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Level IV Data Package

MWH Group 242355

Method: EPA 200.7

2805280375
2805280376

EPA 200.7/6010B QC Check List

Analyst CGK Analysis Date 5-29-08 Reviewer/Date 5-30-08

Instrumnet PerKin Elmer Optima 4300DV

✓ All sample analyzed within 6 month holding time

✓ All sample raw concentraction below the high standard or linear range o 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

NA QIR needed for failed QC

NA Special Det Code noted on the cover sheet

NA R value for multi point calibration is > 0.995

NA Proper MRL check ran for special low MRL samples

Reagent and Standards used for
Optima 4300 DV
Updated 03/31/08

Int: CGK
Date: 5-30-08

Method 200.7/6010

ICP SUMMARY SHEET

File ID: 080529A
Date Started: 5/29/08
Analyst ID: CSK

SAMPLE ID

LINEARITY	(20:47)	Wash	(20:59)	FILTERCHECK	(21:32)
2805280392	(21:45)	2805280378	(21:57)	2805290001	(22:01)
2805280348	(22:17)	2805280351	(22:20)	2805280489	(22:24)
2805280354	(22:28)	2805280395	(22:32)	2805280219	(22:36)
2805280272	(22:40)	2805270410	(22:45)	2805280273	(23:10)
2805280341	(23:14)	2805280217	(23:18)	2805280342	(23:21)
2805280241	(23:25)	2805280242	(23:29)	2805280213	(23:34)
2805280477	(23:38)	2805280376_2	(23:42)	2805270411	(0:09)
2805280243	(0:21)	2805280244	(0:25)	2805280245	(0:29)
2805280246	(0:33)	2805280247	(0:51)	2805280406	(0:55)
2805280413	(1:00)	2805280095	(1:04)	2805280096	(1:08)
2805280415	(1:11)	2805280097	(1:23)	2805280099	(1:27)
2805280100	(1:41)	2805280253	(1:44)		

VB MMG 6/4/08

COMMENT:

Analyst: CSK 5-30-08

Approved By: WSG

BATCH NUMBER for 080529A

Test Parameter:

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

Batch ID: 2805280392

2805280392	2805280378	2805290001
2805280348	2805280351	2805280489
2805280354	2805280395	2805280219
2805280272	2805270410	2805280273
2805280341	2805280217	2805280342
2805280241	2805280242	2805280213
2805280477	2805280376_2X	

Batch ID: 2805270411

2805270411	2805280243	2805280244
2805280245	2805280246	2805280247
2805280406	2805280413	2805280095
2805280096	2805280415	2805280097
2805280099	2805280100	2805280253

File ID: 080529A

CR

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
ICV	5/29/08	20:44	1	10.053	10.1	95-105	100%
LINEARITY	5/29/08	20:47	1	0.0033	.0033		
ICSA	5/29/08	20:51	1	0.0007	0.0007	80-120	
ICSAB	5/29/08	20:55	1	.25386	.254	80-120	101%
Wash	5/29/08	20:59	1	0.0001	0.0001		
QC-25 1ppm	5/29/08	21:02	1	1.0103	1.0		
CCV	5/29/08	21:06	1	5.0282	5.03	90-110	100%
ICB	5/29/08	21:12	1	0.0000	0.0000		
MRL	5/29/08	21:16	1	0.0103	.0103	50-150	102%
MRL/2	5/29/08	21:19	1	0.0049	.0049		
MCV	5/29/08	21:24	1	2.4864	2.49	90-110	99.4%
FILTERCHECK	5/29/08	21:32	1	0.0000	0		
MBLANK	5/29/08	21:36	1	0.0000	0.0000		
LCS	5/29/08	21:39	1	.93172	.932	85-115	93.1%
LCSD	5/29/08	21:42	1	.91490	.915	85-115	91.4%
2805280392	5/29/08	21:45	1	-0.0002	ND		
2805280392MS	5/29/08	21:49	1	.94384	.944	[0.944]	94.3%
2805280392MSD	5/29/08	21:53	1	.96400	.964	[0.964]	96.4%
2805280392T	5/29/08	21:53	1		1.00	70 - 130	
2805280378	5/29/08	21:57	1	-0.0003	ND		
2805290001	5/29/08	22:01	1	0.0075	.0075		
CCV	5/29/08	22:04	1	5.0474	5.05	90-110	100%
CCB	5/29/08	22:13	1	0.0001	0.0001		
2805280348	5/29/08	22:17	1	-0.0002	ND		
2805280351	5/29/08	22:20	1	0.0001	0.0000		
2805280489	5/29/08	22:24	1	-0.0004	ND		
2805280354	5/29/08	22:28	1	0.0009	0.0009		
2805280395	5/29/08	22:32	1	-0.0003	ND		
2805280219	5/29/08	22:36	1	0.0013	.0013		
2805280272	5/29/08	22:40	1	0.0020	.002		
2805270410	5/29/08	22:45	1	-0.0003	ND		
2805270410MS	5/29/08	22:49	1	.94509	.945	[0.945]	94.5%
2805270410MSD	5/29/08	22:53	1	.94593	.946	[0.946]	94.5%
2805270410T	5/29/08	22:53	1		1.00	70 - 130	
CCV	5/29/08	22:56	1	4.9778	4.98	90-110	99.5%
CCB	5/29/08	23:03	1	0.0000	0.0000		
MCV	5/29/08	23:06	1	2.5050	2.51	90-110	100%
2805280273	5/29/08	23:10	1	0.0016	.0016		
2805280341	5/29/08	23:14	1	0.0024	.0024		
2805280217	5/29/08	23:18	1	-0.0001	ND		
2805280342	5/29/08	23:21	1	.01842	.018		
2805280241	5/29/08	23:25	1	0.0079	.0079		
2805280242	5/29/08	23:29	1	0.0040	.004		
2805280213	5/29/08	23:34	1	-0.0002	ND		
2805280477	5/29/08	23:38	1	-0.0000	ND		
2805280376_2X	5/29/08	23:42	2	.13753	.140		

File ID: 080529A

CR

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
MBLANK	5/29/08	23:46	1	0.0003	0.0003		
CCV	5/29/08	23:50	1	5.0047	5.00	90-110	100%
CCB	5/29/08	23:56	1	0.0001	0.0001		
MRL	5/29/08	23:59	1	0.0104	.0104	50-150	103%
LCS	5/30/08	0:03	1	.93335	.933	85-115	93.3%
LCSD	5/30/08	0:06	1	.93428	.934	85-115	93.4%
2805270411	5/30/08	0:09	1	-0.0002	ND		
2805270411MS	5/30/08	0:14	1	.94341	.943	[0.943]	94.3%
2805270411MSD	5/30/08	0:17	1	.94519	.945	[0.945]	94.5%
2805270411T	5/30/08	0:17	1		1.00	70 - 130	
2805280243	5/30/08	0:21	1	0.0010	0.0009		
2805280244	5/30/08	0:25	1	-0.0000	ND		
2805280245	5/30/08	0:29	1	0.0002	0.0001		
2805280246	5/30/08	0:33	1	0.0043	.0043		
CCV	5/30/08	0:38	1	4.9545	4.95	90-110	99.0%
CCB	5/30/08	0:44	1	0.0000	0.0000		
MCV	5/30/08	0:47	1	2.4678	2.47	90-110	98.7%
2805280247	5/30/08	0:51	1	0.0011	.0011		
2805280406	5/30/08	0:55	1	-0.0003	ND		
2805280413	5/30/08	1:00	1	0.0020	.002		
2805280095	5/30/08	1:04	1	0.0008	0.0008		
2805280096	5/30/08	1:08	1	0.0000	0		
2805280415	5/30/08	1:11	1	0.0013	.0013		
2805280415MS	5/30/08	1:16	1	.93875	.939	[0.937]	93.7%
2805280415MSD	5/30/08	1:19	1	.93527	.935	[0.934]	93.3%
2805280415T	5/30/08	1:19	1		1.00	70 - 130	
2805280097	5/30/08	1:23	1	0.0010	0.0009		
2805280099	5/30/08	1:27	1	-0.0001	ND		
CCV	5/30/08	1:31	1	4.8077	4.81	90-110	96.1%
CCB	5/30/08	1:37	1	0.0000	0.0000		
2805280100	5/30/08	1:41	1	0.0001	0.0001		
2805280253	5/30/08	1:44	1	-0.0001	ND		
ECV	5/30/08	1:48	1	4.7930	4.79	90-110	95.8%
ECB	5/30/08	1:54	1	0.0001	0.0001		

Analysis Begun

Start Time: 5/29/2008 17:55:51 Plasma On Time: 5/29/2008 10:30:51
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\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Method Loaded
Method Name: 200.7&6010_080304 Method Last Saved: 5/2/2008 09:27:36
IEC File: IEC080304.iec MSF File:
Method Description: 200.7/6010_080304

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

Sequence No.: 1 Autosampler Location: 0
Sample ID: Calib Blank 1 Date Collected: 5/29/2008 17:56:09
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sca	409823.9	5363.41	1.31%	100	%
Yr	505336.2	2250.10	0.45%	100	%
Ag†	214.0	2.91	1.36%	[0.00]	mg/L
Al†	39.4	12.58	31.92%	[0.00]	mg/L
As†	0.6	0.68	114.50%	[0.00]	mg/L
B†	200.1	0.70	0.35%	[0.00]	mg/L
Ba†	-26.6	1.29	4.84%	[0.00]	mg/L
Be†	-3428.0	53.19	1.55%	[0.00]	mg/L
Ca†	3742.3	18.04	0.48%	[0.00]	mg/L

Cdt	34.7	0.15	0.42%	[0.00]	mg/L
Cot	-45.0	5.91	13.12%	[0.00]	mg/L
Crt	96.9	4.77	4.92%	[0.00]	mg/L
Cut	3513.1	16.40	0.47%	[0.00]	mg/L
Fet	-110.2	1.44	1.31%	[0.00]	mg/L
Kt	219.7	16.87	7.68%	[0.00]	mg/L
Mgt	-548.1	4.44	0.81%	[0.00]	mg/L
Mnt	125.5	12.64	10.07%	[0.00]	mg/L
Mot	13.6	1.00	7.34%	[0.00]	mg/L
Nat	-137.5	6.37	4.63%	[0.00]	mg/L
Nit	-57.6	6.74	11.69%	[0.00]	mg/L
Pbt	-21.3	2.64	12.38%	[0.00]	mg/L
Sbt	5.9	2.63	44.81%	[0.00]	mg/L
Set	0.6	0.63	106.39%	[0.00]	mg/L
Tlt	-24.6	4.29	17.43%	[0.00]	mg/L
Vt	147.3	8.50	5.77%	[0.00]	mg/L
Znt	80.7	17.87	22.14%	[0.00]	mg/L

Analysis Begun

Start Time: 5/29/2008 20:28:14
Logged In Analyst: Charley Kay
Spectrometer Model: Optima 4300 DV, S/N 077N2121801
Plasma On Time: 5/29/2008 10:30:51
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\Charley Kay\Sample Information\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Method Loaded
Method Name: 200.7&6010_080304
IEC File: IEC080304.iec
Method Description: 200.7/6010_080304
Method Last Saved: 5/2/2008 09:27:36
MSF File:

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

Sequence No.: 1
Sample ID: Calib Blank 1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 0
Date Collected: 5/29/2008 20:28:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sca	405411.9	3293.05	0.81%	100	%
Yr	495652.7	379.44	0.08%	100	%
Ag†	309.1	27.45	8.88%	[0.00]	mg/L
Al†	35.0	11.02	31.49%	[0.00]	mg/L
As†	1.3	0.63	47.02%	[0.00]	mg/L
B_†	264.6	1.34	0.51%	[0.00]	mg/L
Ba†	-22.5	1.56	6.94%	[0.00]	mg/L
Be†	-3334.8	1.39	0.04%	[0.00]	mg/L
Ca†	3605.3	14.40	0.40%	[0.00]	mg/L

Cdt	33.1	0.69	2.10%	[0.00]	mg/L
Cot	-43.1	0.20	0.48%	[0.00]	mg/L
Crt	102.2	2.88	2.81%	[0.00]	mg/L
Cut	3373.7	38.30	1.14%	[0.00]	mg/L
Fet	-100.7	4.07	4.04%	[0.00]	mg/L
Kt	196.3	22.11	11.26%	[0.00]	mg/L
Mgt	-531.3	1.72	0.32%	[0.00]	mg/L
Mnt	229.3	2.91	1.27%	[0.00]	mg/L
Mot	14.6	5.94	40.71%	[0.00]	mg/L
Nat	-203.5	5.94	2.92%	[0.00]	mg/L
Nit	-50.8	1.30	2.57%	[0.00]	mg/L
Pbt	-18.6	4.49	24.12%	[0.00]	mg/L
Sbt	4.3	2.14	49.75%	[0.00]	mg/L
Set	-2.9	1.96	67.20%	[0.00]	mg/L
Tlt	-27.4	0.75	2.72%	[0.00]	mg/L
Vt	133.8	10.16	7.59%	[0.00]	mg/L
Znt	84.1	5.11	6.08%	[0.00]	mg/L

Analysis Begun

Start Time: 5/29/2008 20:38:50 Plasma On Time: 5/29/2008 10:30:51
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\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 0
Sample ID: Calib Blank 1 Date Collected: 5/29/2008 20:38:52
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sca	404017.9	2306.37	0.57%	100	%
Yr	491376.8	8698.23	1.77%	100	%
Ag†	239.2	54.78	22.90%	[0.00]	mg/L
Al†	49.3	13.11	26.56%	[0.00]	mg/L
As†	1.4	6.66	464.52%	[0.00]	mg/L
B_†	267.7	5.35	2.00%	[0.00]	mg/L
Ba†	-22.7	2.30	10.13%	[0.00]	mg/L
Be†	-3325.8	21.58	0.65%	[0.00]	mg/L
Ca†	3603.3	45.40	1.26%	[0.00]	mg/L
Cd†	36.7	0.10	0.27%	[0.00]	mg/L
Co†	-45.5	4.15	9.12%	[0.00]	mg/L
Cr†	102.1	1.09	1.07%	[0.00]	mg/L
Cu†	3383.1	11.32	0.33%	[0.00]	mg/L
Fe†	-101.8	5.83	5.73%	[0.00]	mg/L
K†	210.5	13.47	6.40%	[0.00]	mg/L
Mg†	-538.8	14.26	2.65%	[0.00]	mg/L
Mn†	217.7	8.33	3.83%	[0.00]	mg/L
Mo†	15.5	0.55	3.55%	[0.00]	mg/L
Na†	-207.1	62.66	30.27%	[0.00]	mg/L
Ni†	-52.4	5.38	10.28%	[0.00]	mg/L
Pb†	-19.8	0.46	2.32%	[0.00]	mg/L
Sb†	2.9	2.35	80.93%	[0.00]	mg/L
Se†	3.2	1.24	38.53%	[0.00]	mg/L
Tl†	-25.1	1.04	4.12%	[0.00]	mg/L
V†	139.1	1.39	1.00%	[0.00]	mg/L
Zn†	86.2	5.34	6.19%	[0.00]	mg/L

User canceled analysis.

Analysis Begun

Start Time: 5/29/2008 20:42:28 Plasma On Time: 5/29/2008 10:30:51
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\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 2 Autosampler Location: 15
Sample ID: Standard 2 Date Collected: 5/29/2008 20:42:29
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: Standard 2

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: Standard 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sca	367187.7	177.98	0.05%	90.9	%
Yr	467625.8	2697.82	0.58%	95.2	%
Agt	489793.1	529.24	0.11%	[2]	mg/L
Alt	79580.5	13.65	0.02%	[10]	mg/L
Ast	15532.0	240.92	1.55%	[10]	mg/L
B_t	127683.8	507.67	0.40%	[5.02]	mg/L
Bat	385818.6	1007.57	0.26%	[10]	mg/L
Bet	10280184.7	25142.40	0.24%	[4.01]	mg/L
Cat	3144105.4	3435.28	0.11%	[100]	mg/L
Cdt	106763.5	257.78	0.24%	[5.01]	mg/L
Cot	148879.3	328.92	0.22%	[10]	mg/L
Crt	431407.9	198.41	0.05%	[9.97]	mg/L
Cut	2936559.7	4590.09	0.16%	[10]	mg/L
Fet	119656.4	230.88	0.19%	[9.98]	mg/L
Kt	123673.2	446.75	0.36%	[100]	mg/L
Mgt	2174312.1	3591.62	0.17%	[100]	mg/L
Mnt	4792614.9	9175.41	0.19%	[10]	mg/L
Mot	98476.6	59.46	0.06%	[9.98]	mg/L
Nat	464168.8	346.67	0.07%	[100]	mg/L
Nit	186333.3	224.52	0.12%	[10]	mg/L
Pbt	37972.5	494.83	1.30%	[10]	mg/L
Sbt	15439.4	226.00	1.46%	[10]	mg/L
Set	9645.8	122.24	1.27%	[10]	mg/L
Tlt	21385.5	281.76	1.32%	[10]	mg/L
Vt	1501467.2	3314.84	0.22%	[10]	mg/L
Znt	382382.3	604.38	0.16%	[10]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag	1	Lin, Calc Int	0.0	244900	0.00000	1.000000	
Al	1	Lin, Calc Int	0.0	7958	0.00000	1.000000	
As	1	Lin, Calc Int	0.0	1553	0.00000	1.000000	
B_	1	Lin, Calc Int	-0.0	25440	0.00000	1.000000	
Ba	1	Lin, Calc Int	0.0	38580	0.00000	1.000000	
Be	1	Lin, Calc Int	-0.0	2564000	0.00000	1.000000	
Ca	1	Lin, Calc Int	0.0	31440	0.00000	1.000000	
Cd	1	Lin, Calc Int	0.0	21310	0.00000	1.000000	
Co	1	Lin, Calc Int	0.0	14890	0.00000	1.000000	
Cr	1	Lin, Calc Int	-0.0	43270	0.00000	1.000000	
Cu	1	Lin, Calc Int	0.0	293700	0.00000	1.000000	

Fe	1	Lin, Calc Int	0.0	11990	0.00000	1.000000
K	1	Lin, Calc Int	0.0	1237	0.00000	1.000000
Mg	1	Lin, Calc Int	0.0	21740	0.00000	1.000000
Mn	1	Lin, Calc Int	0.0	479300	0.00000	1.000000
Mo	1	Lin, Calc Int	0.0	9867	0.00000	1.000000
Na	1	Lin, Calc Int	-0.0	4642	0.00000	1.000000
Ni	1	Lin, Calc Int	-0.0	18630	0.00000	1.000000
Pb	1	Lin, Calc Int	0.0	3797	0.00000	1.000000
Sb	1	Lin, Calc Int	-0.0	1544	0.00000	1.000000
Se	1	Lin, Calc Int	0.0	964.6	0.00000	1.000000
Tl	1	Lin, Calc Int	0.0	2139	0.00000	1.000000
V	1	Lin, Calc Int	0.0	150100	0.00000	1.000000
Zn	1	Lin, Calc Int	0.0	38240	0.00000	1.000000

Analysis Begun

Start Time: 5/29/2008 20:44:30 Plasma On Time: 5/29/2008 10:30:51
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\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 15
Sample ID: ICV Date Collected: 5/29/2008 20:44:32
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	360399.7	89.2	%	0.13				0.15%
Yr	463599.2	94.3	%	1.11				1.18%
Ag†	492892.4	2.02	mg/L	0.003	2.02	mg/L	0.003	0.17%
QC value within limits for Ag	Recovery = 100.81%							
Al†	79840.8	9.67	mg/L	0.039	9.67	mg/L	0.039	0.40%
QC value within limits for Al	Recovery = 96.66%							
As†	15550.0	10.0	mg/L	0.03	10.0	mg/L	0.03	0.26%
QC value within limits for As	Recovery = 100.12%							
B_†	129854.9	5.02	mg/L	0.018	5.02	mg/L	0.018	0.35%
QC value within limits for B_	Recovery = 100.34%							
Ba†	388434.9	10.1	mg/L	0.01	10.1	mg/L	0.01	0.06%
QC value within limits for Ba	Recovery = 100.68%							
Be†	10369882.8	4.05	mg/L	0.007	4.05	mg/L	0.007	0.16%
QC value within limits for Be	Recovery = 101.16%							
Ca†	3141706.9	99.9	mg/L	1.07	99.9	mg/L	1.07	1.07%
QC value within limits for Ca	Recovery = 99.92%							
Cd†	107581.8	4.94	mg/L	0.003	4.94	mg/L	0.003	0.06%
QC value within limits for Cd	Recovery = 98.82%							
Co†	150116.0	10.1	mg/L	0.01	10.1	mg/L	0.01	0.12%
QC value within limits for Co	Recovery = 100.83%							
Cr†	435012.3	10.1	mg/L	0.01	10.1	mg/L	0.01	0.15%
QC value within limits for Cr	Recovery = 100.53%							
Cu†	2953486.3	10.1	mg/L	0.00	10.1	mg/L	0.00	0.03%
QC value within limits for Cu	Recovery = 100.67%							
Fe†	118528.8	9.89	mg/L	0.025	9.89	mg/L	0.025	0.25%
QC value within limits for Fe	Recovery = 98.86%							
K†	124661.1	101	mg/L	0.8	101	mg/L	0.8	0.79%
QC value within limits for K	Recovery = 100.80%							
Mg†	2172003.0	99.9	mg/L	1.04	99.9	mg/L	1.04	1.04%
QC value within limits for Mg	Recovery = 99.91%							
Mn†	4820298.0	10.1	mg/L	0.00	10.1	mg/L	0.00	0.03%
QC value within limits for Mn	Recovery = 100.56%							
Mo†	99098.0	10.0	mg/L	0.02	10.0	mg/L	0.02	0.16%
QC value within limits for Mo	Recovery = 100.43%							
Na†	470178.4	101	mg/L	0.6	101	mg/L	0.6	0.56%
QC value within limits for Na	Recovery = 101.29%							
Ni†	187100.7	10.0	mg/L	0.01	10.0	mg/L	0.01	0.08%
QC value within limits for Ni	Recovery = 100.41%							
Pb†	38074.2	10.0	mg/L	0.05	10.0	mg/L	0.05	0.47%
QC value within limits for Pb	Recovery = 100.27%							
Sb†	15568.9	10.1	mg/L	0.03	10.1	mg/L	0.03	0.27%
QC value within limits for Sb	Recovery = 101.24%							
Se†	9661.8	10.0	mg/L	0.06	10.0	mg/L	0.06	0.62%

QC value within limits for Se Recovery = 100.41%						
Tl†	21621.8	10.2 mg/L	0.00	10.2 mg/L	0.00	0.03%
QC value within limits for Tl Recovery = 101.68%						
V†	1509613.8	10.1 mg/L	0.01	10.1 mg/L	0.01	0.12%
QC value within limits for V Recovery = 101.07%						
Zn†	384155.4	9.96 mg/L	0.005	9.96 mg/L	0.005	0.05%
QC value within limits for Zn Recovery = 99.60%						

All analyte(s) passed QC.

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

Autosampler Location: 9
Date Collected: 5/29/2008 20:47:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LINEARITY

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: LINEARITY

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	347401.6	86.0	%	0.20				0.23%
Yr	445689.2	90.7	%	0.37				0.40%
Ag†	-5191.2	0.0146	mg/L	0.00036	0.0146	mg/L	0.00036	2.49%
QC value within limits for Ag	Recovery = Not calculated							
Al†	1.4	0.00016	mg/L	0.005948	0.00016	mg/L	0.005948	>999.9%
QC value within limits for Al	Recovery = Not calculated							
As†	-157.6	-0.101	mg/L	0.0047	-0.101	mg/L	0.0047	4.60%
QC value within limits for As	Recovery = Not calculated							
B_†	1320.9	0.0520	mg/L	0.00601	0.0520	mg/L	0.00601	11.56%
QC value within limits for B_	Recovery = Not calculated							
Ba†	50.3	0.00130	mg/L	0.000132	0.00130	mg/L	0.000132	10.13%
QC value within limits for Ba	Recovery = Not calculated							
Be†	-725.5	-0.00028	mg/L	0.000031	-0.00028	mg/L	0.000031	10.91%
QC value within limits for Be	Recovery = Not calculated							
Ca†	9248564.8	294	mg/L	0.5	294	mg/L	0.5	0.16%
QC value within limits for Ca	Recovery = 98.05%							
Cd†	-16.2	0.00065	mg/L	0.000037	0.00065	mg/L	0.000037	5.67%
QC value within limits for Cd	Recovery = Not calculated							
Co†	26.5	0.00178	mg/L	0.000280	0.00178	mg/L	0.000280	15.73%
QC value within limits for Co	Recovery = Not calculated							
Cr†	142.0	0.00328	mg/L	0.000073	0.00328	mg/L	0.000073	2.22%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	-2907.9	-0.00990	mg/L	0.000268	-0.00990	mg/L	0.000268	2.71%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	1166633.7	97.3	mg/L	0.08	97.3	mg/L	0.08	0.08%
QC value within limits for Fe	Recovery = 97.30%							
K†	390829.1	316	mg/L	0.5	316	mg/L	0.5	0.15%
QC value within limits for K	Recovery = 105.34%							
Mg†	4073964.3	188	mg/L	0.2	188	mg/L	0.2	0.12%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	-1076.8	-0.00646	mg/L	0.000081	-0.00646	mg/L	0.000081	1.25%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	3.8	0.00039	mg/L	0.000018	0.00039	mg/L	0.000018	4.79%
QC value within limits for Mo	Recovery = Not calculated							
Na†	1416014.8	305	mg/L	0.5	305	mg/L	0.5	0.16%
QC value within limits for Na	Recovery = 101.69%							
Ni†	8.3	0.00044	mg/L	0.000212	0.00044	mg/L	0.000212	47.74%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	-11.4	-0.00300	mg/L	0.002944	-0.00300	mg/L	0.002944	98.28%
QC value within limits for Pb	Recovery = Not calculated							
Sb†	31.7	0.0205	mg/L	0.00346	0.0205	mg/L	0.00346	16.87%
QC value within limits for Sb	Recovery = Not calculated							
Se†	-117.6	0.119	mg/L	0.0183	0.119	mg/L	0.0183	15.35%
QC value within limits for Se	Recovery = Not calculated							
Tl†	31.6	0.0148	mg/L	0.00038	0.0148	mg/L	0.00038	2.58%
QC value within limits for Tl	Recovery = Not calculated							
V†	-426.4	0.00099	mg/L	0.000284	0.00099	mg/L	0.000284	28.60%
QC value within limits for V	Recovery = Not calculated							
Zn†	914.6	0.0239	mg/L	0.00032	0.0239	mg/L	0.00032	1.36%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

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

Autosampler Location: 10
Date Collected: 5/29/2008 20:51:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	358106.9	88.6	%	0.48				0.54%
Yr	457856.8	93.2	%	0.47				0.50%
Ag†	-5194.2	0.0144	mg/L	0.00028	0.0144	mg/L	0.00028	1.96%
QC value within limits for Ag	Recovery = Not calculated							
Al†	1975608.3	248	mg/L	0.3	248	mg/L	0.3	0.12%
QC value within limits for Al	Recovery = 99.30%							
As†	-345.0	-0.222	mg/L	0.0074	-0.222	mg/L	0.0074	3.35%
QC value within limits for As	Recovery = Not calculated							
B_†	337.2	0.0133	mg/L	0.00102	0.0133	mg/L	0.00102	7.65%
QC value within limits for B_	Recovery = Not calculated							
Ba†	66.7	0.00173	mg/L	0.000030	0.00173	mg/L	0.000030	1.76%
QC value within limits for Ba	Recovery = Not calculated							
Be†	-854.9	-0.00033	mg/L	0.000010	-0.00033	mg/L	0.000010	3.09%
QC value within limits for Be	Recovery = Not calculated							
Ca†	7850627.9	250	mg/L	0.2	250	mg/L	0.2	0.08%
QC value within limits for Ca	Recovery = 99.88%							
Cd†	-29.5	0.00169	mg/L	0.000154	0.00169	mg/L	0.000154	9.09%
QC value within limits for Cd	Recovery = Not calculated							
Co†	13.7	0.00092	mg/L	0.000150	0.00092	mg/L	0.000150	16.31%
QC value within limits for Co	Recovery = Not calculated							
Cr†	30.6	0.00071	mg/L	0.000072	0.00071	mg/L	0.000072	10.20%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	-3287.4	-0.0112	mg/L	0.00008	-0.0112	mg/L	0.00008	0.71%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	1160391.0	96.8	mg/L	0.11	96.8	mg/L	0.11	0.12%
QC value within limits for Fe	Recovery = 96.78%							
K†	280.2	0.227	mg/L	0.0248	0.227	mg/L	0.0248	10.97%
QC value within limits for K	Recovery = Not calculated							
Mg†	5091164.5	234	mg/L	0.0	234	mg/L	0.0	0.00%
QC value within limits for Mg	Recovery = 93.73%							
Mn†	-1127.3	-0.00761	mg/L	0.000032	-0.00761	mg/L	0.000032	0.42%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	3.9	0.00040	mg/L	0.000432	0.00040	mg/L	0.000432	108.23%
QC value within limits for Mo	Recovery = Not calculated							
Na†	555.0	0.120	mg/L	0.0013	0.120	mg/L	0.0013	1.05%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-9.4	-0.00051	mg/L	0.000210	-0.00051	mg/L	0.000210	41.59%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	-148.7	-0.0392	mg/L	0.00035	-0.0392	mg/L	0.00035	0.90%
QC value within limits for Pb	Recovery = Not calculated							
Sb†	18.4	0.0119	mg/L	0.00064	0.0119	mg/L	0.00064	5.42%
QC value within limits for Sb	Recovery = Not calculated							
Se†	-129.7	0.105	mg/L	0.0070	0.105	mg/L	0.0070	6.67%
QC value within limits for Se	Recovery = Not calculated							
Tl†	24.1	0.0112	mg/L	0.00254	0.0112	mg/L	0.00254	22.66%
QC value within limits for Tl	Recovery = Not calculated							
V†	-469.0	0.00068	mg/L	0.000045	0.00068	mg/L	0.000045	6.71%
QC value within limits for V	Recovery = Not calculated							
Zn†	713.0	0.0186	mg/L	0.00021	0.0186	mg/L	0.00021	1.15%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

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

Autosampler Location: 11
Date Collected: 5/29/2008 20:55:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	357002.4	88.4	%	0.85				0.97%
Yr	458542.8	93.3	%	0.42				0.45%
Agt	12362.4	0.0864	mg/L	0.00024	0.0864	mg/L	0.00024	0.27%
QC value less than the lower limit for Ag Recovery = 17.29%								
Alt	1989866.6	250	mg/L	0.7	250	mg/L	0.7	0.29%
QC value within limits for Al Recovery = 100.02%								
Ast	-345.1	-0.222	mg/L	0.0015	-0.222	mg/L	0.0015	0.65%
QC value less than the lower limit for As Recovery = Not calculated								
B_t	-7.3	-0.00246	mg/L	0.000743	-0.00246	mg/L	0.000743	30.25%
QC value within limits for B_ Recovery = Not calculated								
Bat	10266.1	0.266	mg/L	0.0003	0.266	mg/L	0.0003	0.11%
QC value within limits for Ba Recovery = 106.43%								
Bet	641095.0	0.250	mg/L	0.0004	0.250	mg/L	0.0004	0.15%
QC value within limits for Be Recovery = 100.04%								
Cat	7901605.5	251	mg/L	0.4	251	mg/L	0.4	0.16%
QC value within limits for Ca Recovery = 100.53%								
Cdt	10765.9	0.509	mg/L	0.0073	0.509	mg/L	0.0073	1.43%
QC value within limits for Cd Recovery = 101.80%								
Cot	3601.7	0.242	mg/L	0.0028	0.242	mg/L	0.0028	1.16%
QC value within limits for Co Recovery = 96.77%								
Crt	10984.8	0.254	mg/L	0.0005	0.254	mg/L	0.0005	0.20%
QC value within limits for Cr Recovery = 101.55%								
Cut	73201.0	0.250	mg/L	0.0010	0.250	mg/L	0.0010	0.42%
QC value within limits for Cu Recovery = 99.80%								
Fet	1172023.8	97.8	mg/L	0.15	97.8	mg/L	0.15	0.15%
QC value within limits for Fe Recovery = 97.75%								
Kt	40.1	0.0324	mg/L	0.03081	0.0324	mg/L	0.03081	95.12%
QC value within limits for K Recovery = Not calculated								
Mgt	5136480.5	236	mg/L	0.1	236	mg/L	0.1	0.02%
QC value within limits for Mg Recovery = 94.56%								
Mnt	122068.6	0.249	mg/L	0.0013	0.249	mg/L	0.0013	0.52%
QC value within limits for Mn Recovery = 99.76%								
Mot	-0.4	-0.00004	mg/L	0.000349	-0.00004	mg/L	0.000349	902.60%
QC value within limits for Mo Recovery = Not calculated								
Nat	338.5	0.0729	mg/L	0.00770	0.0729	mg/L	0.00770	10.56%
QC value within limits for Na Recovery = Not calculated								
Nit	8825.0	0.474	mg/L	0.0064	0.474	mg/L	0.0064	1.36%
QC value within limits for Ni Recovery = 94.72%								
Pbt	1766.4	0.465	mg/L	0.0076	0.465	mg/L	0.0076	1.63%
QC value within limits for Pb Recovery = 93.04%								
Sbt	21.8	0.0151	mg/L	0.00583	0.0151	mg/L	0.00583	38.65%
QC value within limits for Sb Recovery = Not calculated								
Set	-142.6	0.0941	mg/L	0.01345	0.0941	mg/L	0.01345	14.29%
QC value within limits for Se Recovery = Not calculated								
Tlt	3.0	0.00361	mg/L	0.006274	0.00361	mg/L	0.006274	173.65%
QC value within limits for Tl Recovery = Not calculated								
Vt	37201.0	0.253	mg/L	0.0009	0.253	mg/L	0.0009	0.34%
QC value within limits for V Recovery = 101.13%								
Znt	20933.7	0.544	mg/L	0.0024	0.544	mg/L	0.0024	0.44%
QC value within limits for Zn Recovery = 108.76%								

QC Failed. Continue with analysis.

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

Autosampler Location: 0
Date Collected: 5/29/2008 20:59:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Wash

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: Wash

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	401302.6	99.3	%	0.08				0.08%
Yr	491110.1	99.9	%	1.89				1.89%
Ag†	42.1	0.00017	mg/L	0.000020	0.00017	mg/L	0.000020	11.54%
QC value within limits for Ag	Recovery = Not calculated							
Al†	-1.5	-0.00019	mg/L	0.000934	-0.00019	mg/L	0.000934	502.64%
QC value within limits for Al	Recovery = Not calculated							
As†	2.8	0.00183	mg/L	0.001026	0.00183	mg/L	0.001026	55.99%
QC value within limits for As	Recovery = Not calculated							
B_†	228.6	0.00898	mg/L	0.000103	0.00898	mg/L	0.000103	1.15%
QC value within limits for B_	Recovery = Not calculated							
Ba†	-0.6	-0.00001	mg/L	0.000008	-0.00001	mg/L	0.000008	54.17%
QC value within limits for Ba	Recovery = Not calculated							
Be†	-22.0	-0.00001	mg/L	0.000012	-0.00001	mg/L	0.000012	145.10%
QC value within limits for Be	Recovery = Not calculated							
Ca†	30.9	0.00098	mg/L	0.002047	0.00098	mg/L	0.002047	207.96%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	-0.8	-0.00006	mg/L	0.000013	-0.00006	mg/L	0.000013	21.22%
QC value within limits for Cd	Recovery = Not calculated							
Co†	-0.2	-0.00001	mg/L	0.000174	-0.00001	mg/L	0.000174	>999.9%
QC value within limits for Co	Recovery = Not calculated							
Cr†	4.4	0.00010	mg/L	0.000053	0.00010	mg/L	0.000053	51.80%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	192.3	0.00065	mg/L	0.000136	0.00065	mg/L	0.000136	20.84%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	32.9	0.00274	mg/L	0.000365	0.00274	mg/L	0.000365	13.32%
QC value within limits for Fe	Recovery = Not calculated							
K†	41.6	0.0336	mg/L	0.00735	0.0336	mg/L	0.00735	21.86%
QC value within limits for K	Recovery = Not calculated							
Mg†	40.9	0.00188	mg/L	0.000557	0.00188	mg/L	0.000557	29.57%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	43.9	0.00009	mg/L	0.000004	0.00009	mg/L	0.000004	4.67%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	-1.8	-0.00018	mg/L	0.000248	-0.00018	mg/L	0.000248	134.76%
QC value within limits for Mo	Recovery = Not calculated							
Na†	143.5	0.0309	mg/L	0.00547	0.0309	mg/L	0.00547	17.68%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-4.6	-0.00025	mg/L	0.000051	-0.00025	mg/L	0.000051	20.52%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	5.9	0.00156	mg/L	0.000497	0.00156	mg/L	0.000497	31.73%
QC value within limits for Pb	Recovery = Not calculated							
Sb†	6.3	0.00406	mg/L	0.000859	0.00406	mg/L	0.000859	21.19%
QC value within limits for Sb	Recovery = Not calculated							
Se†	-6.8	-0.00700	mg/L	0.002852	-0.00700	mg/L	0.002852	40.77%
QC value within limits for Se	Recovery = Not calculated							
Tl†	4.3	0.00201	mg/L	0.002221	0.00201	mg/L	0.002221	110.68%
QC value within limits for Tl	Recovery = Not calculated							
V†	2.7	0.00002	mg/L	0.000018	0.00002	mg/L	0.000018	94.73%
QC value within limits for V	Recovery = Not calculated							
Zn†	8.6	0.00023	mg/L	0.000088	0.00023	mg/L	0.000088	38.73%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: QC-25 1ppm
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 5/29/2008 21:02:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: QC-25 1ppm

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: QC-25 1ppm

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	403452.1	99.9	%	0.13				0.13%
Yr	491471.7	100	%	0.7				0.69%
Ag†	235867.1	0.964	mg/L	0.0043	0.964	mg/L	0.0043	0.44%
QC value within limits for Ag	Recovery = 96.35%							
Al†	8027.6	0.974	mg/L	0.0089	0.974	mg/L	0.0089	0.92%
QC value within limits for Al	Recovery = 97.38%							
As†	1432.2	0.922	mg/L	0.0028	0.922	mg/L	0.0028	0.30%
QC value within limits for As	Recovery = 92.21%							
B_†	24269.3	0.945	mg/L	0.0007	0.945	mg/L	0.0007	0.08%
QC value within limits for B_	Recovery = 94.52%							
Ba†	39975.4	1.04	mg/L	0.009	1.04	mg/L	0.009	0.91%
QC value within limits for Ba	Recovery = 103.61%							
Be†	2547576.0	0.994	mg/L	0.0045	0.994	mg/L	0.0045	0.45%
QC value within limits for Be	Recovery = 99.39%							
Ca†	32573.3	1.04	mg/L	0.010	1.04	mg/L	0.010	0.95%
QC value within limits for Ca	Recovery = 103.60%							
Cd†	20663.8	0.960	mg/L	0.0045	0.960	mg/L	0.0045	0.47%
QC value within limits for Cd	Recovery = 96.01%							
Co†	15550.9	1.04	mg/L	0.001	1.04	mg/L	0.001	0.07%
QC value within limits for Co	Recovery = 104.45%							
Cr†	43719.5	1.01	mg/L	0.001	1.01	mg/L	0.001	0.11%
QC value within limits for Cr	Recovery = 101.04%							
Cu†	295920.3	1.01	mg/L	0.004	1.01	mg/L	0.004	0.42%
QC value within limits for Cu	Recovery = 100.87%							
Fe†	12347.1	1.03	mg/L	0.011	1.03	mg/L	0.011	1.09%
QC value within limits for Fe	Recovery = 102.98%							
K†	12162.6	9.83	mg/L	0.120	9.83	mg/L	0.120	1.22%
QC value within limits for K	Recovery = 98.34%							
Mg†	23207.6	1.07	mg/L	0.008	1.07	mg/L	0.008	0.77%
QC value within limits for Mg	Recovery = 106.92%							
Mn†	501104.0	1.05	mg/L	0.004	1.05	mg/L	0.004	0.40%
QC value within limits for Mn	Recovery = 104.56%							
Mo†	9449.4	0.958	mg/L	0.0023	0.958	mg/L	0.0023	0.24%
QC value within limits for Mo	Recovery = 95.76%							
Na†	4846.8	1.04	mg/L	0.028	1.04	mg/L	0.028	2.71%
QC value within limits for Na	Recovery = 104.42%							
Ni†	19901.6	1.07	mg/L	0.003	1.07	mg/L	0.003	0.31%
QC value within limits for Ni	Recovery = 106.81%							
Pb†	4000.5	1.05	mg/L	0.005	1.05	mg/L	0.005	0.46%
QC value within limits for Pb	Recovery = 105.35%							
Sb†	1461.2	0.950	mg/L	0.0012	0.950	mg/L	0.0012	0.13%
QC value within limits for Sb	Recovery = 95.01%							
Se†	913.1	0.949	mg/L	0.0016	0.949	mg/L	0.0016	0.17%
QC value within limits for Se	Recovery = 94.91%							
Tl†	2294.4	1.08	mg/L	0.001	1.08	mg/L	0.001	0.05%
QC value within limits for Tl	Recovery = 107.88%							
V†	143892.2	0.964	mg/L	0.0031	0.964	mg/L	0.0031	0.32%
QC value within limits for V	Recovery = 96.36%							
Zn†	39673.8	1.03	mg/L	0.004	1.03	mg/L	0.004	0.34%
QC value within limits for Zn	Recovery = 102.84%							

All analyte(s) passed QC.

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

Autosampler Location: 4
Date Collected: 5/29/2008 21:06:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	378379.7	93.7	%	0.00				0.00%
Yr	476200.5	96.9	%	0.46				0.47%
Ag†	238545.4	0.976	mg/L	0.0001	0.976	mg/L	0.0001	0.01%
QC value within limits for Ag	Recovery = 97.59%							
Al†	39720.7	4.81	mg/L	0.004	4.81	mg/L	0.004	0.08%
QC value within limits for Al	Recovery = 96.19%							
As†	7440.5	4.79	mg/L	0.021	4.79	mg/L	0.021	0.43%
QC value within limits for As	Recovery = 95.81%							
B_†	64059.0	2.47	mg/L	0.005	2.47	mg/L	0.005	0.20%
QC value within limits for B_	Recovery = 98.99%							
Ba†	194246.5	5.03	mg/L	0.008	5.03	mg/L	0.008	0.15%
QC value within limits for Ba	Recovery = 100.69%							
Be†	5286806.1	2.06	mg/L	0.010	2.06	mg/L	0.010	0.48%
QC value within limits for Be	Recovery = 103.15%							
Ca†	1574251.4	50.1	mg/L	0.07	50.1	mg/L	0.07	0.14%
QC value within limits for Ca	Recovery = 100.14%							
Cd†	42626.9	1.95	mg/L	0.005	1.95	mg/L	0.005	0.28%
QC value within limits for Cd	Recovery = 97.49%							
Co†	75737.8	5.09	mg/L	0.048	5.09	mg/L	0.048	0.94%
QC value within limits for Co	Recovery = 101.74%							
Cr†	217577.4	5.03	mg/L	0.028	5.03	mg/L	0.028	0.57%
QC value within limits for Cr	Recovery = 100.57%							
Cu†	1457508.3	4.97	mg/L	0.011	4.97	mg/L	0.011	0.21%
QC value within limits for Cu	Recovery = 99.36%							
Fe†	60255.2	5.03	mg/L	0.001	5.03	mg/L	0.001	0.02%
QC value within limits for Fe	Recovery = 100.51%							
K†	60759.0	49.1	mg/L	0.09	49.1	mg/L	0.09	0.17%
QC value within limits for K	Recovery = 98.26%							
Mg†	1085292.9	49.9	mg/L	0.12	49.9	mg/L	0.12	0.25%
QC value within limits for Mg	Recovery = 99.85%							
Mn†	2413053.5	5.03	mg/L	0.013	5.03	mg/L	0.013	0.25%
QC value within limits for Mn	Recovery = 100.68%							
Mo†	49123.6	4.98	mg/L	0.010	4.98	mg/L	0.010	0.20%
QC value within limits for Mo	Recovery = 99.57%							
Na†	229393.7	49.4	mg/L	0.13	49.4	mg/L	0.13	0.27%
QC value within limits for Na	Recovery = 98.84%							
Ni†	95111.6	5.10	mg/L	0.003	5.10	mg/L	0.003	0.07%
QC value within limits for Ni	Recovery = 102.09%							
Pb†	19396.8	5.11	mg/L	0.006	5.11	mg/L	0.006	0.13%
QC value within limits for Pb	Recovery = 102.16%							
Sb†	7545.1	4.91	mg/L	0.023	4.91	mg/L	0.023	0.46%
QC value within limits for Sb	Recovery = 98.13%							
Se†	4816.3	5.01	mg/L	0.006	5.01	mg/L	0.006	0.11%
QC value within limits for Se	Recovery = 100.11%							
Tl†	11220.9	5.28	mg/L	0.008	5.28	mg/L	0.008	0.16%
QC value within limits for Tl	Recovery = 105.51%							
V†	743906.4	4.98	mg/L	0.001	4.98	mg/L	0.001	0.03%
QC value within limits for V	Recovery = 99.62%							
Zn†	195982.9	5.08	mg/L	0.001	5.08	mg/L	0.001	0.01%
QC value within limits for Zn	Recovery = 101.63%							

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 5/29/2008 21:10:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	405515.7	100	%	0.3				0.33%
Yr	499108.3	102	%	2.4				2.38%
Ag†	82.7	0.00034	mg/L	0.000015	0.00034	mg/L	0.000015	4.37%
QC value within limits for Ag Recovery = Not calculated								
Al†	6.1	0.00074	mg/L	0.000502	0.00074	mg/L	0.000502	67.57%
QC value within limits for Al Recovery = Not calculated								
As†	19.0	0.0122	mg/L	0.00293	0.0122	mg/L	0.00293	23.92%
QC value within limits for As Recovery = Not calculated								
B_†	692.9	0.0272	mg/L	0.00153	0.0272	mg/L	0.00153	5.63%
QC value greater than the upper limit for B_ Recovery = Not calculated								
Ba†	1.6	0.00004	mg/L	0.000055	0.00004	mg/L	0.000055	136.33%
QC value within limits for Ba Recovery = Not calculated								
Be†	98.0	0.00004	mg/L	0.000004	0.00004	mg/L	0.000004	11.72%
QC value within limits for Be Recovery = Not calculated								
Ca†	-43.3	-0.00138	mg/L	0.002420	-0.00138	mg/L	0.002420	175.77%
QC value within limits for Ca Recovery = Not calculated								
Cd†	4.3	0.00003	mg/L	0.000218	0.00003	mg/L	0.000218	698.45%
QC value within limits for Cd Recovery = Not calculated								
Co†	-0.6	-0.00004	mg/L	0.000148	-0.00004	mg/L	0.000148	348.20%
QC value within limits for Co Recovery = Not calculated								
Cr†	3.3	0.00008	mg/L	0.000136	0.00008	mg/L	0.000136	176.51%
QC value within limits for Cr Recovery = Not calculated								
Cu†	93.2	0.00032	mg/L	0.000249	0.00032	mg/L	0.000249	78.56%
QC value within limits for Cu Recovery = Not calculated								
Fe†	13.5	0.00113	mg/L	0.000482	0.00113	mg/L	0.000482	42.81%
QC value within limits for Fe Recovery = Not calculated								
K†	49.9	0.0403	mg/L	0.00730	0.0403	mg/L	0.00730	18.11%
QC value within limits for K Recovery = Not calculated								
Mg†	31.4	0.00145	mg/L	0.000380	0.00145	mg/L	0.000380	26.31%
QC value within limits for Mg Recovery = Not calculated								
Mn†	62.5	0.00013	mg/L	0.000002	0.00013	mg/L	0.000002	1.62%
QC value within limits for Mn Recovery = Not calculated								
Mo†	6.7	0.00068	mg/L	0.000316	0.00068	mg/L	0.000316	46.39%
QC value within limits for Mo Recovery = Not calculated								
Na†	129.5	0.0279	mg/L	0.00128	0.0279	mg/L	0.00128	4.59%
QC value within limits for Na Recovery = Not calculated								
Ni†	5.2	0.00028	mg/L	0.000071	0.00028	mg/L	0.000071	25.17%
QC value within limits for Ni Recovery = Not calculated								
Pb†	9.3	0.00245	mg/L	0.000023	0.00245	mg/L	0.000023	0.93%
QC value within limits for Pb Recovery = Not calculated								
Sb†	13.6	0.00884	mg/L	0.001614	0.00884	mg/L	0.001614	18.26%
QC value within limits for Sb Recovery = Not calculated								
Se†	-3.8	-0.00397	mg/L	0.001941	-0.00397	mg/L	0.001941	48.95%
QC value within limits for Se Recovery = Not calculated								
Tl†	9.6	0.00450	mg/L	0.003163	0.00450	mg/L	0.003163	70.22%
QC value within limits for Tl Recovery = Not calculated								
V†	-0.1	0.00000	mg/L	0.000005	0.00000	mg/L	0.000005	>999.9%
QC value within limits for V Recovery = Not calculated								
Zn†	-2.2	-0.00006	mg/L	0.000053	-0.00006	mg/L	0.000053	90.49%
QC value within limits for Zn Recovery = Not calculated								

QC Failed. Retry.

Sequence No.: 9
Sample ID: ICB

Autosampler Location: 0
Date Collected: 5/29/2008 21:12:37

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	407355.5	101	%	0.7				0.66%
Yr	500904.5	102	%	0.0				0.05%
Ag†	77.7	0.00032	mg/L	0.000265	0.00032	mg/L	0.000265	83.40%
QC value within limits for Ag	Recovery = Not calculated							
Al†	8.7	0.00106	mg/L	0.000584	0.00106	mg/L	0.000584	55.03%
QC value within limits for Al	Recovery = Not calculated							
As†	10.6	0.00682	mg/L	0.002700	0.00682	mg/L	0.002700	39.58%
QC value within limits for As	Recovery = Not calculated							
B_†	463.7	0.0182	mg/L	0.00071	0.0182	mg/L	0.00071	3.92%
QC value within limits for B_	Recovery = Not calculated							
Ba†	-0.2	-0.00001	mg/L	0.000016	-0.00001	mg/L	0.000016	305.92%
QC value within limits for Ba	Recovery = Not calculated							
Be†	85.6	0.00003	mg/L	0.000004	0.00003	mg/L	0.000004	11.17%
QC value within limits for Be	Recovery = Not calculated							
Ca†	-50.4	-0.00160	mg/L	0.000166	-0.00160	mg/L	0.000166	10.35%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	1.9	0.00000	mg/L	0.000298	0.00000	mg/L	0.000298	>999.9%
QC value within limits for Cd	Recovery = Not calculated							
Co†	3.8	0.00026	mg/L	0.000019	0.00026	mg/L	0.000019	7.20%
QC value within limits for Co	Recovery = Not calculated							
Cr†	1.9	0.00004	mg/L	0.000026	0.00004	mg/L	0.000026	57.09%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	32.4	0.00011	mg/L	0.000024	0.00011	mg/L	0.000024	21.54%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	5.8	0.00048	mg/L	0.000120	0.00048	mg/L	0.000120	24.89%
QC value within limits for Fe	Recovery = Not calculated							
K†	28.4	0.0230	mg/L	0.01149	0.0230	mg/L	0.01149	50.06%
QC value within limits for K	Recovery = Not calculated							
Mg†	32.7	0.00151	mg/L	0.000067	0.00151	mg/L	0.000067	4.48%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	48.2	0.00010	mg/L	0.000017	0.00010	mg/L	0.000017	16.49%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	7.2	0.00073	mg/L	0.000109	0.00073	mg/L	0.000109	15.04%
QC value within limits for Mo	Recovery = Not calculated							
Na†	103.0	0.0222	mg/L	0.00311	0.0222	mg/L	0.00311	14.03%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-0.6	-0.00003	mg/L	0.000036	-0.00003	mg/L	0.000036	105.51%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	8.4	0.00221	mg/L	0.000037	0.00221	mg/L	0.000037	1.66%
QC value within limits for Pb	Recovery = Not calculated							
Sb†	9.7	0.00628	mg/L	0.000705	0.00628	mg/L	0.000705	11.21%
QC value within limits for Sb	Recovery = Not calculated							
Se†	-4.3	-0.00441	mg/L	0.000972	-0.00441	mg/L	0.000972	22.03%
QC value within limits for Se	Recovery = Not calculated							
Tl†	6.9	0.00320	mg/L	0.000488	0.00320	mg/L	0.000488	15.24%
QC value within limits for Tl	Recovery = Not calculated							
V†	6.4	0.00004	mg/L	0.000089	0.00004	mg/L	0.000089	205.56%
QC value within limits for V	Recovery = Not calculated							
Zn†	0.3	0.00001	mg/L	0.000001	0.00001	mg/L	0.000001	14.13%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: MRL/2
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 16
Date Collected: 5/29/2008 21:19:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MRL/2

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: MRL/2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	412762.0	102	%	1.3				1.24%
Yr	503650.2	102	%	1.1				1.04%
Agt	1198.0	0.00490	mg/L	0.000073	0.00490	mg/L	0.000073	1.50%
Alt	183.6	0.0227	mg/L	0.00116	0.0227	mg/L	0.00116	5.13%
Ast	73.2	0.0471	mg/L	0.00408	0.0471	mg/L	0.00408	8.67%
B_t	872.9	0.0342	mg/L	0.00006	0.0342	mg/L	0.00006	0.17%
Bat	392.4	0.0102	mg/L	0.00011	0.0102	mg/L	0.00011	1.07%
Bet	1358.8	0.00053	mg/L	0.000004	0.00053	mg/L	0.000004	0.70%
Cat	15643.7	0.498	mg/L	0.0060	0.498	mg/L	0.0060	1.20%
Cdt	64.8	0.00247	mg/L	0.000233	0.00247	mg/L	0.000233	9.44%
Cot	377.7	0.0254	mg/L	0.00006	0.0254	mg/L	0.00006	0.25%
Crt	213.0	0.00492	mg/L	0.000111	0.00492	mg/L	0.000111	2.24%
Cut	1487.3	0.00508	mg/L	0.000400	0.00508	mg/L	0.000400	7.87%
Fet	139.8	0.0117	mg/L	0.00010	0.0117	mg/L	0.00010	0.85%
Kt	616.0	0.498	mg/L	0.0038	0.498	mg/L	0.0038	0.77%
Mgt	1136.3	0.0523	mg/L	0.00005	0.0523	mg/L	0.00005	0.10%
Mnt	550.6	0.00115	mg/L	0.000014	0.00115	mg/L	0.000014	1.23%
Mot	94.1	0.00954	mg/L	0.000128	0.00954	mg/L	0.000128	1.34%
Nat	2377.2	0.512	mg/L	0.0080	0.512	mg/L	0.0080	1.56%
Nit	197.6	0.0106	mg/L	0.00006	0.0106	mg/L	0.00006	0.61%
Pbt	45.9	0.0121	mg/L	0.00022	0.0121	mg/L	0.00022	1.78%
Sbt	37.2	0.0241	mg/L	0.00042	0.0241	mg/L	0.00042	1.75%
Set	41.8	0.0433	mg/L	0.00446	0.0433	mg/L	0.00446	10.29%
Tlt	121.4	0.0567	mg/L	0.00220	0.0567	mg/L	0.00220	3.88%
Vt	159.7	0.00109	mg/L	0.000121	0.00109	mg/L	0.000121	11.05%
Znt	382.8	0.00992	mg/L	0.000104	0.00992	mg/L	0.000104	1.05%

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

Autosampler Location: 20
Date Collected: 5/29/2008 21:16:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MRL

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	404759.1	100	%	0.9				0.93%
Yr	498212.9	101	%	0.5				0.46%
Ag†	2467.5	0.0101	mg/L	0.00024	0.0101	mg/L	0.00024	2.38%
QC value within limits for Ag		Recovery = 100.83%						
Al†	366.1	0.0453	mg/L	0.00098	0.0453	mg/L	0.00098	2.16%
QC value within limits for Al		Recovery = 90.56%						
As†	141.7	0.0912	mg/L	0.00151	0.0912	mg/L	0.00151	1.65%
QC value within limits for As		Recovery = 91.22%						
B_†	1590.5	0.0623	mg/L	0.00018	0.0623	mg/L	0.00018	0.28%
QC value within limits for B_		Recovery = 124.70%						
Ba†	780.6	0.0202	mg/L	0.00020	0.0202	mg/L	0.00020	0.98%
QC value within limits for Ba		Recovery = 101.16%						
Be†	2690.6	0.00105	mg/L	0.000000	0.00105	mg/L	0.000000	0.04%
QC value within limits for Be		Recovery = 105.12%						
Ca†	31372.1	0.998	mg/L	0.0019	0.998	mg/L	0.0019	0.19%
QC value within limits for Ca		Recovery = 99.78%						
Cd†	128.3	0.00492	mg/L	0.000024	0.00492	mg/L	0.000024	0.49%
QC value within limits for Cd		Recovery = 98.38%						
Co†	767.4	0.0515	mg/L	0.00056	0.0515	mg/L	0.00056	1.10%
QC value within limits for Co		Recovery = 103.09%						
Cr†	445.3	0.0103	mg/L	0.00013	0.0103	mg/L	0.00013	1.23%
QC value within limits for Cr		Recovery = 102.91%						
Cu†	2994.9	0.0102	mg/L	0.00011	0.0102	mg/L	0.00011	1.12%
QC value within limits for Cu		Recovery = 102.31%						
Fe†	251.3	0.0210	mg/L	0.00004	0.0210	mg/L	0.00004	0.21%
QC value within limits for Fe		Recovery = 104.80%						
K†	1214.4	0.982	mg/L	0.0080	0.982	mg/L	0.0080	0.82%
QC value within limits for K		Recovery = 98.20%						
Mg†	2251.9	0.104	mg/L	0.0001	0.104	mg/L	0.0001	0.06%
QC value within limits for Mg		Recovery = 103.61%						
Mn†	1078.2	0.00225	mg/L	0.000029	0.00225	mg/L	0.000029	1.27%
QC value within limits for Mn		Recovery = 112.37%						
Mo†	194.1	0.0197	mg/L	0.00043	0.0197	mg/L	0.00043	2.21%
QC value within limits for Mo		Recovery = 98.34%						
Na†	4643.2	1.00	mg/L	0.009	1.00	mg/L	0.009	0.93%
QC value within limits for Na		Recovery = 100.03%						
Ni†	396.3	0.0213	mg/L	0.00008	0.0213	mg/L	0.00008	0.36%
QC value within limits for Ni		Recovery = 106.34%						
Pb†	86.7	0.0228	mg/L	0.00048	0.0228	mg/L	0.00048	2.09%
QC value within limits for Pb		Recovery = 114.10%						
Sb†	72.7	0.0471	mg/L	0.00121	0.0471	mg/L	0.00121	2.58%
QC value within limits for Sb		Recovery = 94.10%						
Se†	89.3	0.0926	mg/L	0.00346	0.0926	mg/L	0.00346	3.74%
QC value within limits for Se		Recovery = 92.64%						
Tl†	246.8	0.115	mg/L	0.0016	0.115	mg/L	0.0016	1.38%
QC value within limits for Tl		Recovery = 115.26%						
V†	314.1	0.00215	mg/L	0.000152	0.00215	mg/L	0.000152	7.06%
QC value within limits for V		Recovery = 107.49%						
Zn†	775.4	0.0201	mg/L	0.00021	0.0201	mg/L	0.00021	1.02%
QC value within limits for Zn		Recovery = 100.49%						

All analyte(s) passed QC.

User canceled analysis.

Analysis Begun

Start Time: 5/29/2008 21:24:06 Plasma On Time: 5/29/2008 10:30:51
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\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 35 Autosampler Location: 5
Sample ID: MCV Date Collected: 5/29/2008 21:24:08
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: MCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	391599.9	96.9	%	1.18				1.21%
Yr	489238.4	99.6	%	0.03				0.03%
Ag†	117865.7	0.482	mg/L	0.0023	0.482	mg/L	0.0023	0.47%
QC value within limits for Ag	Recovery = 96.44%							
Al†	19625.0	2.38	mg/L	0.002	2.38	mg/L	0.002	0.09%
QC value within limits for Al	Recovery = 95.03%							
As†	3664.0	2.36	mg/L	0.023	2.36	mg/L	0.023	0.99%
QC value within limits for As	Recovery = 94.36%							
B_†	31181.8	1.20	mg/L	0.007	1.20	mg/L	0.007	0.61%
QC value within limits for B_	Recovery = 96.33%							
Ba†	96734.9	2.51	mg/L	0.008	2.51	mg/L	0.008	0.31%
QC value within limits for Ba	Recovery = 100.29%							
Be†	2598682.0	1.01	mg/L	0.015	1.01	mg/L	0.015	1.47%
QC value within limits for Be	Recovery = 101.40%							
Ca†	783877.9	24.9	mg/L	0.01	24.9	mg/L	0.01	0.04%
QC value within limits for Ca	Recovery = 99.73%							
Cd†	21026.0	0.962	mg/L	0.0094	0.962	mg/L	0.0094	0.97%
QC value within limits for Cd	Recovery = 96.18%							
Co†	37690.8	2.53	mg/L	0.018	2.53	mg/L	0.018	0.72%
QC value within limits for Co	Recovery = 101.27%							
Cr†	107589.7	2.49	mg/L	0.023	2.49	mg/L	0.023	0.91%
QC value within limits for Cr	Recovery = 99.46%							
Cu†	724331.9	2.47	mg/L	0.019	2.47	mg/L	0.019	0.77%
QC value within limits for Cu	Recovery = 98.76%							
Fe†	30244.5	2.52	mg/L	0.004	2.52	mg/L	0.004	0.14%
QC value within limits for Fe	Recovery = 100.90%							
K†	29859.6	24.1	mg/L	0.04	24.1	mg/L	0.04	0.17%
QC value within limits for K	Recovery = 96.58%							
Mg†	545041.9	25.1	mg/L	0.01	25.1	mg/L	0.01	0.05%
QC value within limits for Mg	Recovery = 100.29%							
Mn†	1210600.3	2.53	mg/L	0.039	2.53	mg/L	0.039	1.56%
QC value within limits for Mn	Recovery = 101.02%							
Mo†	24424.5	2.48	mg/L	0.026	2.48	mg/L	0.026	1.04%
QC value within limits for Mo	Recovery = 99.01%							
Na†	112789.5	24.3	mg/L	0.02	24.3	mg/L	0.02	0.07%
QC value within limits for Na	Recovery = 97.20%							
Ni†	47689.9	2.56	mg/L	0.006	2.56	mg/L	0.006	0.23%
QC value within limits for Ni	Recovery = 102.38%							
Pb†	9791.8	2.58	mg/L	0.032	2.58	mg/L	0.032	1.26%
QC value within limits for Pb	Recovery = 103.15%							
Sb†	3741.6	2.43	mg/L	0.036	2.43	mg/L	0.036	1.48%
QC value within limits for Sb	Recovery = 97.32%							

Se†	2368.4	2.46 mg/L	0.019	2.46 mg/L	0.019	0.78%
QC value within limits for Se Recovery = 98.47%						
Tl†	5690.6	2.68 mg/L	0.031	2.68 mg/L	0.031	1.14%
QC value within limits for Tl Recovery = 107.00%						
V†	365344.9	2.45 mg/L	0.006	2.45 mg/L	0.006	0.23%
QC value within limits for V Recovery = 97.85%						
Zn†	97458.5	2.53 mg/L	0.007	2.53 mg/L	0.007	0.27%
QC value within limits for Zn Recovery = 101.07%						

All analyte(s) passed QC.

User canceled analysis.

Analysis Begun

Start Time: 5/29/2008 21:32:22 Plasma On Time: 5/29/2008 10:30:51
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\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 12 Autosampler Location: 18
Sample ID: FILTERCHECK Date Collected: 5/29/2008 21:32:24
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: 1X Sample Prep Vol:

Nebulizer Parameters: FILTERCHECK

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: FILTERCHECK

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	404055.7	100	%	0.3				0.31%
Yr	500232.9	102	%	0.5				0.51%
Agt	-6.9	-0.00003	mg/L	0.000161	-0.00003	mg/L	0.000161	571.90%
Alt	-16.5	-0.00208	mg/L	0.000229	-0.00208	mg/L	0.000229	11.00%
Ast	2.0	0.00127	mg/L	0.001013	0.00127	mg/L	0.001013	79.99%
B_t	253.9	0.00998	mg/L	0.000269	0.00998	mg/L	0.000269	2.69%
Bat	0.6	0.00002	mg/L	0.000116	0.00002	mg/L	0.000116	759.81%
Bet	95.4	0.00004	mg/L	0.000000	0.00004	mg/L	0.000000	0.05%
Cat	47.9	0.00152	mg/L	0.000393	0.00152	mg/L	0.000393	25.82%
Cdt	2.6	0.00011	mg/L	0.000019	0.00011	mg/L	0.000019	17.50%
Cot	1.2	0.00008	mg/L	0.000309	0.00008	mg/L	0.000309	391.33%
Crt	0.2	0.00000	mg/L	0.000001	0.00000	mg/L	0.000001	18.61%
Cut	-40.7	-0.00014	mg/L	0.000288	-0.00014	mg/L	0.000288	207.89%
Fet	5.3	0.00045	mg/L	0.000515	0.00045	mg/L	0.000515	115.44%
Kt	12.7	0.0102	mg/L	0.02409	0.0102	mg/L	0.02409	235.52%
Mgt	17.2	0.00079	mg/L	0.000359	0.00079	mg/L	0.000359	45.27%
Mnt	65.0	0.00014	mg/L	0.000024	0.00014	mg/L	0.000024	18.05%
Mot	0.8	0.00008	mg/L	0.000128	0.00008	mg/L	0.000128	157.95%
Nat	103.2	0.0222	mg/L	0.00626	0.0222	mg/L	0.00626	28.16%
Nit	1.6	0.00009	mg/L	0.000200	0.00009	mg/L	0.000200	226.69%
Pbt	6.5	0.00171	mg/L	0.001361	0.00171	mg/L	0.001361	79.44%
Sbt	7.0	0.00456	mg/L	0.000207	0.00456	mg/L	0.000207	4.54%
Set	-9.0	-0.00938	mg/L	0.002081	-0.00938	mg/L	0.002081	22.19%
Tlt	-0.0	-0.00001	mg/L	0.003885	-0.00001	mg/L	0.003885	>999.9%
Vt	10.2	0.00007	mg/L	0.000022	0.00007	mg/L	0.000022	32.24%
Znt	22.9	0.00060	mg/L	0.000223	0.00060	mg/L	0.000223	37.30%

Sequence No.: 13
Sample ID: MBLANK
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 38
Date Collected: 5/29/2008 21:36:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MBLANK

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: MBLANK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	410599.2	102	%	0.1				0.15%
Yr	493938.6	101	%	0.5				0.50%
Ag†	-59.2	-0.00024	mg/L	0.000248	-0.00024	mg/L	0.000248	102.48%
Al†	-15.6	-0.00196	mg/L	0.000390	-0.00196	mg/L	0.000390	19.89%
As†	5.1	0.00327	mg/L	0.001829	0.00327	mg/L	0.001829	55.94%
B_†	184.3	0.00725	mg/L	0.000247	0.00725	mg/L	0.000247	3.41%
Ba†	-0.2	-0.00001	mg/L	0.000042	-0.00001	mg/L	0.000042	768.66%
Be†	78.0	0.00003	mg/L	0.000024	0.00003	mg/L	0.000024	80.29%
Ca†	259.6	0.00826	mg/L	0.001105	0.00826	mg/L	0.001105	13.39%
Cd†	-2.4	-0.00016	mg/L	0.000080	-0.00016	mg/L	0.000080	50.91%
Co†	-1.3	-0.00009	mg/L	0.000198	-0.00009	mg/L	0.000198	229.19%
Cr†	2.2	0.00005	mg/L	0.000016	0.00005	mg/L	0.000016	31.93%
Cu†	32.1	0.00011	mg/L	0.000409	0.00011	mg/L	0.000409	374.50%
Fe†	8.6	0.00072	mg/L	0.000631	0.00072	mg/L	0.000631	87.77%
K†	7.3	0.00587	mg/L	0.001884	0.00587	mg/L	0.001884	32.10%
Mg†	14.9	0.00069	mg/L	0.000317	0.00069	mg/L	0.000317	46.30%
Mn†	53.5	0.00011	mg/L	0.000004	0.00011	mg/L	0.000004	3.92%
Mo†	0.4	0.00004	mg/L	0.000376	0.00004	mg/L	0.000376	>999.9%
Na†	50.7	0.0109	mg/L	0.00230	0.0109	mg/L	0.00230	21.00%
Ni†	1.2	0.00007	mg/L	0.000488	0.00007	mg/L	0.000488	736.45%
Pb†	-2.4	-0.00064	mg/L	0.000427	-0.00064	mg/L	0.000427	67.25%
Sb†	5.7	0.00372	mg/L	0.001941	0.00372	mg/L	0.001941	52.16%
Se†	-6.1	-0.00636	mg/L	0.001100	-0.00636	mg/L	0.001100	17.30%
Tl†	8.1	0.00380	mg/L	0.002156	0.00380	mg/L	0.002156	56.70%
V†	-4.6	-0.00003	mg/L	0.000002	-0.00003	mg/L	0.000002	7.64%
Zn†	25.6	0.00067	mg/L	0.000071	0.00067	mg/L	0.000071	10.55%

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

Autosampler Location: 39
Date Collected: 5/29/2008 21:39:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCS

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	396103.8	98.0	%	0.10				0.11%
Yr	494053.2	101	%	1.4				1.36%
Agt	110814.3	0.454	mg/L	0.0006	0.454	mg/L	0.0006	0.13%
Alt	14423.4	1.78	mg/L	0.003	1.78	mg/L	0.003	0.16%
Ast	1425.4	0.918	mg/L	0.0001	0.918	mg/L	0.0001	0.01%
B_t	11776.4	0.455	mg/L	0.0018	0.455	mg/L	0.0018	0.41%
Bat	35924.6	0.931	mg/L	0.0054	0.931	mg/L	0.0054	0.58%
Bet	122774.6	0.0480	mg/L	0.00019	0.0480	mg/L	0.00019	0.40%
Cat	1482125.5	47.1	mg/L	0.16	47.1	mg/L	0.16	0.34%
Cdt	4067.9	0.181	mg/L	0.0004	0.181	mg/L	0.0004	0.24%
Cot	14170.9	0.952	mg/L	0.0026	0.952	mg/L	0.0026	0.28%
Crt	40316.4	0.932	mg/L	0.0020	0.932	mg/L	0.0020	0.22%
Cut	275230.5	0.938	mg/L	0.0022	0.938	mg/L	0.0022	0.24%
Fet	56049.6	4.67	mg/L	0.067	4.67	mg/L	0.067	1.42%
Kt	22765.0	18.4	mg/L	0.10	18.4	mg/L	0.10	0.55%
Mgt	413758.8	19.0	mg/L	0.15	19.0	mg/L	0.15	0.78%
Mnt	227097.4	0.473	mg/L	0.0000	0.473	mg/L	0.0000	0.00%
Mot	9136.1	0.926	mg/L	0.0026	0.926	mg/L	0.0026	0.28%
Nat	216875.0	46.7	mg/L	0.09	46.7	mg/L	0.09	0.19%
Nit	8931.4	0.479	mg/L	0.0014	0.479	mg/L	0.0014	0.29%
Pbt	3686.0	0.971	mg/L	0.0031	0.971	mg/L	0.0031	0.32%
Sbt	715.4	0.467	mg/L	0.0004	0.467	mg/L	0.0004	0.08%
Set	898.9	0.943	mg/L	0.0052	0.943	mg/L	0.0052	0.55%
Tlt	2158.1	1.01	mg/L	0.008	1.01	mg/L	0.008	0.77%
Vt	138577.8	0.928	mg/L	0.0001	0.928	mg/L	0.0001	0.01%
Znt	37162.4	0.967	mg/L	0.0017	0.967	mg/L	0.0017	0.18%

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

Autosampler Location: 40
Date Collected: 5/29/2008 21:42:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCSD

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: LCSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	393177.7	97.3	%	0.06				0.06%
Yr	493309.5	100	%	0.7				0.75%
Agt	108641.7	0.445	mg/L	0.0001	0.445	mg/L	0.0001	0.03%
Alt	14224.5	1.75	mg/L	0.005	1.75	mg/L	0.005	0.28%
Ast	1410.3	0.908	mg/L	0.0032	0.908	mg/L	0.0032	0.35%
B_t	11632.1	0.449	mg/L	0.0016	0.449	mg/L	0.0016	0.35%
Bat	35152.9	0.911	mg/L	0.0006	0.911	mg/L	0.0006	0.07%
Bet	120246.0	0.0470	mg/L	0.00009	0.0470	mg/L	0.00009	0.19%
Cat	1435421.1	45.7	mg/L	0.61	45.7	mg/L	0.61	1.33%
Cdt	4001.8	0.178	mg/L	0.0004	0.178	mg/L	0.0004	0.22%
Cot	14023.7	0.942	mg/L	0.0017	0.942	mg/L	0.0017	0.18%
Crt	39588.4	0.915	mg/L	0.0025	0.915	mg/L	0.0025	0.28%
Cut	269029.5	0.917	mg/L	0.0036	0.917	mg/L	0.0036	0.40%
Fet	54403.9	4.54	mg/L	0.004	4.54	mg/L	0.004	0.08%
Kt	22306.3	18.0	mg/L	0.10	18.0	mg/L	0.10	0.57%
Mgt	400939.6	18.4	mg/L	0.01	18.4	mg/L	0.01	0.04%
Mnt	222794.3	0.464	mg/L	0.0007	0.464	mg/L	0.0007	0.15%
Mot	8975.1	0.910	mg/L	0.0004	0.910	mg/L	0.0004	0.05%
Nat	212250.9	45.7	mg/L	0.15	45.7	mg/L	0.15	0.32%
Nit	8765.2	0.470	mg/L	0.0002	0.470	mg/L	0.0002	0.04%
Pbt	3627.6	0.955	mg/L	0.0012	0.955	mg/L	0.0012	0.13%
Sbt	705.2	0.460	mg/L	0.0000	0.460	mg/L	0.0000	0.01%
Set	883.0	0.927	mg/L	0.0080	0.927	mg/L	0.0080	0.86%
Tlt	2131.2	0.998	mg/L	0.0035	0.998	mg/L	0.0035	0.35%
Vt	135680.2	0.909	mg/L	0.0015	0.909	mg/L	0.0015	0.16%
Znt	36483.9	0.949	mg/L	0.0027	0.949	mg/L	0.0027	0.28%

Sequence No.: 16
Sample ID: 2805280392
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 41
Date Collected: 5/29/2008 21:45:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805280392

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2805280392

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	412964.1	102	%	1.0				0.93%
Yr	510865.4	104	%	0.1				0.05%
Agt	1.8	0.00001	mg/L	0.000251	0.00001	mg/L	0.000251	>999.9%
Alt	184.5	0.0232	mg/L	0.00102	0.0232	mg/L	0.00102	4.39%
Ast	-6.5	-0.00420	mg/L	0.002137	-0.00420	mg/L	0.002137	50.93%
B_t	372.2	0.0146	mg/L	0.00066	0.0146	mg/L	0.00066	4.53%
Bat	938.6	0.0243	mg/L	0.00016	0.0243	mg/L	0.00016	0.66%
Bet	27.7	0.00001	mg/L	0.000017	0.00001	mg/L	0.000017	160.60%
Cat	465207.0	14.8	mg/L	0.19	14.8	mg/L	0.19	1.31%
Cdt	-7.9	-0.00031	mg/L	0.000026	-0.00031	mg/L	0.000026	8.18%
Cot	0.9	0.00006	mg/L	0.000101	0.00006	mg/L	0.000101	175.98%
Crt	-7.3	-0.00017	mg/L	0.000057	-0.00017	mg/L	0.000057	34.11%
Cut	103.9	0.00035	mg/L	0.000061	0.00035	mg/L	0.000061	17.33%
Fet	25.0	0.00208	mg/L	0.000283	0.00208	mg/L	0.000283	13.58%
Kt	857.7	0.694	mg/L	0.0024	0.694	mg/L	0.0024	0.35%
Mgt	22290.1	1.03	mg/L	0.004	1.03	mg/L	0.004	0.35%
Mnt	360.0	0.00073	mg/L	0.000016	0.00073	mg/L	0.000016	2.26%
Mot	6.0	0.00061	mg/L	0.000257	0.00061	mg/L	0.000257	42.34%
Nat	15005.7	3.23	mg/L	0.033	3.23	mg/L	0.033	1.03%
Nit	-1.9	-0.00010	mg/L	0.000136	-0.00010	mg/L	0.000136	134.14%
Pbt	5.5	0.00144	mg/L	0.000213	0.00144	mg/L	0.000213	14.83%
Sbt	2.5	0.00162	mg/L	0.001865	0.00162	mg/L	0.001865	115.39%
Set	-4.9	-0.00509	mg/L	0.001663	-0.00509	mg/L	0.001663	32.67%
Tlt	17.7	0.00829	mg/L	0.000206	0.00829	mg/L	0.000206	2.48%
Vt	56.2	0.00037	mg/L	0.000049	0.00037	mg/L	0.000049	13.11%
Znt	29.1	0.00071	mg/L	0.000138	0.00071	mg/L	0.000138	19.44%

Sequence No.: 17
Sample ID: 2805280392MS
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 42
Date Collected: 5/29/2008 21:49:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805280392MS

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2805280392MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	392991.1	97.3	%	0.58				0.59%
Yr	486395.4	99.0	%	0.58				0.58%
Ag†	98116.7	0.402	mg/L	0.0006	0.402	mg/L	0.0006	0.15%
Al†	14974.4	1.85	mg/L	0.005	1.85	mg/L	0.005	0.25%
As†	1488.4	0.958	mg/L	0.0070	0.958	mg/L	0.0070	0.73%
B_†	12116.8	0.468	mg/L	0.0034	0.468	mg/L	0.0034	0.72%
Ba†	37462.0	0.971	mg/L	0.0008	0.971	mg/L	0.0008	0.09%
Be†	122918.6	0.0481	mg/L	0.00003	0.0481	mg/L	0.00003	0.06%
Ca†	2051532.5	65.3	mg/L	0.47	65.3	mg/L	0.47	0.73%
Cd†	4192.2	0.186	mg/L	0.0018	0.186	mg/L	0.0018	0.96%
Co†	14421.7	0.969	mg/L	0.0025	0.969	mg/L	0.0025	0.26%
Cr†	40840.6	0.944	mg/L	0.0028	0.944	mg/L	0.0028	0.29%
Cu†	266501.1	0.908	mg/L	0.0042	0.908	mg/L	0.0042	0.46%
Fe†	56734.4	4.73	mg/L	0.049	4.73	mg/L	0.049	1.03%
K†	25281.0	20.4	mg/L	0.22	20.4	mg/L	0.22	1.08%
Mg†	468285.4	21.5	mg/L	0.07	21.5	mg/L	0.07	0.31%
Mn†	232002.5	0.484	mg/L	0.0001	0.484	mg/L	0.0001	0.01%
Mo†	9073.6	0.920	mg/L	0.0012	0.920	mg/L	0.0012	0.13%
Na†	244076.0	52.6	mg/L	0.29	52.6	mg/L	0.29	0.56%
Ni†	8993.1	0.483	mg/L	0.0022	0.483	mg/L	0.0022	0.45%
Pb†	3804.3	1.00	mg/L	0.004	1.00	mg/L	0.004	0.42%
Sb†	720.3	0.470	mg/L	0.0033	0.470	mg/L	0.0033	0.71%
Se†	943.0	0.989	mg/L	0.0031	0.989	mg/L	0.0031	0.31%
Tl†	2244.2	1.05	mg/L	0.001	1.05	mg/L	0.001	0.10%
V†	139986.0	0.937	mg/L	0.0002	0.937	mg/L	0.0002	0.02%
Zn†	39109.9	1.02	mg/L	0.004	1.02	mg/L	0.004	0.41%

Tlf	2257.3	1.06 mg/L	0.003	1.06 mg/L	0.003	0.27%
Vf	142578.7	0.955 mg/L	0.0026	0.955 mg/L	0.0026	0.27%
Znf	39766.7	1.03 mg/L	0.000	1.03 mg/L	0.000	0.04%

Analysis Begun

Start Time: 5/29/2008 21:52:38 Plasma On Time: 5/29/2008 10:30:51
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\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 15
Sample ID: ICV Date Collected: 5/29/2008 21:52:39
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
User canceled analysis.

Analysis Begun

Start Time: 5/29/2008 21:53:39 Plasma On Time: 5/29/2008 10:30:51
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\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 17 Autosampler Location: 43
Sample ID: 2805280392MSD Date Collected: 5/29/2008 21:53:39
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: 1X Sample Prep Vol:

Nebulizer Parameters: 2805280392MSD

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2805280392MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	395372.5	97.9	%	0.46				0.47%
Yr	496714.8	101	%	0.3				0.31%
Agt	100611.5	0.413	mg/L	0.0065	0.413	mg/L	0.0065	1.56%
Alt	15208.3	1.88	mg/L	0.013	1.88	mg/L	0.013	0.69%
Ast	1488.1	0.958	mg/L	0.0128	0.958	mg/L	0.0128	1.33%
B_t	12407.7	0.480	mg/L	0.0006	0.480	mg/L	0.0006	0.13%
Bat	38165.2	0.989	mg/L	0.0012	0.989	mg/L	0.0012	0.12%
Bet	125296.7	0.0490	mg/L	0.00006	0.0490	mg/L	0.00006	0.11%
Cat	2043858.4	65.0	mg/L	0.17	65.0	mg/L	0.17	0.26%
Cdt	4253.1	0.189	mg/L	0.0008	0.189	mg/L	0.0008	0.44%
Cot	14696.9	0.987	mg/L	0.0012	0.987	mg/L	0.0012	0.12%
Crt	41713.2	0.964	mg/L	0.0013	0.964	mg/L	0.0013	0.13%
Cut	270583.2	0.922	mg/L	0.0025	0.922	mg/L	0.0025	0.27%
Fet	57894.6	4.83	mg/L	0.021	4.83	mg/L	0.021	0.43%
Kt	25586.2	20.7	mg/L	0.06	20.7	mg/L	0.06	0.31%
Mgt	470676.3	21.7	mg/L	0.01	21.7	mg/L	0.01	0.06%
Mnt	236569.5	0.493	mg/L	0.0001	0.493	mg/L	0.0001	0.02%
Mot	9197.3	0.932	mg/L	0.0105	0.932	mg/L	0.0105	1.12%
Nat	246490.8	53.1	mg/L	0.04	53.1	mg/L	0.04	0.08%
Nit	9154.3	0.491	mg/L	0.0024	0.491	mg/L	0.0024	0.50%
Pbt	3831.6	1.01	mg/L	0.005	1.01	mg/L	0.005	0.52%
Sbt	731.6	0.478	mg/L	0.0077	0.478	mg/L	0.0077	1.60%
Set	953.0	1.000	mg/L	0.0127	1.000	mg/L	0.0127	1.27%

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 5/29/2008 22:04:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	380136.6	94.1	%	0.57				0.61%
Yr	481430.2	98.0	%	1.25				1.27%
Ag†	238292.0	0.975	mg/L	0.0025	0.975	mg/L	0.0025	0.26%
QC value within limits for Ag	Recovery = 97.49%							
Al†	39445.2	4.77	mg/L	0.037	4.77	mg/L	0.037	0.78%
QC value within limits for Al	Recovery = 95.50%							
As†	7458.7	4.80	mg/L	0.026	4.80	mg/L	0.026	0.53%
QC value within limits for As	Recovery = 96.04%							
B_†	63825.8	2.47	mg/L	0.022	2.47	mg/L	0.022	0.89%
QC value within limits for B_	Recovery = 98.63%							
Ba†	193388.8	5.01	mg/L	0.025	5.01	mg/L	0.025	0.50%
QC value within limits for Ba	Recovery = 100.25%							
Be†	5220902.6	2.04	mg/L	0.010	2.04	mg/L	0.010	0.48%
QC value within limits for Be	Recovery = 101.86%							
Ca†	1566874.0	49.8	mg/L	0.24	49.8	mg/L	0.24	0.49%
QC value within limits for Ca	Recovery = 99.67%							
Cd†	42634.4	1.95	mg/L	0.005	1.95	mg/L	0.005	0.27%
QC value within limits for Cd	Recovery = 97.50%							
Co†	75999.1	5.10	mg/L	0.026	5.10	mg/L	0.026	0.50%
QC value within limits for Co	Recovery = 102.09%							
Cr†	218405.0	5.05	mg/L	0.004	5.05	mg/L	0.004	0.08%
QC value within limits for Cr	Recovery = 100.95%							
Cu†	1453916.7	4.96	mg/L	0.009	4.96	mg/L	0.009	0.18%
QC value within limits for Cu	Recovery = 99.12%							
Fe†	59981.6	5.00	mg/L	0.029	5.00	mg/L	0.029	0.58%
QC value within limits for Fe	Recovery = 100.06%							
K†	60252.8	48.7	mg/L	0.22	48.7	mg/L	0.22	0.45%
QC value within limits for K	Recovery = 97.44%							
Mg†	1080962.9	49.7	mg/L	0.18	49.7	mg/L	0.18	0.36%
QC value within limits for Mg	Recovery = 99.45%							
Mn†	2412404.3	5.03	mg/L	0.005	5.03	mg/L	0.005	0.11%
QC value within limits for Mn	Recovery = 100.65%							
Mo†	49168.0	4.98	mg/L	0.011	4.98	mg/L	0.011	0.22%
QC value within limits for Mo	Recovery = 99.66%							
Na†	225761.2	48.6	mg/L	0.23	48.6	mg/L	0.23	0.48%
QC value within limits for Na	Recovery = 97.28%							
Ni†	95101.5	5.10	mg/L	0.012	5.10	mg/L	0.012	0.24%
QC value within limits for Ni	Recovery = 102.08%							
Pb†	19419.1	5.11	mg/L	0.021	5.11	mg/L	0.021	0.41%
QC value within limits for Pb	Recovery = 102.28%							
Sb†	7538.9	4.90	mg/L	0.018	4.90	mg/L	0.018	0.37%
QC value within limits for Sb	Recovery = 98.05%							
Se†	4836.1	5.03	mg/L	0.029	5.03	mg/L	0.029	0.57%
QC value within limits for Se	Recovery = 100.52%							
Tl†	11223.1	5.28	mg/L	0.031	5.28	mg/L	0.031	0.59%
QC value within limits for Tl	Recovery = 105.53%							
V†	742992.5	4.97	mg/L	0.010	4.97	mg/L	0.010	0.19%
QC value within limits for V	Recovery = 99.50%							
Zn†	196108.9	5.08	mg/L	0.009	5.08	mg/L	0.009	0.18%
QC value within limits for Zn	Recovery = 101.70%							

All analyte(s) passed QC.

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 5/29/2008 22:08:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	399849.6	99.0	%	0.02				0.02%
Yr	494465.4	101	%	1.2				1.20%
Agt	-3.1	-0.00001	mg/L	0.000282	-0.00001	mg/L	0.000282	>999.9%
QC value within limits for Ag	Recovery = Not calculated							
Alt	0.5	0.00003	mg/L	0.000448	0.00003	mg/L	0.000448	>999.9%
QC value within limits for Al	Recovery = Not calculated							
Ast	13.2	0.00849	mg/L	0.000434	0.00849	mg/L	0.000434	5.11%
QC value within limits for As	Recovery = Not calculated							
B_t	544.6	0.0214	mg/L	0.00109	0.0214	mg/L	0.00109	5.10%
QC value greater than the upper limit for B_	Recovery = Not calculated							
Bat	-1.3	-0.00003	mg/L	0.000049	-0.00003	mg/L	0.000049	139.94%
QC value within limits for Ba	Recovery = Not calculated							
Bet	51.5	0.00002	mg/L	0.000032	0.00002	mg/L	0.000032	157.56%
QC value within limits for Be	Recovery = Not calculated							
Cat	12.0	0.00038	mg/L	0.000819	0.00038	mg/L	0.000819	214.08%
QC value within limits for Ca	Recovery = Not calculated							
Cdt	3.5	0.00005	mg/L	0.000109	0.00005	mg/L	0.000109	240.43%
QC value within limits for Cd	Recovery = Not calculated							
Cot	-4.0	-0.00027	mg/L	0.000234	-0.00027	mg/L	0.000234	86.63%
QC value within limits for Co	Recovery = Not calculated							
Crt	7.6	0.00018	mg/L	0.000106	0.00018	mg/L	0.000106	60.09%
QC value within limits for Cr	Recovery = Not calculated							
Cut	97.5	0.00033	mg/L	0.000093	0.00033	mg/L	0.000093	28.03%
QC value within limits for Cu	Recovery = Not calculated							
Fet	13.8	0.00115	mg/L	0.000234	0.00115	mg/L	0.000234	20.34%
QC value within limits for Fe	Recovery = Not calculated							
Kt	19.6	0.0159	mg/L	0.00271	0.0159	mg/L	0.00271	17.09%
QC value within limits for K	Recovery = Not calculated							
Mgt	17.7	0.00082	mg/L	0.000108	0.00082	mg/L	0.000108	13.19%
QC value within limits for Mg	Recovery = Not calculated							
Mnt	59.2	0.00012	mg/L	0.000012	0.00012	mg/L	0.000012	9.55%
QC value within limits for Mn	Recovery = Not calculated							
Mot	9.6	0.00097	mg/L	0.000450	0.00097	mg/L	0.000450	46.18%
QC value within limits for Mo	Recovery = Not calculated							
Nat	127.9	0.0276	mg/L	0.00304	0.0276	mg/L	0.00304	11.02%
QC value within limits for Na	Recovery = Not calculated							
Nit	2.7	0.00015	mg/L	0.000142	0.00015	mg/L	0.000142	96.25%
QC value within limits for Ni	Recovery = Not calculated							
Pbt	7.6	0.00201	mg/L	0.000453	0.00201	mg/L	0.000453	22.54%
QC value within limits for Pb	Recovery = Not calculated							
Sbt	12.0	0.00778	mg/L	0.000341	0.00778	mg/L	0.000341	4.38%
QC value within limits for Sb	Recovery = Not calculated							
Set	-3.9	-0.00402	mg/L	0.002001	-0.00402	mg/L	0.002001	49.79%
QC value within limits for Se	Recovery = Not calculated							
Tlt	10.4	0.00485	mg/L	0.000799	0.00485	mg/L	0.000799	16.48%
QC value within limits for Tl	Recovery = Not calculated							
Vt	13.0	0.00009	mg/L	0.000072	0.00009	mg/L	0.000072	81.70%
QC value within limits for V	Recovery = Not calculated							
Znt	3.3	0.00008	mg/L	0.000051	0.00008	mg/L	0.000051	60.37%
QC value within limits for Zn	Recovery = Not calculated							

QC Failed. Retry.
User canceled analysis.

Analysis Begun

Start Time: 5/29/2008 22:13:39 Plasma On Time: 5/29/2008 10:30:51
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\080529A.sif
Batch ID: 080529A
Results Data Set: 080529A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 22 Autosampler Location: 0
Sample ID: CCB Date Collected: 5/29/2008 22:13:41
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	404863.6	100	%	0.8				0.75%
Yr	490283.7	99.8	%	0.26				0.26%
Agt	30.8	0.00013	mg/L	0.000062	0.00013	mg/L	0.000062	48.98%
QC value within limits for Ag	Recovery = Not calculated							
Alt	-8.0	-0.00101	mg/L	0.001064	-0.00101	mg/L	0.001064	105.54%
QC value within limits for Al	Recovery = Not calculated							
Ast	4.8	0.00312	mg/L	0.002322	0.00312	mg/L	0.002322	74.45%
QC value within limits for As	Recovery = Not calculated							
B_t	265.3	0.0104	mg/L	0.00004	0.0104	mg/L	0.00004	0.41%
QC value within limits for B_	Recovery = Not calculated							
Bat	-0.6	-0.00002	mg/L	0.000028	-0.00002	mg/L	0.000028	167.34%
QC value within limits for Ba	Recovery = Not calculated							
Bet	92.7	0.00004	mg/L	0.000001	0.00004	mg/L	0.000001	2.06%
QC value within limits for Be	Recovery = Not calculated							
Cat	7.9	0.00025	mg/L	0.000058	0.00025	mg/L	0.000058	23.17%
QC value within limits for Ca	Recovery = Not calculated							
Cdt	2.2	0.00006	mg/L	0.000141	0.00006	mg/L	0.000141	240.12%
QC value within limits for Cd	Recovery = Not calculated							
Cot	-3.5	-0.00024	mg/L	0.000105	-0.00024	mg/L	0.000105	44.68%
QC value within limits for Co	Recovery = Not calculated							
Crt	5.2	0.00012	mg/L	0.000151	0.00012	mg/L	0.000151	126.51%
QC value within limits for Cr	Recovery = Not calculated							
Cut	-1.0	0.00000	mg/L	0.000284	0.00000	mg/L	0.000284	>999.9%
QC value within limits for Cu	Recovery = Not calculated							
Fet	9.2	0.00076	mg/L	0.000094	0.00076	mg/L	0.000094	12.30%
QC value within limits for Fe	Recovery = Not calculated							
Kt	15.9	0.0129	mg/L	0.00129	0.0129	mg/L	0.00129	10.00%
QC value within limits for K	Recovery = Not calculated							
Mgt	-4.0	-0.00018	mg/L	0.000655	-0.00018	mg/L	0.000655	358.05%
QC value within limits for Mg	Recovery = Not calculated							
Mnt	35.0	0.00007	mg/L	0.000002	0.00007	mg/L	0.000002	2.48%
QC value within limits for Mn	Recovery = Not calculated							
Mot	2.5	0.00025	mg/L	0.000663	0.00025	mg/L	0.000663	262.75%
QC value within limits for Mo	Recovery = Not calculated							
Nat	56.5	0.0122	mg/L	0.00402	0.0122	mg/L	0.00402	32.98%
QC value within limits for Na	Recovery = Not calculated							
Nit	7.7	0.00041	mg/L	0.000466	0.00041	mg/L	0.000466	112.51%
QC value within limits for Ni	Recovery = Not calculated							
Pbt	-1.8	-0.00048	mg/L	0.000536	-0.00048	mg/L	0.000536	110.99%
QC value within limits for Pb	Recovery = Not calculated							
Sbt	7.2	0.00468	mg/L	0.003056	0.00468	mg/L	0.003056	65.26%
QC value within limits for Sb	Recovery = Not calculated							
Set	-4.6	-0.00475	mg/L	0.000317	-0.00475	mg/L	0.000317	6.67%
QC value within limits for Se	Recovery = Not calculated							
Tlt	2.9	0.00136	mg/L	0.000809	0.00136	mg/L	0.000809	59.50%
QC value within limits for Tl	Recovery = Not calculated							

V†	3.0	0.00002 mg/L	0.000035	0.00002 mg/L	0.000035	165.50%
QC value within limits for V Recovery = Not calculated						
Zn†	3.5	0.00009 mg/L	0.000088	0.00009 mg/L	0.000088	98.02%
QC value within limits for Zn Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 30
Sample ID: 2805270410
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 53
Date Collected: 5/29/2008 22:45:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805270410

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2805270410

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	396052.0	98.0	%	0.78				0.80%
Yr	496773.6	101	%	0.7				0.68%
Agt	-14.3	-0.00006	mg/L	0.000043	-0.00006	mg/L	0.000043	74.56%
Alt	-19.0	-0.00243	mg/L	0.000929	-0.00243	mg/L	0.000929	38.26%
Ast	-25.1	-0.0162	mg/L	0.00384	-0.0162	mg/L	0.00384	23.73%
B_t	961.5	0.0378	mg/L	0.00045	0.0378	mg/L	0.00045	1.20%
Bat	3830.3	0.0993	mg/L	0.00108	0.0993	mg/L	0.00108	1.09%
Bet	-167.9	-0.00007	mg/L	0.000007	-0.00007	mg/L	0.000007	10.55%
Cat	1839079.4	58.5	mg/L	0.11	58.5	mg/L	0.11	0.18%
Cdt	-15.1	-0.00049	mg/L	0.000118	-0.00049	mg/L	0.000118	24.33%
Cot	-4.2	-0.00029	mg/L	0.000253	-0.00029	mg/L	0.000253	88.68%
Crt	-12.9	-0.00030	mg/L	0.000280	-0.00030	mg/L	0.000280	93.84%
Cut	236.6	0.00081	mg/L	0.000018	0.00081	mg/L	0.000018	2.18%
Fet	42.6	0.00355	mg/L	0.000221	0.00355	mg/L	0.000221	6.22%
Kt	3111.8	2.52	mg/L	0.033	2.52	mg/L	0.033	1.31%
Mgt	306871.5	14.1	mg/L	0.05	14.1	mg/L	0.05	0.32%
Mnt	-19.9	-0.00036	mg/L	0.000020	-0.00036	mg/L	0.000020	5.48%
Mot	9.7	0.00098	mg/L	0.000093	0.00098	mg/L	0.000093	9.50%
Nat	130644.1	28.1	mg/L	0.00	28.1	mg/L	0.00	0.00%
Nit	-5.4	-0.00029	mg/L	0.000352	-0.00029	mg/L	0.000352	120.55%
Pbt	-9.0	-0.00237	mg/L	0.002540	-0.00237	mg/L	0.002540	107.11%
Sbt	3.3	0.00211	mg/L	0.003360	0.00211	mg/L	0.003360	159.37%
Set	-18.5	-0.0192	mg/L	0.01070	-0.0192	mg/L	0.01070	55.82%
Tlt	23.3	0.0109	mg/L	0.00445	0.0109	mg/L	0.00445	40.88%
Vt	37.0	0.00025	mg/L	0.000133	0.00025	mg/L	0.000133	54.11%
Znt	-48.1	-0.00146	mg/L	0.000043	-0.00146	mg/L	0.000043	2.95%

Sequence No.: 31
Sample ID: 2805270410MS
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 54
Date Collected: 5/29/2008 22:49:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805270410MS

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2805270410MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	384984.1	95.3	%	0.63				0.66%
Yr	473314.9	96.3	%	1.02				1.06%
Agt	99791.3	0.409	mg/L	0.0019	0.409	mg/L	0.0019	0.46%
Alt	14916.3	1.84	mg/L	0.008	1.84	mg/L	0.008	0.46%
Ast	1486.5	0.957	mg/L	0.0024	0.957	mg/L	0.0024	0.25%
B_t	13077.5	0.506	mg/L	0.0025	0.506	mg/L	0.0025	0.50%
Bat	40324.2	1.05	mg/L	0.005	1.05	mg/L	0.005	0.45%
Bet	123987.6	0.0485	mg/L	0.00026	0.0485	mg/L	0.00026	0.54%
Cat	3440540.9	109	mg/L	0.9	109	mg/L	0.9	0.80%
Cdt	4211.1	0.187	mg/L	0.0004	0.187	mg/L	0.0004	0.23%
Cot	14237.7	0.956	mg/L	0.0113	0.956	mg/L	0.0113	1.18%
Crt	40894.7	0.945	mg/L	0.0086	0.945	mg/L	0.0086	0.91%
Cut	270829.5	0.923	mg/L	0.0018	0.923	mg/L	0.0018	0.20%
Fet	58052.7	4.84	mg/L	0.004	4.84	mg/L	0.004	0.09%
Kt	28026.3	22.7	mg/L	0.09	22.7	mg/L	0.09	0.42%
Mgt	759782.1	35.0	mg/L	0.01	35.0	mg/L	0.01	0.01%
Mnt	229773.7	0.479	mg/L	0.0023	0.479	mg/L	0.0023	0.47%
Mot	9197.5	0.932	mg/L	0.0049	0.932	mg/L	0.0049	0.53%
Nat	360116.5	77.6	mg/L	0.03	77.6	mg/L	0.03	0.04%
Nit	8800.8	0.472	mg/L	0.0006	0.472	mg/L	0.0006	0.14%
Pbt	3798.3	1.00	mg/L	0.002	1.00	mg/L	0.002	0.24%
Sbt	734.8	0.480	mg/L	0.0005	0.480	mg/L	0.0005	0.11%
Set	950.5	0.997	mg/L	0.0001	0.997	mg/L	0.0001	0.01%
Tlt	2209.8	1.04	mg/L	0.003	1.04	mg/L	0.003	0.34%
Vt	141158.5	0.945	mg/L	0.0034	0.945	mg/L	0.0034	0.36%
Znt	38738.8	1.01	mg/L	0.005	1.01	mg/L	0.005	0.53%

Sequence No.: 32
Sample ID: 2805270410MSD
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 55
Date Collected: 5/29/2008 22:53:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805270410MSD

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: 2805270410MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	387696.8	96.0	%	0.10				0.10%
Yr	482826.6	98.3	%	0.47				0.48%
Agt	100667.9	0.413	mg/L	0.0008	0.413	mg/L	0.0008	0.20%
Alt	14789.3	1.82	mg/L	0.001	1.82	mg/L	0.001	0.06%
Ast	1470.5	0.947	mg/L	0.0013	0.947	mg/L	0.0013	0.14%
B_t	13125.4	0.508	mg/L	0.0024	0.508	mg/L	0.0024	0.47%
Bat	40296.7	1.04	mg/L	0.007	1.04	mg/L	0.007	0.64%
Bet	123735.7	0.0484	mg/L	0.00015	0.0484	mg/L	0.00015	0.30%
Cat	3349999.8	107	mg/L	2.2	107	mg/L	2.2	2.02%
Cdt	4176.8	0.186	mg/L	0.0005	0.186	mg/L	0.0005	0.26%
Cot	14146.3	0.950	mg/L	0.0004	0.950	mg/L	0.0004	0.04%
Crt	40931.2	0.946	mg/L	0.0048	0.946	mg/L	0.0048	0.51%
Cut	268643.9	0.916	mg/L	0.0005	0.916	mg/L	0.0005	0.05%
Fet	58307.4	4.86	mg/L	0.004	4.86	mg/L	0.004	0.08%
Kt	27212.5	22.0	mg/L	0.17	22.0	mg/L	0.17	0.75%
Mgt	747729.0	34.4	mg/L	0.04	34.4	mg/L	0.04	0.11%
Mnt	228682.9	0.476	mg/L	0.0015	0.476	mg/L	0.0015	0.32%
Mot	9141.8	0.926	mg/L	0.0011	0.926	mg/L	0.0011	0.12%
Nat	352688.6	76.0	mg/L	0.31	76.0	mg/L	0.31	0.41%
Nit	8727.6	0.468	mg/L	0.0013	0.468	mg/L	0.0013	0.28%
Pbt	3777.1	0.995	mg/L	0.0011	0.995	mg/L	0.0011	0.11%
Sbt	727.6	0.475	mg/L	0.0058	0.475	mg/L	0.0058	1.23%
Set	950.0	0.997	mg/L	0.0032	0.997	mg/L	0.0032	0.33%
Tlt	2192.3	1.03	mg/L	0.006	1.03	mg/L	0.006	0.62%
Vt	140688.2	0.942	mg/L	0.0023	0.942	mg/L	0.0023	0.24%
Znt	38687.4	1.01	mg/L	0.002	1.01	mg/L	0.002	0.16%

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 5/29/2008 22:56:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	380391.8	94.2	%	0.28				0.30%
Yr	481112.8	97.9	%	0.41				0.42%
Ag†	235336.2	0.963	mg/L	0.0036	0.963	mg/L	0.0036	0.38%
QC value within limits for Ag		Recovery = 96.28%						
Al†	38825.2	4.70	mg/L	0.012	4.70	mg/L	0.012	0.26%
QC value within limits for Al		Recovery = 93.98%						
As†	7399.7	4.76	mg/L	0.000	4.76	mg/L	0.000	0.01%
QC value within limits for As		Recovery = 95.28%						
B_†	63059.2	2.44	mg/L	0.022	2.44	mg/L	0.022	0.90%
QC value within limits for B_		Recovery = 97.45%						
Ba†	191578.9	4.97	mg/L	0.015	4.97	mg/L	0.015	0.29%
QC value within limits for Ba		Recovery = 99.31%						
Be†	5179774.9	2.02	mg/L	0.007	2.02	mg/L	0.007	0.35%
QC value within limits for Be		Recovery = 101.06%						
Ca†	1558070.1	49.6	mg/L	0.03	49.6	mg/L	0.03	0.05%
QC value within limits for Ca		Recovery = 99.11%						
Cd†	42258.0	1.93	mg/L	0.011	1.93	mg/L	0.011	0.56%
QC value within limits for Cd		Recovery = 96.63%						
Co†	75294.2	5.06	mg/L	0.043	5.06	mg/L	0.043	0.86%
QC value within limits for Co		Recovery = 101.15%						
Cr†	215395.7	4.98	mg/L	0.025	4.98	mg/L	0.025	0.50%
QC value within limits for Cr		Recovery = 99.56%						
Cu†	1429473.2	4.87	mg/L	0.001	4.87	mg/L	0.001	0.01%
QC value within limits for Cu		Recovery = 97.45%						
Fe†	60273.3	5.03	mg/L	0.016	5.03	mg/L	0.016	0.31%
QC value within limits for Fe		Recovery = 100.54%						
K†	59409.5	48.0	mg/L	0.00	48.0	mg/L	0.00	0.01%
QC value within limits for K		Recovery = 96.07%						
Mg†	1079981.3	49.7	mg/L	0.10	49.7	mg/L	0.10	0.21%
QC value within limits for Mg		Recovery = 99.36%						
Mn†	2389151.5	4.98	mg/L	0.021	4.98	mg/L	0.021	0.42%
QC value within limits for Mn		Recovery = 99.68%						
Mo†	48679.1	4.93	mg/L	0.020	4.93	mg/L	0.020	0.40%
QC value within limits for Mo		Recovery = 98.67%						
Na†	221624.0	47.7	mg/L	0.00	47.7	mg/L	0.00	0.01%
QC value within limits for Na		Recovery = 95.49%						
Ni†	94275.6	5.06	mg/L	0.014	5.06	mg/L	0.014	0.28%
QC value within limits for Ni		Recovery = 101.19%						
Pb†	19285.9	5.08	mg/L	0.009	5.08	mg/L	0.009	0.18%
QC value within limits for Pb		Recovery = 101.58%						
Sb†	7486.1	4.87	mg/L	0.021	4.87	mg/L	0.021	0.42%
QC value within limits for Sb		Recovery = 97.36%						
Se†	4793.2	4.98	mg/L	0.011	4.98	mg/L	0.011	0.22%
QC value within limits for Se		Recovery = 99.63%						
Tl†	11149.0	5.24	mg/L	0.023	5.24	mg/L	0.023	0.44%
QC value within limits for Tl		Recovery = 104.83%						
V†	735072.7	4.92	mg/L	0.024	4.92	mg/L	0.024	0.48%
QC value within limits for V		Recovery = 98.44%						
Zn†	194040.8	5.03	mg/L	0.018	5.03	mg/L	0.018	0.36%
QC value within limits for Zn		Recovery = 100.62%						

All analyte(s) passed QC.

Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 5/29/2008 23:00:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	411150.6	102	%	0.6				0.55%
Yr	502139.4	102	%	1.1				1.11%
Ag†	16.8	0.00007	mg/L	0.000253	0.00007	mg/L	0.000253	368.49%
QC value within limits for Ag	Recovery = Not calculated							
Al†	-16.6	-0.00213	mg/L	0.000889	-0.00213	mg/L	0.000889	41.72%
QC value within limits for Al	Recovery = Not calculated							
As†	15.0	0.00968	mg/L	0.000533	0.00968	mg/L	0.000533	5.51%
QC value within limits for As	Recovery = Not calculated							
B_†	586.1	0.0230	mg/L	0.00121	0.0230	mg/L	0.00121	5.25%
QC value greater than the upper limit for B_	Recovery = Not calculated							
Ba†	0.6	0.00002	mg/L	0.000014	0.00002	mg/L	0.000014	89.70%
QC value within limits for Ba	Recovery = Not calculated							
Be†	151.1	0.00006	mg/L	0.000007	0.00006	mg/L	0.000007	12.32%
QC value within limits for Be	Recovery = Not calculated							
Ca†	16.3	0.00052	mg/L	0.002172	0.00052	mg/L	0.002172	419.01%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	1.8	-0.00005	mg/L	0.000206	-0.00005	mg/L	0.000206	415.45%
QC value within limits for Cd	Recovery = Not calculated							
Co†	-0.8	-0.00006	mg/L	0.000257	-0.00006	mg/L	0.000257	451.51%
QC value within limits for Co	Recovery = Not calculated							
Cr†	3.1	0.00007	mg/L	0.000104	0.00007	mg/L	0.000104	143.93%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	-4.1	-0.00001	mg/L	0.000232	-0.00001	mg/L	0.000232	>999.9%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	5.2	0.00043	mg/L	0.000131	0.00043	mg/L	0.000131	30.26%
QC value within limits for Fe	Recovery = Not calculated							
K†	27.3	0.0220	mg/L	0.01323	0.0220	mg/L	0.01323	60.01%
QC value within limits for K	Recovery = Not calculated							
Mg†	21.6	0.00099	mg/L	0.000338	0.00099	mg/L	0.000338	33.98%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	52.7	0.00011	mg/L	0.000003	0.00011	mg/L	0.000003	2.70%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	11.4	0.00115	mg/L	0.000421	0.00115	mg/L	0.000421	36.48%
QC value within limits for Mo	Recovery = Not calculated							
Na†	95.9	0.0207	mg/L	0.00412	0.0207	mg/L	0.00412	19.96%
QC value within limits for Na	Recovery = Not calculated							
Ni†	1.8	0.00010	mg/L	0.000087	0.00010	mg/L	0.000087	90.29%
QC value within limits for Ni	Recovery = Not calculated							
Pb†	7.7	0.00202	mg/L	0.002782	0.00202	mg/L	0.002782	137.96%
QC value within limits for Pb	Recovery = Not calculated							
Sb†	10.2	0.00658	mg/L	0.000392	0.00658	mg/L	0.000392	5.96%
QC value within limits for Sb	Recovery = Not calculated							
Se†	-8.1	-0.00844	mg/L	0.002078	-0.00844	mg/L	0.002078	24.61%
QC value within limits for Se	Recovery = Not calculated							
Tl†	9.9	0.00464	mg/L	0.002014	0.00464	mg/L	0.002014	43.41%
QC value within limits for Tl	Recovery = Not calculated							
V†	13.0	0.00009	mg/L	0.000098	0.00009	mg/L	0.000098	112.61%
QC value within limits for V	Recovery = Not calculated							
Zn†	-1.4	-0.00004	mg/L	0.000019	-0.00004	mg/L	0.000019	49.56%
QC value within limits for Zn	Recovery = Not calculated							

QC Failed. Retry.

Sequence No.: 35
Sample ID: CCB

Autosampler Location: 0
Date Collected: 5/29/2008 23:03:15

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	409175.5	101	%	0.4				0.39%
Yr	494660.1	101	%	0.5				0.51%
Agt	-12.6	-0.00005	mg/L	0.000127	-0.00005	mg/L	0.000127	247.06%
QC value within limits for Ag	Recovery = Not calculated							
Alt	-3.1	-0.00041	mg/L	0.000031	-0.00041	mg/L	0.000031	7.56%
QC value within limits for Al	Recovery = Not calculated							
Ast	9.3	0.00601	mg/L	0.002095	0.00601	mg/L	0.002095	34.87%
QC value within limits for As	Recovery = Not calculated							
B_t	435.7	0.0171	mg/L	0.00044	0.0171	mg/L	0.00044	2.54%
QC value within limits for B_	Recovery = Not calculated							
Bat	-2.1	-0.00006	mg/L	0.000089	-0.00006	mg/L	0.000089	161.49%
QC value within limits for Ba	Recovery = Not calculated							
Bet	56.1	0.00002	mg/L	0.000029	0.00002	mg/L	0.000029	132.33%
QC value within limits for Be	Recovery = Not calculated							
Cat	72.7	0.00231	mg/L	0.001429	0.00231	mg/L	0.001429	61.78%
QC value within limits for Ca	Recovery = Not calculated							
Cdt	1.3	-0.00002	mg/L	0.000100	-0.00002	mg/L	0.000100	455.03%
QC value within limits for Cd	Recovery = Not calculated							
Cot	0.5	0.00003	mg/L	0.000303	0.00003	mg/L	0.000303	931.83%
QC value within limits for Co	Recovery = Not calculated							
Crt	1.6	0.00004	mg/L	0.000150	0.00004	mg/L	0.000150	399.41%
QC value within limits for Cr	Recovery = Not calculated							
Cut	-63.5	-0.00022	mg/L	0.000139	-0.00022	mg/L	0.000139	64.26%
QC value within limits for Cu	Recovery = Not calculated							
Fet	3.1	0.00026	mg/L	0.000466	0.00026	mg/L	0.000466	179.20%
QC value within limits for Fe	Recovery = Not calculated							
Kt	5.2	0.00417	mg/L	0.012870	0.00417	mg/L	0.012870	308.88%
QC value within limits for K	Recovery = Not calculated							
Mgt	12.7	0.00058	mg/L	0.000490	0.00058	mg/L	0.000490	83.83%
QC value within limits for Mg	Recovery = Not calculated							
Mnt	38.0	0.00008	mg/L	0.000017	0.00008	mg/L	0.000017	21.11%
QC value within limits for Mn	Recovery = Not calculated							
Mot	5.5	0.00056	mg/L	0.000387	0.00056	mg/L	0.000387	69.67%
QC value within limits for Mo	Recovery = Not calculated							
Nat	66.6	0.0143	mg/L	0.00950	0.0143	mg/L	0.00950	66.27%
QC value within limits for Na	Recovery = Not calculated							
Nit	1.4	0.00008	mg/L	0.000038	0.00008	mg/L	0.000038	48.84%
QC value within limits for Ni	Recovery = Not calculated							
Pbt	7.3	0.00193	mg/L	0.000174	0.00193	mg/L	0.000174	9.01%
QC value within limits for Pb	Recovery = Not calculated							
Sbt	8.3	0.00536	mg/L	0.002249	0.00536	mg/L	0.002249	41.98%
QC value within limits for Sb	Recovery = Not calculated							
Set	-10.1	-0.0104	mg/L	0.00208	-0.0104	mg/L	0.00208	19.91%
QC value within limits for Se	Recovery = Not calculated							
Tlt	7.2	0.00338	mg/L	0.001592	0.00338	mg/L	0.001592	47.10%
QC value within limits for Tl	Recovery = Not calculated							
Vt	6.0	0.00004	mg/L	0.000076	0.00004	mg/L	0.000076	190.19%
QC value within limits for V	Recovery = Not calculated							
Znt	-1.7	-0.00004	mg/L	0.000020	-0.00004	mg/L	0.000020	44.70%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

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

Autosampler Location: 5
Date Collected: 5/29/2008 23:06:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: MCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	393039.7	97.3	%	0.62				0.63%
Yr	484713.7	98.6	%	0.73				0.74%
Ag†	117851.9	0.482	mg/L	0.0015	0.482	mg/L	0.0015	0.30%
QC value within limits for Ag	Recovery = 96.43%							
Al†	19583.9	2.37	mg/L	0.006	2.37	mg/L	0.006	0.26%
QC value within limits for Al	Recovery = 94.83%							
As†	3657.4	2.35	mg/L	0.010	2.35	mg/L	0.010	0.40%
QC value within limits for As	Recovery = 94.19%							
B_†	31443.8	1.21	mg/L	0.005	1.21	mg/L	0.005	0.38%
QC value within limits for B_	Recovery = 97.15%							
Ba†	96767.2	2.51	mg/L	0.006	2.51	mg/L	0.006	0.22%
QC value within limits for Ba	Recovery = 100.32%							
Be†	2615439.0	1.02	mg/L	0.008	1.02	mg/L	0.008	0.77%
QC value within limits for Be	Recovery = 102.06%							
Ca†	788811.2	25.1	mg/L	0.04	25.1	mg/L	0.04	0.15%
QC value within limits for Ca	Recovery = 100.35%							
Cd†	20963.7	0.959	mg/L	0.0036	0.959	mg/L	0.0036	0.38%
QC value within limits for Cd	Recovery = 95.91%							
Co†	38107.6	2.56	mg/L	0.005	2.56	mg/L	0.005	0.19%
QC value within limits for Co	Recovery = 102.39%							
Cr†	108393.4	2.51	mg/L	0.015	2.51	mg/L	0.015	0.59%
QC value within limits for Cr	Recovery = 100.20%							
Cu†	724106.5	2.47	mg/L	0.019	2.47	mg/L	0.019	0.79%
QC value within limits for Cu	Recovery = 98.73%							
Fe†	30392.0	2.53	mg/L	0.002	2.53	mg/L	0.002	0.07%
QC value within limits for Fe	Recovery = 101.39%							
K†	29606.1	23.9	mg/L	0.10	23.9	mg/L	0.10	0.40%
QC value within limits for K	Recovery = 95.76%							
Mg†	549767.3	25.3	mg/L	0.02	25.3	mg/L	0.02	0.07%
QC value within limits for Mg	Recovery = 101.16%							
Mn†	1217628.5	2.54	mg/L	0.021	2.54	mg/L	0.021	0.82%
QC value within limits for Mn	Recovery = 101.60%							
Mo†	24358.9	2.47	mg/L	0.011	2.47	mg/L	0.011	0.44%
QC value within limits for Mo	Recovery = 98.75%							
Na†	111277.2	24.0	mg/L	0.02	24.0	mg/L	0.02	0.08%
QC value within limits for Na	Recovery = 95.89%							
Ni†	47940.4	2.57	mg/L	0.001	2.57	mg/L	0.001	0.03%
QC value within limits for Ni	Recovery = 102.91%							
Pb†	9794.0	2.58	mg/L	0.015	2.58	mg/L	0.015	0.59%
QC value within limits for Pb	Recovery = 103.17%							
Sb†	3712.6	2.41	mg/L	0.012	2.41	mg/L	0.012	0.51%
QC value within limits for Sb	Recovery = 96.57%							
Se†	2362.2	2.46	mg/L	0.000	2.46	mg/L	0.000	0.01%
QC value within limits for Se	Recovery = 98.21%							
Tl†	5681.6	2.67	mg/L	0.014	2.67	mg/L	0.014	0.51%
QC value within limits for Tl	Recovery = 106.84%							
V†	366990.6	2.46	mg/L	0.004	2.46	mg/L	0.004	0.18%
QC value within limits for V	Recovery = 98.30%							
Zn†	97984.8	2.54	mg/L	0.002	2.54	mg/L	0.002	0.06%
QC value within limits for Zn	Recovery = 101.62%							

All analyte(s) passed QC.

Sequence No.: 45
Sample ID: 2805280376_2X
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 64
Date Collected: 5/29/2008 23:42:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805280376_2X

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: 2805280376_2X

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	345464.5	85.5	%	0.13				0.15%
Yr	446944.3	91.0	%	0.21				0.23%
Agt	-133.6	-0.00048	mg/L	0.000005	-0.00096	mg/L	0.000010	1.09%
Alt	-82.7	-0.0119	mg/L	0.00625	-0.0239	mg/L	0.01250	52.37%
Ast	-2.6	-0.00164	mg/L	0.001492	-0.00328	mg/L	0.002984	90.87%
B_t	45063.6	1.77	mg/L	0.014	3.54	mg/L	0.028	0.78%
Bat	445.9	0.0116	mg/L	0.00009	0.0231	mg/L	0.00018	0.79%
Bet	-994.7	-0.00038	mg/L	0.000026	-0.00075	mg/L	0.000052	6.96%
Cat	6258824.4	199	mg/L	0.3	398	mg/L	0.6	0.15%
Cdt	-9.3	-0.00041	mg/L	0.000272	-0.00082	mg/L	0.000543	66.12%
Cot	19.0	0.00128	mg/L	0.000560	0.00256	mg/L	0.001119	43.76%
Crt	2975.7	0.0688	mg/L	0.00017	0.138	mg/L	0.0003	0.25%
Cut	899.3	0.00307	mg/L	0.000240	0.00614	mg/L	0.000481	7.83%
Fet	2137.3	0.178	mg/L	0.0025	0.357	mg/L	0.0049	1.38%
Kt	18277.9	14.8	mg/L	0.10	29.6	mg/L	0.21	0.70%
Mgt	2059510.9	94.7	mg/L	0.04	189	mg/L	0.1	0.04%
Mnt	228813.0	0.475	mg/L	0.0002	0.951	mg/L	0.0003	0.03%
Mot	416.9	0.0422	mg/L	0.00025	0.0845	mg/L	0.00051	0.60%
Nat	3146920.5	678	mg/L	2.1	1360	mg/L	4.2	0.31%
Nit	131.5	0.00705	mg/L	0.000662	0.0141	mg/L	0.00132	9.38%
Pbt	-33.2	-0.00875	mg/L	0.001496	-0.0175	mg/L	0.00299	17.09%
Sbt	11.2	0.00717	mg/L	0.003068	0.0143	mg/L	0.00614	42.80%
Set	-39.6	-0.0406	mg/L	0.00399	-0.0812	mg/L	0.00799	9.84%
Tlt	27.2	0.0161	mg/L	0.00322	0.0323	mg/L	0.00645	19.99%
Vt	2980.2	0.0202	mg/L	0.00011	0.0404	mg/L	0.00022	0.54%
Znt	-80.1	-0.00216	mg/L	0.000195	-0.00433	mg/L	0.000389	9.00%

Analytical Sequence

Method : 200.7&6010_080304

Seq.	Loc.		Sample ID	Status
1	15		ICV	QC Passed
2	9		LINEARITY	QC Passed
3	10		ICSA	QC Passed
4	11		ICSAB	QC Failed
5	0		Wash	QC Passed
6	12		QC-25 1ppm	QC Passed
7	4		CCV	QC Passed
8	0		ICB	QC Failed
9	0		ICB	QC Passed
10	20		MRL	QC Passed
11	16		MRL/2	Analyzed
12	18		FILTERCHECK	Analyzed
13	38		MBLANK	Analyzed
14	39		LCS	Analyzed
15	40		LCSD	Analyzed
16	41		2805280392	Analyzed
17	42		2805280392MS	Analyzed
18	43		2805280392MSD	
19	44		2805280378	
20	45		2805290001	
21	4		CCV	
22	0		CCB	
23	46		2805280348	
24	47		2805280351	
25	48		2805280489	
26	49		2805280354	
27	50		2805280395	
28	51		2805280219	
29	52		2805280272	
30	53		2805270410	
31	54		2805270410MS	
32	55		2805270410MSD	
33	4		CCV	
34	0		CCB	
35	5		MCV	QC Passed
36	56		2805280273	
37	57		2805280341	
38	58		2805280217	
39	59		2805280342	
40	60		2805280241	
41	61		2805280242	
42	62		2805280213	
43	63		2805280477	
44	64		2805280376_2X	
45	65		MBLANK	
46	4		CCV	
47	0		CCB	
48	21		MRL	
49	66		LCS	
50	67		LCSD	
51	68		2805270411	
52	69		2805270411MS	
53	70		2805270411MSD	
54	71		2805280243	
55	72		2805280244	
56	73		2805280245	

EPA 200.7/6010B QC Check List

Analyst CSK Analysis Date 6-4-08 Reviewer/Date 6-5-08

Instrumnet PerKin Elmer Optima 4300DV

✓ All sample analyzed within 6 month holding time

✓ All sample raw concentraction below the high standard or linear range o 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

NA QIR needed for failed QC

NA Special Det Code noted on the cover sheet

NA R value for multi point calibration is > 0.995

NA Proper MRL check ran for special low MRL samples

Reagent and Standards used for
Optima 4300 DV
Updated 03/31/08

Int: CSK
Date: 6-5-08

Method 200.7/6010

ICP SUMMARY SHEET

File ID: 080604A
Date Started: 6/4/08
Analyst ID: CSK

SAMPLE ID

LINEARITY	(18:41)	Wash	(18:56)	LINEARITY	(20:52)
FILTERCHECK	(21:13)	2806030669	(21:25)	2806030741	(21:35)
2806030674	(21:39)	2806030542	(21:50)	2806030544	(21:53)
2806030545	(21:57)	2806030547	(22:01)	2806030844	(22:04)
2806030859	(22:09)	2806030867	(22:13)	2806030671	(22:17)
2806030660	(22:37)	2806030870	(22:42)	2806030871	(22:45)
2806030872	(22:49)	2806030570	(22:53)	2806030713	(22:56)
2806030780	(23:01)	2806030672	(23:05)	D805220919_2	(23:09)
2805290427	(23:36)	2805310013	(23:46)	2805280136	(0:05)
2805280137	(0:09)	2805280138	(0:13)	2805280139	(0:16)
2805280274	(0:20)	2805280347	(0:23)	2805280375_2	(0:26)
2805280487	(0:30)	2805280472	(0:33)	2805280473	(0:37)
2805280474	(0:47)	2805280475	(0:51)	2805280476	(0:54)
2805280478	(0:58)	2805280479	(1:02)	2805280480	(1:06)
2805280481	(1:11)	2805190003	(1:15)		

VB 6/7/08

COMMENT: The second Batch (Digested) LCSD Fail for "Na"
Rerun @ 080605B all passed see Attached.

For Closing CCB, See RAW DATA 6/6/08

Analyst: CSK
6-5-08

Approved By: VB

Peer Reviewed! BLR 6/5/08

Sequence No.: 14
Sample ID: LCSD2007
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 25
Date Collected: 6/5/2008 18:52:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCSD2007

Analyte	Back Pressure	Flow
All	213.0 kPa	0.65 L/min

Mean Data: LCSD2007

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	385820.0	97.2	%	0.30				0.31%
Yr	422356.1	99.8	%	0.08				0.08%
Agt	111574.2	0.441	mg/L	0.0002	0.441	mg/L	0.0002	0.04%
Alt	12045.4	1.79	mg/L	0.007	1.79	mg/L	0.007	0.40%
Ast	1405.8	0.900	mg/L	0.0000	0.900	mg/L	0.0000	0.00%
B_t	11977.7	0.441	mg/L	0.0020	0.441	mg/L	0.0020	0.46%
Bat	34162.6	0.905	mg/L	0.0002	0.905	mg/L	0.0002	0.02%
Bet	125755.4	0.0473	mg/L	0.00001	0.0473	mg/L	0.00001	0.02%
Cat	1238306.5	46.3	mg/L	0.32	46.3	mg/L	0.32	0.68%
Cdt	4024.7	0.177	mg/L	0.0004	0.177	mg/L	0.0004	0.22%
Cot	15189.2	0.948	mg/L	0.0018	0.948	mg/L	0.0018	0.19%
Crt	42068.0	0.915	mg/L	0.0002	0.915	mg/L	0.0002	0.02%
Cut	271529.1	0.917	mg/L	0.0020	0.917	mg/L	0.0020	0.21%
Fet	48609.2	4.55	mg/L	0.013	4.55	mg/L	0.013	0.29%
Kt	18482.2	18.2	mg/L	0.06	18.2	mg/L	0.06	0.33%
Mgt	371042.9	18.9	mg/L	0.00	18.9	mg/L	0.00	0.01%
Mnt	230855.4	0.466	mg/L	0.0004	0.466	mg/L	0.0004	0.08%
Mot	9189.9	0.895	mg/L	0.0006	0.895	mg/L	0.0006	0.07%
Nat	244836.8	46.2	mg/L	0.04	46.2	mg/L	0.04	0.09%
Nit	8832.5	0.465	mg/L	0.0012	0.465	mg/L	0.0012	0.27%
Pbt	3678.2	0.947	mg/L	0.0012	0.947	mg/L	0.0012	0.13%
Sbt	703.4	0.451	mg/L	0.0006	0.451	mg/L	0.0006	0.13%
Set	906.4	0.919	mg/L	0.0025	0.919	mg/L	0.0025	0.27%
Tlt	2158.1	0.989	mg/L	0.0044	0.989	mg/L	0.0044	0.44%
Vt	139100.7	0.909	mg/L	0.0010	0.909	mg/L	0.0010	0.11%
Znt	37356.2	0.953	mg/L	0.0039	0.953	mg/L	0.0039	0.41%

BATCH NUMBER for 080604A

Test Parameter:

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

Batch ID: 2806030669

2806030669	2806030741	2806030674
2806030542	2806030544	2806030545
2806030547	2806030844	2806030859
2806030867	2806030671	2806030660
2806030870	2806030871	2806030872
2806030570	2806030713	2806030780
2806030672		

Batch ID: 2805290427

2805290427	2805310013	2805280136
2805280137	2805280138	2805280139
2805280274	2805280347	2805280375_2X
2805280487	2805280472	2805280473
2805280474	2805280475	2805280476
2805280478	2805280479	2805280480
2805280481	2805190003	

File ID: 080604A CR

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
ICV	6/4/08	18:37	1	10.023	10.	95-105	100%
LINEARITY	6/4/08	18:41	1	0.0034	.0034		
ICSA	6/4/08	18:48	1	0.0007	0.0006	80-120	
ICSAB	6/4/08	18:52	1	.24903	.249	80-120	99.6%
Wash	6/4/08	18:56	1	0.0000	0.0000		
QC-25 1ppm	6/4/08	19:02	1	.99582	1.0		
CCV	6/4/08	19:05	1	5.0574	5.06	90-110	101%
QC-25 1ppm	6/4/08	19:13	1	.99667	1.0		
ICV	6/4/08	20:40	1	10.125	10.1	95-105	101%
QC-25 1ppm	6/4/08	20:42	1	.98522	.990		
CCV	6/4/08	20:46	1	5.0730	5.07	90-110	101%
MCV	6/4/08	20:50	1	2.5589	2.56	90-110	102%
LINEARITY	6/4/08	20:52	1	0.0035	.0035		
ICSA	6/4/08	20:56	1	0.0006	0.0006	80-120	
ICSAB	6/4/08	20:59	1	.25489	.255	80-120	101%
ICB	6/4/08	21:02	1	-0.0001	ND		
MRL	6/4/08	21:05	1	0.0100	.01	50-150	99.7%
MRL/2	6/4/08	21:09	1	0.0051	.0051		
FILTERCHECK	6/4/08	21:13	1	-0.0002	ND		
MBLANK	6/4/08	21:16	1	0.0000	0.0000		
LCS	6/4/08	21:20	1	.93609	.936	85-115	93.6%
LCSD	6/4/08	21:22	1	.95388	.954	85-115	95.3%
2806030669	6/4/08	21:25	1	-0.0001	ND		
2806030669MS	6/4/08	21:29	1	.94774	.948	[0.948]	94.7%
2806030669MSD	6/4/08	21:32	1	.97932	.979	[0.979]	97.9%
2806030669T	6/4/08	21:32	1		1.00	70 - 130	
2806030741	6/4/08	21:35	1	-0.0002	ND		
2806030674	6/4/08	21:39	1	0.0087	.0087		
CCV	6/4/08	21:43	1	4.9646	4.96	90-110	99.2%
CCB	6/4/08	21:46	1	-0.0001	ND		
2806030542	6/4/08	21:50	1	0.0009	0.0009		
2806030544	6/4/08	21:53	1	-0.0004	ND		
2806030545	6/4/08	21:57	1	-0.0003	ND		
2806030547	6/4/08	22:01	1	-0.0003	ND		
2806030844	6/4/08	22:04	1	0.0033	.0033		
2806030859	6/4/08	22:09	1	0.0031	.0031		
2806030867	6/4/08	22:13	1	0.0014	.0014		
2806030671	6/4/08	22:17	1	-0.0002	ND		
2806030671MS	6/4/08	22:22	1	.96488	.965	[0.965]	96.4%
2806030671MSD	6/4/08	22:25	1	.95256	.953	[0.953]	95.2%
2806030671T	6/4/08	22:25	1		1.00	70 - 130	
CCV	6/4/08	22:28	1	5.0573	5.06	90-110	101%
CCB	6/4/08	22:31	1	0.0001	0.0000		
MCV	6/4/08	22:34	1	2.5195	2.52	90-110	100%
2806030660	6/4/08	22:37	1	-0.0002	ND		
2806030870	6/4/08	22:42	1	-0.0003	ND		

DNR CCVs 6-5-08

File ID: 080604A CR

Sample ID	Date	Time	Dil	Raw	Rept.	Limit	Comment
2806030871	6/4/08	22:45	1	-0.0004	ND		
2806030872	6/4/08	22:49	1	-0.0006	ND		
2806030570	6/4/08	22:53	1	0.0129	.013		
2806030713	6/4/08	22:56	1	0.0023	.0023		
2806030780	6/4/08	23:01	1	0.0001	0.0000		
2806030672	6/4/08	23:05	1	-0.0002	ND		
D805220919_20X	6/4/08	23:09	20	0.0021	.0021		
MBLANK2007	6/4/08	23:13	1	0.0000	0.0000		
CCV	6/4/08	23:17	1	5.0903	5.09	90-110	101%
CCB	6/4/08	23:20	1	-0.0001	ND		
MRL	6/4/08	23:24	1	0.0103	.0103	50-150	103%
MRL2007	6/4/08	23:27	1	0.0103	.0103		
LCS2007	6/4/08	23:31	1	.94960	.95	85-115	94.9%
LCSD2007	6/4/08	23:33	1	.90854	.909	85-115	90.8%
2805290427	6/4/08	23:36	1	0.0026	.0026		
2805290427MS	6/4/08	23:39	1	.98198	.982	[0.979]	97.9%
2805290427MSD	6/4/08	23:43	1	.98733	.987	[0.985]	98.4%
2805290427T	6/4/08	23:43	1		1.00	70 - 130	
2805310013	6/4/08	23:46	1	0.0003	0.0003		
2805310013MS	6/4/08	23:49	1	.98937	.989	[0.989]	98.9%
2805310013MSD	6/4/08	23:52	1	.95237	.952	[0.952]	95.2%
2805310013T	6/4/08	23:52	1		1.00	70 - 130	
CCV	6/4/08	23:56	1	5.0555	5.06	90-110	101%
CCB	6/4/08	23:59	1	0.0000	0.0000		
MCV	6/5/08	0:02	1	2.5238	2.52	90-110	100%
2805280136	6/5/08	0:05	1	0.0008	0.0008		
2805280137	6/5/08	0:09	1	0.0021	.0021		
2805280138	6/5/08	0:13	1	0.0015	.0015		
2805280139	6/5/08	0:16	1	0.0020	.002		
2805280274	6/5/08	0:20	1	0.0014	.0014		
2805280347	6/5/08	0:23	1	0.0016	.0016		
2805280375_2X	6/5/08	0:26	2	0.0707	.071		
2805280487	6/5/08	0:30	1	0.0002	0.0002		
2805280472	6/5/08	0:33	1	0.0049	.0049		
2805280473	6/5/08	0:37	1	0.0007	0.0007		
CCV	6/5/08	0:40	1	5.0084	5.01	90-110	100%
CCB	6/5/08	0:44	1	0.0001	0.0000		
2805280474	6/5/08	0:47	1	0.0007	0.0007		
2805280475	6/5/08	0:51	1	0.0010	.001		
2805280476	6/5/08	0:54	1	0.0004	0.0004		
2805280478	6/5/08	0:58	1	0.0005	0.0004		
2805280479	6/5/08	1:02	1	0.0010	0.0009		
2805280480	6/5/08	1:06	1	0.0180	.018		
2805280481	6/5/08	1:11	1	0.0009	0.0009		
2805190003	6/5/08	1:15	1	0.0003	0.0002		
ECV	6/5/08	1:18	1	5.0365	5.04	90-110	100%

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	151.0 kPa	0.54 L/min

6/4/2008 20:12:15 Hg ReAlign... Actual peak offset (nm): 0.003
Drift (nm): 0.000 Slit adjustment: -4

Align View XY Axial for analyte Mn 257.610

X-position	Y-position	Intensity
-2.0	15.0	343540.4
-1.6	15.0	460075.9
-1.2	15.0	588083.6
-0.8	15.0	692863.4
-0.4	15.0	743756.4
0.0	15.0	745589.8
0.4	15.0	672804.8
0.8	15.0	581350.3
1.2	15.0	462483.5
1.6	15.0	338482.0
2.0	15.0	254976.4
0.0	10.0	11563.8
0.0	10.5	34422.1
0.0	11.0	54899.6
0.0	11.5	83070.9
0.0	12.0	122164.8
0.0	12.5	246978.8
0.0	13.0	340929.3
0.0	13.5	440124.3
0.0	14.0	554772.1
0.0	14.5	702680.4
0.0	15.0	731146.7
0.0	15.5	714362.3
0.0	16.0	628403.9
0.0	16.5	414536.2
0.0	17.0	311998.3
0.0	17.5	225191.0
0.0	18.0	159424.4
0.0	18.5	106639.6
0.0	19.0	28758.3
0.0	19.5	12564.1
0.0	20.0	5792.6
-0.8	15.0	698245.6
-0.4	15.0	740561.0
0.0	15.0	737766.4
0.4	15.0	676450.2
0.8	15.0	578508.9
-0.4	13.0	345600.3
-0.4	13.5	440744.5
-0.4	14.0	564349.4
-0.4	14.5	738681.6
-0.4	15.0	753180.5
-0.4	15.5	715916.6
-0.4	16.0	623411.4
-0.4	16.5	430745.0
-0.4	17.0	313891.5

6/4/2008 20:16:11 aligned for analyte Mn 257.610
X viewing position set to -0.4 mm having Peak intensity 753180.5 for Axial viewing
Y viewing position set to 15.0 mm having Peak intensity 753180.5 for Axial viewing

Align View XY Axial for analyte Mn 257.610

X-position	Y-position	Intensity
-2.0	15.0	246200.1
-1.6	15.0	354529.6
-1.2	15.0	472939.5
-0.8	15.0	611661.8
-0.4	15.0	690813.0
0.0	15.0	769802.8

0.4	15.0	750486.8
0.8	15.0	703044.3
1.2	15.0	593096.0
1.6	15.0	477217.9
2.0	15.0	362495.3
0.0	10.0	11041.4
0.0	10.5	34465.0
0.0	11.0	54344.1
0.0	11.5	81783.1
0.0	12.0	121189.6
0.0	12.5	248373.4
0.0	13.0	338386.2
0.0	13.5	451937.9
0.0	14.0	559465.0
0.0	14.5	745083.6
0.0	15.0	761759.8
0.0	15.5	732451.3
0.0	16.0	649186.1
0.0	16.5	424593.4
0.0	17.0	315416.9
0.0	17.5	233928.6
0.0	18.0	164463.3
0.0	18.5	110343.1
0.0	19.0	27098.6
0.0	19.5	11594.5
0.0	20.0	5482.3
-0.8	15.0	616151.3
-0.4	15.0	698152.5
0.0	15.0	755641.2
0.4	15.0	753257.2
0.8	15.0	687496.7
0.0	13.0	357233.5
0.0	13.5	445726.6
0.0	14.0	572299.3
0.0	14.5	740107.5
0.0	15.0	769735.0
0.0	15.5	731468.4
0.0	16.0	633017.1
0.0	16.5	435511.9
0.0	17.0	323247.6

6/4/2008 20:18:50 aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 769735.0 for Axial viewing
Y viewing position set to 15.0 mm having Peak intensity 769735.0 for Axial viewing

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Align View X Radial for analyte Mn 257.610

X-position	Y-position	Intensity
-7.0	15.0	4.0
-6.5	15.0	-2.1
-6.0	15.0	-2.1
-5.5	15.0	-11.4
-5.0	15.0	-16.9
-4.5	15.0	-31.1
-4.0	15.0	-45.5
-3.5	15.0	-59.2
-3.0	15.0	-59.3
-2.5	15.0	-65.2
-2.0	15.0	-73.5
-1.5	15.0	-70.4
-1.0	15.0	-63.2
-0.5	15.0	-85.6
0.0	15.0	-99.0
0.5	15.0	-83.9
1.0	15.0	-54.2
1.5	15.0	-57.7
2.0	15.0	-66.1
2.5	15.0	-64.1
3.0	15.0	-34.5
3.5	15.0	-30.6
4.0	15.0	-24.8
4.5	15.0	-8.7

5.0	15.0	-3.9
5.5	15.0	0.0
6.0	15.0	-0.1
6.5	15.0	3.2
7.0	15.0	-1.6

Align View X Radial for analyte Mn 257.610

X-position	Y-position	Intensity
-7.0	15.0	2224.6
-6.5	15.0	2194.8
-6.0	15.0	2209.5
-5.5	15.0	3540.3
-5.0	15.0	7847.5
-4.5	15.0	16826.7
-4.0	15.0	32788.3
-3.5	15.0	60115.8
-3.0	15.0	96730.8
-2.5	15.0	147339.1
-2.0	15.0	204120.2
-1.5	15.0	257376.2
-1.0	15.0	339902.4
-0.5	15.0	428367.3
0.0	15.0	566160.7
0.5	15.0	596093.9
1.0	15.0	485861.2
1.5	15.0	369733.7
2.0	15.0	253127.2
2.5	15.0	165343.9
3.0	15.0	74181.1
3.5	15.0	29860.7
4.0	15.0	14515.7
4.5	15.0	6843.6
5.0	15.0	3080.1
5.5	15.0	1668.8
6.0	15.0	1177.1
6.5	15.0	974.2
7.0	15.0	889.3

6/4/2008 20:27:20 aligned for analyte Mn 257.610
X viewing position set to 0.5 mm having Peak intensity 596093.9 for Radial viewing

Align View X Radial for analyte Mn 257.610

X-position	Y-position	Intensity
-7.0	15.0	2184.2
-6.5	15.0	2186.6
-6.0	15.0	3488.7
-5.5	15.0	7673.1
-5.0	15.0	16667.3
-4.5	15.0	32841.9
-4.0	15.0	57582.2
-3.5	15.0	97806.6
-3.0	15.0	150905.1
-2.5	15.0	207249.2
-2.0	15.0	256847.1
-1.5	15.0	340237.1
-1.0	15.0	430224.7
-0.5	15.0	562827.2
0.0	15.0	600778.7
0.5	15.0	489994.5
1.0	15.0	368452.6
1.5	15.0	249490.6
2.0	15.0	169169.8
2.5	15.0	74299.0
3.0	15.0	30353.5
3.5	15.0	14233.0
4.0	15.0	6917.0
4.5	15.0	3060.8
5.0	15.0	1619.9
5.5	15.0	1176.3
6.0	15.0	964.2
6.5	15.0	869.1

7.0	15.0	743.3

6/4/2008 20:29:53 aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 600778.7 for Radial viewing

Analysis Begun

Start Time: 6/4/2008 20:34:55 Plasma On Time: 6/4/2008 20:11:34
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\080604A.sif
Batch ID: 080604A
Results Data Set: 080604A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 0
Sample ID: Calib Blank 1 Date Collected: 6/4/2008 20:35:12
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sca	422000.9	644.36	0.15%	100	%
Yr	425859.0	345.18	0.08%	100	%
Ag†	295.3	34.01	11.52%	[0.00]	mg/L
Al†	36.0	16.62	46.21%	[0.00]	mg/L
As†	-1.0	0.89	86.10%	[0.00]	mg/L
B_†	187.8	0.69	0.37%	[0.00]	mg/L
Ba†	-22.0	2.98	13.57%	[0.00]	mg/L
Be†	-3825.8	6.46	0.17%	[0.00]	mg/L
Ca†	2968.6	0.57	0.02%	[0.00]	mg/L
Cd†	37.3	1.59	4.25%	[0.00]	mg/L
Co†	-44.3	0.53	1.20%	[0.00]	mg/L
Cr†	101.8	0.49	0.48%	[0.00]	mg/L
Cu†	3446.0	26.33	0.76%	[0.00]	mg/L
Fe†	-97.0	0.06	0.06%	[0.00]	mg/L
K†	205.3	14.62	7.12%	[0.00]	mg/L
Mg†	-509.5	18.63	3.66%	[0.00]	mg/L
Mn†	297.3	5.73	1.93%	[0.00]	mg/L
Mo†	15.8	1.19	7.55%	[0.00]	mg/L
Na†	-169.0	53.24	31.51%	[0.00]	mg/L
Ni†	-45.7	0.53	1.16%	[0.00]	mg/L
Pb†	-20.7	0.96	4.64%	[0.00]	mg/L
Sb†	6.7	4.72	70.19%	[0.00]	mg/L
Se†	-5.0	0.69	13.97%	[0.00]	mg/L
Tl†	-22.1	0.99	4.47%	[0.00]	mg/L
V†	147.9	7.14	4.83%	[0.00]	mg/L
Zn†	132.9	7.07	5.32%	[0.00]	mg/L

User canceled analysis.

Analysis Begun

Start Time: 6/4/2008 20:38:24 **Plasma On Time:** 6/4/2008 20:11:34
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\080604A.sif
Batch ID: 080604A
Results Data Set: 080604A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 2 **Autosampler Location:** 15
Sample ID: Standard 2 **Date Collected:** 6/4/2008 20:38:26
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Standard 2

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: Standard 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sca	376984.2	1978.60	0.52%	89.3	%
Yr	405968.8	1854.89	0.46%	95.3	%
Agt	515840.8	112.71	0.02%	[2]	mg/L
Alt	68030.7	6.26	0.01%	[10]	mg/L
Ast	15999.6	182.44	1.14%	[10]	mg/L
B_t	138257.1	115.45	0.08%	[5.02]	mg/L
Bat	394426.0	423.74	0.11%	[10]	mg/L
Bet	10826990.0	96215.23	0.89%	[4.01]	mg/L
Cat	2614885.4	11951.72	0.46%	[100]	mg/L
Cdt	109603.9	272.08	0.25%	[5.01]	mg/L
Cot	155647.2	790.05	0.51%	[10]	mg/L
Crt	449776.5	1494.44	0.33%	[9.97]	mg/L
Cut	3090424.8	11855.00	0.38%	[10]	mg/L
Fet	107061.2	806.81	0.75%	[9.98]	mg/L
Kt	104928.5	143.55	0.14%	[100]	mg/L
Mgt	1966712.1	10191.14	0.52%	[100]	mg/L
Mnt	4977338.1	14003.55	0.28%	[10]	mg/L
Mot	102258.2	297.64	0.29%	[9.98]	mg/L
Nat	559866.5	468.08	0.08%	[100]	mg/L
Nit	191654.0	612.72	0.32%	[10]	mg/L
Pbt	39215.8	272.52	0.69%	[10]	mg/L
Sbt	16134.5	130.02	0.81%	[10]	mg/L
Set	10122.1	69.14	0.68%	[10]	mg/L
Tlt	22093.6	89.43	0.40%	[10]	mg/L
Vt	1551790.5	2953.74	0.19%	[10]	mg/L
Znt	390786.8	897.26	0.23%	[10]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag	1	Lin, Calc Int	0.0	257900	0.00000	1.000000	
Al	1	Lin, Calc Int	0.0	6803	0.00000	1.000000	
As	1	Lin, Calc Int	0.0	1600	0.00000	1.000000	
B_	1	Lin, Calc Int	0.0	27540	0.00000	1.000000	
Ba	1	Lin, Calc Int	0.0	39440	0.00000	1.000000	
Be	1	Lin, Calc Int	-0.0	2700000	0.00000	1.000000	
Ca	1	Lin, Calc Int	0.0	26150	0.00000	1.000000	
Cd	1	Lin, Calc Int	0.0	21880	0.00000	1.000000	
Co	1	Lin, Calc Int	0.0	15560	0.00000	1.000000	
Cr	1	Lin, Calc Int	-0.0	45110	0.00000	1.000000	
Cu	1	Lin, Calc Int	0.0	309000	0.00000	1.000000	

Fe	1	Lin, Calc Int	0.0	10730	0.00000	1.000000
K	1	Lin, Calc Int	0.0	1049	0.00000	1.000000
Mg	1	Lin, Calc Int	0.0	19670	0.00000	1.000000
Mn	1	Lin, Calc Int	0.0	497700	0.00000	1.000000
Mo	1	Lin, Calc Int	0.0	10250	0.00000	1.000000
Na	1	Lin, Calc Int	0.0	5599	0.00000	1.000000
Ni	1	Lin, Calc Int	0.0	19170	0.00000	1.000000
Pb	1	Lin, Calc Int	0.0	3922	0.00000	1.000000
Sb	1	Lin, Calc Int	-0.0	1613	0.00000	1.000000
Se	1	Lin, Calc Int	0.0	1012	0.00000	1.000000
Tl	1	Lin, Calc Int	0.0	2209	0.00000	1.000000
V	1	Lin, Calc Int	0.0	155200	0.00000	1.000000
Zn	1	Lin, Calc Int	0.0	39080	0.00000	1.000000

Analysis Begun

Start Time: 6/4/2008 20:40:20 Plasma On Time: 6/4/2008 20:11:34
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\080604A.sif
Batch ID: 080604A
Results Data Set: 080604A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 15
Sample ID: ICV Date Collected: 6/4/2008 20:40:22
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sca	375464.5	89.0	%	0.37				0.41%
Yr	401929.5	94.4	%	1.52				1.61%
Ag†	520838.9	2.02	mg/L	0.003	2.02	mg/L	0.003	0.16%
QC value within limits for Ag		Recovery = 101.16%						
Al†	68148.7	9.65	mg/L	0.039	9.65	mg/L	0.039	0.41%
QC value within limits for Al		Recovery = 96.48%						
As†	16403.6	10.3	mg/L	0.02	10.3	mg/L	0.02	0.22%
QC value within limits for As		Recovery = 102.53%						
B_†	141441.4	5.05	mg/L	0.004	5.05	mg/L	0.004	0.08%
QC value within limits for B_		Recovery = 100.94%						
Ba†	397024.2	10.1	mg/L	0.03	10.1	mg/L	0.03	0.27%
QC value within limits for Ba		Recovery = 100.66%						
Be†	10914575.8	4.04	mg/L	0.002	4.04	mg/L	0.002	0.05%
QC value within limits for Be		Recovery = 101.10%						
Ca†	2698233.1	103	mg/L	0.7	103	mg/L	0.7	0.66%
QC value within limits for Ca		Recovery = 103.19%						
Cd†	110915.1	4.96	mg/L	0.017	4.96	mg/L	0.017	0.33%
QC value within limits for Cd		Recovery = 99.19%						
Co†	158105.3	10.2	mg/L	0.07	10.2	mg/L	0.07	0.71%
QC value within limits for Co		Recovery = 101.58%						
Cr†	456782.4	10.1	mg/L	0.06	10.1	mg/L	0.06	0.57%
QC value within limits for Cr		Recovery = 101.25%						
Cu†	3113662.5	10.1	mg/L	0.02	10.1	mg/L	0.02	0.16%
QC value within limits for Cu		Recovery = 100.85%						
Fe†	110231.3	10.3	mg/L	0.01	10.3	mg/L	0.01	0.06%
QC value within limits for Fe		Recovery = 102.76%						
K†	105182.4	100	mg/L	0.5	100	mg/L	0.5	0.50%
QC value within limits for K		Recovery = 100.24%						
Mg†	1998672.0	102	mg/L	1.0	102	mg/L	1.0	0.96%
QC value within limits for Mg		Recovery = 101.64%						
Mn†	5039187.8	10.1	mg/L	0.05	10.1	mg/L	0.05	0.47%
QC value within limits for Mn		Recovery = 101.22%						
Mo†	103704.7	10.1	mg/L	0.04	10.1	mg/L	0.04	0.37%
QC value within limits for Mo		Recovery = 101.21%						
Na†	541850.8	96.8	mg/L	0.13	96.8	mg/L	0.13	0.13%
QC value within limits for Na		Recovery = 96.78%						
Ni†	194268.1	10.1	mg/L	0.04	10.1	mg/L	0.04	0.36%
QC value within limits for Ni		Recovery = 101.36%						
Pb†	40106.4	10.2	mg/L	0.01	10.2	mg/L	0.01	0.12%
QC value within limits for Pb		Recovery = 102.27%						
Sb†	16519.3	10.3	mg/L	0.02	10.3	mg/L	0.02	0.16%
QC value within limits for Sb		Recovery = 102.79%						
Se†	10305.0	10.2	mg/L	0.02	10.2	mg/L	0.02	0.24%

QC value within limits for Se Recovery = 102.06%

Tl†	22431.9	10.2 mg/L	0.01	10.2 mg/L	0.01 0.08%

QC value within limits for Tl Recovery = 102.11%

V†	1572685.0	10.2 mg/L	0.02	10.2 mg/L	0.02 0.23%

QC value within limits for V Recovery = 101.88%

Zn†	396771.7	10.1 mg/L	0.04	10.1 mg/L	0.04 0.40%

QC value within limits for Zn Recovery = 100.66%

All analyte(s) passed QC.

User canceled analysis.

Analysis Begun

Start Time: 6/4/2008 20:42:44 **Plasma On Time:** 6/4/2008 20:11:34
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\080604A.sif
Batch ID: 080604A
Results Data Set: 080604A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 6 **Autosampler Location:** 12
Sample ID: QC-25 1ppm **Date Collected:** 6/4/2008 20:42:45
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: QC-25 1ppm

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: QC-25 1ppm

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	425106.3	101	%	0.9				0.93%
Yr	429250.9	101	%	0.2				0.24%
Ag†	239900.9	0.931	mg/L	0.0095	0.931	mg/L	0.0095	1.02%
QC value within limits for Ag	Recovery = 93.05%							
Al†	6683.5	0.948	mg/L	0.0068	0.948	mg/L	0.0068	0.71%
QC value within limits for Al	Recovery = 94.77%							
As†	1461.5	0.913	mg/L	0.0125	0.913	mg/L	0.0125	1.37%
QC value within limits for As	Recovery = 91.35%							
B_†	27204.2	0.979	mg/L	0.0172	0.979	mg/L	0.0172	1.76%
QC value within limits for B_	Recovery = 97.91%							
Ba†	40141.4	1.02	mg/L	0.010	1.02	mg/L	0.010	0.97%
QC value within limits for Ba	Recovery = 101.77%							
Be†	2601174.6	0.964	mg/L	0.0043	0.964	mg/L	0.0043	0.45%
QC value within limits for Be	Recovery = 96.35%							
Ca†	27109.0	1.04	mg/L	0.001	1.04	mg/L	0.001	0.11%
QC value within limits for Ca	Recovery = 103.67%							
Cd†	20766.5	0.940	mg/L	0.0080	0.940	mg/L	0.0080	0.85%
QC value within limits for Cd	Recovery = 93.98%							
Co†	16149.7	1.04	mg/L	0.012	1.04	mg/L	0.012	1.15%
QC value within limits for Co	Recovery = 103.76%							
Cr†	44446.5	0.985	mg/L	0.0060	0.985	mg/L	0.0060	0.60%
QC value within limits for Cr	Recovery = 98.52%							
Cu†	299653.0	0.971	mg/L	0.0010	0.971	mg/L	0.0010	0.10%
QC value within limits for Cu	Recovery = 97.06%							
Fe†	11068.3	1.03	mg/L	0.002	1.03	mg/L	0.002	0.16%
QC value within limits for Fe	Recovery = 103.18%							
K†	9907.3	9.44	mg/L	0.035	9.44	mg/L	0.035	0.37%
QC value within limits for K	Recovery = 94.42%							
Mg†	20580.9	1.05	mg/L	0.002	1.05	mg/L	0.002	0.23%
QC value within limits for Mg	Recovery = 104.83%							
Mn†	507585.1	1.02	mg/L	0.006	1.02	mg/L	0.006	0.57%
QC value within limits for Mn	Recovery = 101.98%							
Mo†	9742.6	0.951	mg/L	0.0113	0.951	mg/L	0.0113	1.19%
QC value within limits for Mo	Recovery = 95.08%							
Na†	5198.2	0.928	mg/L	0.0007	0.928	mg/L	0.0007	0.07%
QC value within limits for Na	Recovery = 92.85%							
Ni†	20110.1	1.05	mg/L	0.010	1.05	mg/L	0.010	0.93%
QC value within limits for Ni	Recovery = 104.93%							
Pb†	4094.5	1.04	mg/L	0.015	1.04	mg/L	0.015	1.48%
QC value within limits for Pb	Recovery = 104.41%							
Sb†	1487.1	0.925	mg/L	0.0142	0.925	mg/L	0.0142	1.54%
QC value within limits for Sb	Recovery = 92.53%							

Se†	945.6	0.937 mg/L	0.0149	0.937 mg/L	0.0149	1.59%
QC value within limits for Se	Recovery = 93.67%					
Tl†	2360.1	1.07 mg/L	0.014	1.07 mg/L	0.014	1.26%
QC value within limits for Tl	Recovery = 107.39%					
V†	145942.2	0.946 mg/L	0.0099	0.946 mg/L	0.0099	1.05%
QC value within limits for V	Recovery = 94.56%					
Zn†	39926.1	1.01 mg/L	0.010	1.01 mg/L	0.010	0.95%
QC value within limits for Zn	Recovery = 101.27%					

All analyte(s) passed QC.

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

Autosampler Location: 4
Date Collected: 6/4/2008 20:46:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	396065.7	93.9	%	0.27				0.29%
Yr	417666.2	98.1	%	0.97				0.99%
Agt	249187.4	0.968	mg/L	0.0048	0.968	mg/L	0.0048	0.50%
QC value within limits for Ag		Recovery = 96.81%						
Alt	33462.3	4.74	mg/L	0.009	4.74	mg/L	0.009	0.20%
QC value within limits for Al		Recovery = 94.72%						
Ast	7706.2	4.82	mg/L	0.008	4.82	mg/L	0.008	0.16%
QC value within limits for As		Recovery = 96.33%						
B_t	70125.9	2.50	mg/L	0.004	2.50	mg/L	0.004	0.16%
QC value within limits for B_		Recovery = 100.11%						
Bat	198424.8	5.03	mg/L	0.038	5.03	mg/L	0.038	0.76%
QC value within limits for Ba		Recovery = 100.61%						
Bet	5537200.1	2.05	mg/L	0.000	2.05	mg/L	0.000	0.01%
QC value within limits for Be		Recovery = 102.58%						
Cat	1346840.9	51.5	mg/L	0.72	51.5	mg/L	0.72	1.40%
QC value within limits for Ca		Recovery = 103.01%						
Cdt	43939.3	1.96	mg/L	0.011	1.96	mg/L	0.011	0.55%
QC value within limits for Cd		Recovery = 97.89%						
Cot	80181.1	5.15	mg/L	0.041	5.15	mg/L	0.041	0.79%
QC value within limits for Co		Recovery = 103.03%						
Crt	228859.0	5.07	mg/L	0.063	5.07	mg/L	0.063	1.25%
QC value within limits for Cr		Recovery = 101.46%						
Cut	1521268.1	4.93	mg/L	0.015	4.93	mg/L	0.015	0.31%
QC value within limits for Cu		Recovery = 98.55%						
Fet	55672.4	5.19	mg/L	0.009	5.19	mg/L	0.009	0.17%
QC value within limits for Fe		Recovery = 103.79%						
Kt	50312.2	47.9	mg/L	0.07	47.9	mg/L	0.07	0.16%
QC value within limits for K		Recovery = 95.90%						
Mgt	1000966.9	50.9	mg/L	0.64	50.9	mg/L	0.64	1.26%
QC value within limits for Mg		Recovery = 101.81%						
Mnt	2524111.1	5.07	mg/L	0.039	5.07	mg/L	0.039	0.76%
QC value within limits for Mn		Recovery = 101.40%						
Mot	51316.2	5.01	mg/L	0.034	5.01	mg/L	0.034	0.68%
QC value within limits for Mo		Recovery = 100.17%						
Nat	257333.4	46.0	mg/L	0.16	46.0	mg/L	0.16	0.36%
QC value within limits for Na		Recovery = 91.93%						
Nit	98666.7	5.15	mg/L	0.036	5.15	mg/L	0.036	0.70%
QC value within limits for Ni		Recovery = 102.96%						
Pbt	20121.1	5.13	mg/L	0.011	5.13	mg/L	0.011	0.21%
QC value within limits for Pb		Recovery = 102.62%						
Sbt	7890.1	4.91	mg/L	0.010	4.91	mg/L	0.010	0.21%
QC value within limits for Sb		Recovery = 98.20%						
Set	5059.9	5.01	mg/L	0.033	5.01	mg/L	0.033	0.65%
QC value within limits for Se		Recovery = 100.23%						
Tlt	11572.7	5.27	mg/L	0.024	5.27	mg/L	0.024	0.45%
QC value within limits for Tl		Recovery = 105.33%						
Vt	772895.1	5.01	mg/L	0.033	5.01	mg/L	0.033	0.66%
QC value within limits for V		Recovery = 100.15%						
Znt	202414.8	5.14	mg/L	0.035	5.14	mg/L	0.035	0.68%
QC value within limits for Zn		Recovery = 102.71%						

All analyte(s) passed QC.

User canceled analysis.

Analysis Begun

Start Time: 6/4/2008 20:50:17 **Plasma On Time:** 6/4/2008 20:11:34
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\080604A.sif
Batch ID: 080604A
Results Data Set: 080604A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 34 **Autosampler Location:** 5
Sample ID: MCV **Date Collected:** 6/4/2008 20:50:18
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: MCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	401185.4	95.1	%	0.09				0.09%
Yr	419131.2	98.4	%	0.12				0.12%
Agt	124418.4	0.483	mg/L	0.0007	0.483	mg/L	0.0007	0.15%
QC value within limits for Ag	Recovery = 96.67%							
B_t	35064.4	1.26	mg/L	0.003	1.26	mg/L	0.003	0.24%
QC value within limits for B_	Recovery = 100.58%							
Bat	99884.6	2.53	mg/L	0.018	2.53	mg/L	0.018	0.73%
QC value within limits for Ba	Recovery = 101.30%							
Bet	2734664.6	1.01	mg/L	0.001	1.01	mg/L	0.001	0.10%
QC value within limits for Be	Recovery = 101.32%							
Cat	665980.3	25.5	mg/L	0.08	25.5	mg/L	0.08	0.31%
QC value within limits for Ca	Recovery = 101.88%							
Cdt	21946.8	1.00	mg/L	0.002	1.00	mg/L	0.002	0.21%
QC value within limits for Cd	Recovery = 100.32%							
Crt	115439.7	2.56	mg/L	0.001	2.56	mg/L	0.001	0.06%
QC value within limits for Cr	Recovery = 102.36%							
Cut	760263.8	2.46	mg/L	0.000	2.46	mg/L	0.000	0.01%
QC value within limits for Cu	Recovery = 98.44%							
Fet	27814.7	2.59	mg/L	0.000	2.59	mg/L	0.000	0.02%
QC value within limits for Fe	Recovery = 103.71%							
Kt	24685.3	23.5	mg/L	0.06	23.5	mg/L	0.06	0.24%
QC value within limits for K	Recovery = 94.10%							
Mgt	498303.1	25.3	mg/L	0.02	25.3	mg/L	0.02	0.09%
QC value within limits for Mg	Recovery = 101.37%							
Mnt	1272602.3	2.56	mg/L	0.003	2.56	mg/L	0.003	0.12%
QC value within limits for Mn	Recovery = 102.25%							
Mot	25728.0	2.51	mg/L	0.008	2.51	mg/L	0.008	0.30%
QC value within limits for Mo	Recovery = 100.44%							
Nat	126006.3	22.5	mg/L	0.01	22.5	mg/L	0.01	0.03%
QC value within limits for Na	Recovery = 90.03%							
Nit	49989.4	2.61	mg/L	0.010	2.61	mg/L	0.010	0.38%
QC value within limits for Ni	Recovery = 104.33%							
Vt	385900.1	2.50	mg/L	0.012	2.50	mg/L	0.012	0.49%
QC value within limits for V	Recovery = 100.01%							
Znt	102119.6	2.59	mg/L	0.015	2.59	mg/L	0.015	0.57%
QC value within limits for Zn	Recovery = 103.63%							

All analyte(s) passed QC.

User canceled analysis.

Analysis Begun

Start Time: 6/4/2008 20:52:16 Plasma On Time: 6/4/2008 20:11:34
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\080604A.sif
Batch ID: 080604A
Results Data Set: 080604A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 2 Autosampler Location: 9
Sample ID: LINEARITY Date Collected: 6/4/2008 20:52:18
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Nebulizer Parameters: LINEARITY

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: LINEARITY

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	359449.8	85.2	%	0.61				0.72%
Yr	385745.6	90.6	%	0.54				0.60%
Ag†	-5244.3	0.0161	mg/L	0.00003	0.0161	mg/L	0.00003	0.16%
QC value within limits for Ag	Recovery = Not calculated							
B_†	508.4	0.0185	mg/L	0.00401	0.0185	mg/L	0.00401	21.64%
QC value within limits for B_	Recovery = Not calculated							
Ba†	51.4	0.00130	mg/L	0.000032	0.00130	mg/L	0.000032	2.47%
QC value within limits for Ba	Recovery = Not calculated							
Be†	-662.9	-0.00024	mg/L	0.000017	-0.00024	mg/L	0.000017	6.94%
QC value within limits for Be	Recovery = Not calculated							
Ca†	7763202.2	297	mg/L	1.5	297	mg/L	1.5	0.51%
QC value within limits for Ca	Recovery = 98.96%							
Cd†	-22.0	-0.00100	mg/L	0.000194	-0.00100	mg/L	0.000194	19.35%
QC value within limits for Cd	Recovery = Not calculated							
Cr†	156.6	0.00347	mg/L	0.000019	0.00347	mg/L	0.000019	0.56%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	-3211.4	-0.0104	mg/L	0.00005	-0.0104	mg/L	0.00005	0.47%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	1062042.9	99.0	mg/L	0.69	99.0	mg/L	0.69	0.69%
QC value within limits for Fe	Recovery = 99.00%							
K†	316799.8	302	mg/L	0.8	302	mg/L	0.8	0.27%
QC value within limits for K	Recovery = 100.64%							
Mg†	3664440.1	186	mg/L	0.3	186	mg/L	0.3	0.18%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	-1199.6	-0.00660	mg/L	0.000030	-0.00660	mg/L	0.000030	0.45%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	26.2	0.00256	mg/L	0.001313	0.00256	mg/L	0.001313	51.41%
QC value within limits for Mo	Recovery = Not calculated							
Na†	1548032.6	277	mg/L	0.2	277	mg/L	0.2	0.08%
QC value within limits for Na	Recovery = 92.17%							
Ni†	10.9	0.00057	mg/L	0.000100	0.00057	mg/L	0.000100	17.62%
QC value within limits for Ni	Recovery = Not calculated							
V†	-485.0	0.00077	mg/L	0.000068	0.00077	mg/L	0.000068	8.79%
QC value within limits for V	Recovery = Not calculated							
Zn†	944.9	0.0242	mg/L	0.00000	0.0242	mg/L	0.00000	0.01%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

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

Autosampler Location: 10
Date Collected: 6/4/2008 20:56:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	375556.5	89.0	%	0.02				0.03%
Yr	399465.7	93.8	%	0.69				0.74%
Ag†	-5132.4	0.0165	mg/L	0.00012	0.0165	mg/L	0.00012	0.75%
QC value within limits for Ag		Recovery = Not calculated						
B_†	-11.2	-0.00032	mg/L	0.000697	-0.00032	mg/L	0.000697	218.90%
QC value within limits for B_		Recovery = Not calculated						
Ba†	68.0	0.00172	mg/L	0.000034	0.00172	mg/L	0.000034	1.98%
QC value within limits for Ba		Recovery = Not calculated						
Be†	-731.7	-0.00027	mg/L	0.000026	-0.00027	mg/L	0.000026	9.46%
QC value within limits for Be		Recovery = Not calculated						
Ca†	6596915.5	252	mg/L	0.5	252	mg/L	0.5	0.18%
QC value within limits for Ca		Recovery = 100.91%						
Cd†	-30.4	-0.00139	mg/L	0.000107	-0.00139	mg/L	0.000107	7.68%
QC value within limits for Cd		Recovery = Not calculated						
Cr†	27.8	0.00062	mg/L	0.000006	0.00062	mg/L	0.000006	0.92%
QC value within limits for Cr		Recovery = Not calculated						
Cu†	-3454.7	-0.0112	mg/L	0.00009	-0.0112	mg/L	0.00009	0.85%
QC value within limits for Cu		Recovery = Not calculated						
Fe†	1060128.8	98.8	mg/L	0.46	98.8	mg/L	0.46	0.47%
QC value within limits for Fe		Recovery = 98.82%						
K†	311.8	0.297	mg/L	0.0006	0.297	mg/L	0.0006	0.19%
QC value within limits for K		Recovery = Not calculated						
Mg†	4549744.6	232	mg/L	0.3	232	mg/L	0.3	0.12%
QC value within limits for Mg		Recovery = 92.61%						
Mn†	-1275.6	-0.00776	mg/L	0.000038	-0.00776	mg/L	0.000038	0.49%
QC value within limits for Mn		Recovery = Not calculated						
Mo†	1.2	0.00011	mg/L	0.000717	0.00011	mg/L	0.000717	628.43%
QC value within limits for Mo		Recovery = Not calculated						
Na†	882.3	0.158	mg/L	0.0028	0.158	mg/L	0.0028	1.79%
QC value within limits for Na		Recovery = Not calculated						
Ni†	-21.8	-0.00114	mg/L	0.000142	-0.00114	mg/L	0.000142	12.45%
QC value within limits for Ni		Recovery = Not calculated						
V†	-546.2	0.00036	mg/L	0.000138	0.00036	mg/L	0.000138	38.50%
QC value within limits for V		Recovery = Not calculated						
Zn†	723.8	0.0185	mg/L	0.00024	0.0185	mg/L	0.00024	1.32%
QC value within limits for Zn		Recovery = Not calculated						

All analyte(s) passed QC.

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

Autosampler Location: 11
Date Collected: 6/4/2008 20:59:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	373398.6	88.5	%	0.55				0.62%
Yr	399262.3	93.8	%	0.17				0.18%
Ag†	50826.2	0.234	mg/L	0.0102	0.234	mg/L	0.0102	4.35%
QC value less than the lower limit for Ag Recovery = 46.72%								
B_†	-149.7	-0.00701	mg/L	0.000677	-0.00701	mg/L	0.000677	9.66%
QC value within limits for B_ Recovery = Not calculated								
Ba†	10279.7	0.261	mg/L	0.0017	0.261	mg/L	0.0017	0.66%
QC value within limits for Ba Recovery = 104.25%								
Be†	662643.3	0.245	mg/L	0.0019	0.245	mg/L	0.0019	0.79%
QC value within limits for Be Recovery = 98.18%								
Ca†	6669828.3	255	mg/L	0.1	255	mg/L	0.1	0.03%
QC value within limits for Ca Recovery = 102.03%								
Cd†	10903.3	0.498	mg/L	0.0033	0.498	mg/L	0.0033	0.65%
QC value within limits for Cd Recovery = 99.68%								
Cr†	11498.9	0.255	mg/L	0.0012	0.255	mg/L	0.0012	0.47%
QC value within limits for Cr Recovery = 101.96%								
Cu†	74923.6	0.243	mg/L	0.0007	0.243	mg/L	0.0007	0.30%
QC value within limits for Cu Recovery = 97.01%								
Fe†	1065698.6	99.3	mg/L	0.22	99.3	mg/L	0.22	0.22%
QC value within limits for Fe Recovery = 99.34%								
K†	124.9	0.119	mg/L	0.0073	0.119	mg/L	0.0073	6.16%
QC value within limits for K Recovery = Not calculated								
Mg†	4588463.1	233	mg/L	0.1	233	mg/L	0.1	0.05%
QC value within limits for Mg Recovery = 93.39%								
Mn†	125575.4	0.247	mg/L	0.0006	0.247	mg/L	0.0006	0.26%
QC value within limits for Mn Recovery = 98.82%								
Mo†	-3.4	-0.00033	mg/L	0.000657	-0.00033	mg/L	0.000657	196.94%
QC value within limits for Mo Recovery = Not calculated								
Na†	549.8	0.0982	mg/L	0.01487	0.0982	mg/L	0.01487	15.14%
QC value within limits for Na Recovery = Not calculated								
Ni†	9045.8	0.472	mg/L	0.0013	0.472	mg/L	0.0013	0.27%
QC value within limits for Ni Recovery = 94.40%								
V†	37979.2	0.250	mg/L	0.0013	0.250	mg/L	0.0013	0.52%
QC value within limits for V Recovery = 99.95%								
Zn†	21390.1	0.544	mg/L	0.0036	0.544	mg/L	0.0036	0.66%
QC value within limits for Zn Recovery = 108.75%								

QC Failed. Continue with analysis.

User canceled analysis.

Analysis Begun

Start Time: 6/4/2008 21:02:34 **Plasma On Time:** 6/4/2008 20:11:34
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\080604A.sif
Batch ID: 080604A
Results Data Set: 080604A
Results Library: C:\pe\Charley Kay\Results\Results.mdb

Sequence No.: 8 **Autosampler Location:** 0
Sample ID: ICB **Date Collected:** 6/4/2008 21:02:35
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	417360.6	98.9	%	0.82				0.83%
Yr	432815.3	102	%	0.8				0.81%
Ag†	198.5	0.00077	mg/L	0.000117	0.00077	mg/L	0.000117	15.18%
QC value within limits for Ag	Recovery = Not calculated							
B_†	95.1	0.00345	mg/L	0.000122	0.00345	mg/L	0.000122	3.52%
QC value within limits for B_	Recovery = Not calculated							
Ba†	2.4	0.00006	mg/L	0.000105	0.00006	mg/L	0.000105	174.79%
QC value within limits for Ba	Recovery = Not calculated							
Be†	240.0	0.00009	mg/L	0.000029	0.00009	mg/L	0.000029	32.51%
QC value within limits for Be	Recovery = Not calculated							
Ca†	284.0	0.0109	mg/L	0.00556	0.0109	mg/L	0.00556	51.17%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	2.5	0.00011	mg/L	0.000025	0.00011	mg/L	0.000025	21.85%
QC value within limits for Cd	Recovery = Not calculated							
Cr†	-3.4	-0.00008	mg/L	0.000143	-0.00008	mg/L	0.000143	188.16%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	106.0	0.00034	mg/L	0.000311	0.00034	mg/L	0.000311	90.69%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	51.5	0.00480	mg/L	0.002965	0.00480	mg/L	0.002965	61.77%
QC value within limits for Fe	Recovery = Not calculated							
K†	116.1	0.111	mg/L	0.0145	0.111	mg/L	0.0145	13.15%
QC value within limits for K	Recovery = Not calculated							
Mg†	144.5	0.00736	mg/L	0.005156	0.00736	mg/L	0.005156	70.07%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	294.5	0.00059	mg/L	0.000006	0.00059	mg/L	0.000006	1.07%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	1.6	0.00015	mg/L	0.000073	0.00015	mg/L	0.000073	47.76%
QC value within limits for Mo	Recovery = Not calculated							
Na†	337.8	0.0603	mg/L	0.00509	0.0603	mg/L	0.00509	8.43%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-0.9	-0.00005	mg/L	0.000041	-0.00005	mg/L	0.000041	87.58%
QC value within limits for Ni	Recovery = Not calculated							
V†	6.0	0.00004	mg/L	0.000068	0.00004	mg/L	0.000068	176.21%
QC value within limits for V	Recovery = Not calculated							
Zn†	2.5	0.00007	mg/L	0.000084	0.00007	mg/L	0.000084	128.12%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 44
Sample ID: MBLANK2007
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 65
Date Collected: 6/4/2008 23:13:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MBLANK2007

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: MBLANK2007

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	420380.9	99.6	%	0.68				0.68%
Yr	433807.5	102	%	0.5				0.54%
Agt	-17.7	-0.00007	mg/L	0.000065	-0.00007	mg/L	0.000065	94.88%
B_t	-31.9	-0.00116	mg/L	0.000286	-0.00116	mg/L	0.000286	24.60%
Bat	1.3	0.00003	mg/L	0.000103	0.00003	mg/L	0.000103	309.86%
Bet	43.4	0.00002	mg/L	0.000033	0.00002	mg/L	0.000033	207.59%
Cat	663.1	0.0254	mg/L	0.00143	0.0254	mg/L	0.00143	5.66%
Cdt	0.8	0.00003	mg/L	0.000132	0.00003	mg/L	0.000132	385.65%
Crt	0.9	0.00002	mg/L	0.000136	0.00002	mg/L	0.000136	663.31%
Cut	186.4	0.00060	mg/L	0.000068	0.00060	mg/L	0.000068	11.33%
Fet	10.2	0.00095	mg/L	0.000071	0.00095	mg/L	0.000071	7.46%
Kt	49.5	0.0471	mg/L	0.00848	0.0471	mg/L	0.00848	17.99%
Mgt	59.2	0.00301	mg/L	0.000612	0.00301	mg/L	0.000612	20.35%
Mnt	-76.1	-0.00015	mg/L	0.000000	-0.00015	mg/L	0.000000	0.00%
Mot	-1.6	-0.00016	mg/L	0.000058	-0.00016	mg/L	0.000058	36.76%
Nat	531.1	0.0949	mg/L	0.00352	0.0949	mg/L	0.00352	3.72%
Nit	-5.7	-0.00030	mg/L	0.000316	-0.00030	mg/L	0.000316	106.60%
Vt	-17.7	-0.00011	mg/L	0.000060	-0.00011	mg/L	0.000060	52.42%
Znt	2.3	0.00006	mg/L	0.000123	0.00006	mg/L	0.000123	204.24%

Sequence No.: 45
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 6/4/2008 23:17:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	380439.2	90.2	%	0.09				0.10%
Yr	408555.1	95.9	%	2.62				2.73%
Ag†	250532.6	0.973	mg/L	0.0045	0.973	mg/L	0.0045	0.46%
QC value within limits for Ag	Recovery = 97.32%							
B_†	68360.5	2.45	mg/L	0.016	2.45	mg/L	0.016	0.65%
QC value within limits for B_	Recovery = 97.98%							
Ba†	195997.4	4.97	mg/L	0.002	4.97	mg/L	0.002	0.04%
QC value within limits for Ba	Recovery = 99.38%							
Be†	5537787.7	2.05	mg/L	0.004	2.05	mg/L	0.004	0.17%
QC value within limits for Be	Recovery = 102.59%							
Ca†	1297840.3	49.6	mg/L	1.25	49.6	mg/L	1.25	2.52%
QC value within limits for Ca	Recovery = 99.27%							
Cd†	44042.2	2.01	mg/L	0.007	2.01	mg/L	0.007	0.34%
QC value within limits for Cd	Recovery = 100.66%							
Cr†	229640.5	5.09	mg/L	0.041	5.09	mg/L	0.041	0.80%
QC value within limits for Cr	Recovery = 101.81%							
Cu†	1542182.5	4.99	mg/L	0.030	4.99	mg/L	0.030	0.61%
QC value within limits for Cu	Recovery = 99.84%							
Fe†	54241.6	5.06	mg/L	0.012	5.06	mg/L	0.012	0.23%
QC value within limits for Fe	Recovery = 101.13%							
K†	49727.7	47.4	mg/L	0.57	47.4	mg/L	0.57	1.20%
QC value within limits for K	Recovery = 94.78%							
Mg†	971470.8	49.4	mg/L	1.33	49.4	mg/L	1.33	2.70%
QC value within limits for Mg	Recovery = 98.81%							
Mn†	2532469.0	5.09	mg/L	0.051	5.09	mg/L	0.051	1.01%
QC value within limits for Mn	Recovery = 101.74%							
Mo†	51345.3	5.01	mg/L	0.028	5.01	mg/L	0.028	0.56%
QC value within limits for Mo	Recovery = 100.22%							
Na†	255991.7	45.7	mg/L	0.12	45.7	mg/L	0.12	0.26%
QC value within limits for Na	Recovery = 91.45%							
Ni†	98298.0	5.13	mg/L	0.008	5.13	mg/L	0.008	0.16%
QC value within limits for Ni	Recovery = 102.58%							
V†	771993.7	5.00	mg/L	0.010	5.00	mg/L	0.010	0.19%
QC value within limits for V	Recovery = 100.03%							
Zn†	202895.6	5.15	mg/L	0.028	5.15	mg/L	0.028	0.55%
QC value within limits for Zn	Recovery = 102.96%							

All analyte(s) passed QC.

Sequence No.: 46
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 6/4/2008 23:20:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	408655.8	96.8	%	0.71				0.73%
Yr	423561.5	99.5	%	0.42				0.42%
Ag†	26.5	0.00010	mg/L	0.000066	0.00010	mg/L	0.000066	64.51%
QC value within limits for Ag Recovery = Not calculated								
B_†	306.6	0.0111	mg/L	0.00123	0.0111	mg/L	0.00123	11.06%
QC value within limits for B_ Recovery = Not calculated								
Ba†	1.3	0.00003	mg/L	0.000002	0.00003	mg/L	0.000002	7.26%
QC value within limits for Ba Recovery = Not calculated								
Be†	-9.0	0.00000	mg/L	0.000026	0.00000	mg/L	0.000026	763.92%
QC value within limits for Be Recovery = Not calculated								
Ca†	105.2	0.00402	mg/L	0.000334	0.00402	mg/L	0.000334	8.30%
QC value within limits for Ca Recovery = Not calculated								
Cd†	3.1	0.00014	mg/L	0.000007	0.00014	mg/L	0.000007	4.67%
QC value within limits for Cd Recovery = Not calculated								
Cr†	-4.0	-0.00009	mg/L	0.000136	-0.00009	mg/L	0.000136	151.81%
QC value within limits for Cr Recovery = Not calculated								
Cu†	127.1	0.00041	mg/L	0.000229	0.00041	mg/L	0.000229	55.74%
QC value within limits for Cu Recovery = Not calculated								
Fe†	5.8	0.00054	mg/L	0.000183	0.00054	mg/L	0.000183	33.79%
QC value within limits for Fe Recovery = Not calculated								
K†	51.3	0.0489	mg/L	0.00617	0.0489	mg/L	0.00617	12.62%
QC value within limits for K Recovery = Not calculated								
Mg†	40.0	0.00204	mg/L	0.000291	0.00204	mg/L	0.000291	14.32%
QC value within limits for Mg Recovery = Not calculated								
Mn†	86.1	0.00017	mg/L	0.000030	0.00017	mg/L	0.000030	17.09%
QC value within limits for Mn Recovery = Not calculated								
Mo†	11.7	0.00114	mg/L	0.000115	0.00114	mg/L	0.000115	10.08%
QC value within limits for Mo Recovery = Not calculated								
Na†	139.7	0.0249	mg/L	0.00605	0.0249	mg/L	0.00605	24.26%
QC value within limits for Na Recovery = Not calculated								
Ni†	-6.7	-0.00035	mg/L	0.000288	-0.00035	mg/L	0.000288	82.75%
QC value within limits for Ni Recovery = Not calculated								
V†	8.7	0.00006	mg/L	0.000037	0.00006	mg/L	0.000037	66.32%
QC value within limits for V Recovery = Not calculated								
Zn†	-28.9	-0.00074	mg/L	0.000070	-0.00074	mg/L	0.000070	9.55%
QC value within limits for Zn Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 47
Sample ID: MRL
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 21
Date Collected: 6/4/2008 23:24:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MRL

Analyte	Back Pressure	Flow
All	212.0 kPa	0.65 L/min

Mean Data: MRL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	408928.1	96.9	%	0.28				0.29%
Yr	421628.1	99.0	%	0.44				0.44%
Agt	2543.0	0.00987	mg/L	0.000201	0.00987	mg/L	0.000201	2.03%
B_t	1416.9	0.0514	mg/L	0.00041	0.0514	mg/L	0.00041	0.80%
Bat	805.5	0.0204	mg/L	0.00016	0.0204	mg/L	0.00016	0.77%
Bet	2814.8	0.00104	mg/L	0.000005	0.00104	mg/L	0.000005	0.45%
Cat	26338.4	1.01	mg/L	0.005	1.01	mg/L	0.005	0.48%
Cdt	133.7	0.00611	mg/L	0.000202	0.00611	mg/L	0.000202	3.30%
Crt	465.0	0.0103	mg/L	0.00022	0.0103	mg/L	0.00022	2.16%
Cut	3198.4	0.0104	mg/L	0.00029	0.0104	mg/L	0.00029	2.80%
Fet	219.2	0.0204	mg/L	0.00038	0.0204	mg/L	0.00038	1.84%
Kt	1007.0	0.960	mg/L	0.0085	0.960	mg/L	0.0085	0.88%
Mgt	2052.0	0.104	mg/L	0.0006	0.104	mg/L	0.0006	0.56%
Mnt	1160.8	0.00233	mg/L	0.000007	0.00233	mg/L	0.000007	0.30%
Mot	205.9	0.0201	mg/L	0.00015	0.0201	mg/L	0.00015	0.74%
Nat	5130.1	0.916	mg/L	0.0173	0.916	mg/L	0.0173	1.89%
Nit	408.7	0.0213	mg/L	0.00013	0.0213	mg/L	0.00013	0.59%
Vt	310.3	0.00206	mg/L	0.000032	0.00206	mg/L	0.000032	1.53%
Znt	765.1	0.0194	mg/L	0.00001	0.0194	mg/L	0.00001	0.07%

Sequence No.: 48
Sample ID: MRL2007
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 24
Date Collected: 6/4/2008 23:27:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MRL2007

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: MRL2007

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	418876.7	99.3	%	0.87				0.87%
Yr	428357.9	101	%	1.6				1.61%
Agt	2497.1	0.00969	mg/L	0.000193	0.00969	mg/L	0.000193	1.99%
B_t	1306.3	0.0474	mg/L	0.00054	0.0474	mg/L	0.00054	1.13%
Bat	785.0	0.0199	mg/L	0.00043	0.0199	mg/L	0.00043	2.16%
Bet	2659.9	0.00099	mg/L	0.000013	0.00099	mg/L	0.000013	1.33%
Cat	27123.2	1.04	mg/L	0.019	1.04	mg/L	0.019	1.79%
Cdt	133.3	0.00609	mg/L	0.000093	0.00609	mg/L	0.000093	1.52%
Crt	462.6	0.0103	mg/L	0.00024	0.0103	mg/L	0.00024	2.38%
Cut	3249.4	0.0105	mg/L	0.00008	0.0105	mg/L	0.00008	0.72%
Fet	243.5	0.0227	mg/L	0.00020	0.0227	mg/L	0.00020	0.88%
Kt	993.0	0.946	mg/L	0.0256	0.946	mg/L	0.0256	2.71%
Mgt	2067.4	0.105	mg/L	0.0022	0.105	mg/L	0.0022	2.06%
Mnt	1020.2	0.00205	mg/L	0.000018	0.00205	mg/L	0.000018	0.89%
Mot	196.8	0.0192	mg/L	0.00021	0.0192	mg/L	0.00021	1.10%
Nat	5295.3	0.946	mg/L	0.0141	0.946	mg/L	0.0141	1.49%
Nit	403.8	0.0211	mg/L	0.00032	0.0211	mg/L	0.00032	1.53%
Vt	289.9	0.00193	mg/L	0.000080	0.00193	mg/L	0.000080	4.15%
Znt	910.5	0.0231	mg/L	0.00031	0.0231	mg/L	0.00031	1.33%

Sequence No.: 49
Sample ID: LCS2007
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 66
Date Collected: 6/4/2008 23:31:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCS2007

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: LCS2007

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	394313.9	93.4	%	0.59				0.63%
Yr	422304.0	99.2	%	0.31				0.32%
Agt	115084.0	0.448	mg/L	0.0003	0.448	mg/L	0.0003	0.08%
B_t	12535.7	0.449	mg/L	0.0052	0.449	mg/L	0.0052	1.15%
Bat	36472.3	0.925	mg/L	0.0008	0.925	mg/L	0.0008	0.09%
Bet	126680.1	0.0471	mg/L	0.00017	0.0471	mg/L	0.00017	0.36%
Cat	1196798.0	45.8	mg/L	0.19	45.8	mg/L	0.19	0.42%
Cdt	4226.3	0.193	mg/L	0.0017	0.193	mg/L	0.0017	0.86%
Crt	42839.5	0.950	mg/L	0.0084	0.950	mg/L	0.0084	0.88%
Cut	287240.2	0.930	mg/L	0.0015	0.930	mg/L	0.0015	0.16%
Fet	49548.9	4.62	mg/L	0.001	4.62	mg/L	0.001	0.02%
Kt	18537.0	17.7	mg/L	0.19	17.7	mg/L	0.19	1.05%
Mgt	366773.6	18.7	mg/L	0.05	18.7	mg/L	0.05	0.25%
Mnt	234844.9	0.471	mg/L	0.0002	0.471	mg/L	0.0002	0.03%
Mot	9451.2	0.922	mg/L	0.0067	0.922	mg/L	0.0067	0.73%
Nat	239182.8	42.7	mg/L	0.26	42.7	mg/L	0.26	0.61%
Nit	9177.2	0.479	mg/L	0.0040	0.479	mg/L	0.0040	0.84%
Vt	141763.8	0.919	mg/L	0.0009	0.919	mg/L	0.0009	0.10%
Znt	38114.4	0.970	mg/L	0.0057	0.970	mg/L	0.0057	0.59%

Sequence No.: 50
Sample ID: LCSD2007
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 67
Date Collected: 6/4/2008 23:33:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCSD2007

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: LCSD2007

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	403786.3	95.7	%	0.29				0.30%
Yr	423604.8	99.5	%	0.39				0.39%
Agt	112138.2	0.436	mg/L	0.0009	0.436	mg/L	0.0009	0.20%
B_t	12180.4	0.436	mg/L	0.0017	0.436	mg/L	0.0017	0.39%
Bat	35046.0	0.889	mg/L	0.0077	0.889	mg/L	0.0077	0.86%
Bet	123493.0	0.0459	mg/L	0.00007	0.0459	mg/L	0.00007	0.15%
Cat	1171588.6	44.8	mg/L	0.12	44.8	mg/L	0.12	0.27%
Cdt	4061.6	0.186	mg/L	0.0001	0.186	mg/L	0.0001	0.03%
Crt	40987.2	0.909	mg/L	0.0133	0.909	mg/L	0.0133	1.46%
Cut	279551.5	0.905	mg/L	0.0014	0.905	mg/L	0.0014	0.15%
Fet	48563.5	4.53	mg/L	0.014	4.53	mg/L	0.014	0.30%
Kt	18116.9	17.3	mg/L	0.14	17.3	mg/L	0.14	0.79%
Mgt	359466.5	18.3	mg/L	0.06	18.3	mg/L	0.06	0.31%
Mnt	228577.6	0.459	mg/L	0.0007	0.459	mg/L	0.0007	0.16%
Mot	9107.6	0.889	mg/L	0.0018	0.889	mg/L	0.0018	0.20%
Nat	234392.4	41.9	mg/L	0.23	41.9	mg/L	0.23	0.54%
Nit	8839.0	0.461	mg/L	0.0005	0.461	mg/L	0.0005	0.12%
Vt	138213.8	0.896	mg/L	0.0017	0.896	mg/L	0.0017	0.19%
Znt	36775.9	0.936	mg/L	0.0037	0.936	mg/L	0.0037	0.39%

Sequence No.: 51
Sample ID: 2805290427
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 68
Date Collected: 6/4/2008 23:36:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805290427

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: 2805290427

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	410982.8	97.4	%	0.46				0.47%
Yr	426215.8	100	%	0.0				0.02%
Agt	28.5	0.00014	mg/L	0.000110	0.00014	mg/L	0.000110	81.08%
B_t	401.6	0.0146	mg/L	0.00031	0.0146	mg/L	0.00031	2.10%
Bat	135.0	0.00342	mg/L	0.000016	0.00342	mg/L	0.000016	0.45%
Bet	-40.5	-0.00001	mg/L	0.000031	-0.00001	mg/L	0.000031	211.04%
Cat	247362.9	9.46	mg/L	0.060	9.46	mg/L	0.060	0.64%
Cdt	-1.8	-0.00008	mg/L	0.000107	-0.00008	mg/L	0.000107	133.05%
Crt	115.2	0.00255	mg/L	0.000243	0.00255	mg/L	0.000243	9.51%
Cut	803.7	0.00261	mg/L	0.000162	0.00261	mg/L	0.000162	6.23%
Fet	728.7	0.0679	mg/L	0.00067	0.0679	mg/L	0.00067	0.98%
Kt	1310.1	1.25	mg/L	0.007	1.25	mg/L	0.007	0.56%
Mgt	143814.5	7.31	mg/L	0.028	7.31	mg/L	0.028	0.39%
Mnt	4070.6	0.00801	mg/L	0.000041	0.00801	mg/L	0.000041	0.51%
Mot	16.1	0.00157	mg/L	0.000456	0.00157	mg/L	0.000456	28.93%
Nat	57833.5	10.3	mg/L	0.00	10.3	mg/L	0.00	0.00%
Nit	2.0	0.00011	mg/L	0.000241	0.00011	mg/L	0.000241	228.56%
Vt	2025.8	0.0131	mg/L	0.00003	0.0131	mg/L	0.00003	0.22%
Znt	163.2	0.00417	mg/L	0.000060	0.00417	mg/L	0.000060	1.43%

Sequence No.: 52
Sample ID: 2805290427MS
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 69
Date Collected: 6/4/2008 23:39:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805290427MS

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: 2805290427MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	397619.9	94.2	%	0.14				0.15%
Yr	418051.7	98.2	%	0.93				0.94%
Agt	120708.8	0.470	mg/L	0.0016	0.470	mg/L	0.0016	0.35%
B_t	13512.9	0.484	mg/L	0.0028	0.484	mg/L	0.0028	0.58%
Bat	38087.1	0.966	mg/L	0.0042	0.966	mg/L	0.0042	0.44%
Bet	133289.9	0.0495	mg/L	0.00009	0.0495	mg/L	0.00009	0.18%
Cat	1519038.1	58.1	mg/L	0.26	58.1	mg/L	0.26	0.44%
Cdt	4319.1	0.197	mg/L	0.0008	0.197	mg/L	0.0008	0.41%
Crt	44300.3	0.982	mg/L	0.0042	0.982	mg/L	0.0042	0.42%
Cut	298912.1	0.968	mg/L	0.0067	0.968	mg/L	0.0067	0.69%
Fet	52832.1	4.92	mg/L	0.005	4.92	mg/L	0.005	0.11%
Kt	20905.2	19.9	mg/L	0.00	19.9	mg/L	0.00	0.02%
Mgt	522929.3	26.6	mg/L	0.01	26.6	mg/L	0.01	0.03%
Mnt	249289.1	0.500	mg/L	0.0001	0.500	mg/L	0.0001	0.02%
Mot	9702.6	0.947	mg/L	0.0010	0.947	mg/L	0.0010	0.11%
Nat	311708.8	55.7	mg/L	0.09	55.7	mg/L	0.09	0.15%
Nit	9262.4	0.483	mg/L	0.0023	0.483	mg/L	0.0023	0.47%
Vt	149893.5	0.971	mg/L	0.0008	0.971	mg/L	0.0008	0.09%
Znt	39382.3	1.00	mg/L	0.000	1.00	mg/L	0.000	0.04%

Sequence No.: 53
Sample ID: 2805290427MSD
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 70
Date Collected: 6/4/2008 23:43:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805290427MSD

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: 2805290427MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	394681.5	93.5	%	0.30				0.32%
Yr	415705.6	97.6	%	0.92				0.95%
Agt	121615.2	0.473	mg/L	0.0013	0.473	mg/L	0.0013	0.27%
B_t	13765.5	0.493	mg/L	0.0013	0.493	mg/L	0.0013	0.27%
Bat	38584.0	0.978	mg/L	0.0013	0.978	mg/L	0.0013	0.13%
Bet	134191.4	0.0498	mg/L	0.00022	0.0498	mg/L	0.00022	0.44%
Cat	1506394.1	57.6	mg/L	0.43	57.6	mg/L	0.43	0.74%
Cdt	4397.3	0.201	mg/L	0.0002	0.201	mg/L	0.0002	0.11%
Crt	44541.4	0.987	mg/L	0.0077	0.987	mg/L	0.0077	0.78%
Cut	302031.5	0.978	mg/L	0.0003	0.978	mg/L	0.0003	0.03%
Fet	53954.7	5.03	mg/L	0.006	5.03	mg/L	0.006	0.12%
Kt	20862.8	19.9	mg/L	0.12	19.9	mg/L	0.12	0.60%
Mgt	525917.7	26.7	mg/L	0.02	26.7	mg/L	0.02	0.06%
Mnt	250853.6	0.503	mg/L	0.0011	0.503	mg/L	0.0011	0.21%
Mot	9862.8	0.963	mg/L	0.0004	0.963	mg/L	0.0004	0.04%
Nat	311775.0	55.7	mg/L	0.13	55.7	mg/L	0.13	0.23%
Nit	9387.0	0.490	mg/L	0.0033	0.490	mg/L	0.0033	0.67%
Vt	151157.8	0.979	mg/L	0.0025	0.979	mg/L	0.0025	0.25%
Znt	39789.2	1.01	mg/L	0.006	1.01	mg/L	0.006	0.60%

Sequence No.: 54
Sample ID: 2805310013
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 71
Date Collected: 6/4/2008 23:46:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805310013

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: 2805310013

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	401263.5	95.1	%	0.19				0.21%
Yr	420218.7	98.7	%	0.13				0.14%
Agt	-10.8	0.00007	mg/L	0.000199	0.00007	mg/L	0.000199	295.22%
Bt	2770.3	0.101	mg/L	0.0001	0.101	mg/L	0.0001	0.05%
Bat	2153.8	0.0546	mg/L	0.00006	0.0546	mg/L	0.00006	0.11%
Bet	-202.4	-0.00007	mg/L	0.000002	-0.00007	mg/L	0.000002	2.97%
Cat	1401953.8	53.6	mg/L	0.04	53.6	mg/L	0.04	0.08%
Cdt	-11.5	-0.00053	mg/L	0.000049	-0.00053	mg/L	0.000049	9.39%
Crt	15.3	0.00034	mg/L	0.000026	0.00034	mg/L	0.000026	7.64%
Cut	1586.0	0.00513	mg/L	0.000235	0.00513	mg/L	0.000235	4.58%
Fet	3189.0	0.297	mg/L	0.0042	0.297	mg/L	0.0042	1.40%
Kt	4111.8	3.92	mg/L	0.142	3.92	mg/L	0.142	3.61%
Mgt	239612.0	12.2	mg/L	0.05	12.2	mg/L	0.05	0.40%
Mnt	39576.5	0.0792	mg/L	0.00004	0.0792	mg/L	0.00004	0.06%
Mot	66.8	0.00652	mg/L	0.000509	0.00652	mg/L	0.000509	7.80%
Nat	247989.7	44.3	mg/L	0.20	44.3	mg/L	0.20	0.46%
Nit	13.7	0.00071	mg/L	0.000176	0.00071	mg/L	0.000176	24.74%
Vt	248.0	0.00161	mg/L	0.000120	0.00161	mg/L	0.000120	7.45%
Znt	675.8	0.0172	mg/L	0.00005	0.0172	mg/L	0.00005	0.27%

Sequence No.: 55
Sample ID: 2805310013MS
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 72
Date Collected: 6/4/2008 23:49:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805310013MS

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: 2805310013MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	386327.5	91.5	%	0.24				0.26%
Yr	409432.3	96.1	%	0.11				0.12%
Agt	122742.6	0.478	mg/L	0.0007	0.478	mg/L	0.0007	0.15%
B_t	16200.8	0.582	mg/L	0.0006	0.582	mg/L	0.0006	0.11%
Bat	40843.4	1.04	mg/L	0.003	1.04	mg/L	0.003	0.32%
Bet	135269.6	0.0502	mg/L	0.00032	0.0502	mg/L	0.00032	0.65%
Cat	2640055.5	101	mg/L	0.1	101	mg/L	0.1	0.08%
Cdt	4450.6	0.203	mg/L	0.0003	0.203	mg/L	0.0003	0.14%
Crt	44633.6	0.989	mg/L	0.0054	0.989	mg/L	0.0054	0.54%
Cut	309610.0	1.00	mg/L	0.001	1.00	mg/L	0.001	0.14%
Fet	57059.4	5.32	mg/L	0.022	5.32	mg/L	0.022	0.42%
Kt	24253.3	23.1	mg/L	0.15	23.1	mg/L	0.15	0.65%
Mgt	623038.6	31.7	mg/L	0.05	31.7	mg/L	0.05	0.15%
Mnt	288457.7	0.579	mg/L	0.0020	0.579	mg/L	0.0020	0.35%
Mot	9969.4	0.973	mg/L	0.0051	0.973	mg/L	0.0051	0.52%
Nat	495875.1	88.6	mg/L	0.33	88.6	mg/L	0.33	0.37%
Nit	9554.3	0.499	mg/L	0.0016	0.499	mg/L	0.0016	0.32%
Vt	151351.8	0.981	mg/L	0.0036	0.981	mg/L	0.0036	0.37%
Znt	40816.8	1.04	mg/L	0.003	1.04	mg/L	0.003	0.33%

Sequence No.: 56
Sample ID: 2805310013MSD
Analyst:
Initial Sample Wt:
Dilution: 1X

Autosampler Location: 73
Date Collected: 6/4/2008 23:52:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805310013MSD

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: 2805310013MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	390553.2	92.5	%	0.44				0.48%
Yr	412525.2	96.9	%	1.08				1.12%
Agt	117750.7	0.458	mg/L	0.0003	0.458	mg/L	0.0003	0.06%
Bt	15529.5	0.558	mg/L	0.0032	0.558	mg/L	0.0032	0.57%
Bat	39320.2	0.997	mg/L	0.0062	0.997	mg/L	0.0062	0.62%
Bet	129793.4	0.0482	mg/L	0.00014	0.0482	mg/L	0.00014	0.30%
Cat	2563359.2	98.0	mg/L	0.66	98.0	mg/L	0.66	0.67%
Cdt	4271.1	0.195	mg/L	0.0022	0.195	mg/L	0.0022	1.10%
Crt	42964.3	0.952	mg/L	0.0080	0.952	mg/L	0.0080	0.84%
Cut	296602.5	0.960	mg/L	0.0001	0.960	mg/L	0.0001	0.01%
Fet	54678.5	5.10	mg/L	0.019	5.10	mg/L	0.019	0.37%
Kt	23501.5	22.4	mg/L	0.03	22.4	mg/L	0.03	0.12%
Mgt	602695.7	30.7	mg/L	0.04	30.7	mg/L	0.04	0.12%
Mnt	277413.3	0.557	mg/L	0.0012	0.557	mg/L	0.0012	0.22%
Mot	9603.7	0.937	mg/L	0.0061	0.937	mg/L	0.0061	0.65%
Nat	488690.5	87.3	mg/L	0.19	87.3	mg/L	0.19	0.22%
Nit	9201.2	0.480	mg/L	0.0031	0.480	mg/L	0.0031	0.64%
Vt	144961.1	0.939	mg/L	0.0035	0.939	mg/L	0.0035	0.37%
Znt	39209.0	0.998	mg/L	0.0058	0.998	mg/L	0.0058	0.58%

Sequence No.: 57
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 6/4/2008 23:56:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	384131.2	91.0	%	0.29				0.32%
Yr	407943.5	95.8	%	0.54				0.57%
Ag†	250354.2	0.973	mg/L	0.0028	0.973	mg/L	0.0028	0.29%
QC value within limits for Ag	Recovery = 97.25%							
B_†	68431.7	2.45	mg/L	0.016	2.45	mg/L	0.016	0.64%
QC value within limits for B_	Recovery = 98.09%							
Ba†	197339.5	5.00	mg/L	0.002	5.00	mg/L	0.002	0.03%
QC value within limits for Ba	Recovery = 100.06%							
Be†	5468325.0	2.03	mg/L	0.010	2.03	mg/L	0.010	0.48%
QC value within limits for Be	Recovery = 101.30%							
Ca†	1294371.1	49.5	mg/L	0.01	49.5	mg/L	0.01	0.01%
QC value within limits for Ca	Recovery = 99.00%							
Cd†	43992.3	2.01	mg/L	0.002	2.01	mg/L	0.002	0.12%
QC value within limits for Cd	Recovery = 100.54%							
Cr†	228073.1	5.06	mg/L	0.013	5.06	mg/L	0.013	0.25%
QC value within limits for Cr	Recovery = 101.11%							
Cu†	1540252.5	4.99	mg/L	0.033	4.99	mg/L	0.033	0.66%
QC value within limits for Cu	Recovery = 99.71%							
Fe†	54099.2	5.04	mg/L	0.042	5.04	mg/L	0.042	0.84%
QC value within limits for Fe	Recovery = 100.86%							
K†	50355.6	48.0	mg/L	0.04	48.0	mg/L	0.04	0.08%
QC value within limits for K	Recovery = 95.98%							
Mg†	983230.4	50.0	mg/L	0.07	50.0	mg/L	0.07	0.13%
QC value within limits for Mg	Recovery = 100.01%							
Mn†	2516686.5	5.06	mg/L	0.001	5.06	mg/L	0.001	0.02%
QC value within limits for Mn	Recovery = 101.10%							
Mo†	51212.9	5.00	mg/L	0.011	5.00	mg/L	0.011	0.23%
QC value within limits for Mo	Recovery = 99.96%							
Na†	259227.8	46.3	mg/L	0.01	46.3	mg/L	0.01	0.01%
QC value within limits for Na	Recovery = 92.60%							
Ni†	98095.9	5.12	mg/L	0.008	5.12	mg/L	0.008	0.15%
QC value within limits for Ni	Recovery = 102.37%							
V†	771001.7	5.00	mg/L	0.012	5.00	mg/L	0.012	0.25%
QC value within limits for V	Recovery = 99.90%							
Zn†	202269.0	5.13	mg/L	0.010	5.13	mg/L	0.010	0.19%
QC value within limits for Zn	Recovery = 102.64%							

All analyte(s) passed QC.

Sequence No.: 58
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 6/4/2008 23:59:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	407337.1	96.5	%	0.31				0.32%
Yr	420401.5	98.7	%	0.66				0.67%
Ag†	8.5	0.00003	mg/L	0.000450	0.00003	mg/L	0.000450	>999.9%
QC value within limits for Ag Recovery = Not calculated								
B_†	356.1	0.0129	mg/L	0.00119	0.0129	mg/L	0.00119	9.19%
QC value within limits for B_ Recovery = Not calculated								
Ba†	0.4	0.00001	mg/L	0.000003	0.00001	mg/L	0.000003	26.78%
QC value within limits for Ba Recovery = Not calculated								
Be†	3.5	0.00000	mg/L	0.000017	0.00000	mg/L	0.000017	>999.9%
QC value within limits for Be Recovery = Not calculated								
Ca†	109.1	0.00417	mg/L	0.000617	0.00417	mg/L	0.000617	14.80%
QC value within limits for Ca Recovery = Not calculated								
Cd†	-0.3	-0.00001	mg/L	0.000020	-0.00001	mg/L	0.000020	141.29%
QC value within limits for Cd Recovery = Not calculated								
Cr†	1.9	0.00004	mg/L	0.000091	0.00004	mg/L	0.000091	217.85%
QC value within limits for Cr Recovery = Not calculated								
Cu†	76.9	0.00025	mg/L	0.000121	0.00025	mg/L	0.000121	48.68%
QC value within limits for Cu Recovery = Not calculated								
Fe†	6.4	0.00060	mg/L	0.000442	0.00060	mg/L	0.000442	74.25%
QC value within limits for Fe Recovery = Not calculated								
K†	39.0	0.0372	mg/L	0.00215	0.0372	mg/L	0.00215	5.79%
QC value within limits for K Recovery = Not calculated								
Mg†	24.9	0.00127	mg/L	0.000243	0.00127	mg/L	0.000243	19.13%
QC value within limits for Mg Recovery = Not calculated								
Mn†	60.0	0.00012	mg/L	0.000006	0.00012	mg/L	0.000006	5.28%
QC value within limits for Mn Recovery = Not calculated								
Mo†	11.9	0.00116	mg/L	0.000003	0.00116	mg/L	0.000003	0.25%
QC value within limits for Mo Recovery = Not calculated								
Na†	114.3	0.0204	mg/L	0.00081	0.0204	mg/L	0.00081	3.95%
QC value within limits for Na Recovery = Not calculated								
Ni†	-4.3	-0.00023	mg/L	0.000244	-0.00023	mg/L	0.000244	108.18%
QC value within limits for Ni Recovery = Not calculated								
V†	0.0	0.00000	mg/L	0.000006	0.00000	mg/L	0.000006	797.92%
QC value within limits for V Recovery = Not calculated								
Zn†	-27.4	-0.00070	mg/L	0.000038	-0.00070	mg/L	0.000038	5.46%
QC value within limits for Zn Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 59
Sample ID: MCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 6/5/2008 00:02:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MCV

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: MCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sca	393904.5	93.3	%	0.31				0.33%
Yr	415932.1	97.7	%	1.38				1.42%
Ag†	124443.3	0.483	mg/L	0.0044	0.483	mg/L	0.0044	0.92%
QC value within limits for Ag	Recovery = 96.68%							
B_†	33776.0	1.21	mg/L	0.013	1.21	mg/L	0.013	1.04%
QC value within limits for B_	Recovery = 96.79%							
Ba†	99036.6	2.51	mg/L	0.036	2.51	mg/L	0.036	1.44%
QC value within limits for Ba	Recovery = 100.44%							
Be†	2755579.8	1.02	mg/L	0.000	1.02	mg/L	0.000	0.03%
QC value within limits for Be	Recovery = 102.09%							
Ca†	655292.8	25.1	mg/L	0.09	25.1	mg/L	0.09	0.35%
QC value within limits for Ca	Recovery = 100.24%							
Cd†	21904.2	1.00	mg/L	0.009	1.00	mg/L	0.009	0.91%
QC value within limits for Cd	Recovery = 100.12%							
Cr†	113856.4	2.52	mg/L	0.030	2.52	mg/L	0.030	1.17%
QC value within limits for Cr	Recovery = 100.95%							
Cu†	777739.8	2.52	mg/L	0.005	2.52	mg/L	0.005	0.21%
QC value within limits for Cu	Recovery = 100.70%							
Fe†	27085.3	2.52	mg/L	0.009	2.52	mg/L	0.009	0.36%
QC value within limits for Fe	Recovery = 100.99%							
K†	24569.2	23.4	mg/L	0.02	23.4	mg/L	0.02	0.09%
QC value within limits for K	Recovery = 93.66%							
Mg†	492520.8	25.0	mg/L	0.08	25.0	mg/L	0.08	0.34%
QC value within limits for Mg	Recovery = 100.19%							
Mn†	1283775.4	2.58	mg/L	0.001	2.58	mg/L	0.001	0.05%
QC value within limits for Mn	Recovery = 103.15%							
Mo†	25497.9	2.49	mg/L	0.032	2.49	mg/L	0.032	1.27%
QC value within limits for Mo	Recovery = 99.54%							
Na†	127109.3	22.7	mg/L	0.04	22.7	mg/L	0.04	0.17%
QC value within limits for Na	Recovery = 90.81%							
Ni†	49743.7	2.60	mg/L	0.022	2.60	mg/L	0.022	0.86%
QC value within limits for Ni	Recovery = 103.82%							
V†	383820.7	2.49	mg/L	0.022	2.49	mg/L	0.022	0.88%
QC value within limits for V	Recovery = 99.47%							
Zn†	101568.1	2.58	mg/L	0.024	2.58	mg/L	0.024	0.94%
QC value within limits for Zn	Recovery = 103.08%							

All analyte(s) passed QC.

Sequence No.: 66
Sample ID: 2805280375_2X
Analyst:
Initial Sample Wt:
Dilution: 2X

Autosampler Location: 80
Date Collected: 6/5/2008 00:26:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 2805280375_2X

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: 2805280375_2X

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	349022.0	82.7	%	0.08				0.09%
Yr	389056.7	91.4	%	0.53				0.58%
Agt	-148.2	-0.00049	mg/L	0.000167	-0.00099	mg/L	0.000334	33.82%
B_t	47737.1	1.73	mg/L	0.008	3.47	mg/L	0.016	0.46%
Bat	493.1	0.0125	mg/L	0.00002	0.0250	mg/L	0.00004	0.14%
Bet	-1250.4	-0.00046	mg/L	0.000011	-0.00092	mg/L	0.000023	2.46%
Cat	5212889.5	199	mg/L	0.1	399	mg/L	0.2	0.06%
Cdt	-12.6	-0.00058	mg/L	0.000136	-0.00115	mg/L	0.000272	23.60%
Crt	1595.8	0.0354	mg/L	0.00043	0.0707	mg/L	0.00087	1.23%
Cut	822.6	0.00267	mg/L	0.000378	0.00533	mg/L	0.000756	14.18%
Fet	2350.3	0.219	mg/L	0.0036	0.438	mg/L	0.0073	1.66%
Kt	15231.1	14.5	mg/L	0.08	29.0	mg/L	0.17	0.57%
Mgt	1848029.4	94.0	mg/L	0.08	188	mg/L	0.2	0.09%
Mnt	233423.1	0.467	mg/L	0.0015	0.934	mg/L	0.0030	0.33%
Mot	84.3	0.00823	mg/L	0.000135	0.0165	mg/L	0.00027	1.65%
Nat	3506006.2	626	mg/L	0.4	1250	mg/L	0.9	0.07%
Nit	76.7	0.00400	mg/L	0.000169	0.00800	mg/L	0.000339	4.24%
Vt	1635.3	0.0107	mg/L	0.00007	0.0214	mg/L	0.00014	0.67%
Znt	-51.2	-0.00136	mg/L	0.000196	-0.00273	mg/L	0.000392	14.36%

Sequence No.: 70
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 6/5/2008 00:40:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	381962.0	90.5	%	0.39				0.43%
Yr	400068.5	93.9	%	0.09				0.09%
Agt	249682.1	0.970	mg/L	0.0011	0.970	mg/L	0.0011	0.11%
QC value within limits for Ag	Recovery = 97.00%							
B_t	68181.8	2.44	mg/L	0.001	2.44	mg/L	0.001	0.03%
QC value within limits for B_	Recovery = 97.73%							
Bat	196927.5	4.99	mg/L	0.010	4.99	mg/L	0.010	0.21%
QC value within limits for Ba	Recovery = 99.86%							
Bet	5412042.4	2.01	mg/L	0.009	2.01	mg/L	0.009	0.42%
QC value within limits for Be	Recovery = 100.26%							
Cat	1322451.3	50.6	mg/L	0.19	50.6	mg/L	0.19	0.37%
QC value within limits for Ca	Recovery = 101.15%							
Cdt	43821.8	2.00	mg/L	0.002	2.00	mg/L	0.002	0.11%
QC value within limits for Cd	Recovery = 100.15%							
Crt	225944.3	5.01	mg/L	0.010	5.01	mg/L	0.010	0.20%
QC value within limits for Cr	Recovery = 100.17%							
Cut	1536544.3	4.97	mg/L	0.005	4.97	mg/L	0.005	0.10%
QC value within limits for Cu	Recovery = 99.47%							
Fet	55498.2	5.17	mg/L	0.029	5.17	mg/L	0.029	0.57%
QC value within limits for Fe	Recovery = 103.47%							
Kt	50775.8	48.4	mg/L	0.08	48.4	mg/L	0.08	0.17%
QC value within limits for K	Recovery = 96.78%							
Mgt	994763.7	50.6	mg/L	0.22	50.6	mg/L	0.22	0.44%
QC value within limits for Mg	Recovery = 101.18%							
Mnt	2498617.7	5.02	mg/L	0.003	5.02	mg/L	0.003	0.05%
QC value within limits for Mn	Recovery = 100.38%							
Mot	50811.7	4.96	mg/L	0.023	4.96	mg/L	0.023	0.46%
QC value within limits for Mo	Recovery = 99.18%							
Nat	253826.8	45.3	mg/L	0.09	45.3	mg/L	0.09	0.21%
QC value within limits for Na	Recovery = 90.67%							
Nit	97296.5	5.08	mg/L	0.011	5.08	mg/L	0.011	0.22%
QC value within limits for Ni	Recovery = 101.53%							
Vt	765881.2	4.96	mg/L	0.010	4.96	mg/L	0.010	0.21%
QC value within limits for V	Recovery = 99.24%							
Znt	201092.0	5.10	mg/L	0.013	5.10	mg/L	0.013	0.25%
QC value within limits for Zn	Recovery = 102.05%							

All analyte(s) passed QC.

Sequence No.: 71
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 6/5/2008 00:44:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	410180.1	97.2	%	1.25				1.29%
Yr	419929.4	98.6	%	0.41				0.42%
Ag†	-60.4	-0.00023	mg/L	0.000195	-0.00023	mg/L	0.000195	83.48%
QC value within limits for Ag	Recovery = Not calculated							
B_†	373.5	0.0136	mg/L	0.00089	0.0136	mg/L	0.00089	6.56%
QC value within limits for B_	Recovery = Not calculated							
Ba†	1.8	0.00005	mg/L	0.000056	0.00005	mg/L	0.000056	120.90%
QC value within limits for Ba	Recovery = Not calculated							
Be†	50.2	0.00002	mg/L	0.000003	0.00002	mg/L	0.000003	16.53%
QC value within limits for Be	Recovery = Not calculated							
Ca†	140.3	0.00537	mg/L	0.000839	0.00537	mg/L	0.000839	15.64%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	2.7	0.00012	mg/L	0.000209	0.00012	mg/L	0.000209	168.98%
QC value within limits for Cd	Recovery = Not calculated							
Cr†	2.4	0.00005	mg/L	0.000085	0.00005	mg/L	0.000085	160.04%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	-14.1	-0.00005	mg/L	0.000172	-0.00005	mg/L	0.000172	375.92%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	3.1	0.00029	mg/L	0.000613	0.00029	mg/L	0.000613	209.13%
QC value within limits for Fe	Recovery = Not calculated							
K†	54.8	0.0522	mg/L	0.00600	0.0522	mg/L	0.00600	11.48%
QC value within limits for K	Recovery = Not calculated							
Mg†	37.0	0.00188	mg/L	0.000043	0.00188	mg/L	0.000043	2.26%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	159.7	0.00032	mg/L	0.000004	0.00032	mg/L	0.000004	1.34%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	14.4	0.00140	mg/L	0.000155	0.00140	mg/L	0.000155	11.01%
QC value within limits for Mo	Recovery = Not calculated							
Na†	321.4	0.0574	mg/L	0.00058	0.0574	mg/L	0.00058	1.01%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-5.6	-0.00029	mg/L	0.000313	-0.00029	mg/L	0.000313	106.58%
QC value within limits for Ni	Recovery = Not calculated							
V†	-2.5	-0.00002	mg/L	0.000061	-0.00002	mg/L	0.000061	394.37%
QC value within limits for V	Recovery = Not calculated							
Zn†	-32.2	-0.00082	mg/L	0.000069	-0.00082	mg/L	0.000069	8.37%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 80
Sample ID: ECV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 6/5/2008 01:18:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ECV

Analyte	Back Pressure	Flow
All	210.0 kPa	0.65 L/min

Mean Data: ECV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sca	382954.6	90.7	%	0.76				0.83%
Yr	398536.9	93.6	%	0.84				0.90%
Ag†	252646.4	0.981	mg/L	0.0029	0.981	mg/L	0.0029	0.29%
QC value within limits for Ag		Recovery = 98.15%						
B_†	69109.7	2.48	mg/L	0.005	2.48	mg/L	0.005	0.22%
QC value within limits for B_		Recovery = 99.05%						
Ba†	199978.7	5.07	mg/L	0.006	5.07	mg/L	0.006	0.11%
QC value within limits for Ba		Recovery = 101.40%						
Be†	5476395.3	2.03	mg/L	0.029	2.03	mg/L	0.029	1.41%
QC value within limits for Be		Recovery = 101.45%						
Ca†	1350171.4	51.6	mg/L	0.02	51.6	mg/L	0.02	0.03%
QC value within limits for Ca		Recovery = 103.27%						
Cd†	44327.0	2.03	mg/L	0.014	2.03	mg/L	0.014	0.70%
QC value within limits for Cd		Recovery = 101.31%						
Cr†	227213.4	5.04	mg/L	0.047	5.04	mg/L	0.047	0.93%
QC value within limits for Cr		Recovery = 100.73%						
Cu†	1561962.9	5.06	mg/L	0.072	5.06	mg/L	0.072	1.42%
QC value within limits for Cu		Recovery = 101.12%						
Fe†	56674.9	5.28	mg/L	0.020	5.28	mg/L	0.020	0.39%
QC value within limits for Fe		Recovery = 105.66%						
K†	51333.8	48.9	mg/L	0.43	48.9	mg/L	0.43	0.88%
QC value within limits for K		Recovery = 97.85%						
Mg†	1021547.8	52.0	mg/L	0.06	52.0	mg/L	0.06	0.11%
QC value within limits for Mg		Recovery = 103.90%						
Mn†	2516496.0	5.05	mg/L	0.069	5.05	mg/L	0.069	1.36%
QC value within limits for Mn		Recovery = 101.09%						
Mo†	51238.6	5.00	mg/L	0.035	5.00	mg/L	0.035	0.70%
QC value within limits for Mo		Recovery = 100.01%						
Na†	252883.2	45.2	mg/L	0.22	45.2	mg/L	0.22	0.50%
QC value within limits for Na		Recovery = 90.34%						
Ni†	98415.2	5.14	mg/L	0.025	5.14	mg/L	0.025	0.48%
QC value within limits for Ni		Recovery = 102.70%						
V†	774712.4	5.02	mg/L	0.022	5.02	mg/L	0.022	0.44%
QC value within limits for V		Recovery = 100.38%						
Zn†	203057.7	5.15	mg/L	0.029	5.15	mg/L	0.029	0.57%
QC value within limits for Zn		Recovery = 103.04%						

All analyte(s) passed QC.

Sequence No.: 81
Sample ID: ECB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 0
Date Collected: 6/5/2008 01:21:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ECB

Analyte	Back Pressure	Flow
All	211.0 kPa	0.65 L/min

Mean Data: ECB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Sca	417048.9	98.8	%	0.37				0.38%
Yr	423496.4	99.4	%	1.34				1.35%
Ag†	-61.7	-0.00024	mg/L	0.000120	-0.00024	mg/L	0.000120	50.01%
QC value within limits for Ag	Recovery = Not calculated							
B_†	321.6	0.0117	mg/L	0.00059	0.0117	mg/L	0.00059	5.05%
QC value within limits for B_	Recovery = Not calculated							
Ba†	-0.2	0.00000	mg/L	0.000022	0.00000	mg/L	0.000022	583.52%
QC value within limits for Ba	Recovery = Not calculated							
Be†	36.3	0.00001	mg/L	0.000022	0.00001	mg/L	0.000022	167.21%
QC value within limits for Be	Recovery = Not calculated							
Ca†	127.4	0.00487	mg/L	0.001245	0.00487	mg/L	0.001245	25.55%
QC value within limits for Ca	Recovery = Not calculated							
Cd†	1.9	0.00009	mg/L	0.000072	0.00009	mg/L	0.000072	83.85%
QC value within limits for Cd	Recovery = Not calculated							
Cr†	-0.7	-0.00001	mg/L	0.000056	-0.00001	mg/L	0.000056	376.40%
QC value within limits for Cr	Recovery = Not calculated							
Cu†	12.6	0.00004	mg/L	0.000025	0.00004	mg/L	0.000025	60.80%
QC value within limits for Cu	Recovery = Not calculated							
Fe†	9.7	0.00091	mg/L	0.000283	0.00091	mg/L	0.000283	31.20%
QC value within limits for Fe	Recovery = Not calculated							
K†	26.0	0.0248	mg/L	0.00730	0.0248	mg/L	0.00730	29.45%
QC value within limits for K	Recovery = Not calculated							
Mg†	33.0	0.00168	mg/L	0.000336	0.00168	mg/L	0.000336	20.02%
QC value within limits for Mg	Recovery = Not calculated							
Mn†	288.4	0.00058	mg/L	0.000010	0.00058	mg/L	0.000010	1.76%
QC value within limits for Mn	Recovery = Not calculated							
Mo†	15.1	0.00147	mg/L	0.000513	0.00147	mg/L	0.000513	34.79%
QC value within limits for Mo	Recovery = Not calculated							
Na†	198.5	0.0355	mg/L	0.00377	0.0355	mg/L	0.00377	10.64%
QC value within limits for Na	Recovery = Not calculated							
Ni†	-5.6	-0.00029	mg/L	0.000182	-0.00029	mg/L	0.000182	61.72%
QC value within limits for Ni	Recovery = Not calculated							
V†	-6.7	-0.00004	mg/L	0.000009	-0.00004	mg/L	0.000009	20.80%
QC value within limits for V	Recovery = Not calculated							
Zn†	-31.7	-0.00081	mg/L	0.000074	-0.00081	mg/L	0.000074	9.20%
QC value within limits for Zn	Recovery = Not calculated							

All analyte(s) passed QC.

Analytical Sequence
Method: 200.7&6010_080304

Seq.	Loc.	ID	Status
1	15	ICV	QC Passed
2	9	LINEARITY	QC Passed
3	10	ICSA	QC Passed
4	11	ICSAB	QC Failed
5	0	Wash	
6	12	QC-25 1ppm	QC Passed
7	4	CCV	QC Passed
8	0	ICB	QC Passed
9	20	MRL	QC Passed
10	16	MRL/2	Analyzed
11	18	FILTERCHECK	Analyzed
12	38	MBLANK	Analyzed
13	39	LCS	Analyzed
14	40	LCSD	Analyzed
15	41	2806030669	Analyzed
16	42	2806030669MS	Analyzed
17	43	2806030669MSD	Analyzed
18	44	2806030741	Analyzed
19	45	2806030674	Analyzed
20	4	CCV	QC Passed
21	0	CCB	QC Passed
22	46	2806030542	Analyzed
23	47	2806030544	Analyzed
24	48	2806030545	Analyzed
25	49	2806030547	Analyzed
26	50	2806030844	Analyzed
27	51	2806030859	Analyzed
28	52	2806030867	Analyzed
29	53	2806030671	Analyzed
30	54	2806030671MS	Analyzed
31	55	2806030671MSD	Analyzed
32	4	CCV	QC Passed
33	0	CCB	QC Passed
34	5	MCV	QC Passed
35	56	2806030660	Analyzed
36	57	2806030870	Analyzed
37	58	2806030871	Analyzed
38	59	2806030872	Analyzed
39	60	2806030570	Analyzed
40	61	2806030713	Analyzed
41	62	2806030780	Analyzed
42	63	2806030672	Analyzed
43	64	D805220919_20X	Analyzed
44	65	MBLANK2007	Analyzed
45	4	CCV	QC Passed
46	0	CCB	QC Passed
47	21	MRL	Analyzed
48	24	MRL2007	Analyzed
49	66	LCS2007	Analyzed
50	67	LCSD2007	Analyzed
51	68	2805290427	Analyzed
52	69	2805290427MS	Analyzed
53	70	2805290427MSD	Analyzed
54	71	2805310013	Analyzed
55	72	2805310013MS	Analyzed
56	73	2805310013MSD	Analyzed
57	4	CCV	QC Passed
58	0	CCB	QC Passed
59	5	MCV	QC Passed
60	74	2805280136	Analyzed
61	75	2805280137	Analyzed
62	76	2805280138	Analyzed
63	77	2805280139	Analyzed
64	78	2805280274	Analyzed
65	79	2805280347	Analyzed
66	80	2805280375_2X	Analyzed
67	81	2805280487	Analyzed

68	82	2805280472	Analyzed
69	83	2805280473	Analyzed
70	4	CCV	QC Passed
71	0	CCB	QC Passed
72	84	2805280474	Analyzed
73	85	2805280475	Analyzed
74	86	2805280476	Analyzed
75	87	2805280478	Analyzed
76	88	2805280479	Analyzed
77	89	2805280480	Analyzed
78	90	2805280481	Analyzed
79	91	2805190003	Analyzed
80	4	ECV	QC Passed
81	0	ECB	QC Passed

Standard Preparation Worksheet & Certificate of Analysis

Reagent Lot #

HNO3 R# 100450 HCL R# 100446
IS = Yttrium(ME0709008)0.75mL + Scandium (ME0710007)0.5mL to 1000mL w/ 2% HNO3

Standards	Lot #	Exp. Date	Dilution	
Calibration	ME0712001	(12/01/08)	1:10 ME0801001	
(Prepare daily)	ME0712001	(12/01/08)	1:10	
			CCV/ECV	MCV
CCV/MCV/ECV	ME0710008	(04/17/09)	1:20 ME0801002	1:40 ME0801003
(Prepare daily)				
Spike/LCS	ME0709009	(03/11/09)	1:100 ME0801005	
(Prepare daily)	ME0801004	(07/11/08)	1:100	
	ME0803001	(08/13/08)	1:50	
MRL	ME0801007	(07/11/08)	1:100 ME0801008	
(Prepare daily)				
ICSA	ME0712003	(06/01/08)		
ICSAB	ME0712004	(06/01/08)		
QCS	ME0610005	(04/10/08)		
1ppm Check	ME0801010	(07/11/08)		
Linearity	ME0805001	(11/05/08)		
Method Sr/Ti/Sn/SiO2				
Calibration	ME0801012	(07/11/08)		
CCV/ECV	ME0803011	(09/30/08)		
QCS	ME0801012	(07/11/08)		
Spike/LCS	ME0803012	(09/30/08)	1:100	
(Prepare daily)				
MRL	ME0801014	(07/11/08)	1:100	
(Prepare daily)				
Method Li				
Std/ICV/MRL	ME0801009	(07/11/08)	1:1000, 200, 40, 10	
(Prepare daily)				
QCS	ME0801011	(07/11/08)	1:10	
(Prepare daily)				
LCS/Spike	ME0801011	(07/11/08)	1:50	
(Prepare daily)				
ccv	ME0801011	(07/11/08)	1:40	
(Prepare daily)				

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

dilution should be 1:20 and 1:40 not 1:200 and 1:400. 1/10/2006.

Intial: WBH
Date: 7/11/08

METALS STANDARD DOCUMENTATION

Standard:	ICP Calibration STD	**ME #:**	0801001
Date Received/Prepped:	Prep Daily	**By:**	wbh
Date Expired:	12/1/2008	**Lot #:**	
Manufacturer:	MWH-wbh	**Certificate:**	NO
Matrix:	2% HNO3 + 5% HCl	**NIST SRM:**	
Amount:		**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
Mo	1:10 ME0712002	10	ug/ml
Sb		10	ug/ml
Sn		10	ug/ml
Ti		10	ug/ml
B		5	ug/ml
Ca	1:10 ME0712001	100	ug/ml
K		100	ug/ml
Mg		100	ug/ml
Na		100	ug/ml
Al		10	ug/ml
As		10	ug/ml
Ba		10	ug/ml
Co		10	ug/ml
Cr		10	ug/ml
Cu		10	ug/ml
Fe		10	ug/ml
Mn		10	ug/ml
Ni		10	ug/ml
Pb		10	ug/ml
Se		10	ug/ml
Tl		10	ug/ml
V		10	ug/ml
Zn		10	ug/ml
Cd		5	ug/ml
Be		4	ug/ml
SR		3	ug/ml
Ag		2	ug/ml

Intial: STE
Date: 12/01/07

METALS STANDARD DOCUMENTATION

Standard: ICPCalibration 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

INORGANIC VENTURES

CERTIFICATE OF ANALYSIS

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% HNO3(abs)

ME 07120 01

1,000.00 µg/mL ea:
Ca, K, Mg, Na,

100.00 µg/mL ea:
Al, As, Ba, Co, Cr3, Cu, Fe, Mn, Ni, Pb, Se, Tl, 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, Cr3	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)

Intial: STE
Date: 12/1/07

METALS STANDARD DOCUMENTATION

Standard:	ICPCalibration Stock Std #2	**ME #:**	0712002
Date Received/Prepped:	12/1/2007	**By:**	STE
Date Expired:	12/1/2008	**Lot #:**	A2-MEB243152
Manufacturer:	Inorganic Ventures	**Certificate:**	Y
Matrix:	5% Nitric Acid + Trace HF	**NIST SRM:**	Varies
Amount:	500 mL	**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		50 ug/ml
Mo		100 ug/ml

INORGANIC VENTURES

CERTIFICATE OF ANALYSIS

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

ME 0712 G02

Catalog No.: MWH-ICAP-CAL-2

Lot Number: **A2-MEB243152**

Matrix: tr. HF, 5% HNO3(abs)

100.00 µg/mL ea:
Mo, Sb, Sn, Ti,

50.00 µg/mL ea:
B

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Antimony, Sb	100.4 ± 0.3 µg/mL	Boron, B	49.85 ± 0.20 µg/mL	Molybdenum, Mo	100.2 ± 0.3 µg/mL
Tin, Sn	100.2 ± 0.3 µg/mL	Titanium, Ti	100.4 ± 0.2 µg/mL		

Certified Density: 1.037 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:

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

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

$(\bar{x})$ = mean
x_i = individual results
n = number of measurements
Σs_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 TRACEBILITY 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.

Intial: STE
Date: 10/19/07

METALS STANDARD DOCUMENTATION

Standard: ICP CCV/MCV/QCS Stock Standard
Date Received/Prepped: 10/19/2007
Date Expired: 4/17/2009
Manufacturer: CPI
Matrix: 5% HNO3 = tr HF
Amount: 100 mL x 10

ME #: 0710008
By: STE
Lot #: 07J154
Certificate: Y
NIST SRM: Various
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

Certificate of Analysis

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

MWH
Custom Multi
5% HNO3 + 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.

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.

Intial: WBy
Date: 4/1/08

METALS STANDARD DOCUMENTATION

Standard:	ICP MCV Working Standard	**ME #:**	0801003
Date Received/Prepped:	Daily	**By:**	Wbh
Date Expired:	4/17/2009	**Lot #:**	
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	2%HNO3 + 5% HCL	**NIST SRM:**	Various
Amount:	100 mL	**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
Ag	5ml ME0710008 / 100mL	0.5	ppm
Al		2.5	ppm
As		2.5	ppm
B		1.25	ppm
Ba		2.5	ppm
bE		1	ppm
Ca		25	ppm
Cd		1	ppm
Co		2.5	ppm
Cr		2.5	ppm
Cu		2.5	ppm
Fe		2.5	ppm
K		25	ppm
Mg		25	ppm
Mn		2.5	ppm
Mo		2.5	ppm
Na		25	ppm
Ni		2.5	ppm
Pb		2.5	ppm
Sb		2.5	ppm
Se		2.5	ppm
Tl		2.5	ppm
V		2.5	ppm
Zn		2.5	ppm
Sr		0.5	ppm
Sn		0.5	ppm
Ti		0.5	ppm

Intial: WBH
Date: 7/14/08

METALS STANDARD DOCUMENTATION

Standard:	ICP CCV/ECV Working Standard	**ME #:**	0801002
Date Received/Prepped:	Daily	**By:**	Wbh
Date Expired:	4/17/2009	**Lot #:**	
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	2%HNO3 + 5% HCL	**NIST SRM:**	Various
Amount:	100 mL	**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
Ag	5ml ME0710008 / 100mL	1	ppm
Al		5	ppm
As		5	ppm
B		2.5	ppm
Ba		5	ppm
bE		2	ppm
Ca		50	ppm
Cd		2	ppm
Co		5	ppm
Cr		5	ppm
Cu		5	ppm
Fe		5	ppm
K		50	ppm
Mg		50	ppm
Mn		5	ppm
Mo		5	ppm
Na		50	ppm
Ni		5	ppm
Pb		5	ppm
Sb		5	ppm
Se		5	ppm
Tl		5	ppm
V		5	ppm
Zn		5	ppm
Sr		1	ppm
Sn		1	ppm
Ti		1	ppm

Intial: WBH
Date: 7/14/08

METALS STANDARD DOCUMENTATION

Standard:	Spike and LCS std for ICP	**ME #:**	0801005
Date Received/Prepped:	prep daily	**By:**	WBH
Date Expired:	7/11/2008	**Lot #:**	
Manufacturer:	MWH-wbh	**Certificate:**	N
Matrix:	2% HNO3 + 5% HCl	**NIST SRM:**	
Amount:		**Storage:**	Room Temp

Component	Comment	Conc.	Unit:
CA	1:200 ME0709007	50	ppm
K		20	ppm
MG		20	ppm
NA		50	ppm
Iron	1:100 ME0709009	5	mg/L
Aluminum		2	mg/L
Barium		1	mg/L
Cobalt		1	mg/L
Chromium		1	mg/L
Copper		1	mg/L
Molybdenum		1	mg/L
Strontium		1	mg/L
Titanium		1	mg/L
Vanadium		1	mg/L
Zinc		1	mg/L
Tin		1	mg/L
Silver		0.5	mg/L
Boron		0.5	mg/L
Manganese		0.5	mg/L
Nickel		0.5	mg/L
Antimony		0.5	mg/L
Arsenic		0.2	mg/L
Cadmium		0.2	mg/L
Lead		0.2	mg/L
Selenium		0.2	mg/L
Thallium		0.2	mg/L
Uraium		0.2	mg/L
Beryllium		0.05	mg/L
AS	1:100 ME0801004	0.8	mg/L
PB		0.8	mg/L
SE		0.8	mg/L
TL		0.8	mg/L

Intial: WBH
Date: 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

Component	Comment	Conc.	Unit:
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

Intial: wbh
Date: 2/25/08

METALS STANDARD DOCUMENTATION

Standard: ICP LCS/SPIKE Solution
Date Received/Prepped: 2/25/2008
Date Expired: 7/25/2008
Manufacturer: MWH-wbh
Matrix: 2% HNO3 + 5% HCl
Amount: 100mL

ME #: 0802001
By: wbh
Lot #:
Certificate: NO
NIST SRM:
Storage: Room Temp

Component	Comment	Conc. Unit:
Ca	1:4 ME0702002	5000 ug/ml
K	1:10 ME0702005	1000 ug/ml
Mg	1:10 ME0702004	1000 ug/ml
Na	1:4 ME0702003	5000 ug/ml

Intial: 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	**Certificate:**	
Matrix:	5% HNO3 AND 0.1% HF	**NIST SRM:**	
Amount:	100 mL	**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

Certificate of Analysis

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

ME C7 09 C09

MWH Labs
5% HNO3 + 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.

Intial: WBH
Date: 2/20/07

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	

Component	Comment	Conc.	Unit:
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_3
10,000 ± 30 µg/mL

Lot # 07B056

Material Source: Potassium Nitrate (KNO_3)
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.

	ppb	DL		ppb	DL		ppb	DL		ppb	DL		ppb	DL
Al	0.39	0.1	Cu	0.16	0.1	Pb	ND	0.1	K	X	70	Tl	ND	0.1
Sb	0.34	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	0.14	0.1	Eu	ND	0.1	Mg	2.6	0.2	Rh	ND	0.1	Sn	0.17	0.1
Be	ND	0.1	Gd	ND	0.1	Mn	0.93	1	Rb	9.5	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	ND	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	0.4	0.1	Si	50	20	Yb	ND	0.1
Ca	82	7	Ho	ND	0.1	Nb	ND	0.1	Ag	ND	0.1	Y	ND	0.1
Ce	ND	0.1	I	ND	0.2	Os	ND	0.1	Na	19	1	Zn	2.9	1
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	1	0.1	Zr	ND	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.

Intial: WBH
Date: 2/20/07

METALS STANDARD DOCUMENTATION

Standard:	Magnessium 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

4/20/2004

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

Single-Element Magnesium Standard
Mg in 4% HNO_3
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-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 3131. 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	28	0.1	Cu	1.6	0.1	Pb	7.7	0.7	K	ND	70	Tl	0.91	0.1
Sb	ND	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	0.28	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	0.28	0.1	Eu	ND	0.1	Mg	X	0.2	Rh	ND	0.1	Sn	0.14	0.1
Be	ND	0.1	Gd	0.23	0.1	Mn	19.8	1	Rb	ND	0.1	Ti	ND	0.1
Bi	ND	0.1	Ga	0.18	0.1	Hg	ND	0.2	Ru	ND	0.1	W	ND	0.1
B	ND	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	1.1	0.1	Se	ND	6	V	ND	1
Cd	ND	0.1	Hf	ND	0.1	Ni	1	0.1	Si	64	20	Yb	ND	0.1
Ca	ND	7	Ho	ND	0.1	Nb	ND	0.1	Ag	0.19	0.1	Y	0.2	0.1
Ce	2.1	0.1	I	1	0.2	Os	ND	0.1	Na	7.2	1	Zn	ND	1
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	0.19	0.1	Zr	0.29	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			

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.

Intial: WBH
Date: 2/24/07

METALS STANDARD DOCUMENTATION

Standard:	Sodium 10000ppm 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	

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

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CERTIFICATE OF ANALYSIS

M70702003

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

Single-Element Sodium Standard
Na in 1% HNO_3
10,000 ± 30 µg/mL

Lot # 07B057

Material Source: Sodium Nitrate ($NaNO_3$)
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.

	ppb	DL		ppb	DL		ppb	DL		ppb	DL		ppb	DL
Al	1.5	0.1	Cu	0.45	0.1	Pb	ND	0.1	K	ND	70	Tl	ND	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	0.13	0.1	Eu	ND	0.1	Mg	2.3	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	ND	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	0.4	0.1	Si	50	8	Yb	ND	0.1
Ca	120	7	Ho	ND	0.1	Nb	ND	0.1	Ag	ND	0.1	Y	ND	0.1
Ce	ND	0.1	I	ND	0.2	Os	ND	0.1	Na	X	1	Zn	2.9	2
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	1	0.1	Zr	ND	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.

Intial: WBH
Date: 2/20/07

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	

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

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CERTIFICATE OF ANALYSIS

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

1F0702002

Single-Element Calcium Standard
Ca in 4% HNO_3
10,000 ± 30 µg/mL

Lot # 07B065

Material Source: Calcium Carbonate ($CaCO_3$)
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.

Intial: WBH
Date: 2/20/07

METALS STANDARD DOCUMENTATION

Standard:	Thallium 1000ppm Stock Std	**ME #:**	0702006
Date Received/Prepped:	2/20/2007	**By:**	WBH
Date Expired:	8/16/2008	**Lot #:**	06H213
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	2% HNO3	**NIST SRM:**	3158
Amount:	100 mL	Room temp. storage	

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

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MF 07/02/2006

CERTIFICATE OF ANALYSIS

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

Single Element Thallium Standard
Tl in 2% HNO_3
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-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 3158. Trace impurities of the 1000 µg/mL standard were analyzed by ICP-MS.

	ppb	DL		ppb	DL		Ppb	DL		ppb	DL		ppb	DL
Al	13.3	0.1	Cu	9.3	0.1	Pb	41	0.1	K	ND	70	Tl	X	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	0.37	0.1	Eu	ND	0.1	Mg	1.7	0.2	Rh	ND	0.1	Sn	ND	0.1
Be	0.67	0.1	Gd	ND	0.1	Mn	ND	1	Rb	ND	0.1	Ti	0.45	0.1
Bi	0.12	0.1	Ga	ND	0.1	Hg	0.16	0.2	Ru	ND	0.1	W	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	0.21	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	1.6	0.1	Hf	ND	0.1	Ni	1.1	0.1	Si	46	8	Yb	ND	0.1
Ca	51	7	Ho	ND	0.1	Nb	ND	0.1	Ag	0.3	0.1	Y	ND	0.1
Ce	ND	0.1	I	0.4	0.2	Os	ND	0.1	Na	3.3	1	Zn	14.7	2
Cs	0.24	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	ND	0.1	Zr	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.

Intial: WBH
Date 3/7/07

METALS STANDARD DOCUMENTATION

Standard:	Selenium Stock Standard	**ME #:**	0703001
Date Received/Prepped:	3/5/2007	**By:**	wbh
Date Expired:	8/22/2008	**Lot #:**	6.00E+228
Manufacturer:	CPI	**Certificate:**	Y
Matrix:	2% HNO3	**NIST SRM:**	3148
Amount:	100 mL	**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

M-070500 1

Single-Element Selenium Standard
Se in 2% HNO_3
1000 ± 3 µg/mL

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-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 3148. Trace impurities of the 1000 µg/mL standard were analyzed by ICP-MS.

	ppb	DL		ppb	DL		ppb	DL		ppb	DL		ppb	DL
Al	1.8	0.1	Cu	0.4	0.1	Pb	0.3	0.1	K	ND	70	Tl	3.6	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	ND	0.1	Eu	ND	0.1	Mg	1.1	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	ND	4	Ge	ND	0.1	Mo	0.6	0.1	Sm	ND	0.1	U	ND	0.1
Br	INT	10	Au	ND	0.1	Nd	ND	0.1	Se	X	6	V	ND	1
Cd	0.4	0.1	Hf	ND	0.1	Ni	0.6	0.1	Si	40	8	Yb	ND	0.1
Ca	5	7	Ho	ND	0.1	Nb	INT	0.1	Ag	0.8	0.1	Y	ND	0.1
Ce	ND	0.1	I	0.5	0.2	Os	ND	0.1	Na	3.8	1	Zn	ND	2
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	ND	0.1	Zr	INT	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.

Intial: WBH
Date: 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	

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

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CERTIFICATE OF ANALYSIS

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

1207070413

Single-Element Lead Standard
Pb in 2% HNO_3
1000 ± 3 µg/mL

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.

	ppb	DL		ppb	DL		ppb	DL		ppb	DL		ppb	DL
Al	10.3	0.1	Cu	58	0.1	Pb	X	0.1	K	ND	70	Tl	0.25	0.1
Sb	ND	0.1	Dy	ND	0.1	Li	2	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	0.22	0.1	Eu	ND	0.1	Mg	1.4	0.2	Rh	IN	0.1	Sn	ND	0.1
Be	0.58	0.1	Gd	ND	0.1	Mn	3.8	1	Rb	ND	0.1	Ti	0.58	0.1
Bi	0.7	0.1	Ga	ND	0.1	Hg	ND	0.2	Ru	ND	0.1	W	ND	0.1
B	ND	4	Ge	ND	0.1	Mo	0.17	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	0.9	0.1	Si	31	8	Yb	ND	0.1
Ca	25	7	Ho	ND	0.1	Nb	ND	0.1	Ag	6.1	0.1	Y	ND	0.1
Ce	ND	0.1	I	0.1	0.2	Os	ND	0.1	Na	3.5	1	Zn	23	2
Cs	0.26	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	ND	0.1	Zr	INT	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.

Intial: STE
Date: 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

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

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CERTIFICATE OF ANALYSIS

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 — 1000 µg/mL Arsenic in 1.4% (abs) HNO3

Catalog Number:	CGAS1-1, CGAS1-2, and CGAS1-5
Lot Number:	**A2-AS02035**
Starting Material:	As Polycrystaline lump
Starting Material Purity (%):	99.998288
Starting Material Lot No:	23444
Matrix:	1.4% (abs) HNO3

ME07C9023

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:

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

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

($\bar{x}$) = mean
x_i = individual results
n = number of measurements
Σs_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

Date: W3y 4/11/03

METALS STANDARD DOCUMENTATION

Standard:	ICP MRL Working Stock Solution	**ME #:**	0801008
Date Received/Prepped:	Daily	**By:**	Wbh
Date Expired:	7/11/2008	**Lot #:**	
Manufacturer:	MWH-wbh	**Certificate:**	Y
5% HNO3	2% HNO3 + 5% Hcl	**NIST SRM:**	
Amount:	100 mL		Room temp. storage

Component	Comment	Conc.	Unit:
Al	0.1mL ME0801007 / 10mL	0.05	ppm
Sb		0.05	ppm
As		0.1	ppm
Ba		0.02	ppm
Be		0.001	ppm
Ba		0.05	ppm
Cd		0.005	ppm
Ca		1	ppm
Cr		0.01	ppm
Co		0.05	ppm
Cu		0.01	ppm
Fe		0.02	ppm
Pb		0.02	ppm
Li		0.1	ppm
Mg		0.002	ppm
Mn		0.02	ppm
Mo		0.02	ppm
Ni		1	ppm
K		0.1	ppm
Se		0.01	ppm
Ag		1	ppm
Na		0.02	ppm
Tl		0.002	ppm
V		0.1	ppm
Zn		0.001	ppm
Ti		0.02	ppm
Sr		0.01	ppm
Sn		0.2	ppm

Date: 1/11/08

METALS STANDARD DOCUMENTATION

Standard:	ICP MRL Working Stock Solu	**ME #:**	0801007
Date Received/Prepped:	1/11/2008	**By:**	Wbh
Date Expired:	7/11/2008	**Lot #:**	
Manufacturer:	MWH-wbh	**Certificate:**	Y
Matrix:	5% HNO3	**NIST SRM:**	
Amount:	100 mL	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

Intial: SNE
Date: 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% HNO3 + 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		1 ppm
Mg		100 ppm
Mn		2 ppm
Mo		20 ppm
Ni		20 ppm
K		1000 ppm
Se		100 ppm
Ag		10 ppm
Na		1000 ppm
Tl		100 ppm
V		2 ppm
Zn		20 ppm
Ti		20 ppm
Sr		10 ppm
Sn		200 ppm

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ME0709020

Expiry 9/18/2008

Certificate of Analysis

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

MWH
Custom Standard
2% HNO3 + tr HF

Concentrations in ug/mL ± 0.5%

Al	50	Pb	20	Zn	20
Sb	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 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.

Intial: STE
Date: 12/04/09

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

Intial: STE
Date: 12/1/07

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% HNO3	**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: 8/29/07

METALS STANDARD DOCUMENTATION

Standard:	CLP Analytes B Solution	**ME #:**	0708010
Date Received/Prepped:	8/27/2007	**By:**	STE
Date Expired:	2/15/2009	**Lot #:**	07c256
Manufacturer:	CPI International	**Certificate:**	
Matrix:	5% HNO3	**NIST SRM:**	
Amount:	100 mL	**Storage:**	Room Temp.

Component	Comment	Conc. Unit:
Ag	P/N 4400-INTB1-100	100 ug/L
Ba		50 ug/L
Be		50 ug/L
Cd		100 ug/L
Co		50 ug/L
Cr		50 ug/L
Cu		50 ug/L
Mn		50 ug/L
Ni		100 ug/L
Pb		100 ug/L
V		50 ug/L
Zn		100 ug/L

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ME 070 S010

CERTIFICATE OF ANALYSIS

P/N 4400-INTB1-100

CLP Analytes B Solution
in 5% HNO_3

Lot # 07c256

Material Source: Metals and Salts
Source Purity: 99.99+%

Elements and Concentrations: µg/mL

Ag	100	Ba	50	Be	50	Cd	100
Co	50	Cr	50	Cu	50	Mn	50
Ni	100	Pb	100	V	50	Zn	100

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

Starting materials were analyzed by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against an independent source traceable to the National Institute of Standards and Technology's SRM 3100 series.

Accuracy and stability are guaranteed to within plus or minus 0.5% 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.

Intial: STE
Date: 8/27/07

METALS STANDARD DOCUMENTATION

Standard:	CLP Interferents A Solution	**ME #:** 0708009	
Date Received/Prepped:	8/27/2007	**By:** STE	
Date Expired:	2/15/2009	**Lot #:** 07E175	
Manufacturer:	CPI International	**Certificate:**	
Matrix:	5% HNO3	**NIST SRM:**	
Amount:	500 mL	**Storage:** Room Temp.	

Component	Comment	Conc. Unit:
Al	P/N 4400-INTA1-500	5000 ug/mL
Ca		5000 ug/mL
Fe		2000 ug/mL
Mg		5000 ug/mL

FEB 1 5 09

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CERTIFICATE OF ANALYSIS

P/N 4400-INTA1-500

CLP Interferents A Solution
in 5% HNO_3

ME 07080009

Lot # 07E175

Material Source: Metals and Salts
Source Purity: 99.99+%

Elements and Concentrations: µg/mL

Al 5000 Ca 5000 Fe 2000 Mg 5000

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

Starting materials were analyzed by ICP-MS for trace impurities. The standard solution concentrations were certified instrumentally against an independent source traceable to the National Institute of Standards and Technology's SRM 3100 series.

Accuracy and stability are guaranteed to within plus or minus 0.5% 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.

Intial: 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

Intial: STE
Date: 8/27/07

METALS STANDARD DOCUMENTATION

Standard:	QC Check Standard 21	**ME #:** 0708012	
Date Received/Prepped:	8/27/2007	**By:** STE	
Date Expired:	8/31/2008	**Lot #:** 074438H	
Manufacturer:	Crescent Chemical Co. Inc.	**Certificate:**	
Matrix:	5% HNO3/tr. F/tr Tartaric Acid	**NIST SRM:**	
Amount:	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_3/tr. F^-/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. 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 Dive, Islandia, NY 11749
(516) 348-0333 - Fax (516) 348-0913

ME070[illegible]011

Intial: STE
Date: 8/27/07

METALS STANDARD DOCUMENTATION

Standard:	QC Check Standard 7		**ME #:** 0705011
Date Received/Prepped:	8/27/2007		**By:** STE
Date Expired:	8/31/2007		**Lot #:** 074438I
Manufacturer:	Crescent Chemical Co. Inc.		**Certificate:**
Matrix:	5% HNO3		**NIST SRM:**
Amount:		100	**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_3/tr. F^- **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.

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Intial: CSK
Date: 05/05/08

METALS STANDARD DOCUMENTATION

Standard: ICP LINEARITY CHECK
Date Received/Prepped: 5/5/2008
Date Expired: 11/5/2008
Manufacturer: MWH-STE
Matrix: 5% HNO3
Amount: 500ML

ME #: 0805001
By: CSK
Lot #: VARIOUS
Certificate:
NIST SRM:
Storage: Room Temp

Component	Comment	Conc. Unit:
CA	15.0ML ME0702002/500ML	300 ppm
K	15.0ML ME0702005/500ML	300 ppm
MG	10.0ML ME0702004/500ML	200 ppm
NA	15.0ML ME0702003/500ML	300 ppm
FE	5.0ML ME0701008/500ML	100 ppm

Intial: WBH
Date: 2/20/07

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	

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

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CERTIFICATE OF ANALYSIS

M20702005

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

Single-Element Potassium Standard
K in 1% HNO_3
10,000 ± 30 µg/mL

Lot # 07B056

Material Source: Potassium Nitrate (KNO_3)
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.

	ppb	DL		ppb	DL		ppb	DL		ppb	DL		ppb	DL
Al	0.39	0.1	Cu	0.16	0.1	Pb	ND	0.1	K	X	70	Tl	ND	0.1
Sb	0.34	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	0.14	0.1	Eu	ND	0.1	Mg	2.6	0.2	Rh	ND	0.1	Sn	0.17	0.1
Be	ND	0.1	Gd	ND	0.1	Mn	0.93	1	Rb	9.5	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	ND	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	0.4	0.1	Si	50	20	Yb	ND	0.1
Ca	82	7	Ho	ND	0.1	Nb	ND	0.1	Ag	ND	0.1	Y	ND	0.1
Ce	ND	0.1	I	ND	0.2	Os	ND	0.1	Na	19	1	Zn	2.9	1
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	1	0.1	Zr	ND	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.

Intial: WBH
Date: 2/20/07

METALS STANDARD DOCUMENTATION

Standard:	Magnessium 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

4/30/2004

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

Single-Element Magnesium Standard
Mg in 4% HNO_3
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-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 3131. 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	28	0.1	Cu	1.6	0.1	Pb	7.7	0.7	K	ND	70	Tl	0.91	0.1
Sb	ND	0.1	Dy	ND	0.1	Li	ND	0.4	Pr	0.28	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	0.28	0.1	Eu	ND	0.1	Mg	X	0.2	Rh	ND	0.1	Sn	0.14	0.1
Be	ND	0.1	Gd	0.23	0.1	Mn	19.8	1	Rb	ND	0.1	Ti	ND	0.1
Bi	ND	0.1	Ga	0.18	0.1	Hg	ND	0.2	Ru	ND	0.1	W	ND	0.1
B	ND	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	1.1	0.1	Se	ND	6	V	ND	1
Cd	ND	0.1	Hf	ND	0.1	Ni	1	0.1	Si	64	20	Yb	ND	0.1
Ca	ND	7	Ho	ND	0.1	Nb	ND	0.1	Ag	0.19	0.1	Y	0.2	0.1
Ce	2.1	0.1	I	1	0.2	Os	ND	0.1	Na	7.2	1	Zn	ND	1
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	0.19	0.1	Zr	0.29	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			

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.

Intial: WBH
Date: 2/24/07

METALS STANDARD DOCUMENTATION

Standard:	Sodium 10000ppm 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	

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

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Innovative Solutions in Analytical Science and Technology

CERTIFICATE OF ANALYSIS

M20702003

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

Single-Element Sodium Standard
Na in 1% HNO_3
10,000 ± 30 µg/mL

Lot # 07B057

Material Source: Sodium Nitrate ($NaNO_3$)
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.

	ppb	DL		ppb	DL		ppb	DL		ppb	DL		ppb	DL
Al	1.5	0.1	Cu	0.45	0.1	Pb	ND	0.1	K	ND	70	Tl	ND	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	0.13	0.1	Eu	ND	0.1	Mg	2.3	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	ND	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	0.4	0.1	Si	50	8	Yb	ND	0.1
Ca	120	7	Ho	ND	0.1	Nb	ND	0.1	Ag	ND	0.1	Y	ND	0.1
Ce	ND	0.1	I	ND	0.2	Os	ND	0.1	Na	X	1	Zn	2.9	2
Cs	ND	0.1	Ir	ND	0.1	Pd	ND	0.1	Sr	1	0.1	Zr	ND	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.

Intial: WBH
Date: 2/20/07

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	

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

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CERTIFICATE OF ANALYSIS

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

1F0702002

Single-Element Calcium Standard
Ca in 4% HNO_3
10,000 ± 30 µg/mL

Lot # 07B065

Material Source: Calcium Carbonate ($CaCO_3$)
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.

Intial: WBH
Date: 1/26/07

METALS STANDARD DOCUMENTATION

Standard:	FE 10000ppm Stock Std	**ME #:**	701008
Date Received/Prepped:	1/26/2007	**By:**	WBH
Date Expired:	7/19/2008	**Lot #:**	06I143
Manufacturer:	CPI	**Certificate:**	
Matrix:	4% HNO3	**NIST SRM:**	3126a
Amount:	100 mL	**Storage:**	Room Temp

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

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JUL 19 '06

CERTIFICATE OF ANALYSIS

PTE070106X

P/N 4400-10M261
P/N S4400-10M261

Single-Element Iron Standard
Fe in 4% HNO_3
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-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 3126a. Trace impurities of the standard solution at 1000 µg/mL were analyzed by ICP-MS.

	ppb	DL
Al	INT	0.1
Sb	0.35	0.1
As	ND	6
Ba	ND	0.1
Be	ND	0.1
Bi	ND	0.1
B	ND	4
Br	ND	10
Cd	ND	0.1
Ca	15	7
Ce	ND	0.1
Cs	0.34	0.1
Cr	3.3	1
Co	12	0.1

	ppb	DL
Cu	6.4	0.1
Dy	ND	0.1
Er	ND	0.1
Eu	ND	0.1
Gd	ND	0.1
Ga	0.41	0.1
Ge	INT	0.1
Au	ND	0.1
Hf	ND	0.1
Ho	ND	0.1
I	0.34	0.2
Ir	ND	0.1
Fe	X	30
La	ND	0.1

	ppb	DL
Pb	ND	0.1
Li	ND	0.4
Lu	ND	1
Mg	1.3	0.2
Mn	INT	1
Hg	ND	0.2
Mo	4.9	0.1
Nd	ND	0.1
Ni	9.3	0.1
Nb	ND	0.1
Os	ND	0.1
Pd	ND	0.1
P	28	10
Pt	ND	0.1

	ppb	DL
K	ND	70
Pr	ND	0.1
Re	ND	0.1
Rh	ND	0.1
Rb	ND	0.1
Ru	ND	0.1
Sm	ND	0.1
Se	ND	6
Si	INT	8
Ag	ND	0.1
Na	8	1
Sr	ND	0.1
Ta	ND	0.1
Te	ND	0.1

	ppb	DL
Tl	0.18	0.1
Th	ND	0.1
Tm	ND	0.1
Sn	0.67	0.1
Ti	0.21	0.1
W	0.13	0.1
U	ND	0.1
V	ND	1
Yb	ND	0.1
Y	ND	0.1
Zn	8.6	2
Zr	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.

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

Intial: CSC
Date: 6-1-08

METALS STANDARD DOCUMENTATION

Standard: INTERFERENCE CHECK STANDAF
Date Received/Prepped: 6/1/2008
Date Expired: 12/1/2008
Manufacturer: MWH-CSK
Matrix: 5% HNO3
Amount: 500 mL

ME #: 0806002
By: CSK
Lot #: various
Certificate:
NIST SRM:
Storage: Room Temp.

Component	Comment	Conc. Unit:
Al	P/N 4400-INTA1-500(25ML)	250 ppm
Ca	P/N 4400-INTB1-100(2.5ML)	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
Cr3		0.25 ppm
Cu		0.5 ppm
Mn		0.25 ppm
Ni		0.25 ppm
Pb		0.25 ppm
V		0.25 ppm
Zn		0.5 ppm

Tl	100 ppm
V	100 ppm
Zn	100 ppm
Si	50 ppm

6/4/08

METALS STANDARD DOCUMENTATION

Standard:	INTERFERENCE CHECK STANDAI	**ME #:**	0806001
Date Received/Prepped:	6/1/2008	**By:**	CSK
Date Expired:	12/1/2008	**Lot #:**	various
Manufacturer:	MWH-CSK	**Certificate:**	
Matrix:	5% HNO3	**NIST SRM:**	
Amount:	500ML	**Storage:**	Room Temp

Component	Comment	Conc. Unit:
AL	P/N 4400-INTA1-500	250 ppm
CA	25ML IN 500ML	250 ppm
FE		100 ppm
MG		250 ppm
AG		
BA		
BE		
CD		
CO		
CR		
CU		
MN		
NI		
PB		
V		
ZN		