87%				
Mot	68548.6	5.26 mg/L	0.014	5.26 mg/L	0.014	0.26%
	QC value within limits for Mo	Recovery = 105.11%				
Nit	122135.2	5.36 mg/L	0.011	5.36 mg/L	0.011	0.21%
	QC value within limits for Ni	Recovery = 107.25%				
Vt	900787.2	5.22 mg/L	0.004	5.22 mg/L	0.004	0.08%
	QC value within limits for V	Recovery = 104.39%				
Znt	269223.0	5.37 mg/L	0.005	5.37 mg/L	0.005	0.09%
	QC value within limits for Zn	Recovery = 107.50%				
	QC Failed. Retry.					

Sequence No.: 93  
 Sample ID: ECV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/29/2008 14:43:56  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ECV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	396135.3	89.4 %	1.22			1.36%
Yr	196510.0	102 %	1.6			1.60%
Alt	14488.6	4.11 mg/L	0.047	4.11 mg/L	0.047	1.14%
	QC value less than the lower limit for Al	Recovery = 82.17%				
Bat	393618.3	5.27 mg/L	0.028	5.27 mg/L	0.028	0.53%
	QC value within limits for Ba	Recovery = 105.39%				
Cat	243850.7	49.1 mg/L	0.37	49.1 mg/L	0.37	0.76%
	QC value within limits for Ca	Recovery = 98.26%				
Cdt	55681.2	2.07 mg/L	0.012	2.07 mg/L	0.012	0.60%
	QC value within limits for Cd	Recovery = 103.36%				
Cot	135565.3	5.19 mg/L	0.031	5.19 mg/L	0.031	0.60%
	QC value within limits for Co	Recovery = 103.89%				
Crt	409225.5	5.16 mg/L	0.062	5.16 mg/L	0.062	1.20%
	QC value within limits for Cr	Recovery = 103.28%				
Cut	2018873.4	5.15 mg/L	0.100	5.15 mg/L	0.100	1.94%
	QC value within limits for Cu	Recovery = 102.96%				
Fet	3090.1	4.96 mg/L	0.131	4.96 mg/L	0.131	2.64%
	QC value within limits for Fe	Recovery = 99.30%				
Mot	67983.1	5.21 mg/L	0.038	5.21 mg/L	0.038	0.73%
	QC value within limits for Mo	Recovery = 104.24%				
Nit	121380.5	5.33 mg/L	0.049	5.33 mg/L	0.049	0.93%

QC value within limits for Ni Recovery = 106.58%  
 Vt 892956.8 5.17 mg/L 0.055 5.17 mg/L 0.055 1.07%  
 QC value within limits for V Recovery = 103.48%  
 Znt 267014.7 5.33 mg/L 0.039 5.33 mg/L 0.039 0.74%  
 QC value within limits for Zn Recovery = 106.62%  
 QC Failed. Continue with analysis.

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Sequence No.: 94 Autosampler Location: 4  
 Sample ID: ECV Date Collected: 2/29/2008 14:45:52  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Initial Sample Vol:  
 Sample Prep Vol:

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## Mean Data: ECV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	400872.2	90.5 %	0.30			0.33%
Yr	194275.8	101 %	0.8			0.76%
Alt	14513.7	4.12 mg/L	0.026	4.12 mg/L	0.026	0.63%
	QC value less than the lower limit for Al	Recovery = 82.31%				
Bat	395634.3	5.30 mg/L	0.021	5.30 mg/L	0.021	0.40%
	QC value within limits for Ba	Recovery = 105.93%				
Cat	241679.1	48.7 mg/L	0.63	48.7 mg/L	0.63	1.29%
	QC value within limits for Ca	Recovery = 97.39%				
Cdt	55963.1	2.08 mg/L	0.003	2.08 mg/L	0.003	0.16%
	QC value within limits for Cd	Recovery = 103.88%				
Cot	136345.6	5.22 mg/L	0.023	5.22 mg/L	0.023	0.45%
	QC value within limits for Co	Recovery = 104.49%				
Crt	412142.1	5.20 mg/L	0.015	5.20 mg/L	0.015	0.28%
	QC value within limits for Cr	Recovery = 104.02%				
Cut	2050926.0	5.23 mg/L	0.025	5.23 mg/L	0.025	0.48%
	QC value within limits for Cu	Recovery = 104.59%				
Fet	3062.6	4.92 mg/L	0.023	4.92 mg/L	0.023	0.48%
	QC value within limits for Fe	Recovery = 98.41%				
Mot	68483.5	5.25 mg/L	0.017	5.25 mg/L	0.017	0.32%
	QC value within limits for Mo	Recovery = 105.01%				
Nit	122332.5	5.37 mg/L	0.023	5.37 mg/L	0.023	0.44%
	QC value within limits for Ni	Recovery = 107.42%				
Vt	889799.1	5.16 mg/L	0.012	5.16 mg/L	0.012	0.23%
	QC value within limits for V	Recovery = 103.12%				
Znt	269204.5	5.37 mg/L	0.014	5.37 mg/L	0.014	0.27%
	QC value within limits for Zn	Recovery = 107.49%				

QC Failed. Continue with analysis.

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Sequence No.: 95 Autosampler Location: 4  
 Sample ID: ECV Date Collected: 2/29/2008 14:47:48  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Initial Sample Vol:  
 Sample Prep Vol:

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## Mean Data: ECV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sca	391087.7	88.3 %	1.08			1.22%
Yr	192407.2	99.6 %	0.20			0.20%
Alt	14444.5	4.10 mg/L	0.008	4.10 mg/L	0.008	0.18%
	QC value less than the lower limit for Al	Recovery = 81.92%				
Bat	398181.4	5.33 mg/L	0.028	5.33 mg/L	0.028	0.53%
	QC value within limits for Ba	Recovery = 106.61%				
Cat	242542.0	48.9 mg/L	0.05	48.9 mg/L	0.05	0.10%
	QC value within limits for Ca	Recovery = 97.73%				
Cdt	56386.5	2.09 mg/L	0.013	2.09 mg/L	0.013	0.62%
	QC value within limits for Cd	Recovery = 104.67%				
Cot	137553.0	5.27 mg/L	0.037	5.27 mg/L	0.037	0.70%
	QC value within limits for Co	Recovery = 105.41%				
Crt	414308.3	5.23 mg/L	0.035	5.23 mg/L	0.035	0.67%
	QC value within limits for Cr	Recovery = 104.57%				
Cut	2120908.8	5.41 mg/L	0.082	5.41 mg/L	0.082	1.52%

	QC value within limits for Cu	Recovery = 108.16%				
Fet	3085.8	4.96 mg/L	0.182	4.96 mg/L	0.182	3.67%
	QC value within limits for Fe	Recovery = 99.16%				
Mot	68851.2	5.28 mg/L	0.033	5.28 mg/L	0.033	0.63%
	QC value within limits for Mo	Recovery = 105.57%				
Nit	122931.4	5.40 mg/L	0.038	5.40 mg/L	0.038	0.71%
	QC value within limits for Ni	Recovery = 107.94%				
Vt	919838.2	5.33 mg/L	0.075	5.33 mg/L	0.075	1.41%
	QC value within limits for V	Recovery = 106.58%				
Znt	270082.0	5.39 mg/L	0.040	5.39 mg/L	0.040	0.73%
	QC value within limits for Zn	Recovery = 107.84%				
	QC Failed. Continue with analysis.					

Sequence No.: 96  
 Sample ID: ECB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 0  
 Date Collected: 2/29/2008 14:50:42  
 Data Type: Original  
 Initial Sample Vol:  
 Sample Prep Vol:

## Mean Data: ECB

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		RSD
	Intensity	Conc. Units			Conc. Units	Std.Dev.	
Sca	422943.2	95.4 %	1.13				1.19%
Yr	203657.4	105 %	4.0				3.80%
Alt	-13.1	-0.00371 mg/L	0.006579	-0.00371 mg/L	0.006579	177.17%	
QC value within limits for Al		Recovery = Not calculated					
Bat	7.0	0.00009 mg/L	0.000053	0.00009 mg/L	0.000053	56.53%	
QC value within limits for Ba		Recovery = Not calculated					
Cat	29.4	0.00593 mg/L	0.003862	0.00593 mg/L	0.003862	65.10%	
QC value within limits for Ca		Recovery = Not calculated					
Cdt	23.3	0.00086 mg/L	0.000064	0.00086 mg/L	0.000064	7.41%	
QC value within limits for Cd		Recovery = Not calculated					
Cot	9.6	0.00037 mg/L	0.000005	0.00037 mg/L	0.000005	1.33%	
QC value within limits for Co		Recovery = Not calculated					
Crt	99.7	0.00126 mg/L	0.000102	0.00126 mg/L	0.000102	8.11%	
QC value within limits for Cr		Recovery = Not calculated					
Cut	-52.5	-0.00013 mg/L	0.000051	-0.00013 mg/L	0.000051	38.38%	
QC value within limits for Cu		Recovery = Not calculated					
Fet	1.6	0.00263 mg/L	0.001545	0.00263 mg/L	0.001545	58.81%	
QC value within limits for Fe		Recovery = Not calculated					
Mot	31.5	0.00241 mg/L	0.000032	0.00241 mg/L	0.000032	1.32%	
QC value within limits for Mo		Recovery = Not calculated					
Nit	20.4	0.00090 mg/L	0.000265	0.00090 mg/L	0.000265	29.57%	
QC value within limits for Ni		Recovery = Not calculated					
Vt	50.7	0.00030 mg/L	0.000013	0.00030 mg/L	0.000013	4.40%	
QC value within limits for V		Recovery = Not calculated					
Znt	17.5	0.00034 mg/L	0.000029	0.00034 mg/L	0.000029	8.44%	
QC value within limits for Zn		Recovery = Not calculated					

All analyte(s) passed QC.

**Analytical Sequence****Method: 200.7&6010\_070703**

<b>Seq.</b>	<b>Loc.</b>	<b>ID</b>	<b>Status</b>
1	0	Calib Blank 1	Applied
2	15	Standard 2	Applied
3	15	ICV	QC Passed
4	9	LINEARITY	QC Passed
5	10	ICSA	QC Passed
6	11	ICSAB	QC Failed
7	0	Wash	QC Passed
8	12	QC-25 1ppm	QC Failed
9	12	QC-25 1ppm	QC Failed
10	4	CCV	QC Passed
11	0	ICB	QC Passed
12	20	MRL	QC Failed
13	20	MRL	QC Failed
14	38	MBLANK	Analyzed
15	39	MRL2007	Analyzed
16	25	SOULTION CHECK	Analyzed
17	40	LCS	Analyzed
18	41	LCSD	Analyzed
19	42	2802070519_2X	Analyzed
20	43	2802070519_2XMS	Analyzed
21	44	2802070519_2XMSD	Analyzed
22	45	2802080261_2X	Analyzed
23	46	2802080261_2XMS	Analyzed
24	4	CCV	QC Passed
25	0	CCB	QC Passed
26	47	2802080261_2XMSD	Analyzed
27	48	2802080260_2X	Analyzed
28	49	2802070518_2X	Analyzed
29	50	2802080254_2X	Analyzed
30	51	2802080259_2X	Analyzed
31	52	2802080262_5X	Analyzed
32	53	2802080263_5X	Analyzed
33	54	2802080264_2X	Analyzed
34	55	2802080265_10X	Analyzed
35	56	2802080267_10X	Analyzed
36	4	CCV	QC Passed
37	0	CCB	QC Failed
38	0	CCB	QC Failed
39	0	CCB	QC Failed
40	5	MCV	QC Failed
41	5	MCV	QC Failed
42	57	2802080271_2X	Analyzed
43	58	2802080272_2X	Analyzed
44	59	2802082273_2X	Analyzed
45	60	2802080274_10X	Analyzed
46	61	2802080277_10X	Analyzed
47	62	2802080319_5X	Analyzed
48	63	2802090001_10X	Analyzed
49	64	2802090002_2X	Analyzed
50	65	2802090003_2X	Analyzed
51	66	MBLANK	Analyzed
52	4	CCV	QC Passed
53	0	CCB	QC Passed
54	21	MRL	Analyzed
55	67	MRL2007	Analyzed
56	68	LCS	Analyzed
57	69	LCSD	Analyzed
58	70	2802070496_2X	Analyzed
59	71	2802070496_2XMS	Analyzed
60	72	28020470496_2XMSD	Analyzed
61	73	2802070497_2X	Analyzed
62	74	2802070497_2SMS	Analyzed
63	75	2802070497DUP_2X	Analyzed
64	4	CCV	QC Failed
65	4	CCV	QC Passed
66	0	CCB	QC Passed
67	5	MCV	QC Failed

68	5	MCV	QC Failed
69	5	MCV	QC Failed
70	76	2802070485_5X	Analyzed
71	77	2802070486_2X	Analyzed
72	78	2802070487_2X	Analyzed
73	79	2802070488_2X	Analyzed
74	80	2802070489_2X	Analyzed
75	81	2802070490_2X	Analyzed
76	82	2802070491_5X	Analyzed
77	83	2802070492_2X	Analyzed
78	84	2802070493_2X	Analyzed
79	85	2802070494_2X	Analyzed
80	4	CCV	QC Failed
81	4	CCV	QC Failed
82	4	CCV	QC Failed
83	0	CCB	QC Passed
84	86	2802070495_2X	Analyzed
85	87	2802070498_5X	Analyzed
86	88	2802070500_10X	Analyzed
87	89	2802070501_10X	Analyzed
88	90	2802070502_2X	Analyzed
89	91	2802070503_10X	Analyzed
90	92	2802070504_2X	Analyzed
91	93	2802070512_5X	Analyzed
92	4	ECV	QC Failed
93	4	ECV	QC Failed
94	4	ECV	QC Failed
95	4	ECV	QC Failed
96	0	ECB	QC Passed

**Standard  
Preparation  
Worksheet  
&  
Certificate of  
Analysis**

Reagent	Lot #		
HNO <sub>3</sub>	R# 100450	HCL R# 100446	
IS = Yttrium(ME0709008) 0.75mL + Scandium (ME0710007) 0.5mL to 1000mL w/ 2% HNO <sub>3</sub>			
Standards	Lot #	Exp. Date	Dilution
Calibration (Prepare daily)	ME0712001	(12/01/08)	1:10 ME0801001
	ME0712001	(12/01/08)	1:10
CCV/MCV/ECV (Prepare daily)	ME0710008	(04/17/09)	CCV/ECV 1:20 ME0801002 MCV 1:40 ME0801003
Spike/LCS (Prepare daily)	ME0709009	(03/11/09)	1:100 ME0801005
	ME0801004	(07/11/08)	1:100
	ME0709007	(08/16/08)	1:200
MRL (Prepare daily)	ME0801007	(07/11/08)	1:100 ME0801008
ICSA	ME0712003	(06/01/08)	
ICSAB	ME0712004	(06/01/08)	
QCS	ME0610005	(04/10/08)	
1ppm Check	ME0801010	(07/11/08)	
Linearity	ME0711002	(05/06/08)	
<b>Method Sr/Ti/Sn/SiO<sub>2</sub></b>			
Calibration	ME0801012	(07/11/08)	
CCV/ECV	ME0801013	(03/31/08)	
QCS	ME0801012	(07/11/08)	
Spike/LCS (Prepare daily)	ME0801015	(03/31/08)	1:100
MRL (Prepare daily)	ME0801014	(07/11/08)	1:100
<b>Method Li</b>			

Std/ICV/MRL (Prepare daily)	ME0801009	(07/11/08)	1:1000, 200, 40, 10
QCS (Prepare daily)	ME0801011	(07/11/08)	1:10
LCS/Spike (Prepare daily)	ME0801011	(07/11/08)	1:50
ccv (Prepare daily)	ME0801011	(07/11/08)	1:40

From May 2005: the calibration std for ICP should be ME0505010,011 not ME0408010

Initial: STE  
Date: 12/01/07

## METALS STANDARD DOCUMENTATION

**Standard:** ICP Calibration Stock Std #1  
**Date Received/Prepped:** 12/1/2007  
**Date Expired:** 12/1/2008  
**Manufacturer:** Inorganic Ventures  
**Matrix:** 5% Nitric Acid  
**Amount:** 500 mL

**ME #:** 0712001  
**By:** STE  
**Lot #:** A2-MEB243151  
**Certificate:** Y  
**NIST SRM:** Varies  
**Storage:** Room Temp

Component	Comment	Conc. Unit:
Ca	(P/N MWH-ICAP-CAL-1)	1000 ug/ml
K		1000 ug/ml
Mg		1000 ug/ml
Na		1000 ug/ml
Al		100 ug/ml
As		100 ug/ml
Ba		100 ug/ml
Co		100 ug/ml
Cr		100 ug/ml
Cu		100 ug/ml
Fe		100 ug/ml
Mn		100 ug/ml
Ni		100 ug/ml
Pb		100 ug/ml
Se		100 ug/ml
Tl		100 ug/ml
V		100 ug/ml
Zn		100 ug/ml
Cd		50 ug/ml
Be		40 ug/ml
SR		30 ug/ml
Ag		20 ug/ml



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# CERTIFICATE OF ANALYSIS

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fax: 732.901.1903  
[info@inorganicventures.com](mailto:info@inorganicventures.com)

**1.0 INORGANIC VENTURES** is an ISO Guide 34:2000 registered Certified Reference Material (CRM) Manufacturer (Certificate #883-02). The certificate is designed and the data is determined in accordance with ISO Guide 31:2000 (Reference Materials-Contents of Certificates and Labels), ISO Guide 34:2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35-1989 "Certification of Reference Materials - General and Statistical Principals."

**2.0 DESCRIPTION OF CRM** Custom Solution

Catalog No.: MWH-ICAP-CAL-1  
Lot Number: A2-MEB243151  
Matrix: 5% HNO<sub>3</sub>(abs)

ME 0712001

1,000.00 µg/mL ea:

Ca, K, Mg, Na,

100.00 µg/mL ea:

Al, As, Ba, Co, Cr<sub>3</sub>, Cu, Fe, Mn, Ni, Pb, Se, Ti, V, Zn,

50.00 µg/mL ea:

Cd,

40.00 µg/mL ea:

Be,

30.00 µg/mL ea:

Sr,

20.00 µg/mL ea:

Ag

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	100.4 ± 0.3 µg/mL	Arsenic, As	100.1 ± 0.3 µg/mL	Barium, Ba	99.6 ± 0.4 µg/mL
Beryllium, Be	40.04 ± 0.08 µg/mL	Cadmium, Cd	50.15 ± 0.12 µg/mL	Calcium, Ca	1,000 ± 2 µg/mL
Chromium+3, Cr <sub>3</sub>	100.0 ± 0.2 µg/mL	Cobalt, Co	99.9 ± 0.2 µg/mL	Copper, Cu	100.0 ± 0.2 µg/mL
Iron, Fe	99.6 ± 0.1 µg/mL	Lead, Pb	100.0 ± 0.3 µg/mL	Magnesium, Mg	1,000 ± 4 µg/mL
Manganese, Mn	100.0 ± 0.3 µg/mL	Nickel, Ni	100.0 ± 0.3 µg/mL	Potassium, K	1,001 ± 5 µg/mL
Selenium, Se	100.0 ± 0.2 µg/mL	Silver, Ag	20.04 ± 0.02 µg/mL	Sodium, Na	1,002 ± 5 µg/mL
Strontium, Sr	30.04 ± 0.18 µg/mL	Thallium, Tl	99.7 ± 0.1 µg/mL	Vanadium, V	100.0 ± 0.3 µg/mL
Zinc, Zn	100.0 ± 0.3 µg/mL				

Certified Density: 1.055 g/mL (measured at 22° C)

The Certified Value is based upon the most precise method used to analyze this CRM. The following equations are used in the calculation of the certified value and the uncertainty:

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

$(\bar{x})$  = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = \frac{2[\sum s_i]}{(n)^{1/2}}$$

$\sum s_i$  = The summation of all significant estimated errors

(Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

## 4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

- "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
- This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

### 4.1 ASSAY INFORMATION

ELEMENT	METHOD	NIST SRM#	SRM LOT#	ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212	Ag	Volhard	999a	999a
Al	ICP Assay	3101a	010808	Al	EDTA	928	928
As	ICP Assay	3103a	010713	As	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	992907	Ba	Gravimetric		See Sec. 4.2
Be	Gravimetric		See Sec. 4.2	Be	ICP Assay	3105a	892707
Ca	EDTA	928	928	Ca	ICP Assay	3109a	000622
Cd	ICP Assay	3108	890312	Cd	EDTA	928	928
Co	EDTA	928	928	Co	ICP Assay	3181	000630
Cr3	ICP Assay	3112a	990607	Cr3	Calculated		See Sec. 4.2
Cu	EDTA	928	928	Cu	ICP Assay	3114	891811
Fe	ICP Assay	3126a	000606	Fe	EDTA	928	928
K	ICP Assay	3141a	891312	K	Gravimetric		See Sec. 4.2
Mg	EDTA	928	928	Mg	ICP Assay	3131a	991107
Mn	EDTA	928	928	Mn	ICP Assay	3132	890903
Na	ICP Assay	3152a	990907	Na	Gravimetric		See Sec. 4.2
Ni	EDTA	928	928	Ni	ICP Assay	3136	000612
Pb	EDTA	928	928	Pb	ICP Assay	3128	991504
Se	ICP Assay	3149	992106	Se	Gravimetric		See Sec. 4.2
Sr	ICP Assay	3153a	990906	Sr	EDTA	928	928
Tl	Gravimetric		See Sec. 4.2	Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706	V	EDTA	928	928
Zn	EDTA	928	928	Zn	ICP Assay	3168a	001402

- 4.2 **BALANCE CALIBRATION** - All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 692476 - Class 1 and 692476A - Class 2. The NIST test number is 822/260017-98. All analytical balances are calibrated every 4 months. The balances are calibrated with a class 1 and/or class 2 analytical weight set. These weights are tested annually by a NIST / NVLAP accredited calibration lab. The NIST test number is
- 4.3 **THERMOMETER CALIBRATION** - The thermometers used in the determination of the final densities are calibrated vs standard thermometer No. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test Nos. and Std Nos.: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240. Thermometers which are not calibrated vs standard thermometer No. 903-2680 are traceable to NIST Identification
- 4.4 **GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A Glassware used in the manufacturing and quality control of CRM's.

## 5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES IN $\mu\text{g/mL}$ - N/A

### 6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:  
HPLC, IC, TLC, ISE, IR, NMR, UV/VIS, MS, Capillary Electrophoresis, Potentiometry, Wet Chemistry and Voltammetry  
For the validation of analytical methods  
For the preparation of "working reference samples"  
For interference studies and the determination of correction coefficients  
For detection limit and linearity studies  
For additional intended uses, contact Technical Staff

This CRM was manufactured using 18 megohm doubly deionized water that has been filtered through a 0.2 micron filter.

### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep Tightly sealed when not in use. Store and use at  $20 \pm 4^\circ\text{C}$ . Do Not pipette from the container. Do Not return portions removed from pipetting to container.

**Element Specific Information** - For specific information regarding any element: Contact technical staff.

**Low Silver Note:** This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

### 8.0 HAZARDOUS INFORMATION

- Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

### 9.0 HOMOGENEITY

- This solution was mixed according to in-house procedure IV-MPM-004 and is guaranteed to be homogeneous.



### 10.0 QUALITY STANDARD DOCUMENTATION

#### 10.1 ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105

Recognized by:

Registrar Accreditation Board (ANSI-RAB)

Standards Council of Canada (SCC)

Dutch Council for Accreditation (RVA)

Entidad Mexicana de Acreditacion, a.c.(EMA)

#### Members of IQ Net International Certification Network:

Argentina (IRAM), Australia (QAS), Austria (ÖQS), Belgium (Avinter) , Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland(PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

#### 10.2 ISO/IEC 17025:2005 "General Requirements for the Competence of Testing and Calibration"

- Chemical Testing - Accredited A2LA Certificate Number 883.01

#### 10.3 ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers"

- Reference Materials Production - Accredited A2LA Certificate Number 883.02

#### A2LA Mutual Recognition Agreement Partners:

Australia (NATA), Austria (BmwA), Belgium (BELTEST) (BKO-OBE), Canada (SCC), Chinese Taipei (CNLA), Czech Republic (NAO), Denmark (DANAK), Finland (FINAS), France (COFRAC), Germany (DAR), Hong Kong (HKAS), Ireland (NAB), Italy (SIT) (SINAL), Japan (JAB) (JNLA), Republic of Korea (KOLAS), The Netherlands (RvA), New Zealand (IANZ), Norway (NA), Portugal (IPQ), Singapore (SAC-SINGLAS), Spain (ENAC), Sweden (SWEDAC), Switzerland (SAS), United Kingdom (UKAS) and United States (NVLAP) (ICBO ES)

#### 10.4 10CFR50 Appendix B - Nuclear Regulatory Commission - Domestic Licensing of Production and Utilization Facilities

#### 10.5 10CFR21 - Nuclear Regulatory Commission - Reporting Defects and Non-Compliance

#### 10.6 MIL-STD-45662A (Obsolete/Observed)

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

11.1 **Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special environmental controls that minimize transpiration and instability, the shelf life can be extended past this limit.

11.2 **Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

**Certification Date:** November 19, 2007  
**Expiration Date:**

EXPIRES  
01/2008

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Angela Sinclair, Product Documentation Administrator

Certificate Approved By: Katalin Le, QC Manager

Certifying Officer: Paul Gaines, PhD., Senior Technical Director

Initial: STE  
Date: 10/19/07

## METALS STANDARD DOCUMENTATION

**Standard:** ICP CCV/MCV/QCS Stock Standard      **ME #:** 0710008  
**Date Received/Prepped:** 10/19/2007      **By:** STE  
**Date Expired:** 4/17/2009      **Lot #:** 07J154  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 5% HNO<sub>3</sub> = tr HF      **NIST SRM:** Various  
**Amount:** 100 mL x 10      **Storage:** Room Temp

Component	Comment	Conc. Unit:
Ag	P/N 4400-061003RH01	20 ppm
Al		100 ppm
As		100 ppm
B		50 ppm
Ba		100 ppm
bE		40 ppm
Ca		1000 ppm
Cd		50 ppm
Co		100 ppm
Cr		100 ppm
Cu		100 ppm
Fe		100 ppm
K		1000 ppm
Mg		1000 ppm
Mn		100 ppm
Mo		100 ppm
Na		1000 ppm
Ni		100 ppm
Pb		100 ppm
Sb		100 ppm
Se		100 ppm
Tl		100 ppm
V		100 ppm
Zn		100 ppm
Sr		20 ppm
Sn		20 ppm
Ti		20 ppm



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Expiry: 4/17/2009

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# Certificate of Analysis

**Part Number:** 4400-061003RH01  
**Lot Number:** 07J154  
**Shelf Life:** 18 months

ME 0710008

Rec'd : 10/19/07

STE

MWH  
Custom Multi  
5% HNO<sub>3</sub> + tr HF

Concentrations in ug/mL ± 0.5%

Ag	20	K	1000	Sr	20
Al	100	Mg	1000	Sn	20
As	100	Mn	100	Ti	20
B	50	Mo	100		
Ba	100	Na	1000		
Be	40	Ni	100		
Ca	1000	Pb	100		
Cd	50	Sb	100		
Co	100	Se	100		
Cr	100	TL	100		
Cu	100	V	100		
Fe	100	Zn	100		

This standard solution was prepared using high-purity starting materials, high-purity acid (if required) and 18-megohm de-ionized water. The starting materials were weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

Starting materials were analyzed at 1000µg/mL by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series, NIST approved second source and/or gravimetrically.

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for the stated shelf life from the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA, +31 20 638 05 97 in Europe or visit our web-site at [www.cpiinternational.com](http://www.cpiinternational.com).

Initial: STE  
Date: 9/13/07

## METALS STANDARD DOCUMENTATION

**Standard:** ICP CCV/MCV Stock Standard      **ME #:** 0709009  
**Date Received/Prepped:** 9/13/2007      **By:** STE  
**Date Expired:** 3/11/2009      **Lot #:** 07I040  
**Manufacturer:** CPI International  
**Matrix:** 5% HNO<sub>3</sub> AND 0.1% HF  
**Amount:** 100 mL  
**Certificate:**  
**NIST SRM:**  
**Storage:** Room Temp.

Component	Comment	Conc. Unit:
Fe	P/N 4400-050314RH01	500
Al	(10 bottles)	200
Ba		100
Co		100
Cr		100
Cu		100
Mo		100
Sr		100
Ti		100
V		100
Zn		50
Ag		50
Ba		50
Mn		50
Ni		50
Sb		50
As		20
Cd		20
Pb		20
Se		20
Tl		20
Sn		100
Be		5
U		20



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Expiry: 3/11/2009

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# Certificate of Analysis

Part Number: **4400-050314RH01**  
Lot Number: **07I040**  
Shelf Life: **18 months**

ME 070909

MWH Labs

5% HNO<sub>3</sub> + 0.1% HF

#REF!

Concentrations in ug/mL ± 0.5%

Fe	500	B	50
Al	200	Mn	50
Ba	100	Ni	50
Co	100	Sb	50
Cr	100	As	20
Cu	100	Cd	20
Mo	100	Pb	20
Sr	100	Se	20
Ti	100	TL	20
V	100	Sn	100
Zn	100	Be	5
Ag	50	U	20

This standard solution was prepared using high-purity starting materials, high-purity acid (if required) and 18-megaohm de-ionized water. The starting materials were weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

Starting materials were analyzed at 1000µg/mL by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series, NIST approved second source and/or gravimetrically.

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for the stated shelf life from the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA, +31 20 638 05 97 in Europe or visit our web-site at [www.cpiinternational.com](http://www.cpiinternational.com).

Initial:  
Date:

*wby*

*1/11/08*

## METALS STANDARD DOCUMENTATION

**Standard:** ICP Spike Solution      **ME #:** 0801004  
**Date Received/Prepped:** 1/11/2008      **By:** Wbh  
**Date Expired:** 7/11/2008      **Lot #:** VARIOUS  
**Manufacturer:** MWH-wbh      **Certificate:**  
**Matrix:** 2%HNO3      **NIST SRM:**  
**Amount:** 100mL      **Storage:** Room Temp

<b>Component</b>	<b>Comment</b>	<b>Conc. Unit:</b>
AS	8.0mL ME07090023/100mL	80 ppm
PB	8.0mL ME0704013/100mL	80 ppm
SE	8.0mL ME0703001/100mL	80 ppm
TL	8.0mL ME0702006/100mL	80 ppm

Initial:  
Date:STE  
9/24/07**METALS STANDARD DOCUMENTATION**

**Standard:** As Stock Standard      **ME #:** 0709023  
**Date Received/Prepped:** 9/24/2007      **By:** STE  
**Date Expired:** 10/1/2008      **Lot #:** A2-AS02035  
**Manufacturer:** Inorganic Ventures      **Certificate:** Y  
**Matrix:** 1.4% HNO3      **NIST SRM:**  
**Amount:** 100 mL X2      **Storage:** Room Temp

<b>Component</b>	<b>Comment</b>	<b>Conc. Unit:</b>
As	PN: CGAS1-1	1000 ug/ml



195 Lehigh Avenue, Suite 4  
Lakewood, New Jersey 08701 - USA  
[inorganicventures.com](http://inorganicventures.com)

# CERTIFICATE OF ANALYSIS

tel: 800.669.6799 • 732.901.1900  
fax: 732.901.1903  
[info@inorganicventures.com](mailto:info@inorganicventures.com)

**1.0 INORGANIC VENTURES** is an ISO Guide 34:2000 registered Certified Reference Material (CRM) Manufacturer (Certificate #883-02). The certificate is designed and the data is determined in accordance with ISO Guide 31:2000 (Reference Materials-Contents of Certificates and Labels), ISO Guide 34:2000 "Quality System Guidelines for the Production of Reference Materials," and ISO Guide 35:1989 "Certification of Reference Materials - General and Statistical Principles."

**2.0 DESCRIPTION OF CRM      1000 µg/mL Arsenic in 1.4% (abs) HNO<sub>3</sub>**

Catalog Number: CGAS1-1, CGAS1-2, and CGAS1-5  
Lot Number: A2-AS02035  
Starting Material: As Polycrystalline lump  
Starting Material Purity (%): 99.998288  
Starting Material Lot No: 23444  
Matrix: 1.4% (abs) HNO<sub>3</sub>

ME 0709023

**3.0 CERTIFIED VALUES AND UNCERTAINTIES**

**Certified Concentration:** 1000 ± 6 µg/mL

**Certified Density:** 1.010 g/mL (measured at 22° C)

The Certified Value is the instrument analysis value. The following equations are used in the calculation of the certified value and the uncertainty:

$$\text{Certified Value } (\bar{x}) = \frac{\sum x_i}{n}$$

( $\bar{x}$ ) = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = \frac{2[(\sum s_i)^2]^{1/2}}{(n)}$$

$\sum s_i$  = The summation of all significant estimated errors  
(Most common are the errors from instrumental measurement, weighing, dilution to volume, and the fixed error reported on the NIST SRM certificate of analysis.)

**4.0 TRACEABILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS**

· "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)

· This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.

**4.1 Assay Method #1      1000 ± 6 µg/mL**

ICP Assay NIST SRM 3103a Lot Number: 010713

**Assay Method #2      1001 ± 5 µg/mL**

Gravimetric NIST SRM Lot Number: See Sec. 4.2

- 4.2 BALANCE CALIBRATION** - All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST). The NIST Traceability numbers are 692476 - Class 1 and 692476A - Class 2. The NIST test number is 822/260017-98. All analytical balances are calibrated every 4 months. The balances are calibrated with a class 1 and/or class 2 analytical weight set. These weights are tested annually by a NIST / NVLAP accredited calibration lab. The NIST test number is 822/260017-98.
- 4.3 THERMOMETER CALIBRATION** - The thermometers used in the determination of the final densities are calibrated vs standard thermometer No. 903-2680 which was certified in accordance with the procedures outlined by ASTM E77-87 and NIST Monograph 150 using NIST Test Nos. and Std Nos.: 769543, 217368/769543, 217368/P14452, 176240/P14452, 176240. Thermometers which are not calibrated vs standard thermometer No. 903-2680 are traceable to NIST Identification Nos. 92564, 119016, 471047 and NIST test report Nos. 811/258522, 811/2557078, and 236090.
- 4.4 GLASSWARE CALIBRATION** - An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM's.

## 5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP/MS AND ICP-OES IN $\mu\text{g/mL}$

CRM's solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3  $\mu\text{m}$ .

<u>O</u> Al < 0.00047	M Dy < 0.02998	<u>O</u> Li < 0.00002	M Pr < 0.00150	M Te < 0.14992
<u>O</u> Sb < 0.01000	M Er < 0.02499	M Lu < 0.00200	<u>O</u> Re < 0.01000	M Tb < 0.00150
<u>S</u> As < 0.04992	M Eu < 0.01499	<u>O</u> Mg 0.00012	M Rh < 0.00500	M Tl < 0.00500
M Ba < 0.04992	M Gd < 0.00500	<u>O</u> Mn 0.00001	M Rb < 0.00500	M Th < 0.00500
M Be < 0.00250	M Ga < 0.00500	<u>O</u> Hg < 0.01200	M Ru < 0.01000	M Tm < 0.00200
M Bi < 0.00200	M Ge < 0.02998	M Mo < 0.01000	M Sm < 0.00500	<u>O</u> Sn 0.00076
<u>O</u> B 0.00152	M Au < 0.01499	M Nd < 0.01000	M Sc < 0.04997	M Ti < 0.24987
M Cd < 0.01499	M Hf < 0.01000	<u>O</u> Ni < 0.00200	M Se < 0.03998	M W < 0.04997
<u>O</u> Ca 0.00122	M Ho < 0.00250	<u>O</u> Nb < 0.00200	<u>O</u> Si 0.00893	M U < 0.01000
M Ce < 0.02499	M In < 0.04997	n Os	M Ag < 0.01000	M V < 0.01000
M Cs < 0.00150	M Ir < 0.02499	M Pd < 0.02499	<u>O</u> Na 0.00228	M Yb < 0.00500
M Cr < 0.02499	<u>O</u> Fe 0.00177	<u>O</u> P < 0.00260	M Sr < 0.00250	M Y < 0.19990
M Co < 0.01499	M La < 0.00250	M Pt < 0.01000	<u>O</u> S < 0.00000	<u>O</u> Zn 0.00006
M Cu < 0.02998	M Pb < 0.01499	<u>O</u> K 0.00057	M Ta < 0.03498	M Zr < 0.02499

M - Checked by ICP-MS

O - Checked by ICP-OES

i - Spectral Interference

n - Not Checked For

s - Solution Standard Element

## 6.0 INTENDED USE

For the calibration of analytical instruments including but not limited to the following:

ICP-MS, ICP-OES, FAAS, GFAA, XRF, and DCP

For the validation of analytical methods

For the preparation of "working reference samples"

For interference studies and the determination of correction coefficients

For detection limit and linearity studies

For additional intended uses, contact Technical Staff

## 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

**Storage & Handling** - Keep tightly sealed when not in use. Store and use at 20 ± 4°C. Do not pipet from container. Do not return portions removed for pipetting to container.

**Atomic Weight; Valence; Coordination Number; Chemical Form in Solution** - 74.9216; mix of +3 and +5; 6; H<sub>3</sub>AsO<sub>4</sub> and HAsO<sub>2</sub>

**Chemical Compatibility** - Arsenic has no cationic chemistry. It is soluble in HCl, HNO<sub>3</sub>, H<sub>3</sub>PO<sub>4</sub>, H<sub>2</sub>SO<sub>4</sub> and HF aqueous matrices water and NH<sub>4</sub>OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

**Stability** - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO<sub>3</sub> / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO<sub>3</sub> / LDPE container.

**As Containing Samples (Preparation and Solution)** - As<sub>0</sub> (soluble in 1:1 H<sub>2</sub>O / HNO<sub>3</sub> ); Oxides (the oxide exists in crystalline and amorphous forms where the amorphous form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (One gram of powdered sample is fused in a NiO crucible with 10 grams of a 1:1 mix of K<sub>2</sub>CO<sub>3</sub> and KNO<sub>3</sub> and the melt extracted with hot water ); Organic Matrices ( 0.2 to 0.5 grams of the sample are fused with 15 grams of a 1:1 Na<sub>2</sub>CO<sub>3</sub> / Na<sub>2</sub>O<sub>2</sub> mix in a NiO crucible. The fuseate is extracted with water and acidified with HNO<sub>3</sub>)

**Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):**

Technique/Line	Estimated D.L.	Order	Type	Interferences (underlines indicates severe)
ICP-OES189.042 nm	0.05 / 0.005 µg/mL	1	atom	Cr
ICP-OES193.696 nm	0.1 / 0.01 µg/mL	1	atom	V, Ge
ICP-OES 228.812 nm	0.1 / 0.01 µg/mL	1	atom	<u>Cd</u> , Pt, Ir, Co
ICP-MS 75 amu	20 ppt	n/a	M+	40Ar35Cl, 59Co16O, 36Ar38Ar1H, 38Ar37Cl, 6Ar39K, 150Nd2+, 150Sm2+

## 8.0 HAZARDOUS INFORMATION - Please refer to the enclosed Material Safety Data sheet for information regarding this CRM.

## 9.0 HOMOGENEITY - This solution was mixed according to an in house procedure and is guaranteed to be homogeneous.



## 10.0 QUALITY STANDARD DOCUMENTATION

### 10.1 ISO 9001:2000 Quality Management System Registration - QMI Certificate Number 010105

Recognized by:

Registrar Accreditation Board (ANSI-RAB)  
Standards Council of Canada (SCC)  
Dutch Council for Accreditation (RVA)  
Entidad Mexicana de Acreditacion, a.c.(EMA)

#### Members of IQ Net International Certification Network:

Argentina (IRAM), Australia (QAS), Austria (ÖQS), Belgium (Avinter), Brazil (FCAV), Canada (QMI), Hong Kong (HKQAA), Columbia (ICONTEC), Czech Republic (CQS), Denmark (DS), Finland (SFS), France (AFAQ), Germany (DQS), Greece (ELOT), Hungary (MSZT), Ireland (NSAI), Israel (SII), Italy (CISQ), Japan (JQA), Korea (KSA-QA), Netherlands (KEMA), Norway (NCS), Poland (PCBC), Portugal (APCER), Singapore (PSB), Slovenia (SIQ), Spain (AENOR), Switzerland (SQS)

### 10.2 ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration"

- Chemical Testing - Accredited A2LA Certificate Number 883.01

### 10.3 ISO/IEC Guide 34 - 2000 "General Requirements for the Competence of Reference Material Producers"

- Reference Materials Production - Accredited A2LA Certificate Number 883.02

#### A2LA Mutual Recognition Agreement Partners:

Australia (NATA), Austria (BmwA), Belgium (BELTEST) (BKO-OBE), Canada (SCC), Chinese Taipei (CNLA), Czech Republic (NAO), Denmark (DANAK), Finland (FINAS), France (COFRAC), Germany (DAR), Hong Kong (HKAS), Ireland (NAB), Italy (SIT) (SINAL), Japan (JAB) (JNLA), Republic of Korea (KOLAS), The Netherlands (RvA), New Zealand (IANZ), Norway (NA), Portugal (IPQ), Singapore (SAC-SINGLAS), Spain (ENAC), Sweden (SWEDAC), Switzerland (SAS), United Kingdom (UKAS) and United States (NVLAP) (ICBO ES)

### 10.4 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

### 10.5 10CFR21 - Nuclear Regulatory Commission - Reporting Defects and Non-Compliance

### 10.6 MIL-STD-45662A (Obsolete/Observed)

## 11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

**11.1 Shelf Life** - The period of time during which the concentration of the analyte(s) in a properly packaged, unopened, and unused standard stored under environmentally controlled and monitored conditions will remain within the specified uncertainty range. Shelf life is limited primarily by transpiration (loss of water from the solution) and infrequently, by chemical instability. Transpiration studies of chemically-stable solutions performed at the manufacturer's facility show a CRM shelf-life of twenty one months for solutions packaged in 125-mL low density polyethylene bottles. When stored under special conditions that minimize transpiration and instability, the shelf life can be extended past this limit.

**11.2 Expiration Date** - The date after which a CRM should not be used. Routine laboratory use of a CRM increases transpiration losses and the chance of contamination which affect the integrity of the CRM and limit its useful life. Manufacturer concurs with state and federal regulatory agencies' recommendations that solution standards be assigned a one-year expiration date.

**Certification Date:** February 13, 2007

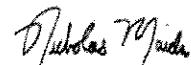
**Expiration Date:**

EXPRESS

1/2008

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

**Certificate Prepared By:** Nick Maida, Product Documentation Administrator



**Certificate Approved By:** Katalin Le, QC Manager



**Certifying Officer:** Paul Gaines, PhD, Senior Technical Director



Initial:

Date:

W3

4/16/07

## METALS STANDARD DOCUMENTATION

**Standard:** Lead Stock Standard      **ME #:** 0704013  
**Date Received/Prepped:** 4/16/2007      **By:** WBH  
**Date Expired:** 10/11/2008      **Lot #:** 07A097  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 2% HNO3      **NIST SRM:** 3128  
**Amount:** 100 mL      Room temp. storage

<b>Component</b>	<b>Comment</b>	<b>Conc. Unit:</b>
Pb	P/N S4400-1000281	1000 ppm



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The Netherlands      www.cpiinternational.com

## CERTIFICATE OF ANALYSIS

**P/N S4400-1000281**  
**P/N 4400-1000281**

Single-Element Lead Standard

Pb in 2% HNO<sub>3</sub>  
1000 ± 3 µg/mL

120704013

Lot # 07A097

Material Source: Lead Metal

Source Purity: 99.995 %

Specific Gravity: 1.009 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3128. Trace impurities of the 1000 µg/mL standard were analyzed by ICP-MS.

	<b>ppb</b>	<b>DL</b>									
Al	10.3	0.1	Cu	58	0.1	Pb	X	0.1	K	ND	70
Sb	ND	0.1	Dy	ND	0.1	Li	2	0.4	Pr	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	0.22	0.1	Eu	ND	0.1	Mg	1.4	0.2	Rh	IN	0.1
Be	0.58	0.1	Gd	ND	0.1	Mn	3.8	1	Rb	ND	0.1
Bi	0.7	0.1	Ga	ND	0.1	Hg	ND	0.2	Ru	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	0.17	0.1	Sm	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	ND	0.1	Se	ND	6
Cd	ND	0.1	Hf	ND	0.1	Ni	0.9	0.1	Si	31	8
Ca	25	7	Ho	ND	0.1	Nb	ND	0.1	Ag	6.1	0.1
Ce	ND	0.1	I	0.1	0.2	Os	ND	0.1	Na	3.5	1
Cs	0.26	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	ND	0.1
Cr	ND	1	Fe	ND	30	P	ND	10	Ta	ND	0.1
Co	ND	0.1	La	ND	0.1	Pt	ND	0.1	Te	ND	0.1

X=Major Element INT=Interference from Major Element DL=Detection Limit ND=None Detected

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the United States or +31 20 638 05 97 in Europe.

Initial:  
Date:

W34

3/27/07



## METALS STANDARD DOCUMENTATION

Standard: Selenium Stock Standard  
Date Received/Prepped: 3/5/2007  
Date Expired: 8/22/2008  
Manufacturer: CPI  
Matrix: 2% HNO3  
Amount: 100 mL

ME #: 0703001  
By: whb  
Lot #: 6.00E+228  
Certificate: Y  
NIST SRM: 3148  
Storage: Room Temp

Component	Comment	Conc. Unit:
Se	P/N # S4400-1000491	1000 ppm



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**CERTIFICATE OF ANALYSIS****P/N 4400-1000491****P/N S4400-1000491**

Single-Element Selenium Standard

Se in 2% HNO<sub>3</sub>

1000 ± 3 µg/mL

MF0703001

Lot # 06E228

Material Source: Selenium Metal

Source Purity: 99.99%

Specific Gravity: 1.011 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3148. Trace impurities of the 1000 µg/mL standard were analyzed by ICP-MS.

	<b>ppb</b>	<b>DL</b>									
Al	1.8	0.1	Cu	0.4	0.1	Pb	0.3	0.1	K	ND	70
Sb	ND	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	ND	0.1	Eu	ND	0.1	Mg	1.1	0.2	Rh	ND	0.1
Be	ND	0.1	Gd	ND	0.1	Mn	ND	1	Rb	ND	0.1
Bi	ND	0.1	Ga	ND	0.1	Hg	ND	0.2	Ru	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	0.6	0.1	Sm	ND	0.1
Br	INT	10	Au	ND	0.1	Nd	ND	0.1	Se	X	6
Cd	0.4	0.1	Hf	ND	0.1	Ni	0.6	0.1	Si	40	8
Ca	5	7	Ho	ND	0.1	Nb	INT	0.1	Ag	0.8	0.1
Ce	ND	0.1	I	0.5	0.2	Os	ND	0.1	Na	3.8	1
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	ND	0.1
Cr	ND	1	Fe	ND	30	P	ND	10	Ta	ND	0.1
Co	ND	0.1	La	ND	0.1	Pt	ND	0.1	Te	ND	0.1

X=Major Element INT=Interference from Major Element DL=Detection Limit ND=None Detected

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.

Initial:  
Date:

WBY

2/20/07

## METALS STANDARD DOCUMENTATION

**Standard:** Thallium 1000ppm Stock Std  
**Date Received/Prepped:** 2/20/2007  
**Date Expired:** 8/16/2008  
**Manufacturer:** CPI  
**Matrix:** 2% HNO3  
**Amount:** 100 mL

**ME #:** 0702006  
**By:** WBH  
**Lot #:** 06H213  
**Certificate:** Y  
**NIST SRM:** 3158  
Room temp. storage

Component	Comment	Conc. Unit:
Tl	P/N S4400-1000581	1000 ppm



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## USA

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CERTIFICATE OF ANALYSIS

MF0702006

**P/N 4400-1000581**  
**P/N S4400-1000581**

Single Element Thallium Standard

Tl in 2% HNO<sub>3</sub>

1000 ± 3 µg/mL

Lot # 06H213

Material Source: Thallium metal

Source Purity: 99.999%

Specific Gravity: 1.015 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3158. Trace impurities of the 1000 µg/mL standard were analyzed by ICP-MS.

	<u>ppb</u>	<u>DL</u>									
Al	13.3	0.1	Cu	9.3	0.1	Pb	41	0.1	K	ND	70
Sb	ND	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	0.37	0.1	Eu	ND	0.1	Mg	1.7	0.2	Rh	ND	0.1
Be	0.67	0.1	Gd	ND	0.1	Mn	ND	1	Rb	ND	0.1
Bi	0.12	0.1	Ga	ND	0.1	Hg	0.16	0.2	Ru	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	0.21	0.1	Sm	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	ND	0.1	Se	ND	6
Cd	1.6	0.1	Hf	ND	0.1	Ni	1.1	0.1	Si	46	8
Ca	51	7	Ho	ND	0.1	Nb	ND	0.1	Ag	0.3	0.1
Ce	ND	0.1	I	0.4	0.2	Os	ND	0.1	Na	3.3	1
Cs	0.24	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	ND	0.1
Cr	ND	1	Fe	ND	30	P	20	10	Ta	ND	0.1
Co	ND	0.1	La	ND	0.1	Pt	ND	0.1	Te	ND	0.1

X=Major Element INT=Interference from Major Element DL=Detection Limit ND=None Detected

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654.

Initial:  
Date:

STE  
9/13/07

## METALS STANDARD DOCUMENTATION

**Standard:** DAT MW Standard      **ME #:** 0709007  
**Date Received/Prepped:** 9/13/2007      **By:** STE  
**Date Expired:** 8/16/2008      **Lot #:** 07B086  
**Manufacturer:** CPI International      **Certificate:**  
**Matrix:** 5% HNO3      **NIST SRM:**  
**Amount:** 100 mL      **Storage:** Room Temp

Component	Comment	Conc. Unit:
Na	P/N: 4400 - 130309	10000 ug/L
Ca		10000 ug/L
Mg		4000 ug/L
K		4000 ug/L



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## CERTIFICATE OF ANALYSIS

**P/N: 4400-130309**

ME0709007

**Lot Number: 07B086**

**Shelf Life: 18 months**

**Expiration Date: 08/16/2008**

MWH

Dat MW Standard

$\mu\text{g/mL} \pm 0.5\%$  in 5%  $\text{HNO}_3$

Na 10,000 Ca 10,000 Mg 4,000 K 4,000

This standard solution was prepared using high-purity starting materials, high-purity acid (if required) and 18-megaohm de-ionized water. The starting materials were weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

Starting materials were analyzed at 1000 $\mu\text{g/mL}$  by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series, NIST approved second source and/or gravimetrically.

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for the stated shelf life from the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

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Date:

Wm  
1/11/08

## METALS STANDARD DOCUMENTATION

**Standard:** ICP MRL Working Stock Solu  
**Date Received/Prepped:** 1/11/2008  
**Date Expired:** 7/11/2008  
**Manufacturer:** MWH-wbh  
**Matrix:** 5% HNO3  
**Amount:** 100 mL

**ME #:** 0801007  
**By:** Wbh  
**Lot #:**  
**Certificate:** Y  
**NIST SRM:**  
**Room temp. storage**

Component	Comment	Conc. Unit:
Al	10mL ME0709020 / 100mL	5 ppm
Sb		5 ppm
As		10 ppm
Ba		2 ppm
Be		0.1 ppm
Ba		5 ppm
Cd		0.5 ppm
Ca		100 ppm
Cr		1 ppm
Co		5 ppm
Cu		1 ppm
Fe		2 ppm
Pb		2 ppm
Li		10 ppm
Mg		0.2 ppm
Mn		2 ppm
Mo		2 ppm
Ni		100 ppm
K		10 ppm
Se		1 ppm
Ag		100 ppm
Na		2 ppm
Tl		0.2 ppm
V		10 ppm
Zn		0.1 ppm
Ti		2 ppm
Sr		1 ppm
Sn		20 ppm

Initial:  
Date:

STG  
9/26/07

## METALS STANDARD DOCUMENTATION

**Standard:** ICP MRL Stock Standard      **ME #:** 0709020  
**Date Received/Prepped:** 9/20/2007      **By:**  
**Date Expired:** 9/18/2008      **Lot #:** 06I162  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 2% HNO<sub>3</sub> + tr HF      **NIST SRM:**  
**Amount:** 100 mL      Room temp. storage

Component	Comment	Conc. Unit:
Al	P/N 4400-060915RHO1	50 ppm
Sb		50 ppm
As		100 ppm
Ba		20 ppm
Be		1 ppm
Ba		50 ppm
Cd		5 ppm
Ca		1000 ppm
Cr		10 ppm
Co		50 ppm
Cu		10 ppm
Fe		20 ppm
Pb		20 ppm
Li		20 ppm
Mg		1 ppm
Mn		100 ppm
Mo		2 ppm
Ni		20 ppm
K		20 ppm
Se		1000 ppm
Ag		100 ppm
Na		10 ppm
Tl		1000 ppm
V		100 ppm
Zn		2 ppm
Ti		20 ppm
Sr		20 ppm
Sn		10 ppm
		200 ppm



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Expiry 9/18/2008

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ME0709020

## Certificate of Analysis

**Part Number:** 4400-060915RH01  
**Lot Number:** 06I162  
**Shelf Life:** 12 months

MWH  
Custom Standard  
2% HNO<sub>3</sub> + tr HF

Concentrations in ug/mL ± 0.5%

Al	50	Pb	20	Zn	20
St	50	Li	1	Ti	20
As	100	Mg	100	Sr	10
Ba	20	Mn	2	Sn	200
Be	1	Mo	20		
B	50	Ni	20		
Cd	5	K	1000		
Ca	1000	Se	100		
Cr	10	Ag	10		
Co	50	Na	1000		
Cu	10	TL	100		
Fe	20	V	2		

This standard solution was prepared using high-purity starting materials, high-purity acid (if required) and 18-megaohm de-ionized water. The starting materials were weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

Starting materials were analyzed at 1000 ug/ml by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series, NIST approved second source and/or gravimetrically.

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for the stated shelf life from the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

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Initial: STE  
Date: 10/10/08

## METALS STANDARD DOCUMENTATION

**Standard:** Interference Check Standard (ICSA)      **ME #:** 0712003  
**Date Received/Prepped:** 12/1/2007      **By:** STE  
**Date Expired:** 6/1/2008      **Lot #:**  
**Manufacturer:** MWH-STE      **Certificate:**  
**Matrix:** 5% HNO<sub>3</sub>      **NIST SRM:**  
**Amount:** 500 mL      Room temp. storage

Component	Comment	Conc. Unit:
Al	P/N 4400-INTA1-500	250 ppm
Ca	25 mL in 500 mL	250 ppm
Fe		100 ppm
Mg		250 ppm

Initial: STE  
Date: 12/01/03

## METALS STANDARD DOCUMENTATION

**Standard:** ICP Calibration Stock Std #2  
**Date Received/Prepped:** 12/1/2007  
**Date Expired:** 12/1/2008  
**Manufacturer:** Inorganic Ventures  
**Matrix:** 5% Nitric Acid + Trace HF  
**Amount:** 500 mL

**ME #:** 0712002  
**By:** STE  
**Lot #:** A2-MEB243152  
**Certificate:** Y  
**NIST SRM:** Varies  
**Storage:** Room Temp

Component	Comment	Conc. Unit:
Mo	(P/N MWH-ICAP-CAL-2)	100 ug/ml
Sb		100 ug/ml
Sn		100 ug/ml
Ti		100 ug/ml
B		100 ug/ml
Mo		50 ug/ml
		100 ug/ml

Initial:

Date:

ST  
12/01/09

## METALS STANDARD DOCUMENTATION

**Standard:** Interference Check Standard (ICSAB)      **ME #:** 0712004  
**Date Received/Prepped:** 12/1/2007      **By:** STE  
**Date Expired:** 6/1/2008      **Lot #:**  
**Manufacturer:** MWH-STE      **Certificate:**  
**Matrix:** 5% HNO3      **NIST SRM:**  
**Amount:** 500 mL      Room temp. storage

Component	Comment	Conc. Unit:
Al	P/N 4400-INTA1-500 (25 mL)	250 ppm
Ca	P/N 4400-INTB1-100 (2.5 mL)	250 ppm
Fe		100 ppm
Mg		250 ppm
Ag		0.5 ppm
Ba		0.25 ppm
Be		0.25 ppm
Cd		0.5 ppm
Co		0.25 ppm
Cr		0.25 ppm
Cu		0.25 ppm
Mn		0.25 ppm
Ni		0.5 ppm
Pb		0.5 ppm
V		0.25 ppm
Zn		0.5 ppm

Initial:  
Date:

W3  
2/17/06

## METALS STANDARD DOCUMENTATION

**Standard:** ICP CCV/MCV Stock Standard  
**Date Received/Prepped:** 10/17/2006 **ME #:** 0610005  
**Date Expired:** 4/10/2008 **By:** WBH  
**Manufacturer:** CPI **Lot #:** 06J053  
**Matrix:** 5% HNO<sub>3</sub> = tr HF **Certificate:** Y  
**Amount:** 100 mL x 10 **NIST SRM:** Varius  
**Storage:** Room Temp

Component	Comment	Conc. Unit:
Ag		20 ppm
Al		100 ppm
As		100 ppm
B		50 ppm
Ba		100 ppm
bE		40 ppm
Ca		1000 ppm
Cd		50 ppm
Co		100 ppm
Cr		100 ppm
Cu		100 ppm
Fe		100 ppm
K		100 ppm
Mg		1000 ppm
Mn		1000 ppm
Mo		100 ppm
Na		100 ppm
Ni		1000 ppm
Pb		100 ppm
Sb		100 ppm
Se		100 ppm
Tl		100 ppm
V		100 ppm
Zn		100 ppm
Sr		100 ppm
Sn		20 ppm
Ti		20 ppm



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# Certificate of Analysis

Part Number: **4400-061003RH01**  
Lot Number: **06J053**  
Shelf Life: **18 months**

M70610 025

MWH  
Custom Multi  
5% HNO<sub>3</sub> + tr HF

Concentrations in ug/mL ± 0.5%

Ag	20	K	1000	Sr	20
Al	100	Mg	1000	Sn	20
As	100	Mn	100	Ti	20
B	50	Mo	100		
Ba	100	Na	1000		
Be	40	Ni	100		
Ca	1000	Pb	100		
Cd	50	Sb	100		
Co	100	Se	100		
Cr	100	TL	100		
Cu	100	V	100		
Fe	100	Zn	100		

This standard solution was prepared using high-purity starting materials, high-purity acid (if required) and 18-megaohm de-ionized water. The starting materials were weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

Starting materials were analyzed at 1000µg/mL by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against the National Institute of Standards and Technology's SRM 3100 series, NIST approved second source and/or gravimetrically.

Accuracy and stability are guaranteed to within plus or minus 0.5% of the certified value for the stated shelf life from the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

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Initial: Wbh  
 Date: 1/14/08

## METALS STANDARD DOCUMENTATION

Standard:	ICP 1 PPM CHECK	ME #: 0801010
Date Received/Prepped	1/11/2008	By: Wbh
Date Expired:	7/11/2008	Lot #: VARIOUS
Manufacturer:	MWH-wbh	Certificate:
Matrix:	5% HNO3	NIST SRM:
Amount:	500 mL	Storage: Room Tem

Component	Comment	Conc. Unit:
Ag	5mL ME0708011 /500mL	1 mg/L
Al		1 mg/L
B		1 mg/L
Ba		1 mg/L
K		10 mg/L
Na		1 mg/L
Si		1 mg/L
As	5mL ME0708012 /500mL	1 mg/L
Be		1 mg/L
Ca		1 mg/L
Cd		1 mg/L
Co		1 mg/L
Cr		1 mg/L
Cu		1 mg/L
Fe		1 mg/L
Li		1 mg/L
Mg		1 mg/L
Mn		1 mg/L
Mo		1 mg/L
Ni		1 mg/L
Pb		1 mg/L
Sb		1 mg/L
Se		1 mg/L
Sr		1 mg/L
Ti		1 mg/L
Tl		1 mg/L
V		1 mg/L
Zn		1 mg/L

ME0705011

8/27/07  
140

Initial:

Date:

STE

8/27/07

## METALS STANDARD DOCUMENTATION

Standard: QC Check Standard 7  
Date Received/Prepped: 8/27/2007  
Date Expired: 8/31/2007  
Manufacturer: Crescent Chemical Co. Inc.  
Matrix: 5% HNO3  
Amount: 100  
ME #: 0705011  
By: STE  
Lot #: 0744381  
Certificate:  
NIST SRM:  
Storage: Room Temp.

Component	Comment	Conc. Unit:
Ag	Catalog No: QC-007.1	100 ug/mL
Al		100 ug/mL
B		100 ug/mL
Ba		100 ug/mL
K		1000 +/- 5 ug/mL
Na		100 ug/mL
Si		50 ug/mL

ME 07 08 011

*Laboratory Report - Certificate of Analysis*

**Environmental Multielement Standard**

**QC Check Standard 7**

**CATALOG NO: QC-007.1**

**CONTENTS:** See Below

**MATRIX:** 5% HNO<sub>3</sub>/tr. F<sup>-</sup>

**LOT NO.:** 074438I

This solution is intended for use as a calibration standard for plasma emission spectroscopy (ICP or DCP). It is a multielement solution, that was prepared gravimetrically to contain the elements/concentrations shown below.

In order to verify the concentration, the final solution was checked against NIST SRMS: 3101a, 3104a, 3107, 3141a, 3150, 3151, and 3152a.

Concentrations are given in µg/mL unless noted otherwise.

Ag 100

Al 100

B 100

Ba 100

K 1,000±5

Na 100

Si 50.0

**Crescent Chemical Co. Inc.**

Julie M. MacIntosh  
QA Manager

**EXPIRES:** August 2008

CRESCENT CHEMICAL CO, INC., waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

*Crescent Chemical Co, Inc., 2 Oval Drive, Islandia, NY 11749  
(516) 348-0333 - Fax (516) 348-0913*

Initial: STE  
 Date: 8/27/07

## METALS STANDARD DOCUMENTATION

<b>Standard:</b>	QC Check Standard 21	<b>ME #:</b> 0708012
<b>Date Received/Prepped:</b>	8/27/2007	<b>By:</b> STE
<b>Date Expired:</b>	8/31/2008	<b>Lot #:</b> 074438H
<b>Manufacturer:</b>	Crescent Chemical Co. Inc.	<b>Certificate:</b>
<b>Matrix:</b>	5% HNO <sub>3</sub> /tr. F/tr Tartaric Acid	<b>NIST SRM:</b>
<b>Amount:</b>	100 mL	Room temp. storage

Component	Comment	Conc. Unit:
As	Catalog No: QC-021.1	100 ug/mL
Be		100 ug/mL
Ca		100 ug/mL
Cd		100 ug/mL
Co		100 ug/mL
Cu		100 ug/mL
Fe		100 ug/mL
Li		100 ug/mL
Mg		100 ug/mL
Mn		100 ug/mL
Mo		100 ug/mL
Ni		100 ug/mL
Pb		100 ug/mL
Sb		100 ug/mL
Se		100 ug/mL
Sr		100 ug/mL
Ti		100 ug/mL
Tl		100 ug/mL
V		100 ug/mL
Zn		100 ug/mL

ME 0708012

*Laboratory Report - Certificate of Analysis*

**Environmental Multielement Standard**

**QC Check Standard 21**

**CATALOG NO: QC-021.1**

**CONTENTS:** See Below

**MATRIX:** 5% HNO<sub>3</sub>/tr. F<sup>-</sup>/tr. Tartaric Acid

**LOT NO.:** 074438H

This solution is intended for use as a calibration standard for plasma emission spectroscopy (ICP or DCP). It is a multielement solution, that was prepared gravimetrically to contain the elements/concentrations shown below.

In order to verify the concentration, the final solution was checked against NIST SRMS: 3102a, 3103a, 3105a, 3108, 3109a, 3112a, 3113, 3114, 3126a, 3128, 3129a, 3131a, 3132, 3134, 3136, 3149, 3153a, 3158, 3162a, 3165, and 3168a.

Concentrations are given in µg/mL unless noted otherwise.

As 100	Be 100	Ca 100	Cd 100	Co 100
Cr 100	Cu 100	Fe 100	Li 100	Mg 100
Mn 100	Mo 100	Ni 100	Pb 100	Sb 100
Se 100	Sr 100	Ti 100	Tl 100	V 100
Zn 100				

**Crescent Chemical Co. Inc.**

Julie M. MacIntyre  
QA Manager

**EXPIRES:** August 2008

CRESCENT CHEMICAL CO, INC., waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

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Initial: STE  
Date: 11/10/07

## METALS STANDARD DOCUMENTATION

Standard: ICP LINEARITY CHECK ME #: 0711002  
Date Received/Prepped 11/6/2007 By: STE  
Date Expired: 5/6/2008 2/6/2008 Lot #: VARIOUS  
Manufacturer: MWH-STE Certificate:  
Matrix: 5% HNO3 NIST SRM:  
Amount: 500 mL Storage: Room Temp.

Component	Comment	Conc. Unit:
Ca	15.0 mL ME0702002/500 mL	300 ppm
K	15.0 mL ME0702005/ 500 mL	300 ppm
Mg	10.0 mL ME0702004/ 500 mL	200 ppm
Na	15 mL ME0702003/ 500 mL	300 ppm
Fe	5.0 mL ME0701008/ 500 mL	100 ppm

Initial:  
Date:

W37  
2/10/07

## METALS STANDARD DOCUMENTATION

**Standard:** Calcium 10000ppm Stock Std      **ME #:** 0702002  
**Date Received/Prepped:** 2/20/2007      **By:** WBH  
**Date Expired:** 8/16/2008      **Lot #:** 07B065  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 4% HNO3      **NIST SRM:** 3109a  
**Amount:** 250 mL      Room temp. storage

<b>Component</b>	<b>Comment</b>	<b>Conc. Unit:</b>
Ca	P/N 4400-10M91	10000 ppm



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CERTIFICATE OF ANALYSIS

P/N 4400-10M91  
P/N S4400-10M91

180702602

Single-Element Calcium Standard

Ca in 4% HNO<sub>3</sub>

10,000 ± 30 µg/mL

Lot # 07B065

Material Source: Calcium Carbonate (CaCO<sub>3</sub>)

Source Purity: 99.997%

Specific Gravity: 1.035 @ 21 °C

This standard solution was prepared using high-purity salt, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3109a. Trace impurities of the standard solution at 1000 µg/mL were analyzed by ICP-MS.

ppb	DL	ppb	DL	ppb	DL	ppb	DL	ppb	DL
Al 7	0.1	Cu 1.7	0.1	Pb 0.23	0.1	K ND	70	Tl 0.27	0.1
Sb ND	0.1	Dy ND	0.1	Li ND	0.4	Pr ND	0.1	Th ND	0.1
As ND	6	Er ND	0.1	Lu ND	1	Re ND	0.1	Tm ND	0.1
Ba 1.5	0.1	Eu ND	0.1	Mg 38	0.2	Rh ND	0.1	Sn ND	0.1
Be ND	0.1	Gd ND	0.1	Mn ND	1	Rb ND	0.1	Ti ND	0.1
Bi ND	0.1	Ga ND	0.1	Hg ND	0.2	Ru ND	0.1	W ND	0.1
B 1.5	4	Ge ND	0.1	Mo ND	0.1	Sm ND	0.1	U ND	0.1
Br ND	10	Au ND	0.1	Nd ND	0.1	Se ND	6	V ND	1
Cd ND	0.1	Hf ND	0.1	Ni 3	0.1	Si 47	8	Yb ND	0.1
Ca X	7	Ho ND	0.1	Nb ND	0.1	Ag ND	0.1	Y ND	0.1
Ce ND	0.1	I 0.27	0.2	Os ND	0.1	Na 11.6	1	Zn 3.5	2
Cs ND	0.1	Ir ND	0.1	Pd ND	0.1	Sr 55	0.1	Zr ND	0.1
Cr ND	1	Fe INT	30	P ND	10	Ta ND	0.1		
Co INT	0.1	La 0.41	0.1	Pt ND	0.1	Te ND	0.1		

INT=Interference from Major Element ND=None Detected X=Major Element DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.

Initial:

Date:

U31

2/20/07

## METALS STANDARD DOCUMENTATION

**Standard:** Sodium 1000ppm Stock Std      **ME #:** 0702003  
**Date Received/Prepped:** 2/20/2007      **By:** WBH  
**Date Expired:** 8/16/2008      **Lot #:** 07B057  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 1% HNO3      **NIST SRM:** 3152a  
**Amount:** 250 mL      Room temp. storage

<b>Component</b>	<b>Comment</b>	<b>Conc. Unit:</b>
Na	P/N 4400-10M521	10000 ppm

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## CERTIFICATE OF ANALYSIS

**P/N 4400-10M521**  
**P/N S4400-10M521**

Single-Element Sodium Standard

Na in 1% HNO<sub>3</sub>  
10,000 ± 30 µg/mL

Lot # 07B057

170702003

Material Source: Sodium Nitrate (NaNO<sub>3</sub>)

Source Purity: 99.99%

Specific Gravity: 1.053 @ 21 °C

This standard solution was prepared using high-purity salt, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3152a. Trace impurities of the standard solution at 1000µg/mL were analyzed by ICP-MS.

	<b>ppb</b>	<b>DL</b>									
Al	1.5	0.1	Cu	0.45	0.1	Pb	ND	0.1	K	ND	70
Sb	ND	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	0.13	0.1	Eu	ND	0.1	Mg	2.3	0.2	Rh	ND	0.1
Be	ND	0.1	Gd	ND	0.1	Mn	ND	1	Rb	ND	0.1
Bi	ND	0.1	Ga	ND	0.1	Hg	ND	0.2	Ru	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	ND	0.1	Sm	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	ND	0.1	Se	ND	6
Cd	ND	0.1	Hf	ND	0.1	Ni	0.4	0.1	Si	50	8
Ca	120	7	Ho	ND	0.1	Nb	ND	0.1	Ag	ND	0.1
Ce	ND	0.1	I	ND	0.2	Os	ND	0.1	Na	X	1
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	1	0.1
Cr	ND	1	Fe	ND	30	P	18	10	Ta	ND	0.1
Co	ND	0.1	La	ND	0.1	Pt	ND	0.1	Te	ND	0.1

X=Major Element INT=Interference from Major Element ND=Not Detected DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the United States or +31 20 638 05 97 in Europe.

Initial:  
Date:

WBH

2/10/07

## METALS STANDARD DOCUMENTATION

**Standard:** Magnesium 10000ppm Stock Std      **ME #:** 0702004  
**Date Received/Prepped:** 2/20/2007      **By:** WBH  
**Date Expired:** 8/16/2008      **Lot #:** 07B058  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 4% HNO3      **NIST SRM:** 3131  
**Amount:** 250 mL      Room temp. storage

Component	Comment	Conc. Unit:
Mg	P/N 4400-10M311	10000 ppm



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**CERTIFICATE OF ANALYSIS**

M70702004

**P/N 4400-10M311****P/N S4400-10M311**

Single-Element Magnesium Standard

Mg in 4% HNO<sub>3</sub>

10,000 ± 30 µg/mL

Lot # 07B058

Material Source: Magnesium Metal

Source Purity: 99.99%

Specific Gravity: 1.056 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3131. Trace impurities of the standard solution at 1000 µg/mL were analyzed by ICP-MS.

	<b>ppb</b>	<b>DL</b>									
Al	28	0.1	Cu	1.6	0.1	Pb	7.7	0.7	K	ND	70
Sb	ND	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	0.28	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	0.28	0.1	Eu	ND	0.1	Mg	X	0.2	Rh	ND	0.1
Be	ND	0.1	Gd	0.23	0.1	Mn	19.8	1	Rb	ND	0.1
Bi	ND	0.1	Ga	0.18	0.1	Hg	ND	0.2	Ru	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	ND	0.1	Sm	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	1.1	0.1	Se	ND	6
Cd	ND	0.1	Hf	ND	0.1	Ni	1	0.1	Si	64	20
Ca	ND	7	Ho	ND	0.1	Nb	ND	0.1	Ag	0.19	0.1
Ce	2.1	0.1	I	1	0.2	Os	ND	0.1	Na	7.2	1
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	0.19	0.1
Cr	ND	1	Fe	80	30	P	ND	10	Ta	ND	0.1
Co	ND	0.1	La	0.76	0.1	Pt	ND	0.1	Te	ND	0.1
										Zr	0.29

X=Major Element INT=Interference from Major Element ND=Not Detected DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

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SPF NICKEL

Initial:  
Date:

W37  
2/26/07

## METALS STANDARD DOCUMENTATION

**Standard:** Potassium 10000ppm Stock Std      **ME #:** 0702005  
**Date Received/Prepped:** 2/20/2007      **By:** WBH  
**Date Expired:** 8/16/2008      **Lot #:** 07B056  
**Manufacturer:** CPI      **Certificate:** Y  
**Matrix:** 1% HNO3      **NIST SRM:** 3141  
**Amount:** 250 mL      Room temp. storage

<b>Component</b>	<b>Comment</b>	<b>Conc. Unit:</b>
K	P/N 4400-10M411	10000 ppm

AUG 16 '08



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## CERTIFICATE OF ANALYSIS

ME0702005

**P/N 4400-10M411****P/N S4400-10M411**

Single-Element Potassium Standard

K in 1% HNO<sub>3</sub>

10,000 ± 30 µg/mL

Lot # 07B056

Material Source: Potassium Nitrate (KNO<sub>3</sub>)

Source Purity: 99.999%

Specific Gravity: 1.019 @ 21 °C

This standard solution was prepared using high-purity salt, sub-boiled distilled nitric acid and 18-megaohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3141. Trace impurities of the standard solution at 1000µg/mL were analyzed by ICP-MS.

	<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>		<u>ppb</u>	<u>DL</u>
Al	0.39	0.1	Cu	0.16	0.1	Pb	ND	0.1	K	X	70
Sb	0.34	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	0.14	0.1	Eu	ND	0.1	Mg	2.6	0.2	Rh	ND	0.1
Be	ND	0.1	Gd	ND	0.1	Mn	0.93	1	Rb	9.5	0.1
Bi	ND	0.1	Ga	ND	0.1	Hg	ND	0.2	Ru	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	ND	0.1	Sm	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	ND	0.1	Se	ND	6
C <sup>d</sup>	ND	0.1	Hf	ND	0.1	Ni	0.4	0.1	Si	50	20
Ca	82	7	Ho	ND	0.1	Nb	ND	0.1	Ag	ND	0.1
Ce	ND	0.1	I	ND	0.2	Os	ND	0.1	Na	19	1
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	1	0.1
Cr	ND	1	Fe	ND	30	P	18	10	Ta	ND	0.1
Co	ND	0.1	La	ND	0.1	Pt	ND	0.1	Te	ND	0.1

X=Major Element INT=Interference from Major Element ND=Not Detected DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

For questions or comments please call 1-800-878-7654 in the USA or +31 20 638 05 97 in Europe.

Initial:  
Date:

W34  
1/27/07

## METALS STANDARD DOCUMENTATION

Standard: FE 1000ppm Stock Std  
Date Received/Prepped: 1/26/2007 ME #: 701008  
Date Expired: 7/19/2008 By: WBH  
Manufacturer: CPI Lot #: 06I143  
Matrix: 4% HNO3 Certificate:  
Amount: 100 mL NIST SRM: 3126a  
Storage: Room Temp

Component	Comment	Conc. Unit:
Fe	PN4400-10M261	10000 PPM



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## CERTIFICATE OF ANALYSIS

ME0701008

**P/N 4400-10M261**

**P/N S4400-10M261**

Single-Element Iron Standard

Fe in 4% HNO<sub>3</sub>

10,000 ± 30 µg/mL

Lot # 06I143

Material Source: Iron Metal

Source Purity: 99.999%

Specific Gravity: 1.062 @ 21 °C

This standard solution was prepared using high-purity metal, sub-boiled distilled nitric acid and 18-megohm deionized water. The starting material was weighed to five significant figures and diluted in volumetric glassware calibrated to five significant figures.

The standard solution concentration was certified by ICP against the National Institute of Standards and Technology's SRM 3126a. Trace impurities of the standard solution at 1000 µg/mL were analyzed by ICP-MS.

	<u>ppb</u>	<u>DL</u>									
Al	INT	0.1	Cu	6.4	0.1	Pb	ND	0.1	K	ND	70
Sb	0.35	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	ND	0.1
As	ND	6	Er	ND	0.1	Lu	ND	1	Re	ND	0.1
Ba	ND	0.1	Eu	ND	0.1	Mg	1.3	0.2	Rh	ND	0.1
Be	ND	0.1	Gd	ND	0.1	Mn	INT	1	Rb	ND	0.1
Bi	ND	0.1	Ga	0.41	0.1	Hg	ND	0.2	Ru	ND	0.1
B	ND	4	Ge	INT	0.1	Mo	4.9	0.1	Sm	ND	0.1
Br	ND	10	Au	ND	0.1	Nd	ND	0.1	Se	ND	6
Cd	ND	0.1	Hf	ND	0.1	Ni	9.3	0.1	Si	INT	8
Ca	15	7	Ho	ND	0.1	Nb	ND	0.1	Ag	ND	0.1
Ce	ND	0.1	I	0.34	0.2	Os	ND	0.1	Na	8	1
Cs	0.34	0.1	Ir	ND	0.1	Pd	ND	0.1	Zn	8.6	2
Cr	3.3	1	Fe	X	30	P	28	10	Sr	ND	0.1
Co	12	0.1	La	ND	0.1	Pt	ND	0.1	Ta	ND	0.1
									Te	ND	0.1

INT=Interference from Major Element ND=Not Detected X=Major Element DL=Detection Limit

Accuracy and stability are guaranteed to within plus or minus 0.3% of the certified value for 18 months after the date of shipment. The solution should be kept tightly capped and stored under normal laboratory conditions. See attached MSDS for proper handling information.

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LOG#	CURRENT	SY ID	H IX	VOLUME	Comments
	200-7	02-20-08	JRF		MWDs 100445 1m1
BLANK	DIGEST				HC1 100446 2.5m1
LCS					LCS / PPK
LOSD					ME 0709009
2802070519	KERRMCHEE-MP	EB-2	AQ	50M1 → 50M1	ME 0712008 → 0.5L
↓ MS		↓			ME 0709007 → 0.25L
2802080261	MSD	M-83			MRL
↓ MS		↓			ME 0710013 → 0.5L
2802080260		M-85			HOT CLOCK #1 TEMP.
2802070518		M-10			WATER: 111/94
2802080254		M-87			POWER:
0259		M-86			
0262		M-70			
0263		M-71			
0264		M-72			
0265		M-38			
0267		M-36			
0271		M-84			
0272		M-11			
0273		M0-2			
0274		M22A			
0277		M-89			
0319		GW-11			
2802090001		M17A			
↓ 0002		M-76			
↓ 0003		M-75			
	200-7	02-20-08	JRF		

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To Page No.

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