UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

August 19, 2011

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review

FROM: for M. Elfeky
Marvelyn Humphrey, ESAT Regional Project Officer
Environmental Services Branch (6MD-H)

TO: Vincent Malott, Superfund Project Manager (6SF-RA)

Site : **WEST CR 112 GROUND WATER**

Case#: **41486**

SDG#: **MF4N01**

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2140.

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ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: August 18, 2011

TO: Marvelyn Humphrey, ESAT PO, Region 6 EPA

FROM: Sonya Meekins, Data Reviewer, ESAT

THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT DGJ

SUBJECT: CLP Data Review

Contract No.:	EP-W-06-030
TO No.:	024
Task/Sub-Task:	2-12
ESAT Doc. No.:	A024-212-0066
TDF No.:	6-10-530A
ESAT File No.:	I-0418

Attached is the data review summary for Case # 41486
SDG # MF4N01
Site West CR 112 Ground Water

COMMENTS:

I. LEVEL OF DATA REVIEW

Modified CADRE review was performed for this data package.

II. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

The CCS found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

Some results were qualified because of technical problems. The significant problems are addressed below.

A. Laboratory blank readings caused seven selenium results to be qualified.

B. The arsenic serial dilution difference was above the QC limit.

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INORGANIC REGIONAL DATA ASSESSMENT

CASE NO.	41486	SITE	West CR 112 Ground Water
LABORATORY	SENTIN	NO. OF SAMPLES	13
CONTRACT#	EP-W-09-040	MATRIX	Water
SDG#	MF4N01	REVIEWER (IF NOT ESB)	ESAT
SOW#	ISM01.2	REVIEWER'S NAME	Sonya Meekins
SF#	302DD2CA6R6	COMPLETION DATE	August 18, 2011

SAMPLE NO.					
	MF4N01	MF4N11	MF4N31	MF4N67	
	MF4N02	MF4N17	MF4N32		
	MF4N03	MF4N29	MF4N53		
	MF4N04	MF4N30	MF4N54		

DATA ASSESSMENT SUMMARY

	ICP
1. HOLDING TIMES	O
2. CALIBRATIONS	O
3. BLANKS	M
4. MATRIX SPIKES	O
5. DUPLICATE ANALYSIS	M
6. ICP QC	M
7. LCS	O
8. SAMPLE VERIFICATION	O
9. OTHER QC	N/A
10. OVERALL ASSESSMENT	M

O = Data had no problems.
M = Data qualified due to major or minor problems.
Z = Data unacceptable.
NA = Not applicable.

ACTION ITEMS:

AREAS OF CONCERN: Laboratory blank readings caused the qualification of seven results. The aluminum laboratory duplicate difference was above the QC limit. Three analytes had serial dilution differences above the QC limit.

COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW

CASE 41486 SDG MF4N01 SITE West CR 112 Ground Water LAB SENTIN

COMMENTS: This SDG consisted of 13 water samples for total metals (by ICP-MS) analysis, excluding calcium and sodium, following SOW ISM01.2. The laboratory requested and received a waiver from the Region to exclude calcium and sodium because of the negative impacts of high concentrations of these two analytes on the life of the ICP-MS's detector. The sampler designated sample MF4N31 for laboratory QC analyses.

The target analyte of concern was chromium with a desired detection limit of 2 ug/L. All samples met the user's desired detection limit criteria. Chromium was reported at concentrations over the user's desired detection limit for all samples.

Modified CADRE Review was performed for this package as requested by the Region. For this review option, the CCS and CADRE primarily determine the laboratory contractual compliance and the technical usability of the sample results, respectively. The reviewer performs supplemental hardcopy forms checking and applies Region 6 guidelines, where necessary, to account for known limitations of the electronic review process. Therefore, the reviewer's final assessments may deviate from those found in the CADRE report. The CADRE narrative for the SDG is attached to this report as an addendum for additional information.

DATA ASSESSMENT: The QC problems affecting data usability are addressed below.

- Because of blank readings, the reviewer qualified the selenium results above the CRQL for samples MF4N02 and MF4N11 as undetected ("U"), and the reported concentrations should be used as raised quantitation limits ("C").

- Because of blank readings, the reviewer qualified the results above the CRQL as estimated and biased high for selenium in samples MF4N03, MF4N04, MF4N17, MF4N30, and MF4N53.

- As a result of laboratory blank readings, all results at or below the CRQLs for the following analytes should be considered undetected and were flagged "U" at the CRQLs on the DST: antimony, beryllium, cadmium, cobalt, lead, selenium, silver, and thallium.

- The reviewer qualified the aluminum results as estimated because the laboratory duplicate difference for aluminum exceeded the QC limit.

- The reviewer qualified the aluminum, arsenic, and vanadium results as estimated because the associated serial dilution differences exceeded the QC limit.

OVERALL ASSESSMENT: Some results for all samples were qualified because of problems with laboratory blank readings, a laboratory duplicate difference, and/or serial dilution differences. ESAT's

final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

The laboratory was contacted for a reporting issue (see Resubmission Request). The laboratory resubmission is not expected to impact the DST, so the DST included in this report is the final version.

INORGANIC ACRONYMS

CADRE	Computer-Aided Data Review and Evaluation
CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CN	Cyanide
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DST	Data Summary Table
HG	Mercury
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
LCS	Laboratory Control Sample
MDL	Method Detection Limit
NFG	National Functional Guidelines
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
SDG	Sample Delivery Group
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
TAL	Target Analyte List

HEADER DEFINITIONS FOR INORGANIC EXCEL DST

CASE: Case Number
SDG: SDG Number
EPASAMP: EPA Sample Number
LABID: Laboratory File/Sample ID
MATRIX: Sample Matrix
QCCOD: Sample QC Code
SMPQUAL: Sample Qualifier
ANDATE: Sample Analysis Date
ANTIME: Sample Analysis Time
CASNUM: Compound CAS Number
ANALYTE: Compound Name
CONC: Compound Concentration
VALDQAL: Region 6 Inorganic Data Validation Qualifier (see Inorganic Data Qualifier Definitions on the next page)
UNITS: Concentration Units
ADJCRQL: Adjusted Contract Required Quantitation Limit Value
SMPDATE: Sampling Date
PRPDATE: Sample Preparation Date
LRDATE: Laboratory Receipt Date
LEVEL: Sample Level
PERSOLD: Sample Percent Solids
SMPWTVL: Sample Weight (Soil Samples)/Initial Sample Volume (Water Samples)
FINLVOL: Final Sample Volume
METHOD: Method of Analysis
STATLOC: Station Location

Disclaimer: **ESAT verified the accuracy of the information reported in the Excel DST only for the following data fields: CASE, SDG, EPASAMP, MATRIX, ANALYTE, CONC, UNITS, ADJCRQL, VALDQAL, and PERSOLD. The data qualifiers in the VALDQAL column indicate the technical usability of the reported results.**

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

U Not detected at reported quantitation limit.

L Reported concentration is between the MDL and the CRQL.

J Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.

R Result is unusable.

F A possibility of a false negative exists.

UC Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.

+ High biased. Actual concentration may be lower than the concentration reported.

- Low biased. Actual concentration may be higher than the concentration reported.

W The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

CASE	SDG	EPASAMP	LABID	MATRIX	QCCODE	ANDATE	ANTIME	CASNUM	ANALYTE	CONC	VALD	UNITS	ADJCRQ	SMPDATE	PRPDATE	LRDATE	LEVEL	PERSOLD	SMPWTVL	FINVOL	METHOD	STATLOC
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7429905	Aluminum	235	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440382	Arsenic	15.9	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440393	Barium	55.7		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440473	Chromium	36.8		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440484	Cobalt	1.9		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440508	Copper	4.2		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7439896	Iron	899		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7439954	Magnesium	40100		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7439965	Manganese	38.1		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440020	Nickel	28.0		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440097	Potassium	2520		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7782492	Selenium	5.0	U	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440622	Vanadium	71.8	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440666	Zinc	6.0		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7429905	Aluminum	186	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440382	Arsenic	21.8	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440393	Barium	56.9		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440473	Chromium	36.1		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440508	Copper	7.8		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7439896	Iron	1180		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7439954	Magnesium	46500		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7439965	Manganese	9.9		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440020	Nickel	20.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440097	Potassium	1470		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7782492	Selenium	5.2	UC	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440622	Vanadium	81.9	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440666	Zinc	2.0	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7429905	Aluminum	141	J	ug/L	20.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440360	Antimony	2.0	U	ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440382	Arsenic	15.6	J	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440393	Barium	44.0		ug/L	10.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440417	Beryllium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440439	Cadmium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440473	Chromium	3.6		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440484	Cobalt	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440508	Copper	1.5	LJ	ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7439896	Iron	73.0	LJ	ug/L	200	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7439921	Lead	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7439954	Magnesium	51700		ug/L	500	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7439965	Manganese	6.3		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440020	Nickel	5.4		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440097	Potassium	2760		ug/L	500	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7782492	Selenium	7.0	J+	ug/L	5.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440224	Silver	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440280	Thallium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440622	Vanadium	72.3	J	ug/L	5.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440666	Zinc	3.3		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7429905	Aluminum	82.5	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440382	Arsenic	13.8	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440393	Barium	51.1		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103

41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440473	Chromium	2.6		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440508	Copper	1.1	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7439896	Iron	14.5	LJ	ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7439954	Magnesium	52600		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7439965	Manganese	0.32	LJ	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440020	Nickel	3.0		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440097	Potassium	3670		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7782492	Selenium	6.7	J+	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440622	Vanadium	58.4	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440666	Zinc	0.81	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7429905	Aluminum	110	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440382	Arsenic	17.2	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440393	Barium	40.9		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440473	Chromium	7.1		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440508	Copper	1.2	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7439896	Iron	39.5	LJ	ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7439954	Magnesium	48200		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7439965	Manganese	1.6		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440020	Nickel	3.2		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440097	Potassium	2080		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7782492	Selenium	5.5	UC	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440622	Vanadium	72.6	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440666	Zinc	1.4	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7429905	Aluminum	114	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440382	Arsenic	19.2	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440393	Barium	32.9		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440473	Chromium	37.5		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440508	Copper	1.3	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7439896	Iron	32.9	LJ	ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7439954	Magnesium	43300		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7439965	Manganese	0.95	LJ	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440020	Nickel	2.4		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440097	Potassium	2040		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7782492	Selenium	6.9	J+	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440622	Vanadium	79.5	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440666	Zinc	0.98	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7429905	Aluminum	490	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440382	Arsenic	8.8	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440393	Barium	71.4		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440473	Chromium	89.6		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440484	Cobalt	1.8		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440508	Copper	5.5		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7439896	Iron	555		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A

41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7439954	Magnesium	46600		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7439965	Manganese	24.8		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440020	Nickel	40.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/30/2011	10:34:39	7440097	Potassium	30500		ug/L	1000	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7782492	Selenium	12.4		ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440622	Vanadium	24.4	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440666	Zinc	7.1		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7429905	Aluminum	342	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440382	Arsenic	8.0	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440393	Barium	54.8		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440473	Chromium	17.9		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440508	Copper	2.2		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7439896	Iron	286		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7439954	Magnesium	31900		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7439965	Manganese	21.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440020	Nickel	18.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440097	Potassium	9640		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7782492	Selenium	6.9	J+	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440622	Vanadium	16.9	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440666	Zinc	5.9		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7429905	Aluminum	374	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440382	Arsenic	8.9	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440393	Barium	91.7		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440473	Chromium	353		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440508	Copper	2.0	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7439896	Iron	165	LJ	ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7439954	Magnesium	43100		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7439965	Manganese	7.4		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440020	Nickel	9.2		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440097	Potassium	6990		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7782492	Selenium	7.9		ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440622	Vanadium	21.4	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440666	Zinc	2.6		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7429905	Aluminum	355	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440382	Arsenic	9.9	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440393	Barium	55.3		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440473	Chromium	127		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440484	Cobalt	1.4		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440508	Copper	2.0		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7439896	Iron	243		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7439954	Magnesium	28200		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7439965	Manganese	56.0		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440020	Nickel	17.7		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440097	Potassium	7100		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7782492	Selenium	9.5		ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B

41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440622	Vanadium	10.1	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440666	Zinc	5.0		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7429905	Aluminum	1110	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440382	Arsenic	9.3	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440393	Barium	65.6		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440473	Chromium	3.7		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440484	Cobalt	1.4		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440508	Copper	2.3		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7439896	Iron	633		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7439921	Lead	1.9		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7439954	Magnesium	46200		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7439965	Manganese	62.8		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440020	Nickel	4.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440097	Potassium	5670		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7782492	Selenium	6.6	J+	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440622	Vanadium	37.8	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440666	Zinc	20.0		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7429905	Aluminum	2430	J	ug/L	20.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440360	Antimony	2.0	U	ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440382	Arsenic	5.3	J	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440393	Barium	68.5		ug/L	10.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440417	Beryllium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440439	Cadmium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440473	Chromium	15.7		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440484	Cobalt	5.7		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440508	Copper	5.8		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7439896	Iron	871		ug/L	200	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7439921	Lead	3.3		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7439954	Magnesium	27700		ug/L	500	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7439965	Manganese	166		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440020	Nickel	17.4		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440097	Potassium	8190		ug/L	500	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7782492	Selenium	9.0		ug/L	5.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440224	Silver	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440280	Thallium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440622	Vanadium	12.5	J	ug/L	5.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440666	Zinc	9.0		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7429905	Aluminum	955	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440382	Arsenic	9.9	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440393	Barium	58.8		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440473	Chromium	129		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440484	Cobalt	1.3		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440508	Copper	2.2		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7439896	Iron	496		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7439954	Magnesium	28400		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7439965	Manganese	58.6		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440020	Nickel	11.7		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440097	Potassium	7190		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7782492	Selenium	9.4		ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440622	Vanadium	10.1	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440666	Zinc	5.4		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 41486 SDG No. MF4N01 SDG Nos. To Follow Mod. Ref. No. Date Rec 07/06/11

EPA Lab ID: SENTIN

Lab location: Huntsville, AL

Region: 6 Audit No.: 41486/MF4N01

Resubmitted CSF? Yes ____ No X

Box No(s): 1

COMMENTS:

Over for additional comments.

ORIGINALS	YES	NO	N/A
CUSTODY SEALS			
1. Present on package?	X		
2. Intact upon receipt?	X		
FORM DC-2			
3. Numbering scheme accurate?	X		
4. Are enclosed documents listed?	X		
5. Are listed documents enclosed?	X		
FORM DC-1			
6. Present?	X		
7. Complete?	X		
8. Accurate?	X		
TRAFFIC REPORT/CHAIN-OF-CUSTODY RECORD(s)			
9. Signed?	X		
10. Dated?	X		
AIRBILLS/AIRBILL STICKER			
11. Present?	X		
12. Signed?	X		
13. Dated?	X		
SAMPLE TAGS			
14. Does DC-1 list tags as being included?	X		
15. Present?	X		
OTHER DOCUMENTS			
16. Complete?	X		
17. Legible?	X		
18. Original?	X		
18a. If "NO", does the copy indicate where original documents are located?			X

Audited [signature] Sonya Meekins/ESAT Data Reviewer Date 8/16/2011

Audited ____ ____ Date ____

Signature Printed Name/Title

DC-2

In Reference To Case No: 41486
SDG(s): MF4N01(I-0418)

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Resubmission Request

Laboratory Name:	SENTIN
Lab Contact:	Beverly Kilgore
Region:	6
Regional Contact:	Mahmoud El-Feky - EPA
ESAT Reviewer:	Sonya Meekins - ESAT

In reference to data for the following fractions:

ICP-MS

Summary of Questions/Issues:

On Form 6, copper is flagged "*" for an outlying laboratory duplicate difference. According to the raw data and results reported on the forms, the original sample and duplicate sample results are both <CRQL, therefore, no control limit is applicable (ISM01.2, p. B-33, sec. 3.4.8.2.10). Please correct by removing the "*" flag on the Form 1s and Form 6 and resubmit.

NOTE: Any submitted laboratory resubmission should be clearly marked as "Additional Data" with a cover letter included describing what data is being delivered, which Case the data pertains, and who requested the data (ISM01.2, p. B-8, sec. 2.2.1). Custody seals are required for all such shipments.

Please respond to the above item **within 6 business days (ISM01.2, p. B-8, sec. 2.2)** by e-mail to El-Feky.Mahmoud@epa.gov and by regular mail to:

Mr. Mahmoud El-Feky
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact Mr. El-Feky at 281-983-2128.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

USEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 41486
DAS No:
R

Region:	6	Date Shipped:	6/23/2011	Chain of Custody Record	Sampler Signature:
Project Code:	EP-W-06-004	Carrier Name:	FedEx	Relinquished By (Date / Time)	Received By (Date / Time)
Account Code:		Airbill:	7948 7981 0994	1 [illegible] 6/23/11 1100	
CERCLIS ID:		Shipped to:	Sentinel Inc. 4733 Commercial Drive Huntsville AL 35816 (256) 534-9800	2	
Spill ID:				3	
Site Name/State:	WEST COUNTY ROAD 112 GROUND WA			4	
Project Leader:	LUIS VEGA				
Action:	Combined RI/FS				
Sampling Co:	EA Engineering				

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	QC Type
MF4N01	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455816 (HNO3) (1)	LMW-1	S: 6/22/2011	15:35		--
MF4N02	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455817 (HNO3) (1)	LMW-2	S: 6/22/2011	16:25		--
MF4N03	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455818 (HNO3) (1)	LMW-105	S: 6/23/2011	8:45		--
MF4N04	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455819 (HNO3) (1)	LMW-103	S: 6/22/2011	15:23		--
MF4N11	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455826 (HNO3) (1)	LMW-404	S: 6/22/2011	16:24		--
MF4N17	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455832 (HNO3) (1)	LMW-401	S: 6/22/2011	11:20		--
MF4N53	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455871 (HNO3) (1)	WMW-22A	S: 6/22/2011	17:22		--
MF4N54	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455872 (HNO3) (1)	WMW-22B	S: 6/23/2011	9:00		--

Phone Insts

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s): Dwaine Beard	Chain of Custody Seal Number:
Analysis Key: TM ISM01.2 = TM ISM01.2 ICP-MS	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

TR Number: 6-042412979-062311-0002

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

USEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 41486
DAS No:
R

Region:	6	Date Shipped:	6/23/2011	Chain of Custody Record	Sampler Signature:
Project Code:	EP-W-06-004	Carrier Name:	FedEx	Relinquished By (Date / Time)	Received By (Date / Time)
Account Code:		Airbill:	7948 7980 9784	1 [illegible] 6/23/11 1600	
CERCLIS ID:		Shipped to:	Sentinel Inc. 4733 Commercial Drive Huntsville AL 35816 (256) 534-9800	2	
Spill ID:				3	
Site Name/State:	WEST COUNTY ROAD 112 GROUND WA			4	
Project Leader:	LUIS VEGA				
Action:	Combined RI/FS				
Sampling Co:	EA Engineering				

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	QC Type
MF4N29	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455844 (HNO3) (1)	WMW-04A	S: 6/22/2011	11:15		--
MF4N30	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455845 (HNO3) (1)	WMW-04B	S: 6/22/2011	12:00		--
MF4N31	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455834 (HNO3), 6455846 (HNO3) (2)	WMW-05A	S: 6/22/2011	13:45		Lab QC
MF4N32	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455847 (HNO3) (1)	WMW-05B	S: 6/22/2011	14:30		--
MF4N67	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455886 (HNO3) (1)	WMW-05B DUP	S: 6/22/2011	14:30		Field Duplicate

Page 15 of 18

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC: MF4N31	Additional Sampler Signature(s): Duwaine Beard	Chain of Custody Seal Number:
Analysis Key: TM ISM01.2 = TM ISM01.2 / ICP-AES	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

TR Number: 6-042412979-062311-0001

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

ADDENDUM

CADRE NARRATIVE

National Functional Guidelines Report #03

Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Blanks

Blanks	ICP_MS
ND03	The following samples have analyte results greater than or equal to MDLs but less than CRQLs. The associated ICB analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Detected analytes are qualified U. Nondetected analytes are not qualified. Sample results are elevated to CRQLs.
	MF4N01, MF4N31L, PBW, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67
	Selenium MF4N01 , MF4N31L , PBW
	Antimony MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , PBW
Blanks	**ICP_MS**
ND04	The following samples have analyte results greater than or equal to MDLs but less than CRQLs. The associated CCB analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Detected analytes are qualified U. Nondetected analytes are not qualified. Sample results are elevated at CRQLs.
	PBW, MF4N31L, MF4N01, MF4N03, MF4N04, MF4N11, MF4N17, MF4N30, MF4N31, MF4N31D, MF4N29, MF4N32, MF4N53, MF4N54, MF4N67, MF4N02
	Sodium PBW
	Vanadium MF4N31L
	Selenium MF4N01 , MF4N31L , PBW
	Cobalt MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N30 , MF4N31L , MF4N31 , MF4N31D
	Beryllium MF4N29 , MF4N30 , MF4N32 , MF4N53 , MF4N54 , MF4N67
	Antimony MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , PBW
	Potassium PBW
	Thallium MF4N29 , MF4N32 , MF4N54 , MF4N67 , PBW
	Cadmium MF4N01 , MF4N03 , MF4N04 , MF4N11 , MF4N29 , MF4N31 , MF4N53 , MF4N67
	Silver MF4N01 , MF4N02 , MF4N11 , MF4N29 , MF4N32 , MF4N54 , MF4N67
	Lead MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N67
Blanks	**ICP_MS**
ND05	The following samples have analyte results greater than CRQLs. The associated ICB analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Use professional judgment to qualified detected and nondetected analytes.
	MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31S, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67, LCS
	Selenium MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Barium MF4N31S
	Antimony MF4N31S , LCS

National Functional Guidelines Report #03

Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Blanks

Blanks	ICP_MS
	Potassium MF4N29
Blanks	**ICP_MS**
ND06	The following samples have analyte results greater than CRQLs. The associated CCB analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Use professional judgment to qualified detected and nondetected analytes.
	LCS, MF4N01, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31L, MF4N31S, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67
	Sodium LCS
	Vanadium MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Selenium MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Barium MF4N31S
	Cobalt MF4N01 , MF4N02 , MF4N29 , MF4N31S , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Beryllium MF4N31S , LCS
	Nickel MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Antimony MF4N31S , LCS
	Potassium MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Thallium MF4N31S , LCS
	Cadmium MF4N31S , LCS
	Silver MF4N31S , LCS
Blanks	**ICP_MS**
NE04	The following samples have analyte results greater than or equal to MDLs but less than or equal to CRQLs. The associated preparation blank analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Detected analytes are qualified U. Nondetected analytes are not qualified. Sample results are elevated to CRQLs.
	MF4N01, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67
	Selenium MF4N01
	Antimony MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67
	Thallium MF4N29 , MF4N32 , MF4N54 , MF4N67
Blanks	**ICP_MS**
NE05	The following samples have analyte results greater than CRQLs. The associated preparation blank analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Use professional judgment to qualify detected and nondetected analytes.

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Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Blanks

Blanks	ICP_MS
	LCS, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31S, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67, MF4N01, MF4N31L
	Sodium LCS
	Selenium MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Antimony MF4N31S , LCS
	Potassium MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Thallium MF4N31S , LCS

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Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Detection Limit

Detection Limit	ICP_MS
NDLI	The following samples have results greater than or equal to MDLs but less than CRQLs. Detected analytes are qualified J.
	MF4N31L, PBW, MF4N03, MF4N04, MF4N11, MF4N17, MF4N31, MF4N31D, MF4N01, MF4N02, MF4N29, MF4N30, MF4N32, MF4N67, MF4N53, MF4N54
	Vanadium MF4N31L
	Potassium PBW
	Copper MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N31L , MF4N31 , MF4N31D
	Lead MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N67
	Sodium PBW
	Selenium MF4N01 , MF4N31L , PBW
	Cobalt MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N30 , MF4N31L , MF4N31 , MF4N31D
	Zinc MF4N02 , MF4N04 , MF4N11 , MF4N17 , MF4N31L
	Beryllium MF4N29 , MF4N30 , MF4N32 , MF4N53 , MF4N54 , MF4N67
	Antimony MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , PBW
	Cadmium MF4N01 , MF4N03 , MF4N04 , MF4N11 , MF4N29 , MF4N31 , MF4N53 , MF4N67
	Thallium MF4N29 , MF4N32 , MF4N54 , MF4N67 , PBW
	Silver MF4N01 , MF4N02 , MF4N11 , MF4N29 , MF4N32 , MF4N54 , MF4N67
	Iron MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N31L , MF4N31 , MF4N31D
	Manganese MF4N04 , MF4N17

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Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Duplicates

Duplicates	ICP_MS
NI03	The following Duplicate and original sample results are greater than 5xCRQL and RPD is greater than 20. The original sample results are greater than or equal to MDLs. Detected analytes are qualified J. Nondetected analytes are qualified UJ.
	MF4N01, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31, MF4N32, MF4N53, MF4N54, MF4N67
	Aluminum MF4N31D

National Functional Guidelines Report #03

Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Serial Dilution

Serial Dilution	ICP_MS
NL032	The following ICP-MS Serial Dilution (SD) samples have percent difference (%D) greater than 10% and initial sample results are greater than 50xMDLs. The detected analytes in samples with results greater than or equal to MDLs are qualified J. Nondetected analytes in samples are qualified UJ.
	MF4N01, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31, MF4N32, MF4N53, MF4N54, MF4N67
	Vanadium MF4N31L
	Arsenic MF4N31L
	Aluminum MF4N31L

CASE	SDG	EPASAMP	LABID	MATRIX	QCCODE	ANDATE	ANTIME	CASNUM	ANALYTE	CONC	VALDI	UNITS	ADJCRQ	SMPDATE	PRPDATE	LRDATE	LEVEL	PERSOLD	SMPWTVL	FINVOL	METHOD	STATLOC
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7429905	Aluminum	235	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440382	Arsenic	15.9	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440393	Barium	55.7		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440473	Chromium	36.8		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440484	Cobalt	1.9		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440508	Copper	4.2		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7439896	Iron	899		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7439954	Magnesium	40100		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7439965	Manganese	38.1		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440020	Nickel	28.0		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440097	Potassium	2520		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7782492	Selenium	5.0	U	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440622	Vanadium	71.8	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N01	14912(S)	W	Field_Sample	06/28/2011	11:53:09	7440666	Zinc	6.0		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-1
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7429905	Aluminum	186	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440382	Arsenic	21.8	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440393	Barium	56.9		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440473	Chromium	36.1		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440508	Copper	7.8		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7439896	Iron	1180		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7439954	Magnesium	46500		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7439965	Manganese	9.9		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440020	Nickel	20.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440097	Potassium	1470		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7782492	Selenium	5.2	UC	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440622	Vanadium	81.9	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N02	14913(S)	W	Field_Sample	06/28/2011	11:55:53	7440666	Zinc	2.0	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-2
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7429905	Aluminum	141	J	ug/L	20.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440360	Antimony	2.0	U	ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440382	Arsenic	15.6	J	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440393	Barium	44.0		ug/L	10.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440417	Beryllium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440439	Cadmium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440473	Chromium	3.6		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440484	Cobalt	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440508	Copper	1.5	LJ	ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7439896	Iron	73.0	LJ	ug/L	200	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7439921	Lead	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7439954	Magnesium	51700		ug/L	500	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7439965	Manganese	6.3		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440020	Nickel	5.4		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440097	Potassium	2760		ug/L	500	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7782492	Selenium	7.0	J+	ug/L	5.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440224	Silver	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440280	Thallium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440622	Vanadium	72.3	J	ug/L	5.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N03	14914(S)	W	Field_Sample	06/28/2011	11:58:37	7440666	Zinc	3.3		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-105
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7429905	Aluminum	82.5	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440382	Arsenic	13.8	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440393	Barium	51.1		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103

41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440473	Chromium	2.6		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440508	Copper	1.1	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7439896	Iron	14.5	LJ	ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7439954	Magnesium	52600		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7439965	Manganese	0.32	LJ	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440020	Nickel	3.0		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440097	Potassium	3670		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7782492	Selenium	6.7	J+	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440622	Vanadium	58.4	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N04	14915(S)	W	Field_Sample	06/28/2011	12:01:22	7440666	Zinc	0.81	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-103
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7429905	Aluminum	110	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440382	Arsenic	17.2	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440393	Barium	40.9		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440473	Chromium	7.1		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440508	Copper	1.2	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7439896	Iron	39.5	LJ	ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7439954	Magnesium	48200		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7439965	Manganese	1.6		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440020	Nickel	3.2		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440097	Potassium	2080		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7782492	Selenium	5.5	UC	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440622	Vanadium	72.6	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N11	14916(S)	W	Field_Sample	06/28/2011	12:04:07	7440666	Zinc	1.4	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-404
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7429905	Aluminum	114	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440382	Arsenic	19.2	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440393	Barium	32.9		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440473	Chromium	37.5		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440508	Copper	1.3	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7439896	Iron	32.9	LJ	ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7439954	Magnesium	43300		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7439965	Manganese	0.95	LJ	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440020	Nickel	2.4		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440097	Potassium	2040		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7782492	Selenium	6.9	J+	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440622	Vanadium	79.5	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N17	14917(S)	W	Field_Sample	06/28/2011	12:06:51	7440666	Zinc	0.98	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	LMW-401
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7429905	Aluminum	490	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440382	Arsenic	8.8	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440393	Barium	71.4		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440473	Chromium	89.6		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440484	Cobalt	1.8		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440508	Copper	5.5		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7439896	Iron	555		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A

41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7439954	Magnesium	46600		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7439965	Manganese	24.8		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440020	Nickel	40.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/30/2011	10:34:39	7440097	Potassium	30500		ug/L	1000	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7782492	Selenium	12.4		ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440622	Vanadium	24.4	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N29	14918(S)	W	Field_Sample	06/28/2011	12:09:32	7440666	Zinc	7.1		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04A
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7429905	Aluminum	342	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440382	Arsenic	8.0	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440393	Barium	54.8		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440473	Chromium	17.9		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440508	Copper	2.2		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7439896	Iron	286		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7439954	Magnesium	31900		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7439965	Manganese	21.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440020	Nickel	18.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440097	Potassium	9640		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7782492	Selenium	6.9	J+	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440622	Vanadium	16.9	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N30	14919(S)	W	Field_Sample	06/28/2011	12:12:14	7440666	Zinc	5.9		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-04B
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7429905	Aluminum	374	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440382	Arsenic	8.9	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440393	Barium	91.7		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440473	Chromium	353		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440484	Cobalt	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440508	Copper	2.0	LJ	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7439896	Iron	165	LJ	ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7439954	Magnesium	43100		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7439965	Manganese	7.4		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440020	Nickel	9.2		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440097	Potassium	6990		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7782492	Selenium	7.9		ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440622	Vanadium	21.4	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N31	14920(S)	W	Field_Sample	06/28/2011	11:42:16	7440666	Zinc	2.6		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05A
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7429905	Aluminum	355	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440382	Arsenic	9.9	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440393	Barium	55.3		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440473	Chromium	127		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440484	Cobalt	1.4		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440508	Copper	2.0		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7439896	Iron	243		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7439954	Magnesium	28200		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7439965	Manganese	56.0		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440020	Nickel	17.7		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440097	Potassium	7100		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7782492	Selenium	9.5		ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B

41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440622	Vanadium	10.1	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N32	14921(S)	W	Field_Sample	06/28/2011	12:14:56	7440666	Zinc	5.0		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7429905	Aluminum	1110	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440382	Arsenic	9.3	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440393	Barium	65.6		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440473	Chromium	3.7		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440484	Cobalt	1.4		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440508	Copper	2.3		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7439896	Iron	633		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7439921	Lead	1.9		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7439954	Magnesium	46200		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7439965	Manganese	62.8		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440020	Nickel	4.5		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440097	Potassium	5670		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7782492	Selenium	6.6	J+	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440622	Vanadium	37.8	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N53	14922(S)	W	Field_Sample	06/28/2011	12:17:39	7440666	Zinc	20.0		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22A
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7429905	Aluminum	2430	J	ug/L	20.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440360	Antimony	2.0	U	ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440382	Arsenic	5.3	J	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440393	Barium	68.5		ug/L	10.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440417	Beryllium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440439	Cadmium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440473	Chromium	15.7		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440484	Cobalt	5.7		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440508	Copper	5.8		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7439896	Iron	871		ug/L	200	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7439921	Lead	3.3		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7439954	Magnesium	27700		ug/L	500	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7439965	Manganese	166		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440020	Nickel	17.4		ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440097	Potassium	8190		ug/L	500	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7782492	Selenium	9.0		ug/L	5.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440224	Silver	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440280	Thallium	1.0	U	ug/L	1.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440622	Vanadium	12.5	J	ug/L	5.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N54	14923(S)	W	Field_Sample	06/28/2011	12:20:21	7440666	Zinc	9.0		ug/L	2.0	06/23/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-22B
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7429905	Aluminum	955	J	ug/L	20.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440360	Antimony	2.0	U	ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440382	Arsenic	9.9	J	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440393	Barium	58.8		ug/L	10.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440417	Beryllium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440439	Cadmium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440473	Chromium	129		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440484	Cobalt	1.3		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440508	Copper	2.2		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7439896	Iron	496		ug/L	200	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7439921	Lead	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7439954	Magnesium	28400		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7439965	Manganese	58.6		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440020	Nickel	11.7		ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440097	Potassium	7190		ug/L	500	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7782492	Selenium	9.4		ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440224	Silver	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440280	Thallium	1.0	U	ug/L	1.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440622	Vanadium	10.1	J	ug/L	5.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP
41486	MF4N01	MF4N67	14924(S)	W	Field_Sample	06/28/2011	12:23:04	7440666	Zinc	5.4		ug/L	2.0	06/22/2011	06/28/2011	06/25/2011	Low	0.0	50	50	MS	WMW-05B DUP

National Functional Guidelines Report #03

Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Blanks

Blanks	ICP_MS
ND03	The following samples have analyte results greater than or equal to MDLs but less than CRQLs. The associated ICB analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Detected analytes are qualified U. Nondetected analytes are not qualified. Sample results are elevated to CRQLs.
	MF4N01, MF4N31L, PBW, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67
	Selenium MF4N01 , MF4N31L , PBW
	Antimony MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , PBW
Blanks	**ICP_MS**
ND04	The following samples have analyte results greater than or equal to MDLs but less than CRQLs. The associated CCB analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Detected analytes are qualified U. Nondetected analytes are not qualified. Sample results are elevated at CRQLs.
	PBW, MF4N31L, MF4N01, MF4N03, MF4N04, MF4N11, MF4N17, MF4N30, MF4N31, MF4N31D, MF4N29, MF4N32, MF4N53, MF4N54, MF4N67, MF4N02
	Sodium PBW
	Vanadium MF4N31L
	Selenium MF4N01 , MF4N31L , PBW
	Cobalt MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N30 , MF4N31L , MF4N31 , MF4N31D
	Beryllium MF4N29 , MF4N30 , MF4N32 , MF4N53 , MF4N54 , MF4N67
	Antimony MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , PBW
	Potassium PBW
	Thallium MF4N29 , MF4N32 , MF4N54 , MF4N67 , PBW
	Cadmium MF4N01 , MF4N03 , MF4N04 , MF4N11 , MF4N29 , MF4N31 , MF4N53 , MF4N67
	Silver MF4N01 , MF4N02 , MF4N11 , MF4N29 , MF4N32 , MF4N54 , MF4N67
	Lead MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N67
Blanks	**ICP_MS**
ND05	The following samples have analyte results greater than CRQLs. The associated ICB analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Use professional judgment to qualified detected and nondetected analytes.
	MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31S, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67, LCS
	Selenium MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Barium MF4N31S
	Antimony MF4N31S , LCS

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Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Blanks

Blanks	ICP_MS
	Potassium MF4N29
Blanks	**ICP_MS**
ND06	The following samples have analyte results greater than CRQLs. The associated CCB analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Use professional judgment to qualified detected and nondetected analytes.
	LCS, MF4N01, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31L, MF4N31S, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67
	Sodium LCS
	Vanadium MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Selenium MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Barium MF4N31S
	Cobalt MF4N01 , MF4N02 , MF4N29 , MF4N31S , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Beryllium MF4N31S , LCS
	Nickel MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Antimony MF4N31S , LCS
	Potassium MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Thallium MF4N31S , LCS
	Cadmium MF4N31S , LCS
	Silver MF4N31S , LCS
Blanks	**ICP_MS**
NE04	The following samples have analyte results greater than or equal to MDLs but less than or equal to CRQLs. The associated preparation blank analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Detected analytes are qualified U. Nondetected analytes are not qualified. Sample results are elevated to CRQLs.
	MF4N01, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67
	Selenium MF4N01
	Antimony MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67
	Thallium MF4N29 , MF4N32 , MF4N54 , MF4N67
Blanks	**ICP_MS**
NE05	The following samples have analyte results greater than CRQLs. The associated preparation blank analyte results are greater than or equal to MDLs but less than or equal to CRQLs. Use professional judgment to qualify detected and nondetected analytes.

National Functional Guidelines Report #03

Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Blanks

Blanks	ICP_MS
	LCS, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31S, MF4N31, MF4N31D, MF4N32, MF4N53, MF4N54, MF4N67, MF4N01, MF4N31L
	Sodium LCS
	Selenium MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31S , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Antimony MF4N31S , LCS
	Potassium MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , LCS
	Thallium MF4N31S , LCS

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Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Detection Limit

Detection Limit	ICP_MS
NDL1	The following samples have results greater than or equal to MDLs but less than CRQLs. Detected analytes are qualified J.
	MF4N31L, PBW, MF4N03, MF4N04, MF4N11, MF4N17, MF4N31, MF4N31D, MF4N01, MF4N02, MF4N29, MF4N30, MF4N32, MF4N67, MF4N53, MF4N54
	Vanadium MF4N31L
	Potassium PBW
	Copper MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N31L , MF4N31 , MF4N31D
	Lead MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N67
	Sodium PBW
	Selenium MF4N01 , MF4N31L , PBW
	Cobalt MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N30 , MF4N31L , MF4N31 , MF4N31D
	Zinc MF4N02 , MF4N04 , MF4N11 , MF4N17 , MF4N31L
	Beryllium MF4N29 , MF4N30 , MF4N32 , MF4N53 , MF4N54 , MF4N67
	Antimony MF4N01 , MF4N02 , MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N29 , MF4N30 , MF4N31L , MF4N31 , MF4N31D , MF4N32 , MF4N53 , MF4N54 , MF4N67 , PBW
	Cadmium MF4N01 , MF4N03 , MF4N04 , MF4N11 , MF4N29 , MF4N31 , MF4N53 , MF4N67
	Thallium MF4N29 , MF4N32 , MF4N54 , MF4N67 , PBW
	Silver MF4N01 , MF4N02 , MF4N11 , MF4N29 , MF4N32 , MF4N54 , MF4N67
	Iron MF4N03 , MF4N04 , MF4N11 , MF4N17 , MF4N31L , MF4N31 , MF4N31D
	Manganese MF4N04 , MF4N17

National Functional Guidelines Report #03

Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Duplicates

Duplicates	ICP_MS
NI03	The following Duplicate and original sample results are greater than 5xCRQL and RPD is greater than 20. The original sample results are greater than or equal to MDLs. Detected analytes are qualified J. Nondetected analytes are qualified UJ.
	MF4N01, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31, MF4N32, MF4N53, MF4N54, MF4N67
	Aluminum MF4N31D

National Functional Guidelines Report #03

Lab SENTIN(SENTINEL) **SDG** MF4N01 **Case** 41486 **Contract** EPW09040 **Region** 6 **DDTID** 125313 **SOW** ISM01.2

Data Review Reports

Serial Dilution

Serial Dilution	ICP_MS
NL032	The following ICP-MS Serial Dilution (SD) samples have percent difference (%D) greater than 10% and initial sample results are greater than 50xMDLs. The detected analytes in samples with results greater than or equal to MDLs are qualified J. Nondetected analytes in samples are qualified UJ.
	MF4N01, MF4N02, MF4N03, MF4N04, MF4N11, MF4N17, MF4N29, MF4N30, MF4N31, MF4N32, MF4N53, MF4N54, MF4N67
	Vanadium MF4N31L
	Arsenic MF4N31L
	Aluminum MF4N31L

USEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 41486
DAS No:
R

Region:	6	**Date Shipped:**	6/23/2011	**Chain of Custody Record**	**Sampler Signature:**
Project Code:	EP-W-06-004	**Carrier Name:**	FedEx	**Relinquished By** (Date / Time)	**Received By** (Date / Time)
Account Code:		**Airbill:**	7948 7981 0994	1 [illegible] 6/23/11 1100	
CERCLIS ID:		**Shipped to:**	Sentinel Inc. 4733 Commercial Drive Huntsville AL 35816 (256) 534-9800	2	
Spill ID:				3	
Site Name/State:	WEST COUNTY ROAD 112 GROUND WA			4	
Project Leader:	LUIS VEGA				
Action:	Combined RI/FS				
Sampling Co:	EA Engineering				

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	QC Type
MF4N01	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455816 (HNO3) (1)	LMW-1	S: 6/22/2011	15:35		--
MF4N02	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455817 (HNO3) (1)	LMW-2	S: 6/22/2011	16:25		--
MF4N03	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455818 (HNO3) (1)	LMW-105	S: 6/23/2011	8:45		--
MF4N04	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455819 (HNO3) (1)	LMW-103	S: 6/22/2011	15:23		--
MF4N11	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455826 (HNO3) (1)	LMW-404	S: 6/22/2011	16:24		--
MF4N17	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455832 (HNO3) (1)	LMW-401	S: 6/22/2011	11:20		--
MF4N53	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455871 (HNO3) (1)	WMW-22A	S: 6/22/2011	17:22		--
MF4N54	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455872 (HNO3) (1)	WMW-22B	S: 6/23/2011	9:00		--

Shipment for Case Complete? Y	**Sample(s) to be used for laboratory QC:**	**Additional Sampler Signature(s):** Dwaine Beard	**Chain of Custody Seal Number:**
Analysis Key:	**Concentration:** L = Low, M = Low/Medium, H = High	**Type/Designate:** Composite = C, Grab = G	**Shipment Iced?** _____

TM ISM01.2 = TM ISM01.2 / ICP-MS

TR Number: 6-042412979-062311-0002

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

USEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 41486
DAS No:
R

Region:	6	**Date Shipped:**	6/23/2011	**Chain of Custody Record**	**Sampler Signature:**
Project Code:	EP-W-06-004	**Carrier Name:**	FedEx	**Relinquished By (Date / Time)**	**Received By (Date / Time)**
Account Code:		**Airbill:**	7948 7980 9784	1 [illegible] 6/23/11 1600	
CERCLIS ID:		**Shipped to:**	Sentinel Inc. 4733 Commercial Drive Huntsville AL 35816 (256) 534-9800	2	
Spill ID:				3	
Site Name/State:	WEST COUNTY ROAD 112 GROUND WA			4	
Project Leader:	LUIS VEGA				
Action:	Combined RI/FS				
Sampling Co:	EA Engineering				

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	QC Type
MF4N29	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455844 (HNO3) (1)	WMW-04A	S: 6/22/2011	11:15		--
MF4N30	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455845 (HNO3) (1)	WMW-04B	S: 6/22/2011	12:00		--
MF4N31	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455834 (HNO3), 6455846 (HNO3) (2)	WMW-05A	S: 6/22/2011	13:45		Lab QC
MF4N32	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455847 (HNO3) (1)	WMW-05B	S: 6/22/2011	14:30		--
MF4N67	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455886 (HNO3) (1)	WMW-05B DUP	S: 6/22/2011	14:30		Field Duplicate

Shipment for Case Complete? Y	**Sample(s) to be used for laboratory QC:** MF4N31	**Additional Sampler Signature(s):** Dwaine Beard	**Chain of Custody Seal Number:**
Analysis Key: TM ISM01.2 = TM ISM01.2 / ICP-AES	**Concentration:** L = Low, M = Low/Medium, H = High	**Type/Designate:** Composite = C, Grab = G	**Shipment Iced?** _____

TR Number: 6-042412979-062311-0001

REGION COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

Randi Richey

From: "Blackmon, Jacqueline" <jblackmon3@fedcsc.com>
To: "Beverly Kilgore " <bkilgore@sentinellab.com>; "Melvin Kilgore" <mkilgore@sentinellab.com>; "Randi Richey" <rrichey@sentinellab.com>
Cc: "Marvelyn Humphrey" <humphrey.marvelyn@epa.gov>; "Mahmoud Elfeky" <Elfeky.Mahmoud@epamail.epa.gov>; "Myra Perez" <perez.myra@epa.gov>; "Raymond Flores" <Flores.Raymond@epamail.epa.gov>
Sent: Wednesday, June 29, 2011 10:18 AM
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems | FINAL

Randi,
Please note that any waivers required for this issue will need to be submitted to the laboratory's PO.

Summary Start
Issue: Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. These samples were run undiluted. Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.
Resolution: Per Region 6, the Region will not pursue the required Na and Ca diluted analyses. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.
Summary End

Please let me know if you have any questions or problems. To waive any defect(s) associated with this issue, please contact your PO.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Blackmon, Jacqueline
Sent: Wednesday, June 29, 2011 11:13 AM
To: 'Raymond Flores'
Cc: 'Mahmoud Elfeky'; 'Myra Perez'
Subject: FW: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Ray,
Please note the responses to your previous questions for this issue below. I will proceed to inform the lab that Region 6 will not pursue the required Na and Ca diluted analyses. The laboratory will have to submit any required waivers to their PO.

1.) That is correct, any dilutions and/or reanalyses (unless it is an actual reanalysis request that is scheduled and marked as billable) are not billable.

2.) The delay that the Ca and Na diluted results would add to the data delivery would be: "It would delay package submittal by at least 5 days. If dilutions are not required then packages are ready to be put together.

However, all data would be submitted within the 21 day TAT."

I will inform the lab of the Region's resolution.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Wednesday, June 29, 2011 10:46 AM
To: Blackmon, Jacqueline
Cc: Elfeky.Mahmoud@epamail.epa.gov; Perez.Myra@epamail.epa.gov
Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Region 6 will not pursue the required Na & Ca diluted analyses and agrees to related wavier requests for such.

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Wednesday, June 29, 2011 11:01 AM
To: Blackmon, Jacqueline
Cc: Beverly Kilgore; Melvin Kilgore
Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

It would delay package submittal by at least 5 days. If dilutions are not required then packages are ready to be put together. However, all data would be submitted within the 21 day TAT.

Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

----- Original Message -----
From: Blackmon, Jacqueline
To: Randi Richey
Sent: Wednesday, June 29, 2011 9:35 AM
Subject: FW: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Randi,

The Region would like to know if you could you provide an estimate of how long a delay the Ca and Na diluted results would add to the data delivery?

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Wednesday, June 29, 2011 9:55 AM
To: Blackmon, Jacqueline
Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Checking on the need for Ca and Na results. In the meantime, please confirm that if the diluted Ca & Na analyses were run, they would not be billable. Also, could you get an estimate of how long a delay the Ca & Na diluted results would add to the data delivery by the lab. Thanks.

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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From: Blackmon, Jacqueline
Sent: Tuesday, June 28, 2011 1:22 PM
To: 'Raymond Flores'
Cc: 'Mahmoud Elfeky'; 'Myra Perez'
Subject: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Ray,

SENTIN has confirmed that these samples were run undiluted. Out of 2 of the SDGs that the laboratory has analyzed so far, 3 samples are below the CRQL for Cr. The other samples ran at a range of 7 - 170 ppb for Cr.

Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted.

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Tuesday, June 28, 2011 1:16 PM
To: Blackmon, Jacqueline
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Yes these samples were run undiluted. Out of 2 of the SDGs that we have analyzed so far 3 samples are below the CRQL for Cr. The other samples ran at a range of 7 - 170 ppb for Cr.

Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

----- Original Message -----
From: Blackmon, Jacqueline
To: Randi Richey
Sent: Tuesday, June 28, 2011 9:05 AM
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Randi,

Can you please confirm that these analyses were run undiluted? Also, did the lab achieve the CRQLs for Chromium, e.g, was Chromium quantified as a positive or reported down to the CRQL or MDL as undetected?

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Tuesday, June 28, 2011 9:57 AM
To: Blackmon, Jacqueline
Cc: Elfeky.Mahmoud@epamail.epa.gov; Perez.Myra@epamail.epa.gov
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Assuming these analyses were run undiluted, did the lab achieve the CRQLs for Chromium, e.g, was Chromium quantified as a positive or reported down to the CRQL or MDL as undetected?

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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-----"Blackmon, Jacqueline" <jblackmon3@fedcsc.com> wrote: -----

To: Raymond Flores/R6/USEPA/US@EPA
From: "Blackmon, Jacqueline" <jblackmon3@fedcsc.com>

Date: 06/28/2011 08:13AM
Cc: Mahmoud Elfeky/R6/USEPA/US@EPA, Myra Perez/R6/USEPA/US@EPA
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems
Ray,
SENTIN is reporting the following issue for Case 41486. Please advise.

Issue: Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.

Please let me know if you have any questions or problems.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Monday, June 27, 2011 5:01 PM
To: Blackmon, Jacqueline
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Shipping information

Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. Can you please ask the region if they will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.

Thanks
Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

CLP Laboratory Waiver Request Form

Waiver Item No.: 1

Date: 6/30/11

Laboratory Name: SENTIN

Contract Number: EPW09040

Modified Analysis No.: NA

SOW: ISM01.2

Case/SDG: 41486/MF4N06, MF4N61, MF4N05, MF4N01

Faction Affected: All samples

Sample Numbers: All samples

Modified Analysis or SOW# Citation to be waived: TR.1.3/TR.1.4

Justification for Non-Compliance:

Many samples contained extremely high concentrations of calcium and sodium. Per discussions with Region VI, it was mutually agreed that Ca and Na would not be diluted and reanalyzed on the ICP-MS due the negative impacts on the life of the detector. Therefore, these two analytes were not reported in the forms and on the EDD because of compliance issues related to the fact that these samples were not diluted and reanalyzed. Ca and sodium raw data is provided in the SDG packages.

Thank you for your consideration.

Initial Assesment Screening Results

SDG MF4N06 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125102 **Version** 7.09
DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Automated Defect Detail

METHOD = ICP MS

Defect Analysis	Column ID	Analyte	Peak	Peak Comparison	Reported/Recalculated Value	Expected Value
Test IAT-04-12 **Defect** TR.1.3 **Associated Samples:** **Comments:**	**Required analyte data are missing for the sample.** **MF4N60, MF4N38, MF4N14, MF4N15, MF4N21, MF4N10, MF4N20, MF4N07, MF4N44, MF4N43, MF4N08, MF4N59, MF4N06, MF4N37, MF4N09**					
MF4N06					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N07					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N08					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N09					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N10					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N14					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N15					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N20					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N21					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N37					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N38					CAS Number =7440-70-2, CAS Number =7440-23-5	Analysis/Analyte for each requested analyte
MF4N43					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N44					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N59					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N60					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
Test IAT-04-120 **Defect** TR.1.4 **Associated Samples:** **Comments:**	**Required Reported Result data are missing for the sample.** **MF4N60, MF4N38, MF4N14, MF4N15, MF4N21, MF4N10, MF4N20, MF4N07, MF4N44, MF4N43, MF4N08, MF4N59, MF4N06, MF4N37, MF4N09**					
MF4N06					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N07					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N08					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N09					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N10					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N14					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N15					7440-23-5, 7440-70-2	ReportedResult for each analyte

Randi Richey

From: "MelvinKilgore" <mkilgore@southeasternbioenergy.com>
To: <flores.raymond@epamail.epa.gov>
Cc: "'Beverly Kilgore'" <bkilgore@sentinellab.com>; <rrichey@sentinellab.com>
Sent: Tuesday, June 28, 2011 1:32 PM
Subject: Case 41480

Hi Ray,

Regarding the subject case we have four SDGs (MF4N01, MF4N06, MF4N05 and MF4N61) that have very high Ca and Na concentrations in most of the samples. The trace elements (including Cr) are low. I would prefer not to dilute these samples because we do not want to subject the mass spectrometer to excessive Na and Ca concentrations that would result from diluting and reanalyzing almost every sample in the case to get these two analytes within a reportable range.

Our software will not report EDD data outside of acceptable limits. Therefore, if acceptable to R6, we would like to run the samples undiluted and report all analytes except for Ca and Na. The data for these two analytes (undiluted) would still be included as part of the raw data. R6 could either request that Ca and Na not be required for reporting or could provide a waiver for the missing data for these two analytes in the EDD. Please feel free to contact Beverly or myself to discuss at your convenience.
Thanks,

Melvin

Melvin V. Kilgore, Jr.

Sentinel, Inc.
4733 Commercial Drive
Huntsville, AL 35816
(256) 534-9800 ext 22
(256) 864-2569 (fax)

Randi Richey

From: "Blackmon, Jacqueline" <jblackmon3@fedcsc.com>
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Cc: "Marvelyn Humphrey" <humphrey.marvelyn@epa.gov>; "Mahmoud Elfeky" <Elfeky.Mahmoud@epamail.epa.gov>; "Myra Perez" <perez.myra@epa.gov>; "Raymond Flores" <Flores.Raymond@epamail.epa.gov>
Sent: Wednesday, June 29, 2011 10:18 AM
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems | FINAL

Randi,
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Summary Start
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Resolution: Per Region 6, the Region will not pursue the required Na and Ca diluted analyses. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.
Summary End

Please let me know if you have any questions or problems. To waive any defect(s) associated with this issue, please contact your PO.
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Ray,
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1.) That is correct, any dilutions and/or reanalyses (unless it is an actual reanalysis request that is scheduled and marked as billable) are not billable.

2.) The delay that the Ca and Na diluted results would add to the data delivery would be: "It would delay package submittal by at least 5 days. If dilutions are not required then packages are ready to be put together.

However, all data would be submitted within the 21 day TAT."

I will inform the lab of the Region's resolution.
Thanks,
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Jackie,

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Raymond Flores
Inorganics Program Manager
OSRTI/ASB

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1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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Randi,

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Sent: Wednesday, June 29, 2011 9:55 AM
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Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Checking on the need for Ca and Na results. In the meantime, please confirm that if the diluted Ca & Na analyses were run, they would not be billable. Also, could you get an estimate of how long a delay the Ca & Na diluted results would add to the data delivery by the lab. Thanks.

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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Sent: Tuesday, June 28, 2011 1:22 PM
To: 'Raymond Flores'
Cc: 'Mahmoud Elfeky'; 'Myra Perez'
Subject: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Ray,

SENTIN has confirmed that these samples were run undiluted. Out of 2 of the SDGs that the laboratory has analyzed so far, 3 samples are below the CRQL for Cr. The other samples ran at a range of 7 - 170 ppb for Cr.

Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted.

Thanks,
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Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Tuesday, June 28, 2011 1:16 PM
To: Blackmon, Jacqueline
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Yes these samples were run undiluted. Out of 2 of the SDGs that we have analyzed so far 3 samples are below the CRQL for Cr. The other samples ran at a range of 7 - 170 ppb for Cr.

Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

---- Original Message ----
From: Blackmon, Jacqueline
To: Randi Richey
Sent: Tuesday, June 28, 2011 9:05 AM
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Randi,

Can you please confirm that these analyses were run undiluted? Also, did the lab achieve the CRQLs for Chromium, e.g, was Chromium quantified as a positive or reported down to the CRQL or MDL as undetected?

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Tuesday, June 28, 2011 9:57 AM
To: Blackmon, Jacqueline
Cc: Elfeky.Mahmoud@epamail.epa.gov; Perez.Myra@epamail.epa.gov
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Assuming these analyses were run undiluted, did the lab achieve the CRQLs for Chromium, e.g, was Chromium quantified as a positive or reported down to the CRQL or MDL as undetected?

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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-----"Blackmon, Jacqueline" <jblackmon3@fedcsc.com> wrote: -----

To: Raymond Flores/R6/USEPA/US@EPA
From: "Blackmon, Jacqueline" <jblackmon3@fedcsc.com>

Date: 06/28/2011 08:13AM
Cc: Mahmoud Elfeky/R6/USEPA/US@EPA, Myra Perez/R6/USEPA/US@EPA
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems
Ray,
SENTIN is reporting the following issue for Case 41486. Please advise.

Issue: Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.

Please let me know if you have any questions or problems.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Monday, June 27, 2011 5:01 PM
To: Blackmon, Jacqueline
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Shipping information

Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. Can you please ask the region if they will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.

Thanks
Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET R6

LABORATORY NAME Sentinel Inc
CITY/STATE Huntsville AL
CASE NO. 41486 SDG NO. MF4N01
SDG NOs. TO FOLLOW NA
MOD. REF. NO. NA
CONTRACT NO. EPW09040
SOW NO. ISM01.2

All documents delivered in the Complete SDG File must be original documents where possible. (Reference - Exhibit B Section 2.6)

		PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
1.	Inventory Sheet (DC-2)	1	2	✓	✓
2.	SDG Narrative	3	5	✓	✓
3.	Sample Log-In Sheet (DC-1)	6	6	✓	✓
4.	Traffic Report/Chain of Custody Record(s)	7	8	✓	✓
5.	Cover Page	9	9	✓	✓
Inorganic Analysis					
6.	Data Sheet (Form I-IN)	10	22	✓	✓
7.	Initial & Continuing Calibration Verification (Form IIA-IN)	23	24	✓	✓
8.	Blanks (Form III-IN)	25	27	✓	✓
9.	ICP-AES Interference Check Sample (Form IVA IN)				
10.	ICP-MS Interference Check Sample (Form IVB IN)	28	29	✓	✓
11.	Matrix Spike Sample Recovery (Form VA-IN)	30	30	✓	✓
12.	Post-Digestion Spike Sample Recovery (Form VB IN)				
13.	Duplicates (Form VI-IN)	31	31	✓	✓
14.	Laboratory Control Sample (Form VII-IN)	32	32	✓	✓
15.	ICP-AES and ICP-MS Serial Dilutions (Form VIII-IN)	33	33	✓	✓
16.	Method Detection Limit (Annually) (Form IX-IN)	34	34	✓	✓
17.	ICP-AES Interelement Correction Factors (Annually) (Form XA-IN)				
18.	ICP-AES Interelement Correction Factors (Annually) (Form XB-IN)				
19.	Internal Standard Association (Form XI-IN)	35	36	✓	✓
20.	Preparation Log (Form XII-IN)	37	37	✓	✓
21.	Analysis Run Log (Form XIII-IN)	38	40	✓	✓
22.	ICP-MS Tune (Form XIV-IN)	41	42	✓	✓

FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

		PAGE NOs. FROM	PAGE NOs. TO	CHECK LAB	CHECK REGION
23.	ICP-MS Internal Standards Relative Intensity Summary (Form XV-IN)	43	48	✓	✓
24.	Initial Calibration (Form XVI-IN)	49	52	✓	✓
25.	ICP-AES Raw Data				
26.	ICP-MS Raw Data	53	200	✓	✓
27.	Mercury Raw Data				
28.	Cyanide Raw Data				
29.	Preparation Logs Raw Data	201	201	✓	✓
30.	Percent Solids Determination Log				
31.	USEPA Shipping/Receiving Documents				
	Airbill (No. of Shipments 1)	202	203	✓	✓
	Sample Tags	204	208	✓	✓
	Sample Log-In Sheet (Lab)	209	209	✓	✓
32.	Misc. Shipping/Receiving Records (list all individual records)				
	Communication Logs	210	211	✓	✓
	Custody Seal				
	SDG Cover Sheet	212	212	✓	✓
33.	Internal Lab Sample Transfer Records & Tracking Sheets (describe or list)				
	SDG Tracking Report	213	213	✓	✓
34.	Internal Original Sample Prep & Analysis Records (describe or list)				
	Prep Records	214	220	✓	✓
	Analysis Records	221	221	✓	✓
	PE Instructions				
	Description				
35.	Other Records (describe or list)				
	Communication Logs	222	236	✓	
	Defect Report	237	255	✓	

36. Comments:

Completed by: (CLP Lab) (Signature) [illegible] (Print Name & Title) 7/1/11 (Date)

Audited by: ~~(USEPA)~~ ESAT (Signature) Sonya Meekins (Print Name & Title) Data Reviewer 8/16/11 (Date)

ISM01.2 (1/10) Form DC-2-2

U.S. EPA - CLP

SDG NARRATIVE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Sentinel, Inc. SOW No.: ISM01.2 Contract:EPW09040

Lab Code: SENTIN Case No.: 41486 NRAS No.: SDG No.: MF4N01

SAMPLE RECEIPT: Temperature Blank: PRESENT ✓ ABSENT ____
If a blank is absent, a non-invasive laser measurement it taken using a sample.
Cooler temperature(s) recorded via laser measurement were: 2.3, 5.3
Refer to Record of Communication (ROC) regarding EPA Sample # discrepancies for samples:
None

Refer to ROC regarding tag discrepancies for samples:
None

Refer to ROC regarding sample preservation discrepancies for samples:
None

Refer to ROC regarding: Analysis of Ca + Na

QC Specified: Yes ✓ No ____ If no, chose: ____

ANALYSIS: The following analyte(s) were estimated due to possible matrix interferences:
Al, As, V

DOCUMENT CONTROL: The following invalid defects resulted due to CCS program anomalies:
Initial Assessment: None
Full Assessment: SAM-08-1041, SAM-10-5011

OTHER: 1. ICP-MS Mean Values in the raw data are incorrect due to TJA software anomalies.
2. Internal Standard calculations in the raw data are reported as the reciprocal values of the %RI (decimal form - not a percentage) with the control limits as stated in the SOW Exhibit D (ICP-MS) Section 12.10.

Signature: [signature]

Name & Title: Bhalique [signature] Date: 7/1/11

SDG NARRATIVE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Sentinel, Inc. SOW No.: ISM01.2 Contract:EPW09040

Lab Code: SENTIN Case No.: 41486 NRAS No.: SDG No.: ~~MF4N01~~ 7/1/11 ~~MF4N401~~ MF4N01

EQUATIONS:

AES LW 200.7 Method: Concentration (µg/L) = C x (V_f/V) x DF

WHERE, C = Instrument value in µg/L (The average of all replicate exposures)
V_f = Final digestion volume (mL)
V = Initial aliquot amount (mL)
DF = Dilution Factor

AES LS 3050B Method: Concentration (dry wt.) (mg/kg) = C x ((V_f /(W x S)) x DF / 1000

WHERE, C = Instrument Value in ug/L (The average of all replicate exposures)
V_f = Final sample volume in Liters (mL)
W = Initial aliquot amount (g)
S = % Solids/100
DF = Dilution Factor

AES Wipe/Filter Method: Mass (ug) = C x V_f x DF/1000

WHERE, C = Instrument Value in ug/L (The average of all replicate exposures)
V_f = Final digestion volume (mL)
DF = Dilutions Factor

MS LW 200.8 Method: Concentration (µg/L) = C x (V_f/V) x DF

WHERE, C = Instrument value in µg/L (The average of all replicate integrations)
V_f = Final digestion volume (50 mL)
V = Initial aliquot amount (50 mL)
DF = Dilution Factor

MS LS 3050B Method: Concentration (dry wt.) (mg/kg) = C x ((V_f /(W x S)) x DF / 1000

WHERE, C = Instrument Value in ug/L (The average of all replicate exposures)
V_f = Final sample volume in Liters (mL)
W = Initial aliquot amount (g)
S = % Solids/100
DF = Dilution Factor

Signature: [signature]

Name & Title: Bhuvigne [illegible] Date: 7/1/11

7/1/11

SDG NARRATIVE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Sentinel, Inc. SOW No.: ISM01.2 Contract:EPW09040

Lab Code: SENTIN Case No.: 41486 NRAS No.: SDG No.: MF4N01

EQUATIONS:

HG LW 7470A Method: Hg Concentration (µg/L) = C x DF

WHERE, C = Instrument response in µg/L Hg from the calibration curve
DF = Dilution Factor

HG LS 7471B Method: Hg Concentration (mg/kg) = (C x ((1/(W x S)) x DF x 0.1

WHERE, C = Instrument value in µg/L from the calibration curve
W = Initial aliquot amount (g)
S = % Solids/100
DF = Dilution Factor

CN LW Micro Distillation Method: CN Concentration (µg/L) = C x (V_f/V) x DF

WHERE, C = Instrument response in µg/L CN from the calibration curve
DF = Dilution factor
V_f = Final prepared volume (mL)
V = Initial aliquot amont (mL)

CN LS Micro Distillation Method: CN Concentration (mg/kg) = C x((V_f /(W x S)) x (1/1000) x DF

WHERE, C = Instrument response in µg/L CN from the calibration curve
DF = Dilution factor
V_f = Final prepared volume (mL)
S = % Solids/100
W = Initial aliquot amount (g)

Signature: _____

Name & Title: Bacilgine Quintana Date: 7/1/11

SAMPLE LOG-IN SHEET

Lab Name Sentinel		Page 1 of 1
Received By (Print Name) Randi Richey / Tom York		Log-in Date 06/25/2011
Received By (Signature)		
Case Number 41486	Sample Delivery Group No. MF4N01	Mod. Ref. No.

Remarks:	
1. Custody Seal(s)	Present/Absent* Intact/Broken
2. Custody Seal Nos.	NA
3 Traffic Reports/Chain of Custody Records or Packing Lists	Present/Absent*
4. Airbill	Airbill/Sticker Present/Absent*
5. Airbill No.	7948 79810994 7948 79809784
6. Sample Tags Sample Tag Numbers	Present/Absent* Listed/Not Listed on Traffic Report/Chain of Custody Record
7. Sample Condition	Intact/Broken*/Leaking
8. Cooler Temperature Indicator Bottle	Present/Absent*
9. Cooler Temperature	2.3, 5.3
10. Does information on Traffic Reports/Chain of Custody Records and sample tags agree?	Yes/No*
11. Date Received at Lab	06/25/2011
12. Time Received	1050

Sample Transfer	
Fraction All	Fraction
Area # Cooler	Area #
By	By
On	On

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MF4N01	<2	6455816	14912	
2	MF4N02	<2	6455817	14913	
3	MF4N03	<2	6455818	14914	
4	MF4N04	<2	6455819	14915	
5	MF4N11	<2	6455826	14916	
6	MF4N17	<2	6455832	14917	
7	MF4N29	<2	6455844	14918	
8	MF4N30	<2	6455845	14919	
9	MF4N31	<2	6455834,46	14920	QC
10	MF4N32	<2	6455847	14921	
11	MF4N53	<2	6455871	14922	
12	MF4N54	<2	6455872	14923	
13	MF4N67	<2	6455886	14924	
14					
15					
16					
17					
18					
19					
20					
21					
22					

* Contact SMO and attach record of resolution

Reviewed By	Logbook No. 2
Date 7/1/11	Logbook Page No. 145

FORM DC-1 ISM01

USEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 41486
DAS No:
SDG No: MF4N01

L

Date Shipped:	6/23/2011
Carrier Name:	FedEx
Airbill:	7948 7981 0994
Shipped to:	Sentinel Inc. 4733 Commercial Drive Huntsville AL 35816 (256) 534-9800

Chain of Custody Record

Sampler Signature:

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 Redmond Moore	6/23/11 1800		6/25/11 1050
2			
3			
4			

For Lab Use Only

Lab Contract No: EPW09040
Unit Price:
Transfer To:
Lab Contract No:
Unit Price:

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
MF4N01	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455816 (HNO3) (1)	LMW-1	S: 6/22/2011	15:35		
MF4N02	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455817 (HNO3) (1)	LMW-2	S: 6/22/2011	16:25		
MF4N03	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455818 (HNO3) (1)	LMW-105	S: 6/23/2011	8:45		
MF4N04	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455819 (HNO3) (1)	LMW-103	S: 6/22/2011	15:23		
MF4N11	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455826 (HNO3) (1)	LMW-404	S: 6/22/2011	16:24		
MF4N17	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455832 (HNO3) (1)	LMW-401	S: 6/22/2011	11:20		
MF4N53	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455871 (HNO3) (1)	WMW-22A	S: 6/22/2011	17:22		
MF4N54	Ground Water/ DWAINE BEARD	L/G	TM ISM01.2 (21)	6455872 (HNO3) (1)	WMW-22B	S: 6/23/2011	9:00		

Temp blk = 2-3°C

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s): Duwaine Beard	Cooler Temperature Upon Receipt: 2-3°C	Chain of Custody Seal Number: NA
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? ___ Shipment Iced? ___

TM ISM01.2 = TM ISM01.2 / ICP-MS

TR Number: 6-042412979-062311-0002

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

USEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 41486
DAS No:
SDG No: MF4N01

L

Date Shipped:	6/23/2011
Carrier Name:	FedEx
Airbill:	7948 7980 9784
Shipped to:	Sentinel Inc. 4733 Commercial Drive Huntsville AL 35816 (256) 534-9800

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 [signature]	6/18/11 1800	[signature]	6/25/11 1050
2			
3			
4			

Sampler Signature: [signature]

For Lab Use Only

Lab Contract No: EPW09040
Unit Price:
Transfer To:
Lab Contract No:
Unit Price:

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
MF4N29	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455844 (HNO3) (1)	WMW-04A	S: 6/22/2011	11:15		
MF4N30	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455845 (HNO3) (1)	WMW-04B	S: 6/22/2011	12:00		
MF4N31	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455834 (HNO3), 6455846 (HNO3) (2)	WMW-05A	S: 6/22/2011	13:45		
MF4N32	Ground Water/ DUANE THOMAS	L/G	TM ISM01.2 (21)	6455847 (HNO3) (1)	WMW-05B	S: 6/22/2011	14:30		
MF4N67	Ground Water/ DUANE THOMAS	M/G	TM ISM01.2 (21)	6455886 (HNO3) (1)	WMW-05B DUP	S: 6/22/2011	14:30		

Temp Blk = 5.3°C

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number:
	MF4N31	Duaine Beard	5.3°C	NA

Analysis Key: Concentration: L = Low, M = Low/Medium, H = High Type/Designate: Composite = C, Grab = G

Custody Seal Intact? ✓ Shipment Iced? ✓

TM ISM01.2 = TM ISM01.2 / ICP-AES

TR Number: 6-042412979-062311-0001

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

USEPA - CLP

COVER PAGE

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

SOW No.: ISM01.2

EPA SAMPLE NO.	Lab Sample ID.
MF4N01	14912
MF4N02	14913
MF4N03	14914
MF4N04	14915
MF4N11	14916
MF4N17	14917
MF4N29	14918
MF4N30	14919
MF4N31	14920
MF4N31D	14920S2
MF4N31S	14920MS
MF4N32	14921
MF4N53	14922
MF4N54	14923
MF4N67	14924

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

The laboratory did not receive any instructions with this SDG to modify the SOW standard laboratory sample preparation procedures (e.g., subsampling). To aid in the determination of data usability with respect to project decisions, any modifications performed are described below.

Comments:

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

Signature: Name: Richard Gove

Date: 7/1/11 Title: QA Officer

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N01

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14912

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	235		*E	MS
7440-36-0	Antimony	0.24	J		MS
7440-38-2	Arsenic	15.9		E	MS
7440-39-3	Barium	55.7			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	0.039	J		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	36.8			MS
7440-48-4	Cobalt	1.9			MS
7440-50-8	Copper	4.2		*	MS
7439-89-6	Iron	899			MS
7439-92-1	Lead	0.72	J		MS
7439-95-4	Magnesium	40100			MS
7439-96-5	Manganese	38.1			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	28.0			MS
7440-09-7	Potassium	2520			MS
7782-49-2	Selenium	4.4	J		MS
7440-22-4	Silver	0.13	J		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	71.8		E	MS
7440-66-6	Zinc	6.0			MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N02

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14913

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	186		*E	MS
7440-36-0	Antimony	0.21	J		MS
7440-38-2	Arsenic	21.8		E	MS
7440-39-3	Barium	56.9			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	1.0	U		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	36.1			MS
7440-48-4	Cobalt	1.0			MS
7440-50-8	Copper	7.8		*	MS
7439-89-6	Iron	1180			MS
7439-92-1	Lead	0.26	J		MS
7439-95-4	Magnesium	46500			MS
7439-96-5	Manganese	9.9			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	20.5			MS
7440-09-7	Potassium	1470			MS
7782-49-2	Selenium	5.2			MS
7440-22-4	Silver	0.041	J		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	81.9		E	MS
7440-66-6	Zinc	2.0	J		MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N03

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14914

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	141		*E	MS
7440-36-0	Antimony	0.12	J		MS
7440-38-2	Arsenic	15.6		E	MS
7440-39-3	Barium	44.0			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	0.074	J		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.6			MS
7440-48-4	Cobalt	0.54	J		MS
7440-50-8	Copper	1.5	J	*	MS
7439-89-6	Iron	73.0	J		MS
7439-92-1	Lead	0.40	J		MS
7439-95-4	Magnesium	51700			MS
7439-96-5	Manganese	6.3			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	5.4			MS
7440-09-7	Potassium	2760			MS
7782-49-2	Selenium	7.0			MS
7440-22-4	Silver	1.0	U		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	72.3		E	MS
7440-66-6	Zinc	3.3			MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N04

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14915

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	82.5		*E	MS
7440-36-0	Antimony	0.092	J		MS
7440-38-2	Arsenic	13.8		E	MS
7440-39-3	Barium	51.1			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	0.036	J		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.6			MS
7440-48-4	Cobalt	0.26	J		MS
7440-50-8	Copper	1.1	J	*	MS
7439-89-6	Iron	14.5	J		MS
7439-92-1	Lead	0.10	J		MS
7439-95-4	Magnesium	52600			MS
7439-96-5	Manganese	0.32	J		MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	3.0			MS
7440-09-7	Potassium	3670			MS
7782-49-2	Selenium	6.7			MS
7440-22-4	Silver	1.0	U		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	58.4		E	MS
7440-66-6	Zinc	0.81	J		MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N11

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14916

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	110		*E	MS
7440-36-0	Antimony	0.20	J		MS
7440-38-2	Arsenic	17.2		E	MS
7440-39-3	Barium	40.9			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	0.040	J		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	7.1			MS
7440-48-4	Cobalt	0.26	J		MS
7440-50-8	Copper	1.2	J	*	MS
7439-89-6	Iron	39.5	J		MS
7439-92-1	Lead	0.17	J		MS
7439-95-4	Magnesium	48200			MS
7439-96-5	Manganese	1.6			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	3.2			MS
7440-09-7	Potassium	2080			MS
7782-49-2	Selenium	5.5			MS
7440-22-4	Silver	0.024	J		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	72.6		E	MS
7440-66-6	Zinc	1.4	J		MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N17

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14917

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	114		*E	MS
7440-36-0	Antimony	0.20	J		MS
7440-38-2	Arsenic	19.2		E	MS
7440-39-3	Barium	32.9			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	1.0	U		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	37.5			MS
7440-48-4	Cobalt	0.21	J		MS
7440-50-8	Copper	1.3	J	*	MS
7439-89-6	Iron	32.9	J		MS
7439-92-1	Lead	0.17	J		MS
7439-95-4	Magnesium	43300			MS
7439-96-5	Manganese	0.95	J		MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	2.4			MS
7440-09-7	Potassium	2040			MS
7782-49-2	Selenium	6.9			MS
7440-22-4	Silver	1.0	U		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	79.5		E	MS
7440-66-6	Zinc	0.98	J		MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N29

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14918

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	490		*E	MS
7440-36-0	Antimony	1.1	J		MS
7440-38-2	Arsenic	8.8		E	MS
7440-39-3	Barium	71.4			MS
7440-41-7	Beryllium	0.028	J		MS
7440-43-9	Cadmium	0.047	J		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	89.6			MS
7440-48-4	Cobalt	1.8			MS
7440-50-8	Copper	5.5		*	MS
7439-89-6	Iron	555			MS
7439-92-1	Lead	0.81	J		MS
7439-95-4	Magnesium	46600			MS
7439-96-5	Manganese	24.8			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	40.5			MS
7440-09-7	Potassium	30500		D	MS
7782-49-2	Selenium	12.4			MS
7440-22-4	Silver	0.026	J		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	0.035	J		MS
7440-62-2	Vanadium	24.4		E	MS
7440-66-6	Zinc	7.1			MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM IA-IN ISM01.2 (1/10)

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N30

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14919

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	342		*E	MS
7440-36-0	Antimony	0.38	J		MS
7440-38-2	Arsenic	8.0		E	MS
7440-39-3	Barium	54.8			MS
7440-41-7	Beryllium	0.072	J		MS
7440-43-9	Cadmium	1.0	U		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	17.9			MS
7440-48-4	Cobalt	0.78	J		MS
7440-50-8	Copper	2.2		*	MS
7439-89-6	Iron	286			MS
7439-92-1	Lead	0.64	J		MS
7439-95-4	Magnesium	31900			MS
7439-96-5	Manganese	21.5			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	18.5			MS
7440-09-7	Potassium	9640			MS
7782-49-2	Selenium	6.9			MS
7440-22-4	Silver	1.0	U		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	16.9		E	MS
7440-66-6	Zinc	5.9			MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N31

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14920

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	374		*E	MS
7440-36-0	Antimony	0.21	J		MS
7440-38-2	Arsenic	8.9		E	MS
7440-39-3	Barium	91.7			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	0.028	J		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	353			MS
7440-48-4	Cobalt	0.52	J		MS
7440-50-8	Copper	2.0	J	*	MS
7439-89-6	Iron	165	J		MS
7439-92-1	Lead	0.47	J		MS
7439-95-4	Magnesium	43100			MS
7439-96-5	Manganese	7.4			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	9.2			MS
7440-09-7	Potassium	6990			MS
7782-49-2	Selenium	7.9			MS
7440-22-4	Silver	1.0	U		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	21.4		E	MS
7440-66-6	Zinc	2.6			MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM IA-IN ISM01.2 (1/10)

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1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N32

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14921

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	355		*E	MS
7440-36-0	Antimony	0.90	J		MS
7440-38-2	Arsenic	9.9		E	MS
7440-39-3	Barium	55.3			MS
7440-41-7	Beryllium	0.044	J		MS
7440-43-9	Cadmium	1.0	U		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	127			MS
7440-48-4	Cobalt	1.4			MS
7440-50-8	Copper	2.0		*	MS
7439-89-6	Iron	243			MS
7439-92-1	Lead	0.52	J		MS
7439-95-4	Magnesium	28200			MS
7439-96-5	Manganese	56.0			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	17.7			MS
7440-09-7	Potassium	7100			MS
7782-49-2	Selenium	9.5			MS
7440-22-4	Silver	0.024	J		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	0.039	J		MS
7440-62-2	Vanadium	10.1		E	MS
7440-66-6	Zinc	5.0			MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N53

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14922

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1110		*E	MS
7440-36-0	Antimony	0.13	J		MS
7440-38-2	Arsenic	9.3		E	MS
7440-39-3	Barium	65.6			MS
7440-41-7	Beryllium	0.16	J		MS
7440-43-9	Cadmium	0.025	J		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7			MS
7440-48-4	Cobalt	1.4			MS
7440-50-8	Copper	2.3		*	MS
7439-89-6	Iron	633			MS
7439-92-1	Lead	1.9			MS
7439-95-4	Magnesium	46200			MS
7439-96-5	Manganese	62.8			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	4.5			MS
7440-09-7	Potassium	5670			MS
7782-49-2	Selenium	6.6			MS
7440-22-4	Silver	1.0	U		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	37.8		E	MS
7440-66-6	Zinc	20.0			MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N54

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14923

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2430		*E	MS
7440-36-0	Antimony	0.28	J		MS
7440-38-2	Arsenic	5.3		E	MS
7440-39-3	Barium	68.5			MS
7440-41-7	Beryllium	0.41	J		MS
7440-43-9	Cadmium	1.0	U		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	15.7			MS
7440-48-4	Cobalt	5.7			MS
7440-50-8	Copper	5.8		*	MS
7439-89-6	Iron	871			MS
7439-92-1	Lead	3.3			MS
7439-95-4	Magnesium	27700			MS
7439-96-5	Manganese	166			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	17.4			MS
7440-09-7	Potassium	8190			MS
7782-49-2	Selenium	9.0			MS
7440-22-4	Silver	0.062	J		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	0.047	J		MS
7440-62-2	Vanadium	12.5		E	MS
7440-66-6	Zinc	9.0			MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM IA-IN ISM01.2 (1/10)

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1A-IN
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MF4N67

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: (soil/water) WATER Lab Sample ID: 14924

% Solids: Date Received: 06/25/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	955		*E	MS
7440-36-0	Antimony	0.88	J		MS
7440-38-2	Arsenic	9.9		E	MS
7440-39-3	Barium	58.8			MS
7440-41-7	Beryllium	0.055	J		MS
7440-43-9	Cadmium	0.026	J		MS
7440-70-2	Calcium				NR
7440-47-3	Chromium	129			MS
7440-48-4	Cobalt	1.3			MS
7440-50-8	Copper	2.2		*	MS
7439-89-6	Iron	496			MS
7439-92-1	Lead	0.68	J		MS
7439-95-4	Magnesium	28400			MS
7439-96-5	Manganese	58.6			MS
7439-97-6	Mercury				NR
7440-02-0	Nickel	11.7			MS
7440-09-7	Potassium	7190			MS
7782-49-2	Selenium	9.4			MS
7440-22-4	Silver	0.045	J		MS
7440-23-5	Sodium				NR
7440-28-0	Thallium	0.043	J		MS
7440-62-2	Vanadium	10.1		E	MS
7440-66-6	Zinc	5.4			MS
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

USEPA - CLP

2A-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Initial Calibration Verification Source: USEPA 0307

Continuing Calibration Verification Source: INOR-VEN

Concentration Units: ug/L

Analyte	Initial Calibration Verification True	Found	%R(1)	Continuing Calibration Verification True	Found	%R(1)	Found	%R(1)	M
Aluminum	504	488	97.0	51000	50200	98.0	50200	98.0	MS
Antimony	199	198	100	1000	1020	102	1030	103	MS
Arsenic	200	197	98.0	1000	982	98.0	980	98.0	MS
Barium	99.0	100	101	1100	1110	101	1110	101	MS
Beryllium	99.0	98.5	100	1000	959	96.0	964	96.0	MS
Cadmium	99.0	106	107	1000	1030	103	1040	104	MS
Calcium									NR
Chromium	98.0	104	106	1000	972	97.0	967	97.0	MS
Cobalt	100	105	105	1000	998	100	992	99.0	MS
Copper	98.0	107	109	1000	973	97.0	967	97.0	MS
Iron	1020	1050	103	51000	49600	97.0	50200	98.0	MS
Lead	200	192	96.0	1000	989	99.0	1000	100	MS
Magnesium	1220	1220	100	51000	49400	97.0	50000	98.0	MS
Manganese	100	103	103	1000	997	100	1000	100	MS
Mercury									NR
Nickel	101	102	101	1000	935	94.0	927	93.0	MS
Potassium	2000	1990	99.0	10000	10100	101	9980	100	MS
Selenium	206	216	105	1000	1060	106	1060	106	MS
Silver	100	107	107	1000	1040	104	1040	104	MS
Sodium	2020	1980	98.0	51000	49300	97.0	50000	98.0	MS
Thallium	206	197	95.0	1000	988	99.0	1010	101	MS
Vanadium	100	101	101	1000	969	97.0	943	94.0	MS
Zinc	205	223	109	1000	1060	106	1070	107	MS
Cyanide									NR

(1) Control limits: Mercury 85-115; Other Metals 90-110; Cyanide 85-115

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2A-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Initial Calibration Verification Source: USEPA 0307

Continuing Calibration Verification Source: INOR-VEN

Concentration Units: ug/L

Analyte	Initial Calibration Verification True	Found	%R(1)	Continuing Calibration Verification True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium	99.0	103	104	1100	1110	101	1130	103	MS
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium	2000	2070	103	10000	10200	102	10300	103	MS
Selenium									NR
Silver									NR
Sodium	2020	2160	107	51000	49300	97.0	50800	100	MS
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control limits: Mercury 85-115; Other Metals 90-110; Cyanide 85-115

USEPA - CLP

3-IN
BLANKS

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Preparation Blank Matrix (soil/water/wipe/filter): WATER

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum	20.0	U	20.0	U	3.3	J			20.0	U	MS
Antimony	1.2	J	0.53	J	0.59	J			0.14	J	MS
Arsenic	1.0	U	1.0	U	0.20	J			1.0	U	MS
Barium	10.0	U	10.0	U	0.077	J			10.0	U	MS
Beryllium	1.0	U	0.075	J	0.057	J			1.0	U	MS
Cadmium	1.0	U	0.041	J	0.047	J			1.0	U	MS
Calcium											NR
Chromium	2.0	U	2.0	U	0.098	J			2.0	U	MS
Cobalt	1.0	U	0.032	J	0.043	J			1.0	U	MS
Copper	2.0	U	2.0	U	2.0	U			2.0	U	MS
Iron	200	U	200	U	200	U			200	U	MS
Lead	1.0	U	1.0	U	0.13	J			1.0	U	MS
Magnesium	500	U	500	U	3.0	J			500	U	MS
Manganese	1.0	U	1.0	U	1.0	U			1.0	U	MS
Mercury											NR
Nickel	1.0	U	0.044	J	0.046	J			1.0	U	MS
Potassium	500	U	12.4	J	500	U			6.4	J	MS
Selenium	0.25	J	1.1	J	0.40	J			0.68	J	MS
Silver	1.0	U	0.067	J	0.092	J			1.0	U	MS
Sodium	500	U	24.2	J	13.0	J			11.0	J	MS
Thallium	1.0	U	0.11	J	0.11	J			0.058	J	MS
Vanadium	5.0	U	0.14	J	5.0	U			5.0	U	MS
Zinc	2.0	U	2.0	U	2.0	U			2.0	U	MS
Cyanide											NR

USEPA - CLP

3-IN
BLANKS

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Preparation Blank Matrix (soil/water/wipe/filter): WATER

Preparation Blank Concentration Units (ug/L, ug, or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum	20.0	U	20.0	U	3.3	J			20.0	U	MS
Antimony	1.2	J	0.53	J	0.59	J			0.14	J	MS
Arsenic	1.0	U	1.0	U	0.20	J			1.0	U	MS
Barium	10.0	U	10.0	U	0.077	J			10.0	U	MS
Beryllium	1.0	U	0.075	J	0.057	J			1.0	U	MS
Cadmium	1.0	U	0.041	J	0.047	J			1.0	U	MS
Calcium											NR
Chromium	2.0	U	2.0	U	0.098	J			2.0	U	MS
Cobalt	1.0	U	0.032	J	0.043	J			1.0	U	MS
Copper	2.0	U	2.0	U	2.0	U			2.0	U	MS
Iron	200	U	200	U	200	U			200	U	MS
Lead	1.0	U	1.0	U	0.13	J			1.0	U	MS
Magnesium	500	U	500	U	3.0	J			500	U	MS
Manganese	1.0	U	1.0	U	1.0	U			1.0	U	MS
Mercury											NR
Nickel	1.0	U	0.044	J	0.046	J			1.0	U	MS
Potassium	500	U	12.4	J	500	U			6.4	J	MS
Selenium	0.25	J	1.1	J	0.40	J			0.68	J	MS
Silver	1.0	U	0.067	J	0.092	J			1.0	U	MS
Sodium	500	U	24.2	J	13.0	J			11.0	J	MS
Thallium	1.0	U	0.11	J	0.11	J			0.058	J	MS
Vanadium	5.0	U	0.14	J	5.0	U			5.0	U	MS
Zinc	2.0	U	2.0	U	2.0	U			2.0	U	MS
Cyanide											NR

USEPA - CLP

3-IN
BLANKS

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Preparation Blank Matrix (soil/water/wipe/filter):

Preparation Blank Concentration Units (ug/L, ug, or mg/kg):

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium	0.27	J	0.65	J	0.19	J					MS
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium	3.9	J	53.5	J	9.4	J					MS
Selenium											NR
Silver											NR
Sodium	22.2	J	87.6	J	29.1	J					MS
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

USEPA - CLP

4B-IN
ICP-MS INTERFERENCE CHECK SAMPLE

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 ICS Source: EPA 0803
ICSB Source: EPA 0803

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Found Sol. A	%R	Found Sol. AB	%R
Aluminum	100000	100000	94200	94	92000	92
Antimony	1.5	22.0	1.2	80	22.1	100
Arsenic	0.10	19.0	1.6	1600	18.5	97
Barium	1.2	22.0	1.6	133	21.9	100
Beryllium	0	19.0	0.23		16.8	88
Cadmium	0.70	20.0	0.015	2	20.3	102
Calcium	100000	100000	110000	110	106000	106
Carbon						
Chloride						
Chromium	21.0	40.0	19.9	95	38.8	97
Cobalt	1.0	20.0	1.2	120	20.2	101
Copper	8.0	25.0	8.6	108	25.4	102
Iron	100000	100000	97200	97	94300	94
Lead	4.0	25.0	4.3	108	24.1	96
Magnesium	100000	100000	96600	97	94400	94
Manganese	7.0	27.0	7.9	113	27.5	102
Nickel	6.0	24.0	5.5	92	21.7	90
Phosphorus						
Potassium	100000	100000	103000	103	98100	98
Selenium	0.30	19.0	1.6	533	20.3	107
Silver	0	18.0	0.019		19.6	109
Sodium	100000	100000	97200	97	95200	95
Sulfur						
Thallium	0	21.0	0.016		21.4	102
Titanium						
Vanadium	0.50	19.0	-0.26	-52	18.9	99
Zinc	11.0	29.0	12.3	112	29.3	101
Molybdenum						

USEPA - CLP

4B-IN
ICP-MS INTERFERENCE CHECK SAMPLE

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 ICS Source: EPA 0803
ICSB Source: EPA 0803

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Found Sol. A	%R	Found Sol. AB	%R
Aluminum	100000	100000	101000	101	100000	100
Antimony						
Arsenic						
Barium	1.2	22.0	1.7	142	23.9	109
Beryllium						
Cadmium						
Calcium	100000	100000	110000	110	111000	111
Carbon						
Chloride						
Chromium						
Cobalt						
Copper						
Iron	100000	100000	105000	105	106000	106
Lead						
Magnesium	100000	100000	103000	103	103000	103
Manganese						
Nickel						
Phosphorus						
Potassium	100000	100000	107000	107	108000	108
Selenium						
Silver						
Sodium	100000	100000	104000	104	103000	103
Sulfur						
Thallium						
Titanium						
Vanadium						
Zinc						
Molybdenum						

USEPA - CLP

5A-IN
MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MF4N31S

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: WATER

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	104		0.21	J	100	104		MS
Arsenic	75-125	46.6		8.9		40.0	94		MS
Barium	75-125	2240		91.7		2000	107		MS
Beryllium	75-125	42.6		1.0	U	50.0	85		MS
Cadmium	75-125	52.3		0.028	J	50.0	105		MS
Calcium									NR
Chromium	75-125	525		353		200	86		MS
Cobalt	75-125	433		0.52	J	500	86		MS
Copper	75-125	205		2.0	J	250	81		MS
Iron									NR
Lead	75-125	21.0		0.47	J	20.0	103		MS
Magnesium									NR
Manganese	75-125	461		7.4		500	91		MS
Mercury									NR
Nickel	75-125	399		9.2		500	78		MS
Potassium									NR
Selenium	75-125	17.2		7.9		10.0	93		MS
Silver	75-125	51.4		1.0	U	50.0	103		MS
Sodium									NR
Thallium	75-125	53.2		1.0	U	50.0	106		MS
Vanadium	75-125	469		21.4		500	90		MS
Zinc	75-125	408		2.6		500	81		MS
Cyanide									NR

Comments:

USEPA - CLP

6-IN
DUPLICATES

EPA SAMPLE NO.

MF4N31D

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: WATER

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		374		227		49	*	MS
Antimony		0.21	J	0.21	J	0		MS
Arsenic		8.9		9.0		1		MS
Barium		91.7		93.1		2		MS
Beryllium		1.0	U	1.0	U			MS
Cadmium		0.028	J	1.0	U	200		MS
Calcium								NR
Chromium		353		351		1		MS
Cobalt		0.52	J	0.58	J	11		MS
Copper		2.0	J	1.4	J	35	*	MS
Iron		165	J	153	J	8		MS
Lead		0.47	J	0.42	J	11		MS
Magnesium		43100		42900		0		MS
Manganese		7.4		7.5		1		MS
Mercury								NR
Nickel		9.2		8.1		13		MS
Potassium		6990		6990		0		MS
Selenium	5.0	7.9		8.0		1		MS
Silver		1.0	U	1.0	U			MS
Sodium								NR
Thallium		1.0	U	1.0	U			MS
Vanadium	5.0	21.4		21.1		1		MS
Zinc	2.0	2.6		2.9		11		MS
Cyanide								NR

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7-IN
LABORATORY CONTROL SAMPLE

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Analyte	Aqueous/Water (ug/L), Soil/Sediment (mg/kg), Wipe/Filter (ug)					
	True		Found		%R	
Aluminum	40.0	ug/L	38.2	ug/L	96	
Antimony	4.0	ug/L	3.9	ug/L	98	
Arsenic	2.0	ug/L	1.9	ug/L	95	
Barium	20.0	ug/L	19.9	ug/L	100	
Beryllium	2.0	ug/L	1.8	ug/L	90	
Cadmium	2.0	ug/L	1.9	ug/L	95	
Calcium						
Chromium	4.0	ug/L	4.2	ug/L	105	
Cobalt	2.0	ug/L	2.2	ug/L	110	
Copper	4.0	ug/L	4.4	ug/L	110	
Iron	400	ug/L	410	ug/L	103	
Lead	2.0	ug/L	2.0	ug/L	100	
Magnesium	1000	ug/L	1020	ug/L	102	
Manganese	2.0	ug/L	2.3	ug/L	115	
Mercury						
Nickel	2.0	ug/L	2.2	ug/L	110	
Potassium	1000	ug/L	1040	ug/L	104	
Selenium	10.0	ug/L	8.8	ug/L	88	
Silver	2.0	ug/L	2.1	ug/L	105	
Sodium	1000	ug/L	1010	ug/L	101	
Thallium	2.0	ug/L	2.3	ug/L	115	
Vanadium	10.0	ug/L	10.5	ug/L	105	
Zinc	4.0	ug/L	4.4	ug/L	110	
Cyanide						

USEPA - CLP

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

EPA SAMPLE NO.

MF4N31L

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Matrix: WATER

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	374		663		77	E	MS
Antimony	0.21	J	0.45	J	114		MS
Arsenic	8.9		7.9		11	E	MS
Barium	91.7		91.7		0		MS
Beryllium	1.0	U	5.0	U			MS
Cadmium	0.028	J	5.0	U	100		MS
Calcium							NR
Chromium	353		384		9		MS
Cobalt	0.52	J	0.65	J	25		MS
Copper	2.0	J	3.1	J	55		MS
Iron	165	J	138	J	16		MS
Lead	0.47	J	0.92	J	96		MS
Magnesium	43100		43100		0		MS
Manganese	7.4		7.7		4		MS
Nickel	9.2		9.4		2		MS
Potassium	6990		7400		6		MS
Selenium	7.9		10.2	J	29		MS
Silver	1.0	U	5.0	U			MS
Sodium							NR
Thallium	1.0	U	5.0	U			MS
Vanadium	21.4		24.2	J	13	E	MS
Zinc	2.6		2.7	J	4		MS

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9-IN
METHOD DETECTION LIMIT (ANNUALLY)

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Instrument Type: MS Instrument ID: MS0 Date: 01/15/2011

Preparation Method: 200.8

Concentration Units (ug/L or mg/kg): UG/L

Analyte	Wavelength /Mass	MDL
Aluminum	27.0	2.4
Antimony	121	0.089
Arsenic	75.0	0.040
Barium	137	0.050
Beryllium	9.0	0.024
Cadmium	111	0.018
Calcium	44.0	68.7
Chromium	52.0	0.044
Cobalt	59.0	0.014
Copper	65.0	0.43
Iron	56.0	11.4
Lead	208	0.074
Magnesium	24.0	2.7
Manganese	55.0	0.063
Mercury		
Nickel	60.0	0.037
Potassium	39.0	3.7
Selenium	78.0	0.24
Silver	107	0.022
Sodium	23.0	7.0
Thallium	205	0.035
Vanadium	51.0	0.094
Zinc	66.0	0.50
Cyanide		

Comments:
MS0: THERMO ELCTRO ICP-MS

USEPA - CLP

11-IN
INTERNAL STANDARDS ASSOCIATION

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Date: 06/28/2011

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Aluminum	LI6	Y89
Antimony	RH103	TB159
Arsenic	LI6	Y89
Barium	RH103	TB159
Beryllium	LI6	Y89
Cadmium	RH103	TB159
Calcium		
Chromium	LI6	Y89
Cobalt	LI6	Y89
Copper	LI6	Y89
Iron		Y89
Lead	HO165	BI209
Magnesium	LI6	Y89
Manganese	LI6	Y89
Nickel	LI6	Y89
Potassium	LI6	LI6
Selenium	LI6	Y89
Silver	RH103	TB159
Sodium	LI6	LI6
Thallium	HO165	BI209
Vanadium	LI6	Y89
Zinc	LI6	Y89

Comments:

USEPA - CLP

11-IN
INTERNAL STANDARDS ASSOCIATION

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Date: 06/30/2011

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Aluminum		
Antimony		
Arsenic		
Barium	RH103	TB159
Beryllium		
Cadmium		
Calcium		
Chromium		
Cobalt		
Copper		
Iron		
Lead		
Magnesium		
Manganese		
Nickel		
Potassium	LI6	SC45
Selenium		
Silver		
Sodium	LI6	SC45
Thallium		
Vanadium		
Zinc		

Comments:

USEPA - CLP

12-IN
PREPARATION LOG

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Preparation Method: 200.8

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
LCS	06/28/2011	50 mL	50
MF4N01	06/28/2011	50 mL	50
MF4N02	06/28/2011	50 mL	50
MF4N03	06/28/2011	50 mL	50
MF4N04	06/28/2011	50 mL	50
MF4N11	06/28/2011	50 mL	50
MF4N17	06/28/2011	50 mL	50
MF4N29	06/28/2011	50 mL	50
MF4N30	06/28/2011	50 mL	50
MF4N31	06/28/2011	50 mL	50
MF4N31D	06/28/2011	50 mL	50
MF4N31S	06/28/2011	50 mL	50
MF4N32	06/28/2011	50 mL	50
MF4N53	06/28/2011	50 mL	50
MF4N54	06/28/2011	50 mL	50
MF4N67	06/28/2011	50 mL	50
PBW	06/28/2011	50 mL	50

USEPA - CLP

13-IN
ANALYSIS RUN LOG

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Instrument ID: MS0 Analysis Method: MS

Start date: 06/28/2011 End date: 06/28/2011

EPA Sample No.	D/F	Time	Analytes																							
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN
TUNE	1.0	1009	_	_	_	_	X	_	_	_	X	_	_	X	X	_	_	_	_	_	_	_	_	_	_	_
S0	1.0	1035	X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.0	1038	X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.0	1041	X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.0	1043	X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.0	1046	X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
S	1.0	1049	X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICV	1.0	1058	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICB	1.0	1101	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ZZZZZZ	1.0	1104	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.0	1107	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.0	1109	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ZZZZZZ	1.0	1112	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ICSA	1.0	1123	X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
ICSAB	1.0	1125	X	X	X	X	X	X	X	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCV	1.0	1128	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.0	1131	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
PBW	1.0	1134	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
LCS	1.0	1136	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
MF4N31L	5.0	1139	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N31	1.0	1142	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N31D	1.0	1144	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N31S	1.0	1147	_	X	X	_	X	X	_	X	X	X	_	X	_	X	_	X	_	X	X	_	X	X	X	_
MF4N31A	1.0	1150	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
MF4N01	1.0	1153	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N02	1.0	1155	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N03	1.0	1158	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N04	1.0	1201	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N11	1.0	1204	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N17	1.0	1206	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N29	1.0	1209	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	_	X	X	_	X	X	X	_
MF4N30	1.0	1212	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N32	1.0	1214	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_

USEPA - CLP

13-IN
ANALYSIS RUN LOG

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Instrument ID: MS0 Analysis Method: MS

Start date: 06/28/2011 End date: 06/28/2011

EPA Sample No.	D/F	Time	Analytes																							
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN
MF4N53	1.0	1217	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N54	1.0	1220	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
MF4N67	1.0	1223	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	_	X	X	X	_
CCV	1.0	1225	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_
CCB	1.0	1228	X	X	X	X	X	X	_	X	X	X	X	X	X	X	_	X	X	X	X	X	X	X	X	_

FORM XIII-IN ISM01.2 (1/10)

USEPA - CLP

13-IN
ANALYSIS RUN LOG

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

Instrument ID: MS0 Analysis Method: MS

Start date: 06/30/2011 End date: 06/30/2011

EPA Sample No.	D/F	Time	Analytes																							
			Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	CN
TUNE	1.0	0913					X				X			X	X											
S0	1.0	0955	X			X			X				X		X				X			X				
S	1.0	0959	X			X			X				X		X				X			X				
S	1.0	1001	X			X			X				X		X				X			X				
S	1.0	1004	X			X			X				X		X				X			X				
S	1.0	1007	X			X			X				X		X				X			X				
S	1.0	1009	X			X			X				X		X				X			X				
ICV	1.0	1012				X													X			X				
ICB	1.0	1015				X													X			X				
ICSA	1.0	1018	X			X			X				X		X				X			X				
ICSAB	1.0	1021	X			X			X				X		X				X			X				
CCV	1.0	1023				X													X			X				
CCB	1.0	1026				X													X			X				
ZZZZZZ	1.0	1029																								
MF4N31S	2.0	1031				X																				
MF4N29	2.0	1034																	X							
ZZZZZZ	1.0	1037																								
ZZZZZZ	1.0	1040																								
CCV	1.0	1042				X													X			X				
CCB	1.0	1045				X													X			X				

FORM XIII-IN ISM01.2 (1/10)

USEPA - CLP

14-IN
ICP-MS TUNE

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Date: 06/28/2011

Element - Mass	Avg. Measured Mass (amu)	Average Peak Width (amu)	% Height	%RSD
Be - 9	9.0	0.82	5	.920
Mg - 24	24.0	0.77	5	1.40
Mg - 25	25.0	0.77	5	1.40
Mg - 26	26.0	0.77	5	1.50
Co - 59	59.0	0.82	5	1.70
In - 113	113	0.82	5	1.10
In - 115	115	0.82	5	1.10
Pb - 206	206	0.77	5	.620
Pb - 207	207	0.77	5	.400
Pb - 208	208	0.77	5	.490

Comments:

USEPA - CLP

14-IN
ICP-MS TUNE

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Date: 06/30/2011

Element - Mass	Avg. Measured Mass (amu)	Average Peak Width (amu)	% Height	%RSD
Be - 9	9.0	0.77	5	1.90
Mg - 24	24.0	0.77	5	2.10
Mg - 25	25.0	0.77	5	1.90
Mg - 26	26.0	0.77	5	2.40
Co - 59	59.0	0.77	5	1.90
In - 113	113	0.77	5	1.30
In - 115	115	0.77	5	1.30
Pb - 206	206	0.77	5	.780
Pb - 207	207	0.77	5	.650
Pb - 208	208	0.77	5	.800

Comments:

USEPA - CLP

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/28/2011 End date: 06/28/2011

EPA Sample No.	Time	Internal Standards %RI for:									
		Element LI6	Q	Element Y89	Q	Element RH103	Q	Element TB159	Q	Element HO165	Q
S0	1035	100.0		100.0		100.0		100.0		100.0	
S	1038	101.0		101.0		102.0		100.0		102.0	
S	1041	103.0		107.0		103.0		104.0		104.0	
S	1043	94.00		97.00		91.00		98.00		97.00	
S	1046	90.00		93.00		86.00		96.00		94.00	
S	1049	84.00		89.00		82.00		92.00		92.00	
ICV	1058	97.00		100.0		99.00		100.0		99.00	
ICB	1101	97.00		100.0		100.0		99.00		98.00	
ZZZZZZ	1104										
ZZZZZZ	1107										
ZZZZZZ	1109										
ZZZZZZ	1112										
ICSA	1123	89.00		87.00		79.00		92.00		91.00	
ICSAB	1125	89.00		87.00		78.00		94.00		93.00	
CCV	1128	91.00		91.00		85.00		99.00		99.00	
CCB	1131	101.0		102.0		104.0		107.0		107.0	
PBW	1134	103.0		102.0		104.0		107.0		105.0	
LCS	1136	108.0		107.0		108.0		113.0		112.0	
MF4N31L	1139	97.00		95.00		90.00		99.00		100.0	
MF4N31	1142	99.00		94.00		83.00		97.00		98.00	
MF4N31D	1144	101.0		95.00		84.00		96.00		98.00	
MF4N31S	1147	101.0		96.00		85.00		99.00		100.0	
MF4N31A	1150	230.0		244.0		237.0		216.0		218.0	
MF4N01	1153	107.0		98.00		87.00		101.0		99.00	
MF4N02	1155	108.0		95.00		85.00		99.00		99.00	
MF4N03	1158	109.0		98.00		85.00		97.00		99.00	
MF4N04	1201	107.0		97.00		86.00		99.00		98.00	
MF4N11	1204	109.0		96.00		85.00		100.0		99.00	
MF4N17	1206	109.0		96.00		85.00		98.00		98.00	
MF4N29	1209	102.0		94.00		82.00		97.00		96.00	
MF4N30	1212	107.0		102.0		91.00		103.0		102.0	
MF4N32	1214	100.0		95.00		84.00		97.00		97.00	
MF4N53	1217	104.0		100.0		87.00		97.00		99.00	
MF4N54	1220	105.0		100.0		88.00		100.0		99.00	
MF4N67	1223	97.00		95.00		83.00		93.00		94.00	
CCV	1225	87.00		86.00		80.00		95.00		95.00	

USEPA - CLP

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/28/2011 End date: 06/28/2011

EPA Sample No.	Time	Internal Standards %RI for:									
		Element LI6	Q	Element Y89	Q	Element RH103	Q	Element TB159	Q	Element HO165	Q
CCB		91.00		91.00		91.00		98.00		97.00	

FORM XV - IN ISM01.2 (1/10)

USEPA - CLP

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/28/2011 End date: 06/28/2011

EPA Sample No.	Time	Internal Standards %RI for:									
		Element BI209	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	1035	100.0									
S	1038	99.00									
S	1041	98.00									
S	1043	89.00									
S	1046	84.00									
S	1049	80.00									
ICV	1058	98.00									
ICB	1101	96.00									
ZZZZZZ	1104										
ZZZZZZ	1107										
ZZZZZZ	1109										
ZZZZZZ	1112										
ICSA	1123	76.00									
ICSAB	1125	78.00									
CCV	1128	88.00									
CCB	1131	105.0									
PBW	1134	105.0									
LCS	1136	105.0									
MF4N31L	1139	92.00									
MF4N31	1142	81.00									
MF4N31D	1144	82.00									
MF4N31S	1147	82.00									
MF4N31A	1150	210.0									
MF4N01	1153	84.00									
MF4N02	1155	82.00									
MF4N03	1158	80.00									
MF4N04	1201	81.00									
MF4N11	1204	83.00									
MF4N17	1206	81.00									
MF4N29	1209	77.00									
MF4N30	1212	86.00									
MF4N32	1214	78.00									
MF4N53	1217	79.00									
MF4N54	1220	83.00									
MF4N67	1223	77.00									
CCV	1225	83.00									

USEPA - CLP

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/28/2011 End date: 06/28/2011

EPA Sample No.	Time	Internal Standards %RI for:									
		Element BI209	Q	Element	Q	Element	Q	Element	Q	Element	Q
CCB		95.00									

FORM XV - IN ISM01.2 (1/10)

USEPA - CLP

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/30/2011 End date: 06/30/2011

EPA Sample No.	Time	Internal Standards %RI for:									
		Element LI6	Q	Element SC45	Q	Element Y89	Q	Element RH103	Q	Element TB159	Q
S0	0955	100.0		100.0		100.0		100.0		100.0	
S	0959	99.00		99.00		102.0		102.0		101.0	
S	1001	98.00		100.0		100.0		97.00		100.0	
S	1004	91.00		94.00		95.00		89.00		96.00	
S	1007	86.00		90.00		91.00		84.00		93.00	
S	1009	81.00		89.00		88.00		79.00		91.00	
ICV	1012	92.00		97.00		99.00		98.00		100.0	
ICB	1015	94.00		97.00		97.00		96.00		99.00	
ICSA	1018	82.00		84.00		84.00		73.00		88.00	
ICSAB	1021	83.00		85.00		84.00		73.00		90.00	
CCV	1023	87.00		90.00		90.00		83.00		99.00	
CCB	1026	96.00		98.00		100.0		100.0		104.0	
ZZZZZZ	1029										
MF4N31S	1031	102.0		116.0		103.0		94.00		108.0	
MF4N29	1034	99.00		107.0		97.00		86.00		102.0	
ZZZZZZ	1037										
ZZZZZZ	1040										
CCV	1042	85.00		88.00		89.00		81.00		96.00	
CCB	1045	89.00		90.00		92.00		90.00		97.00	

FORM XV - IN ISM01.2 (1/10)

USEPA - CLP

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/30/2011 End date: 06/30/2011

EPA Sample No.	Time	Internal Standards %RI for:									
		Element HO165	Q	Element BI209	Q	Element	Q	Element	Q	Element	Q
S0	0955	100.0		100.0							
S	0959	101.0		102.0							
S	1001	100.0		98.00							
S	1004	98.00		91.00							
S	1007	94.00		85.00							
S	1009	92.00		80.00							
ICV	1012	101.0		100.0							
ICB	1015	98.00		100.0							
ICSA	1018	91.00		77.00							
ICSAB	1021	92.00		78.00							
CCV	1023	100.0		90.00							
CCB	1026	105.0		106.0							
ZZZZZZ	1029										
MF4N31S	1031	109.0		95.00							
MF4N29	1034	102.0		88.00							
ZZZZZZ	1037										
ZZZZZZ	1040										
CCV	1042	99.00		88.00							
CCB	1045	100.0		99.00							

FORM XV - IN ISM01.2 (1/10)

USEPA - CLP

16-IN
INITIAL CALIBRATION

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/28/2011

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	0	0		20.0	20.7233	-4	5100.0	4910.000	4
Antimony	0	0.0003		2.0	2.0457	-3	100.0	97.9300	2
Arsenic	0	0		1.0	0.8280	17	100.0	101.9667	-2
Barium	0	-0.0003		10.0	10.4533	-5	110.0	108.4667	1
Beryllium	0	0		1.0	1.0897	-9	100.0	107.1667	-7
Cadmium	0	0		1.0	1.1407	-14	100.0	103.5667	-4
Calcium									
Chromium	0	0.0003		2.0	2.2483	-13	100.0	102.6133	-3
Cobalt	0	0		1.0	1.1503	-15	100.0	103.4900	-3
Copper	0	0		2.0	2.2427	-12	100.0	106.9333	-7
Iron	0	0		200.0	212.8333	-6	5100.0	5178.000	-2
Lead	0	0		1.0	0.9913	1	100.0	96.2967	4
Magnesium	0	0		500.0	500.4000	0	5100.0	5033.000	1
Manganese	0	0		1.0	1.1283	-13	100.0	99.2500	1
Mercury									
Nickel	0	0		1.0	1.0687	-7	100.0	105.0333	-5
Potassium	0	0.0003		500.0	462.1667	8	1000.0	938.0000	6
Selenium	0	0		5.0	5.8293	-17	100.0	108.4000	-8
Silver	0	0.0003		1.0	1.1783	-18	100.0	104.4667	-4
Sodium	0	-0.0003		500.0	508.0000	-2	5100.0	4982.667	2
Thallium	0	-0.0003		1.0	1.0797	-8	100.0	100.5433	-1
Vanadium	0	0		5.0	5.4473	-9	100.0	99.2333	1
Zinc	0	0.0003		2.0	2.3277	-17	100.0	113.9667	-14
Cyanide									

Control Limits 30%

USEPA - CLP

16-IN
INITIAL CALIBRATION

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/28/2011

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum	25500	24490.00	4	51000	50173.33	2	102000	102666.7	-1
Antimony	500.0	492.1333	2	1000.0	1002.500	0	2000.0	2001.000	0
Arsenic	500.0	508.9667	-2	1000.0	994.4667	1	2000.0	1893.333	5
Barium	550.0	536.1333	3	1100.0	1118.333	-2	2200.0	2216.333	-1
Beryllium	500.0	521.6000	-4	1000.0	1031.000	-3	2000.0	1978.667	1
Cadmium	500.0	515.8000	-3	1000.0	1028.333	-3	2000.0	1981.667	1
Calcium									
Chromium	500.0	495.3000	1	1000.0	995.0667	0	2000.0	1987.667	1
Cobalt	500.0	496.8333	1	1000.0	1001.100	0	2000.0	1963.333	2
Copper	500.0	526.3000	-5	1000.0	1005.400	-1	2000.0	1918.667	4
Iron	25500	24956.67	2	51000	49640.00	3	102000	98566.67	3
Lead	500.0	480.6333	4	1000.0	996.2667	0	2000.0	2006.667	0
Magnesium	25500	24746.67	3	51000	49923.33	2	102000	102733.3	-1
Manganese	500.0	485.4667	3	1000.0	966.0667	3	2000.0	2020.333	-1
Mercury									
Nickel	500.0	503.9000	-1	1000.0	951.0667	5	2000.0	1924.000	4
Potassium	5000.0	4754.000	5	10000	9640.000	4	20000	20243.33	-1
Selenium	500.0	551.8000	-10	1000.0	1050.000	-5	2000.0	1961.667	2
Silver	500.0	510.8667	-2	1000.0	1032.000	-3	2000.0	1981.000	1
Sodium	25500	24553.33	4	51000	49753.33	2	102000	102866.7	-1
Thallium	500.0	484.3333	3	1000.0	1005.367	-1	2000.0	2011.667	-1
Vanadium	500.0	479.6000	4	1000.0	966.7333	3	2000.0	2022.000	-1
Zinc	500.0	560.4333	-12	1000.0	1069.000	-7	2000.0	1950.000	2
Cyanide									

Control Limits 30%

FORM XVI-IN ISM01.2 (1/10)

USEPA - CLP

16-IN
INITIAL CALIBRATION

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/30/2011

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum									
Antimony									
Arsenic									
Barium	0	0.0003		10.0	10.3267	-3	110.0	110.2333	0
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium	0	0		500.0	479.8667	4	1000.0	998.5000	0
Selenium									
Silver									
Sodium	0	0		500.0	489.3000	2	5100.0	5087.667	0
Thallium									
Vanadium									
Zinc									
Cyanide									

Control Limits 30%

USEPA - CLP

16-IN
INITIAL CALIBRATION

Lab Name: Sentinel Contract: EPW09040

Lab Code: SENTIN Case No.: 41486 Mod. Ref. No. SDG No.: MF4N01

ICP-MS Instrument ID: MS0 Start date: 06/30/2011

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Aluminum									
Antimony									
Arsenic									
Barium	550.0	529.0333	4	1100.0	1106.667	-1	2200.0	2250.333	-2
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium	5000.0	4946.667	1	10000	10106.67	-1	20000	19960.00	0
Selenium									
Silver									
Sodium	25500	24746.67	3	51000	50873.33	0	102000	102266.7	0
Thallium									
Vanadium									
Zinc									
Cyanide									

Control Limits 30%

Sentinel, Inc. **Sample Analysis**

ICP-MS RUN LOG

SDG:	MF4N01
CASE NO.:	41486
EPA RUN#	___1___
EPA BATCH#	___1___
PREP METHOD:	200.8
AN. METHOD:	MS
MATRIX:	LW
SOURCE:	CAL Stds See Standards Log
SOURCE:	INIT. CAL VER USEPA ICV-1 0307
DATE PREP.	See Standards Log
PREPARER:	RR

VALID DATA for: For All Analytes

ANALYST: MVK

INSTRUMENT ID: **MS0**
RUN ID: **MS0-11062830**

RUN START DATE: **06/28/11** RUN START TIME: **1009**
RUN END DATE: **06/28/11** RUN END TIME: **1228**

Data Reviewed By: 7/1/11
Analyst Date
for M. Kilgore

Data Reviewed By: 7/1/11
Supervisor Date

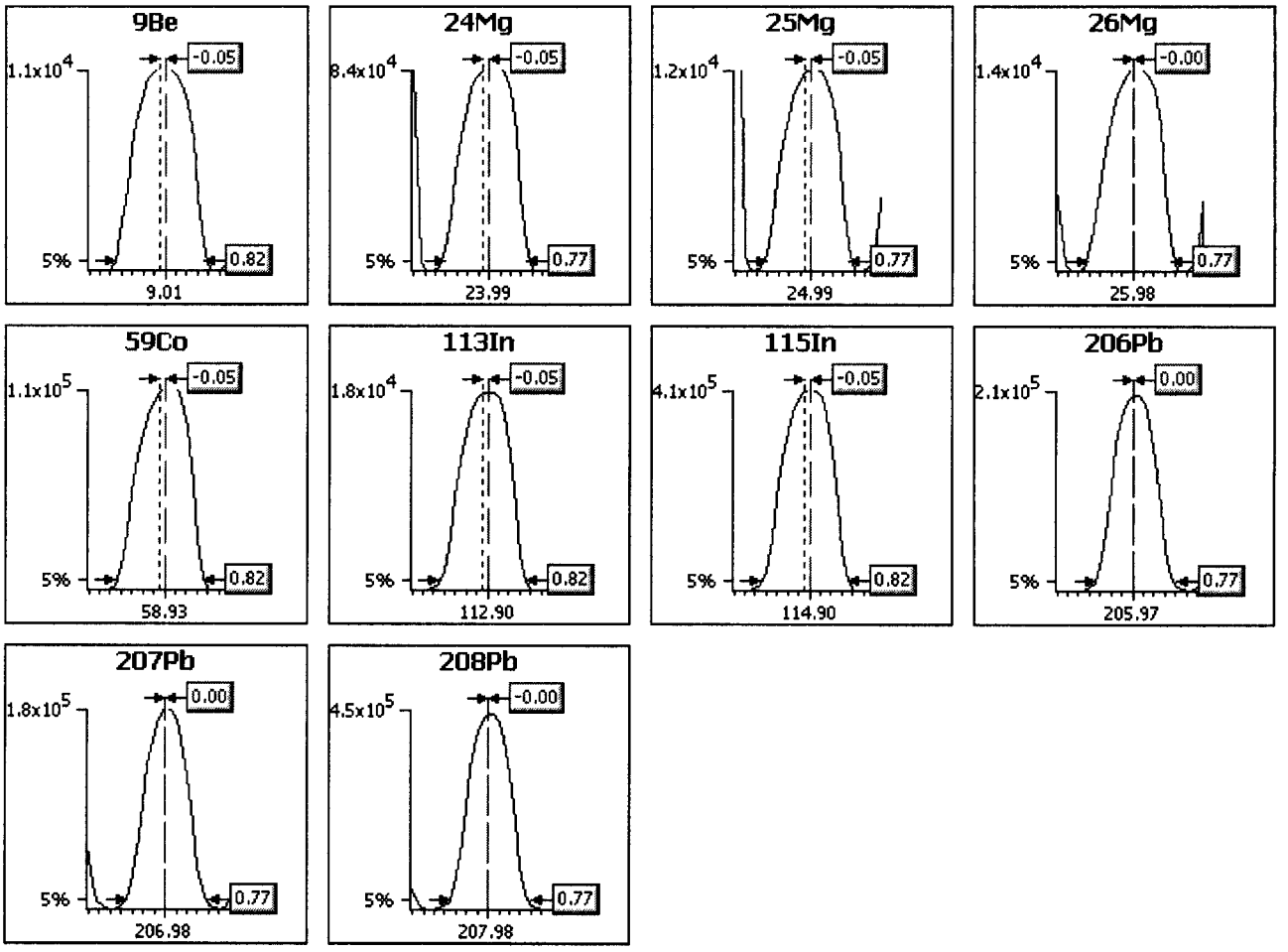
Tune Report

Performance Report

Sample details
Acquired at : 6/28/2011 10:08:56 AM
Report name : EPA Xt Screen Standard Mode CLP+ Y [5/19/2011 11:07:15 AM]

Mass Calibration verification

Acquisition parameters
Sweeps : 10
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.10	0.82	-0.05
24Mg	0.85	0.65	0.10	0.77	-0.05
25Mg	0.85	0.65	0.10	0.77	-0.05
26Mg	0.85	0.65	0.10	0.77	-0.00
59Co	0.85	0.65	0.10	0.82	-0.05
113In	0.85	0.65	0.10	0.82	-0.05
115In	0.85	0.65	0.10	0.82	-0.05
206Pb	0.85	0.65	0.10	0.77	0.00
207Pb	0.85	0.65	0.10	0.77	0.00
208Pb	0.85	0.65	0.10	0.77	-0.00

Sample details
Acquired at : 6/28/2011 10:08:56 AM
Report name : EPA Xt Screen Standard Mode CLP+ Y [5/19/2011 11:07:15 AM]

Tune Report

Tune conditions

Major	
Extraction	-121.6
Lens 1	-1192
Lens 2	-80.0
Focus	10.0
D1	-43.9
D2	-140
Pole Bias	-1.0
Hexapole Bias	-4.0
Nebuliser	0.95

Minor	
Lens 3	-195.3
Forward power	1404
Horizontal	70
Vertical	305
DA	-40.8
Cool	13.0
Auxiliary	0.90
Sampling Depth	130

Global	
Standard resolution	135
High resolution	90
Analogue Detector	2150
PC Detector	3400

Add. Gases	
CCT-He	0.00
Do Not Use	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 102

Run	Time	5Bkg	7Li	7Li	9Be	24Mg	25Mg	26Mg	59Co	137Ba++
Dwell (mSecs)		100.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	30.0
Limits	%RSD	-	-	-	5.0%	5.0%	5.0%	5.0%	5.0%	-
	Countrate	<1	-	-	>5000	>10000	>5000	>5000	>50000	-
1	10:09:34 AM	0.000	56421.347	55273.648	11082.850	87967.118	11901.023	14031.000	107751.56	0.327
2	10:10:37 AM	0.000	56169.574	55033.693	10889.594	86966.155	11737.189	13873.034	106818.53	1.307
3	10:11:39 AM	0.098	55708.329	54961.904	11157.406	86172.123	11909.853	13737.635	105942.75	0.654
4	10:12:41 AM	0.098	55320.853	54166.341	10987.693	85528.846	11555.699	13524.728	104534.49	0.980
5	10:13:44 AM	0.000	55525.408	54383.667	11066.173	85006.754	11591.016	13595.369	103354.12	0.654
x		0.039	55829.102	54763.851	11036.743	86328.199	11738.956	13752.353	105680.29	0.784
σ		0.05	456.02	467.30	101.99	1172.88	166.54	205.48	1759.16	0.37
%RSD		136.931	0.817	0.853	0.924	1.359	1.419	1.494	1.665	47.507

Run	Time	101Bkg	113In	115In	137Ba	137Ba	140Ce	156Ce O	204Pb	206Pb
Dwell (mSecs)		100.0	10.0	10.0	10.0	10.0	10.0	30.0	10.0	10.0
Limits	%RSD	-	5.0%	5.0%	-	-	-	-	-	5.0%
	Countrate	<1	>5000	>100000	-	-	-	-	-	>10000
1	10:09:34 AM	0.000	18228.907	424236.06	86.275	94.118	51.961	2.614	11597.883	210892.91
2	10:10:37 AM	0.098	18268.163	420711.98	71.569	91.177	40.196	1.307	11549.812	209413.90
3	10:11:39 AM	0.000	17870.702	418790.14	74.510	67.647	63.726	1.961	11482.122	209882.09
4	10:12:41 AM	0.000	17888.367	414689.22	77.451	86.275	55.882	1.634	11348.703	207916.15
5	10:13:44 AM	0.000	17950.194	412921.51	76.471	81.373	52.941	1.961	11410.507	207922.11
x		0.020	18041.267	418269.78	77.255	84.118	52.941	1.895	11477.805	209205.43
σ		0.04	192.00	4562.24	5.52	10.41	8.49	0.48	101.02	1290.16
%RSD		223.607	1.064	1.091	7.145	12.373	16.038	25.573	0.880	0.617

Run	Time	207Pb	208Pb	220Bkg	238U
Dwell (mSecs)		10.0	10.0	100.0	10.0
Limits	%RSD	5.0%	5.0%	-	-
	Countrate	>10000	>10000	<1	-
1	10:09:34 AM	183877.15	454636.26	0.098	988458.89
2	10:10:37 AM	183986.10	449834.57	0.000	989711.78
3	10:11:39 AM	182944.11	451311.34	0.000	983622.08
4	10:12:41 AM	182564.77	451566.69	0.000	979729.34
5	10:13:44 AM	182418.18	448758.99	0.000	976064.02
x		183158.06	451221.57	0.020	983517.22
σ		732.79	2223.47	0.04	5759.81
%RSD		0.400	0.493	223.607	0.586

Ratio results

Run	Time	137Ba++/137Ba
Ratio limits		<0.0500
1	10:09:34 AM	0.003
2	10:10:37 AM	0.014
		0.010

3	10:11:39 AM	
4	10:12:41 AM	0.011
5	10:13:44 AM	0.008
x		0.0094
σ		0.00
%RSD		43.1066

Tune Report

Result : The performance report passed.

Experiment Details

Description	PlasmaLab Template BlankExperiment
Template Filename	C:\Program Files\Thermo Fisher\PlasmaLab\data\MF4N05.tee
Created By User	ThermoFisher
Analyte Database	Default.tea
Creation Timestamp	4/1/2008 3:31:44 PM
Last Edited By	labtech
Last Edit Timestamp	6/28/2011 1:16:51 PM
Instrument Detector	Simultaneous
Database Version	3,51
Acquisition Mode	Unknown

Numerical Results report key (text indicates meaning)

Blue text indicates that cell is a statistic.
Underlining indicates that a data warning flag is set.

Column headings	Result cells	Data warning flags
No flag	Internal Standard	I - Invalid calibration
Semi Quant	Excluded	T - Tripped
Standard Addition	QC Warning	F - Interference correction failed
Multi Element	QC Failure	M - Result over max
	Transient TRA only:	V - Valley integration failed
	Peak Not Found	D - Different method used
	Manually Edited	
	Merged Peak	

Setup

Survey Scan Setup

Sweeps	10
Dwell Time	600
Channels Per Mass	10
Acquisition Duration	13583

Main Run Setup

Main Run	Peak Jumping
Sweeps	10
Dwell Time	10000
Channels Per Mass	1
Acquisition Duration	19360
Channel Spacing	0.02

Survey Scan Regions

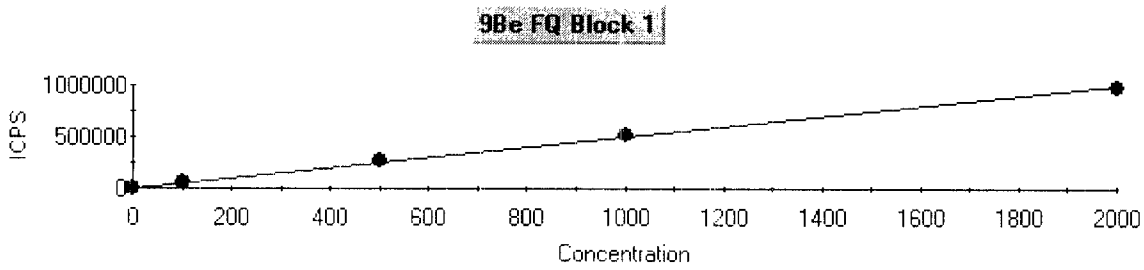
Start AMU	End AMU	Channels	Dwell ms	Resolution
4.59	11.50	69	600	
12.50	13.50	10	600	
22.59	29.41	68	600	
30.59	31.41	8	600	
32.59	34.50	19	600	
35.50	37.50	20	600	
38.59	39.41	8	600	
42.59	79.41	368	600	
80.59	245.50	1649	600	

Peak Jump Regions

Analyte	Channels	Dwell ms	Resolution
6Li	1	200000	Standard
7Li	1	200000	Standard
9Be	1	500000	Standard
11B	1	200000	Standard

23Na	1	50000	Standard
24Mg	1	50000	Standard
27Al	1	10000	Standard
39K	1	10000	Standard
44Ca	1	10000	Standard
45Sc	1	10000	Standard
47Ti	1	10000	Standard
51V	1	10000	Standard
52Cr	1	10000	Standard
53Cl O	1	10000	Standard
55Mn	1	10000	Standard
56Fe	1	10000	Standard
59Co	1	10000	Standard
60Ni	1	10000	Standard
65Cu	1	10000	Standard
66Zn	1	10000	Standard
75As	1	50000	Standard
77Se	1	10000	Standard
77Ar Cl	1	50000	Standard
78Se	1	50000	Standard
82Kr	1	10000	Standard
82Se	1	50000	Standard
83Kr	1	50000	Standard
89Y	1	10000	
94Mo	1	10000	Standard
95Mo	1	10000	Standard
96Mo	1	10000	Standard
97Mo	1	10000	Standard
98Mo	1	10000	Standard
103Rh	1	10000	
106Cd	1	10000	Standard
107Ag	1	10000	Standard
108Cd	1	10000	Standard
111Cd	1	10000	Standard
115In	1	10000	
118Sn	1	10000	Standard
121Sb	1	10000	Standard
137Ba	1	10000	Standard
159Tb	1	10000	
165Ho	1	10000	
203Tl	1	10000	Standard
205Tl	1	10000	Standard
206Pb	1	10000	Standard
207Pb	1	10000	Standard
208Pb	1	10000	Standard
209Bi	1	10000	

Fully Quant Calibration

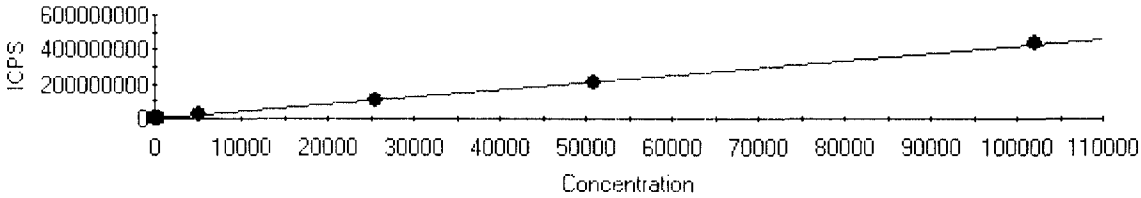


Intercept CPS=30.408364 Intercept Conc=0.060934
Sensitivity=499.035974 Correlation Coeff=0.999754

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	30.41	0.00
S1 S	1.000	1.089	0.089	574.05	8.94
S2 S	100.000	107.165	7.165	53509.56	7.16
S3 S	500.000	521.602	21.602	260328.45	4.32

S4 S	1000.000	1030.921	30.921	514496.98	3.09
S5 S	2000.000	1978.781	21.219	987513.24	1.06

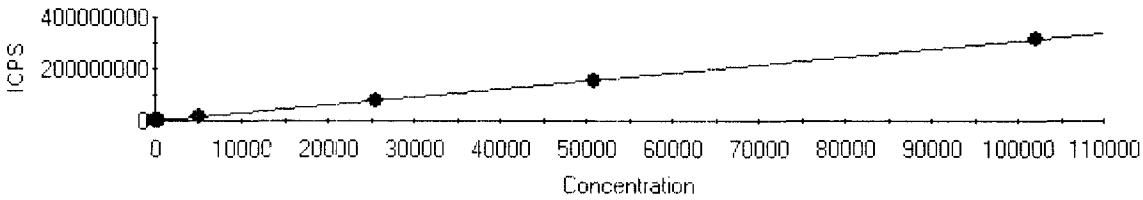
23Na FQ Block 1



Intercept CPS=44032.137795 Intercept Conc=10.370088
Sensitivity=4246.071735 Correlation Coeff=0.999838

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	44032.14	0.00
S1 S	500.000	508.001	8.001	2201039.10	1.60
S2 S	5100.000	4982.629	117.371	21200631.28	2.30
S3 S	25500.000	24552.434	947.566	104295427.12	3.72
S4 S	51000.000	49753.783	1246.217	211302163.69	2.44
S5 S	102000.000	102865.829	865.829	436819722.89	0.85

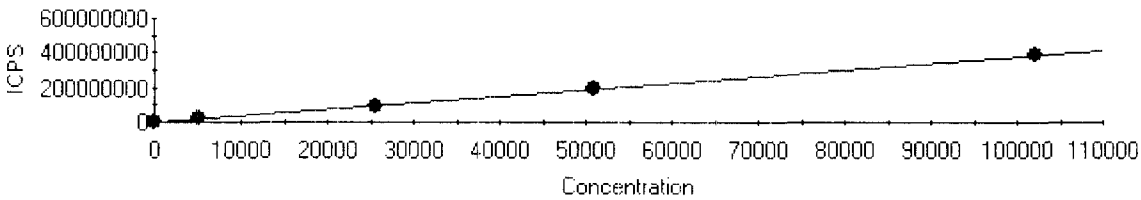
24Mg FQ Block 1



Intercept CPS=1415.403097 Intercept Conc=0.457015
Sensitivity=3097.057278 Correlation Coeff=0.999884

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	1415.40	0.00
S1 S	500.000	500.400	0.400	1551184.21	0.08
S2 S	5100.000	5033.018	66.982	15588961.47	1.31
S3 S	25500.000	24746.619	753.381	76643111.19	2.95
S4 S	51000.000	49920.267	1079.733	154607340.14	2.12
S5 S	102000.000	102731.559	731.559	318166938.42	0.72

27Al FQ Block 1

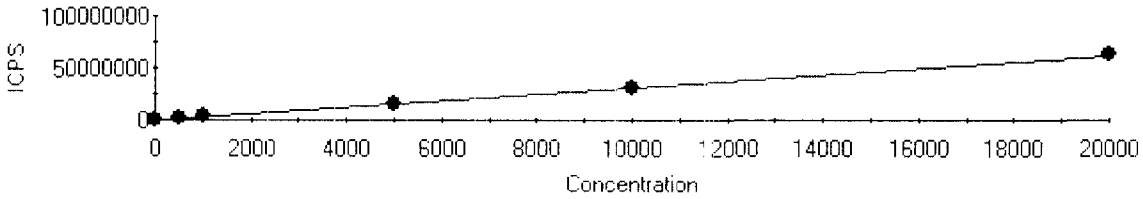


Intercept CPS=1060.136853 Intercept Conc=0.277622
Sensitivity=3818.631236 Correlation Coeff=0.999897

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	1060.14	0.00
S1 S	20.000	20.721	0.721	80186.23	3.61

S2 S	5100.000	4909.633	190.367	18749136.77	3.73
S3 S	25500.000	24490.260	1009.740	93520331.88	3.96
S4 S	51000.000	50176.010	823.990	191604738.69	1.62
S5 S	102000.000	102673.948	673.948	392075006.20	0.66

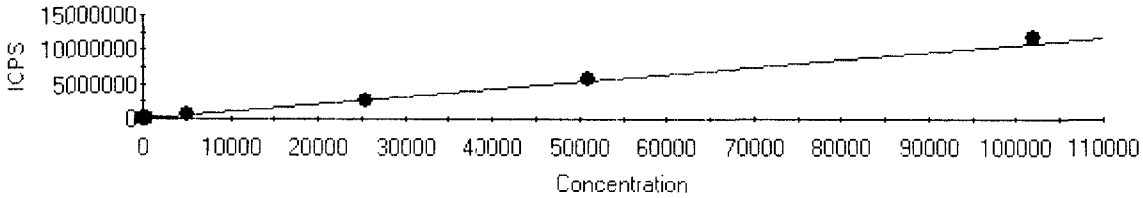
39K FQ Block 1



Intercept CPS=116989.340533 Intercept Conc=37.584355
Sensitivity=3112.713784 Correlation Coeff=0.999686

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	116989.34	0.00
S1 S	500.000	462.154	37.846	1555543.77	7.57
S2 S	1000.000	938.009	61.991	3036743.53	6.20
S3 S	5000.000	4754.016	245.984	14914878.98	4.92
S4 S	10000.000	9639.812	360.188	30122966.45	3.60
S5 S	20000.000	20245.636	245.636	63135858.26	1.23

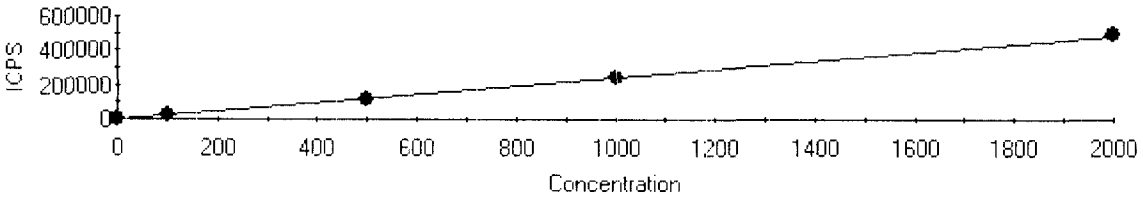
44Ca FQ Block 1



Intercept CPS=18990.586578 Intercept Conc=175.670840
Sensitivity=108.103238 Correlation Coeff=0.999247

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	18990.59	0.00
S1 S	500.000	502.759	2.759	73340.51	0.55
S2 S	5100.000	4910.319	189.681	549811.97	3.72
S3 S	25500.000	23959.211	1540.789	2609058.85	6.04
S4 S	51000.000	51961.231	961.231	5636167.93	1.88
S5 S	102000.000	110229.891	8229.891	11935198.74	8.07

47Ti FQ Block 1

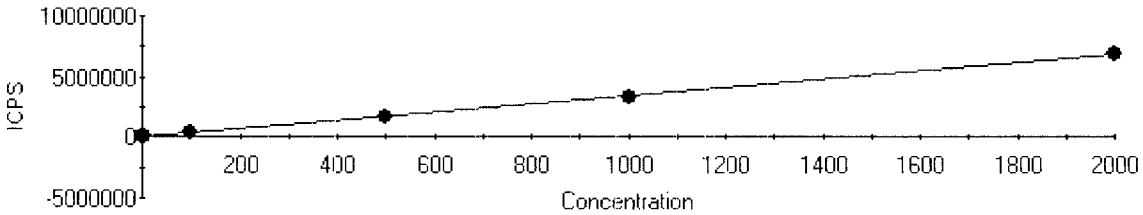


Intercept CPS=19.916035 Intercept Conc=0.081348
Sensitivity=244.825661 Correlation Coeff=0.999958

Label	Defined	Measured	Error	Mean CPS	% Error

S0 S0	0.000	0.000	0.000	19.92	0.00
S1 S	0.000	-0.002	0.002	19.42	0.00
S2 S	100.000	99.082	0.918	24277.70	0.92
S3 S	500.000	490.612	9.388	120134.44	1.88
S4 S	1000.000	987.488	12.512	241782.21	1.25
S5 S	2000.000	2008.649	8.649	491788.74	0.43

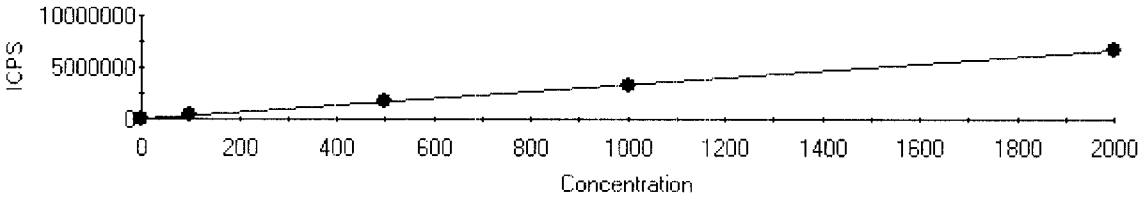
51V FQ Block 1



Intercept CPS=-298.459395 Intercept Conc=-0.087491
Sensitivity=3411.297914 Correlation Coeff=0.999729

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	-298.46	0.00
S1 S	5.000	5.447	0.447	18283.88	8.95
S2 S	100.000	99.238	0.762	338231.43	0.76
S3 S	500.000	479.614	20.386	1635806.54	4.08
S4 S	1000.000	966.754	33.246	3297587.43	3.32
S5 S	2000.000	2021.757	21.757	6896515.55	1.09

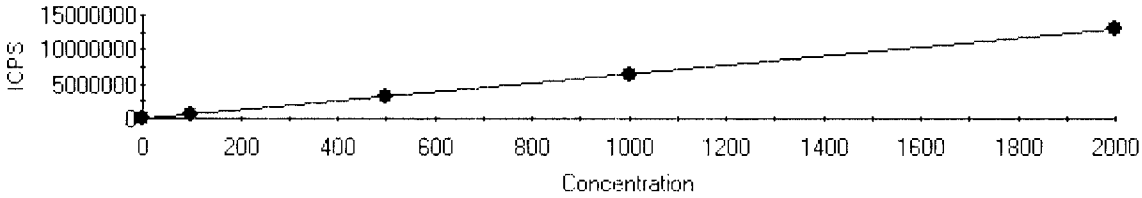
52Cr FQ Block 1



Intercept CPS=459.984565 Intercept Conc=0.137263
Sensitivity=3351.121659 Correlation Coeff=0.999998

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	459.98	0.00
S1 S	2.000	2.248	0.248	7993.47	12.40
S2 S	100.000	102.603	2.603	344296.02	2.60
S3 S	500.000	495.277	4.723	1660193.73	0.94
S4 S	1000.000	994.930	5.070	3334592.17	0.51
S5 S	2000.000	1987.555	12.445	6660999.25	0.62

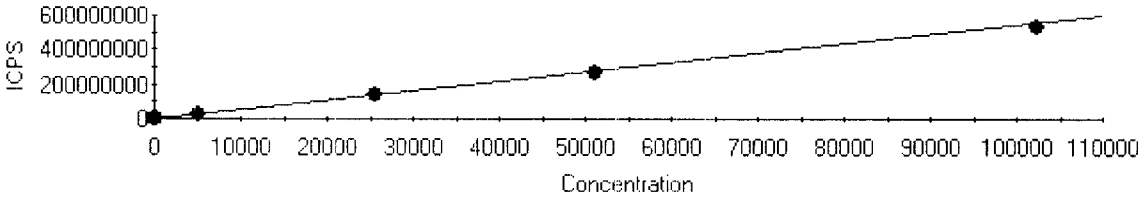
55Mn FQ Block 1



Intercept CPS=159.472580 Intercept Conc=0.024680
Sensitivity=6461.621090 Correlation Coeff=0.999751

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	159.47	0.00
S1 S	1.000	1.128	0.128	7449.47	12.82
S2 S	100.000	99.244	0.756	641434.98	0.76
S3 S	500.000	485.459	14.541	3137009.36	2.91
S4 S	1000.000	966.067	33.933	6242518.51	3.39
S5 S	2000.000	2020.640	20.640	13056766.76	1.03

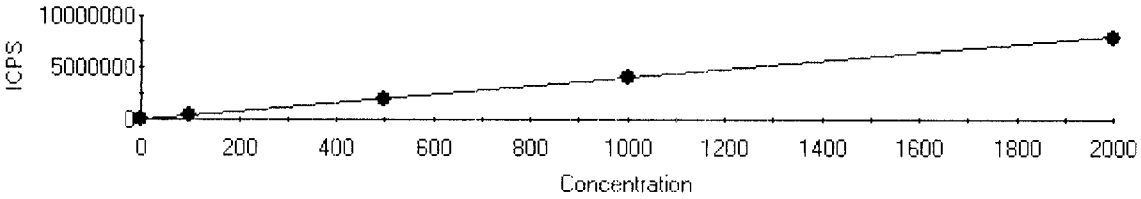
56Fe FQ Block 1



Intercept CPS=94203.898290 Intercept Conc=17.408067
Sensitivity=5411.508141 Correlation Coeff=0.999990

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	94203.90	0.00
S1 S	200.000	212.828	12.828	1245925.09	6.41
S2 S	5120.000	5178.098	58.098	28115521.49	1.13
S3 S	25600.000	24956.129	643.871	135144499.63	2.52
S4 S	51200.000	49642.665	1557.335	268735889.59	3.04
S5 S	102430.000	98566.131	3863.869	533485623.04	3.77

59Co FQ Block 1

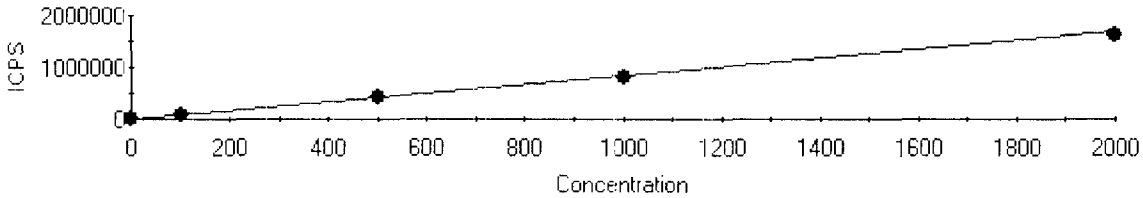


Intercept CPS=6.696309 Intercept Conc=0.001669
Sensitivity=4012.406900 Correlation Coeff=0.999955

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	6.70	0.00
S1 S	1.000	1.151	0.151	4623.15	15.05
S2 S	100.000	103.480	3.480	415212.23	3.48
S3 S	500.000	496.820	3.180	1993449.09	0.64
S4 S	1000.000	1001.040	1.040	4016586.40	0.10

S5 S	2000.000	1963.496	36.504	7878353.03	1.83

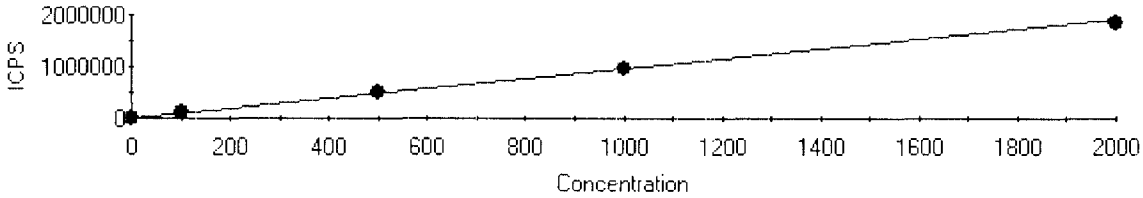
60Ni FQ Block 1



Intercept CPS=23.352704 Intercept Conc=0.027758
Sensitivity=841.298581 Correlation Coeff=0.999893

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	23.35	0.00
S1 S	1.000	1.069	0.069	922.52	6.88
S2 S	100.000	105.027	5.027	88382.02	5.03
S3 S	500.000	503.898	3.898	423952.05	0.78
S4 S	1000.000	951.082	48.918	800167.27	4.89
S5 S	2000.000	1924.269	75.731	1618907.90	3.79

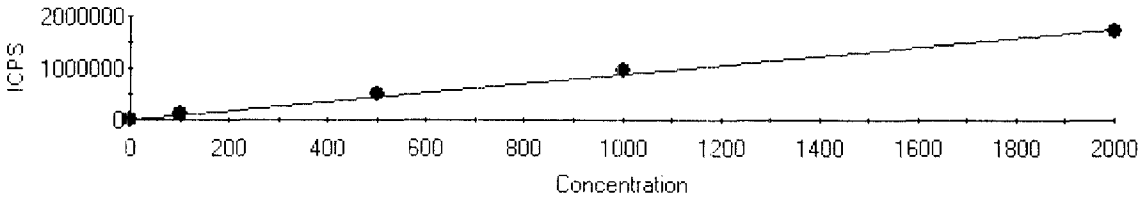
65Cu FQ Block 1



Intercept CPS=26.721819 Intercept Conc=0.027762
Sensitivity=962.522325 Correlation Coeff=0.999547

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	26.72	0.00
S1 S	2.000	2.243	0.243	2185.35	12.13
S2 S	100.000	106.950	6.950	102968.81	6.95
S3 S	500.000	526.313	26.313	506614.90	5.26
S4 S	1000.000	1005.460	5.460	967804.62	0.55
S5 S	2000.000	1918.665	81.335	1846784.44	4.07

66Zn FQ Block 1

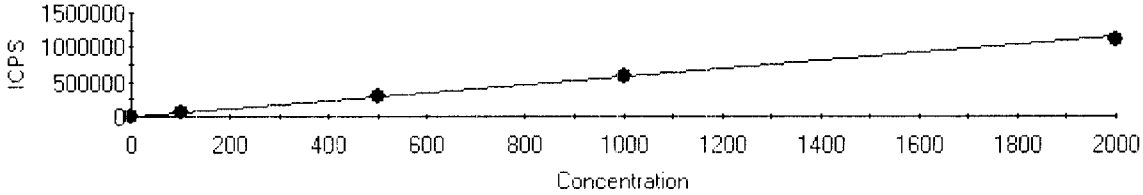


Intercept CPS=79.850338 Intercept Conc=0.089494
Sensitivity=892.243277 Correlation Coeff=0.998558

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	79.85	0.00
S1 S	2.000	2.328	0.328	2156.63	16.38
S2 S	100.000	113.975	13.975	101773.68	13.98

S3 S	500.000	560.464	60.464	500149.72	12.09
S4 S	1000.000	1068.738	68.738	953654.50	6.87
S5 S	2000.000	1949.816	50.184	1739789.90	2.51

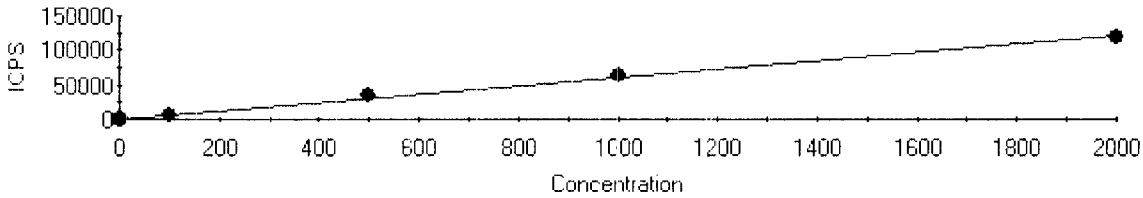
75As FQ Block 1



Intercept CPS=73.475927 Intercept Conc=0.126507
Sensitivity=580.802991 Correlation Coeff=0.999607

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	73.48	0.00
S1 S	1.000	0.828	0.172	554.50	17.18
S2 S	100.000	101.953	1.953	59287.86	1.95
S3 S	500.000	508.970	8.970	295684.72	1.79
S4 S	1000.000	994.443	5.557	577648.95	0.56
S5 S	2000.000	1893.124	106.876	1099605.61	5.34

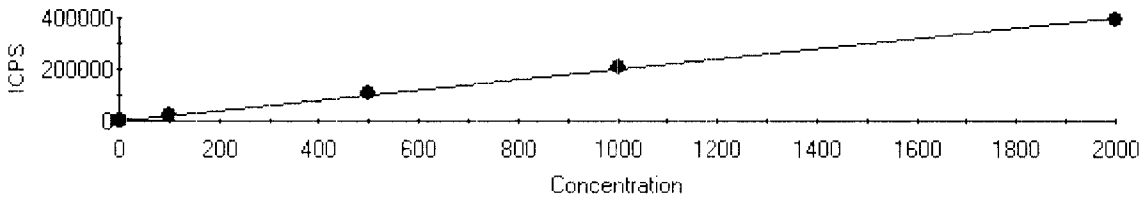
77Se FQ Block 1



Intercept CPS=50.135492 Intercept Conc=0.824790
Sensitivity=60.785752 Correlation Coeff=0.999026

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	50.14	0.00
S1 S	5.000	5.708	0.708	397.11	14.16
S2 S	100.000	103.024	3.024	6312.54	3.02
S3 S	500.000	551.834	51.834	33593.75	10.37
S4 S	1000.000	1054.166	54.166	64128.44	5.42
S5 S	2000.000	1959.805	40.195	119178.38	2.01

78Se FQ Block 1

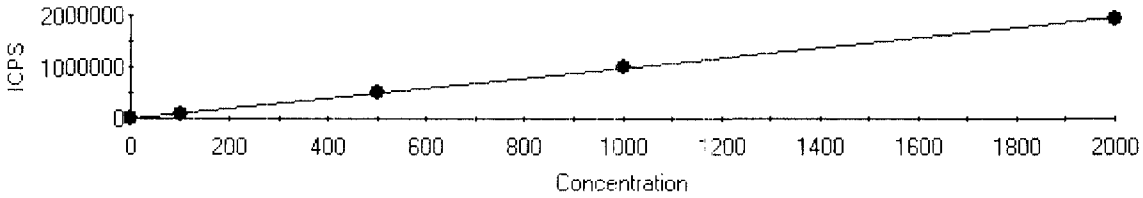


Intercept CPS=443.377775 Intercept Conc=2.235491
Sensitivity=198.335718 Correlation Coeff=0.999129

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	443.38	0.00

S1 S	5.000	5.829	0.829	1599.49	16.58
S2 S	100.000	108.403	8.403	21943.64	8.40
S3 S	500.000	551.816	51.816	109888.28	10.36
S4 S	1000.000	1050.101	50.101	208715.91	5.01
S5 S	2000.000	1961.573	38.427	389493.40	1.92

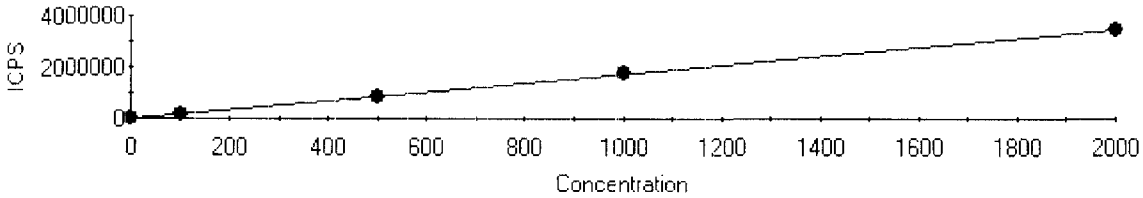
94Mo FQ Block 1



Intercept CPS=76.482352 Intercept Conc=0.078576
Sensitivity=973.349828 Correlation Coeff=0.999967

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	76.48	0.00
S1 S	0.000	0.009	0.009	85.65	0.00
S2 S	100.000	97.923	2.077	95390.25	2.08
S3 S	500.000	495.319	4.681	482194.82	0.94
S4 S	1000.000	1012.472	12.472	985565.77	1.25
S5 S	2000.000	1995.038	4.962	1941946.61	0.25

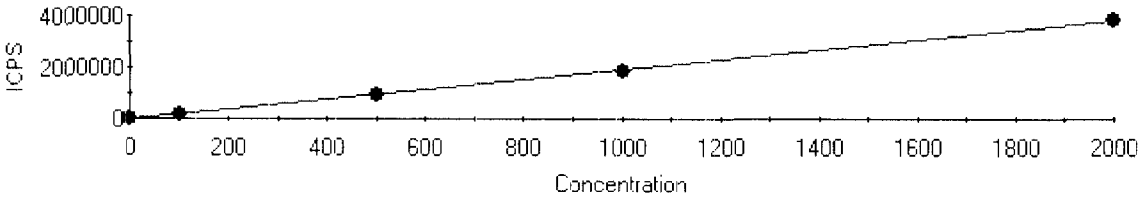
95Mo FQ Block 1



Intercept CPS=133.460731 Intercept Conc=0.076580
Sensitivity=1742.772546 Correlation Coeff=0.999972

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	133.46	0.00
S1 S	0.000	-0.029	0.029	82.24	0.00
S2 S	100.000	94.505	5.495	164833.70	5.50
S3 S	500.000	485.986	14.014	847097.33	2.80
S4 S	1000.000	997.840	2.160	1739140.88	0.22
S5 S	2000.000	2004.858	4.858	3494145.57	0.24

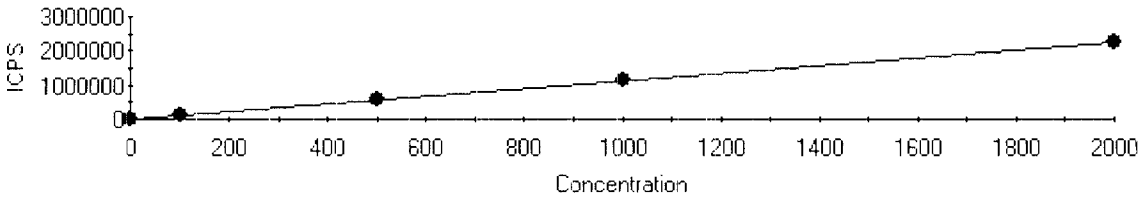
96Mo FQ Block 1



Intercept CPS=110.285014 Intercept Conc=0.057865
Sensitivity=1905.899405 Correlation Coeff=0.999853

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	110.29	0.00
S1 S	0.000	-0.027	0.027	59.18	0.00
S2 S	100.000	95.543	4.457	182205.26	4.46
S3 S	500.000	481.924	18.076	918608.79	3.62
S4 S	1000.000	976.510	23.490	1861239.99	2.35
S5 S	2000.000	2016.487	16.487	3843331.50	0.82

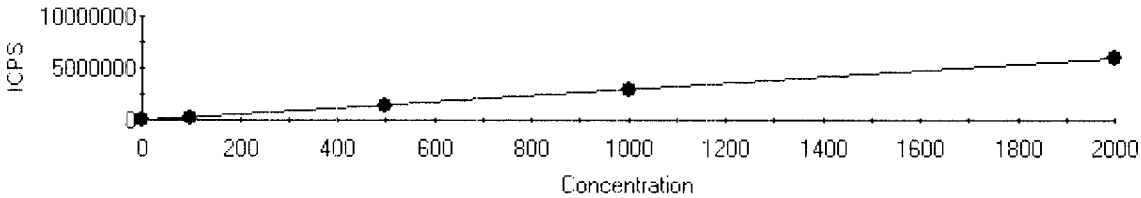
97Mo FQ Block 1



Intercept CPS=90.009111 Intercept Conc=0.080094
Sensitivity=1123.787390 Correlation Coeff=0.999981

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	90.01	0.00
S1 S	0.000	-0.030	0.030	55.75	0.00
S2 S	100.000	96.993	3.007	109089.80	3.01
S3 S	500.000	493.067	6.933	554192.35	1.39
S4 S	1000.000	1007.797	7.797	1132639.77	0.78
S5 S	2000.000	1997.985	2.015	2245400.39	0.10

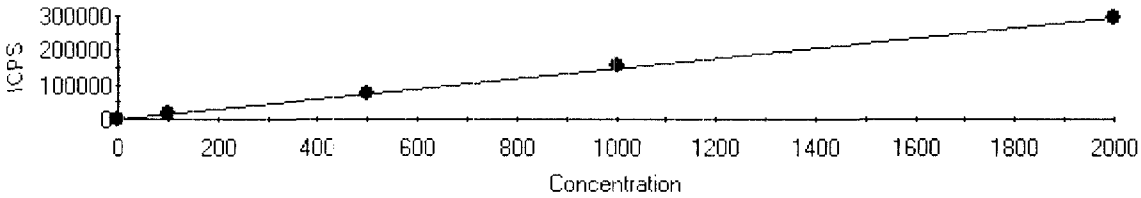
98Mo FQ Block 1



Intercept CPS=220.392972 Intercept Conc=0.073877
Sensitivity=2983.251901 Correlation Coeff=0.999912

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	220.39	0.00
S1 S	0.000	-0.041	0.041	98.46	0.00
S2 S	100.000	92.923	7.077	277432.74	7.08
S3 S	500.000	480.249	19.751	1432923.48	3.95
S4 S	1000.000	986.104	13.895	2942017.45	1.39
S5 S	2000.000	2012.240	12.240	6003237.98	0.61

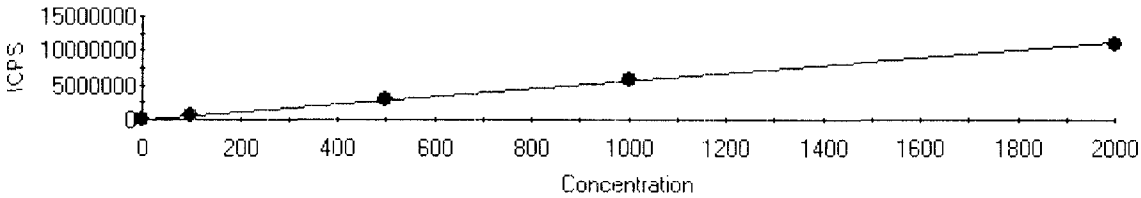
106Cd FQ Block 1



Intercept CPS=650.130163 Intercept Conc=4.405179
Sensitivity=147.583127 Correlation Coeff=0.999615

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	650.13	0.00
S1 S	1.000	1.096	0.096	811.84	9.57
S2 S	100.000	101.425	1.425	15618.78	1.43
S3 S	500.000	517.158	17.158	76973.86	3.43
S4 S	1000.000	1042.032	42.032	154436.43	4.20
S5 S	2000.000	1974.623	25.377	292071.23	1.27

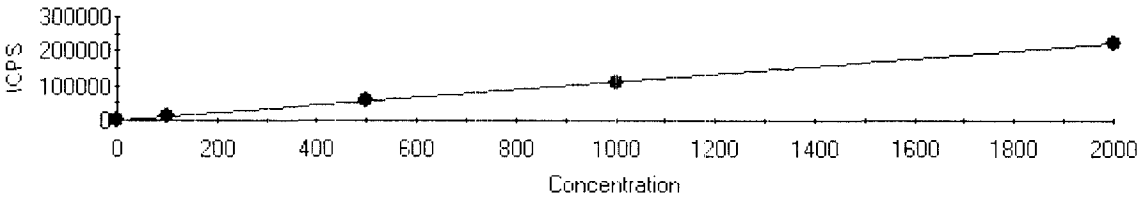
107Ag FQ Block 1



Intercept CPS=39.864771 Intercept Conc=0.007176
Sensitivity=5555.311227 Correlation Coeff=0.999787

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	39.86	0.00
S1 S	1.000	1.178	0.178	6583.90	17.80
S2 S	100.000	104.494	4.494	580535.15	4.49
S3 S	500.000	510.859	10.859	2838020.81	2.17
S4 S	1000.000	1032.178	32.178	5734107.95	3.22
S5 S	2000.000	1980.972	19.028	11004953.85	0.95

108Cd FQ Block 1

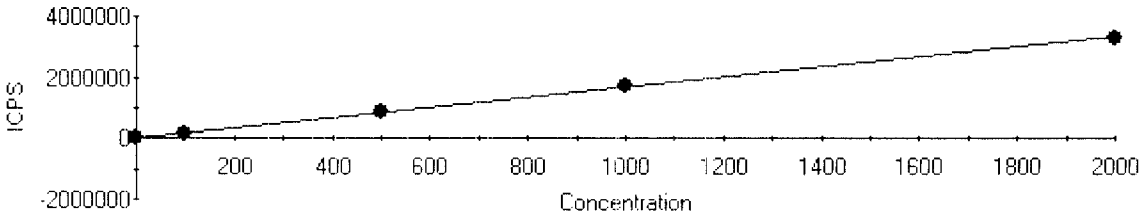


Intercept CPS=3.291140 Intercept Conc=0.029299
Sensitivity=112.330991 Correlation Coeff=0.999984

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	3.29	0.00
S1 S	1.000	1.107	0.107	127.63	10.69
S2 S	100.000	101.555	1.555	11411.10	1.56
S3 S	500.000	509.304	9.304	57213.93	1.86
S4 S	1000.000	995.228	4.772	111798.27	0.48

S5 S	2000.000	1999.982	0.018	224663.25	0.00

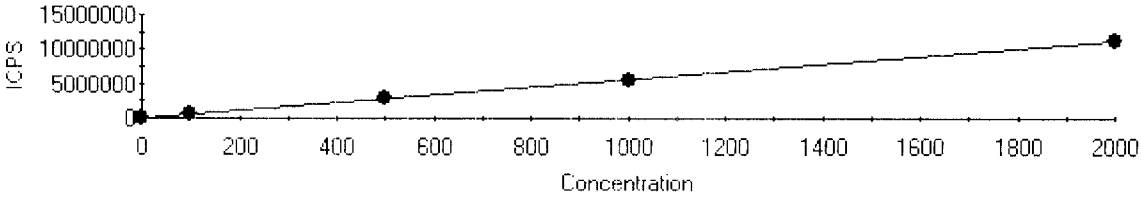
111Cd FQ Block 1



Intercept CPS=-0.200177 Intercept Conc=-0.000120
Sensitivity=1668.001772 Correlation Coeff=0.999813

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	-0.20	0.00
S1 S	1.000	1.141	0.141	1902.59	14.08
S2 S	100.000	103.569	3.569	172753.18	3.57
S3 S	500.000	515.838	15.838	860417.92	3.17
S4 S	1000.000	1028.252	28.252	1715126.04	2.83
S5 S	2000.000	1981.736	18.264	3305539.02	0.91

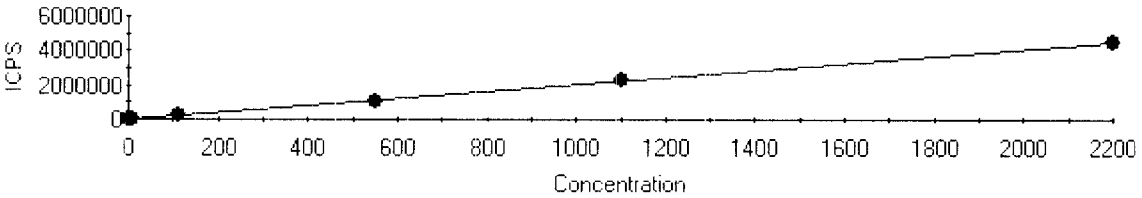
121Sb FQ Block 1



Intercept CPS=39.886135 Intercept Conc=0.007155
Sensitivity=5574.703940 Correlation Coeff=0.999990

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	39.89	0.00
S1 S	2.000	2.046	0.046	11445.71	2.30
S2 S	100.000	97.929	2.071	545963.33	2.07
S3 S	500.000	492.148	7.852	2743616.88	1.57
S4 S	1000.000	1002.470	2.470	5588512.42	0.25
S5 S	2000.000	2000.832	0.832	11154084.30	0.04

137Ba FQ Block 1

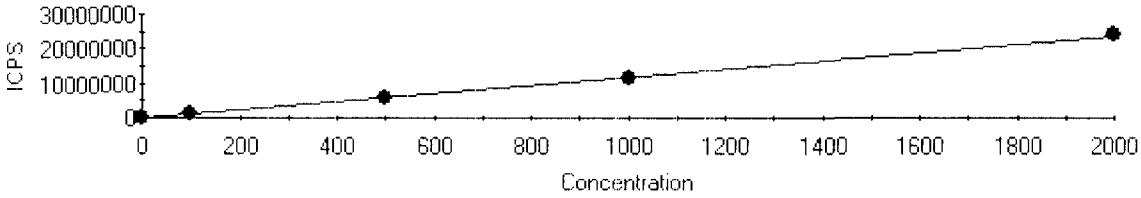


Intercept CPS=3.313828 Intercept Conc=0.001622
Sensitivity=2043.657773 Correlation Coeff=0.999947

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	3.31	0.00
S1 S	10.000	10.452	0.452	21363.34	4.52
S2 S	110.000	108.486	1.514	221712.42	1.38

S3 S	550.000	536.113	13.887	1095634.12	2.52
S4 S	1100.000	1118.425	18.425	2285682.00	1.68
S5 S	2200.000	2216.322	16.322	4529407.85	0.74

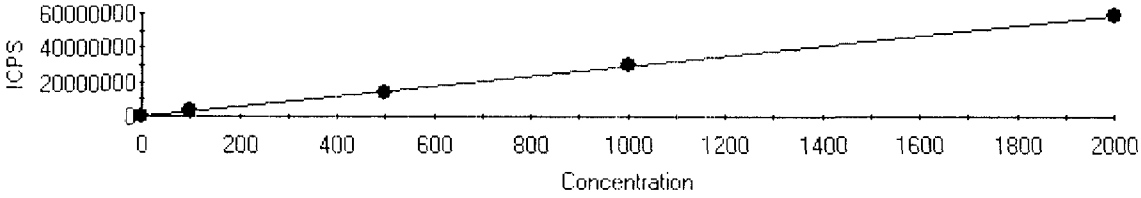
203Tl FQ Block 1



Intercept CPS=170.079773 Intercept Conc=0.014327
Sensitivity=11871 407979 Correlation Coeff=0.999871

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	170.08	0.00
S1 S	1.000	1.078	0.078	12967.36	7.80
S2 S	100.000	101.999	1.999	1211037.32	2.00
S3 S	500.000	483.603	16.397	5741223.49	3.28
S4 S	1000.000	992.855	7.145	11786754.30	0.71
S5 S	2000.000	2035.416	35.416	24163423.69	1.77

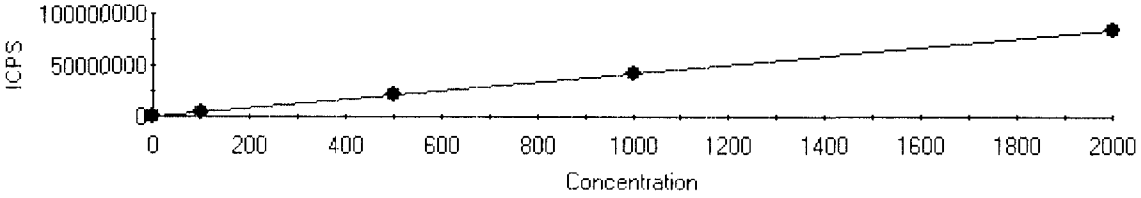
205Tl FQ Block 1



Intercept CPS=419.912731 Intercept Conc=0.014319
Sensitivity=29326.099310 Correlation Coeff=0.999954

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	419.91	0.00
S1 S	1.000	1.080	0.080	32086.26	7.98
S2 S	100.000	100.555	0.555	2949300.47	0.55
S3 S	500.000	484.321	15.679	14203658.08	3.14
S4 S	1000.000	1005.453	5.453	29486422.80	0.55
S5 S	2000.000	2011.798	11.798	58998620.35	0.59

208Pb FQ Block 1



Intercept CPS=503.468739 Intercept Conc=0.011894
Sensitivity=42330.869374 Correlation Coeff=0.999947

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	503.47	0.00

S1 S	1.000	0.991	0.009	42468.59	0.86
S2 S	100.000	96.298	3.702	4076876.11	3.70
S3 S	500.000	480.648	19.352	20346747.08	3.87
S4 S	1000.000	996.334	3.666	42176186.78	0.37
S5 S	2000.000	2006.469	6.469	84936101.24	0.32

Dilution Corrected Concentrations

S0 S0 6/28/2011 10:35:18 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:43	0.992	-0.002	0.049	-0.005	0.032	1.461	0.433
2	10:36:08	1.009	0.004	-0.115	-0.003	-0.028	-1.163	0.471
3	10:36:32	0.999	-0.002	0.065	0.008	-0.004	-0.297	-0.904
x		-	-0.000	0.000	0.000	-0.000	0.000	-0.000
σ		-	0.003	0.100	0.007	0.030	1.337	0.783
%RSD		-	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:43	1.012	-0.040	0.128	0.002	-0.009	0.078	0.001
2	10:36:08	0.997	-0.041	-0.168	-0.009	-0.011	-0.013	0.001
3	10:36:32	0.992	0.081	0.040	0.008	0.020	-0.065	-0.002
x		-	0.000	0.000	0.000	-0.000	0.000	0.000
σ		-	0.070	0.152	0.009	0.017	0.072	0.001
%RSD		-	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:43	0.008	0.014	-0.021	-0.011	0.339	-0.024	0.000
2	10:36:08	-0.016	-0.017	-0.011	0.006	-0.004	0.141	0.000
3	10:36:32	0.008	0.003	0.033	0.005	-0.336	-0.117	0.000
x		0.000	-0.000	0.000	0.000	0.000	-0.000	0.000
σ		0.014	0.016	0.029	0.009	0.338	0.130	0.000
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:43	0.000	1.010	-0.037	0.011	0.022	0.001	0.011
2	10:36:08	0.000	0.999	0.024	-0.002	-0.005	-0.000	0.010
3	10:36:32	0.000	0.991	0.013	-0.008	-0.016	-0.001	-0.021
x		0.000	-	0.000	0.000	-0.000	-0.000	0.000
σ		0.000	-	0.033	0.010	0.020	0.001	0.018
%RSD		0.000	-	0.000	0.000	0.000	0.000	0.000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:43	1.013	-0.292	-0.005	-0.029	-0.000	0.002	0.003
2	10:36:08	1.001	0.618	0.004	-0.029	0.000	-0.005	-0.002
3	10:36:32	0.986	-0.326	0.002	0.059	0.000	0.004	-0.002
x		-	-0.000	0.000	0.000	0.000	0.000	0.000
σ		-	0.535	0.005	0.051	0.000	0.005	0.003
%RSD		-	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:43	0.982	0.996	-0.005	0.001	0.001	0.998
2	10:36:08	1.019	1.029	0.002	0.001	-0.002	0.996
3	10:36:32	1.000	0.976	0.003	-0.003	0.001	1.006
x		-	-	0.000	0.000	0.000	-
σ		-	-	0.004	0.002	0.002	-
%RSD		-	-	0.000	0.000	0.000	-

S1 S 6/28/2011 10:38:26 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:26	0.987	1.096	503.100	497.500	20.710	451.800	499.100
2	10:38:50	0.995	1.125	513.400	505.000	20.430	475.000	514.800
3	10:39:15	0.995	1.048	507.500	498.700	21.030	459.700	494.300
x		-	1.089	508.000	500.400	20.720	462.200	502.800
σ		-	0.039	5.201	4.014	0.299	11.790	10.730
%RSD		-	3.573	1.024	0.802	1.442	2.551	2.134

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:26	0.970	0.038	5.312	2.163	1.122	213.500	1.159
2	10:38:50	0.981	-0.041	5.730	2.317	1.110	213.500	1.089
3	10:39:15	0.964	-0.002	5.300	2.265	1.153	211.500	1.203
x		-	-0.002	5.447	2.248	1.128	212.800	1.151
σ		-	0.039	0.245	0.078	0.022	1.123	0.058
%RSD		-	1943.000	4.500	3.484	1.971	0.528	5.005

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:26	1.054	2.267	2.178	0.859	5.030	5.854	0.000
2	10:38:50	1.115	2.267	2.397	0.877	6.445	5.202	0.000
3	10:39:15	1.037	2.194	2.408	0.748	5.650	6.432	0.000
x		1.069	2.243	2.328	0.828	5.708	5.829	0.000
σ		0.041	0.042	0.129	0.070	0.710	0.615	0.000
%RSD		3.864	1.872	5.559	8.452	12.430	10.560	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:26	0.000	0.995	0.003	-0.025	-0.016	-0.036	-0.041
2	10:38:50	0.000	0.982	-0.019	-0.038	-0.032	-0.028	-0.045
3	10:39:15	0.000	0.991	0.044	-0.025	-0.032	-0.027	-0.037
x		0.000	-	0.009	-0.029	-0.027	-0.030	-0.041
σ		0.000	-	0.032	0.007	0.009	0.005	0.004
%RSD		0.000	-	335.900	24.100	34.380	15.600	9.170

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:26	0.991	0.906	1.219	1.120	1.037	2.085	10.530
2	10:38:50	0.956	0.591	1.097	1.080	1.134	1.989	10.070
3	10:39:15	0.994	1.790	1.219	1.121	1.251	2.063	10.760
x		-	1.096	1.178	1.107	1.141	2.046	10.450
σ		-	0.622	0.070	0.023	0.107	0.050	0.352
%RSD		-	56.740	5.964	2.094	9.415	2.454	3.367

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:26	1.011	0.987	1.134	1.080	1.007	1.021
2	10:38:50	0.984	0.984	1.052	1.109	0.974	0.995
3	10:39:15	0.994	0.988	1.048	1.050	0.993	1.004
x		-	-	1.078	1.080	0.991	-
σ		-	-	0.048	0.030	0.017	-
%RSD		-	-	4.482	2.746	1.679	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:08	0.949	104.700	τ4829.000	τ4870.000	τ4750.000	875.800	4825.000
2	10:41:32	0.976	107.300	τ5004.000	τ5022.000	τ4944.000	τ950.600	4832.000
3	10:41:57	0.985	109.500	τ5115.000	τ5207.000	τ5036.000	τ987.600	5074.000
x		-	107.200	τ4983.000	τ5033.000	τ4910.000	τ938.000	4910.000
σ		-	2.367	τ144.600	τ168.600	τ146.000	τ56.950	142.100
%RSD		-	2.209	τ2.901	τ3.350	τ2.974	τ6.071	2.895

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:08	0.911	95.940	95.600	99.340	96.460	τ4996.000	98.670
2	10:41:32	0.919	100.100	98.100	102.000	98.690	τ5127.000	104.800
3	10:41:57	0.949	101.200	104.000	106.500	102.600	τ5411.000	107.000
x		-	99.080	99.240	102.600	99.240	τ5178.000	103.500
σ		-	2.768	4.323	3.628	3.095	τ212.400	4.304
%RSD		-	2.794	4.356	3.536	3.118	τ 4.101	4.159

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:08	103.600	102.600	108.000	98.000	97.850	103.400	0.000
2	10:41:32	103.100	106.000	116.600	102.600	106.300	109.900	0.000
3	10:41:57	108.400	112.200	117.300	105.300	104.900	111.900	0.000
x		105.000	107.000	114.000	102.000	103.000	108.400	0.000
σ		2.902	4.872	5.165	3.680	4.532	4.425	0.000
%RSD		2.763	4.555	4.531	3.610	4.399	4.082	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:08	0.000	0.902	92.470	88.780	90.840	91.750	87.990
2	10:41:32	0.000	0.956	100.500	96.930	96.150	99.110	95.930
3	10:41:57	0.000	0.951	100.800	97.810	99.640	100.100	94.850
x		0.000	-	97.920	94.500	95.540	96.990	92.920
σ		0.000	-	4.724	4.980	4.430	4.571	4.310
%RSD		0.000	-	4.825	5.269	4.636	4.712	4.638

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:08	0.932	100.400	98.200	92.480	98.400	93.030	103.900
2	10:41:32	0.998	100.700	106.400	104.200	105.700	99.160	108.800
3	10:41:57	0.993	103.100	108.800	108.000	106.600	101.600	112.700
x		-	101.400	104.500	101.600	103.600	97.930	108.500
σ		-	1.496	5.577	8.090	4.505	4.418	4.425
%RSD		-	1.475	5.337	7.966	4.350	4.512	4.079

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:41:08	0.929	0.930	99.470	97.930	93.510	1.001
2	10:41:32	0.966	0.983	102.200	101.200	96.240	1.017
3	10:41:57	0.984	0.970	104.300	102.500	99.140	1.032
x		-	-	102.000	100.600	96.300	-
σ		-	-	2.413	2.376	2.814	-
%RSD		-	-	2.366	2.363	2.923	-

S3 S 6/28/2011 10:43:51 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:51	1.043	520.900	τ24340.000	τ24580.000	τ24370.000	τ4781.000	23700.000
2	10:44:16	1.058	520.000	τ24630.000	τ24750.000	τ24470.000	τ4742.000	24190.000
3	10:44:40	1.075	523.900	τ24690.000	τ24910.000	τ24630.000	τ4739.000	23990.000
x		-	521.600	τ24550.000	τ24750.000	τ24490.000	τ4754.000	23960.000
σ		-	2.036	τ188.700	τ165.600	τ129.200	τ23.430	247.700
%RSD		-	0.390	τ0.769	τ0.669	τ0.528	τ0.493	1.034

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:51	0.987	496.100	472.800	486.500	481.100	τ24580.000	502.400
2	10:44:16	1.020	487.700	482.000	497.600	483.500	τ25090.000	498.100
3	10:44:40	1.012	488.000	484.000	501.800	τ491.800	τ25200.000	490.000
x		-	490.600	479.600	495.300	τ485.500	τ24960.000	496.800
σ		-	4.776	5.956	7.896	τ5.604	τ332.700	6.315
%RSD		-	0.973	1.242	1.594	τ1.154	τ1.333	1.271

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:51	504.600	520.400	563.900	511.800	578.300	557.300	0.000
2	10:44:16	507.600	527.200	560.000	509.500	533.800	549.400	0.000
3	10:44:40	499.500	531.300	557.400	505.600	543.400	548.700	0.000
x		503.900	526.300	560.500	509.000	551.800	551.800	0.000
σ		4.123	5.495	3.280	3.123	23.380	4.760	0.000
%RSD		0.818	1.044	0.585	0.614	4.237	0.863	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:51	0.000	1.051	494.300	500.400	487.000	498.100	493.700
2	10:44:16	0.000	1.025	496.600	476.300	479.400	489.000	473.900
3	10:44:40	0.000	1.025	495.100	481.300	479.400	492.100	473.100
x		0.000	-	495.300	486.000	481.900	493.100	480.200
σ		0.000	-	1.163	12.730	4.395	4.646	11.690
%RSD		0.000	-	0.235	2.620	0.912	0.942	2.434

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:51	1.103	512.300	519.000	512.400	509.000	484.900	537.000
2	10:44:16	1.094	514.000	506.000	505.800	517.600	494.500	530.700
3	10:44:40	1.108	525.200	507.600	509.700	520.800	497.000	540.700
x		-	517.200	510.900	509.300	515.800	492.100	536.100
σ		-	6.996	7.055	3.294	6.097	6.441	5.039
%RSD		-	1.353	1.381	0.647	1.182	1.309	0.940

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:51	1.018	1.039	τ478.100	τ478.100	τ474.400	1.110
2	10:44:16	1.020	1.029	τ481.800	τ487.800	τ481.500	1.118
3	10:44:40	1.026	1.026	τ490.900	τ487.100	τ486.000	1.128
x		-	-	τ483.600	τ484.300	τ480.600	-
σ		-	-	τ6.573	τ5.443	τ5.823	-
%RSD		-	-	τ1.359	τ1.124	τ1.211	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:35	1.089	1018.000	↹49150.000	↹49510.000	↹50030.000	↹9706.000	↹52420.000
2	10:46:59	1.144	1052.000	↹50180.000	↹50210.000	↹50270.000	↹9527.000	↹51460.000
3	10:47:24	1.118	1023.000	↹49930.000	↹50050.000	↹50220.000	↹9687.000	↹52000.000
x		-	1031.000	↹49750.000	↹49920.000	↹50180.000	↹9640.000	↹51960.000
σ		-	18.460	↹534.500	↹367.600	↹126.500	↹98.580	↹477.800
%RSD		-	1.791	↹1.074	↹0.736	↹0.252	↹1.023	↹0.920

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:35	1.027	982.600	↹968.800	↹1007.000	↹964.800	↹49970.000	↹1009.000
2	10:46:59	1.026	993.400	↹960.300	↹981.900	↹961.900	↹48790.000	↹993.300
3	10:47:24	1.034	986.500	↹971.100	↹996.300	↹971.500	↹50160.000	↹1001.000
x		-	987.500	↹966.800	↹994.900	↹966.100	↹49640.000	↹1001.000
σ		-	5.516	↹5.682	↹12.400	↹4.902	↹743.700	↹7.813
%RSD		-	0.559	↹0.588	↹1.246	↹0.507	↹1.498	↹0.780

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:35	965.800	1011.000	1061.000	995.100	1063.000	1042.000	0.000
2	10:46:59	955.600	997.200	1067.000	998.500	1048.000	1059.000	0.000
3	10:47:24	931.800	1008.000	1079.000	989.800	1052.000	1049.000	0.000
x		951.100	1005.000	1069.000	994.400	1054.000	1050.000	0.000
σ		17.440	7.270	9.042	4.369	7.697	8.688	0.000
%RSD		1.833	0.723	0.846	0.439	0.730	0.827	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:35	0.000	1.068	1014.000	993.200	980.100	1007.000	987.300
2	10:46:59	0.000	1.098	1025.000	1025.000	990.900	1021.000	1013.000
3	10:47:24	0.000	1.070	998.300	975.500	958.500	995.600	958.000
x		0.000	-	1012.000	997.800	976.500	1008.000	986.100
σ		0.000	-	13.590	24.970	16.470	12.610	27.540
%RSD		0.000	-	1.342	2.503	1.687	1.252	2.793

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:35	1.155	1044.000	↹1037.000	982.900	1035.000	↹1003.000	1104.000
2	10:46:59	1.183	1054.000	↹1051.000	1020.000	1045.000	↹1012.000	↹1141.000
3	10:47:24	1.151	1028.000	↹1008.000	983.000	1005.000	↹992.500	↹1110.000
x		-	1042.000	↹1032.000	995.200	1028.000	↹1002.000	↹1118.000
σ		-	13.400	↹22.260	21.280	21.140	↹9.626	↹19.730
%RSD		-	1.286	↹2.156	2.138	2.056	↹0.960	↹1.765

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:46:35	1.046	1.069	↹1019.000	↹1019.000	↹1015.000	1.213
2	10:46:59	1.068	1.088	↹983.100	↹1003.000	↹995.400	1.184
3	10:47:24	1.034	1.044	↹976.500	↹994.100	↹978.400	1.159
x		-	-	↹992.900	↹1005.000	↹996.300	-
σ		-	-	↹22.770	↹12.690	↹18.400	-
%RSD		-	-	↹2.294	↹1.262	↹1.847	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:19	1.155	1959.000	T 101000.000	T 101000.000	T 101100.000	T 20190.000	TM 110200.000
2	10:49:44	1.193	1982.000	T 102300.000	T 102300.000	T 101500.000	T 19670.000	TM 108900.000
3	10:50:08	1.207	1995.000	T 105300.000	T 104900.000	T 105400.000	T 20870.000	TM 111600.000
x		-	1979.000	T 102900.000	T 102700.000	T 102700.000	T 20250.000	TM 110200.000
σ		-	18.010	T 2225.000	T 1983.000	T 2405.000	T 603.300	TM 1349.000
%RSD		-	0.910	T 2.163	T 1.930	T 2.342	T 2.980	TM 1.224

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:19	1.080	1998.000	T 2025.000T	1972.000	T 2023.000	T 98020.000	T 1947.000
2	10:49:44	1.078	1957.000	T 2009.000T	1970.000	T 1985.000	T 98810.000	T 1932.000
3	10:50:08	1.113	M 2071.000	T 2032.000T	2021.000	T 2053.000	T 98870.000	T 2011.000
x		-	M 2009.000	T 2022.000	T 1988.000	T 2021.000	T 98570.000	T 1963.000
σ		-	M 57.390	T 11.850	T 28.910	T 34.260	T 476.000	T 42.020
%RSD		-	M 2.857	T 0.586	T 1.454	T 1.696	T 0.483	T 2.140

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:19	1920.000	1910.000	1922.000	1879.000	1967.000	1948.000	0.000
2	10:49:44	1873.000	1911.000	1928.000	1865.000	1925.000	1937.000	0.000
3	10:50:08	1979.000	1935.000	2000.000	1936.000	1988.000	2000.000	0.000
x		1924.000	1919.000	1950.000	1893.000	1960.000	1962.000	0.000
σ		53.060	13.890	43.720	38.000	32.080	33.700	0.000
%RSD		2.758	0.724	2.242	2.007	1.637	1.718	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:19	0.000	1.108	1986.000	2004.000	TM 2024.000	T 1979.000	TM 2018.000
2	10:49:44	0.000	1.112	M 2007.000	1975.000	TM 2013.000	M 2031.000	T 1981.000
3	10:50:08	0.000	1.136	1992.000	2035.000	TM 2012.000	T 1983.000	TM 2038.000
x		0.000	-	M 1995.000	2005.000	TM 2016.000	TM 1998.000	TM 2012.000
σ		0.000	-	M 10.680	29.700	TM 6.298	TM 28.880	TM 28.720
%RSD		0.000	-	M 0.535	1.481	TM 0.312	TM 1.446	TM 1.427

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:19	1.224	1983.000	T 1978.000	M 2005.000	1982.000	T 2022.000	T 2202.000
2	10:49:44	1.233	M 2011.000	T 1991.000	M 2004.000	2013.000	T 2010.000	T 2226.000
3	10:50:08	1.221	1930.000	T 1974.000	1991.000	1950.000	T 1971.000	T 2221.000
x		-	M 1975.000	T 1981.000	M 2000.000	1982.000	T 2001.000	T 2216.000
σ		-	M 40.970	T 8.636	M 7.378	31.910	T 26.560	T 12.750
%RSD		-	M 2.075	T 0.436	M 0.369	1.610	T 1.328	T 0.575

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:19	1.086	1.075	T 2056.000T	2022.000	TM 2005.000	1.255
2	10:49:44	1.103	1.099	T 2039.000T	1996.000	TM 2002.000	1.264
3	10:50:08	1.092	1.087	T 2011.000T	2017.000	TM 2013.000	1.248
x		-	-	T 2035.000	T 2012.000	TM 2006.000	-
σ		-	-	T 22.840	T 13.460	TM 5.881	-
%RSD		-	-	T 1.122	T 0.669	TM 0.293	-

ICV 6/28/2011 10:58:50 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	1.002	97.480	τ1945.000	τ1202.000	486.300	τ1993.000	1949.000
2	10:59:14	1.034	98.960	τ1999.000	τ1220.000	487.300	τ1995.000	1997.000
3	10:59:39	1.043	99.190	τ1990.000	τ1224.000	491.300	τ1985.000	2033.000
x		-	99.541%	τ97.952%	τ100.025%	96.886%	τ99.346%	99.397%
σ		-	n/a	τn/a	τn/a	n/a	τn/a	n/a
%RSD		-	0.942	τ1.464	τ0.979	0.534	τ0.249	2.132

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	0.985	-0.001	97.070	103.800	100.900	τ1038.000	107.300
2	10:59:14	1.004	0.206	103.300	104.000	103.300	τ1054.000	103.100
3	10:59:39	1.011	-0.040	102.800	105.100	103.500	τ1049.000	105.900
x		-	0.055	101.039%	106.452%	102.586%	τ103.061%	105.412%
σ		-	0.132	n/a	n/a	n/a	τn/a	n/a
%RSD		-	240.200	3.409	0.680	1.426	τ0.825	2.043

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	102.700	105.700	225.100	198.500	212.700	217.500	0.000
2	10:59:14	103.000	106.300	221.900	195.300	210.500	215.700	0.000
3	10:59:39	101.000	107.600	220.700	196.600	216.700	213.900	0.000
x		101.194%	108.724%	108.578%	98.399%	213.300	104.700%	0.000
σ		n/a	n/a	n/a	n/a	3.179	n/a	0.000
%RSD		1.017	0.925	1.028	0.801	1.490	0.846	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	0.000	1.020	0.110	0.082	0.071	0.047	0.043
2	10:59:14	0.000	1.002	0.180	0.074	0.064	0.063	0.034
3	10:59:39	0.000	0.978	0.053	0.048	0.129	0.113	0.059
x		0.000	-	0.114	0.068	0.088	0.075	0.045
σ		0.000	-	0.064	0.018	0.036	0.034	0.012
%RSD		0.000	-	55.550	26.170	40.500	46.030	27.360

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	1.026	106.700	110.000	101.300	105.800	197.100	101.500
2	10:59:14	1.013	106.000	107.500	96.120	105.400	201.200	99.560
3	10:59:39	0.995	102.800	104.800	99.850	106.600	197.100	99.310
x		-	105.200	107.448%	99.090	107.000%	99.730%	101.128%
σ		-	2.084	n/a	2.668	n/a	n/a	n/a
%RSD		-	1.982	2.420	2.693	0.575	1.179	1.184

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:58:50	0.999	1.012	197.800	τ196.900	τ189.200	1.005
2	10:59:14	1.004	1.009	206.300	τ197.900	τ192.100	1.027
3	10:59:39	1.001	1.003	205.500	τ194.800	τ193.700	1.023
x		-	-	98.642%	τ95.391%	τ95.831%	-
σ		-	-	n/a	τn/a	τn/a	-
%RSD		-	-	2.293	τ0.801	τ1.209	-

ICB 6/28/2011 11:01:36 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:36	1.034	0.025	0.769	0.244	0.256	0.593	-0.786
2	11:02:00	1.022	0.014	0.494	0.231	0.224	0.268	11.920
3	11:02:24	1.052	0.015	0.730	0.144	0.228	3.674	0.169
x		-	0.018	0.664	0.206	0.236	1.512	3.768
σ		-	0.006	0.149	0.054	0.017	1.880	7.076
%RSD		-	34.430	22.390	26.350	7.304	124.300	187.800

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:36	1.004	0.042	0.037	0.031	-0.006	1.871	0.021
2	11:02:00	1.026	0.128	0.241	0.006	0.008	1.800	0.006
3	11:02:24	1.015	-0.081	-0.096	0.044	0.011	2.004	0.008
x		-	0.029	0.061	0.027	0.005	1.892	0.012
σ		-	0.105	0.170	0.019	0.009	0.104	0.008
%RSD		-	357.400	279.500	72.220	202.800	5.480	68.840

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:36	0.008	0.014	-0.033	0.026	-0.323	0.297	0.000
2	11:02:00	0.020	0.014	0.001	-0.024	-0.497	0.142	0.000
3	11:02:24	-0.016	-0.017	-0.033	-0.046	-0.170	0.301	0.000
x		0.004	0.004	-0.022	-0.015	-0.330	0.247	0.000
σ		0.018	0.018	0.020	0.037	0.164	0.091	0.000
%RSD		431.500	495.500	89.420	251.900	49.570	36.820	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:36	0.000	1.021	0.005	-0.036	0.006	0.038	0.005
2	11:02:00	0.000	0.984	0.012	0.019	0.014	0.016	-0.011
3	11:02:24	0.000	0.987	0.064	-0.014	0.031	-0.009	0.046
x		0.000	-	0.027	-0.010	0.017	0.015	0.013
σ		0.000	-	0.032	0.028	0.012	0.024	0.030
%RSD		0.000	-	118.100	272.000	72.680	160.100	226.400

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:36	1.018	-0.890	0.017	-0.029	0.018	1.257	0.018
2	11:02:00	0.978	0.045	0.016	-0.029	0.018	1.151	0.003
3	11:02:24	0.997	-0.753	0.016	0.149	0.012	1.081	0.013
x		-	-0.533	0.016	0.030	0.016	1.163	0.012
σ		-	0.505	0.000	0.103	0.003	0.089	0.008
%RSD		-	94.750	2.605	342.400	21.640	7.624	65.490

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:36	1.001	1.032	0.032	0.035	0.037	1.032
2	11:02:00	1.014	0.996	0.029	0.018	0.027	1.022
3	11:02:24	1.026	1.026	0.025	0.030	0.022	1.071
x		-	-	0.028	0.027	0.029	-
σ		-	-	0.003	0.009	0.008	-
%RSD		-	-	11.590	31.920	26.150	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:22	1.224	0.283	T 100300.000	T 99870.000	T 96360.000	TM 103700.000	TM 109000.000
2	11:04:47	1.243	0.260	T 101700.000	T 100900.000	T 96320.000	TM 101100.000	TM 109200.000
3	11:05:11	1.242	0.251	T 102400.000	T 103100.000	T 98360.000	TM 104700.000	TM 114100.000
x		-	0.264	T 101500.000	T 101300.000	T 97010.000	TM 103200.000	TM 110700.000
σ		-	0.017	T 1087.000	T 1664.000	T 1166.000	TM 1837.000	TM 2880.000
%RSD		-	6.266	T 1.071	T 1.643	T 1.202	TM 1.780	TM 2.601

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:22	1.175	M 2478.000	-0.022	19.960	7.742	T 97520.000	1.249
2	11:04:47	1.180	M 2415.000	-0.512	20.210	7.644	T 96980.000	1.294
3	11:05:11	1.201	M 2534.000	0.568	21.130	8.222	T 102200.000	1.407
x		-	M 2475.000	0.011	20.440	7.869	T 98890.000	1.317
σ		-	M 59.470	0.541	0.617	0.309	T 2852.000	0.082
%RSD		-	M 2.402	4796.000	3.018	3.932	T 2.884	6.204

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:22	5.983	9.774	12.700	1.295	9.050	1.823	0.000
2	11:04:47	5.673	9.087	12.180	1.919	6.018	2.116	0.000
3	11:05:11	6.178	9.506	13.050	1.772	9.487	1.907	0.000
x		5.945	9.456	12.640	1.662	8.185	1.948	0.000
σ		0.255	0.346	0.437	0.326	1.889	0.151	0.000
%RSD		4.288	3.663	3.457	19.630	23.080	7.753	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:22	0.000	1.210	1960.000	2005.000	1986.000	1979.000	TM 2024.000
2	11:04:47	0.000	1.192	1967.000	1969.000	M 2005.000	M 2001.000	T 1993.000
3	11:05:11	0.000	1.240	M 2064.000	T 2118.000	TM 2108.000	M 2069.000	TM 2108.000
x		0.000	-	M 1997.000	T 2031.000	TM 2033.000	M 2016.000	TM 2042.000
σ		0.000	-	M 58.400	T 77.860	TM 65.400	M 46.730	TM 59.360
%RSD		0.000	-	M 2.924	T 3.834	TM 3.217	M 2.318	TM 2.907

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:22	1.327	-1.187	0.040	39.630	0.251	1.585	1.690
2	11:04:47	1.334	0.452	0.029	43.900	0.088	1.719	1.567
3	11:05:11	1.350	-0.945	0.027	41.960	-0.010	1.787	1.441
x		-	-0.560	0.032	41.830	0.110	1.697	1.566
σ		-	0.885	0.007	2.141	0.132	0.103	0.125
%RSD		-	158.000	23.060	5.118	120.300	6.061	7.948

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:22	1.183	1.199	0.049	0.044	4.325	1.410
2	11:04:47	1.207	1.191	0.048	0.037	4.281	1.396
3	11:05:11	1.238	1.225	0.041	0.032	4.478	1.428
x		-	-	0.046	0.037	4.361	-
σ		-	-	0.004	0.006	0.103	-
%RSD		-	-	8.944	15.700	2.363	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:09	1.230	19.280	T 102600.000	T 103100.000	T 99250.000	TM 106600.000	TM 115100.000
2	11:07:34	1.234	19.090	T 102400.000	T 102700.000	T 100200.000	TM 106000.000	TM 110400.000
3	11:07:58	1.227	18.660	T 102400.000	T 101500.000	T 99240.000	TM 103700.000	TM 108600.000
x		-	19.010	T 102500.000	T 102400.000	T 99580.000	TM 105400.000	TM 111300.000
σ		-	0.315	T 131.600	T 854.900	T 577.600	TM 1566.000	TM 3358.000
%RSD		-	1.655	T 0.128	T 0.835	T 0.580	TM 1.485	TM 3.016

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:09	1.174	M 2499.000	20.990	42.350	29.520	T 100700.000	22.280
2	11:07:34	1.162	M 2521.000	20.110	42.620	29.640	T 100500.000	22.870
3	11:07:58	1.152	M 2471.000	18.700	41.000	28.820	T 99410.000	22.310
x		-	M 2497.000	19.930	41.990	29.320	T 100200.000	22.490
σ		-	M 24.840	1.155	0.865	0.443	T 705.800	0.333
%RSD		-	M 0.995	5.797	2.059	1.509	T 0.704	1.480

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:09	29.930	27.470	31.350	20.630	25.620	20.640	0.000
2	11:07:34	29.910	29.120	32.140	20.590	29.690	20.820	0.000
3	11:07:58	28.150	28.280	32.320	20.780	26.200	21.440	0.000
x		29.330	28.290	31.940	20.670	27.170	20.960	0.000
σ		1.023	0.821	0.519	0.099	2.205	0.420	0.000
%RSD		3.487	2.903	1.624	0.478	8.115	2.003	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:09	0.000	1.197	M 2002.000	2039.000	M 2053.000	M 2041.000	TM 2056.000
2	11:07:34	0.000	1.231	M 2075.000	2112.000	M 2055.000	M 2087.000	TM 2144.000
3	11:07:58	0.000	1.205	M 2047.000	2058.000	M 2012.000	M 2053.000	TM 2107.000
x		0.000	-	M 2041.000	2070.000	M 2040.000	M 2060.000	TM 2102.000
σ		0.000	-	M 37.190	37.780	M 24.300	M 24.010	TM 44.330
%RSD		0.000	-	M 1.822	1.826	M 1.191	M 1.166	TM 2.109

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:09	1.306	19.890	19.960	63.130	20.930	22.690	22.970
2	11:07:34	1.330	19.400	20.430	64.330	20.720	22.980	23.220
3	11:07:58	1.328	19.630	20.170	67.140	20.660	22.530	23.190
x		-	19.640	20.190	64.870	20.770	22.730	23.130
σ		-	0.247	0.235	2.059	0.142	0.226	0.137
%RSD		-	1.258	1.162	3.174	0.682	0.994	0.594

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:09	1.176	1.180	22.450	22.020	25.720	1.402
2	11:07:34	1.156	1.183	22.250	22.280	25.210	1.363
3	11:07:58	1.145	1.165	21.710	22.060	25.010	1.358
x		-	-	22.140	22.120	25.310	-
σ		-	-	0.383	0.142	0.366	-
%RSD		-	-	1.732	0.640	1.445	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:09:55	1.147	1011.000	τ50570.000	τ50910.000	τ50930.000	τ10270.000	τ54690.000
2	11:10:19	1.169	1025.000	τ50650.000	τ51030.000	τ51120.000	τ10100.000	τ54580.000
3	11:10:43	1.170	1021.000	τ51140.000	τ51380.000	τ51090.000	τ10050.000	τ54240.000
x		-	1019.000	τ50780.000	τ51100.000	τ51050.000	τ10140.000	τ54500.000
σ		-	7.198	τ309.100	τ242.900	τ102.000	τ114.000	τ232.700
%RSD		-	0.707	τ0.609	τ0.475	τ0.200	τ1.124	τ0.427

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:09:55	1.082	1011.000	τ1006.000	999.000	τ1005.000	τ50530.000	τ1023.000
2	11:10:19	1.077	1007.000	τ1003.000	988.900	τ1000.000	τ50570.000	τ1011.000
3	11:10:43	1.076	988.600	τ999.800	981.100	τ990.800	τ50350.000	τ999.000
x		-	1002.000	τ1003.000	989.700	τ998.700	τ50490.000	τ1011.000
σ		-	11.780	τ3.044	8.933	τ7.307	τ117.500	τ12.100
%RSD		-	1.176	τ0.304	0.903	τ0.732	τ0.233	τ1.197

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:09:55	989.900	1018.000	1051.000	1008.000	1042.000	1073.000	0.000
2	11:10:19	1002.000	1023.000	1054.000	991.900	1059.000	1045.000	0.000
3	11:10:43	965.200	1019.000	1051.000	985.100	1049.000	1040.000	0.000
x		985.600	1020.000	1052.000	995.100	1050.000	1053.000	0.000
σ		18.640	3.018	1.964	11.960	8.295	17.700	0.000
%RSD		1.891	0.296	0.187	1.202	0.790	1.682	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:09:55	0.000	1.100	997.100	1010.000	1002.000	1001.000	983.500
2	11:10:19	0.000	1.078	998.300	989.800	991.800	1002.000	972.900
3	11:10:43	0.000	1.067	989.800	975.700	985.900	990.600	962.800
x		0.000	-	995.000	992.000	993.200	997.800	973.000
σ		0.000	-	4.615	17.440	8.112	6.311	10.350
%RSD		0.000	-	0.464	1.758	0.817	0.633	1.063

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:09:55	1.162	1015.000	τ1032.000	1011.000	1022.000	τ989.000	τ1110.000
2	11:10:19	1.166	1026.000	τ1026.000	975.800	1030.000	τ1009.000	τ1113.000
3	11:10:43	1.160	1016.000	τ1021.000	967.800	1032.000	τ999.300	τ1121.000
x		-	1019.000	τ1026.000	985.000	1028.000	τ999.000	τ1115.000
σ		-	5.868	τ5.483	23.170	5.263	τ9.880	τ5.649
%RSD		-	0.576	τ0.534	2.352	0.512	τ0.989	τ0.507

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:09:55	1.054	1.051	τ991.700	τ999.400	τ993.200	1.191
2	11:10:19	1.059	1.070	τ1003.000	τ968.800	τ986.000	1.183
3	11:10:43	1.066	1.060	τ987.300	τ991.000	τ997.100	1.184
x		-	-	τ993.900	τ986.400	τ992.100	-
σ		-	-	τ7.871	τ15.790	τ5.610	-
%RSD		-	-	τ0.792	τ1.600	τ0.565	-

ZZZZZZ 6/28/2011 11:12:40 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:40	1.024	0.110	17.240	3.046	3.374	5.303	-5.395
2	11:13:04	0.993	0.054	12.970	1.549	1.679	2.501	-3.493
3	11:13:29	1.013	0.049	11.870	0.948	1.010	4.039	-11.450
x		-	0.071	14.030	1.848	2.021	3.948	-6.779
σ		-	0.034	2.834	1.081	1.219	1.403	4.155
%RSD		-	47.930	20.200	58.490	60.290	35.550	61.290

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:40	0.980	0.079	0.146	0.068	0.079	7.184	0.062
2	11:13:04	0.934	0.110	0.352	0.039	0.045	4.629	0.026
3	11:13:29	0.954	-0.042	0.096	0.039	0.030	3.801	0.022
x		-	0.049	0.198	0.049	0.051	5.205	0.037
σ		-	0.080	0.136	0.017	0.025	1.764	0.022
%RSD		-	165.100	68.450	34.040	48.680	33.890	59.410

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:40	0.019	0.207	0.087	0.058	-0.177	0.863	0.000
2	11:13:04	0.017	0.031	0.058	-0.022	0.260	0.568	0.000
3	11:13:29	0.006	-0.018	0.028	-0.006	-0.196	0.346	0.000
x		0.014	0.073	0.058	0.010	-0.038	0.592	0.000
σ		0.007	0.118	0.029	0.043	0.258	0.260	0.000
%RSD		48.380	161.400	50.810	428.700	685.400	43.810	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:40	0.000	0.987	0.957	0.798	0.797	0.734	0.744
2	11:13:04	0.000	0.945	0.691	0.879	0.731	0.633	0.812
3	11:13:29	0.000	0.956	0.654	0.676	0.709	0.730	0.618
x		0.000	-	0.768	0.784	0.746	0.699	0.725
σ		0.000	-	0.165	0.102	0.046	0.057	0.098
%RSD		0.000	-	21.510	13.020	6.124	8.195	13.530

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:40	0.964	-0.551	0.080	0.057	0.028	0.528	0.074
2	11:13:04	0.922	-0.336	0.043	0.136	0.032	0.625	0.031
3	11:13:29	0.943	-0.763	0.034	-0.029	0.027	0.451	0.026
x		-	-0.550	0.052	0.054	0.029	0.534	0.044
σ		-	0.214	0.024	0.082	0.003	0.087	0.026
%RSD		-	38.850	46.870	151.900	9.080	16.340	60.480

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:40	0.967	0.997	0.176	0.165	0.080	1.002
2	11:13:04	0.960	0.961	0.129	0.136	0.049	0.979
3	11:13:29	0.949	0.970	0.130	0.125	0.043	0.955
x		-	-	0.145	0.142	0.057	-
σ		-	-	0.027	0.021	0.020	-
%RSD		-	-	18.380	14.640	35.370	-

ICSA 6/28/2011 11:23:05 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:05	1.103	0.237	T 95740.000	T 95000.000	T 93130.000	TM 100900.000	TM 109600.000
2	11:23:30	1.125	0.204	T 98520.000	T 97480.000	T 95350.000	TM 104400.000	TM 112600.000
3	11:23:54	1.138	0.249	T 97480.000	T 97220.000	T 94230.000	TM 102500.000	TM 109100.000
x		-	1.#IO%	T 97.249%	T 96.570%	T 94.239%	TM 102.579%	TM 110.409%
σ		-	n/a	T n/a	T n/a	T n/a	TM n/a	TM n/a
%RSD		-	10.050	T 1.446	T 1.413	T 1.178	TM 1.684	TM 1.718

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:05	1.067	M 2385.000	0.039	19.780	7.787	T 98300.000	1.133
2	11:23:30	1.080	M 2439.000	-1.168	20.080	7.876	T 96600.000	1.272
3	11:23:54	1.079	M 2386.000	0.345	19.760	7.959	T 96820.000	1.314
x		-	M 2403.000	-52.236%	94.637%	112.484%	T 97.241%	123.992%
σ		-	M 31.130	n/a	n/a	n/a	T n/a	n/a
%RSD		-	M 1.295	306.300	0.904	1.094	T 0.952	7.628

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:05	5.658	8.846	12.130	1.699	6.842	1.669	0.000
2	11:23:30	5.834	8.648	12.580	1.365	7.277	1.527	0.000
3	11:23:54	5.088	8.302	12.320	1.750	5.692	1.662	0.000
x		92.112%	107.485%	112.215%	1604.994%	6.604	539.825%	0.000
σ		n/a	n/a	n/a	n/a	0.819	n/a	0.000
%RSD		7.051	3.199	1.809	13.030	12.410	4.933	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:05	0.000	1.163	M 2032.000	1990.000	TM 2019.000	M 2043.000	TM 2027.000
2	11:23:30	0.000	1.134	1951.000	1976.000	1970.000	1988.000	TM 2025.000
3	11:23:54	0.000	1.152	1961.000	1966.000	1950.000	1972.000	TM 2004.000
x		0.000	-	M 1981.000	1977.000	TM 1979.000	M 2001.000	TM 2019.000
σ		0.000	-	M 44.130	11.870	TM 35.870	M 37.040	TM 12.690
%RSD		0.000	-	M 2.227	0.601	TM 1.812	M 1.851	TM 0.629

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:05	1.294	-0.493	0.014	40.640	0.200	1.159	1.684
2	11:23:30	1.253	-0.529	0.022	34.670	-0.176	1.277	1.492
3	11:23:54	1.271	1.067	0.020	41.780	0.021	1.223	1.626
x		-	0.015	1.#IO%	39.030	2.130%	81.332%	133.393%
σ		-	0.911	n/a	3.818	n/a	n/a	n/a
%RSD		-	6035.000	23.600	9.780	1262.000	4.835	6.141

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:05	1.093	1.101	0.019	0.016	4.232	1.321
2	11:23:30	1.080	1.088	0.013	0.022	4.401	1.306
3	11:23:54	1.099	1.097	0.017	0.009	4.191	1.302
x		-	-	1.#IO%	1.#IO%	106.863%	-
σ		-	-	n/a	n/a	n/a	-
%RSD		-	-	21.270	42.000	2.602	-

ICSAB 6/28/2011 11:25:53 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:53	1.086	16.480	T 91700.000	T 91260.000	T 89430.000	TM 95600.000	TM 103100.000
2	11:26:17	1.136	17.080	T 96650.000	T 95820.000	T 93480.000	TM 98050.000	TM 108600.000
3	11:26:42	1.137	16.930	T 97190.000	T 96070.000	T 93030.000	TM 100700.000	TM 106300.000
x		-	88.586%	T 95.181%	T 94.382%	T 91.978%	TM 98.126%	TM 105.980%
σ		-	n/a	T n/a	T n/a	T n/a	TM n/a	TM n/a
%RSD		-	1.842	T 3.182	T 2.868	T 2.414	TM 2.613	TM 2.640

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:53	1.030	M 2276.000	18.690	38.120	26.780	T 92700.000	19.820
2	11:26:17	1.067	M 2310.000	20.440	39.800	27.720	T 95310.000	20.090
3	11:26:42	1.057	M 2391.000	17.520	38.470	27.860	T 94910.000	20.650
x		-	M 2325.000	99.378%	96.994%	101.686%	T 94.306%	100.942%
σ		-	M 59.190	n/a	n/a	n/a	T n/a	n/a
%RSD		-	M 2.545	7.789	2.293	2.145	T 1.492	2.114

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:53	21.460	25.180	29.070	18.220	23.150	19.780	0.000
2	11:26:17	21.650	25.240	28.910	18.060	27.120	20.640	0.000
3	11:26:42	22.080	25.760	29.850	19.100	25.960	20.340	0.000
x		90.546%	101.581%	100.965%	97.158%	25.410	106.594%	0.000
σ		n/a	n/a	n/a	n/a	2.044	n/a	0.000
%RSD		1.463	1.264	1.712	3.023	8.045	2.171	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:53	0.000	1.132	1923.000	1926.000	1877.000	1945.000	T 1956.000
2	11:26:17	0.000	1.147	1953.000	1900.000	1955.000	1994.000	T 1986.000
3	11:26:42	0.000	1.158	1969.000	1978.000	1930.000	1987.000	TM 2026.000
x		0.000	-	1948.000	1935.000	1921.000	1975.000	TM 1989.000
σ		0.000	-	23.110	39.670	39.830	25.960	TM 34.820
%RSD		0.000	-	1.186	2.051	2.073	1.314	TM 1.751

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:53	1.256	20.970	19.130	54.350	20.020	21.590	21.350
2	11:26:17	1.292	20.420	19.630	56.780	21.280	22.440	21.730
3	11:26:42	1.275	19.650	19.930	56.760	19.690	22.300	22.750
x		-	20.350	108.691%	55.960	101.653%	100.510%	99.750%
σ		-	0.661	n/a	1.396	n/a	n/a	n/a
%RSD		-	3.249	2.074	2.495	4.138	2.052	3.282

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:25:53	1.040	1.053	20.670	21.120	23.350	1.260
2	11:26:17	1.084	1.098	22.020	21.850	24.580	1.308
3	11:26:42	1.052	1.072	21.340	21.340	24.360	1.269
x		-	-	101.632%	102.073%	96.379%	-
σ		-	-	n/a	n/a	n/a	-
%RSD		-	-	3.170	1.757	2.731	-

CCV1 CCV 6/28/2011 11:28:39 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:39	1.082	951.300	τ48630.000	τ48710.000	τ49250.000	τ10140.000	τ54710.000
2	11:29:03	1.112	967.000	τ49630.000	τ49750.000	τ50590.000	τ10030.000	τ53680.000
3	11:29:28	1.112	959.200	τ49630.000	τ49650.000	τ50610.000	τ10020.000	τ53610.000
x		-	95.917%	τ49290.000	τ49370.000	τ50150.000	τ10060.000	τ54000.000
σ		-	n/a	τ578.400	τ572.900	τ780.200	τ67.260	τ617.700
%RSD		-	0.817	τ1.173	τ1.160	τ1.556	τ0.668	τ1.144

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:39	1.044	1011.000	τ973.300	954.300	τ1006.000	τ49040.000	τ977.300
2	11:29:03	1.035	1016.000	τ963.800	966.400	τ990.400	τ50110.000	τ1003.000
3	11:29:28	1.039	990.900	τ970.400	τ995.300	τ994.800	τ49750.000	τ1014.000
x		-	1006.000	τ96.918%	τ97.200%	τ99.698%	τ49640.000	τ99.831%
σ		-	13.360	τn/a	τn/a	τn/a	τ542.400	τn/a
%RSD		-	1.328	τ0.503	τ2.167	τ0.796	τ1.093	τ1.902

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:39	936.000	959.500	1029.000	975.200	1054.000	1056.000	0.000
2	11:29:03	920.200	981.400	1075.000	988.600	1036.000	1062.000	0.000
3	11:29:28	949.900	977.000	1068.000	982.000	1070.000	1058.000	0.000
x		93.538%	97.260%	105.737%	98.191%	1053.000	105.859%	0.000
σ		n/a	n/a	n/a	n/a	17.280	n/a	0.000
%RSD		1.589	1.193	2.328	0.684	1.641	0.317	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:39	0.000	1.095	971.000	989.700	987.100	978.500	976.300
2	11:29:03	0.000	1.106	1014.000	1013.000	983.200	1014.000	999.400
3	11:29:28	0.000	1.095	1017.000	997.800	979.800	1001.000	992.500
x		0.000	-	1001.000	1000.000	983.400	997.800	989.400
σ		0.000	-	25.680	11.720	3.659	17.810	11.880
%RSD		0.000	-	2.567	1.172	0.372	1.785	1.201

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:39	1.155	1014.000	τ1015.000	994.900	1016.000	τ1017.000	1073.000
2	11:29:03	1.194	1043.000	τ1059.000	1042.000	1046.000	τ1016.000	τ1125.000
3	11:29:28	1.183	1049.000	τ1054.000	1009.000	1035.000	τ1015.000	τ1128.000
x		-	1035.000	τ104.297%	1015.000	103.208%	τ101.582%	τ100.806%
σ		-	19.180	τn/a	24.290	n/a	τn/a	τn/a
%RSD		-	1.852	τ2.297	2.392	1.480	τ0.091	τ2.776

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:28:39	1.008	1.011	τ1002.000	τ995.400	τ1005.000	1.153
2	11:29:03	1.007	1.007	τ963.200	τ982.600	τ978.600	1.132
3	11:29:28	0.999	1.029	τ983.900	τ984.900	τ984.400	1.136
x		-	-	τ98.320%	τ98.766%	τ98.943%	-
σ		-	-	τn/a	τn/a	τn/a	-
%RSD		-	-	τ1.995	τ0.689	τ1.419	-

CCB1 CCB 6/28/2011 11:31:24 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:24	0.990	0.103	28.680	3.253	2.979	14.360	5.557
2	11:31:49	0.997	0.067	23.770	2.226	1.980	12.540	-2.816
3	11:32:13	0.995	0.054	20.130	1.825	1.545	10.270	-0.900
x		-	0.075	24.190	2.435	2.168	12.390	0.614
σ		-	0.026	4.293	0.737	0.735	2.047	4.387
%RSD		-	34.370	17.740	30.260	33.920	16.520	714.700

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:24	0.955	0.192	0.330	0.006	0.048	5.868	0.063
2	11:31:49	0.946	0.228	-0.112	0.027	0.045	5.080	0.020
3	11:32:13	0.952	-0.042	0.187	0.034	0.018	4.201	0.013
x		-	0.126	0.135	0.022	0.037	5.050	0.032
σ		-	0.147	0.226	0.014	0.016	0.834	0.027
%RSD		-	116.700	167.200	64.540	44.330	16.510	85.950

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:24	0.041	0.063	0.052	0.053	0.144	0.973	0.000
2	11:31:49	0.029	0.092	0.105	0.011	0.294	1.059	0.000
3	11:32:13	0.063	0.022	0.029	0.038	-0.030	1.146	0.000
x		0.045	0.059	0.062	0.034	0.136	1.059	0.000
σ		0.017	0.035	0.039	0.021	0.162	0.086	0.000
%RSD		38.900	59.500	62.640	62.740	119.500	8.163	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:24	0.000	0.991	0.917	0.741	0.857	0.724	0.725
2	11:31:49	0.000	0.981	0.940	0.836	0.998	0.891	0.896
3	11:32:13	0.000	0.971	0.638	0.695	0.718	0.694	0.680
x		0.000	-	0.831	0.757	0.858	0.770	0.767
σ		0.000	-	0.168	0.072	0.140	0.106	0.114
%RSD		0.000	-	20.230	9.482	16.320	13.830	14.810

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:24	0.956	0.317	0.099	0.056	0.062	0.547	0.044
2	11:31:49	0.954	0.376	0.060	-0.029	0.033	0.598	0.045
3	11:32:13	0.963	-0.630	0.043	-0.029	0.028	0.449	0.040
x		-	0.021	0.067	-0.001	0.041	0.531	0.043
σ		-	0.564	0.029	0.049	0.018	0.076	0.003
%RSD		-	2694.000	42.980	4897.000	44.910	14.260	6.239

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:31:24	0.928	0.952	0.142	0.124	0.076	0.958
2	11:31:49	0.940	0.927	0.138	0.104	0.060	0.964
3	11:32:13	0.928	0.938	0.114	0.104	0.045	0.937
x		-	-	0.132	0.111	0.060	-
σ		-	-	0.015	0.011	0.015	-
%RSD		-	-	11.400	10.320	25.430	-

PBW 6/28/2011 11:34:08 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:08	0.957	0.016	11.830	0.721	0.318	9.340	1.593
2	11:34:33	0.978	0.014	11.030	0.756	0.220	4.593	2.252
3	11:34:57	0.977	0.003	10.060	0.666	0.211	5.336	2.382
x		-	0.011	10.970	0.715	0.250	6.423	2.076
σ		-	0.007	0.887	0.045	0.059	2.553	0.423
%RSD		-	63.420	8.084	6.355	23.780	39.750	20.380

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:08	0.926	0.108	0.237	-0.017	0.007	1.844	0.003
2	11:34:33	0.934	0.148	-0.047	-0.019	-0.001	1.843	0.010
3	11:34:57	0.923	0.259	0.076	-0.026	-0.003	1.703	0.001
x		-	0.172	0.089	-0.021	0.001	1.797	0.005
σ		-	0.078	0.143	0.005	0.006	0.081	0.005
%RSD		-	45.360	160.900	22.580	560.500	4.515	106.900

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:08	-0.017	0.032	0.199	-0.017	-0.665	0.561	0.000
2	11:34:33	0.029	0.022	0.157	-0.024	-0.507	0.493	0.000
3	11:34:57	0.006	0.021	0.090	-0.016	-0.354	0.974	0.000
x		0.006	0.025	0.149	-0.019	-0.509	0.676	0.000
σ		0.023	0.006	0.055	0.005	0.156	0.260	0.000
%RSD		380.500	23.500	36.880	23.510	30.660	38.460	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:08	0.000	0.984	0.222	0.114	0.131	0.197	0.112
2	11:34:33	0.000	0.977	0.071	0.258	0.171	0.222	0.137
3	11:34:57	0.000	0.967	0.109	0.182	0.189	0.192	0.189
x		0.000	-	0.134	0.185	0.164	0.204	0.146
σ		0.000	-	0.079	0.072	0.029	0.016	0.039
%RSD		0.000	-	58.630	39.080	17.990	7.799	27.010

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:08	0.963	-0.111	0.008	-0.029	-0.000	0.117	0.012
2	11:34:33	0.963	0.226	0.001	0.056	-0.000	0.151	-0.002
3	11:34:57	0.950	-1.189	0.020	-0.029	0.005	0.160	-0.002
x		-	-0.358	0.010	-0.001	0.002	0.143	0.003
σ		-	0.739	0.009	0.049	0.003	0.022	0.008
%RSD		-	206.400	94.400	6596.000	204.000	15.760	268.100

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:08	0.919	0.941	0.058	0.057	0.013	0.948
2	11:34:33	0.949	0.963	0.067	0.061	0.011	0.951
3	11:34:57	0.944	0.949	0.063	0.057	0.009	0.962
x		-	-	0.063	0.059	0.011	-
σ		-	-	0.004	0.002	0.002	-
%RSD		-	-	6.769	3.807	16.310	-

LCS 6/28/2011 11:36:51 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:51	0.917	1.822	τ997.000	τ1008.000	38.630	τ1036.000	1031.000
2	11:37:15	0.931	1.752	τ1005.000	τ1015.000	38.190	τ1039.000	1036.000
3	11:37:39	0.937	1.811	τ1013.000	τ1022.000	37.800	τ1038.000	1026.000
x		-	89.746%	τ100.501%	τ101.518%	95.518%	τ103.763%	1031.000
σ		-	n/a	τn/a	τn/a	n/a	τn/a	5.075
%RSD		-	2.099	τ0.808	τ0.682	1.088	τ0.168	0.492

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:51	0.896	0.139	10.400	4.192	2.235	409.700	2.219
2	11:37:15	0.896	0.212	10.690	4.190	2.264	409.900	2.263
3	11:37:39	0.906	0.104	10.390	4.094	2.295	409.400	2.135
x		-	0.152	104.953%	103.970%	113.218%	102.417%	110.279%
σ		-	0.055	n/a	n/a	n/a	n/a	n/a
%RSD		-	36.390	1.609	1.348	1.328	0.071	2.950

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:51	2.078	4.677	4.415	1.899	8.985	9.448	0.000
2	11:37:15	2.245	4.613	4.298	1.976	6.875	8.536	0.000
3	11:37:39	2.132	4.054	4.522	1.808	8.273	8.329	0.000
x		107.588%	111.203%	110.289%	94.715%	8.045	87.713%	0.000
σ		n/a	n/a	n/a	n/a	1.073	n/a	0.000
%RSD		3.974	7.709	2.533	4.433	13.340	6.786	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:51	0.000	0.945	0.241	0.042	0.120	0.188	0.106
2	11:37:15	0.000	0.926	0.198	0.137	0.166	0.201	0.135
3	11:37:39	0.000	0.928	0.235	0.241	0.204	0.125	0.142
x		0.000	-	0.225	0.140	0.163	0.171	0.128
σ		0.000	-	0.023	0.100	0.042	0.041	0.019
%RSD		0.000	-	10.390	71.050	25.610	23.710	15.030

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:51	0.940	1.690	2.191	2.718	1.717	3.913	20.080
2	11:37:15	0.932	1.700	2.068	1.869	1.983	3.971	20.350
3	11:37:39	0.918	2.300	2.055	1.437	2.041	3.964	19.390
x		-	1.897	105.241%	2.008	95.693%	98.733%	99.704%
σ		-	0.349	n/a	0.652	n/a	n/a	n/a
%RSD		-	18.400	3.563	32.480	9.039	0.791	2.495

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:36:51	0.892	0.904	2.380	2.351	2.046	0.967
2	11:37:15	0.878	0.896	2.318	2.263	1.979	0.945
3	11:37:39	0.881	0.892	2.144	2.169	1.953	0.941
x		-	-	114.037%	113.047%	99.624%	-
σ		-	-	n/a	n/a	n/a	-
%RSD		-	-	5.366	4.023	2.417	-

14920L MF4N31L 6/28/2011 11:39:33 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:33	1.003	0.006	↹25340.000	↹8451.000	130.200	↹1489.000	↹37930.000
2	11:39:57	1.033	0.003	↹26060.000	↹8605.000	132.200	↹1478.000	↹37210.000
3	11:40:22	1.042	0.006	↹26400.000	↹8786.000	135.100	↹1474.000	↹38100.000
x		-	0.005	↹25930.000	↹8614.000	132.500	↹1481.000	↹37740.000
σ		-	0.002	↹542.000	↹167.600	2.444	↹7.714	↹474.200
%RSD		-	41.760	↹2.090	↹1.946	1.845	↹0.521	↹1.256

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:33	0.986	2.383	5.293	77.060	1.537	27.350	0.154
2	11:39:57	0.972	1.793	4.579	76.070	1.507	25.960	0.108
3	11:40:22	0.979	2.165	4.624	77.030	1.600	29.720	0.126
x		-	2.114	4.832	76.720	1.548	27.680	0.129
σ		-	0.298	0.400	0.563	0.047	1.903	0.023
%RSD		-	14.100	8.278	0.734	3.065	6.874	17.820

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:33	1.923	0.625	0.502	1.548	3.073	2.144	0.000
2	11:39:57	1.831	0.677	0.581	1.548	3.609	1.891	0.000
3	11:40:22	1.906	0.562	0.513	1.653	2.575	2.085	0.000
x		1.887	0.621	0.532	1.583	3.086	2.040	0.000
σ		0.049	0.058	0.043	0.060	0.517	0.132	0.000
%RSD		2.590	9.315	8.068	3.810	16.760	6.492	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:33	0.000	1.047	1.333	0.488	0.590	0.466	0.455
2	11:39:57	0.000	1.061	1.327	0.549	0.732	0.539	0.478
3	11:40:22	0.000	1.054	1.072	0.593	0.711	0.570	0.418
x		0.000	-	1.244	0.544	0.678	0.525	0.450
σ		0.000	-	0.149	0.053	0.077	0.053	0.030
%RSD		0.000	-	12.000	9.754	11.380	10.160	6.732

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:33	1.099	-0.029	0.005	0.068	0.006	0.101	18.230
2	11:39:57	1.107	-0.599	0.005	0.166	-0.001	0.097	18.370
3	11:40:22	1.117	-1.015	0.013	0.168	-0.001	0.073	18.400
x		-	-0.548	0.007	0.134	0.001	0.090	18.340
σ		-	0.495	0.005	0.057	0.004	0.015	0.092
%RSD		-	90.310	63.700	42.750	294.200	16.910	0.504

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:33	1.015	1.006	0.034	0.028	0.182	1.086
2	11:39:57	1.009	1.006	0.020	0.024	0.203	1.084
3	11:40:22	1.013	1.000	0.014	0.013	0.165	1.078
x		-	-	0.022	0.022	0.183	-
σ		-	-	0.010	0.008	0.019	-
%RSD		-	-	45.790	34.930	10.270	-

14920 MF4N31 6/28/2011 11:42:16 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:16	0.996	0.021	TM 129400.000	T 42550.000	T 401.800	T 6941.000TM	176100.000
2	11:42:40	1.014	0.012	TM 130200.000	T 43010.000	T 382.000	T 6921.000TM	173900.000
3	11:43:05	1.017	0.027	TM 132900.000	T 43860.000	T 338.200	T 7114.000TM	182400.000
x		-	0.020	TM 130800.000	T 43140.000	T 374.000	T 6992.000	TM 177500.000
σ		-	0.007	TM 1818.000	T 663.500	T 32.560	T 105.900	TM 4386.000
%RSD		-	36.640	TM 1.390	T 1.538	T 8.707	T 1.514	TM 2.471

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:16	0.840	16.310	23.910	355.300	7.186	168.100	0.521
2	11:42:40	0.839	25.240	21.290	351.600	7.440	169.700	0.519
3	11:43:05	0.858	10.610	18.900	351.100	7.532	158.200	0.526
x		-	17.390	21.370	352.700	7.386	165.400	0.522
σ		-	7.377	2.502	2.315	0.180	6.244	0.004
%RSD		-	42.430	11.710	0.656	2.431	3.776	0.731

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:16	10.600	1.717	2.600	8.545	22.830	8.009	0.000
2	11:42:40	8.385	1.953	2.552	9.096	23.200	8.223	0.000
3	11:43:05	8.646	2.312	2.520	8.987	22.690	7.424	0.000
x		9.209	1.994	2.557	8.876	22.910	7.885	0.000
σ		1.208	0.300	0.040	0.292	0.266	0.414	0.000
%RSD		13.120	15.020	1.581	3.285	1.160	5.245	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:16	0.000	1.068	6.271	2.685	2.838	2.469	2.510
2	11:42:40	0.000	1.080	4.415	2.737	2.797	2.863	2.791
3	11:43:05	0.000	1.043	4.603	2.730	2.900	2.409	2.415
x		0.000	-	5.097	2.717	2.845	2.580	2.572
σ		0.000	-	1.021	0.028	0.052	0.247	0.195
%RSD		0.000	-	20.040	1.031	1.830	9.554	7.587

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:16	1.212	0.893	0.021	0.184	0.031	0.200	92.980
2	11:42:40	1.221	0.107	0.019	1.150	0.024	0.216	92.510
3	11:43:05	1.168	0.077	0.016	0.176	0.030	0.212	89.730
x		-	0.359	0.019	0.503	0.028	0.209	91.740
σ		-	0.463	0.003	0.560	0.004	0.008	1.756
%RSD		-	129.000	14.010	111.200	13.210	3.857	1.914

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:16	1.038	1.023	0.021	0.030	0.472	1.254
2	11:42:40	1.032	1.025	0.035	0.029	0.482	1.234
3	11:43:05	1.028	1.020	0.021	0.022	0.445	1.222
x		-	-	0.026	0.027	0.466	-
σ		-	-	0.008	0.004	0.019	-
%RSD		-	-	32.960	16.080	4.084	-

14920D MF4N31D 6/28/2011 11:44:58 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:58	1.002	0.025	TM 132600.000	T 43840.000	238.200	T 7157.000	TM 178400.000
2	11:45:23	0.983	0.021	TM 129800.000	T 42630.000	222.100	T 6981.000	TM 176400.000
3	11:45:47	0.984	0.019	TM 129000.000	T 42350.000	219.500	T 6830.000	TM 174100.000
x		-	0.022	TM 130500.000	T 42940.000	226.600	T 6989.000	TM 176300.000
σ		-	0.003	TM 1897.000	T 788.400	10.180	T 163.400	TM 2137.000
%RSD		-	13.510	TM 1.454	T 1.836	4.494	T 2.338	TM 1.212

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:58	0.842	10.550	19.050	360.100	7.997	157.100	0.662
2	11:45:23	0.835	10.980	22.300	346.800	7.521	155.700	0.544
3	11:45:47	0.827	9.381	21.930	347.300	7.127	146.200	0.544
x		-	10.300	21.090	351.400	7.549	153.000	0.584
σ		-	0.828	1.779	7.565	0.436	5.965	0.068
%RSD		-	8.036	8.435	2.153	5.774	3.898	11.630

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:58	8.556	1.409	3.191	9.472	24.620	8.191	0.000
2	11:45:23	7.471	1.308	2.567	8.823	25.760	7.774	0.000
3	11:45:47	8.243	1.518	2.899	8.845	23.020	8.083	0.000
x		8.090	1.411	2.886	9.046	24.470	8.016	0.000
σ		0.559	0.105	0.312	0.368	1.376	0.216	0.000
%RSD		6.906	7.424	10.820	4.072	5.622	2.699	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:58	0.000	1.102	6.596	2.480	2.975	3.111	2.696
2	11:45:23	0.000	1.033	4.357	2.730	3.065	2.558	2.607
3	11:45:47	0.000	1.027	4.306	2.600	2.579	2.773	2.410
x		0.000	-	5.086	2.603	2.873	2.814	2.571
σ		0.000	-	1.308	0.125	0.259	0.279	0.147
%RSD		0.000	-	25.710	4.790	9.002	9.896	5.705

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:58	1.224	-0.535	0.006	0.401	0.003	0.243	96.690
2	11:45:23	1.146	0.229	0.003	0.173	0.016	0.190	90.140
3	11:45:47	1.191	0.562	0.003	0.913	0.024	0.189	92.600
x		-	0.085	0.004	0.496	0.014	0.207	93.140
σ		-	0.563	0.002	0.379	0.010	0.031	3.308
%RSD		-	659.600	37.450	76.460	72.800	15.030	3.552

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:58	1.062	1.060	0.016	0.017	0.432	1.259
2	11:45:23	1.024	0.995	0.019	0.009	0.417	1.215
3	11:45:47	1.025	1.003	0.012	0.016	0.401	1.208
x		-	-	0.015	0.014	0.417	-
σ		-	-	0.004	0.004	0.015	-
%RSD		-	-	23.320	28.600	3.685	-

14920S MF4N31S 6/28/2011 11:47:41 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:41	0.977	42.280	TM 128000.000	T 42320.000	T 2154.000	T 7062.000	TM 178900.000
2	11:48:06	1.000	42.860	TM 130000.000	T 42760.000	T 2143.000	T 6827.000	TM 174200.000
3	11:48:30	1.001	42.550	TM 132100.000	T 43340.000	T 2112.000	T 6993.000	TM 179700.000
x		-	42.560	TM 130000.000	T 42810.000	T 2137.000	T 6961.000	TM 177600.000
σ		-	0.289	TM 2046.000	T 510.900	T 21.930	T 120.700	TM 2946.000
%RSD		-	0.679	TM 1.573	T 1.193	T 1.026	T 1.734	TM 1.659

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:41	0.845	11.010	471.400	522.700	T 466.400	T 1043.000	438.400
2	11:48:06	0.809	11.670	460.200	523.800	T 449.800	T 1043.000	429.100
3	11:48:30	0.830	10.380	476.600	527.400	T 465.500	T 1071.000	431.500
x		-	11.020	469.400	524.600	T 460.600	T 1052.000	433.000
σ		-	0.642	8.401	2.446	T 9.330	T 15.770	4.821
%RSD		-	5.822	1.790	0.466	T 2.026	T 1.499	1.113

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:41	404.900	201.800	413.400	47.230	31.280	17.540	0.000
2	11:48:06	387.900	204.700	407.500	46.110	32.030	16.820	0.000
3	11:48:30	404.700	208.600	403.900	46.410	34.980	17.090	0.000
x		399.200	205.000	408.200	46.580	32.760	17.150	0.000
σ		9.746	3.398	4.782	0.581	1.954	0.363	0.000
%RSD		2.442	1.657	1.171	1.246	5.964	2.115	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:41	0.000	1.045	4.895	2.610	2.702	2.218	2.611
2	11:48:06	0.000	1.036	7.812	2.495	2.803	5.081	2.660
3	11:48:30	0.000	1.049	4.456	2.620	2.874	2.816	2.723
x		0.000	-	5.721	2.575	2.793	3.372	2.665
σ		0.000	-	1.824	0.070	0.086	1.510	0.056
%RSD		0.000	-	31.890	2.704	3.096	44.790	2.092

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:41	1.164	55.490	51.310	50.930	50.690	101.900	T 2200.000
2	11:48:06	1.194	50.380	51.960	50.680	53.510	105.400	T 2267.000
3	11:48:30	1.164	52.760	50.990	53.540	52.640	105.300	T 2223.000
x		-	52.880	51.420	51.720	52.280	104.200	T 2230.000
σ		-	2.560	0.498	1.581	1.443	2.024	T 33.940
%RSD		-	4.841	0.968	3.057	2.761	1.942	T 1.522

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:47:41	0.997	0.989	53.540	52.640	20.960	1.223
2	11:48:06	1.004	1.011	54.540	53.330	21.010	1.216
3	11:48:30	1.039	1.008	54.530	53.490	20.930	1.214
x		-	-	54.200	53.160	20.970	-
σ		-	-	0.576	0.452	0.040	-
%RSD		-	-	1.062	0.851	0.191	-

14920A MF4N31A 6/28/2011 11:50:25 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:25	0.408	-0.043	-1.459	0.616	0.099	-19.600	-40.880
2	11:50:50	0.469	-0.041	-0.384	0.508	0.829	-19.390	-52.270
3	11:51:14	0.431	-0.051	-2.807	0.236	0.003	-20.080	-60.160
x		-	-0.045	-1.550	0.453	0.311	-19.690	-51.100
σ		-	0.005	1.214	0.196	0.452	0.353	9.691
%RSD		-	10.970	78.340	43.220	145.400	1.795	18.960

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:25	0.451	-0.081	0.045	0.013	0.021	-9.579	0.004
2	11:50:50	0.460	0.012	-0.030	-0.012	0.023	-9.554	-0.001
3	11:51:14	0.427	0.093	0.045	-0.044	0.015	-10.080	0.000
x		-	0.008	0.020	-0.014	0.020	-9.738	0.001
σ		-	0.087	0.043	0.028	0.004	0.296	0.002
%RSD		-	1105.000	213.800	199.800	21.170	3.042	186.100

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:25	-0.012	0.029	-0.047	-0.021	-0.020	-0.835	0.000
2	11:50:50	0.005	0.005	0.279	-0.026	0.348	-0.310	0.000
3	11:51:14	-0.008	-0.002	-0.029	-0.063	0.251	-0.565	0.000
x		-0.005	0.011	0.068	-0.037	0.193	-0.570	0.000
σ		0.009	0.016	0.183	0.023	0.191	0.263	0.000
%RSD		167.700	151.300	270.600	61.600	98.950	46.090	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:25	0.000	0.391	-0.042	-0.065	-0.045	-0.059	-0.063
2	11:50:50	0.000	0.440	-0.037	-0.051	-0.041	-0.052	-0.059
3	11:51:14	0.000	0.402	-0.058	-0.072	-0.045	-0.073	-0.060
x		0.000	-	-0.046	-0.063	-0.044	-0.061	-0.061
σ		0.000	-	0.011	0.011	0.002	0.011	0.002
%RSD		0.000	-	23.300	17.000	4.877	17.160	3.595

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:25	0.406	-1.726	0.001	0.044	0.003	0.006	0.051
2	11:50:50	0.452	-2.163	-0.003	-0.029	0.000	0.005	0.042
3	11:51:14	0.412	-2.158	-0.005	-0.029	0.010	0.006	0.007
x		-	-2.016	-0.002	-0.005	0.004	0.006	0.033
σ		-	0.251	0.003	0.042	0.005	0.000	0.023
%RSD		-	12.450	125.900	836.600	123.100	5.819	69.510

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:50:25	0.443	0.445	-0.005	-0.006	0.001	0.456
2	11:50:50	0.482	0.472	0.006	0.003	0.005	0.495
3	11:51:14	0.464	0.460	-0.004	-0.007	0.004	0.476
x		-	-	-0.001	-0.004	0.003	-
σ		-	-	0.006	0.005	0.002	-
%RSD		-	-	590.100	150.500	58.140	-

14912 MF4N01 6/28/2011 11:53:09 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:09	0.918	0.016	TM 123400.000	T 39390.000	226.600	T 2497.000TM	134100.000
2	11:53:33	0.946	0.012	TM 127000.000	T 40240.000	226.800	T 2569.000TM	139900.000
3	11:53:57	0.949	0.014	TM 128000.000	T 40520.000	T 250.900	T 2494.000TM	136200.000
x		-	0.014	TM 126100.000	T 40050.000	T 234.800	T 2520.000	TM 136700.000
σ		-	0.002	TM 2420.000	T 587.500	T 13.950	T 42.660	TM 2950.000
%RSD		-	16.650	TM 1.918	T 1.467	T 5.943	T 1.693	TM 2.157

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:09	0.742	9.901	71.480	36.630	37.610	T 892.300	1.841
2	11:53:33	0.772	10.210	73.240	36.290	38.840	T 891.300	1.993
3	11:53:57	0.762	10.380	70.570	37.600	37.780	T 912.800	1.863
x		-	10.170	71.770	36.840	38.080	T 898.800	1.899
σ		-	0.245	1.356	0.681	0.666	T 12.140	0.082
%RSD		-	2.409	1.890	1.849	1.749	T 1.351	4.322

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:09	27.410	4.316	5.846	15.760	21.150	4.759	0.000
2	11:53:33	29.380	4.380	6.105	15.810	23.590	4.197	0.000
3	11:53:57	27.230	4.024	6.034	16.140	22.880	4.253	0.000
x		28.010	4.240	5.995	15.900	22.540	4.403	0.000
σ		1.194	0.190	0.134	0.204	1.257	0.310	0.000
%RSD		4.264	4.482	2.232	1.283	5.575	7.038	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:09	0.000	1.006	11.490	8.006	8.201	8.366	7.921
2	11:53:33	0.000	1.010	10.600	7.733	8.387	7.729	8.024
3	11:53:57	0.000	1.027	11.750	8.066	8.403	8.557	8.561
x		0.000	-	11.280	7.935	8.330	8.217	8.169
σ		0.000	-	0.602	0.177	0.112	0.434	0.344
%RSD		0.000	-	5.338	2.235	1.344	5.275	4.210

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:09	1.122	0.051	0.127	0.662	0.000	0.209	54.900
2	11:53:33	1.145	-0.397	0.115	1.080	0.034	0.208	55.830
3	11:53:57	1.175	0.491	0.133	0.383	0.083	0.291	56.230
x		-	0.048	0.125	0.709	0.039	0.236	55.650
σ		-	0.444	0.009	0.351	0.042	0.048	0.678
%RSD		-	915.700	7.131	49.480	106.300	20.140	1.219

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:53:09	0.985	1.029	0.029	0.029	0.723	1.195
2	11:53:33	1.007	1.000	0.019	0.024	0.723	1.192
3	11:53:57	0.990	0.993	0.019	0.016	0.710	1.190
x		-	-	0.022	0.023	0.718	-
σ		-	-	0.006	0.006	0.008	-
%RSD		-	-	26.060	27.510	1.075	-

14913 MF4N02 6/28/2011 11:55:53 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:53	0.905	0.010	TM 130400.000	T 46230.000	187.300	T 1501.000	TM 121200.000
2	11:56:17	0.936	0.008	TM 130900.000	T 46330.000	190.500	T 1433.000	TM 114600.000
3	11:56:41	0.931	0.012	TM 132700.000	T 46900.000	179.800	T 1483.000	TM 118100.000
x		-	0.010	TM 131300.000	T 46490.000	185.900	T 1472.000	TM 118000.000
σ		-	0.002	TM 1225.000	T 360.400	5.493	T 35.420	TM 3308.000
%RSD		-	18.770	TM 0.933	T 0.775	2.955	T 2.406	TM 2.804

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:53	0.770	9.790	83.460	36.040	10.170	T 1190.000	1.015
2	11:56:17	0.753	9.006	80.920	36.160	9.511	T 1182.000	0.981
3	11:56:41	0.767	7.793	81.300	36.060	10.040	T 1169.000	1.010
x		-	8.863	81.890	36.090	9.907	T 1181.000	1.002
σ		-	1.006	1.370	0.063	0.349	T 10.970	0.019
%RSD		-	11.350	1.673	0.176	3.521	T 0.929	1.875

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:53	20.960	7.676	2.035	21.270	25.070	4.838	0.000
2	11:56:17	20.370	7.973	1.908	22.180	24.580	5.169	0.000
3	11:56:41	20.240	7.698	1.974	21.890	27.550	5.644	0.000
x		20.520	7.782	1.972	21.780	25.730	5.217	0.000
σ		0.380	0.166	0.063	0.463	1.593	0.405	0.000
%RSD		1.853	2.127	3.206	2.127	6.191	7.760	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:53	0.000	1.039	8.273	5.996	6.318	5.681	5.556
2	11:56:17	0.000	1.061	8.495	5.926	5.587	5.941	6.093
3	11:56:41	0.000	1.060	8.366	6.027	6.134	5.288	5.935
x		0.000	-	8.378	5.983	6.013	5.637	5.861
σ		0.000	-	0.112	0.052	0.381	0.329	0.276
%RSD		0.000	-	1.333	0.865	6.331	5.836	4.713

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:53	1.144	0.213	0.038	0.172	-0.003	0.209	55.210
2	11:56:17	1.200	0.356	0.044	0.498	-0.010	0.214	58.750
3	11:56:41	1.185	0.615	0.041	0.387	0.025	0.195	56.650
x		-	0.394	0.041	0.352	0.004	0.206	56.870
σ		-	0.204	0.003	0.166	0.018	0.010	1.779
%RSD		-	51.690	7.873	47.050	452.700	4.764	3.128

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:55:53	0.987	1.003	0.011	0.012	0.265	1.198
2	11:56:17	1.022	1.023	0.012	0.010	0.263	1.234
3	11:56:41	1.007	1.021	0.004	0.008	0.264	1.206
x		-	-	0.009	0.010	0.264	-
σ		-	-	0.005	0.002	0.001	-
%RSD		-	-	52.370	17.530	0.328	-

14914 MF4N03 6/28/2011 11:58:37 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:37	0.898	-0.011	TM 176000.000	T 50560.000	138.300	T 2801.000	TM 163900.000
2	11:59:02	0.960	-0.005	TM 187700.000	T 54180.000	143.800	T 2826.000	TM 165700.000
3	11:59:26	0.909	0.006	TM 174900.000	T 50320.000	140.100	T 2663.000	TM 155500.000
x		-	-0.003	TM 179600.000	T 51690.000	140.700	T 2763.000	TM 161700.000
σ		-	0.009	TM 7080.000	T 2160.000	2.837	T 87.750	TM 5411.000
%RSD		-	261.500	TM 3.943	T 4.179	2.016	T 3.176	TM 3.347

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:37	0.793	7.504	73.870	3.446	6.430	68.660	0.521
2	11:59:02	0.793	8.212	74.080	3.776	6.416	78.300	0.583
3	11:59:26	0.764	6.182	68.900	3.469	6.076	72.100	0.502
x		-	7.299	72.280	3.564	6.308	73.020	0.535
σ		-	1.030	2.935	0.184	0.201	4.882	0.042
%RSD		-	14.110	4.060	5.168	3.179	6.686	7.870

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:37	5.665	1.587	3.304	15.870	23.540	6.763	0.000
2	11:59:02	5.426	1.442	3.478	16.060	28.290	7.653	0.000
3	11:59:26	5.123	1.491	3.128	14.760	28.700	6.609	0.000
x		5.405	1.507	3.303	15.560	26.840	7.009	0.000
σ		0.271	0.074	0.175	0.703	2.871	0.563	0.000
%RSD		5.022	4.892	5.293	4.514	10.700	8.038	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:37	0.000	1.025	5.054	3.976	4.107	4.030	3.771
2	11:59:02	0.000	1.070	6.095	4.038	4.334	4.136	3.928
3	11:59:26	0.000	0.985	5.347	3.537	3.868	3.666	3.605
x		0.000	-	5.499	3.850	4.103	3.944	3.768
σ		0.000	-	0.537	0.273	0.233	0.246	0.161
%RSD		0.000	-	9.767	7.093	5.675	6.241	4.279

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:37	1.138	-0.032	0.011	0.272	0.047	0.100	42.520
2	11:59:02	1.255	-0.526	0.013	0.522	0.089	0.128	46.820
3	11:59:26	1.131	0.621	0.039	0.668	0.087	0.126	42.530
x		-	0.021	0.021	0.487	0.075	0.118	43.960
σ		-	0.575	0.016	0.200	0.024	0.016	2.483
%RSD		-	2761.000	74.570	41.090	31.650	13.220	5.648

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:37	1.034	1.005	0.013	0.011	0.388	1.243
2	11:59:02	1.067	1.053	0.009	0.016	0.413	1.296
3	11:59:26	1.000	0.990	0.018	0.011	0.391	1.215
x		-	-	0.013	0.012	0.397	-
σ		-	-	0.004	0.003	0.013	-
%RSD		-	-	32.080	22.650	3.386	-

14915 MF4N04 6/28/2011 12:01:22 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:22	0.912	0.001	TM 163600.000	T 51050.000	79.920	T 3632.000	TM 152000.000
2	12:01:46	0.928	0.000	TM 165900.000	T 51620.000	80.920	T 3612.000	TM 155200.000
3	12:02:10	0.961	-0.002	TM 174300.000	T 55030.000	86.680	T 3773.000	TM 160700.000
x		-	-0.000	TM 167900.000	T 52570.000	82.500	T 3672.000	TM 156000.000
σ		-	0.002	TM 5665.000	T 2151.000	3.647	T 87.680	TM 4409.000
%RSD		-	769.200	TM 3.373	T 4.092	4.421	T 2.388	TM 2.827

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:22	0.775	6.756	56.960	2.453	0.330	13.700	0.245
2	12:01:46	0.793	5.785	57.620	2.530	0.289	14.180	0.245
3	12:02:10	0.805	5.897	60.470	2.679	0.355	15.690	0.289
x		-	6.146	58.350	2.554	0.325	14.520	0.260
σ		-	0.531	1.867	0.115	0.033	1.043	0.026
%RSD		-	8.643	3.199	4.486	10.230	7.178	9.895

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:22	2.775	1.296	0.779	13.470	29.830	6.298	0.000
2	12:01:46	2.988	1.091	0.583	13.420	28.530	6.133	0.000
3	12:02:10	3.173	0.985	1.073	14.510	36.100	7.565	0.000
x		2.978	1.124	0.811	13.800	31.490	6.665	0.000
σ		0.199	0.158	0.247	0.615	4.049	0.783	0.000
%RSD		6.690	14.060	30.410	4.458	12.860	11.750	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:22	0.000	1.017	3.261	1.818	1.941	1.684	1.730
2	12:01:46	0.000	1.008	2.971	1.722	1.760	2.045	1.755
3	12:02:10	0.000	1.076	3.382	1.963	2.074	1.978	1.995
x		0.000	-	3.205	1.834	1.925	1.903	1.827
σ		0.000	-	0.211	0.121	0.158	0.192	0.147
%RSD		0.000	-	6.579	6.614	8.193	10.110	8.018

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:22	1.154	0.251	0.015	0.275	0.058	0.086	50.230
2	12:01:46	1.144	-0.325	0.005	0.071	0.017	0.099	50.100
3	12:02:10	1.207	0.061	0.004	0.289	0.032	0.092	52.890
x		-	-0.004	0.008	0.212	0.036	0.092	51.080
σ		-	0.293	0.006	0.122	0.021	0.007	1.575
%RSD		-	6758.000	80.460	57.530	57.340	7.185	3.084

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:01:22	0.991	0.998	0.004	0.001	0.105	1.218
2	12:01:46	0.994	1.007	-0.001	-0.002	0.103	1.229
3	12:02:10	1.044	1.055	0.002	0.006	0.103	1.263
x		-	-	0.002	0.001	0.104	-
σ		-	-	0.003	0.004	0.001	-
%RSD		-	-	157.400	284.500	1.199	-

14916 MF4N11 6/28/2011 12:04:07 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:07	0.903	-0.009	TM 124900.000	T 47580.000	110.700	T 2059.000	TM 132800.000
2	12:04:31	0.923	-0.013	TM 127100.000	T 48380.000	110.200	T 2086.000	TM 133800.000
3	12:04:56	0.925	-0.016	TM 127400.000	T 48690.000	109.500	T 2103.000	TM 133700.000
x		-	-0.012	TM 126500.000	T 48220.000	110.100	T 2083.000	TM 133400.000
σ		-	0.003	TM 1340.000	T 572.400	0.634	T 22.030	TM 574.500
%RSD		-	27.490	TM 1.060	T 1.187	0.576	T 1.058	TM 0.430

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:07	0.740	7.068	72.090	6.961	1.652	39.570	0.258
2	12:04:31	0.752	7.421	72.130	7.120	1.578	39.960	0.265
3	12:04:56	0.761	7.099	73.440	7.095	1.682	38.910	0.247
x		-	7.196	72.560	7.059	1.637	39.480	0.256
σ		-	0.196	0.768	0.086	0.053	0.533	0.009
%RSD		-	2.716	1.058	1.216	3.255	1.350	3.603

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:07	3.283	1.292	1.346	17.220	25.590	5.556	0.000
2	12:04:31	3.341	1.244	1.471	16.990	28.950	5.658	0.000
3	12:04:56	2.949	1.165	1.477	17.370	25.580	5.164	0.000
x		3.191	1.234	1.431	17.190	26.710	5.460	0.000
σ		0.212	0.064	0.074	0.194	1.943	0.261	0.000
%RSD		6.628	5.205	5.201	1.130	7.277	4.774	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:07	0.000	1.052	7.620	5.687	5.401	5.410	5.570
2	12:04:31	0.000	1.035	7.120	5.329	5.960	5.796	5.015
3	12:04:56	0.000	1.044	7.526	5.641	5.419	5.370	5.427
x		0.000	-	7.422	5.552	5.593	5.526	5.337
σ		0.000	-	0.266	0.194	0.318	0.235	0.288
%RSD		0.000	-	3.578	3.502	5.682	4.253	5.399

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:07	1.177	0.103	0.022	0.384	0.039	0.175	41.040
2	12:04:31	1.179	1.143	0.035	0.282	0.047	0.194	41.110
3	12:04:56	1.191	-0.085	0.014	0.598	0.033	0.240	40.540
x		-	0.387	0.024	0.421	0.039	0.203	40.890
σ		-	0.662	0.010	0.161	0.007	0.033	0.311
%RSD		-	171.000	44.320	38.320	17.800	16.400	0.760

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:07	0.990	1.001	0.030	0.014	0.190	1.207
2	12:04:31	1.006	1.010	0.018	0.018	0.174	1.219
3	12:04:56	1.000	1.026	0.014	0.012	0.151	1.201
x		-	-	0.021	0.015	0.172	-
σ		-	-	0.008	0.003	0.020	-
%RSD		-	-	40.340	20.400	11.460	-

14917 MF4N17 6/28/2011 12:06:51 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:51	0.907	-0.012	TM 180900.000	T 43020.000	112.900	T 2045.000	TM 114100.000
2	12:07:15	0.927	-0.024	TM 183300.000	T 43390.000	116.100	T 2037.000	TM 111800.000
3	12:07:39	0.929	-0.018	TM 183300.000	T 43610.000	112.000	T 2023.000	TM 113200.000
x		-	-0.018	TM 182500.000	T 43340.000	113.700	T 2035.000	TM 113000.000
σ		-	0.006	TM 1424.000	T 300.200	2.142	T 11.200	TM 1175.000
%RSD		-	32.730	TM 0.780	T 0.693	1.884	T 0.550	TM 1.040

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:51	0.762	8.715	80.220	37.340	0.957	34.310	0.244
2	12:07:15	0.753	7.773	79.310	37.290	0.975	31.040	0.213
3	12:07:39	0.759	8.025	78.830	37.930	0.928	33.250	0.183
x		-	8.171	79.450	37.520	0.953	32.860	0.213
σ		-	0.488	0.707	0.357	0.024	1.669	0.031
%RSD		-	5.972	0.890	0.951	2.485	5.077	14.330

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:51	2.355	1.125	1.003	18.060	30.560	6.801	0.000
2	12:07:15	2.532	1.249	0.869	19.390	28.800	6.386	0.000
3	12:07:39	2.461	1.593	1.068	20.100	27.920	7.402	0.000
x		2.449	1.322	0.980	19.190	29.090	6.863	0.000
σ		0.089	0.242	0.102	1.035	1.348	0.511	0.000
%RSD		3.653	18.310	10.350	5.395	4.632	7.440	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:51	0.000	1.039	6.799	5.073	5.042	5.312	5.360
2	12:07:15	0.000	1.041	7.095	4.986	5.496	5.152	5.108
3	12:07:39	0.000	1.050	6.676	5.489	5.151	5.461	5.317
x		0.000	-	6.856	5.183	5.229	5.308	5.262
σ		0.000	-	0.215	0.269	0.237	0.155	0.135
%RSD		0.000	-	3.139	5.182	4.533	2.915	2.567

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:51	1.177	-1.713	0.005	0.592	0.012	0.165	33.060
2	12:07:15	1.175	-0.139	0.007	0.281	0.033	0.217	33.210
3	12:07:39	1.183	0.371	0.003	0.283	0.005	0.204	32.470
x		-	-0.494	0.005	0.385	0.017	0.195	32.910
σ		-	1.087	0.002	0.179	0.015	0.027	0.391
%RSD		-	220.100	37.880	46.470	87.180	13.930	1.189

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:51	1.018	1.016	-0.002	0.003	0.186	1.247
2	12:07:15	1.014	1.023	0.001	0.002	0.145	1.224
3	12:07:39	1.031	1.034	0.006	0.006	0.170	1.230
x		-	-	0.002	0.004	0.167	-
σ		-	-	0.004	0.002	0.021	-
%RSD		-	-	258.500	55.950	12.580	-

14918 MF4N29 6/28/2011 12:09:32 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:32	0.970	0.031	TM 292900.000	T 45610.000	T 468.900	TM 27480.000	TM 199700.000
2	12:09:56	0.992	0.026	TM 305600.000	T 47640.000	T 483.700	TM 28830.000	TM 215600.000
3	12:10:21	0.993	0.027	TM 300100.000	T 46510.000	T 518.500	TM 27320.000	TM 204600.000
x		-	0.028	TM 299500.000	T 46590.000	T 490.300	TM 27880.000	TM 206600.000
σ		-	0.003	TM 6372.000	T 1015.000	T 25.460	TM 831.100	TM 8111.000
%RSD		-	9.822	TM 2.127	T 2.179	T 5.192	TM 2.981	TM 3.925

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:32	0.835	17.380	22.840	88.880	24.220	T 542.300	1.842
2	12:09:56	0.876	11.230	25.780	91.490	25.860	T 560.700	1.902
3	12:10:21	0.835	19.300	24.510	88.500	24.410	T 561.000	1.752
x		-	15.970	24.380	89.630	24.830	T 554.600	1.832
σ		-	4.215	1.477	1.626	0.895	T 10.720	0.076
%RSD		-	26.390	6.060	1.815	3.602	T 1.932	4.143

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:32	39.490	5.717	7.684	8.878	28.260	12.420	0.000
2	12:09:56	42.940	5.247	6.931	8.811	34.030	12.870	0.000
3	12:10:21	39.090	5.482	6.636	8.834	33.590	11.790	0.000
x		40.510	5.482	7.084	8.841	31.960	12.360	0.000
σ		2.115	0.235	0.541	0.034	3.215	0.543	0.000
%RSD		5.221	4.292	7.634	0.381	10.060	4.393	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:32	0.000	1.060	16.950	14.860	16.930	15.820	16.170
2	12:09:56	0.000	1.072	18.470	15.280	15.520	15.350	15.820
3	12:10:21	0.000	1.037	18.500	15.680	15.340	15.870	15.250
x		0.000	-	17.970	15.270	15.930	15.680	15.750
σ		0.000	-	0.887	0.411	0.868	0.291	0.460
%RSD		0.000	-	4.938	2.691	5.447	1.857	2.920

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:32	1.240	0.508	0.033	0.514	0.062	1.040	71.340
2	12:09:56	1.225	0.620	0.021	0.294	0.040	1.067	71.010
3	12:10:21	1.214	1.632	0.025	0.717	0.038	1.146	71.710
x		-	0.920	0.026	0.508	0.047	1.084	71.350
σ		-	0.619	0.006	0.212	0.014	0.055	0.352
%RSD		-	67.310	21.790	41.610	29.350	5.073	0.493

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:09:32	1.029	1.068	0.030	0.036	0.804	1.312
2	12:09:56	1.059	1.032	0.040	0.037	0.796	1.302
3	12:10:21	1.020	1.038	0.047	0.032	0.834	1.294
x		-	-	0.039	0.035	0.811	-
σ		-	-	0.009	0.003	0.020	-
%RSD		-	-	22.340	7.690	2.449	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:14	0.920	0.074	TM 122900.000	T 31630.000	T 349.800	T 9640.000TM	112500.000
2	12:12:38	0.936	0.082	TM 125000.000	T 31870.000	T 335.500	T 9655.000TM	112200.000
3	12:13:03	0.940	0.061	TM 126400.000	T 32050.000	T 339.900	T 9622.000TM	112700.000
x		-	0.073	TM 124800.000	T 31850.000	T 341.700	T 9639.000	TM 112500.000
σ		-	0.010	TM 1762.000	T 211.800	T 7.361	T 16.580	TM 276.400
%RSD		-	14.400	TM 1.412	T 0.665	T 2.154	T 0.172	TM 0.246

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:14	0.823	12.870	17.400	18.170	21.600	T 282.600	0.817
2	12:12:38	0.814	40.020	16.930	17.560	21.470	T 283.300	0.797
3	12:13:03	0.821	8.942	16.510	18.030	21.460	T 292.200	0.736
x		-	20.610	16.950	17.920	21.510	T 286.000	0.784
σ		-	16.920	0.445	0.319	0.079	T 5.358	0.042
%RSD		-	82.100	2.623	1.779	0.366	T 1.873	5.400

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:14	18.060	2.002	5.934	7.688	24.970	6.503	0.000
2	12:12:38	19.520	2.466	5.706	8.091	31.160	7.400	0.000
3	12:13:03	18.040	2.076	6.107	8.075	24.080	6.846	0.000
x		18.540	2.181	5.916	7.951	26.740	6.916	0.000
σ		0.849	0.249	0.201	0.229	3.857	0.453	0.000
%RSD		4.582	11.410	3.401	2.874	14.420	6.549	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:14	0.000	0.975	10.810	8.552	8.393	8.747	8.733
2	12:12:38	0.000	0.986	10.820	8.212	8.717	8.584	8.436
3	12:13:03	0.000	0.969	11.180	8.124	8.506	8.613	8.348
x		0.000	-	10.940	8.296	8.539	8.648	8.506
σ		0.000	-	0.208	0.226	0.164	0.087	0.202
%RSD		0.000	-	1.899	2.727	1.923	1.007	2.373

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:14	1.088	-0.302	0.008	0.642	0.018	0.389	54.150
2	12:12:38	1.102	-1.138	0.009	0.554	0.019	0.359	55.140
3	12:13:03	1.097	0.100	0.007	0.550	-0.000	0.398	54.960
x		-	-0.446	0.008	0.582	0.012	0.382	54.750
σ		-	0.631	0.001	0.052	0.011	0.021	0.527
%RSD		-	141.500	14.400	8.883	90.130	5.432	0.963

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:12:14	0.960	0.985	0.031	0.018	0.613	1.164
2	12:12:38	0.994	0.986	0.014	0.024	0.668	1.181
3	12:13:03	0.968	0.970	0.017	0.023	0.632	1.160
x		-	-	0.021	0.022	0.637	-
σ		-	-	0.009	0.003	0.028	-
%RSD		-	-	43.410	14.710	4.381	-

14921 MF4N32 6/28/2011 12:14:56 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:56	0.983	0.050	TM 281500.000	T 27570.000	T 367.200	T 6902.000	T 99540.000
2	12:15:20	1.007	0.048	TM 289800.000	T 28580.000	T 335.800	T 7322.000TM	102100.000
3	12:15:45	1.010	0.034	TM 289100.000	T 28530.000	T 361.400	T 7068.000TM	102400.000
x		-	0.044	TM 286800.000	T 28230.000	T 354.800	T 7097.000	TM 101400.000
σ		-	0.009	TM 4623.000	T 570.600	T 16.690	T 211.600	TM 1578.000
%RSD		-	20.790	TM 1.612	T 2.021	T 4.704	T 2.981	TM 1.557

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:56	0.832	23.360	9.018	125.400	54.960	232.800	1.483
2	12:15:20	0.871	16.090	9.702	128.700	56.510	T 259.000	1.553
3	12:15:45	0.859	11.290	11.570	126.500	56.660	237.200	1.301
x		-	16.910	10.100	126.900	56.040	T 243.000	1.446
σ		-	6.079	1.320	1.701	0.936	T 14.020	0.130
%RSD		-	35.940	13.080	1.341	1.670	T 5.772	9.001

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:56	18.040	1.884	4.779	9.448	25.830	9.496	0.000
2	12:15:20	18.040	2.254	5.137	10.050	27.310	9.550	0.000
3	12:15:45	17.090	1.881	5.225	10.310	23.990	9.401	0.000
x		17.730	2.006	5.047	9.935	25.710	9.482	0.000
σ		0.546	0.215	0.236	0.441	1.662	0.075	0.000
%RSD		3.082	10.690	4.679	4.439	6.467	0.795	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:56	0.000	1.046	29.520	26.600	27.660	28.180	26.930
2	12:15:20	0.000	1.065	30.420	27.710	27.200	27.970	27.940
3	12:15:45	0.000	1.042	28.540	25.230	27.350	26.980	26.010
x		0.000	-	29.490	26.510	27.410	27.710	26.960
σ		0.000	-	0.941	1.245	0.233	0.643	0.966
%RSD		0.000	-	3.189	4.696	0.849	2.320	3.584

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:56	1.191	0.965	0.025	1.124	0.012	0.888	55.970
2	12:15:20	1.208	-0.183	0.016	1.349	0.018	0.913	55.550
3	12:15:45	1.176	0.351	0.031	0.074	-0.007	0.886	54.250
x		-	0.378	0.024	0.849	0.008	0.896	55.260
σ		-	0.575	0.007	0.680	0.013	0.015	0.899
%RSD		-	152.200	29.720	80.120	168.300	1.668	1.626

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:56	1.037	1.029	0.042	0.034	0.512	1.286
2	12:15:20	1.017	1.041	0.051	0.039	0.539	1.270
3	12:15:45	1.052	1.032	0.036	0.043	0.510	1.288
x		-	-	0.043	0.039	0.520	-
σ		-	-	0.008	0.005	0.016	-
%RSD		-	-	17.770	12.370	3.157	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:39	0.944	0.150	TM 182200.000	T 45500.000	T 1110.000	T 5679.000	TM 181200.000
2	12:18:03	0.967	0.166	TM 183100.000	T 45910.000	T 1124.000	T 5587.000	TM 180300.000
3	12:18:27	0.986	0.163	TM 187500.000	T 47180.000	T 1092.000	T 5757.000	TM 183200.000
x		-	0.160	TM 184300.000	T 46200.000	T 1109.000	T 5674.000	TM 181500.000
σ		-	0.009	TM 2826.000	T 876.900	T 15.850	T 85.240	TM 1491.000
%RSD		-	5.430	TM 1.534	T 1.898	T 1.429	T 1.502	TM 0.821

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:39	0.793	46.910	38.570	3.517	62.120	T 620.500	1.393
2	12:18:03	0.785	58.060	37.040	3.740	62.270	T 657.000	1.335
3	12:18:27	0.810	43.700	37.650	3.870	64.010	T 621.200	1.421
x		-	49.560	37.750	3.709	62.800	T 632.900	1.383
σ		-	7.538	0.770	0.179	1.051	T 20.870	0.044
%RSD		-	15.210	2.040	4.815	1.673	T 3.298	3.186

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:39	4.471	2.191	19.700	8.940	30.600	6.330	0.000
2	12:18:03	4.550	2.393	20.470	9.126	28.880	6.546	0.000
3	12:18:27	4.375	2.457	19.800	9.761	28.660	6.974	0.000
x		4.465	2.347	19.990	9.275	29.380	6.617	0.000
σ		0.088	0.139	0.417	0.430	1.058	0.328	0.000
%RSD		1.973	5.913	2.087	4.638	3.600	4.953	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:39	0.000	0.990	8.080	1.463	1.978	1.410	1.339
2	12:18:03	0.000	0.992	9.174	1.350	2.012	1.496	1.338
3	12:18:27	0.000	1.021	7.916	1.536	2.116	1.643	1.214
x		0.000	-	8.390	1.450	2.035	1.516	1.297
σ		0.000	-	0.684	0.094	0.072	0.118	0.072
%RSD		0.000	-	8.153	6.471	3.539	7.787	5.521

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:39	1.136	0.795	0.017	0.771	0.011	0.124	64.110
2	12:18:03	1.146	2.391	0.015	0.982	0.032	0.148	66.040
3	12:18:27	1.170	1.118	0.012	0.591	0.032	0.113	66.670
x		-	1.435	0.015	0.781	0.025	0.128	65.610
σ		-	0.844	0.003	0.196	0.012	0.018	1.334
%RSD		-	58.840	19.040	25.070	48.460	13.930	2.033

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:17:39	1.006	0.990	0.011	0.020	1.818	1.253
2	12:18:03	1.029	1.020	0.021	0.016	1.888	1.269
3	12:18:27	1.058	1.026	0.025	0.024	2.001	1.300
x		-	-	0.019	0.020	1.903	-
σ		-	-	0.007	0.004	0.092	-
%RSD		-	-	36.930	18.120	4.838	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:21	0.937	0.418	TM 148900.000	T 27380.000	T 2318.000	T 8231.000	T 75160.000
2	12:20:46	0.958	0.414	TM 150100.000	T 27610.000	T 2498.000	T 7970.000	T 73170.000
3	12:21:10	0.969	0.406	TM 153400.000	T 28180.000	T 2472.000	T 8377.000	T 76610.000
x		-	0.413	TM 150800.000	T 27730.000	T 2430.000	T 8193.000	T 74980.000
σ		-	0.006	TM 2316.000	T 409.600	T 97.180	T 206.200	T 1726.000
%RSD		-	1.533	TM 1.536	T 1.477	T 4.000	T 2.517	T 2.302

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:21	0.852	100.700	10.770	15.260	167.400	T 858.600	5.554
2	12:20:46	0.842	87.410	12.940	15.520	163.200	T 846.900	5.590
3	12:21:10	0.876	117.900	13.790	16.390	167.500	T 906.700	5.842
x		-	102.000	12.500	15.720	166.000	T 870.800	5.662
σ		-	15.290	1.561	0.590	2.459	T 31.690	0.157
%RSD		-	14.990	12.490	3.754	1.481	T 3.640	2.768

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:21	17.100	5.936	9.074	5.246	26.330	8.722	0.000
2	12:20:46	17.000	5.608	8.863	5.365	26.800	8.999	0.000
3	12:21:10	18.210	5.764	9.166	5.243	24.730	9.206	0.000
x		17.440	5.769	9.034	5.285	25.950	8.976	0.000
σ		0.670	0.164	0.155	0.069	1.085	0.243	0.000
%RSD		3.841	2.839	1.721	1.313	4.179	2.702	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:21	0.000	0.985	25.720	6.929	8.623	7.123	7.067
2	12:20:46	0.000	1.019	23.460	7.244	9.131	7.149	7.236
3	12:21:10	0.000	1.007	25.380	7.352	8.773	6.947	7.503
x		0.000	-	24.850	7.175	8.842	7.073	7.269
σ		0.000	-	1.219	0.220	0.261	0.110	0.220
%RSD		0.000	-	4.906	3.063	2.956	1.557	3.021

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:21	1.128	2.962	0.053	1.859	0.022	0.264	67.590
2	12:20:46	1.146	2.921	0.046	1.181	0.008	0.278	69.770
3	12:21:10	1.135	4.620	0.088	1.472	0.015	0.308	68.240
x		-	3.501	0.062	1.504	0.015	0.283	68.530
σ		-	0.970	0.023	0.340	0.007	0.022	1.120
%RSD		-	27.690	36.110	22.620	44.980	7.863	1.635

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:20:21	1.003	1.010	0.055	0.043	3.301	1.209
2	12:20:46	0.993	1.003	0.049	0.052	3.308	1.197
3	12:21:10	1.016	1.023	0.070	0.045	3.388	1.220
x		-	-	0.058	0.047	3.332	-
σ		-	-	0.011	0.005	0.048	-
%RSD		-	-	18.800	11.180	1.445	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:04	1.013	0.056	TM 287700.000	T 28190.000	T 927.900	T 7359.000	TM 103200.000
2	12:23:28	1.031	0.046	TM 288500.000	T 28570.000	T 969.600	T 7138.000	TM 102100.000
3	12:23:53	1.034	0.064	TM 287000.000	T 28420.000	T 966.600	T 7066.000	T 100400.000
x		-	0.056	TM 287700.000	T 28390.000	T 954.700	T 7188.000	TM 101900.000
σ		-	0.009	TM 708.900	T 192.300	T 23.220	T 152.900	TM 1399.000
%RSD		-	16.050	TM 0.246	T 0.677	T 2.432	T 2.127	TM 1.373

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:04	0.886	31.600	10.490	127.900	59.180	T 476.500	1.397
2	12:23:28	0.881	28.060	10.090	129.500	58.780	T 499.700	1.289
3	12:23:53	0.865	24.130	9.868	129.800	57.700	T 510.300	1.187
x		-	27.930	10.150	129.100	58.560	T 495.500	1.291
σ		-	3.740	0.317	1.017	0.766	T 17.290	0.105
%RSD		-	13.390	3.120	0.788	1.308	T 3.490	8.153

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:04	11.470	2.189	5.502	9.752	28.810	9.396	0.000
2	12:23:28	11.720	2.016	5.386	10.330	26.010	9.454	0.000
3	12:23:53	11.810	2.489	5.259	9.548	30.500	9.349	0.000
x		11.670	2.231	5.382	9.876	28.440	9.400	0.000
σ		0.178	0.239	0.122	0.404	2.271	0.053	0.000
%RSD		1.526	10.720	2.263	4.094	7.986	0.561	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:04	0.000	1.051	28.710	24.010	24.990	24.780	24.520
2	12:23:28	0.000	1.054	27.440	24.610	25.700	25.110	25.040
3	12:23:53	0.000	1.068	30.470	24.360	24.830	26.380	25.390
x		0.000	-	28.870	24.330	25.170	25.420	24.980
σ		0.000	-	1.520	0.298	0.463	0.843	0.434
%RSD		0.000	-	5.264	1.225	1.840	3.314	1.738

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:04	1.202	-0.927	0.049	1.770	0.038	0.857	58.480
2	12:23:28	1.214	0.338	0.038	1.041	0.023	0.896	58.370
3	12:23:53	1.219	0.850	0.047	0.938	0.017	0.898	59.450
x		-	0.087	0.045	1.249	0.026	0.884	58.770
σ		-	0.914	0.006	0.454	0.011	0.023	0.591
%RSD		-	1050.000	12.420	36.310	41.020	2.591	1.006

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:04	1.058	1.054	0.043	0.043	0.679	1.297
2	12:23:28	1.079	1.060	0.041	0.042	0.691	1.311
3	12:23:53	1.076	1.081	0.042	0.044	0.666	1.307
x		-	-	0.042	0.043	0.679	-
σ		-	-	0.001	0.001	0.012	-
%RSD		-	-	3.184	3.089	1.798	-

CCV2 CCV 6/28/2011 12:25:48 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:48	1.119	963.100	τ49900.000	τ50000.000	τ49610.000	τ10230.000	τ54610.000
2	12:26:13	1.163	972.400	τ50240.000	τ50270.000	τ50590.000	τ9804.000	τ54060.000
3	12:26:37	1.164	957.600	τ49810.000	τ49690.000	τ50370.000	τ9891.000	τ53390.000
x		-	96.433%	τ49990.000	τ49990.000	τ50190.000	τ9973.000	τ54020.000
σ		-	n/a	τ228.500	τ285.900	τ516.500	τ222.900	τ610.600
%RSD		-	0.775	τ0.457	τ0.572	τ1.029	τ2.235	τ1.130

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:48	1.082	1007.000	959.200	966.300	τ1027.000	τ50470.000	τ995.200
2	12:26:13	1.093	997.200	941.600	974.100	τ996.900	τ50140.000	τ983.300
3	12:26:37	1.108	994.700	927.200	961.300	τ989.200	τ49990.000	τ998.400
x		-	999.800	94.266%	96.724%	τ100.440%	τ50200.000	τ99.229%
σ		-	6.772	n/a	n/a	τn/a	τ244.400	τn/a
%RSD		-	0.677	1.701	0.663	τ1.995	τ0.487	τ0.799

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:48	959.100	977.400	1072.000	992.700	1101.000	1071.000	0.000
2	12:26:13	909.900	961.000	1056.000	974.300	1031.000	1052.000	0.000
3	12:26:37	910.800	961.200	1069.000	972.600	1074.000	1070.000	0.000
x		92.658%	96.651%	106.575%	97.988%	1068.000	106.441%	0.000
σ		n/a	n/a	n/a	n/a	35.600	n/a	0.000
%RSD		3.040	0.971	0.789	1.138	3.332	1.024	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:48	0.000	1.146	994.800	1000.000	979.300	994.600	993.300
2	12:26:13	0.000	1.148	1003.000	981.600	956.500	989.100	971.300
3	12:26:37	0.000	1.179	999.400	997.900	965.600	1004.000	983.300
x		0.000	-	999.200	993.300	967.200	995.800	982.600
σ		0.000	-	4.360	10.240	11.480	7.259	10.970
%RSD		0.000	-	0.436	1.031	1.187	0.729	1.117

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:48	1.236	1045.000	τ1050.000	1026.000	1043.000	τ1035.000	1083.000
2	12:26:13	1.241	1033.000	τ1029.000	985.500	1035.000	τ1031.000	τ1117.000
3	12:26:37	1.268	1039.000	τ1048.000	988.100	1044.000	τ1028.000	τ1117.000
x		-	1039.000	τ104.244%	999.900	104.047%	τ103.142%	τ100.520%
σ		-	6.264	τn/a	22.720	n/a	τn/a	τn/a
%RSD		-	0.603	τ1.106	2.273	0.461	τ0.340	τ1.756

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:48	1.031	1.031	τ985.000	τ1020.000	τ1006.000	1.208
2	12:26:13	1.040	1.067	τ992.400	τ1010.000	τ998.400	1.202
3	12:26:37	1.078	1.081	τ985.000	τ993.900	τ997.200	1.210
x		-	-	τ98.749%	τ100.795%	τ100.069%	-
σ		-	-	τn/a	τn/a	τn/a	-
%RSD		-	-	τ0.432	τ1.317	τ0.500	-

CCB2 CCB 6/28/2011 12:28:34 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:34	1.092	0.076	16.640	3.572	4.060	2.874	-3.071
2	12:28:58	1.109	0.058	12.440	2.935	3.110	3.487	-5.857
3	12:29:23	1.111	0.037	9.790	2.525	2.763	1.008	-10.580
x		-	0.057	12.960	3.011	3.311	2.456	-6.501
σ		-	0.019	3.452	0.528	0.671	1.291	3.794
%RSD		-	33.940	26.640	17.540	20.280	52.560	58.360

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:34	1.101	0.189	-0.059	0.132	0.057	6.511	0.075
2	12:28:58	1.066	-0.038	0.021	0.065	0.025	5.443	0.023
3	12:29:23	1.059	0.178	0.202	0.098	0.033	5.165	0.030
x		-	0.110	0.055	0.098	0.039	5.707	0.043
σ		-	0.128	0.133	0.034	0.017	0.711	0.028
%RSD		-	116.500	243.200	34.340	42.970	12.450	66.450

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:34	0.090	0.075	0.034	0.207	0.624	0.361	0.000
2	12:28:58	-0.002	0.052	0.008	0.282	0.085	0.589	0.000
3	12:29:23	0.049	0.073	0.067	0.096	1.134	0.244	0.000
x		0.046	0.066	0.036	0.195	0.614	0.398	0.000
σ		0.046	0.013	0.029	0.094	0.525	0.176	0.000
%RSD		101.200	19.490	80.630	47.980	85.420	44.160	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:34	0.000	1.100	0.758	0.763	0.698	0.752	0.627
2	12:28:58	0.000	1.121	0.811	0.864	0.800	0.960	0.609
3	12:29:23	0.000	1.091	0.370	0.538	0.596	0.513	0.608
x		0.000	-	0.646	0.722	0.698	0.742	0.614
σ		0.000	-	0.240	0.167	0.102	0.224	0.011
%RSD		0.000	-	37.210	23.150	14.670	30.170	1.723

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:34	1.099	-0.099	0.113	0.068	0.071	0.625	0.091
2	12:28:58	1.090	0.077	0.100	-0.029	0.024	0.582	0.059
3	12:29:23	1.094	0.327	0.062	0.068	0.045	0.572	0.081
x		-	0.102	0.092	0.035	0.047	0.593	0.077
σ		-	0.214	0.027	0.056	0.023	0.028	0.017
%RSD		-	210.700	29.260	158.200	49.620	4.690	21.500

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:34	1.030	1.035	0.136	0.121	0.168	1.058
2	12:28:58	0.996	1.024	0.133	0.116	0.119	1.040
3	12:29:23	1.040	1.038	0.111	0.098	0.094	1.064
x		-	-	0.126	0.112	0.127	-
σ		-	-	0.014	0.012	0.038	-
%RSD		-	-	10.800	11.040	29.790	-

Mass Uncorrected ICPS

S0 S0 6/28/2011 10:35:18 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:35:43	87388.809	29.600	44208.656	1398.055	1180.039	120454.900	18819.912
2	10:36:08	85878.508	32.000	43378.624	1400.055	950.025	113529.750	19100.209
3	10:36:32	86799.445	29.600	44505.391	1448.059	1050.031	116921.530	19050.156
x		86688.920	30.400	44030.890	1415.389	1060.032	116968.720	18990.093
σ		761.192	1.386	584.039	28.310	115.333	3462.816	149.490
%RSD		0.878	4.558	1.326	2.000	10.880	2.960	0.787

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:35:43	198001.680	10.000	3320.309	460.006	100.000	93534.323	10.000
2	10:36:08	201075.740	10.000	3050.261	430.005	90.000	94398.854	10.000
3	10:36:32	202097.180	40.000	3190.285	490.007	290.002	94670.286	0.000
x		200391.530	20.000	3186.951	460.006	160.001	94201.154	6.667
σ		2131.756	17.321	135.055	30.001	112.695	593.226	5.774
%RSD		1.064	86.603	4.238	6.522	70.434	0.630	86.603

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:35:43	30.000	40.000	60.000	154.001	70.000	434.005	20.000
2	10:36:08	10.000	10.000	70.000	138.001	50.000	472.006	20.000
3	10:36:32	30.000	30.000	110.000	118.000	30.000	424.005	10.000
x		23.333	26.667	80.000	136.667	50.000	443.339	16.667
σ		11.547	15.275	26.458	18.037	20.000	25.325	5.774
%RSD		49.487	57.282	33.072	13.198	40.000	5.712	34.641

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:35:43	30.000	357431.760	40.000	150.001	150.001	90.000	250.002
2	10:36:08	20.000	361492.280	100.000	130.000	100.000	90.000	250.002
3	10:36:32	16.000	364482.140	90.000	120.000	80.000	90.000	160.001
x		22.000	361135.400	76.667	133.334	110.000	90.000	220.001
σ		7.211	3538.714	32.146	15.275	36.056	0.000	51.962
%RSD		32.778	0.980	41.929	11.456	32.778	0.000	23.619

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:35:43	320612.580	600.010	10.000	0.000	0.000	50.000	10.000
2	10:36:08	324664.810	740.015	60.000	0.000	0.000	10.000	0.000
3	10:36:32	329492.030	610.010	50.000	10.000	0.000	60.000	0.000
x		324923.140	650.012	40.000	3.333	0.000	40.000	3.333
σ		4445.359	78.105	26.458	5.774	0.000	26.458	5.774
%RSD		1.368	12.016	66.144	173.205	0.000	66.144	173.205

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:35:43	794311.710	840589.590	110.000	460.006	280.002	656043.640
2	10:36:08	764908.880	814197.980	190.001	460.006	200.001	657423.000
3	10:36:32	779990.710	858082.850	210.001	340.003	250.002	651211.500
x		779737.100	837623.480	170.001	420.005	243.335	654892.710
σ		14703.054	22092.280	52.915	69.284	40.415	3261.769
%RSD		1.886	2.637	31.127	16.496	16.609	0.498

S1 S 6/28/2011 10:38:26 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:38:26	87874.182	585.810	2226009.000	1575324.600	81957.647	1566012.600	75157.831
2	10:38:50	87102.917	595.210	2249004.500	1583476.500	80079.153	1623032.300	76081.732
3	10:39:15	87129.044	557.409	2240301.700	1576377.800	83153.155	1597649.300	75057.410
x		87368.714	579.476	2238438.400	1578393.000	81729.985	1595564.700	75432.324
σ		437.943	19.680	11610.455	4433.837	1549.595	28566.944	564.640
%RSD		0.501	3.396	0.519	0.281	1.896	1.790	0.749

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:38:26	206557.780	30.000	21643.108	7911.752	7591.613	1279557.900	4760.635
2	10:38:50	204322.280	10.000	22644.348	8381.967	7471.563	1273400.200	4460.557
3	10:39:15	207832.440	20.000	21963.499	8311.934	7841.721	1275953.100	4970.692
x		206237.500	20.000	22083.652	8201.884	7634.966	1276303.700	4730.628
σ		1776.863	10.000	511.320	253.690	188.849	3093.758	256.388
%RSD		0.862	50.000	2.315	3.093	2.473	0.242	5.420

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:38:26	930.024	2250.142	2060.119	896.022	360.004	1622.074	600.010
2	10:38:50	980.027	2250.142	2260.143	978.027	450.006	1502.063	520.008
3	10:39:15	920.024	2190.134	2280.146	872.021	400.004	1746.085	540.008
x		943.358	2230.139	2200.136	915.357	403.338	1623.407	553.342
σ		32.147	34.645	121.670	55.585	45.094	122.017	41.635
%RSD		3.408	1.554	5.530	6.072	11.180	7.516	7.524

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:38:26	20.000	362808.580	80.000	90.000	80.000	50.000	100.000
2	10:38:50	14.000	367584.780	60.000	70.000	50.000	60.000	90.000
3	10:39:15	26.000	364308.660	120.000	90.000	50.000	60.000	110.000
x		20.000	364900.670	86.667	83.334	60.000	56.667	100.000
σ		6.000	2442.515	30.551	11.547	17.321	5.774	10.000
%RSD		30.000	0.669	35.251	13.856	28.868	10.189	10.000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:38:26	327872.630	790.017	6861.318	130.000	1740.085	11693.828	21452.879
2	10:38:50	339812.760	770.017	6401.147	130.000	1970.109	11533.724	21152.521
3	10:39:15	326945.870	920.024	6851.314	130.000	2100.124	11613.775	22123.696
x		331543.750	826.686	6704.593	130.000	1936.772	11613.776	21576.365
σ		7176.147	81.449	262.839	0.000	182.320	80.052	497.225
%RSD		2.164	9.852	3.920	0.000	9.414	0.689	2.304

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:38:26	771180.160	848773.390	13415.037	31547.843	22554.234	641716.890
2	10:38:50	792702.520	851309.960	12744.546	33140.724	22524.197	658014.190
3	10:39:15	784387.140	847945.410	12584.433	31127.105	22073.634	652175.750
x		782756.610	849342.920	12914.672	31938.557	22384.022	650635.610
σ		10853.433	1753.088	440.662	1062.148	269.223	8257.086
%RSD		1.387	0.206	3.412	3.326	1.203	1.269

S2 S 6/28/2011 10:41:08 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:41:08	91356.090	55290.866	τ22041588.000	τ16198882.000	τ19540313.000	3102337.900	593046.880
2	10:41:32	88822.858	55133.380	τ22381797.000	τ16377160.000	τ19967558.000	τ3314387.200	587838.850
3	10:41:57	87994.271	55645.164	τ22452746.000	τ16653273.000	τ19915053.000	τ3343257.800	597522.420
x		89391.073	55356.470	τ22292044.000	τ16409772.000	τ19807641.000	τ3253327.600	592802.720
σ		1751.459	262.123	τ219782.800	τ228944.210	τ232996.800	τ131555.320	4846.401
%RSD		1.959	0.474	τ0.986	τ1.395	τ1.176	τ4.044	0.818

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:41:08	220077.850	25828.666	360114.870	366655.970	686122.950	τ29860978.000	436070.170
2	10:41:32	217962.140	26639.856	373628.280	369748.770	687514.990	τ29980940.000	451588.810
3	10:41:57	211181.390	26119.088	378979.280	376487.400	698270.480	τ30939372.000	451968.230
x		216407.130	26195.870	370907.480	370964.050	690636.140	τ30260430.000	446542.400
σ		4647.613	411.010	9722.068	5027.116	6648.069	τ591032.270	9071.201
%RSD		2.148	1.569	2.621	1.355	0.963	τ1.953	2.031

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:41:08	96057.665	108971.480	106406.080	68473.028	6631.231	23175.029	9672.619
2	10:41:32	93092.021	108991.600	111064.320	68838.429	6881.326	23471.415	10132.874
3	10:41:57	96017.450	113741.090	110289.540	69996.920	6761.280	23815.871	10012.806
x		95055.712	110568.060	109253.310	69102.792	6757.946	23487.438	9939.433
σ		1700.725	2747.942	2496.019	795.599	125.081	320.722	238.739
%RSD		1.789	2.485	2.285	1.151	1.851	1.366	2.402

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:41:08	34.000	400245.800	98681.916	169238.180	188903.910	112261.770	285128.320
2	10:41:32	36.000	377600.530	100763.490	173529.070	187640.700	113731.020	291337.340
3	10:41:57	24.000	379622.740	101668.600	176043.500	195484.170	115492.270	289568.920
x		31.333	385823.020	100371.340	172936.920	190676.260	113828.360	288678.190
σ		6.429	12531.347	1531.473	3441.086	4211.402	1617.450	3198.911
%RSD		20.518	3.248	1.526	1.990	2.209	1.421	1.108

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:41:08	348650.700	16607.719	585565.980	11153.482	176447.460	557086.200	228300.120
2	10:41:32	325591.460	15566.782	593935.700	11763.874	177679.590	559634.030	227216.430
3	10:41:57	327302.310	15997.162	609466.060	12234.189	179679.450	572285.680	233385.220
x		333848.160	16057.221	596322.580	11717.182	177935.500	563001.970	229633.920
σ		12847.888	523.061	12127.507	541.865	1631.121	8140.227	3293.597
%RSD		3.848	3.257	2.034	4.625	0.917	1.446	1.434

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:41:08	839395.340	900864.510	1191572.000	2888401.300	2108334.200	654332.540
2	10:41:32	806855.730	852232.440	1198695.900	2926080.400	2154171.400	643665.160
3	10:41:57	792744.320	863085.500	1209338.800	2929861.700	2186510.600	634454.170
x		812998.460	872060.820	1199868.900	2914781.100	2149672.100	644150.630
σ		23924.449	25528.158	8941.268	22923.704	39281.928	9948.074
%RSD		2.943	2.927	0.745	0.786	1.827	1.544

S3 S 6/28/2011 10:43:51 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:43:51	83121.006	250277.890	τ101507840.000	τ74843133.000	τ91898159.000	τ15067895.000	2611530.300
2	10:44:16	81919.975	245934.970	τ100417220.000	τ73662826.000	τ90040231.000	τ14497799.000	2579117.400
3	10:44:40	80633.138	244306.850	τ100129380.000	τ73754340.000	τ90333488.000	τ14553810.000	2577530.900
x		81891.373	246839.900	τ100684820.000	τ74086766.000	τ90757292.000	τ14706501.000	2589392.900
σ		1244.181	3086.665	τ727146.870	τ656628.660	τ998840.350	τ314226.560	19187.984
%RSD		1.519	1.250	τ0.722	τ0.886	τ1.101	τ2.137	0.741

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:43:51	203078.210	122750.450	1671787.000	1635693.000	3104854.200	τ132726640.000	2001495.000
2	10:44:16	196404.180	117022.190	1641096.700	1633637.000	3058903.800	τ133011820.000	1956070.900
3	10:44:40	198032.010	118018.710	1657700.200	1658554.300	τ3130956.700	τ134418290.000	1934544.500
x		199171.470	119263.780	1656861.300	1642628.100	τ3098238.200	τ133385580.000	1964036.800
σ		3479.863	3060.377	15362.376	13830.764	τ36479.233	τ905643.160	34178.721
%RSD		1.747	2.566	0.927	0.842	τ1.177	τ0.679	1.740

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:43:51	420953.860	493105.570	494667.900	316630.470	34062.456	107239.040	45548.015
2	10:44:16	417934.160	496384.560	488779.030	315417.280	31748.197	106882.920	47222.356
3	10:44:40	413379.980	502337.600	488460.480	314373.110	32379.329	106913.100	46179.635
x		417422.670	497275.910	490635.800	315473.620	32729.994	107011.680	46316.669
σ		3812.761	4680.119	3495.526	1129.735	1196.316	197.474	845.540
%RSD		0.913	0.941	0.712	0.358	3.655	0.185	1.826

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:43:51	74.000	343655.250	449989.180	812869.470	862151.990	518221.960	1358899.800
2	10:44:16	72.000	352382.890	460563.710	787196.810	862393.230	516328.280	1322234.900
3	10:44:40	82.000	352168.730	456911.670	790853.170	856719.690	515659.360	1308904.500
x		76.000	349402.290	455821.520	796973.150	860421.640	516736.530	1330013.100
σ		5.292	4978.233	5370.895	13887.473	3208.251	1329.188	25889.326
%RSD		6.963	1.425	1.178	1.743	0.373	0.257	1.947

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:43:51	294701.880	69444.770	2629215.400	52567.259	779844.530	2513413.100	1043885.000
2	10:44:16	296938.470	70177.627	2581405.300	52246.319	797948.590	2575519.300	1033591.400
3	10:44:40	293299.060	70830.196	2559078.000	52025.677	793736.990	2562087.200	1044245.200
x		294979.800	70150.864	2589899.600	52279.752	790510.040	2550339.900	1040573.800
σ		1835.554	693.100	35831.926	272.335	9473.604	32677.144	6049.682
%RSD		0.622	0.988	1.384	0.521	1.198	1.281	0.581

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:43:51	765900.040	805914.630	τ5156208.000	τ12698846.000	τ9601712.000	589729.690
2	10:44:16	764282.920	814187.520	τ5173021.100	τ12891121.000	τ9717484.700	585813.910
3	10:44:40	760037.350	816269.410	τ5229431.500	τ12765093.000	τ9757175.900	580411.740
x		763406.770	812123.860	τ5186220.200	τ12785020.000	τ9692124.200	585318.440
σ		3027.953	5477.170	τ38354.695	τ97674.238	τ80775.147	4678.693
%RSD		0.397	0.674	τ0.740	τ0.764	τ0.833	0.799

S4 S 6/28/2011 10:46:35 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:46:35	79642.206	468665.260	τ196558780.000	τ144581920.000	τ180969830.000	τ29249749.000	τ5524893.700
2	10:46:59	75780.957	462538.170	τ195027950.000	τ142705710.000	τ177675450.000	τ28513844.000	τ5425719.700
3	10:47:24	77555.049	459178.310	τ196113270.000	τ143633980.000	τ178783310.000	τ28917539.000	τ5444921.200
x		77659.404	463460.580	τ195900000.000	τ143640540.000	τ179142870.000	τ28893711.000	τ5465178.200
σ		1932.739	4810.267	τ787382.950	τ938123.600	τ1676363.500	τ368530.350	τ52598.784
%RSD		2.489	1.038	τ0.402	τ0.653	τ0.936	τ1.275	τ0.962

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:46:35	195029.230	233719.550	τ3238940.100	τ3263062.600	τ6013664.800	τ260731630.000	τ3891398.900
2	10:46:59	195342.630	236353.880	τ3226226.900	τ3172479.600	τ5963616.900	τ253009190.000	τ3799940.000
3	10:47:24	193846.460	233273.780	τ3229901.800	τ3212190.800	τ6024750.700	τ260411590.000	τ3841914.500
x		194739.440	234449.070	τ3231689.600	τ3215911.000	τ6000677.500	τ258050800.000	τ3844417.800
σ		789.061	1664.606	τ6542.448	τ45405.922	τ32570.540	τ4369094.200	τ45780.814
%RSD		0.405	0.710	τ0.202	τ1.412	τ0.543	τ1.693	τ1.191

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:46:35	780366.610	930234.330	904207.260	598306.020	61164.572	195856.210	85795.611
2	10:46:59	765305.340	906551.760	897848.150	588140.540	59087.596	194946.340	83575.118
3	10:47:24	749453.820	924350.290	915711.840	593042.740	60391.949	196452.710	83926.761
x		765041.930	920378.790	905922.420	593163.100	60214.706	195751.750	84432.497
σ		15458.076	12330.678	9054.515	5083.804	1049.771	758.600	1193.513
%RSD		2.021	1.340	0.999	0.857	1.743	0.388	1.414

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:46:35	106.000	338182.240	897848.150	1566012.600	1680478.800	1012439.800	2620342.000
2	10:46:59	132.000	328819.810	884359.410	1574121.100	1655619.900	1000335.400	2621482.600
3	10:47:24	118.000	337560.650	884296.410	1539085.800	1645188.700	1002311.700	2547046.100
x		118.667	334854.230	888834.650	1559739.900	1660429.100	1005028.900	2596290.300
σ		13.013	5235.198	7805.976	18340.658	18129.950	6493.582	42650.472
%RSD		10.966	1.563	0.878	1.176	1.092	0.646	1.643

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:46:35	281217.020	134605.420	τ5021791.800	96369.338	1517239.800	τ4992179.700	2072389.000
2	10:46:59	274605.320	132741.540	τ4970705.100	97666.356	1496309.500	τ4920287.400	τ2094447.800
3	10:47:24	282253.180	133043.780	τ4898776.800	96801.667	1479176.600	τ4967966.900	τ2099349.500
x		279358.510	133463.580	τ4963757.900	96945.787	1497575.300	τ4960144.700	τ2088728.800
σ		4148.859	1000.341	τ61801.067	660.410	19063.149	τ36578.946	τ14361.306
%RSD		1.485	0.750	τ1.245	0.681	1.273	τ0.737	τ0.688

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:46:35	745263.820	783844.050	τ10138864.000	τ24916372.000	τ19094005.000	540054.810
2	10:46:59	730044.070	769573.000	τ9968846.900	τ25033646.000	τ19264817.000	553208.400
3	10:47:24	753738.630	802412.070	τ10141692.000	τ25387675.000	τ19463933.000	565153.850
x		743015.510	785276.380	τ10083134.000	τ25112564.000	τ19274252.000	552805.690
σ		12006.218	16466.323	τ98985.844	τ245362.560	τ185144.470	12554.368
%RSD		1.616	2.097	τ0.982	τ0.977	τ0.961	2.271

S5 S 6/28/2011 10:49:19 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:49:19	75090.549	850872.640	T 382189140.000	T 279315410.000	T 346492740.000	T 57705209.000	TM 11035999.000
2	10:49:44	72713.241	835319.740	T 380106160.000	T 277882540.000	T 342617750.000	T 56007280.000	TM 10910065.000
3	10:50:08	71876.363	829980.630	T 383674350.000	T 279291270.000	T 348294880.000	T 57756375.000	TM 10835608.000
x		73226.718	838724.340	T 381989880.000	T 278829740.000	T 345801790.000	T 57156288.000	TM 10927224.000
σ		1667.481	10854.145	T 1792418.300	T 820390.060	T 2900948.300	T 995398.920	TM 101291.370
%RSD		2.277	1.294	T 0.469	T 0.294	T 0.839	T 1.742	TM 0.927

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:49:19	185629.850	452655.310	T 6487166.800	T 6096881.400	T 12039115.000	T 488202440.000	T 7175652.800
2	10:49:44	185953.190	444012.330	T 6410341.200	T 6094026.400	T 11816321.000	T 492305000.000	T 7121802.000
3	10:50:08	180123.890	M 455239.780	T 6342802.200	T 6067811.800	T 11870889.000	T 478547560.000	T 7206507.800
x		183902.310	M 450635.800	T 6413436.700	T 6086239.900	T 11908775.000	T 486351660.000	T 7167987.500
σ		3276.197	M 5879.854	T 72232.028	T 16022.877	T 116128.380	T 7062987.800	T 42869.946
%RSD		1.781	M 1.305	T 1.126	T 0.263	T 0.975	T 1.452	T 0.598

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:49:19	1483124.700	1682901.900	1568573.400	1082531.100	108689.770	351354.930	154727.440
2	10:49:44	1446625.200	1682364.600	1571832.100	1070942.800	106134.470	348424.350	150935.200
3	10:50:08	1486260.000	1658291.500	1588559.600	1085155.500	107049.910	351485.460	154394.580
x		1472003.300	1674519.300	1576321.700	1079543.100	107291.390	350421.580	153352.410
σ		22033.923	14056.266	10722.833	7562.824	1294.652	1730.888	2099.972
%RSD		1.497	0.839	0.680	0.701	1.207	0.494	1.369

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:49:19	276.002	325886.770	1681860.300	3017189.700	TM 3307681.900	T 1894064.700	TM 5089500.100
2	10:49:44	244.002	324664.810	M 1690490.900	2957019.900	TM 3271518.800	M 1931999.800	T 4966050.600
3	10:50:08	232.002	318037.140	1663066.400	3025965.400	TM 3256069.900	T 1882465.400	TM 5108372.900
x		250.668	322862.910	M 1678472.500	3000058.300	TM 3278423.500	TM 1902843.300	TM 5054641.200
σ		22.745	4223.666	M 14022.607	37529.722	TM 26489.745	TM 25907.781	TM 77299.847
%RSD		9.074	1.308	M 0.835	1.251	TM 0.808	TM 1.362	TM 1.529

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:49:19	265438.250	241045.980	T 9050060.100	M 185842.040	2749769.100	T 9554497.300	T 3947169.200
2	10:49:44	263418.680	M 242495.410	T 9033639.400	M 184215.310	2768789.500	T 9401963.400	T 3940937.000
3	10:50:08	266219.760	235259.580	T 9053989.800	185033.710	2709770.500	T 9318337.600	T 3972868.400
x		265025.560	M 239600.320	T 9045896.400	M 185030.350	2742776.400	T 9424932.800	T 3953658.200
σ		1445.424	M 3828.416	T 10795.246	M 813.368	30124.501	T 119743.660	T 16925.831
%RSD		0.545	M 1.598	T 0.119	M 0.440	1.098	T 1.270	T 0.428

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:49:19	718218.730	778967.470	T 19836815.000	T 47860463.000	TM 36065730.000	521793.750
2	10:49:44	706692.260	762499.040	T 19497803.000	T 46875584.000	TM 35777164.000	518077.870
3	10:50:08	714243.980	770898.370	T 19477061.000	T 47980734.000	TM 36519579.000	524882.310
x		713051.660	770788.290	T 19603893.000	T 47572260.000	TM 36120824.000	521584.640
σ		5855.008	8234.767	T 201982.790	T 606328.540	TM 374261.080	3407.036
%RSD		0.821	1.068	T 1.030	T 1.275	TM 1.036	0.653

ICV 6/28/2011 10:58:50 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:58:50	86500.499	48639.552	τ8344111.100	τ3744186.100	1871064.900	τ6395683.600	232929.330
2	10:59:14	83873.010	47918.607	τ8357380.000	τ3706825.100	1829667.000	τ6272588.000	233719.550
3	10:59:39	83068.261	47583.112	τ8251302.700	τ3687100.900	1829545.400	τ6197890.200	236029.640
x		84480.590	48047.091	τ8317597.900	τ3712704.000	1843425.800	τ6288720.600	234226.170
σ		1794.974	539.813	τ57795.383	τ28993.105	23936.264	τ99878.710	1611.050
%RSD		2.125	1.124	τ0.695	τ0.781	1.298	τ1.588	0.688

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:58:50	203341.180	20.000	342788.840	351536.450	656562.180	τ5742941.500	432105.530
2	10:59:14	199589.210	70.000	355248.850	347784.040	665483.480	τ5779722.300	412203.240
3	10:59:39	198224.130	10.000	356401.470	350751.240	666780.540	τ5757260.300	424547.450
x		200384.840	33.333	351479.720	350023.910	662942.070	τ5759974.700	422952.070
σ		2649.685	32.146	7548.556	1979.116	5563.074	τ18540.028	10046.601
%RSD		1.322	96.437	2.148	0.565	0.839	τ0.322	2.375

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:58:50	86629.623	101658.540	200580.220	124929.480	12844.618	43101.955	19440.576
2	10:59:14	86358.314	102060.830	197536.570	123823.820	12814.596	43124.008	19240.360
3	10:59:39	85021.924	104022.100	197890.460	126607.240	13395.022	43442.780	18869.965
x		86003.287	102580.490	198669.080	125120.180	13018.079	43222.914	19183.634
σ		860.644	1264.568	1664.524	1401.472	326.787	190.728	289.504
%RSD		1.001	1.233	0.838	1.120	2.510	0.441	1.509

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:58:50	30.000	354157.490	180.001	270.002	240.002	140.001	340.003
2	10:59:14	34.000	360543.390	250.002	260.002	230.001	160.001	320.003
3	10:59:39	26.000	369095.460	130.000	220.001	360.004	220.001	400.004
x		30.000	361265.450	186.668	250.002	276.669	173.334	353.337
σ		4.000	7495.119	60.278	26.458	72.343	41.634	41.634
%RSD		13.333	2.075	32.291	10.583	26.148	24.019	11.783

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:58:50	316825.890	16007.171	597191.630	11123.463	172721.290	1080679.900	205465.290
2	10:59:14	320856.910	16097.252	589957.010	10673.189	173801.700	1110339.000	201915.130
3	10:59:39	326650.540	15897.073	585276.720	11273.557	178588.590	1102409.700	203300.720
x		321444.450	16000.499	590808.450	11023.403	175037.190	1097809.500	203560.380
σ		4938.607	100.256	6002.913	312.442	3122.677	15355.348	1789.263
%RSD		1.536	0.627	1.016	2.834	1.784	1.399	0.879

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:58:50	780596.330	828085.210	2334754.600	τ5741208.200	τ4412980.100	651543.280
2	10:59:14	776294.770	829938.330	2390042.100	τ5659424.200	τ4327326.400	637696.650
3	10:59:39	779165.850	834975.170	2392341.700	τ5596410.200	τ4408606.700	640473.430
x		778685.650	830999.570	2372379.500	τ5665680.900	τ4382971.100	643237.790
σ		2190.616	3565.472	32604.405	τ72601.468	τ48239.259	7325.542
%RSD		0.281	0.429	1.374	τ1.281	τ1.101	1.139

ICB 6/28/2011 11:01:36 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:01:36	83826.793	41.600	46322.003	2128.127	2000.112	117787.190	18809.902
2	11:02:00	84773.246	36.400	45052.761	2080.121	1870.098	114918.590	19770.939
3	11:02:24	82361.499	36.200	45487.862	1798.091	1870.098	125811.640	18709.796
x		83653.846	38.067	45620.875	2002.113	1913.436	119505.810	19096.879
σ		1215.140	3.062	644.990	178.311	75.064	5646.228	585.895
%RSD		1.453	8.043	1.414	8.906	3.923	4.725	3.068

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:01:36	199528.530	30.000	2310.149	560.009	120.000	103458.840	90.000
2	11:02:00	195352.740	50.000	2660.198	470.006	210.001	102362.550	30.000
3	11:02:24	197425.350	0.000	2090.122	600.010	230.001	104203.150	40.000
x		197435.540	26.667	2353.490	543.342	186.668	103341.510	53.333
σ		2087.914	25.166	287.499	66.585	58.595	925.892	32.146
%RSD		1.058	94.373	12.216	12.255	31.390	0.896	60.273

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:01:36	30.000	40.000	50.000	138.001	30.000	494.007	10.000
2	11:02:00	40.000	40.000	80.000	114.000	20.000	474.006	20.000
3	11:02:24	10.000	10.000	50.000	106.000	40.000	506.007	10.000
x		26.667	30.000	60.000	119.334	30.000	491.340	13.333
σ		15.275	17.321	17.321	16.653	10.000	16.166	5.774
%RSD		57.282	57.735	28.868	13.955	33.333	3.290	43.301

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:01:36	26.000	353790.320	80.000	70.000	120.000	130.000	230.001
2	11:02:00	38.000	366880.510	90.000	170.001	140.001	110.000	190.001
3	11:02:24	26.000	365757.830	140.001	110.000	170.001	80.000	360.004
x		30.000	362142.890	103.334	116.667	143.334	106.667	260.002
σ		6.928	7255.288	32.146	50.333	25.166	25.166	88.883
%RSD		23.094	2.003	31.109	43.142	17.558	23.593	34.186

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:01:36	319136.490	510.007	130.000	0.000	30.000	6961.357	40.000
2	11:02:00	332150.610	670.013	130.000	0.000	30.000	6521.191	10.000
3	11:02:24	326039.520	540.008	130.000	20.000	20.000	6031.018	30.000
x		325775.540	573.343	130.000	6.667	26.667	6504.522	26.667
σ		6511.074	85.052	0.000	11.547	5.774	465.393	15.275
%RSD		1.999	14.834	0.000	173.205	21.651	7.155	57.282

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:01:36	779312.020	811875.760	530.008	1390.054	910.023	634775.280
2	11:02:00	768748.610	841333.420	500.007	920.024	860.021	640856.820
3	11:02:24	760204.240	816468.190	440.005	1220.042	780.017	611576.400
x		769421.620	823225.790	490.007	1176.707	850.020	629069.500
σ		9571.654	15848.891	45.827	237.993	65.577	15451.623
%RSD		1.244	1.925	9.352	20.225	7.715	2.456

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User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:04:22	70866.339	140.601	T 353994630.000	T 257432440.000	T 307217200.000	TM 272993750.000	TM 10028223.000
2	11:04:47	69795.634	129.200	T 355413170.000	T 257367610.000	T 304228020.000	TM 264737390.000	TM 10005702.000
3	11:05:11	69852.857	125.600	T 355224220.000	T 261154570.000	T 307929900.000	TM 270117410.000	TM 10274882.000
x		70171.610	131.800	T 354877340.000	T 258651540.000	T 306458370.000	TM 269282850.000	TM 10102936.000
σ		602.333	7.831	T 770263.230	T 2167933.400	T 1964141.200	TM 4190969.200	TM 149334.720
%RSD		0.858	5.941	T 0.217	T 0.838	T 0.641	TM 1.556	TM 1.478

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:04:22	170530.390	M 515494.710	37870.114	57050.989	42420.326	T 445875550.000	4230.501
2	11:04:47	169823.700	M 500856.870	38301.031	57693.047	41899.097	T 443735710.000	4390.540
3	11:05:11	166886.200	M 515896.050	39824.358	59057.497	44054.275	T 456834970.000	4660.608
x		169080.100	M 510749.210	38665.168	57933.845	42791.233	T 448815410.000	4427.216
σ		1932.546	M 8569.366	1026.749	1024.698	1124.445	T 7027073.300	217.387
%RSD		1.143	M 1.678	2.655	1.769	2.628	T 1.566	4.910

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:04:22	4260.508	7921.757	9572.565	1330.050	500.007	670.013	20.000
2	11:04:47	4050.459	7401.534	9232.386	1496.063	350.003	726.015	50.000
3	11:05:11	4300.518	7531.588	9612.587	1520.065	510.007	668.012	90.000
x		4203.828	7618.293	9472.513	1448.726	453.339	688.013	53.333
σ		134.320	270.733	208.916	103.475	89.631	32.925	35.119
%RSD		3.195	3.554	2.205	7.142	19.771	4.786	65.848

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:04:22	230.001	298463.580	1524076.800	2773085.900	2984087.300	1742171.800	TM 4699741.300
2	11:04:47	208.001	303049.860	1540892.000	2739425.500	M 3026353.700	M 1766154.800	T 4632731.000
3	11:05:11	202.001	291337.340	M 1571134.500	T 2868809.000	TM 3102564.700	M 1784787.900	TM 4798166.400
x		213.335	297616.930	M 1545367.800	T 2793773.500	TM 3037668.500	M 1764371.500	TM 4710212.900
σ		14.742	5901.984	M 23845.998	T 67126.780	TM 60043.686	M 21363.973	TM 83213.373
%RSD		6.910	1.983	M 1.543	T 2.403	TM 1.977	M 1.211	TM 1.767

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:04:22	244887.720	360.004	200.001	3390.322	4480.562	6931.345	2790.218
2	11:04:47	243519.200	540.008	150.001	3730.390	4220.499	7441.550	2550.182
3	11:05:11	240691.240	380.004	140.001	3520.347	4290.515	7611.622	2300.148
x		243032.720	426.672	163.334	3547.020	4330.525	7328.172	2546.849
σ		2140.118	98.660	32.146	171.596	134.569	354.027	245.052
%RSD		0.881	23.123	19.681	4.838	3.107	4.831	9.622

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:04:22	659279.600	698696.680	540.008	1220.042	68370.637	464431.990
2	11:04:47	645903.860	703510.240	540.008	1090.033	68621.597	469091.430
3	11:05:11	629679.550	683630.020	470.006	960.026	69173.721	458542.690
x		644954.340	695278.980	516.674	1090.034	68721.985	464022.040
σ		14822.852	10371.417	40.416	130.008	410.846	5286.307
%RSD		2.298	1.492	7.822	11.927	0.598	1.139

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User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:07:09	70503.406	7872.135	T 361490540.000	T 265163190.000	T 315897930.000	TM 280847840.000	TM 10603811.000
2	11:07:34	70269.989	7775.493	T 361453680.000	T 264906240.000	T 320258840.000	TM 281403210.000	TM 10272737.000
3	11:07:58	70698.174	7651.639	T 364255300.000	T 263549780.000	T 319380830.000	TM 277441160.000	TM 10188475.000
x		70490.523	7766.422	T 362399840.000	T 264539730.000	T 318512530.000	TM 279897400.000	TM 10355007.000
σ		214.383	110.527	T 1606980.100	T 866901.130	T 2306479.300	TM 2145217.600	TM 219550.310
%RSD		0.304	1.423	T 0.443	T 0.328	T 0.724	TM 0.766	TM 2.120

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:07:09	170762.590	M 520980.510	102634.100	120938.150	161930.890	T 462309850.000	75700.115
2	11:07:34	172499.160	M 529804.510	102332.380	122166.470	162758.360	T 461276000.000	77517.888
3	11:07:58	173973.360	M 524171.890	99617.087	118824.030	160124.710	T 461821920.000	76603.957
x		172411.700	M 524985.640	101527.850	120642.880	161604.660	T 461802590.000	76607.320
σ		1607.170	M 4467.928	1661.636	1690.670	1346.792	T 517196.890	908.891
%RSD		0.932	M 0.851	1.637	1.401	0.833	T 0.112	1.186

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:07:09	21332.735	22353.983	23675.685	11459.676	1350.051	3808.406	1450.059
2	11:07:34	21242.627	23505.460	24066.206	11447.668	1530.066	3766.397	1320.049
3	11:07:58	20261.488	23175.029	24566.887	11511.709	1380.053	3940.435	1390.054
x		20945.617	23011.490	24102.926	11473.018	1420.057	3838.413	1386.721
σ		594.183	592.903	446.735	34.041	96.444	90.816	65.069
%RSD		2.837	2.577	1.853	0.297	6.792	2.366	4.692

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:07:09	212.001	301717.580	M 1576432.300	2857093.100	M 3126652.000	M 1821181.800	TM 4840092.700
2	11:07:34	240.002	293258.400	M 1594833.500	2889663.100	M 3058880.200	M 1821447.000	TM 4940249.800
3	11:07:58	156.001	299765.110	M 1595728.400	2851728.400	M 3027977.500	M 1808924.900	TM 4894561.000
x		202.668	298247.030	M 1588998.100	2866161.500	M 3071169.900	M 1817184.600	TM 4891634.500
σ		42.771	4429.206	M 10891.484	20528.916	M 50472.171	M 7154.285	TM 50142.664
%RSD		21.104	1.485	M 0.685	0.716	M 1.643	M 0.394	TM 1.025

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:07:09	248770.850	2760.213	85544.410	5480.841	31397.578	100079.660	38260.945
2	11:07:34	244320.030	2660.198	86177.443	5500.847	30816.568	100592.530	38762.024
3	11:07:58	244593.740	2690.203	85232.926	5750.926	30736.430	98993.634	38952.438
x		245894.870	2703.538	85651.593	5577.538	30983.525	99888.610	38658.469
σ		2494.426	51.324	481.294	150.491	360.812	816.391	357.188
%RSD		1.014	1.898	0.562	2.698	1.165	0.817	0.924

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:07:09	663314.990	710020.460	194382.240	467716.050	410883.340	467100.250
2	11:07:34	674803.640	708085.870	197475.900	485480.860	413983.720	480365.270
3	11:07:58	681137.430	718936.780	193664.500	482902.340	419950.650	482316.830
x		673085.350	712347.700	195174.210	478699.750	414939.240	476594.120
σ		9034.613	5787.712	2025.368	9599.137	4608.556	8279.635
%RSD		1.342	0.812	1.038	2.005	1.111	1.737

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User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:09:55	75617.767	441853.150	↹191977830.000	↹141152910.000	↹174900300.000	↹29368593.000	↹5471221.200
2	11:10:19	74152.642	440107.430	↹190494670.000	↹140251150.000	↹174336590.000	↹28895737.000	↹5482456.200
3	11:10:43	74117.497	438116.560	↹192391700.000	↹141254180.000	↹174325500.000	↹28807445.000	↹5456156.200
x		74629.302	440025.710	↹191621400.000	↹140886080.000	↹174520800.000	↹29023925.000	↹5469944.500
σ		856.216	1869.636	↹997478.240	↹552193.160	↹328705.640	↹301737.990	↹13196.410
%RSD		1.147	0.425	↹0.521	↹0.392	↹0.188	↹1.040	↹0.241

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:09:55	185144.850	228441.910	↹3239486.400	3085157.900	↹5979007.900	↹251694650.000	↹3772985.600
2	11:10:19	185993.600	228816.670	↹3245098.000	3076001.500	↹5996228.700	↹254033590.000	↹3763787.300
3	11:10:43	186276.530	225089.750	↹3245793.300	3060742.500	↹5962702.000	↹253887290.000	↹3735726.700
x		185804.990	227449.440	↹3243459.200	3073967.300	↹5979312.900	↹253205180.000	↹3757499.800
σ		588.943	2052.129	↹3458.132	12334.159	↹16765.453	↹1310198.100	↹19408.888
%RSD		0.317	0.902	↹0.107	0.401	↹0.280	↹0.517	↹0.517

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:09:55	765107.110	898205.460	859372.720	582791.390	57883.663	194566.230	86870.790
2	11:10:19	782016.490	913997.270	872696.110	583760.280	59749.794	192615.250	85524.314
3	11:10:43	756960.720	915101.730	874931.610	584086.690	59649.460	193377.420	84358.790
x		768028.110	909101.490	869000.140	583546.120	59094.305	193519.630	85584.631
σ		12780.728	9452.381	8412.188	673.685	1049.647	983.234	1257.086
%RSD		1.664	1.040	0.968	0.115	1.776	0.508	1.469

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:09:55	124.000	328157.800	864742.870	1562853.000	1688297.200	990889.990	2573956.200
2	11:10:19	124.000	334921.650	875687.330	1545876.400	1684393.100	997577.330	2557654.000
3	11:10:43	132.000	338457.380	875697.830	1536365.900	1687617.200	993837.190	2549158.100
x		126.667	333845.610	872042.680	1548365.100	1686769.200	994101.500	2560256.100
σ		4.619	5233.427	6321.823	13417.782	2085.651	3351.497	12602.155
%RSD		3.646	1.568	0.725	0.867	0.124	0.337	0.492

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:09:55	279662.900	130132.440	↹4968319.200	98601.474	1489102.800	↹4891326.900	↹2069448.800
2	11:10:19	278586.270	130968.520	↹4918565.800	94760.764	1494507.600	↹4968306.000	↹2066437.800
3	11:10:43	280099.670	130364.120	↹4919337.700	94408.907	1503453.800	↹4931342.500	↹2077781.800
x		279449.610	130488.360	↹4935407.600	95923.715	1495688.000	↹4930325.200	↹2071222.800
σ		778.918	431.664	↹28504.900	2325.671	7247.928	↹38499.635	↹5876.401
%RSD		0.279	0.331	↹0.578	2.425	0.485	↹0.781	↹0.284

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:09:55	739897.430	797164.720	↹10046942.000	↹24876624.000	↹18921707.000	549898.480
2	11:10:19	736303.360	782705.720	↹10192367.000	↹24224717.000	↹18982523.000	553507.450
3	11:10:43	731720.640	790550.190	↹10044585.000	↹24786559.000	↹19276370.000	553208.400
x		735973.810	790140.210	↹10094631.000	↹24629300.000	↹19060200.000	552204.780
σ		4098.346	7238.214	↹84650.153	↹353260.840	↹189661.880	2002.899
%RSD		0.557	0.916	↹0.839	↹1.434	↹0.995	0.363

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User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:12:40	84657.699	83.800	116700.090	10813.273	13945.443	135340.940	18769.859
2	11:13:04	87246.113	58.000	102430.940	6431.158	7771.691	132268.050	19891.072
3	11:13:29	85538.884	54.400	95649.483	4412.545	5010.703	134524.810	18579.661
x		85814.232	65.400	104926.840	7218.992	8909.279	134044.600	19080.197
σ		1315.992	16.036	10744.958	3272.284	4574.711	1591.737	708.648
%RSD		1.534	24.520	10.240	45.329	51.348	1.187	3.714

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:12:40	204575.150	40.000	3790.402	700.014	680.013	135613.000	260.002
2	11:13:04	214500.600	50.000	3480.339	630.011	480.006	127282.010	120.000
3	11:13:29	210058.260	10.000	3280.301	620.011	370.004	120253.550	100.000
x		209711.340	33.333	3517.014	650.012	510.008	127716.180	160.001
σ		4971.811	20.817	257.021	43.591	157.167	7688.924	87.179
%RSD		2.371	62.450	7.308	6.706	30.817	6.020	54.487

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:12:40	40.000	230.001	160.001	168.001	40.000	624.011	30.000
2	11:13:04	40.000	60.000	140.001	162.001	70.000	590.010	30.000
3	11:13:29	30.000	10.000	110.000	132.000	40.000	536.008	30.000
x		36.667	100.001	136.667	154.001	50.000	583.343	30.000
σ		5.774	115.326	25.166	19.287	17.321	44.379	0.000
%RSD		15.746	115.326	18.414	12.524	34.641	7.608	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:12:40	26.000	365992.570	1030.030	1560.068	1670.078	940.025	2510.176
2	11:13:04	40.000	382166.130	800.018	1780.089	1610.073	860.021	2840.226
3	11:13:29	26.000	377886.490	750.016	1380.053	1540.066	960.026	2180.133
x		30.667	375348.400	860.021	1573.403	1606.739	920.024	2510.178
σ		8.083	8380.182	149.339	200.351	65.070	52.918	330.046
%RSD		26.357	2.233	17.365	12.734	4.050	5.752	13.148

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:12:40	337102.110	590.010	500.007	10.000	50.000	3090.267	160.001
2	11:13:04	352433.890	650.012	300.003	20.000	60.000	3770.398	70.000
3	11:13:29	344664.430	570.009	240.002	0.000	50.000	2700.204	60.000
x		344733.470	603.344	346.670	10.000	53.333	3186.957	96.667
σ		7666.122	41.635	136.140	10.000	5.774	541.609	55.076
%RSD		2.224	6.901	39.271	100.000	10.825	16.995	56.975

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:12:40	806019.200	839992.460	2250.142	5260.775	1880.099	653523.720
2	11:13:04	812043.120	871688.640	1740.085	4520.572	1380.053	668949.440
3	11:13:29	821522.260	863358.220	1790.090	4270.511	1150.037	685520.460
x		813194.860	858346.440	1926.772	4683.953	1470.063	669331.210
σ		7815.439	16431.694	281.160	514.952	373.261	16001.788
%RSD		0.961	1.914	14.592	10.994	25.391	2.391

ICSA 6/28/2011 11:23:05 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:23:05	78656.350	135.201	T 374040740.000	T 270914340.000	T 328300370.000	TM 293039550.000	TM 11111171.000
2	11:23:30	77102.596	118.000	T 378566970.000	T 273466070.000	T 330857120.000	TM 299046370.000	TM 11278776.000
3	11:23:54	76215.801	136.401	T 372193340.000	T 271101710.000	T 325314750.000	TM 293367210.000	TM 10935497.000
x		77324.916	129.867	T 374933680.000	T 271827380.000	T 328157410.000	TM 295151050.000	TM 11108482.000
σ		1235.370	10.294	T 3279295.100	T 1422240.200	T 2773950.300	TM 3377427.200	TM 171655.350
%RSD		1.598	7.927	T 0.875	T 0.523	T 0.845	TM 1.144	TM 1.545

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:23:05	187873.130	M 545187.280	36667.608	61696.397	46370.127	T 487820420.000	4150.482
2	11:23:30	185619.740	M 551909.110	35515.282	62258.342	46751.119	T 478265720.000	4660.608
3	11:23:54	185781.410	M 539859.020	38120.646	61154.538	47102.039	T 477745380.000	4790.642
x		186424.760	M 545651.800	36767.845	61703.092	46741.095	T 481277170.000	4533.911
σ		1256.923	M 6038.459	1305.571	551.933	366.059	T 5672587.700	338.364
%RSD		0.674	M 1.107	3.551	0.894	0.783	T 1.179	7.463

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:23:05	4350.530	7691.656	9802.690	1412.056	410.005	680.013	30.000
2	11:23:30	4490.565	7561.601	10222.925	1342.050	440.005	666.012	20.000
3	11:23:54	3900.426	7211.456	9942.767	1434.058	350.003	682.013	40.000
x		4247.173	7488.238	9989.461	1396.055	400.005	676.013	30.000
σ		308.347	248.364	213.974	48.045	45.827	8.718	10.000
%RSD		7.260	3.317	2.142	3.442	11.457	1.290	33.333

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:23:05	138.001	310536.850	M 1635080.600	2844616.700	TM 3132883.800	M 1854725.000	TM 4849469.400
2	11:23:30	204.001	318403.580	1614236.100	2906389.700	3145194.600	1859052.100	TM 4990238.800
3	11:23:54	180.001	313579.330	1598271.400	2848778.500	3067474.300	1816786.100	TM 4867386.600
x		174.001	314173.250	M 1615862.700	2866595.000	TM 3115184.300	M 1843521.100	TM 4902364.900
σ		33.407	3966.851	M 18458.387	34525.989	TM 41774.002	M 23254.012	TM 76626.528
%RSD		19.199	1.263	M 1.142	1.204	TM 1.341	M 1.261	TM 1.563

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:23:05	251113.290	450.006	90.000	3580.359	4530.575	5290.784	2940.242
2	11:23:30	259339.620	460.006	130.000	3150.278	4120.475	5981.002	2660.198
3	11:23:54	255636.800	640.011	120.000	3740.392	4300.518	5640.891	2850.227
x		255363.240	516.674	113.334	3490.343	4317.189	5637.559	2816.889
σ		4119.981	106.930	20.817	305.182	205.557	345.121	142.968
%RSD		1.613	20.696	18.368	8.744	4.761	6.122	5.075

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:23:05	713661.370	760892.650	310.003	690.013	72567.149	495798.610
2	11:23:30	722225.580	770042.610	250.002	830.019	75459.098	501607.500
3	11:23:54	709344.370	763646.540	290.002	530.008	71763.912	502882.630
x		715077.110	764860.600	283.336	683.347	73263.386	500096.250
σ		6556.267	4694.243	30.551	150.117	1943.492	3776.073
%RSD		0.917	0.614	10.783	21.968	2.653	0.755

ICSAB 6/28/2011 11:25:53 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:25:53	79852.140	7632.431	T 366775930.000	T 266579020.000	T 323396570.000	TM 286591810.000	TM 10817377.000
2	11:26:17	76318.237	7561.200	T 370987140.000	T 268667470.000	T 324717280.000	TM 283218400.000	TM 11000915.000
3	11:26:42	76289.113	7500.175	T 374483100.000	T 270453230.000	T 324736120.000	TM 293288270.000	TM 10862930.000
x		77486.497	7564.602	T 370748720.000	T 268566570.000	T 324283320.000	TM 287699490.000	TM 10893741.000
σ		2048.759	66.194	T 3859115.000	T 1939074.900	T 768012.690	TM 5125501.500	TM 95569.738
%RSD		2.644	0.875	T 1.041	T 0.722	T 0.237	TM 1.782	TM 0.877

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:25:53	194523.770	M 538406.130	96600.582	122528.940	164453.790	T 475356700.000	74846.528
2	11:26:17	187741.750	M 528105.280	97666.356	123938.610	165200.640	T 474513750.000	73802.195
3	11:26:42	189550.710	M 551300.740	98581.363	120545.510	166815.550	T 474556430.000	76081.732
x		190605.410	M 539270.710	97616.100	122337.690	165489.990	T 474808960.000	74910.151
σ		3511.867	M 11621.878	991.346	1704.620	1207.173	T 474837.080	1141.099
%RSD		1.842	M 2.155	1.016	1.393	0.729	T 0.100	1.523

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:25:53	16978.067	22544.222	24126.287	10951.357	1320.049	3946.436	1230.042
2	11:26:17	16667.775	22043.597	23415.342	10835.286	1510.064	4026.454	1340.050
3	11:26:42	17038.124	22504.171	24166.341	11243.539	1440.058	3952.437	1500.063
x		16894.656	22363.997	23902.657	11010.061	1423.390	3975.109	1356.719
σ		198.766	278.196	422.502	210.362	96.098	44.567	135.780
%RSD		1.176	1.244	1.768	1.911	6.751	1.121	10.008

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:25:53	170.001	319156.850	1592072.700	2833709.400	2997558.800	1818354.300	T 4818353.100
2	11:26:17	174.001	314953.190	1585876.100	2738614.000	3056028.100	1821844.600	T 4777920.000
3	11:26:42	144.001	311778.200	1596776.100	2852194.900	3023141.700	1822153.900	TM 4899040.300
x		162.667	315296.080	1591575.000	2808172.700	3025576.200	1820784.300	TM 4831771.100
σ		16.289	3701.254	5467.063	60944.602	29310.600	2110.082	TM 61664.917
%RSD		10.014	1.174	0.344	2.170	0.969	0.116	TM 1.276

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:25:53	258791.760	3010.254	85725.274	4940.683	31517.790	101507.690	38802.111
2	11:26:17	251478.380	2860.229	85413.787	5010.703	32229.058	102121.170	38100.603
3	11:26:42	254764.470	2810.221	87956.083	5080.723	30686.344	103338.140	40786.526
x		255011.530	2893.568	86365.048	5010.703	31477.730	102322.330	39229.747
σ		3662.945	104.100	1386.651	70.020	772.137	931.660	1393.090
%RSD		1.436	3.598	1.606	1.397	2.453	0.911	3.551

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:25:53	749704.000	795649.330	199376.850	499479.080	421271.210	519909.980
2	11:26:17	719196.950	762655.510	204484.120	497587.350	425714.750	500764.330
3	11:26:42	741137.290	781306.390	204119.990	500496.990	432095.280	516122.450
x		736679.410	779870.410	202660.320	499187.800	426360.420	512265.590
σ		15734.504	16543.718	2849.389	1476.527	5440.845	10138.814
%RSD		2.136	2.121	1.406	0.296	1.276	1.979

CCV1 CCV 6/28/2011 11:28:39 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:28:39	80101.252	439868.860	τ193835770.000	τ141741540.000	τ177191200.000	τ30179590.000	τ5680957.500
2	11:29:03	77933.190	436114.030	τ195348170.000	τ143077660.000	τ180378860.000	τ29906160.000	τ5612015.700
3	11:29:28	77990.439	432828.730	τ195162490.000	τ142635170.000	τ180208540.000	τ29803729.000	τ5585971.000
x		78674.960	436270.540	τ194782140.000	τ142484790.000	τ179259530.000	τ29963160.000	τ5626314.800
σ		1235.536	3522.672	τ824826.720	τ680632.820	τ1793254.400	τ194305.860	τ49081.104
%RSD		1.570	0.807	τ0.423	τ0.478	τ1.000	τ0.648	τ0.872

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:28:39	192037.070	236586.940	τ3255973.800	3041338.300	τ6159449.600	τ251345370.000	τ3700097.900
2	11:29:03	193522.980	239596.670	τ3236606.000	3094625.700	τ6086584.100	τ257609250.000	τ3805703.500
3	11:29:28	192865.930	232939.460	τ3216344.300	τ3183276.900	τ6111769.600	τ255775290.000	τ3850938.100
x		192808.660	236374.360	τ3236308.000	τ3106413.600	τ6119267.800	τ254909970.000	τ3785579.800
σ		744.610	3333.695	τ19816.419	τ71699.797	τ37006.934	τ3220349.400	τ77407.472
%RSD		0.386	1.410	τ0.612	τ2.308	τ0.605	τ1.263	τ2.045

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:28:39	742189.680	865687.000	859939.020	574197.610	59338.426	193957.660	86840.644
2	11:29:03	730804.230	885021.010	897196.590	577960.110	57994.020	194044.600	84941.542
3	11:29:28	755323.540	883414.310	894285.900	579238.550	60301.644	194446.940	82952.224
x		742772.480	878040.780	883807.170	577132.090	59211.363	194149.730	84911.470
σ		12270.037	10728.801	20721.593	2620.495	1159.048	261.033	1944.385
%RSD		1.652	1.222	2.345	0.454	1.957	0.134	2.290

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:28:39	144.001	329868.890	846656.360	1539107.600	1672334.900	973776.000	2569290.400
2	11:29:03	164.001	326630.170	868141.980	1543667.000	1629809.900	985366.580	2565154.300
3	11:29:28	96.000	329797.600	878469.090	1535027.800	1639324.400	982367.950	2570910.700
x		134.667	328765.550	864422.480	1539267.500	1647156.400	980503.510	2568451.800
σ		34.948	1849.639	16229.248	4321.823	22318.169	6016.019	2968.416
%RSD		25.951	0.563	1.877	0.281	1.355	0.614	0.116

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:28:39	281247.500	130938.300	τ4927899.000	97857.397	1495929.500	τ5116702.800	2058569.200
2	11:29:03	272137.970	130605.880	τ4983687.300	99446.138	1496776.300	τ4993807.500	τ2127429.500
3	11:29:28	274574.850	132529.980	τ5005300.900	97123.406	1494073.400	τ5033212.700	τ2152358.400
x		275986.770	131358.050	τ4972295.700	98142.314	1495593.100	τ5047907.600	τ2112785.700
σ		4716.038	1028.437	τ39938.583	1187.288	1382.502	τ62751.646	τ48579.155
%RSD		1.709	0.783	τ0.803	1.210	0.092	τ1.243	τ2.299

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:28:39	773904.290	828346.940	τ10497518.000	τ25604478.000	τ19822887.000	567981.480
2	11:29:03	774415.770	831728.820	τ10258205.000	τ25720411.000	τ19829653.000	578656.120
3	11:29:28	780471.030	814407.210	τ10418009.000	τ25651955.000	τ19855481.000	576590.900
x		776263.700	824827.650	τ10391244.000	τ25658948.000	τ19836007.000	574409.500
σ		3652.620	9181.423	τ121880.390	τ58281.992	τ17201.193	5661.790
%RSD		0.471	1.113	τ1.173	τ0.227	τ0.087	0.986

CCB1 CCB 6/28/2011 11:31:24 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:31:24	87576.726	83.000	170150.790	11801.899	12804.589	168339.750	20491.751
2	11:31:49	86924.048	64.400	148710.650	8536.040	8892.213	163606.060	19730.895
3	11:32:13	87101.410	57.600	132681.100	7249.471	7161.436	155453.710	19831.005
x		87200.728	68.333	150514.180	9195.803	9619.413	162466.510	20017.884
σ		337.483	13.149	18799.843	2346.831	2891.005	6518.161	413.422
%RSD		0.387	19.242	12.490	25.521	30.054	4.012	2.065

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:31:24	209795.200	70.000	3910.428	500.007	490.007	130646.170	270.002
2	11:31:49	211889.710	80.000	3580.359	580.009	470.006	127483.440	90.000
3	11:32:13	210584.400	10.000	3520.347	600.010	290.002	122257.080	60.000
x		210756.440	53.333	3670.378	560.009	416.672	126795.560	140.001
σ		1057.801	37.859	210.044	52.917	110.154	4236.637	113.579
%RSD		0.502	70.986	5.723	9.449	26.437	3.341	81.128

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:31:24	60.000	90.000	130.000	178.001	60.000	648.012	90.000
2	11:31:49	50.000	120.000	180.001	164.001	70.000	672.013	30.000
3	11:32:13	80.000	50.000	110.000	162.001	50.000	694.013	0.000
x		63.333	86.667	140.001	168.001	60.000	671.346	40.000
σ		15.275	35.119	36.056	8.718	10.000	23.008	45.826
%RSD		24.119	40.522	25.754	5.189	16.667	3.427	114.564

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:31:24	22.000	364431.120	990.027	1460.060	1790.090	930.024	2460.170
2	11:31:49	24.000	368033.890	1020.029	1640.075	2080.121	1130.036	3000.252
3	11:32:13	22.000	371821.140	720.015	1390.054	1530.066	900.023	2330.152
x		22.667	368095.380	910.024	1496.730	1800.092	986.694	2596.858
σ		1.155	3695.395	165.235	128.981	275.164	125.040	355.347
%RSD		5.094	1.004	18.157	8.618	15.286	12.673	13.684

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:31:24	339843.340	730.015	620.011	10.000	110.000	3260.298	100.000
2	11:31:49	340505.780	740.015	390.004	0.000	60.000	3550.353	100.000
3	11:32:13	337581.030	580.009	290.002	0.000	50.000	2670.200	90.000
x		339310.050	683.347	433.339	3.333	73.334	3160.283	96.667
σ		1533.570	89.632	169.218	5.774	32.146	448.519	5.774
%RSD		0.452	13.117	39.050	173.205	43.835	14.192	5.973

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:31:24	840002.930	879413.930	1940.105	4240.503	2110.125	683806.590
2	11:31:49	829613.760	903681.630	1890.100	3620.367	1750.086	679455.130
3	11:32:13	839793.410	892531.310	1630.074	3710.385	1460.060	698592.720
x		836470.030	891875.620	1820.093	3857.085	1773.423	687284.820
σ		5938.633	12147.129	166.450	335.086	325.660	10031.721
%RSD		0.710	1.362	9.145	8.688	18.363	1.460

PBW 6/28/2011 11:34:08 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:34:08	90585.178	40.200	99930.833	3872.420	2420.164	156966.860	20681.970
2	11:34:33	88656.032	38.400	94782.880	3924.431	1990.111	139522.950	20561.831
3	11:34:57	88691.206	32.800	90977.163	3654.374	1970.109	143504.310	20832.144
x		89310.805	37.133	95230.292	3817.075	2126.795	146664.710	20691.982
σ		1103.779	3.859	4493.571	143.283	254.262	9141.315	135.434
%RSD		1.236	10.393	4.719	3.754	11.955	6.233	0.655

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:34:08	216464.080	50.000	2980.249	430.005	220.001	110782.580	20.000
2	11:34:33	214480.360	60.000	2860.229	420.005	160.001	110239.230	50.000
3	11:34:57	217213.100	90.000	3010.254	400.004	150.001	110772.510	10.000
x		216052.510	66.667	2950.244	416.672	176.668	110598.110	26.667
σ		1412.091	20.817	79.386	15.276	37.860	310.838	20.817
%RSD		0.654	31.225	2.691	3.666	21.430	0.281	78.063

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:34:08	10.000	60.000	270.002	98.000	10.000	572.009	30.000
2	11:34:33	50.000	50.000	230.001	96.000	20.000	560.009	10.000
3	11:34:57	30.000	50.000	170.001	118.000	30.000	666.012	50.000
x		30.000	53.333	223.335	104.000	20.000	599.343	30.000
σ		20.000	5.774	50.333	12.166	10.000	58.048	20.000
%RSD		66.667	10.825	22.537	11.698	50.000	9.685	66.667

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:34:08	24.000	366849.890	300.003	340.003	370.004	320.003	570.009
2	11:34:33	18.000	369554.820	150.001	600.010	450.006	350.003	650.012
3	11:34:57	26.000	373515.960	190.001	470.006	490.007	320.003	820.019
x		22.667	369973.560	213.335	470.007	436.672	330.003	680.013
σ		4.163	3352.705	77.676	130.003	61.102	17.321	127.676
%RSD		18.368	0.906	36.410	27.660	13.993	5.249	18.776

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:34:08	337570.840	660.012	90.000	0.000	0.000	730.015	30.000
2	11:34:33	337295.710	710.014	50.000	10.000	0.000	920.024	0.000
3	11:34:57	342197.660	500.007	160.001	0.000	10.000	980.027	0.000
x		339021.400	623.344	100.000	3.333	3.333	876.689	10.000
σ		2754.157	109.700	55.678	5.774	5.774	130.518	17.321
%RSD		0.812	17.599	55.678	173.205	173.205	14.888	173.205

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:34:08	848427.520	890356.680	910.023	2220.138	550.008	691005.930
2	11:34:33	821281.560	870125.090	1010.029	2330.152	630.011	688969.460
3	11:34:57	825844.950	882532.270	960.026	2190.134	500.007	680452.030
x		831851.340	881004.680	960.026	2246.808	560.009	686809.140
σ		14535.592	10201.934	50.003	73.720	65.576	5598.789
%RSD		1.747	1.158	5.208	3.281	11.710	0.815

LCS 6/28/2011 11:36:51 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:36:51	94482.294	1026.230	τ4709419.400	τ3441562.900	163969.370	τ3713335.700	145460.040
2	11:37:15	93142.784	975.027	τ4708312.400	τ3439213.600	161083.280	τ3717784.900	146034.700
3	11:37:39	92446.681	998.828	τ4705773.700	τ3431819.200	157985.790	τ3677494.600	143302.700
x		93357.253	1000.028	τ4707835.200	τ3437531.900	161012.810	τ3702871.800	144932.480
σ		1034.615	25.623	τ1869.077	τ5084.917	2992.411	τ22089.559	1440.380
%RSD		1.108	2.562	τ0.040	τ0.148	1.858	τ0.597	0.994

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:36:51	223540.470	60.000	41979.285	16047.207	16087.243	2544050.800	9772.673
2	11:37:15	223621.470	80.000	43021.762	16097.252	16377.507	2559353.700	10032.818
3	11:37:39	221272.480	50.000	41337.791	15596.808	16457.580	2534620.400	9392.470
x		222811.470	63.333	42112.946	15913.756	16307.443	2546008.300	9732.654
σ		1333.421	15.275	849.905	275.623	194.857	12482.300	322.044
%RSD		0.598	24.119	2.018	1.732	1.195	0.490	3.309

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:36:51	1940.105	4930.681	4370.535	1814.092	640.011	2484.173	870.021
2	11:37:15	2110.125	4910.675	4300.518	1792.090	510.007	2326.151	720.015
3	11:37:39	1990.111	4290.515	4490.565	1736.084	600.010	2272.145	750.016
x		2013.447	4710.624	4387.206	1780.756	583.343	2360.823	780.017
σ		87.379	363.962	96.114	40.220	66.585	110.184	79.376
%RSD		4.340	7.726	2.191	2.259	11.414	4.667	10.176

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:36:51	22.000	382176.350	330.003	220.001	360.004	320.003	570.009
2	11:37:15	40.000	390043.740	290.002	400.004	460.006	340.003	670.013
3	11:37:39	22.000	389267.060	330.003	600.010	540.008	250.002	700.014
x		28.000	387162.380	316.669	406.672	453.339	303.336	646.678
σ		10.392	4335.461	23.094	190.092	90.187	47.259	68.071
%RSD		37.115	1.120	7.293	46.743	19.894	15.580	10.526

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:36:51	345826.570	960.026	13044.763	330.003	3070.264	23645.645	45056.772
2	11:37:15	348711.880	970.026	12424.321	230.001	3580.359	24246.450	46259.842
3	11:37:39	353882.110	1080.033	12514.384	180.001	3730.390	24426.695	44244.745
x		349473.520	1003.362	12661.156	246.668	3460.338	24106.263	45187.119
σ		4081.419	66.587	335.252	76.377	346.042	408.961	1013.852
%RSD		1.168	6.636	2.648	30.964	10.000	1.696	2.244

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:36:51	873997.490	926423.700	29664.619	72165.526	48084.653	677419.960
2	11:37:15	887814.690	935056.660	29514.371	71030.991	47332.648	693104.970
3	11:37:39	885000.010	938521.520	27431.053	68380.675	47011.802	696222.810
x		882270.730	933333.960	28870.014	70525.731	47476.367	688915.910
σ		7301.744	6230.177	1248.440	1942.354	550.676	10077.103
%RSD		0.828	0.668	4.324	2.754	1.160	1.463

14920L MF4N31L 6/28/2011 11:39:33 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:39:33	87248.626	33.400	T108065030.000	T26294935.000	501350.430	T4806761.200	T4175728.200
2	11:39:57	84766.212	30.800	T109993790.000	T26519227.000	505669.700	T4806761.200	T4149121.800
3	11:40:22	84046.322	32.200	T110539830.000	T26871507.000	512932.490	T4761823.800	T4220412.700
x		85353.720	32.133	T109532880.000	T26561890.000	506650.870	T4791782.000	T4181754.200
σ		1680.048	1.301	T1300184.500	T290644.270	5853.035	T25944.576	T36025.461
%RSD		1.968	4.050	T1.187	T1.094	1.155	T0.541	T0.861

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:39:33	203209.700	610.010	39954.649	259796.190	10092.851	241917.650	620.011
2	11:39:57	206082.340	470.006	41257.606	258903.360	9972.784	235978.980	440.005
3	11:40:22	204757.220	560.009	42209.828	261064.480	10543.111	255687.520	510.007
x		204683.080	546.675	41140.694	259921.340	10202.916	244528.050	523.341
σ		1437.754	70.948	1132.126	1085.984	300.673	10110.257	90.740
%RSD		0.702	12.978	2.752	0.418	2.947	4.135	17.339

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:39:33	1630.074	620.011	520.008	1156.037	230.001	842.020	240.002
2	11:39:57	1560.068	670.013	590.010	1174.039	260.002	788.017	170.001
3	11:40:22	1620.074	560.009	530.008	1186.039	200.001	828.019	250.002
x		1603.405	616.677	546.675	1172.039	230.002	819.352	220.001
σ		37.863	55.078	37.861	15.101	30.000	28.025	43.589
%RSD		2.361	8.931	6.926	1.288	13.044	3.420	19.813

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:39:33	20.000	345031.410	1290.047	920.024	1150.037	570.009	1460.060
2	11:39:57	18.000	340495.590	1270.045	1010.029	1390.054	640.011	1510.064
3	11:40:22	18.000	342717.490	1040.030	1080.033	1350.051	670.013	1340.050
x		18.667	342748.160	1200.041	1003.362	1296.714	626.678	1436.725
σ		1.155	2268.069	138.933	80.213	128.591	51.318	87.376
%RSD		6.186	0.662	11.577	7.994	9.917	8.189	6.082

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:39:33	295637.150	590.010	60.000	10.000	10.000	560.009	35555.362
2	11:39:57	293644.670	510.007	60.000	20.000	0.000	540.008	35855.962
3	11:40:22	290778.340	450.006	100.000	20.000	0.000	410.005	35675.601
x		293353.390	516.674	73.333	16.667	3.333	503.341	35695.642
σ		2442.466	70.240	23.094	5.774	5.774	81.447	151.299
%RSD		0.833	13.595	31.492	34.641	173.205	16.181	0.424

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:39:33	768372.950	832849.270	530.008	1160.038	4160.485	603177.870
2	11:39:57	772797.890	832220.970	380.004	1030.030	3660.375	604098.210
3	11:40:22	769468.650	837865.970	310.003	760.016	3760.396	607345.620
x		770213.160	834312.070	406.672	983.361	3860.419	604873.900
σ		2304.507	3093.757	112.401	204.053	264.633	2189.478
%RSD		0.299	0.371	27.639	20.751	6.855	0.362

14920 MF4N31 6/28/2011 11:42:16 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:42:16	91488.264	41.600	TM 592276170.000	T 142633700.000	T 1683920.800	T 25151554.000	TM 22593147.000
2	11:42:40	89856.007	36.600	TM 589438940.000	T 142683110.000	T 1586393.600	T 25002356.000	TM 22300476.000
3	11:43:05	89630.880	43.800	TM 595411240.000	T 143934380.000	T 1387508.500	T 25217600.000	TM 22883928.000
x		90325.051	40.667	TM 592375450.000	T 143083730.000	T 1552607.600	T 25123837.000	TM 22592517.000
σ		1013.642	3.690	TM 2987388.600	T 737097.870	T 151066.780	T 110266.540	TM 291726.460
%RSD		1.122	9.073	TM 0.504	T 0.515	T 9.730	T 0.439	TM 1.291

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:42:16	238694.710	4720.624	176821.130	1360117.500	52266.378	1119963.000	2300.148
2	11:42:40	238714.980	7291.488	176194.980	1342969.800	53951.378	1125718.500	2280.146
3	11:43:05	233476.400	3020.255	178689.590	1326074.500	54242.257	1050750.600	2310.149
x		236962.030	5010.789	177235.230	1343053.900	53486.671	1098810.700	2296.814
σ		3018.662	2150.350	1297.835	17021.635	1066.766	41720.638	15.277
%RSD		1.274	42.914	0.732	1.267	1.994	3.797	0.665

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:42:16	9742.657	1780.089	2530.179	6273.102	1430.057	2010.113	1420.057
2	11:42:40	7681.652	2010.113	2470.171	6559.204	1440.058	2034.116	1380.053
3	11:43:05	7921.757	2390.160	2460.170	6609.223	1440.058	1922.103	1400.055
x		8448.689	2060.121	2486.840	6480.510	1436.725	1988.778	1400.055
σ		1127.022	308.095	37.865	181.353	5.774	58.975	20.002
%RSD		13.340	14.955	1.523	2.798	0.402	2.965	1.429

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:42:16	36.000	338172.050	5520.853	4260.508	4840.656	2490.174	6641.235
2	11:42:40	36.000	334442.800	3870.419	4300.518	4730.627	2850.227	7301.492
3	11:43:05	46.000	346295.530	4190.492	4460.557	5100.728	2510.176	6611.224
x		39.333	339636.800	4527.255	4340.528	4890.670	2616.859	6851.317
σ		5.774	6060.603	875.237	105.856	190.052	202.350	390.152
%RSD		14.678	1.784	19.333	2.439	3.886	7.733	5.695

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:42:16	268046.790	650.012	130.000	20.000	50.000	1000.028	171752.010
2	11:42:40	266179.160	550.008	120.000	110.000	40.000	1070.032	170883.740
3	11:43:05	278200.320	570.009	110.000	20.000	50.000	1090.033	169339.130
x		270808.760	590.010	120.000	50.000	46.667	1053.364	170658.300
σ		6469.036	52.917	10.000	51.962	5.774	47.261	1222.136
%RSD		2.389	8.969	8.333	103.923	12.372	4.487	0.716

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:42:16	751288.560	818654.980	340.003	1060.032	8401.976	522133.460
2	11:42:40	755333.960	817242.430	490.007	1050.031	9292.417	530556.350
3	11:43:05	758587.620	820967.600	350.003	890.022	8391.971	536067.320
x		755070.050	818955.000	393.338	1000.028	8695.455	529585.710
σ		3656.682	1880.621	83.867	95.399	517.009	7017.457
%RSD		0.484	0.230	21.322	9.540	5.946	1.325

14920D MF4N31D 6/28/2011 11:44:58 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:44:58	91061.089	43.200	TM 604007100.000	T 146279930.000	994640.090	T 25849046.000	TM 22824281.000
2	11:45:23	92596.454	42.200	TM 600331530.000	T 144378050.000	940090.930	T 25481687.000	TM 22763663.000
3	11:45:47	92437.634	41.000	TM 597964850.000	T 143849010.000	932592.690	T 25111115.000	TM 22669187.000
x		92031.726	42.133	TM 600767820.000	T 144835660.000	955774.570	T 25480616.000	TM 22752377.000
σ		844.339	1.102	TM 3044660.300	T 1278434.400	33866.686	T 368966.750	TM 78160.287
%RSD		0.917	2.614	TM 0.507	T 0.883	3.543	T 1.448	TM 0.344

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:44:58	238096.810	3050.261	176962.520	1367134.100	57542.563	1041713.500	2880.232
2	11:45:23	240123.680	3210.289	180235.000	1342183.800	55425.884	1059717.900	2440.167
3	11:45:47	242272.410	2770.215	176780.730	1355376.600	52958.412	1009278.100	2460.170
x		240164.300	3010.255	177992.750	1354898.200	55308.953	1036903.200	2593.523
σ		2088.097	222.748	1943.974	12482.006	2294.311	25561.660	248.499
%RSD		0.869	7.400	1.092	0.921	4.148	2.465	9.582

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:44:58	7761.687	1440.058	3030.257	6737.271	1500.063	1994.111	1500.063
2	11:45:23	6991.368	1390.054	2550.182	6743.273	1650.076	2018.114	1430.057
3	11:45:47	7771.691	1620.074	2890.234	6671.246	1490.062	2094.123	1190.040
x		7508.249	1483.395	2823.558	6717.263	1546.734	2035.449	1373.387
σ		447.659	120.979	246.885	39.965	89.637	52.211	162.595
%RSD		5.962	8.156	8.744	0.595	5.795	2.565	11.839

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:44:58	34.000	327648.570	5670.900	3860.417	4970.692	3060.262	7001.372
2	11:45:23	28.000	349435.820	4020.453	4520.572	5460.835	2700.204	7231.464
3	11:45:47	38.000	351546.650	3930.433	4250.506	4530.575	2860.229	6541.198
x		33.333	342877.020	4540.595	4210.498	4987.367	2873.565	6924.678
σ		5.033	13230.381	979.907	331.891	465.354	180.399	351.466
%RSD		15.100	3.859	21.581	7.882	9.331	6.278	5.076

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:44:58	265499.150	470.006	60.000	40.000	10.000	1190.040	175528.470
2	11:45:23	283421.470	600.010	50.000	20.000	30.000	990.027	171822.690
3	11:45:47	272747.160	620.011	50.000	90.000	40.000	960.026	173599.750
x		273889.260	563.342	53.333	50.000	26.667	1046.698	173650.300
σ		9015.579	81.448	5.774	36.056	15.275	125.041	1853.407
%RSD		3.292	14.458	10.825	72.111	57.282	11.946	1.067

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:44:58	734043.100	790142.730	290.002	730.015	8091.833	520023.210
2	11:45:23	761445.480	842244.920	330.003	580.009	7681.652	539055.280
3	11:45:47	760986.520	834891.390	260.002	740.015	8111.842	542105.560
x		752158.370	822426.350	293.336	683.347	7961.776	533728.020
σ		15689.960	28199.156	35.119	89.632	242.801	11966.303
%RSD		2.086	3.429	11.972	13.117	3.050	2.242

14920S MF4N31S 6/28/2011 11:47:41 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:47:41	93159.873	21860.172	TM 591284530.000	T 143113360.000	T 9082869.500	T 25540714.000	TM 22817489.000
2	11:48:06	91053.048	21729.012	TM 602073800.000	T 145184580.000	T 9122078.700	T 25480847.000	TM 23160717.000
3	11:48:30	90936.456	21524.164	TM 605366740.000	T 145553590.000	T 8872897.700	T 25550997.000	TM 23299979.000
x		91716.459	21704.450	TM 599575020.000	T 144617180.000	T 9025948.600	T 25524186.000	TM 23092728.000
σ		1251.392	169.345	TM 7366141.300	T 1315348.000	T 133987.980	T 37883.086	TM 248326.580
%RSD		1.364	0.780	TM 1.229	T 0.910	T 1.484	T 0.148	TM 1.075

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:47:41	237154.390	3180.283	1953145.200	1998383.800	T 3384533.000	T 6414122.700	1935911.400
2	11:48:06	247655.500	3510.345	1951799.300	2077393.500	T 3376998.900	T 6629506.200	1953645.800
3	11:48:30	241400.730	3050.261	1989421.000	2044066.500	T 3418920.800	T 6655247.300	1924667.900
x		242070.210	3246.963	1964788.500	2039947.900	T 3393484.200	T 6566292.100	1938075.000
σ		5282.470	237.179	21342.997	39665.538	T 22348.478	T 132409.560	14609.591
%RSD		2.182	7.305	1.086	1.944	T 0.659	T 2.017	0.754

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:47:41	373046.300	207549.180	392230.870	29692.666	1970.109	3940.435	2350.155
2	11:48:06	368186.990	215998.500	396370.790	29594.503	2050.118	3858.417	2370.157
3	11:48:30	376405.700	216008.620	385731.570	29454.271	2200.136	3856.416	2360.156
x		372546.330	213185.430	391444.410	29580.480	2073.454	3885.089	2360.156
σ		4132.101	4881.141	5363.032	119.814	116.776	47.941	10.001
%RSD		1.109	2.290	1.370	0.405	5.632	1.234	0.424

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:47:41	48.000	345520.740	4450.555	4270.511	4760.635	2320.151	7141.428
2	11:48:06	48.000	348569.130	7031.384	4060.462	4890.670	5150.743	7171.440
3	11:48:30	40.000	344338.220	4050.459	4280.513	5050.714	2920.239	7431.546
x		45.333	346142.700	5177.466	4203.828	4900.673	3463.711	7248.138
σ		4.619	2182.949	1617.955	124.260	145.298	1491.504	159.543
%RSD		10.189	0.631	31.250	2.956	2.965	43.061	2.201

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:47:41	279073.790	7651.639	247422.310	4980.695	74153.646	511450.890	T 4231120.600
2	11:48:06	272198.890	6831.306	244644.420	4840.656	76513.571	518767.460	T 4294773.300
3	11:48:30	279236.300	7291.488	245323.650	5220.763	76634.086	522637.900	T 4175240.600
x		276836.330	7258.145	245796.790	5014.038	75767.101	517618.750	T 4233711.500
σ		4016.962	411.182	1448.122	192.235	1398.591	5681.283	T 59808.442
%RSD		1.451	5.665	0.589	3.834	1.846	1.098	T 1.413

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:47:41	782423.760	847148.910	533924.540	1285438.500	385394.410	535665.530
2	11:48:06	776628.840	828755.240	545094.510	1306519.000	389512.320	538488.560
3	11:48:30	750266.920	830639.850	546011.910	1312870.400	385465.930	539498.360
x		769773.170	835514.670	541676.990	1301609.300	386790.890	537884.150
σ		17139.592	10119.522	6729.471	14359.876	2357.105	1986.613
%RSD		2.227	1.211	1.242	1.103	0.609	0.369

14920A MF4N31A 6/28/2011 11:50:25 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:50:25	212571.740	21.600	88687.689	7771.691	3340.312	125922.420	32379.329
2	11:50:50	184897.810	21.000	91236.481	6431.158	9112.324	122810.860	29003.535
3	11:51:14	201249.180	12.000	74836.486	5002.701	2500.175	127402.870	29233.910
x		199572.910	18.200	84920.218	6401.850	4984.271	125378.720	30205.591
σ		13912.909	5.378	8825.267	1384.728	3599.594	2343.786	1886.033
%RSD		6.971	29.548	10.392	21.630	72.219	1.869	6.244

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:50:25	444196.830	0.000	14355.768	1140.036	670.013	97133.461	50.000
2	11:50:50	435896.000	50.000	13485.090	920.024	680.013	93433.799	10.000
3	11:51:14	469235.140	100.000	12654.482	740.015	610.010	94258.114	20.000
x		449775.990	50.000	13498.447	933.358	653.345	94941.791	26.667
σ		17355.683	50.000	850.722	200.344	37.861	1942.276	20.817
%RSD		3.859	100.000	6.302	21.465	5.795	2.046	78.063

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:50:25	30.000	130.000	90.000	460.006	120.000	684.013	200.001
2	11:50:50	60.000	70.000	730.015	480.006	160.001	858.021	310.003
3	11:51:14	40.000	60.000	130.000	420.005	160.001	812.018	200.001
x		43.333	86.667	316.672	453.339	146.667	784.684	236.668
σ		15.275	37.860	358.524	30.551	23.094	90.167	63.509
%RSD		35.251	43.684	113.216	6.739	15.746	11.491	26.835

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:50:25	212.001	923161.070	90.000	50.000	60.000	60.000	80.000
2	11:50:50	218.001	820172.280	90.000	100.000	70.000	70.000	100.000
3	11:51:14	198.001	898793.990	50.000	20.000	60.000	20.000	100.000
x		209.335	880709.110	76.667	56.667	63.333	50.000	93.334
σ		10.263	53823.509	23.094	40.415	5.774	26.458	11.547
%RSD		4.903	6.111	30.123	71.320	9.116	52.915	12.372

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:50:25	801063.510	970.026	110.000	20.000	10.000	170.001	250.002
2	11:50:50	719415.490	730.015	50.000	0.000	0.000	150.001	190.001
3	11:51:14	789066.690	800.018	30.000	0.000	40.000	170.001	40.000
x		769848.560	833.353	63.333	6.667	16.667	163.334	160.001
σ		44086.300	123.429	41.633	11.547	20.817	11.547	108.167
%RSD		5.727	14.811	65.737	173.205	124.900	7.070	67.604

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:50:25	1758215.800	1883484.400	240.002	520.008	570.009	1434730.700
2	11:50:50	1617644.800	1774339.600	490.007	1010.029	750.016	1322923.200
3	11:51:14	1681794.500	1820960.900	260.002	430.005	680.013	1375523.000
x		1685885.000	1826261.600	330.003	653.347	666.679	1377725.600
σ		70374.693	54765.093	138.927	312.156	90.741	55936.284
%RSD		4.174	2.999	42.099	47.778	13.611	4.060

14912 MF4N01 6/28/2011 11:53:09 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:53:09	104749.830	42.600	TM 622926020.000	T 145783080.000	1052064.700	T 10253966.000	TM 19436634.000
2	11:53:33	101696.260	38.800	TM 619571050.000	T 143948520.000	1017442.400	T 10159642.000	TM 19507874.000
3	11:53:57	101326.670	40.200	TM 626860340.000	T 145483250.000	T 1130666.000	T 9967187.400	TM 19228174.000
x		102590.920	40.533	TM 623119130.000	T 145071620.000	T 1066724.400	T 10126932.000	TM 19390894.000
σ		1878.785	1.922	TM 3648478.600	T 984116.070	T 58017.868	T 146160.540	TM 145351.460
%RSD		1.831	4.741	TM 0.586	T 0.678	T 5.439	T 1.443	TM 0.750

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:53:09	269985.670	3240.294	400624.140	157138.360	303182.080	T 6092222.400	8952.243
2	11:53:33	259633.850	3220.290	398988.120	150753.670	304036.420	T 5914767.400	9442.496
3	11:53:57	263002.610	3310.307	390053.960	157299.770	297162.150	T 6079215.200	8842.189
x		264207.380	3256.964	396555.400	155063.930	301460.210	T 6028735.000	9078.976
σ		5280.023	47.267	5689.531	3733.670	3746.668	T 98912.908	319.590
%RSD		1.998	1.451	1.435	2.408	1.243	T 1.641	3.520

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:53:09	27741.532	4850.659	6101.042	11213.520	1430.057	1476.061	1010.029
2	11:53:33	29003.535	4820.651	6241.090	11229.530	1570.069	1342.050	860.021
3	11:53:57	26910.261	4420.547	6151.059	11295.571	1510.064	1340.050	850.020
x		27885.109	4697.286	6164.397	11246.207	1503.397	1386.054	906.690
σ		1053.997	240.132	70.971	43.494	70.244	77.955	89.634
%RSD		3.780	5.112	1.151	0.387	4.672	5.624	9.886

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:53:09	28.000	359053.820	10753.237	13344.985	14796.127	8852.194	22073.634
2	11:53:33	32.000	357503.170	9822.701	12744.546	14936.244	8071.824	22023.573
3	11:53:57	30.000	351801.600	10663.183	13014.741	14646.004	8732.135	22954.744
x		30.000	356119.530	10413.040	13034.757	14792.792	8552.051	22350.650
σ		2.000	3818.969	513.228	300.719	145.149	420.199	523.759
%RSD		6.667	1.072	4.929	2.307	0.981	4.913	2.343

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:53:09	289599.410	590.010	670.013	70.000	20.000	1120.035	108025.760
2	11:53:33	283756.730	520.008	600.010	110.000	70.000	1090.033	107532.800
3	11:53:57	276433.190	620.011	670.013	40.000	140.001	1490.062	108086.130
x		283263.110	576.676	646.678	73.334	76.667	1233.377	107881.560
σ		6596.973	51.318	40.416	35.119	60.277	222.802	303.541
%RSD		2.329	8.899	6.250	47.889	78.622	18.064	0.281

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:53:09	791783.050	814323.520	440.005	1080.033	14075.545	547991.180
2	11:53:33	774593.220	837457.460	340.003	960.026	13785.319	549382.980
3	11:53:57	787301.270	843554.620	340.003	770.017	13304.955	550537.740
x		784559.180	831778.530	373.337	936.692	13721.940	549303.960
σ		8916.941	15420.828	57.736	156.320	389.185	1275.117
%RSD		1.137	1.854	15.465	16.688	2.836	0.232

14913 MF4N02 6/28/2011 11:55:53 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:55:53	110684.970	39.800	TM 654157860.000	T 169872810.000	860610.230	T 6056750.400	TM 16974033.000
2	11:56:17	107232.000	37.400	TM 649366790.000	T 168505120.000	869631.920	T 5857276.200	TM 16377405.000
3	11:56:41	107657.050	39.600	TM 655579220.000	T 169785780.000	815693.990	T 5971374.400	TM 16567787.000
x		108524.670	38.933	TM 653034620.000	T 169387910.000	848645.380	T 5961800.300	TM 16639742.000
σ		1882.907	1.332	TM 3254965.300	T 765748.800	28891.057	T 100081.180	TM 304752.680
%RSD		1.735	3.420	TM 0.498	T 0.452	3.404	T 1.679	TM 1.831

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:55:53	260313.640	3090.267	459958.410	149190.630	79265.535	T 7808732.400	4770.637
2	11:56:17	266087.820	2900.236	455691.070	151641.140	74856.570	T 7822231.500	4630.600
3	11:56:41	261196.390	2470.171	458563.210	149089.790	78030.112	T 7638983.300	4720.624
x		262532.620	2820.225	458070.890	149973.850	77384.072	T 7756649.100	4707.287
σ		3110.369	317.697	2175.850	1444.793	2274.372	T 102124.820	70.965
%RSD		1.185	11.265	0.475	0.963	2.939	T 1.317	1.508

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:55:53	20491.751	8311.934	2110.125	14423.823	1630.074	1444.058	790.017
2	11:56:17	20001.195	8622.081	1980.110	14772.107	1580.070	1492.062	1060.032
3	11:56:41	19670.828	8261.911	2030.115	14708.055	1760.087	1584.070	910.023
x		20054.591	8398.642	2040.117	14634.662	1656.744	1506.730	920.024
σ		413.058	195.114	65.582	185.379	92.924	71.149	135.285
%RSD		2.060	2.323	3.215	1.267	5.609	4.722	14.704

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:55:53	46.000	347631.110	7551.596	9762.668	11133.470	5890.972	15176.446
2	11:56:17	24.000	340261.180	7511.580	9332.438	9512.533	5930.985	15987.153
3	11:56:41	34.000	340801.340	7441.550	9552.554	10513.094	5330.796	15716.914
x		34.667	342897.880	7501.575	9549.220	10386.365	5717.584	15626.838
σ		11.015	4107.988	55.701	215.134	817.865	335.566	412.791
%RSD		31.774	1.198	0.743	2.253	7.874	5.869	2.642

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:55:53	283970.080	600.010	220.001	20.000	10.000	1100.034	107593.160
2	11:56:17	270665.850	590.010	240.002	50.000	0.000	1080.033	109907.190
3	11:56:41	274087.450	630.011	230.001	40.000	50.000	1000.028	107472.440
x		276241.130	606.677	230.001	36.667	20.000	1060.032	108324.260
σ		6908.645	20.817	10.000	15.275	26.458	52.918	1372.183
%RSD		2.501	3.431	4.348	41.660	132.288	4.992	1.267

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:55:53	790080.050	834985.650	260.002	650.012	5030.709	546599.480
2	11:56:17	762603.350	818665.440	260.002	580.009	5080.723	530855.030
3	11:56:41	774259.190	820768.770	180.001	560.009	4970.692	543249.550
x		775647.530	824806.620	233.335	596.677	5027.374	540234.690
σ		13790.861	8877.808	46.189	47.260	55.091	8293.914
%RSD		1.778	1.076	19.795	7.920	1.096	1.535

14914 MF4N03 6/28/2011 11:58:37 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	11:58:37	110329.280	27.800	TM 877025060.000	T 184298040.000	628530.100	T 10915271.000	TM 22276985.000
2	11:59:02	104027.630	29.600	TM 898142860.000	T 189972930.000	632268.670	T 10885906.000	TM 22482381.000
3	11:59:26	108892.000	37.200	TM 877865760.000	T 184982200.000	644960.670	T 10685641.000	TM 21912257.000
x		107749.640	31.533	TM 884344560.000	T 186417720.000	635253.150	T 10828939.000	TM 22223874.000
σ		3302.492	4.989	TM 11957071.000	T 3097844.200	8612.274	T 124965.670	TM 288748.440
%RSD		3.065	15.822	TM 1.352	T 1.662	1.356	T 1.154	TM 1.299

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	11:58:37	252583.820	2310.149	383402.210	14465.857	49307.982	547248.930	2420.164
2	11:59:02	252675.090	2520.178	382145.700	15666.870	48626.116	600685.950	2660.198
3	11:59:26	262160.360	1980.110	374628.920	15116.395	48395.491	591000.690	2420.164
x		255806.420	2270.146	380058.940	15083.041	48776.530	579645.190	2500.175
σ		5502.862	272.247	4744.320	601.201	474.477	28470.850	138.584
%RSD		2.151	11.993	1.248	3.986	0.973	4.912	5.543

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	11:58:37	5490.844	1730.084	3350.314	11073.432	1540.066	1846.095	1580.070
2	11:59:02	5170.749	1540.066	3440.331	11073.432	1780.089	1960.108	1590.071
3	11:59:26	5160.746	1690.080	3300.305	11077.435	1940.105	1886.100	1570.069
x		5274.113	1653.410	3363.650	11074.766	1753.420	1897.434	1580.070
σ		187.761	100.176	70.959	2.311	201.348	57.845	10.001
%RSD		3.560	6.059	2.110	0.021	11.483	3.049	0.633

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	11:58:37	40.000	352454.280	4690.616	6581.213	7341.509	4240.503	10453.059
2	11:59:02	30.000	337581.030	5290.784	6241.090	7201.452	4030.455	10042.823
3	11:59:26	32.000	366502.880	5090.726	6011.012	7071.400	3940.435	10172.897
x		34.000	352179.400	5024.042	6277.772	7204.787	4070.464	10222.926
σ		5.292	14462.884	305.590	286.865	135.085	153.983	209.644
%RSD		15.563	4.107	6.083	4.570	1.875	3.783	2.051

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	11:58:37	285585.540	570.009	90.000	30.000	80.000	540.008	80842.581
2	11:59:02	258974.380	460.006	90.000	50.000	130.000	630.011	83876.526
3	11:59:26	287333.240	660.012	230.001	70.000	140.001	680.013	82680.970
x		277297.720	563.342	136.667	50.000	116.667	616.677	82466.692
σ		15892.522	100.170	80.830	20.000	32.146	70.948	1528.281
%RSD		5.731	17.781	59.143	40.000	27.553	11.505	1.853

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	11:58:37	753978.440	833697.510	270.002	610.010	7791.700	527003.430
2	11:59:02	730616.790	795398.520	220.001	690.013	7421.542	505227.440
3	11:59:26	779980.270	845912.310	320.003	610.010	7571.605	538797.680
x		754858.500	825002.780	270.002	636.678	7594.949	523676.180
σ		24693.503	26355.446	50.001	46.190	186.180	17030.654
%RSD		3.271	3.195	18.519	7.255	2.451	3.252

14915 MF4N04 6/28/2011 12:01:22 PM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:01:22	105661.180	34.400	TM 814782220.000	T 186252940.000	365278.160	T 14347613.000	TM 21132909.000
2	12:01:46	103907.430	33.200	TM 810348410.000	T 184685330.000	362543.270	T 13964681.000	TM 21098080.000
3	12:02:10	100887.690	31.000	TM 829040540.000	T 191735560.000	378621.820	T 14302824.000	TM 21489363.000
x		103485.430	32.867	TM 818057060.000	T 187557950.000	368814.420	T 14205039.000	TM 21240117.000
σ		2414.562	1.724	TM 9766898.900	T 3701852.600	8602.834	T 209357.180	TM 216554.580
%RSD		2.333	5.246	TM 1.194	T 1.974	2.333	T 1.474	TM 1.020

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:01:22	258619.290	2130.127	324695.360	10673.189	2760.213	201520.720	1160.038
2	12:01:46	252837.370	1790.090	319095.770	10813.273	2410.163	201975.820	1150.037
3	12:02:10	248831.690	1790.090	329278.140	11123.463	2830.224	205222.520	1310.048
x		253429.450	1903.436	324356.420	10869.975	2666.867	202906.350	1206.708
σ		4920.589	196.321	5099.639	230.430	225.051	2018.726	89.635
%RSD		1.942	10.314	1.572	2.120	8.439	0.995	7.428

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:01:22	2750.212	1440.058	870.021	10046.825	1960.108	1770.088	1360.052
2	12:01:46	2930.240	1210.041	670.013	9946.770	1880.099	1740.085	1240.043
3	12:02:10	3000.252	1050.031	1110.035	10463.064	2240.141	1928.104	1530.066
x		2893.568	1233.377	883.356	10152.220	2026.782	1812.759	1376.720
σ		128.991	196.058	220.314	273.808	189.055	101.012	145.728
%RSD		4.458	15.896	24.941	2.697	9.328	5.572	10.585

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:01:22	28.000	355228.450	3050.261	3070.264	3510.345	1810.092	4870.664
2	12:01:46	24.000	358400.900	2810.221	2940.242	3220.290	2200.136	4980.695
3	12:02:10	30.000	335726.550	3000.252	3140.276	3560.355	2010.113	5320.793
x		27.333	349785.300	2953.578	3050.261	3430.330	2006.780	5057.384
σ		3.055	12278.125	126.644	101.506	183.610	195.043	234.659
%RSD		11.177	3.510	4.288	3.328	5.353	9.719	4.640

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:01:22	281572.560	600.010	110.000	30.000	90.000	470.006	97284.279
2	12:01:46	283959.920	530.008	60.000	10.000	30.000	540.008	97254.115
3	12:02:10	269173.550	550.008	50.000	30.000	50.000	480.006	97545.699
x		278235.340	560.009	73.334	23.333	56.667	496.674	97361.364
σ		7938.009	36.057	32.146	11.547	30.551	37.860	160.349
%RSD		2.853	6.439	43.835	49.487	53.913	7.623	0.165

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:01:22	786559.640	839479.140	180.001	370.004	2230.139	537581.840
2	12:01:46	784721.350	832200.030	130.000	290.002	2160.131	532791.440
3	12:02:10	746806.300	793736.990	160.001	480.006	1990.111	518520.440
x		772695.760	821805.380	156.667	380.004	2126.794	529631.240
σ		22439.767	24578.907	25.166	95.396	123.438	9915.865
%RSD		2.904	2.991	16.064	25.104	5.804	1.872

14916 MF4N11 6/28/2011 12:04:07 PM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:04:07	110710.630	29.200	TM 637408320.000	T 177945370.000	519673.240	T 8527957.200	TM 19309015.000
2	12:04:31	108374.370	26.400	TM 635985730.000	T 177505160.000	507716.560	T 8490336.400	TM 19140797.000
3	12:04:56	108100.710	24.800	TM 633623550.000	T 177492520.000	500620.380	T 8469276.600	TM 18905476.000
x		109061.900	26.800	TM 635672530.000	T 177647680.000	509336.720	T 8495856.700	TM 19118429.000
σ		1434.381	2.227	TM 1911727.000	T 257880.210	9629.204	T 29727.209	TM 202697.400
%RSD		1.315	8.310	TM 0.301	T 0.145	1.891	T 0.350	TM 1.060

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:04:07	270726.760	2320.151	407046.960	30115.373	13354.992	376865.240	1240.043
2	12:04:31	266331.410	2400.161	401912.610	30506.035	12684.504	377273.730	1270.045
3	12:04:56	263154.830	2270.144	405819.500	30055.272	13354.992	366278.340	1170.038
x		266737.670	2330.152	404926.360	30225.560	13131.496	373472.440	1226.709
σ		3802.280	65.583	2681.168	244.750	387.107	6233.619	51.320
%RSD		1.425	2.815	0.662	0.810	2.948	1.669	4.184

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:04:07	3290.303	1440.058	1440.058	11970.011	1660.077	1586.070	1250.044
2	12:04:31	3340.312	1390.054	1570.069	12102.100	1890.100	1624.074	1240.043
3	12:04:56	2920.239	1290.047	1560.068	12058.070	1660.077	1508.064	1220.042
x		3183.618	1373.386	1523.398	12043.393	1736.751	1572.736	1236.710
σ		229.460	76.382	72.348	67.256	132.804	59.143	15.276
%RSD		7.208	5.562	4.749	0.558	7.647	3.761	1.235

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:04:07	32.000	343155.790	6831.306	9082.309	9332.438	5490.844	14866.186
2	12:04:31	26.000	349078.940	6451.165	8592.067	10363.006	5910.978	13465.075
3	12:04:56	38.000	345979.490	6751.276	9002.269	9342.443	5430.826	14415.816
x		32.000	346071.410	6677.916	8892.215	9679.296	5610.883	14249.026
σ		6.000	2962.649	200.407	262.999	592.132	261.617	715.292
%RSD		18.750	0.856	3.001	2.958	6.118	4.663	5.020

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:04:07	276026.980	570.009	140.001	40.000	70.000	910.023	78843.674
2	12:04:31	275570.010	700.014	200.001	30.000	80.000	1000.028	78241.032
3	12:04:56	272838.540	540.008	100.000	60.000	60.000	1220.042	77045.852
x		274811.840	603.344	146.667	43.333	70.000	1043.364	78043.519
σ		1724.137	85.052	50.333	15.275	10.000	159.488	915.041
%RSD		0.627	14.097	34.318	35.251	14.286	15.286	1.172

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:04:07	787405.730	836975.640	450.006	710.014	4460.557	542445.660
2	12:04:31	775344.810	829069.330	320.003	800.018	3410.326	537437.600
3	12:04:56	779353.790	816489.120	290.002	660.012	3150.278	545362.510
x		780701.440	827511.360	353.337	723.348	3673.720	541748.590
σ		6142.360	10331.737	85.051	70.949	693.715	4008.179
%RSD		0.787	1.249	24.071	9.808	18.883	0.740

14917 MF4N17 6/28/2011 12:06:51 PM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:06:51	111615.240	27.000	TM 910420380.000	T 158621610.000	521454.040	T 8267182.300	TM 16135752.000
2	12:07:15	109346.770	20.000	TM 914950810.000	T 158754190.000	533388.880	T 8282112.000	TM 15980454.000
3	12:07:39	109005.190	23.600	TM 910819790.000	T 158836970.000	512171.100	T 8171078.700	TM 16052000.000
x		109989.060	23.533	TM 912063660.000	T 158737590.000	522338.000	T 8240124.300	TM 16056069.000
σ		1418.625	3.500	TM 2508307.800	T 108635.200	10636.478	T 60259.409	TM 77728.790
%RSD		1.290	14.875	TM 0.275	T 0.068	2.036	T 0.731	TM 0.484

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:06:51	262962.020	2780.216	447938.580	155796.680	7691.656	336653.770	1160.038
2	12:07:15	266148.710	2510.176	449507.270	157027.390	7891.743	317762.310	1020.029
3	12:07:39	264037.720	2570.185	449394.480	158439.780	7461.559	329655.000	870.021
x		264382.820	2620.193	448946.780	157087.950	7681.653	328023.690	1016.696
σ		1621.132	141.796	874.943	1322.592	215.267	9550.795	145.037
%RSD		0.613	5.412	0.195	0.842	2.802	2.912	14.266

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:06:51	2340.153	1250.044	1090.033	12762.559	1980.110	1848.096	1210.041
2	12:07:15	2530.179	1390.054	960.026	13515.112	1870.098	1764.087	1410.056
3	12:07:39	2440.167	1750.086	1150.037	13793.325	1800.091	1956.107	1520.065
x		2436.833	1463.395	1066.699	13356.999	1883.433	1856.097	1380.054
σ		95.057	257.962	97.131	533.263	90.747	96.260	157.174
%RSD		3.901	17.628	9.106	3.992	4.818	5.186	11.389

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:06:51	24.000	347549.540	6151.059	8171.869	8772.154	5420.823	14375.784
2	12:07:15	38.000	346754.310	6411.151	8031.806	9552.554	5260.775	13715.265
3	12:07:39	40.000	343971.250	5991.005	8762.149	8892.213	5530.856	14165.616
x		34.000	346091.700	6184.405	8321.942	9072.307	5404.151	14085.555
σ		8.718	1878.917	212.049	387.610	420.216	135.810	337.459
%RSD		25.641	0.543	3.429	4.658	4.632	2.513	2.396

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:06:51	276077.760	340.003	60.000	60.000	30.000	850.020	62509.216
2	12:07:15	276605.840	540.008	70.000	30.000	60.000	1110.035	63021.010
3	12:07:39	274686.550	600.010	50.000	30.000	20.000	1040.030	60853.512
x		275790.050	493.340	60.000	40.000	36.667	1000.028	62127.913
σ		991.463	136.141	10.000	17.321	20.817	134.544	1132.942
%RSD		0.359	27.596	16.667	43.301	56.773	13.454	1.824

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:06:51	765597.470	824253.920	120.000	410.005	3460.335	525129.420
2	12:07:15	769051.230	819010.750	150.001	400.004	2780.216	535119.520
3	12:07:39	756512.300	809752.540	200.001	490.007	3230.292	532379.420
x		763720.340	817672.400	156.667	433.339	3156.948	530876.120
σ		6476.797	7342.743	40.415	49.330	345.941	5161.924
%RSD		0.848	0.898	25.797	11.384	10.958	0.972

14918 MF4N29 6/28/2011 12:09:32 PM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:09:32	98671.861	48.000	TM 1365143900.000	T 155644480.000	T 1996782.800	TM 100122140.000	TM 25785306.000
2	12:09:56	96440.219	44.200	TM 1377930500.000	T 157154600.000	T 1987543.900	TM 100512630.000	TM 26530439.000
3	12:10:21	96356.267	44.800	TM 1378938500.000	T 156568550.000	T 2181877.100	TM 99089073.000	TM 26382699.000
x		97156.116	45.667	TM 1374004300.000	T 156455870.000	T 2055401.300	TM 99907948.000	TM 26232815.000
σ		1313.345	2.043	TM 7689869.500	T 761340.870	T 109628.650	TM 735552.870	TM 394531.250
%RSD		1.352	4.473	TM 0.560	T 0.487	T 5.334	TM 0.736	TM 1.504

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:09:32	240093.280	5060.717	168016.730	342707.300	176881.720	T 3399354.400	8161.865
2	12:09:56	228725.510	3130.274	170863.550	338457.380	181679.530	T 3381865.800	8141.856
3	12:10:21	239971.660	5620.885	168117.670	342523.830	179214.810	T 3534399.500	7821.713
x		236263.480	4603.959	168999.320	341229.500	179258.690	T 3438539.900	8041.811
σ		6528.358	1306.620	1615.262	2402.477	2399.205	T 83476.113	190.873
%RSD		2.763	28.380	0.956	0.704	1.338	T 2.428	2.374

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:09:32	36477.218	5900.975	7361.517	6785.289	1770.088	2896.235	2090.122
2	12:09:56	38341.117	5260.775	6461.169	6885.327	2080.121	2928.240	1960.108
3	12:10:21	36407.076	5720.916	6441.162	7163.437	2130.127	2818.222	2160.131
x		37075.137	5627.555	6754.616	6944.684	1993.445	2880.899	2070.120
σ		1096.932	330.153	525.687	195.937	195.043	56.589	101.501
%RSD		2.959	5.867	7.783	2.821	9.784	1.964	4.903

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:09:32	38.000	340648.460	14736.078	22884.654	28142.158	15366.609	41197.468
2	12:09:56	32.000	336939.070	16027.189	23535.500	25858.709	14956.261	40525.934
3	12:10:21	62.000	348120.500	16427.553	24667.025	26069.015	15746.940	39724.135
x		44.000	341902.680	15730.273	23695.726	26689.961	15356.603	40482.512
σ		15.875	5695.253	883.963	901.923	1262.028	395.435	737.625
%RSD		36.078	1.666	5.620	3.806	4.728	2.575	1.822

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:09:32	261977.710	590.010	180.001	50.000	120.000	4980.695	131129.700
2	12:09:56	265346.910	610.010	130.000	30.000	90.000	5110.731	129105.030
3	12:10:21	267569.710	740.015	150.001	70.000	90.000	5580.872	133688.570
x		264964.780	646.679	153.334	50.000	100.000	5224.099	131307.760
σ		2815.518	81.448	25.166	20.000	17.321	315.741	2296.953
%RSD		1.063	12.595	16.413	40.000	17.321	6.044	1.749

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:09:32	757951.440	784470.690	410.005	1150.037	13915.420	499067.810
2	12:09:56	736334.610	811656.100	510.007	1180.039	13955.451	503026.600
3	12:10:21	764637.630	806887.110	580.009	1070.032	14555.930	506081.110
x		752974.560	801004.630	500.007	1133.369	14142.267	502725.170
σ		14793.320	14516.000	85.442	56.866	358.802	3516.350
%RSD		1.965	1.812	17.088	5.017	2.537	0.699

14919 MF4N30 6/28/2011 12:12:14 PM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:12:14	99897.648	73.800	TM 594372270.000	T 111897530.000	T 1540198.900	T 35935028.000	TM 14754260.000
2	12:12:38	98173.123	77.000	TM 601073160.000	T 112211120.000	T 1473272.900	T 36244349.000	TM 14874219.000
3	12:13:03	97813.156	65.600	TM 604553710.000	T 112206110.000	T 1483413.200	T 35842929.000	TM 14820649.000
x		98627.976	72.133	TM 599999710.000	T 112104920.000	T 1498961.700	T 36007436.000	TM 14816376.000
σ		1114.201	5.880	TM 5174904.200	T 179620.930	T 36070.593	T 210277.620	TM 60093.396
%RSD		1.130	8.151	TM 0.862	T 0.160	T 2.406	T 0.584	TM 0.406

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:12:14	243367.150	3820.409	159489.060	72386.417	162929.920	T 1885330.000	3770.398
2	12:12:38	246327.320	11954.000	161406.170	70518.967	162879.460	T 1899430.300	3690.381
3	12:13:03	244218.650	2670.200	160104.530	72125.364	162506.080	T 1953426.400	3410.326
x		244637.710	6148.203	160333.260	71676.916	162771.820	T 1912728.900	3623.702
σ		1523.930	5060.752	978.807	1011.272	231.515	T 35943.293	189.071
%RSD		0.623	82.313	0.610	1.411	0.142	T 1.879	5.218

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:12:14	17388.462	2190.134	6001.008	6303.112	1680.079	1850.096	1440.058
2	12:12:38	18849.944	2690.203	5770.932	6855.316	2070.120	2026.115	1210.041
3	12:13:03	17448.520	2280.146	6201.077	6539.197	1630.074	1932.105	1090.033
x		17895.642	2386.828	5991.006	6565.875	1793.425	1936.105	1246.711
σ		826.995	266.557	215.246	277.067	240.926	88.078	177.870
%RSD		4.621	11.168	3.593	4.220	13.434	4.549	14.267

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:12:14	22.000	370575.650	10443.053	14696.045	15616.826	9542.549	25077.596
2	12:12:38	28.000	366084.420	10322.983	13945.443	16017.180	9252.396	23936.031
3	12:13:03	32.000	372505.180	10793.261	13955.451	15796.984	9372.459	23895.978
x		27.333	369721.750	10519.766	14198.980	15810.330	9389.135	24303.202
σ		5.033	3294.446	244.344	430.500	200.511	145.793	670.944
%RSD		18.414	0.891	2.323	3.032	1.268	1.553	2.761

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:12:14	298555.090	560.009	80.000	70.000	50.000	2110.125	109534.910
2	12:12:38	294915.360	440.005	80.000	60.000	50.000	1910.102	108730.020
3	12:13:03	296216.630	610.010	70.000	60.000	20.000	2140.128	110289.540
x		296562.360	536.675	76.667	63.333	40.000	2053.452	109518.160
σ		1844.334	87.371	5.774	5.774	17.321	125.047	779.895
%RSD		0.622	16.280	7.531	9.116	43.301	6.090	0.712

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:12:14	812315.070	850670.540	470.006	830.019	12094.094	562832.230
2	12:12:38	784366.250	849161.190	290.002	970.026	12864.632	554311.840
3	12:13:03	805715.960	863914.170	330.003	960.026	12864.632	564617.270
x		800799.100	854581.970	363.337	920.024	12607.786	560587.110
σ		14608.761	8117.081	94.518	78.106	444.870	5507.352
%RSD		1.824	0.950	26.014	8.490	3.529	0.982

14921 MF4N32 6/28/2011 12:14:56 PM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:14:56	93553.925	57.200	TM 1303373500.000	T 93514803.000	T 1556558.600	T 25267185.000	T 12901207.000
2	12:15:20	91361.116	54.600	TM 1298525800.000	T 93768387.000	T 1374709.200	T 25687242.000	TM 12648063.000
3	12:15:45	90953.040	47.200	TM 1300280600.000	T 93976597.000	T 1487424.300	T 25076955.000	TM 12855041.000
x		91956.027	53.000	TM 1300726600.000	T 93753263.000	T 1472897.400	T 25343794.000	TM 12801437.000
σ		1398.782	5.188	TM 2454446.200	T 231268.180	T 91790.919	T 312273.000	TM 134816.740
%RSD		1.521	9.790	TM 0.189	T 0.247	T 6.232	T 1.232	TM 1.053

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:14:56	240954.760	6821.303	118260.300	485953.460	403589.810	1529404.700	6621.227
2	12:15:20	230082.780	4500.567	118461.630	478947.960	399243.740	T 1626880.700	6691.253
3	12:15:45	233385.220	3210.289	122901.480	477900.450	406770.780	1523120.100	5700.910
x		234807.590	4844.053	119874.470	480933.950	403201.440	T 1559801.900	6337.797
σ		5573.810	1829.848	2623.401	4378.458	3778.519	T 58176.941	552.671
%RSD		2.374	37.775	2.188	0.910	0.937	T 3.730	8.720

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:14:56	16797.897	1980.110	4650.606	7065.398	1640.075	2344.154	1580.070
2	12:15:20	16227.370	2290.147	4840.656	7315.498	1690.080	2300.148	1600.072
3	12:15:45	15636.843	1950.107	5010.703	7465.560	1520.065	2316.150	1550.067
x		16220.703	2073.454	4833.988	7282.152	1616.740	2320.151	1576.736
σ		580.556	188.260	180.141	202.155	87.377	22.274	25.168
%RSD		3.579	9.080	3.727	2.776	5.405	0.960	1.596

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:14:56	30.000	345163.940	26239.264	41939.191	47222.356	28122.126	70689.640
2	12:15:20	32.000	339211.490	26599.797	43001.714	45718.450	27491.145	72235.809
3	12:15:45	56.000	346448.460	25548.263	40094.962	47092.013	27170.655	68952.869
x		39.333	343607.960	26129.108	41678.623	46677.606	27594.642	70626.106
σ		14.468	3861.244	534.352	1470.790	833.206	484.106	1642.392
%RSD		36.784	1.124	2.045	3.529	1.785	1.754	2.325

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:14:56	272757.310	670.013	150.001	110.000	80.000	4370.535	104233.320
2	12:15:20	268879.160	520.008	110.000	130.000	90.000	4470.560	103921.510
3	12:15:45	276179.310	600.010	180.001	10.000	50.000	4380.537	100683.040
x		272605.260	596.677	146.667	83.334	73.333	4407.211	102945.960
σ		3652.449	75.058	35.119	64.291	20.817	55.089	1965.937
%RSD		1.340	12.579	23.945	77.149	28.386	1.250	1.910

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:14:56	752226.850	813633.090	530.008	1120.035	9002.269	509393.310
2	12:15:20	766421.720	804659.910	630.011	1250.044	9672.619	515587.320
3	12:15:45	740991.420	811635.180	480.006	1340.050	9202.371	508344.040
x		753213.330	809976.060	546.675	1236.710	9292.419	511108.230
σ		12743.819	4711.053	76.379	110.612	344.128	3914.331
%RSD		1.692	0.582	13.971	8.944	3.703	0.766

14922 MF4N53 6/28/2011 12:17:39 PM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:17:39	100322.020	112.800	TM 880820750.000	T 161146610.000	T 4912637.300	T 21798755.000	TM 24601192.000
2	12:18:03	98109.776	119.000	TM 875700270.000	T 160990690.000	T 4938686.600	T 21523989.000	TM 24686680.000
3	12:18:27	96384.921	114.800	TM 875621510.000	T 161525920.000	T 4682294.800	T 21557853.000	TM 24347895.000
x		98272.238	115.534	TM 877380840.000	T 161221070.000	T 4844539.600	T 21626866.000	TM 24545255.000
σ		1973.569	3.164	TM 2979309.100	T 275276.250	T 141110.500	T 149820.060	TM 176183.160
%RSD		2.008	2.739	TM 0.340	T 0.171	T 2.913	T 0.693	TM 0.718

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:17:39	252695.380	14345.760	235948.580	14856.177	479348.490	T 4098790.700	6541.198
2	12:18:03	255129.620	17908.976	236161.360	15877.055	483590.600	T 4360027.300	6301.112
3	12:18:27	247543.970	13084.792	234195.730	15927.100	482450.370	T 4006975.300	6511.187
x		251789.660	15113.176	235435.220	15553.444	481796.490	T 4155264.400	6451.165
σ		3873.082	2501.976	1078.693	604.369	2195.344	T 183175.810	130.814
%RSD		1.538	16.555	0.458	3.886	0.456	T 4.408	2.028

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:17:39	4400.542	2420.164	19911.094	7417.540	2040.117	1806.091	1540.066
2	12:18:03	4500.567	2650.197	20752.051	7445.552	1930.104	1852.096	1200.040
3	12:18:27	4200.494	2640.195	19490.631	7599.617	1860.097	1886.100	1220.042
x		4367.201	2570.185	20051.259	7487.570	1943.439	1848.096	1320.050
σ		152.790	130.018	642.285	98.041	90.748	40.154	190.803
%RSD		3.499	5.059	3.203	1.309	4.669	2.173	14.454

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:17:39	60.000	364829.120	7621.626	2550.182	3650.373	1560.068	3890.424
2	12:18:03	56.000	364053.530	8602.071	2350.155	3690.381	1640.075	3860.417
3	12:18:27	50.000	353555.740	7241.468	2590.188	3780.400	1750.086	3440.331
x		55.333	360812.800	7821.722	2496.842	3707.052	1650.076	3730.391
σ		5.033	6296.752	702.025	128.600	66.597	95.403	251.646
%RSD		9.096	1.745	8.975	5.150	1.796	5.782	6.746

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:17:39	286144.380	680.013	120.000	80.000	20.000	670.013	123988.960
2	12:18:03	283512.900	880.022	110.000	100.000	50.000	780.017	125519.600
3	12:18:27	277621.420	700.014	90.000	60.000	50.000	590.010	123596.250
x		282426.230	753.349	106.667	80.000	40.000	680.013	124368.270
σ		4364.156	110.156	15.275	20.000	17.321	95.398	1016.229
%RSD		1.545	14.622	14.321	25.000	43.301	14.029	0.817

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:17:39	775376.120	846079.980	250.002	820.019	32930.335	522854.090
2	12:18:03	757398.720	821407.140	340.003	720.015	33691.754	516143.040
3	12:18:27	736803.360	816457.730	370.004	870.021	33401.209	503849.310
x		756526.070	827981.620	320.003	803.352	33341.099	514282.150
σ		19301.182	15867.806	62.451	76.380	384.252	9638.083
%RSD		2.551	1.916	19.516	9.508	1.152	1.874

14923 MF4N54 6/28/2011 12:20:21 PM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:20:21	100209.390	256.802	TM 702416440.000	T 94449107.000	T 9932897.100	T 29742626.000	T 9530871.900
2	12:20:46	98093.186	249.802	TM 702349880.000	T 94559694.000	T 10654481.000	T 28988529.000	T 9383234.300
3	12:21:10	96933.378	242.002	TM 701392010.000	T 94238581.000	T 10275369.000	T 29423566.000	T 9451205.800
x		98411.984	249.535	TM 702052770.000	T 94415794.000	T 10287582.000	T 29384907.000	T 9455104.000
σ		1661.109	7.404	TM 573208.630	T 163128.140	T 360946.880	T 378531.850	T 73895.949
%RSD		1.688	2.967	TM 0.082	T 0.173	T 3.509	T 1.288	T 0.782

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:20:21	235127.860	28743.114	144754.340	59087.596	1226191.900	T 5354857.600	24927.386
2	12:20:46	237985.340	25197.765	148363.780	60281.577	1195395.300	T 5277962.200	24977.456
3	12:21:10	228796.410	32760.023	149200.710	61756.604	1195235.100	T 5504768.000	25558.277
x		233969.870	28900.301	147439.610	60375.259	1205607.400	T 5379196.000	25154.373
σ		4702.640	3783.578	2362.864	1336.968	17826.827	T 115345.070	350.686
%RSD		2.010	13.092	1.603	2.214	1.479	T 2.144	1.394

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:20:21	16057.216	6291.108	8932.233	4790.642	1740.085	2284.146	1380.053
2	12:20:46	15877.055	5880.968	8622.081	4774.638	1730.084	2286.146	1020.029
3	12:21:10	16667.775	5960.995	8802.169	4610.595	1600.072	2330.152	1100.034
x		16200.682	6044.357	8785.494	4725.292	1690.080	2300.148	1166.705
σ		414.423	217.407	155.747	99.652	78.110	26.003	189.045
%RSD		2.558	3.597	1.773	2.109	4.622	1.131	16.203

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:20:21	48.000	366798.86024246.450		11673.815	15666.870	7591.613	19790.961
2	12:20:46	38.000	354432.87021522.963		11883.953	16177.324	7441.550	19810.983
3	12:21:10	62.000	358798.77023545.513		12194.162	15716.914	7311.497	20752.051
x		49.333	360010.170	23104.975	11917.310	15853.703	7448.220	20117.998
σ		12.055	6271.368	1414.178	261.773	281.380	140.177	549.197
%RSD		24.437	1.742	6.121	2.197	1.775	1.882	2.730

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:20:21	288176.670	970.026	300.003	190.001	50.000	1390.054	131300.950
2	12:20:46	283441.790	950.025	260.002	120.000	30.000	1450.059	135381.250
3	12:21:10	286235.830	1180.039	470.006	150.001	40.000	1600.072	131190.140
x		285951.430	1033.364	343.337	153.334	40.000	1480.062	132624.110
σ		2380.219	127.418	111.507	35.119	10.000	108.176	2388.392
%RSD		0.832	12.330	32.477	22.904	25.000	7.309	1.801

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:20:21	777307.430	829435.770	700.014	1400.055	62990.904	541683.030
2	12:20:46	785285.350	835425.520	640.011	1660.077	59529.059	547053.060
3	12:21:10	767277.320	818843.330	840.020	1440.058	54262.318	536736.990
x		776623.360	827901.540	726.682	1500.063	58927.427	541824.360
σ		9023.486	8396.887	102.636	140.012	4395.284	5159.487
%RSD		1.162	1.014	14.124	9.334	7.459	0.952

14924 MF4N67 6/28/2011 12:23:04 PM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:23:04	90770.113	58.000	TM 1275623900.000	T 91458918.000	T 3751730.700	T 25425676.000	TM 12564975.000
2	12:23:28	89247.467	52.600	TM 1268701600.000	T 92016215.000	T 3897931.300	T 24706679.000	TM 12489599.000
3	12:23:53	88952.501	61.200	TM 1269133500.000	T 92061241.000	T 3915147.300	T 24821865.000	T 12510741.000
x		89656.694	57.267	TM 1271153000.000	T 91845458.000	T 3854936.400	T 24984740.000	TM 12521771.000
σ		975.463	4.347	TM 3877893.400	T 335509.280	T 89792.332	T 386180.620	TM 38880.024
%RSD		1.088	7.590	TM 0.305	T 0.365	T 2.329	T 1.546	TM 0.310

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:23:04	226183.440	8682.110	126607.240	470302.670	414249.790	T 2882455.800	5981.002
2	12:23:28	227459.490	7751.682	128964.010	478136.640	412919.500	T 3027775.500	5530.856
3	12:23:53	231744.050	6781.287	128480.550	485316.480	409451.000	T 3119098.900	5130.737
x		228462.330	7738.360	128017.270	477918.600	412206.760	T 3009776.700	5547.532
σ		2912.796	950.481	1244.817	7509.279	2477.519	T 119343.880	425.377
%RSD		1.275	12.283	0.972	1.571	0.601	T 3.965	7.668

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:23:04	10262.948	2220.138	5170.749	7261.476	1790.090	2284.146	1380.053
2	12:23:28	10513.094	2050.118	5070.720	7465.560	1620.074	2294.147	1490.062
3	12:23:53	10663.183	2530.179	4960.689	7199.451	1880.099	2258.143	1430.057
x		10479.742	2266.812	5067.386	7308.829	1763.421	2278.812	1433.391
σ		202.191	243.410	105.069	139.231	132.048	18.586	55.080
%RSD		1.929	10.738	2.073	1.905	7.488	0.816	3.843

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:23:04	44.000	343512.550	25357.992	37629.606	42380.231	24566.887	63924.212
2	12:23:28	54.000	342686.910	24106.260	38321.074	43292.415	24717.094	64747.169
3	12:23:53	54.000	338009.010	26489.633	37579.501	41468.093	25748.550	65168.698
x		50.667	341402.820	25317.962	37843.394	42380.246	25010.844	64613.360
σ		5.774	2967.978	1192.191	414.441	912.161	643.272	632.942
%RSD		11.395	0.869	4.709	1.095	2.152	2.572	0.980

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:23:04	270412.050	430.005	260.002	170.001	110.000	4170.487	107230.990
2	12:23:28	267600.160	580.009	210.001	100.000	90.000	4300.518	105400.140
3	12:23:53	266453.200	640.011	250.002	90.000	80.000	4300.518	107301.410
x		268155.140	550.009	240.002	120.000	93.334	4257.174	106644.180
σ		2036.937	108.170	26.458	43.589	15.275	75.073	1077.947
%RSD		0.760	19.667	11.024	36.324	16.366	1.763	1.011

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:23:04	736792.940	794719.260	540.008	1310.048	11183.501	505021.740
2	12:23:28	722943.780	790330.790	510.007	1280.046	12244.196	499653.860
3	12:23:53	724775.850	774697.600	520.008	1340.050	11673.815	501011.110
x		728170.860	786582.550	523.341	1310.048	11700.504	501895.570
σ		7522.923	10523.954	15.276	30.002	530.851	2791.098
%RSD		1.033	1.338	2.919	2.290	4.537	0.556

CCV2 CCV 6/28/2011 12:25:48 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:25:48	77492.780	430729.480	↹192204930.000	↹140555160.000	↹172393480.000	↹29374278.000	↹5469229.600
2	12:26:13	74562.343	419302.890	↹188442370.000	↹137693520.000	↹171699120.000	↹27750651.000	↹5354786.200
3	12:26:37	74478.494	412120.560	↹185629270.000	↹135220990.000	↹169640410.000	↹27674075.000	↹5218741.100
x		75511.206	420717.640	↹188758860.000	↹137823220.000	↹171244340.000	↹28266335.000	↹5347585.600
σ		1716.606	9384.778	↹3299234.400	↹2669449.600	↹1431770.400	↹960270.540	↹125399.420
%RSD		2.273	2.231	↹1.748	↹1.937	↹0.836	↹3.397	↹2.345

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:25:48	185215.580	227378.470	3103034.900	2965322.700	↹6052411.600	↹248811050.000	↹3622028.900
2	12:26:13	183316.130	222851.940	2990228.700	2962801.000	↹5826065.700	↹245203740.000	↹3552459.600
3	12:26:37	180830.980	219136.380	2919643.300	2878403.300	↹5686039.100	↹240387640.000	↹3543144.800
x		183120.900	223122.260	3004302.300	2935509.000	↹5854838.800	↹244800810.000	↹3572544.400
σ		2198.808	4127.688	92502.257	49471.047	↹184873.260	↹4226132.600	↹43107.123
%RSD		1.201	1.850	3.079	1.685	↹3.158	↹1.726	↹1.207

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:25:48	730970.850	846583.000	859771.230	561092.750	59338.426	188329.900	82600.599
2	12:26:13	688481.160	827310.510	841972.510	546189.210	55325.573	184296.140	79797.898
3	12:26:37	676776.220	811394.610	835352.210	535129.820	56338.734	183225.200	79024.470
x		698742.740	828429.370	845698.650	547470.600	57000.911	185283.750	80474.323
σ		28517.352	17620.857	12628.744	13028.811	2086.769	2691.841	1881.578
%RSD		4.081	2.127	1.493	2.380	3.661	1.453	2.338

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:25:48	110.000	315014.260	821783.890	1471868.100	1567113.200	933456.100	2461480.200
2	12:26:13	120.000	314546.110	826808.020	1439978.900	1525925.100	925286.980	2398775.100
3	12:26:37	146.001	306386.070	803530.730	1428975.500	1504290.000	916984.730	2372747.500
x		125.334	311982.150	817374.210	1446940.900	1532442.700	925242.600	2411000.900
σ		18.583	4851.994	12249.164	22277.678	31914.702	8235.772	45612.257
%RSD		14.827	1.555	1.499	1.540	2.083	0.890	1.892

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:25:48	262921.430	126476.310	↹4775621.400	94670.286	1443669.800	↹4932292.000	1991393.800
2	12:26:13	261734.180	124381.680	↹4659413.300	90488.690	1425731.000	↹4882238.700	↹2039268.000
3	12:26:37	256174.420	122357.770	↹4641308.400	88699.748	1404698.200	↹4748695.200	↹1979886.800
x		260276.680	124405.250	↹4692114.300	91286.241	1424699.600	↹4854408.600	↹2003516.200
σ		3601.910	2059.374	↹72883.596	3064.130	19506.281	↹94909.615	↹31492.013
%RSD		1.384	1.655	↹1.553	3.357	1.369	↹1.955	↹1.572

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:25:48	756011.760	812545.200	↹9876060.500	↹25100209.000	↹18903388.000	542023.120
2	12:26:13	749745.700	785337.570	↹9955647.800	↹24890977.000	↹19048373.000	544898.670
3	12:26:37	723047.870	774843.740	↹9807393.800	↹24326218.000	↹18882016.000	541260.500
x		742935.110	790908.840	↹9879700.700	↹24772468.000	↹18944592.000	542727.430
σ		17505.501	19458.395	↹74194.027	↹400373.360	↹90509.282	1918.624
%RSD		2.356	2.460	↹0.751	↹1.616	↹0.478	0.354

CCB2 CCB 6/28/2011 12:28:34 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	12:28:34	79333.837	62.400	104607.500	11381.626	15096.379	114505.950	16948.039
2	12:28:58	78134.065	53.800	88856.525	9644.604	11913.973	119216.630	17208.288
3	12:29:23	78025.592	44.200	78676.941	8498.022	10723.219	112624.040	16837.935
x		78497.832	53.467	90713.656	9841.417	12577.857	115448.870	16998.087
σ		726.031	9.105	13064.655	1451.842	2260.904	3395.936	190.181
%RSD		0.925	17.029	14.402	14.752	17.975	2.942	1.119

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	12:28:34	181982.590	60.000	9292.417	820.019	480.006	117575.800	280.002
2	12:28:58	188044.920	10.000	8171.869	630.011	300.003	114556.270	90.000
3	12:29:23	189298.060	60.000	8041.810	740.015	350.003	114516.020	120.000
x		186441.860	43.333	8502.032	730.015	376.671	115549.360	163.334
σ		3912.334	28.868	687.575	95.398	92.918	1755.064	102.145
%RSD		2.098	66.617	8.087	13.068	24.668	1.519	62.537

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	12:28:34	90.000	90.000	100.000	274.002	80.000	468.006	50.000
2	12:28:58	20.000	70.000	80.000	284.002	50.000	506.007	40.000
3	12:29:23	60.000	90.000	130.000	236.002	110.000	454.006	50.000
x		56.667	83.334	103.334	264.669	80.000	476.006	46.667
σ		35.119	11.547	25.166	25.325	30.000	26.908	5.774
%RSD		61.974	13.856	24.354	9.569	37.500	5.653	12.372

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	12:28:34	32.000	328259.640	740.015	1330.050	1310.048	850.020	1900.101
2	12:28:58	28.000	322170.240	780.017	1480.061	1480.061	1060.032	1850.096
3	12:29:23	26.000	330989.340	400.004	980.027	1140.036	610.010	1860.097
x		28.667	327139.740	640.012	1263.379	1310.049	840.021	1870.098
σ		3.055	4514.950	208.813	256.598	170.012	225.177	26.460
%RSD		10.657	1.380	32.626	20.310	12.978	26.806	1.415

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	12:28:34	295565.980	580.009	610.010	10.000	110.000	3270.299	180.001
2	12:28:58	298229.720	610.010	550.008	0.000	40.000	3100.269	120.000
3	12:29:23	296979.140	640.011	350.003	10.000	70.000	3000.252	160.001
x		296924.950	610.010	503.341	6.667	73.334	3123.607	153.334
σ		1332.698	30.001	136.141	5.774	35.119	136.528	30.551
%RSD		0.449	4.918	27.047	86.603	47.889	4.371	19.924

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	12:28:34	757179.720	809009.990	1690.080	3750.394	3650.373	619016.280
2	12:28:58	782841.480	818194.580	1680.079	3690.381	2750.212	629803.820
3	12:29:23	749610.190	807117.160	1400.055	3090.267	2190.134	615497.740
x		763210.460	811440.580	1590.071	3510.348	2863.573	621439.280
σ		17417.150	5925.211	164.635	365.035	736.690	7454.475
%RSD		2.282	0.730	10.354	10.399	25.726	1.200

Sentinel, Inc. **Sample Analysis**

ICP-MS RUN LOG

SDG:	MF4N01
CASE NO.:	41486
EPA RUN#	2
EPA BATCH#	1
PREP METHOD:	200.8
AN. METHOD:	MS
MATRIX:	LW
SOURCE:	CAL Stds See Standards Log
SOURCE:	INIT. CAL VER USEPA ICV-1 0307
DATE PREP.	See Standards Log
PREPARER:	RR

VALID DATA for: For Dilutions

ANALYST: MVK

INSTRUMENT ID: **MS0**
RUN ID: **MS0-11063031**

RUN START DATE: **06/30/11** RUN START TIME: **0913**
RUN END DATE: **06/30/11** RUN END TIME: **1045**

Data Reviewed By: 7/1/11
Analyst Date
hw McGilgore

Data Reviewed By: 7/1/11
Supervisor Date

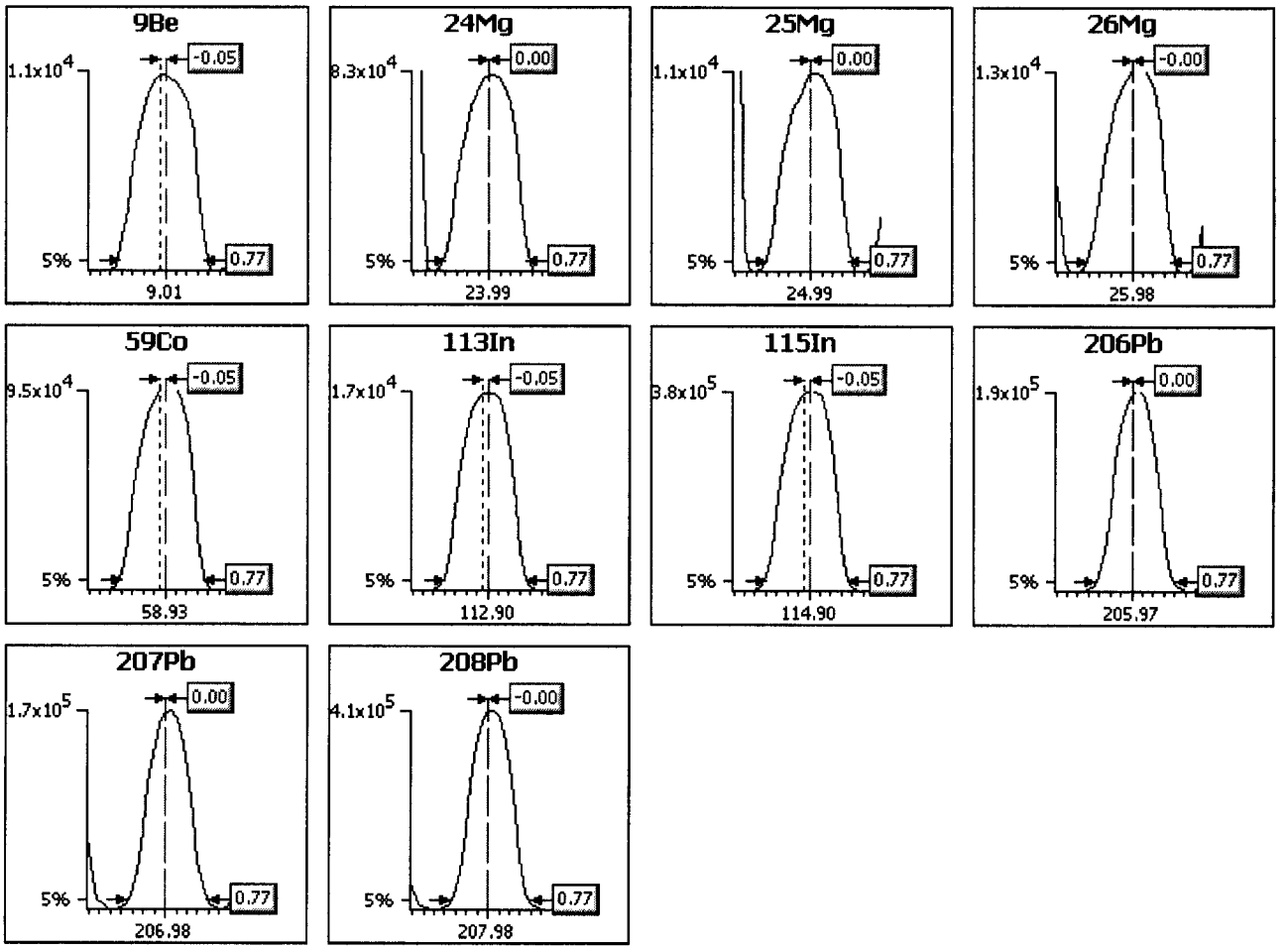
Performance Report

Tune Report

Sample details
Acquired at : 6/30/2011 9:12:37 AM
Report name : EPA Xt Screen Standard Mode CLP+ Y [5/19/2011 11:07:15 AM]

Mass Calibration verification

Acquisition parameters
Sweeps : 10
Dwell : 10.0 mSecs
Point spacing : 0.05 amu
Peak width measured at 5% of the peak maximum



Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.85	0.65	0.10	0.77	-0.05
24Mg	0.85	0.65	0.10	0.77	0.00
25Mg	0.85	0.65	0.10	0.77	0.00
26Mg	0.85	0.65	0.10	0.77	-0.00
59Co	0.85	0.65	0.10	0.77	-0.05
113In	0.85	0.65	0.10	0.77	-0.05
115In	0.85	0.65	0.10	0.77	-0.05
206Pb	0.85	0.65	0.10	0.77	0.00
207Pb	0.85	0.65	0.10	0.77	0.00
208Pb	0.85	0.65	0.10	0.77	-0.00

Sample details
Acquired at : 6/30/2011 9:12:37 AM
Report name : EPA Xt Screen Standard Mode CLP+ Y [5/19/2011 11:07:15 AM]

Tune Report

Tune conditions

Major	
Extraction	-121.6
Lens 1	-1192
Lens 2	-80.0
Focus	10.0
D1	-43.9
D2	-140
Pole Bias	-1.0
Hexapole Bias	-4.0
Nebuliser	0.95

Minor	
Lens 3	-195.3
Forward power	1404
Horizontal	70
Vertical	305
DA	-40.8
Cool	13.0
Auxiliary	0.90
Sampling Depth	130

Global	
Standard resolution	135
High resolution	90
Analogue Detector	2150
PC Detector	3400

Add. Gases	
CCT-He	0.00
Do Not Use	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 102

Run	Time	5Bkg	7Li	7Li	9Be	24Mg	25Mg	26Mg	59Co	137Ba++
Dwell (mSecs)		100.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	30.0
Limits	%RSD	-	-	-	5.0%	5.0%	5.0%	5.0%	5.0%	-
	Countrate	<1	-	-	>5000	>10000	>5000	>5000	>50000	-
1	9:13:15 AM	0.000	40255.126	39478.886	10851.335	80593.223	10806.210	12828.135	96998.022	0.980
2	9:14:17 AM	0.000	40156.866	39255.846	10903.328	78823.585	10803.267	12500.452	96007.396	0.000
3	9:15:19 AM	0.000	39576.160	39229.318	10642.386	77986.589	10740.484	12251.260	94670.877	0.327
4	9:16:22 AM	0.098	39522.119	38972.875	10449.135	77291.420	10604.128	12409.212	94126.836	1.307
5	9:17:24 AM	0.098	38614.254	38205.533	10507.993	76276.284	10317.686	12046.219	92342.063	1.307
x		0.039	39624.905	39028.491	10670.835	78194.220	10654.355	12407.056	94829.039	0.784
σ		0.05	654.70	493.77	201.94	1634.62	205.26	291.77	1788.59	0.59
%RSD		136.931	1.652	1.265	1.892	2.090	1.927	2.352	1.886	75.691

Run	Time	101Bkg	113In	115In	137Ba	137Ba	140Ce	156Ce O	204Pb	206Pb
Dwell (mSecs)		100.0	10.0	10.0	10.0	10.0	10.0	30.0	10.0	10.0
Limits	%RSD	-	5.0%	5.0%	-	-	-	-	-	5.0%
	Countrate	<1	>5000	>100000	-	-	-	-	-	>10000
1	9:13:15 AM	0.000	16659.728	388287.85	182.354	147.059	32.353	1.307	10346.134	189514.05
2	9:14:17 AM	0.000	16302.536	382634.43	145.099	153.922	46.078	0.980	10393.220	189547.74
3	9:15:19 AM	0.000	16431.085	381948.41	154.903	156.863	26.471	0.654	10325.533	187135.24
4	9:16:22 AM	0.000	16287.817	379034.35	160.785	159.805	38.235	1.307	10427.553	188335.01
5	9:17:24 AM	0.098	16079.785	375056.58	164.707	159.805	35.294	0.980	10120.514	186201.04
x		0.020	16352.191	381392.32	161.569	155.491	35.686	1.046	10322.591	188146.62
σ		0.04	213.08	4876.01	13.77	5.31	7.26	0.27	119.80	1472.81
%RSD		223.607	1.303	1.278	8.521	3.413	20.337	26.146	1.161	0.783

Run	Time	207Pb	208Pb	220Bkg	238U
Dwell (mSecs)		10.0	10.0	100.0	10.0
Limits	%RSD	5.0%	5.0%	-	-
	Countrate	>10000	>10000	<1	-
1	9:13:15 AM	164608.14	407674.57	0.098	862483.52
2	9:14:17 AM	166083.48	408741.69	0.098	870319.94
3	9:15:19 AM	164244.03	403634.33	0.196	860204.91
4	9:16:22 AM	164917.84	405248.71	0.196	861385.31
5	9:17:24 AM	163128.98	400673.66	0.098	852593.79
x		164596.49	405194.59	0.137	861397.49
σ		1071.49	3225.23	0.05	6318.96
%RSD		0.651	0.796	39.123	0.734

Ratio results

Run	Time	137Ba++/137Ba
Ratio limits		<0.0500
1	9:13:15 AM	0.007
2	9:14:17 AM	0.000
		0.002

3	9:15:19 AM	
4	9:16:22 AM	0.008
5	9:17:24 AM	0.008
x		0.0050
σ		0.00
%RSD		74.8418

Tune Report

Result : The performance report passed.

Experiment Details

Description	PlasmaLab Template BlankExperiment
Template Filename	C:\Program Files\Thermo Fisher\PlasmaLab\data\MF4N01.tee
Created By User	ThermoFisher
Analyte Database	Default.tea
Creation Timestamp	4/1/2008 3:31:44 PM
Last Edited By	labtech
Last Edit Timestamp	6/30/2011 10:55:31 AM
Instrument Detector	Simultaneous
Database Version	3,51
Acquisition Mode	Unknown

Numerical Results report key (text indicates meaning)

Blue text indicates that cell is a statistic.
Underlining indicates that a data warning flag is set.

Column headings	Result cells	Data warning flags
No flag	Internal Standard	I - Invalid calibration
Semi Quant	Excluded	T - Tripped
Standard Addition	QC Warning	F - Interference correction failed
Multi Element	QC Failure	M - Result over max
	Transient TRA only:	V - Valley integration failed
	Peak Not Found	D - Different method used
	Manually Edited	
	Merged Peak	

Setup

Survey Scan Setup

Sweeps	10
Dwell Time	600
Channels Per Mass	10
Acquisition Duration	13583

Main Run Setup

Main Run	Peak Jumping
Sweeps	10
Dwell Time	10000
Channels Per Mass	1
Acquisition Duration	19360
Channel Spacing	0.02

Survey Scan Regions

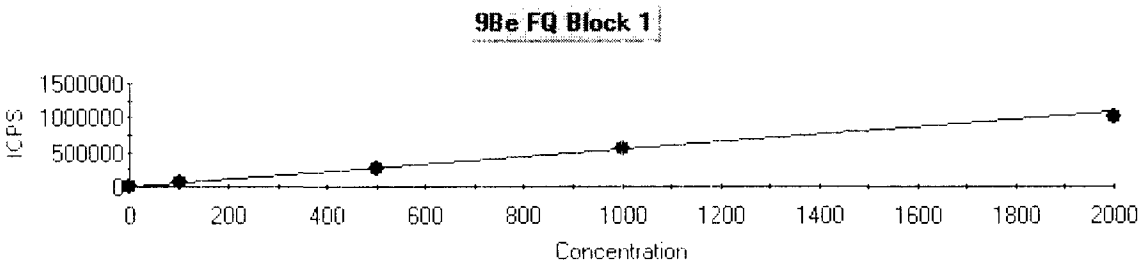
Start AMU	End AMU	Channels	Dwell ms	Resolution
4.59	11.50	69	600	
12.50	13.50	10	600	
22.59	29.41	68	600	
30.59	31.41	8	600	
32.59	34.50	19	600	
35.50	37.50	20	600	
38.59	39.41	8	600	
42.59	79.41	368	600	
80.59	245.50	1649	600	

Peak Jump Regions

Analyte	Channels	Dwell ms	Resolution
6Li	1	200000	Standard
7Li	1	200000	Standard
9Be	1	500000	Standard
11B	1	200000	Standard

23Na	1	50000	Standard
24Mg	1	50000	Standard
27Al	1	10000	Standard
39K	1	10000	Standard
44Ca	1	10000	Standard
45Sc	1	10000	Standard
47Ti	1	10000	Standard
51V	1	10000	Standard
52Cr	1	10000	Standard
53Cl O	1	10000	Standard
55Mn	1	10000	Standard
56Fe	1	10000	Standard
59Co	1	10000	Standard
60Ni	1	10000	Standard
65Cu	1	10000	Standard
66Zn	1	10000	Standard
75As	1	50000	Standard
77Se	1	10000	Standard
77Ar Cl	1	50000	Standard
78Se	1	50000	Standard
82Kr	1	10000	Standard
82Se	1	50000	Standard
83Kr	1	50000	Standard
89Y	1	10000	
94Mo	1	10000	Standard
95Mo	1	10000	Standard
96Mo	1	10000	Standard
97Mo	1	10000	Standard
98Mo	1	10000	Standard
103Rh	1	10000	
106Cd	1	10000	Standard
107Ag	1	10000	Standard
108Cd	1	10000	Standard
111Cd	1	10000	Standard
115In	1	10000	
118Sn	1	10000	Standard
121Sb	1	10000	Standard
137Ba	1	10000	Standard
159Tb	1	10000	
165Ho	1	10000	
203Tl	1	10000	Standard
205Tl	1	10000	Standard
206Pb	1	10000	Standard
207Pb	1	10000	Standard
208Pb	1	10000	Standard
209Bi	1	10000	

Fully Quant Calibration

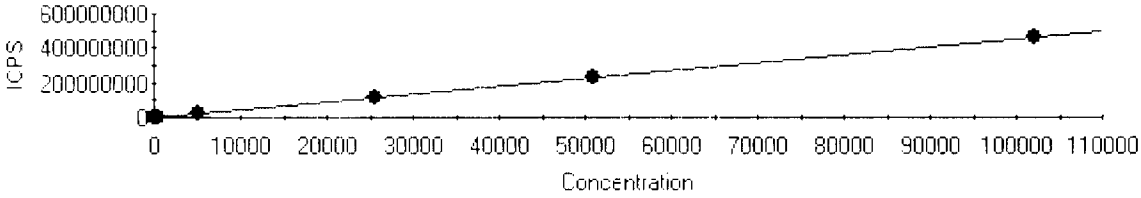


Intercept CPS=244.119646 Intercept Conc=0.447148
Sensitivity=545.947870 Correlation Coeff=0.999611

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	244.12	0.00
S1 S	1.000	0.650	0.350	599.17	34.97
S2 S	100.000	104.435	4.435	57260.11	4.43
S3 S	500.000	495.435	4.565	270725.99	0.91

S4 S	1000.000	984.344	15.656	537644.57	1.57
S5 S	2000.000	1867.082	132.918	1019573.56	6.65

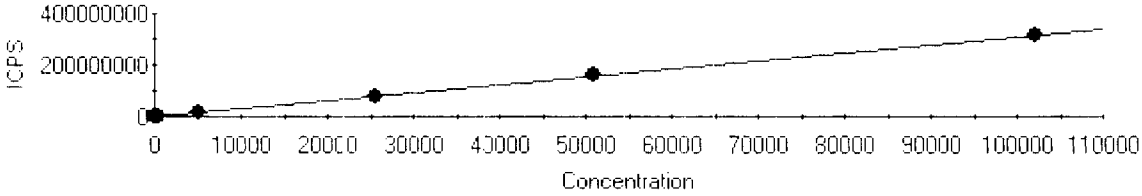
23Na FQ Block 1



Intercept CPS=33494.046598 Intercept Conc=7.487803
Sensitivity=4473.147422 Correlation Coeff=0.999967

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	33494.05	0.00
S1 S	500.000	489.288	10.712	2222152.59	2.14
S2 S	5100.000	5087.543	12.457	22790822.39	0.24
S3 S	25500.000	24746.723	753.277	110729232.56	2.95
S4 S	51000.000	50873.629	126.371	227598734.97	0.25
S5 S	102000.000	102252.180	252.180	457422571.18	0.25

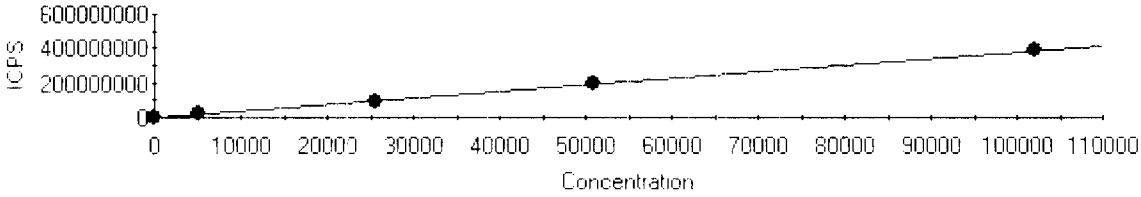
24Mg FQ Block 1



Intercept CPS=2929.266931 Intercept Conc=0.947334
Sensitivity=3092.115626 Correlation Coeff=0.999984

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	2929.27	0.00
S1 S	500.000	510.300	10.300	1580837.19	2.06
S2 S	5100.000	5259.353	159.353	16265457.89	3.12
S3 S	25500.000	25060.480	439.520	77492831.15	1.72
S4 S	51000.000	51186.219	186.219	158276637.77	0.37
S5 S	102000.000	102008.752	8.752	315425785.88	0.01

27Al FQ Block 1

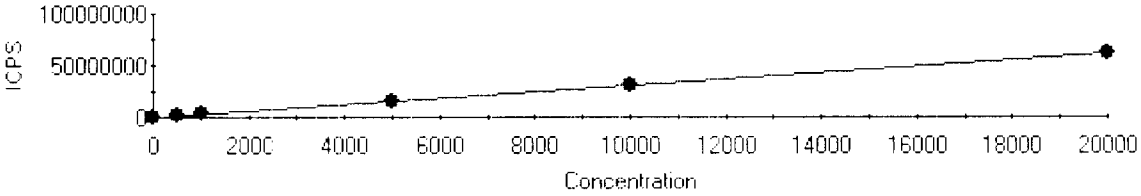


Intercept CPS=3108.028389 Intercept Conc=0.824479
Sensitivity=3769.687553 Correlation Coeff=0.999941

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	3108.03	0.00
S1 S	20.000	20.898	0.898	81885.73	4.49

S2 S	5100.000	5220.672	120.672	19683410.25	2.37
S3 S	25500.000	24836.504	663.496	93628968.01	2.60
S4 S	51000.000	51432.760	432.760	193888541.66	0.85
S5 S	102000.000	103656.023	1656.023	390753927.21	1.62

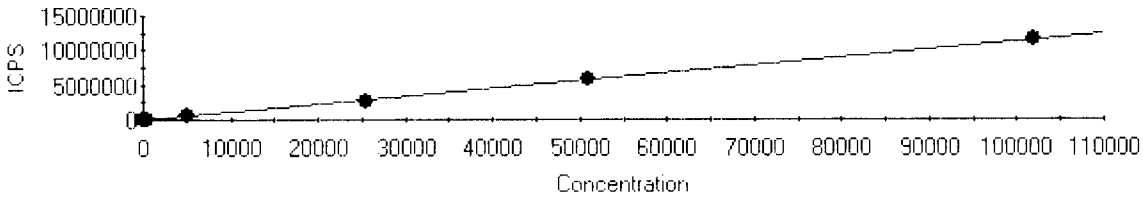
39K FQ Block 1



Intercept CPS=121919.125902 Intercept Conc=39.385012
Sensitivity=3095.571671 Correlation Coeff=0.999974

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	121919.13	0.00
S1 S	500.000	479.869	20.131	1607387.75	4.03
S2 S	1000.000	998.693	1.307	3213443.98	0.13
S3 S	5000.000	4946.835	53.165	15435201.00	1.06
S4 S	10000.000	10105.949	105.949	31405608.29	1.06
S5 S	20000.000	19960.885	39.115	61912270.71	0.20

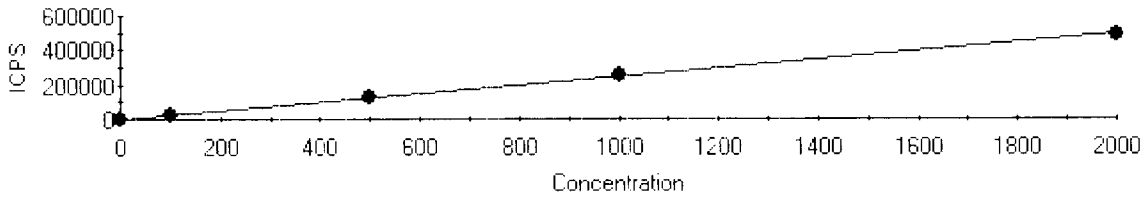
44Ca FQ Block 1



Intercept CPS=18209.411803 Intercept Conc=160.636272
Sensitivity=113.358033 Correlation Coeff=0.999751

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	18209.41	0.00
S1 S	500.000	490.236	9.764	73781.59	1.95
S2 S	5100.000	4802.979	297.021	562665.67	5.82
S3 S	25500.000	23469.581	2030.419	2678674.90	7.96
S4 S	51000.000	51626.783	626.783	5870519.98	1.23
S5 S	102000.000	102613.992	613.992	11650329.71	0.60

47Ti FQ Block 1

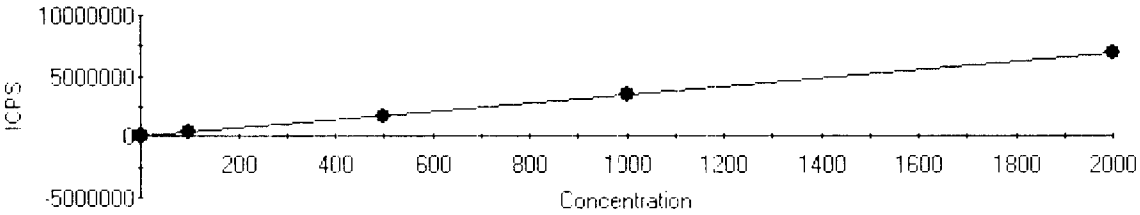


Intercept CPS=60.004968 Intercept Conc=0.244021
Sensitivity=245.901255 Correlation Coeff=0.999933

Label	Defined	Measured	Error	Mean CPS	% Error

S0 S0	0.000	0.000	0.000	60.00	0.00
S1 S	0.000	-0.135	0.135	26.90	0.00
S2 S	100.000	100.633	0.633	24805.77	0.63
S3 S	500.000	503.619	3.619	123900.66	0.72
S4 S	1000.000	1018.435	18.435	250494.35	1.84
S5 S	2000.000	1989.846	10.154	489365.68	0.51

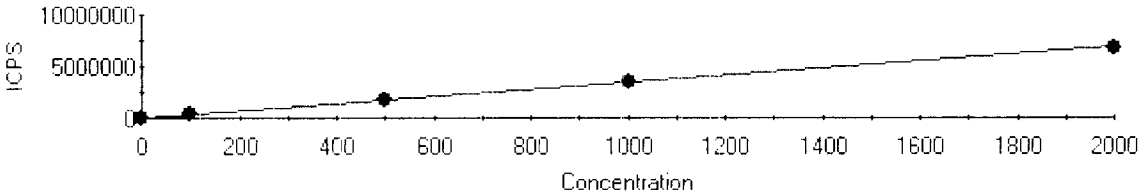
51V FQ Block 1



Intercept CPS=246.348710 Intercept Conc=0.071992
Sensitivity=3421.898137 Correlation Coeff=0.999935

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	246.35	0.00
S1 S	5.000	5.519	0.519	19131.86	10.38
S2 S	100.000	99.639	0.361	341199.66	0.36
S3 S	500.000	490.742	9.258	1679515.65	1.85
S4 S	1000.000	1016.678	16.678	3479216.61	1.67
S5 S	2000.000	1993.992	6.008	6823483.89	0.30

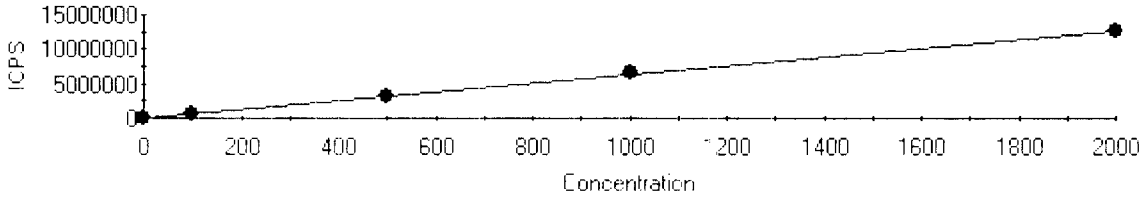
52Cr FQ Block 1



Intercept CPS=730.956804 Intercept Conc=0.212692
Sensitivity=3436.690665 Correlation Coeff=0.999966

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	730.96	0.00
S1 S	2.000	2.194	0.194	8271.38	9.70
S2 S	100.000	102.239	2.239	352093.48	2.24
S3 S	500.000	485.270	14.730	1668454.64	2.95
S4 S	1000.000	989.136	10.864	3400084.41	1.09
S5 S	2000.000	1947.340	52.660	6693135.10	2.63

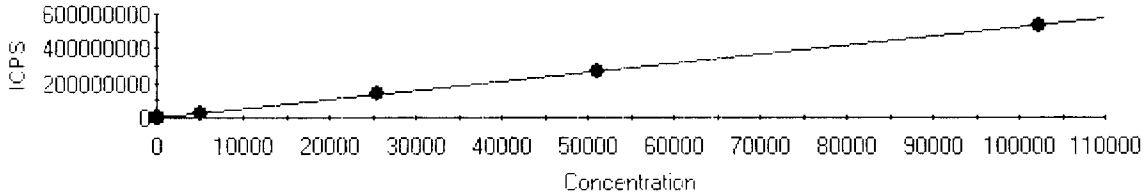
55Mn FQ Block 1



Intercept CPS=768.288594 Intercept Conc=0.119857
Sensitivity=6410.040047 Correlation Coeff=0.999924

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	768.29	0.00
S1 S	1.000	1.049	0.049	7495.60	4.95
S2 S	100.000	103.561	3.561	664600.41	3.56
S3 S	500.000	494.656	5.344	3171533.66	1.07
S4 S	1000.000	1019.451	19.451	6535489.08	1.95
S5 S	2000.000	1991.432	8.568	12765930.11	0.43

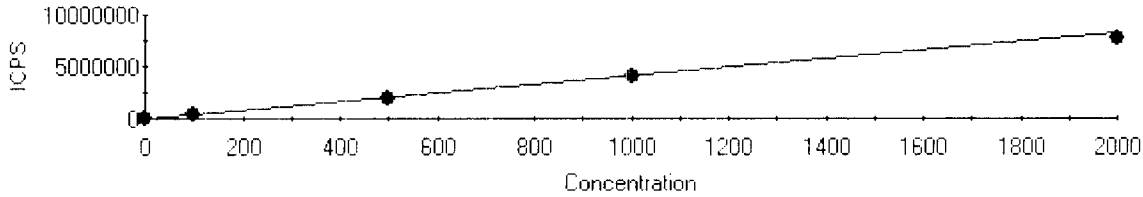
56Fe FQ Block 1



Intercept CPS=97904.587287 Intercept Conc=18.837350
Sensitivity=5197.365243 Correlation Coeff=0.999938

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	97904.59	0.00
S1 S	200.000	223.384	23.384	1258912.00	11.69
S2 S	5120.000	5488.693	368.693	28624647.26	7.20
S3 S	25600.000	25796.509	196.509	134171785.70	0.77
S4 S	51200.000	52108.173	908.173	270923113.95	1.77
S5 S	102430.000	101908.458	521.542	529753384.34	0.51

59Co FQ Block 1

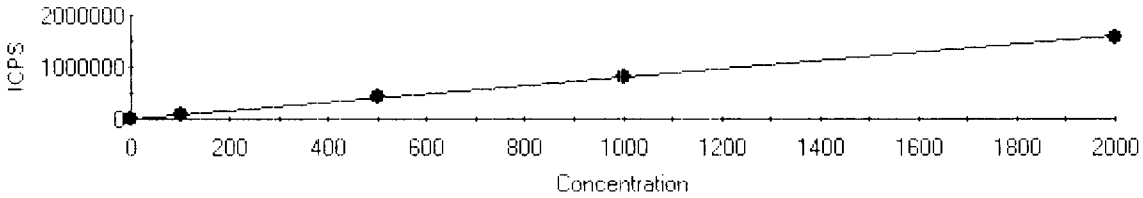


Intercept CPS=440.751272 Intercept Conc=0.107216
Sensitivity=4110.874882 Correlation Coeff=0.999630

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	440.75	0.00
S1 S	1.000	1.014	0.014	4609.91	1.42
S2 S	100.000	106.018	6.018	436266.69	6.02
S3 S	500.000	487.912	12.088	2005187.91	2.42
S4 S	1000.000	996.704	3.296	4097765.82	0.33

S5 S	2000.000	1887.274	112.726	7758787.45	5.64

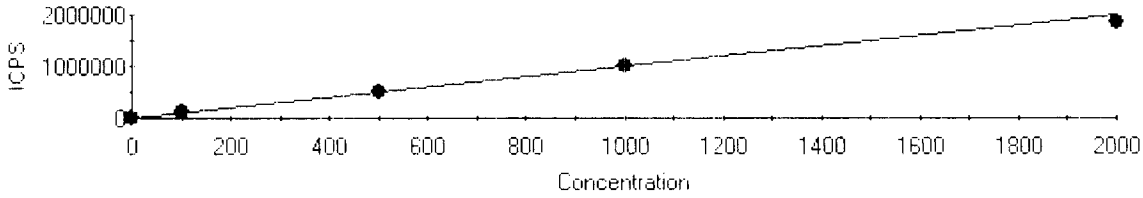
60Ni FQ Block 1



Intercept CPS=373.563974 Intercept Conc=0.466005
Sensitivity=801.630559 Correlation Coeff=0.999672

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	373.56	0.00
S1 S	1.000	0.690	0.310	926.70	31.00
S2 S	100.000	117.380	17.380	94468.57	17.38
S3 S	500.000	541.822	41.822	434714.52	8.36
S4 S	1000.000	1020.414	20.414	818368.63	2.04
S5 S	2000.000	1978.469	21.531	1586374.54	1.08

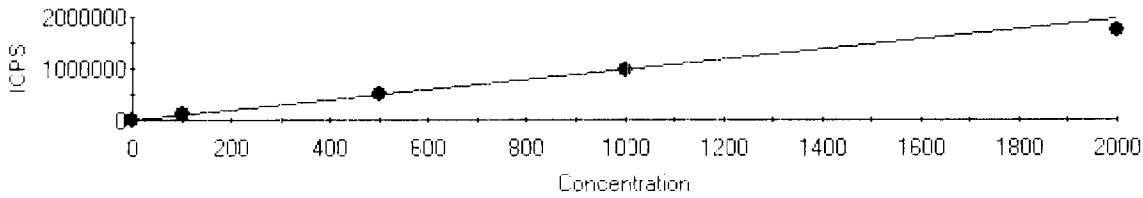
65Cu FQ Block 1



Intercept CPS=253.144128 Intercept Conc=0.254704
Sensitivity=993.876589 Correlation Coeff=0.999048

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	253.14	0.00
S1 S	2.000	1.992	0.008	2233.21	0.39
S2 S	100.000	109.312	9.312	108896.08	9.31
S3 S	500.000	509.385	9.385	506518.98	1.88
S4 S	1000.000	999.140	0.860	993275.23	0.09
S5 S	2000.000	1844.123	155.877	1833083.76	7.79

66Zn FQ Block 1

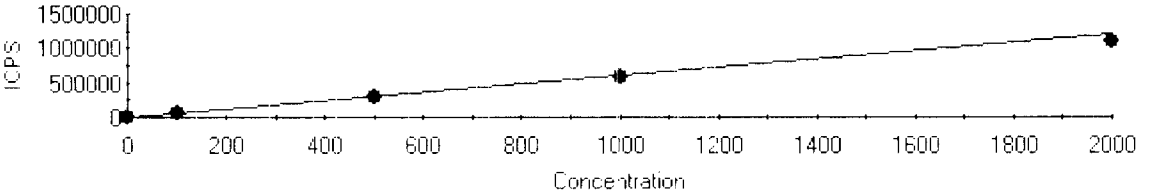


Intercept CPS=506.253747 Intercept Conc=0.511635
Sensitivity=989.481472 Correlation Coeff=0.998710

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	506.25	0.00
S1 S	2.000	1.736	0.264	2223.70	13.22
S2 S	100.000	108.520	8.520	107884.43	8.52

S3 S	500.000	493.001	6.999	488321.62	1.40
S4 S	1000.000	955.279	44.721	945737.34	4.47
S5 S	2000.000	1744.415	255.585	1726572.26	12.78

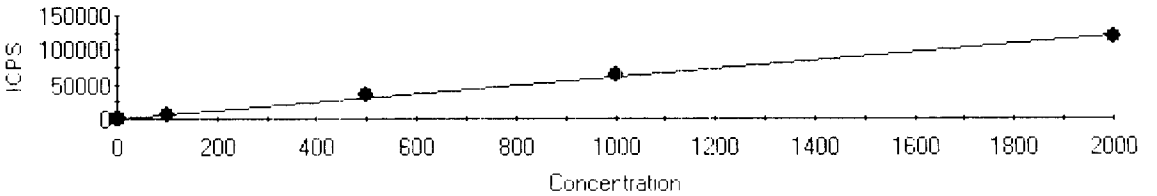
75As FQ Block 1



Intercept CPS=91.551565 Intercept Conc=0.150073
Sensitivity=610.047231 Correlation Coeff=0.999318

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	91.55	0.00
S1 S	1.000	0.804	0.196	581.85	19.63
S2 S	100.000	103.305	3.305	63112.61	3.31
S3 S	500.000	487.836	12.164	297694.34	2.43
S4 S	1000.000	960.218	39.782	585870.16	3.98
S5 S	2000.000	1793.537	206.463	1094233.61	10.32

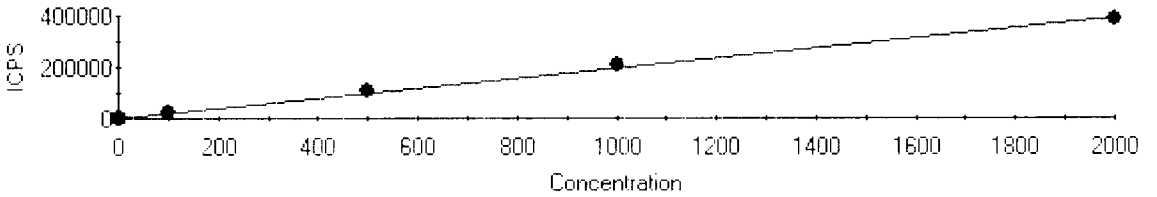
77Se FQ Block 1



Intercept CPS=73.238817 Intercept Conc=1.215255
Sensitivity=60.266237 Correlation Coeff=0.998702

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	73.24	0.00
S1 S	5.000	4.898	0.102	368.42	2.04
S2 S	100.000	115.257	15.257	7019.33	15.26
S3 S	500.000	560.523	60.523	33853.82	12.10
S4 S	1000.000	1063.094	63.094	64141.89	6.31
S5 S	2000.000	1952.560	47.440	117746.68	2.37

78Se FQ Block 1

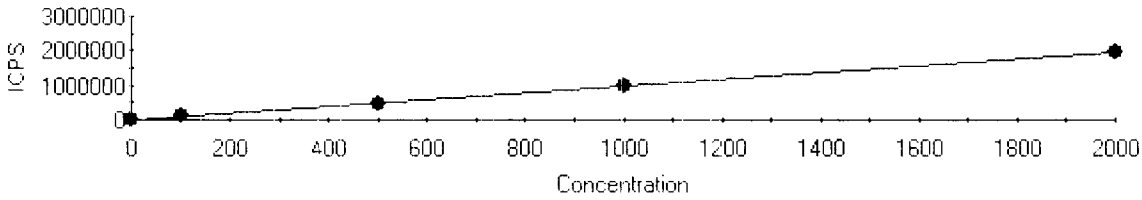


Intercept CPS=480.132708 Intercept Conc=2.459468
Sensitivity=195.218099 Correlation Coeff=0.998917

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	480.13	0.00

S1 S	5.000	5.235	0.235	1502.02	4.69
S2 S	100.000	117.539	17.539	23425.90	17.54
S3 S	500.000	547.216	47.216	107306.53	9.44
S4 S	1000.000	1063.178	63.178	208031.68	6.32
S5 S	2000.000	1955.730	44.270	382273.96	2.21

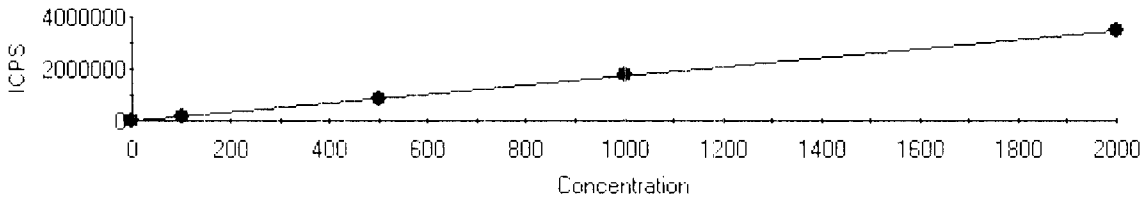
94Mo FQ Block 1



Intercept CPS=491.778109 Intercept Conc=0.501874
Sensitivity=979.882993 Correlation Coeff=0.999938

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	491 78	0.00
S1 S	0.000	-0.378	0.378	120 89	0.00
S2 S	100.000	99.909	0.091	98391.36	0.09
S3 S	500.000	479.838	20.162	470676.68	4.03
S4 S	1000.000	995.707	4.293	976168.07	0.43
S5 S	2000.000	2007.192	7.192	1967304.70	0.36

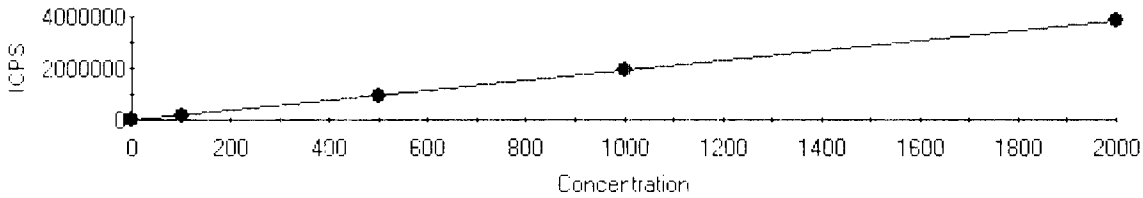
95Mo FQ Block 1



Intercept CPS=811.980937 Intercept Conc=0.465909
Sensitivity=1742.787555 Correlation Coeff=0.999977

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	811.98	0.00
S1 S	0.000	-0.366	0.366	173.53	0.00
S2 S	100.000	99.356	0.644	173968.31	0.64
S3 S	500.000	487.354	12.646	850166.37	2.53
S4 S	1000.000	999.154	0.846	1742125.59	0.08
S5 S	2000.000	2003.617	3.617	3492690.03	0.18

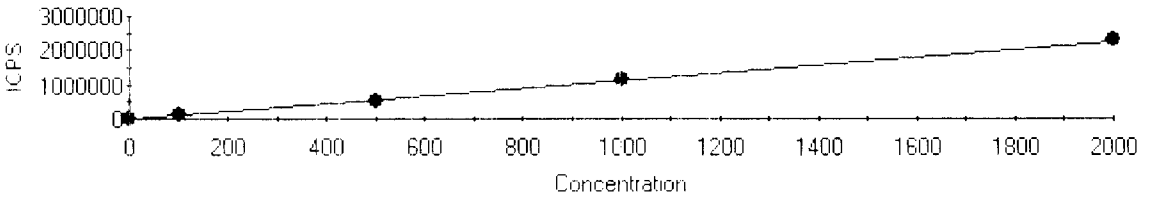
96Mo FQ Block 1



Intercept CPS=982.246032 Intercept Conc=0.511399
Sensitivity=1920.704039 Correlation Coeff=0.999939

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	982.25	0.00
S1 S	0.000	-0.394	0.394	225.88	0.00
S2 S	100.000	95.801	4.199	184987.73	4.20
S3 S	500.000	480.729	19.271	924320.41	3.85
S4 S	1000.000	992.315	7.685	1906925.17	0.77
S5 S	2000.000	2008.870	8.870	3859427.59	0.44

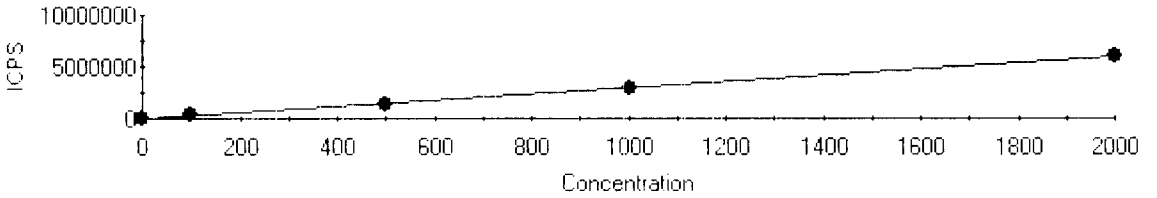
97Mo FQ Block 1



Intercept CPS=570.453529 Intercept Conc=0.501040
Sensitivity=1138.538918 Correlation Coeff=0.999909

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	570.45	0.00
S1 S	0.000	-0.366	0.366	153.72	0.00
S2 S	100.000	96.973	3.027	110977.45	3.03
S3 S	500.000	476.134	23.866	542667.94	4.77
S4 S	1000.000	991.757	8.243	1129724.89	0.82
S5 S	2000.000	2010.239	10.239	2289305.87	0.51

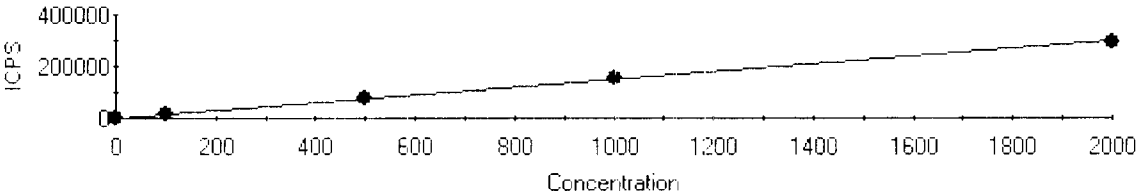
98Mo FQ Block 1



Intercept CPS=1487.459177 Intercept Conc=0.498530
Sensitivity=2983.689387 Correlation Coeff=0.999901

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	1487.46	0.00
S1 S	0.000	-0.387	0.387	333.60	0.00
S2 S	100.000	97.749	2.251	293138.79	2.25
S3 S	500.000	475.653	24.347	1420689.10	4.87
S4 S	1000.000	990.722	9.278	2957492.84	0.93
S5 S	2000.000	2010.838	10.838	6001204.88	0.54

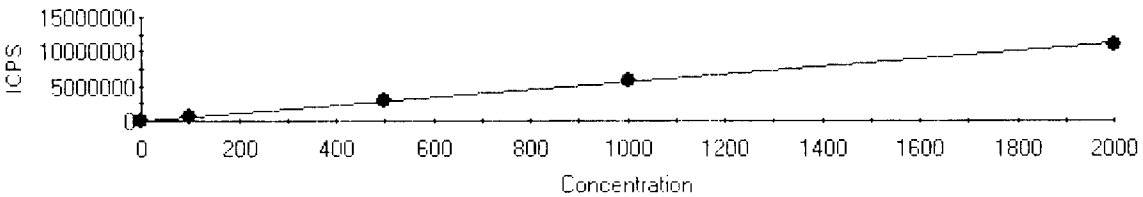
106Cd FQ Block 1



Intercept CPS=712.882193 Intercept Conc=4.816020
Sensitivity=148.023109 Correlation Coeff=0.999960

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	712.88	0.00
S1 S	1.000	0.892	0.108	844.87	10.84
S2 S	100.000	108.048	8.048	16706.53	8.05
S3 S	500.000	500.354	0.354	74776.36	0.07
S4 S	1000.000	1013.811	13.811	150780.36	1.38
S5 S	2000.000	1992.604	7.396	295664.25	0.37

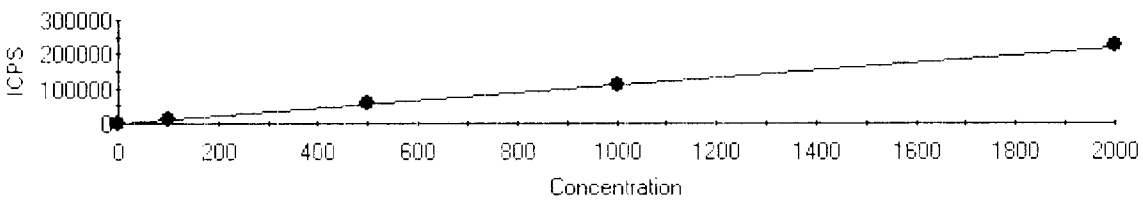
107Ag FQ Block 1



Intercept CPS=734.099480 Intercept Conc=0.128960
Sensitivity=5692.446419 Correlation Coeff=0.999937

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	734.10	0.00
S1 S	1.000	0.960	0.040	6201.24	3.96
S2 S	100.000	106.165	6.165	605072.35	6.17
S3 S	500.000	492.842	7.158	2806212.38	1.43
S4 S	1000.000	995.928	4.072	5670000.35	0.41
S5 S	2000.000	1947.471	52.529	11086605.60	2.63

108Cd FQ Block 1

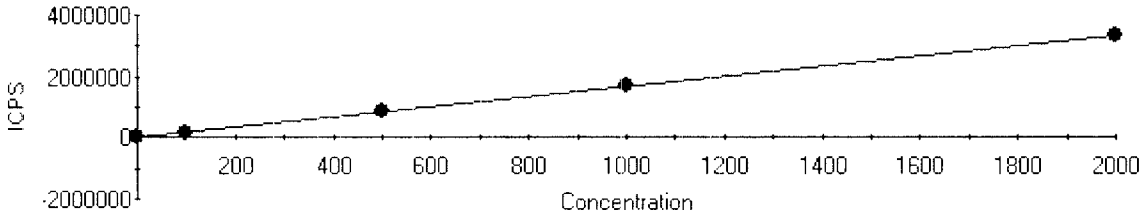


Intercept CPS=0.000000 Intercept Conc=0.000000
Sensitivity=110.754209 Correlation Coeff=0.999874

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	0.00	0.00
S1 S	1.000	1.360	0.360	150.65	36.02
S2 S	100.000	106.024	6.024	11742.65	6.02
S3 S	500.000	516.007	16.007	57149.94	3.20
S4 S	1000.000	978.542	21.458	108377.68	2.15

S5 S	2000.000	2006.426	6.426	222220.09	0.32

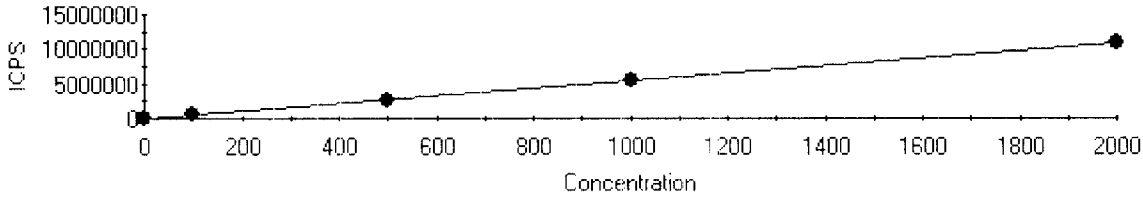
111Cd FQ Block 1



Intercept CPS=2.184060 Intercept Conc=0.001304
Sensitivity=1674.723010 Correlation Coeff=0.999916

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	2.18	0.00
S1 S	1.000	1.042	0.042	1747.25	4.20
S2 S	100.000	105.281	5.281	176318.77	5.28
S3 S	500.000	506.366	6.366	848024.57	1.27
S4 S	1000.000	1020.361	20.361	1708824.77	2.04
S5 S	2000.000	1987.964	12.036	3329290.95	0.60

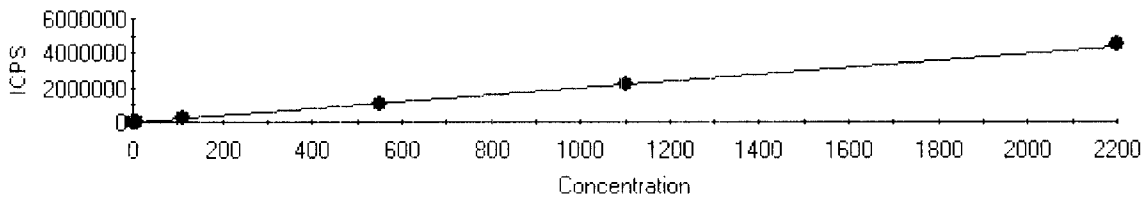
121Sb FQ Block 1



Intercept CPS=113.059327 Intercept Conc=0.020428
Sensitivity=5534.507640 Correlation Coeff=0.999984

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	113.06	0.00
S1 S	2.000	2.105	0.105	11764.70	5.26
S2 S	100.000	100.730	0.730	557603.17	0.73
S3 S	500.000	491.958	8.042	2722857.71	1.61
S4 S	1000.000	1005.913	5.913	5567345.09	0.59
S5 S	2000.000	1999.018	0.982	11063690.89	0.05

137Ba FQ Block 1

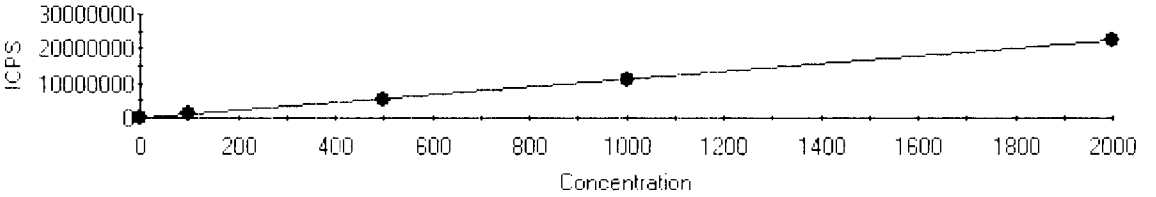


Intercept CPS=143.121221 Intercept Conc=0.071251
Sensitivity=2008.680402 Correlation Coeff=0.999874

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	143.12	0.00
S1 S	10.000	10.324	0.324	20880.11	3.24
S2 S	110.000	110.218	0.218	221536.55	0.20

S3 S	550.000	529.030	20.970	1062794.70	3.81
S4 S	1100.000	1106.695	6.695	2223138.69	0.61
S5 S	2200.000	2250.388	50.388	4520454.38	2.29

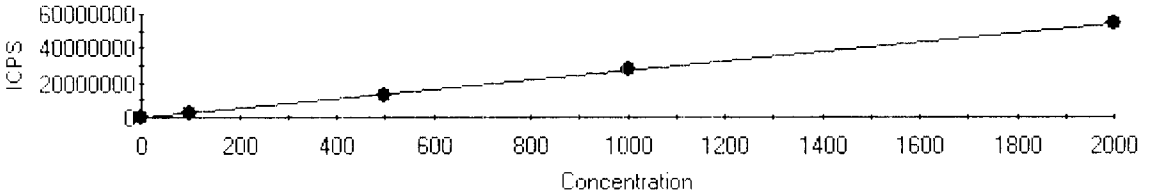
203Tl FQ Block 1



Intercept CPS=86.597826 Intercept Conc=0.007769
Sensitivity=11146.146958 Correlation Coeff=0.999959

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	86.60	0.00
S1 S	1.000	1.054	0.054	11836.82	5.42
S2 S	100.000	99.912	0.088	1113716.19	0.09
S3 S	500.000	482.899	17.101	5382545.79	3.42
S4 S	1000.000	1001.854	1.854	11166903.27	0.19
S5 S	2000.000	1999.564	0.436	22287524.12	0.02

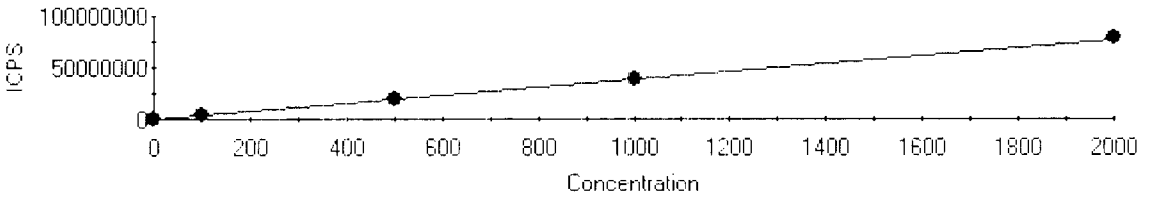
205Tl FQ Block 1



Intercept CPS=170.077361 Intercept Conc=0.006243
Sensitivity=27241.828731 Correlation Coeff=0.999909

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	0.000	0.000	170.08	0.00
S1 S	1.000	1.035	0.035	28367.50	3.51
S2 S	100.000	100.283	0.283	2732073.29	0.28
S3 S	500.000	474.779	25.221	12934017.67	5.04
S4 S	1000.000	995.386	4.614	27116308.87	0.46
S5 S	2000.000	2005.289	5.289	54627917.82	0.26

208Pb FQ Block 1



Intercept CPS=5339.697862 Intercept Conc=0.139454
Sensitivity=38290.059756 Correlation Coeff=0.999956

Label	Defined	Measured	Error	Mean CPS	% Error
S0 S0	0.000	-0.000	0.000	5339.70	0.00

S1 S	1.000	0.893	0.107	39540.73	10.68
S2 S	100.000	99.298	0.702	3807457.56	0.70
S3 S	500.000	492.904	7.096	18878679.15	1.42
S4 S	1000.000	1024.610	24.610	39237706.50	2.46
S5 S	2000.000	2046.837	46.837	78378842.27	2.34

Dilution Corrected Concentrations

S0 S0 6/30/2011 9:55:57 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:21	0.990	-0.312	-0.214	-0.145	-0.167	-1.573	-3.721
2	09:56:46	0.999	0.012	0.084	0.051	0.047	1.312	3.152
3	09:57:10	1.011	0.300	0.130	0.094	0.120	0.261	0.569
x		-	0.000	0.000	-0.000	-0.000	-0.000	0.000
σ		-	0.306	0.186	0.127	0.149	1.461	3.472
%RSD		-	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:21	0.984	-0.003	-0.091	-0.057	-0.067	-0.062	-0.076
2	09:56:46	1.009	-0.039	-0.024	0.038	0.008	0.263	-0.003
3	09:57:10	1.007	0.042	0.116	0.018	0.059	-0.201	0.079
x		-	0.000	0.000	0.000	-0.000	0.000	0.000
σ		-	0.041	0.106	0.050	0.063	0.239	0.077
%RSD		-	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:21	-0.304	-0.224	-0.359	-0.086	-0.034	-0.091	0.000
2	09:56:46	0.118	0.045	0.070	-0.031	0.251	-0.087	0.000
3	09:57:10	0.186	0.180	0.290	0.117	-0.218	0.178	0.000
x		-0.000	-0.000	-0.000	-0.000	-0.000	0.000	0.000
σ		0.265	0.206	0.330	0.105	0.236	0.154	0.000
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:21	0.000	1.030	0.137	0.099	0.092	0.039	0.116
2	09:56:46	0.000	0.972	-0.071	-0.003	-0.045	0.080	-0.001
3	09:57:10	0.000	1.000	-0.066	-0.096	-0.047	-0.118	-0.114
x		0.000	-	0.000	0.000	-0.000	0.000	0.000
σ		0.000	-	0.119	0.097	0.079	0.105	0.115
%RSD		0.000	-	0.000	0.000	0.000	0.000	0.000

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:21	1.020	-0.267	-0.086	0.000	0.004	-0.006	-0.025
2	09:56:46	0.998	0.038	0.008	0.000	-0.002	0.005	0.048
3	09:57:10	0.983	0.229	0.078	0.000	-0.002	0.001	-0.022
x		-	0.000	0.000	0.000	0.000	-0.000	-0.000
σ		-	0.250	0.082	0.000	0.003	0.005	0.041
%RSD		-	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:56:21	1.025	1.028	-0.000	0.000	-0.090	1.029
2	09:56:46	0.995	1.006	-0.001	0.000	0.022	0.985
3	09:57:10	0.981	0.967	0.001	-0.000	0.068	0.987
x		-	-	-0.000	0.000	-0.000	-
σ		-	-	0.001	0.000	0.081	-
%RSD		-	-	0.000	0.000	0.000	-

S1 S 6/30/2011 9:59:04 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:04	1.003	0.634	481.100	505.800	20.520	485.600	498.400
2	09:59:28	1.012	0.653	489.000	509.100	20.640	465.700	483.900
3	09:59:52	1.014	0.663	497.800	516.000	21.540	488.300	488.400
x		-	0.650	489.300	510.300	20.900	479.900	490.200
σ		-	0.015	8.360	5.180	0.557	12.380	7.433
%RSD		-	2.298	1.709	1.015	2.666	2.579	1.516

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:04	1.010	-0.080	5.857	2.128	1.135	225.600	1.078
2	09:59:28	1.013	-0.203	5.340	2.065	1.036	222.200	0.908
3	09:59:52	1.009	-0.121	5.360	2.389	0.977	222.300	1.056
x		-	-0.135	5.519	2.194	1.049	223.400	1.014
σ		-	0.063	0.293	0.172	0.080	1.935	0.092
%RSD		-	46.480	5.309	7.832	7.619	0.866	9.115

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:04	0.667	2.355	1.897	0.725	5.155	4.816	0.000
2	09:59:28	0.601	1.974	1.485	0.791	4.929	4.839	0.000
3	09:59:52	0.802	1.647	1.825	0.896	4.610	6.048	0.000
x		0.690	1.992	1.736	0.804	4.898	5.235	0.000
σ		0.102	0.355	0.220	0.087	0.274	0.705	0.000
%RSD		14.820	17.790	12.690	10.780	5.583	13.470	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:04	0.000	0.975	-0.402	-0.370	-0.415	-0.389	-0.377
2	09:59:28	0.000	0.960	-0.374	-0.394	-0.416	-0.373	-0.404
3	09:59:52	0.000	1.001	-0.360	-0.335	-0.351	-0.336	-0.379
x		0.000	-	-0.379	-0.366	-0.394	-0.366	-0.387
σ		0.000	-	0.022	0.030	0.037	0.027	0.015
%RSD		0.000	-	5.689	8.080	9.325	7.472	3.880

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:04	0.984	1.106	0.922	1.068	1.112	2.099	10.160
2	09:59:28	0.980	1.209	0.903	1.505	1.018	2.049	10.310
3	09:59:52	0.982	0.359	1.057	1.508	0.996	2.168	10.510
x		-	0.892	0.960	1.360	1.042	2.105	10.320
σ		-	0.464	0.084	0.253	0.062	0.060	0.175
%RSD		-	52.020	8.738	18.610	5.927	2.854	1.697

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	09:59:04	1.004	1.017	1.094	1.045	0.903	0.995
2	09:59:28	0.989	0.956	1.019	1.022	0.851	0.965
3	09:59:52	0.988	1.003	1.049	1.038	0.926	0.990
x		-	-	1.054	1.035	0.893	-
σ		-	-	0.038	0.012	0.038	-
%RSD		-	-	3.563	1.143	4.304	-

S2 S 6/30/2011 10:01:46 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:01:46	1.016	104.100	T 5084.000	T 5249.000	T 5149.000	T 1017.000	4847.000
2	10:02:11	1.021	104.700	T 5110.000	T 5289.000	T 5259.000	T 1038.000	4833.000
3	10:02:35	1.030	104.600	T 5069.000	T 5240.000	T 5254.000	940.500	4729.000
x		-	104.400	T 5088.000	T 5259.000	T 5221.000	T 998.700	4803.000
σ		-	0.318	T 20.560	T 25.810	T 62.100	T 51.410	64.260
%RSD		-	0.305	T 0.404	T 0.491	T 1.189	T 5.148	1.338

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:01:46	1.001	102.500	98.890	101.200	104.800	T 5448.000	105.800
2	10:02:11	1.017	99.360	101.100	103.200	104.400	T 5479.000	107.300
3	10:02:35	0.996	99.990	98.970	102.300	101.500	T 5540.000	104.900
x		-	100.600	99.640	102.200	103.600	T 5489.000	106.000
σ		-	1.687	1.227	0.986	1.832	T 46.660	1.239
%RSD		-	1.677	1.232	0.964	1.769	T 0.850	1.169

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:01:46	118.300	109.000	109.500	102.700	112.100	115.400	0.000
2	10:02:11	116.800	110.500	108.100	104.000	121.900	119.400	0.000
3	10:02:35	117.000	108.500	108.000	103.200	111.700	117.800	0.000
x		117.400	109.300	108.500	103.300	115.300	117.500	0.000
σ		0.835	1.047	0.889	0.679	5.745	1.996	0.000
%RSD		0.711	0.958	0.820	0.657	4.985	1.698	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:01:46	0.000	1.006	99.220	99.060	94.170	96.220	97.120
2	10:02:11	0.000	1.002	99.100	99.030	96.270	95.790	97.310
3	10:02:35	0.000	1.001	101.400	99.970	96.960	98.910	98.820
x		0.000	-	99.910	99.360	95.800	96.970	97.750
σ		0.000	-	1.301	0.536	1.456	1.688	0.933
%RSD		0.000	-	1.303	0.539	1.520	1.741	0.954

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:01:46	1.021	105.400	104.000	103.400	102.800	98.070	107.200
2	10:02:11	1.028	108.600	105.500	102.200	103.600	100.400	108.600
3	10:02:35	1.047	110.200	109.000	112.400	109.400	103.700	114.900
x		-	108.000	106.200	106.000	105.300	100.700	110.200
σ		-	2.432	2.571	5.571	3.617	2.827	4.123
%RSD		-	2.251	2.421	5.255	3.436	2.806	3.741

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:01:46	0.995	0.998	101.600	101.300	100.200	1.041
2	10:02:11	0.988	0.992	97.560	97.620	97.730	0.995
3	10:02:35	1.003	1.000	100.500	101.900	99.930	1.013
x		-	-	99.910	100.300	99.300	-
σ		-	-	2.110	2.328	1.368	-
%RSD		-	-	2.112	2.322	1.378	-

S3 S 6/30/2011 10:04:29 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:04:29	1.078	496.900	τ24890.000	τ25330.000	τ24930.000	τ5054.000	24020.000
2	10:04:54	1.103	496.400	τ24610.000	τ25120.000	τ24840.000	τ4916.000	23970.000
3	10:05:18	1.111	492.900	τ24740.000	τ24730.000	τ24740.000	τ4870.000	22410.000
x		-	495.400	τ24750.000	τ25060.000	τ24840.000	τ4947.000	23470.000
σ		-	2.170	τ138.900	τ304.300	τ97.930	τ96.000	915.400
%RSD		-	0.438	τ0.562	τ1.214	τ0.394	τ1.941	3.900

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:04:29	1.085	513.500	504.500	493.300	508.500	τ26170.000	500.600
2	10:04:54	1.070	505.300	499.000	488.000	494.200	τ26080.000	481.300
3	10:05:18	1.039	492.000	468.700	474.500	481.300	τ25140.000	481.900
x		-	503.600	490.700	485.300	494.700	τ25800.000	487.900
σ		-	10.820	19.300	9.709	13.620	τ 574.000	10.960
%RSD		-	2.148	3.933	2.001	2.754	τ 2.225	2.246

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:04:29	556.400	516.400	498.700	496.200	562.500	555.700	0.000
2	10:04:54	540.100	512.400	488.400	483.800	549.100	542.700	0.000
3	10:05:18	529.000	499.300	491.900	483.600	570.000	543.300	0.000
x		541.800	509.400	493.000	487.800	560.500	547.200	0.000
σ		13.760	8.952	5.254	7.208	10.600	7.312	0.000
%RSD		2.539	1.757	1.066	1.477	1.891	1.336	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:04:29	0.000	1.061	476.300	489.900	482.500	476.100	475.100
2	10:04:54	0.000	1.036	472.700	473.900	479.400	474.600	466.400
3	10:05:18	0.000	1.057	490.500	498.300	480.400	477.700	485.500
x		0.000	-	479.800	487.400	480.700	476.100	475.700
σ		0.000	-	9.430	12.390	1.574	1.566	9.601
%RSD		0.000	-	1.965	2.542	0.327	0.329	2.019

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:04:29	1.111	500.900	484.400	521.500	503.000	488.500	522.700
2	10:04:54	1.121	505.400	488.600	520.200	515.800	499.300	527.800
3	10:05:18	1.131	494.700	505.500	506.300	500.300	488.000	536.600
x		-	500.400	492.800	516.000	506.400	492.000	529.000
σ		-	5.349	11.120	8.430	8.313	6.365	7.071
%RSD		-	1.069	2.256	1.634	1.642	1.294	1.337

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:04:29	1.035	1.032	τ493.800	τ480.400	τ500.000	1.133
2	10:04:54	1.035	1.030	τ487.700	τ477.200	τ498.200	1.095
3	10:05:18	1.039	1.000	τ467.200	τ466.800	τ480.500	1.082
x		-	-	τ482.900	τ474.800	τ492.900	-
σ		-	-	τ13.910	τ7.124	τ10.760	-
%RSD		-	-	τ2.881	τ1.500	τ2.184	-

S4 S 6/30/2011 10:07:13 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:13	1.148	982.700	τ50200.000	τ50850.000	τ51340.000	τ9960.000	τ51370.000
2	10:07:37	1.169	987.700	τ51030.000	τ51340.000	τ51390.000	τ10220.000	τ51890.000
3	10:08:02	1.172	982.600	τ51390.000	τ51370.000	τ51570.000	τ10140.000	τ51620.000
x		-	984.300	τ50870.000	τ51190.000	τ51430.000	τ10110.000	τ51630.000
σ		-	2.884	τ613.300	τ289.900	τ120.800	τ132.200	τ261.100
%RSD		-	0.293	τ1.205	τ0.566	τ0.235	τ1.308	τ0.506

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:13	1.100	1010.000	989.400	977.100	τ1001.000	τ52420.000	τ992.600
2	10:07:37	1.127	1023.000	τ1032.000	987.600	τ1033.000	τ52240.000	τ998.600
3	10:08:02	1.116	1022.000	τ1029.000	τ1003.000	τ1025.000	τ51660.000	τ998.800
x		-	1018.000	τ1017.000	τ989.100	τ1019.000	τ52110.000	τ996.700
σ		-	7.495	τ23.680	τ12.850	τ16.840	τ395.600	τ3.518
%RSD		-	0.736	τ2.329	τ1.299	τ1.651	τ0.759	τ0.353

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:13	989.400	1001.000	949.000	956.400	1030.000	1060.000	0.000
2	10:07:37	1031.000	996.900	950.900	952.500	1081.000	1054.000	0.000
3	10:08:02	1041.000	999.800	965.900	971.700	1078.000	1076.000	0.000
x		1020.000	999.100	955.300	960.200	1063.000	1063.000	0.000
σ		27.300	1.950	9.291	10.170	28.380	11.380	0.000
%RSD		2.675	0.195	0.973	1.059	2.670	1.071	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:13	0.000	1.097	1009.000	995.500	991.200	1004.000	988.100
2	10:07:37	0.000	1.095	989.200	997.200	989.200	985.200	983.000
3	10:08:02	0.000	1.107	989.000	1005.000	996.600	986.400	1001.000
x		0.000	-	995.700	999.200	992.300	991.800	990.700
σ		0.000	-	11.520	4.944	3.836	10.400	9.309
%RSD		0.000	-	1.157	0.495	0.387	1.049	0.940

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:13	1.190	1023.000	τ1004.000	960.100	1036.000	τ1016.000	τ1118.000
2	10:07:37	1.195	987.600	τ983.200	1006.000	1012.000	τ1006.000	τ1097.000
3	10:08:02	1.189	1031.000	τ1001.000	970.000	1013.000	τ995.400	τ1105.000
x		-	1014.000	τ995.900	978.500	1020.000	τ1006.000	τ1107.000
σ		-	23.040	τ11.100	23.900	13.660	τ10.220	τ10.620
%RSD		-	2.273	τ1.114	2.442	1.339	τ1.016	τ0.960

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:07:13	1.089	1.074	τ1017.000	τ1012.000	τ1043.000	1.195
2	10:07:37	1.062	1.056	τ1002.000	τ998.800	τ1025.000	1.179
3	10:08:02	1.061	1.063	τ986.700	τ975.700	τ1006.000	1.146
x		-	-	τ1002.000	τ995.400	τ1025.000	-
σ		-	-	τ14.920	τ18.210	τ18.340	-
%RSD		-	-	τ1.489	τ1.829	τ1.790	-

S5 S 6/30/2011 10:09:57 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:57	1.212	1869.000	T 102600.000	T 101600.000	T 102900.000	T 20240.000	TM 103600.000
2	10:10:22	1.245	1891.000	T 103500.000	T 103200.000	T 106100.000	T 20160.000	TM 102900.000
3	10:10:46	1.226	1842.000	T 100700.000	T 101200.000	T 101900.000	T 19480.000	T 101400.000
x		-	1867.000	T 102300.000	T 102000.000	T 103700.000	T 19960.000	TM 102600.000
σ		-	24.360	T 1424.000	T 1053.000	T 2202.000	T 417.500	TM 1142.000
%RSD		-	1.304	T 1.393	T 1.033	T 2.124	T 2.091	TM 1.113

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:57	1.126	M 2014.000	T 2018.000	T 1950.000	T 2026.000	T 103200.000	T 1896.000
2	10:10:22	1.142	M 2012.000	T 1989.000	T 1978.000	T 1989.000	T 102000.000	T 1937.000
3	10:10:46	1.121	1944.000	T 1975.000	T 1913.000	T 1959.000	T 100600.000	T 1829.000
x		-	M 1990.000	T 1994.000	T 1947.000	T 1991.000	T 101900.000	T 1887.000
σ		-	M 39.940	T 21.790	T 32.530	T 33.590	T 1299.000	T 54.220
%RSD		-	M 2.007	T 1.093	T 1.671	T 1.687	T 1.274	T 2.873

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:57	2006.000	1848.000	1756.000	1824.000	M 2016.000	1990.000	0.000
2	10:10:22	2002.000	1863.000	1772.000	1817.000	1981.000	1987.000	0.000
3	10:10:46	1927.000	1821.000	1705.000	1740.000	1861.000	1890.000	0.000
x		1978.000	1844.000	1744.000	1794.000	M 1953.000	1956.000	0.000
σ		44.550	21.390	34.820	46.710	M 81.620	56.740	0.000
%RSD		2.252	1.160	1.996	2.604	M 4.180	2.901	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:57	0.000	1.162	M 2013.000	2024.000	TM 2043.000	M 2013.000	TM 2029.000
2	10:10:22	0.000	1.162	M 2061.000	2078.000	TM 2054.000	TM 2062.000	TM 2081.000
3	10:10:46	0.000	1.104	1947.000	1909.000	T 1930.000	1956.000	T 1923.000
x		0.000	-	M 2007.000	2004.000	TM 2009.000	TM 2010.000	TM 2011.000
σ		0.000	-	M 57.310	86.440	TM 68.920	TM 52.940	TM 80.580
%RSD		0.000	-	M 2.855	4.314	TM 3.431	TM 2.634	TM 4.007

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:57	1.268	1980.000	T 1945.000	M 2012.000	1997.000	T 1987.000	T 2260.000
2	10:10:22	1.308	M 2052.000	T 2013.000	M 2065.000	2016.000	T 2036.000	T 2288.000
3	10:10:46	1.234	1946.000	T 1885.000	1942.000	1950.000	T 1974.000	T 2203.000
x		-	M 1993.000	T 1947.000	M 2006.000	1988.000	T 1999.000	T 2250.000
σ		-	M 53.900	T 63.960	M 61.380	34.250	T 32.800	T 43.510
%RSD		-	M 2.705	T 3.284	M 3.059	1.723	T 1.641	T 1.934

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:09:57	1.108	1.097	T 2037.000	T 2034.000	TM 2074.000	1.263
2	10:10:22	1.089	1.088	T 2001.000	T 2022.000	TM 2062.000	1.247
3	10:10:46	1.092	1.062	T 1960.000	T 1960.000	TM 2004.000	1.220
x		-	-	T 2000.000	T 2005.000	TM 2047.000	-
σ		-	-	T 38.550	T 39.990	TM 37.330	-
%RSD		-	-	T 1.928	T 1.994	TM 1.824	-

ICV 6/30/2011 10:12:42 AM QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:42	1.075	94.930	τ2126.000	τ1306.000	563.600	τ2048.000	1962.000
2	10:13:07	1.088	95.670	τ2133.000	τ1332.000	580.900	τ2093.000	1972.000
3	10:13:31	1.101	96.990	τ2234.000	τ1405.000	637.100	τ2070.000	2066.000
x		-	96.833%	τ107.198%	τ110.908%	117.827%	τ103.308%	99.754%
σ		-	n/a	τn/a	τn/a	n/a	τn/a	n/a
%RSD		-	1.089	τ2.788	τ3.798	6.473	τ1.091	2.852

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:42	1.032	1.181	104.200	106.300	106.900	τ1184.000	105.800
2	10:13:07	1.030	1.681	100.400	100.700	104.100	τ1168.000	106.800
3	10:13:31	1.040	2.629	103.600	105.500	106.800	τ1234.000	110.100
x		-	1.830	102.738%	106.278%	105.932%	τ117.648%	107.555%
σ		-	0.735	n/a	n/a	n/a	τn/a	n/a
%RSD		-	40.180	2.006	2.882	1.480	τ2.887	2.081

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:42	106.700	107.500	199.900	189.700	217.800	216.700	0.000
2	10:13:07	108.900	105.000	202.500	188.500	216.300	216.000	0.000
3	10:13:31	109.200	109.100	203.800	191.500	209.700	217.500	0.000
x		107.191%	109.388%	98.564%	94.951%	214.600	105.221%	0.000
σ		n/a	n/a	n/a	n/a	4.302	n/a	0.000
%RSD		1.221	1.921	0.998	0.789	2.005	0.345	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:42	0.000	1.002	5.824	5.677	5.930	5.696	5.461
2	10:13:07	0.000	1.004	4.406	4.255	4.036	4.028	3.958
3	10:13:31	0.000	1.010	4.345	4.278	3.782	4.213	4.069
x		0.000	-	4.858	4.737	4.583	4.646	4.496
σ		0.000	-	0.837	0.815	1.174	0.914	0.837
%RSD		0.000	-	17.220	17.210	25.610	19.680	18.630

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:42	1.022	106.200	106.600	104.600	107.200	200.200	103.000
2	10:13:07	1.034	105.000	110.000	103.000	105.600	200.900	103.200
3	10:13:31	1.011	112.200	109.500	97.620	106.900	201.200	103.100
x		-	107.800	108.687%	101.700	107.651%	100.894%	104.135%
σ		-	3.893	n/a	3.642	n/a	n/a	n/a
%RSD		-	3.611	1.698	3.581	0.793	0.254	0.081

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:42	1.002	0.974	210.100	τ204.400	τ199.300	1.018
2	10:13:07	0.997	1.007	202.400	τ202.900	τ201.200	0.991
3	10:13:31	0.991	0.998	208.900	τ206.800	τ202.200	0.985
x		-	-	100.549%	τ99.376%	τ100.450%	-
σ		-	-	n/a	τn/a	τn/a	-
%RSD		-	-	2.014	τ0.954	τ0.740	-

ICB 6/30/2011 10:15:27 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:27	1.083	-0.250	10.960	2.905	2.452	0.855	10.670
2	10:15:52	1.067	-0.105	18.010	9.782	8.312	2.248	5.232
3	10:16:16	1.058	0.254	37.500	26.280	23.150	8.617	17.940
x		-	-0.034	22.160	12.990	11.300	3.907	11.280
σ		-	0.259	13.750	12.010	10.670	4.138	6.374
%RSD		-	762.900	62.060	92.480	94.370	105.900	56.510

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:27	1.059	-0.072	-0.140	0.006	-0.029	5.690	-0.025
2	10:15:52	1.008	0.002	0.097	0.122	0.104	10.950	0.082
3	10:16:16	1.015	0.375	0.568	0.367	0.392	25.640	0.444
x		-	0.102	0.175	0.165	0.156	14.090	0.167
σ		-	0.240	0.360	0.184	0.215	10.340	0.246
%RSD		-	235.400	206.300	111.700	138.400	73.370	147.200

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:27	-0.295	-0.095	-0.352	-0.046	0.186	0.287	0.000
2	10:15:52	-0.151	0.030	-0.185	0.243	-0.544	0.421	0.000
3	10:16:16	0.118	0.534	0.219	0.639	0.138	0.894	0.000
x		-0.109	0.156	-0.106	0.279	-0.073	0.534	0.000
σ		0.209	0.333	0.293	0.344	0.408	0.319	0.000
%RSD		191.200	213.200	276.900	123.400	556.800	59.730	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:27	0.000	1.054	-0.024	0.048	-0.006	-0.069	-0.053
2	10:15:52	0.000	1.012	0.244	0.187	0.213	0.142	0.190
3	10:16:16	0.000	1.021	0.488	0.512	0.318	0.377	0.353
x		0.000	-	0.236	0.249	0.175	0.150	0.163
σ		0.000	-	0.256	0.239	0.165	0.223	0.205
%RSD		0.000	-	108.600	95.820	94.230	148.800	125.300

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:27	1.081	-0.299	-0.038	0.195	0.088	3.260	0.018
2	10:15:52	1.019	1.167	0.148	0.459	0.271	2.853	0.179
3	10:16:16	1.020	0.687	0.611	0.184	0.664	2.537	0.606
x		-	0.518	0.240	0.279	0.341	2.883	0.268
σ		-	0.747	0.334	0.156	0.295	0.363	0.304
%RSD		-	144.200	139.100	55.910	86.410	12.580	113.500

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:15:27	1.038	1.047	0.244	0.243	-0.014	1.052
2	10:15:52	0.997	1.003	0.478	0.442	0.148	0.992
3	10:16:16	0.988	1.011	0.892	0.926	0.533	0.962
x		-	-	0.538	0.537	0.222	-
σ		-	-	0.328	0.351	0.281	-
%RSD		-	-	60.990	65.440	126.600	-

ICSA 6/30/2011 10:18:13 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:13	1.196	-0.020	T 102600.000	T 102400.000	T 98780.000	TM 107300.000	TM 110000.000
2	10:18:37	1.222	-0.053	T 104700.000	T 103500.000	T 100800.000	TM 108000.000	TM 110400.000
3	10:19:02	1.219	-0.127	T 103800.000	T 103600.000	T 102500.000	TM 106800.000	TM 109100.000
x		-	-1.#IO%	T 103.703%	T 103.170%	T 100.692%	TM 107.376%	TM 109.834%
σ		-	n/a	T n/a	T n/a	T n/a	TM n/a	TM n/a
%RSD		-	82.410	T 0.984	T 0.666	T 1.864	TM 0.595	TM 0.619

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:13	1.185	M 2536.000	0.243	21.140	8.451	T 104800.000	1.241
2	10:18:37	1.192	M 2537.000	0.078	20.390	7.966	T 105100.000	1.273
3	10:19:02	1.181	M 2516.000	-0.470	20.340	8.268	T 105300.000	1.150
x		-	M 2530.000	-9.948%	98.205%	117.544%	T 105.080%	122.130%
σ		-	M 11.780	n/a	n/a	n/a	T n/a	n/a
%RSD		-	M 0.466	750.300	2.185	2.976	T 0.233	5.244

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:13	6.230	9.304	11.420	1.457	8.907	1.733	0.000
2	10:18:37	6.209	8.616	10.920	1.300	7.440	1.766	0.000
3	10:19:02	6.027	9.048	11.760	1.404	7.961	1.706	0.000
x		102.590%	112.369%	103.333%	1386.958%	8.103	578.348%	0.000
σ		n/a	n/a	n/a	n/a	0.744	n/a	0.000
%RSD		1.809	3.868	3.727	5.772	9.177	1.747	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:13	0.000	1.200	M 2021.000	2065.000	M 2058.000	M 2031.000	TM 2062.000
2	10:18:37	0.000	1.183	M 2028.000	2071.000	M 2039.000	M 2035.000	TM 2088.000
3	10:19:02	0.000	1.210	M 2084.000	2090.000	TM 2133.000	M 2116.000	TM 2150.000
x		0.000	-	M 2045.000	2075.000	TM 2076.000	M 2060.000	TM 2100.000
σ		0.000	-	M 34.650	13.180	TM 49.890	M 48.250	TM 45.060
%RSD		0.000	-	M 1.695	0.635	TM 2.403	M 2.342	TM 2.146

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:13	1.363	0.021	0.020	40.020	0.182	2.339	1.774
2	10:18:37	1.374	-0.220	-0.036	44.200	-0.315	2.364	1.664
3	10:19:02	1.391	-0.535	-0.078	42.030	0.166	2.226	1.590
x		-	-0.245	-1.#IO%	42.080	1.550%	153.986%	139.677%
σ		-	0.279	n/a	2.089	n/a	n/a	n/a
%RSD		-	114.000	157.200	4.964	2602.000	3.188	5.543

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:18:13	1.140	1.100	0.419	0.397	4.611	1.319
2	10:18:37	1.133	1.100	0.222	0.235	4.552	1.292
3	10:19:02	1.142	1.114	0.118	0.123	4.437	1.268
x		-	-	1.#IO%	1.#IO%	113.333%	-
σ		-	-	n/a	n/a	n/a	-
%RSD		-	-	60.590	54.660	1.951	-

ICSAB 6/30/2011 10:21:00 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:00	1.185	17.100	T 101900.000	T 101600.000	T 99150.000	TM 108000.000	TM 109100.000
2	10:21:24	1.200	17.020	T 103200.000	T 102800.000	T 101200.000	TM 107700.000	TM 111800.000
3	10:21:49	1.218	17.130	T 104600.000	T 103300.000	T 100700.000	TM 107300.000	TM 112200.000
x		-	89.924%	T 103.234%	T 102.561%	T 100.327%	TM 107.658%	TM 111.028%
σ		-	n/a	T n/a	T n/a	T n/a	TM n/a	TM n/a
%RSD		-	0.336	T 1.296	T 0.855	T 1.045	TM 0.330	TM 1.531

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:00	1.169	M 2516.000	19.510	40.880	30.020	T 104500.000	21.120
2	10:21:24	1.182	M 2541.000	20.580	41.130	30.050	T 107100.000	21.360
3	10:21:49	1.197	M 2507.000	20.890	41.410	30.050	T 106500.000	20.540
x		-	M 2521.000	106.979%	102.850%	111.254%	T 106.051%	105.037%
σ		-	M 17.790	n/a	n/a	n/a	T n/a	n/a
%RSD		-	M 0.706	3.580	0.645	0.069	T 1.293	2.010

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:00	24.700	24.550	26.680	18.690	25.930	20.520	0.000
2	10:21:24	25.660	25.830	27.770	18.980	27.280	19.440	0.000
3	10:21:49	25.420	25.990	27.830	18.470	27.010	20.640	0.000
x		105.257%	101.822%	94.566%	98.493%	26.740	106.317%	0.000
σ		n/a	n/a	n/a	n/a	0.715	n/a	0.000
%RSD		1.980	3.093	2.365	1.368	2.673	3.257	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:00	0.000	1.204	M 2065.000	2087.000	M 2071.000	M 2098.000	TM 2140.000
2	10:21:24	0.000	1.208	M 2060.000	2072.000	M 2084.000	M 2124.000	TM 2122.000
3	10:21:49	0.000	1.175	M 2015.000	2019.000	TM 2104.000	M 2057.000	TM 2066.000
x		0.000	-	M 2046.000	2059.000	TM 2087.000	M 2093.000	TM 2109.000
σ		0.000	-	M 27.630	35.710	TM 16.540	M 33.690	TM 38.640
%RSD		0.000	-	M 1.350	1.734	TM 0.793	M 1.610	TM 1.832

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:00	1.368	24.830	20.260	72.020	21.800	24.270	24.120
2	10:21:24	1.406	24.600	21.120	63.090	21.860	25.350	23.810
3	10:21:49	1.360	19.840	20.440	66.460	20.760	24.140	23.640
x		-	23.090	114.495%	67.190	107.373%	111.764%	108.435%
σ		-	2.816	n/a	4.509	n/a	n/a	n/a
%RSD		-	12.200	2.201	6.711	2.865	2.698	1.026

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:00	1.105	1.099	22.550	22.810	27.100	1.290
2	10:21:24	1.123	1.087	22.650	22.750	26.530	1.277
3	10:21:49	1.117	1.088	22.720	22.760	26.500	1.275
x		-	-	107.817%	108.448%	106.842%	-
σ		-	-	n/a	n/a	n/a	-
%RSD		-	-	0.388	0.131	1.254	-

CCV1 CCV 6/30/2011 10:23:45 AM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:23:45	1.144	921.600	τ48590.000	τ49290.000	τ50550.000	τ10050.000	τ52370.000
2	10:24:10	1.134	900.600	τ48920.000	τ49030.000	τ49990.000	τ9965.000	τ50480.000
3	10:24:34	1.173	934.400	τ50410.000	τ50710.000	τ51120.000	τ10460.000	τ52450.000
x		-	91.888%	τ49310.000	τ49670.000	τ50550.000	τ10160.000	τ51770.000
σ		-	n/a	τ970.000	τ903.300	τ566.200	τ263.700	τ1113.000
%RSD		-	1.858	τ1.967	τ1.818	τ1.120	τ2.596	τ2.150

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:23:45	1.094	980.100	959.600	953.100	τ1006.000	τ52220.000	τ944.700
2	10:24:10	1.107	996.100	933.900	948.600	τ1001.000	τ51530.000	τ963.800
3	10:24:34	1.123	1022.000	983.000	957.000	τ1037.000	τ51880.000	τ981.700
x		-	999.300	95.885%	95.289%	τ101.494%	τ51880.000	τ96.338%
σ		-	21.000	n/a	n/a	τn/a	τ345.600	τn/a
%RSD		-	2.102	2.562	0.437	τ1.919	τ0.666	τ1.922

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:23:45	955.100	955.600	920.900	927.200	1018.000	1049.000	0.000
2	10:24:10	1001.000	935.400	940.700	929.300	1036.000	1042.000	0.000
3	10:24:34	1017.000	956.100	950.200	940.900	1071.000	1060.000	0.000
x		99.119%	94.903%	93.729%	93.247%	1042.000	105.068%	0.000
σ		n/a	n/a	n/a	n/a	27.060	n/a	0.000
%RSD		3.255	1.245	1.594	0.791	2.597	0.860	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:23:45	0.000	1.101	996.700	972.400	977.000	988.500	964.000
2	10:24:10	0.000	1.112	981.500	978.400	946.700	960.900	982.800
3	10:24:34	0.000	1.107	971.100	992.200	977.200	951.500	985.200
x		0.000	-	983.100	981.000	967.000	966.900	977.400
σ		0.000	-	12.860	10.150	17.520	19.220	11.610
%RSD		0.000	-	1.308	1.035	1.812	1.987	1.188

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:23:45	1.217	1047.000	τ993.800	947.300	1046.000	τ1039.000	τ1141.000
2	10:24:10	1.198	986.500	τ992.000	922.900	992.900	τ986.700	τ1089.000
3	10:24:34	1.198	992.600	τ988.000	981.600	1004.000	τ1013.000	τ1093.000
x		-	1009.000	τ99.128%	950.600	101.433%	τ101.274%	τ100.702%
σ		-	33.190	τn/a	29.500	n/a	τn/a	τn/a
%RSD		-	3.291	τ0.298	3.103	2.762	τ2.570	τ2.638

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:23:45	1.034	1.014	τ1017.000	τ1022.000	τ1052.000	1.153
2	10:24:10	0.990	0.977	τ939.700	τ965.500	τ974.300	1.073
3	10:24:34	1.018	1.007	τ973.000	τ979.700	τ1005.000	1.110
x		-	-	τ97.665%	τ98.894%	τ101.052%	-
σ		-	-	τn/a	τn/a	τn/a	-
%RSD		-	-	τ3.984	τ2.950	τ3.889	-

CCB1 CCB 6/30/2011 10:26:31 AM QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:31	1.033	0.032	44.730	25.310	23.870	20.430	23.440
2	10:26:55	1.041	0.131	70.620	44.990	38.980	42.220	55.350
3	10:27:19	1.037	0.642	147.500	104.800	89.130	97.700	101.400
x		-	0.268	87.620	58.370	50.660	53.450	60.050
σ		-	0.327	53.470	41.400	34.170	39.840	39.170
%RSD		-	122.000	61.020	70.940	67.440	74.540	65.230

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:31	1.025	0.922	0.352	0.323	0.283	34.900	0.253
2	10:26:55	1.022	1.043	0.525	0.309	0.367	49.110	0.394
3	10:27:19	1.019	2.074	1.019	0.886	1.033	102.800	0.951
x		-	1.346	0.632	0.506	0.561	62.260	0.533
σ		-	0.633	0.346	0.330	0.411	35.800	0.369
%RSD		-	47.020	54.750	65.110	73.210	57.500	69.340

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:31	0.030	0.350	0.003	0.354	-0.205	0.939	0.000
2	10:26:55	-0.023	0.346	0.173	0.480	0.622	0.715	0.000
3	10:27:19	0.846	1.085	0.650	0.845	2.613	1.280	0.000
x		0.285	0.594	0.276	0.560	1.010	0.978	0.000
σ		0.487	0.426	0.336	0.255	1.449	0.284	0.000
%RSD		171.300	71.690	121.800	45.630	143.400	29.060	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:31	0.000	1.011	3.220	3.006	3.082	2.942	3.226
2	10:26:55	0.000	1.001	2.754	2.570	2.513	2.564	2.430
3	10:27:19	0.000	0.997	2.752	3.010	3.093	2.840	2.856
x		0.000	-	2.909	2.862	2.896	2.782	2.837
σ		0.000	-	0.270	0.253	0.332	0.196	0.398
%RSD		0.000	-	9.264	8.841	11.450	7.047	14.040

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:31	1.001	-0.430	0.299	0.270	0.344	1.492	0.334
2	10:26:55	0.999	1.446	0.484	0.449	0.504	1.734	0.390
3	10:27:19	0.995	1.624	1.153	1.612	0.880	1.976	1.211
x		-	0.880	0.645	0.777	0.576	1.734	0.645
σ		-	1.138	0.449	0.728	0.275	0.242	0.491
%RSD		-	129.300	69.640	93.730	47.760	13.970	76.100

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:26:31	0.968	0.954	0.526	0.466	0.260	0.955
2	10:26:55	0.961	0.951	0.702	0.719	0.422	0.939
3	10:27:19	0.964	0.948	1.621	1.507	1.000	0.933
x		-	-	0.950	0.897	0.560	-
σ		-	-	0.588	0.543	0.389	-
%RSD		-	-	61.920	60.560	69.390	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:15	0.962	-0.264	TM 343100.000	T 83760.000	179.900	T 11790.000	TM 381600.000
2	10:29:39	0.975	-0.308	TM 350400.000	T 85170.000	170.000	T 11520.000	TM 374700.000
3	10:30:03	0.967	-0.329	TM 347600.000	T 85470.000	168.500	T 11570.000	TM 375500.000
x		-	-0.300	TM 347000.000	T 84800.000	172.800	T 11630.000	TM 377300.000
σ		-	0.033	TM 3679.000	T 912.800	6.227	T 147.200	TM 3774.000
%RSD		-	10.980	TM 1.060	T 1.076	3.603	T 1.266	TM 1.000

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:15	0.868	5.204	45.100	9.102	T 554.200	64.740	19.430
2	10:29:39	0.847	5.180	44.320	9.240	T 547.800	60.850	19.270
3	10:30:03	0.829	4.217	43.210	9.346	T 540.600	56.780	19.010
x		-	4.867	44.210	9.229	T 547.600	60.790	19.240
σ		-	0.563	0.952	0.122	T 6.817	3.983	0.212
%RSD		-	11.570	2.153	1.326	T 1.245	6.551	1.103

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:15	54.970	1.461	10.720	15.590	81.800	60.440	0.000
2	10:29:39	54.170	1.448	10.100	16.360	82.990	60.240	0.000
3	10:30:03	56.060	1.575	10.640	17.130	82.000	59.890	0.000
x		55.070	1.495	10.490	16.360	82.260	60.190	0.000
σ		0.949	0.070	0.339	0.771	0.638	0.280	0.000
%RSD		1.724	4.663	3.231	4.714	0.775	0.466	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:15	0.000	1.031	6.653	4.577	4.824	4.583	4.430
2	10:29:39	0.000	1.029	7.277	4.781	4.399	4.232	4.568
3	10:30:03	0.000	1.005	6.559	4.440	4.505	4.232	4.065
x		0.000	-	6.830	4.599	4.576	4.349	4.354
σ		0.000	-	0.391	0.172	0.221	0.203	0.260
%RSD		0.000	-	5.718	3.735	4.836	4.663	5.976

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:15	1.201	0.337	-0.027	0.964	0.110	0.926	67.720
2	10:29:39	1.213	1.280	-0.043	0.324	0.103	0.986	70.330
3	10:30:03	1.194	-0.414	-0.060	0.426	0.018	0.823	69.960
x		-	0.401	-0.043	0.571	0.077	0.912	69.340
σ		-	0.849	0.017	0.344	0.051	0.082	1.413
%RSD		-	211.600	39.170	60.180	66.110	9.021	2.038

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:29:15	1.029	1.002	0.292	0.279	0.196	1.293
2	10:29:39	1.026	1.006	0.214	0.231	0.133	1.281
3	10:30:03	1.012	0.983	0.171	0.195	0.079	1.266
x		-	-	0.226	0.235	0.136	-
σ		-	-	0.062	0.042	0.058	-
%RSD		-	-	27.320	17.990	42.900	-

14920S;2 MF4N31S 6/30/2011 10:31:57 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:57	0.960	22.160	τ70620.000	τ22880.000	τ1315.000	τ3925.000	τ90440.000
2	10:32:21	0.993	22.520	τ72200.000	τ23310.000	τ1320.000	τ4023.000	τ93810.000
3	10:32:45	1.000	22.300	τ71480.000	τ23210.000	τ1316.000	τ3993.000	τ92710.000
x		-	22.330	τ71430.000	τ23130.000	τ1317.000	τ3980.000	τ92320.000
σ		-	0.185	τ794.000	τ224.100	τ2.728	τ50.360	τ1722.000
%RSD		-	0.828	τ1.112	τ0.969	τ0.207	τ1.265	τ1.865

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:57	0.841	5.919	256.600	287.200	244.500	τ584.800	236.500
2	10:32:21	0.865	5.976	261.200	286.400	250.300	τ590.600	233.000
3	10:32:45	0.887	5.299	261.700	284.400	249.100	τ591.200	233.700
x		-	5.731	259.800	286.000	248.000	τ588.900	234.400
σ		-	0.376	2.819	1.446	3.048	τ 3.556	1.871
%RSD		-	6.557	1.085	0.505	1.229	τ0.604	0.798

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:57	235.300	114.200	220.900	24.640	19.620	9.395	0.000
2	10:32:21	241.800	114.200	212.900	24.700	18.700	8.755	0.000
3	10:32:45	245.300	114.600	216.000	24.180	18.950	9.919	0.000
x		240.800	114.400	216.600	24.510	19.090	9.356	0.000
σ		5.064	0.233	4.031	0.283	0.475	0.583	0.000
%RSD		2.103	0.204	1.861	1.155	2.489	6.232	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:57	0.000	0.973	5.444	1.233	1.395	1.431	1.147
2	10:32:21	0.000	0.955	5.149	1.017	1.471	1.161	1.223
3	10:32:45	0.000	0.973	4.955	0.898	1.534	1.415	1.063
x		0.000	-	5.183	1.049	1.467	1.336	1.144
σ		0.000	-	0.246	0.170	0.070	0.152	0.080
%RSD		0.000	-	4.752	16.210	4.760	11.350	6.999

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:57	1.061	25.940	27.200	26.900	27.150	52.010	1143.000
2	10:32:21	1.055	25.900	26.290	24.380	28.320	52.870	1104.000
3	10:32:45	1.063	29.160	26.600	23.270	26.600	51.330	1115.000
x		-	27.000	26.690	24.850	27.360	52.070	1121.000
σ		-	1.870	0.465	1.856	0.879	0.771	19.990
%RSD		-	6.928	1.742	7.470	3.214	1.480	1.784

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:31:57	0.927	0.931	26.970	27.790	11.140	1.067
2	10:32:21	0.918	0.892	27.570	26.920	10.910	1.053
3	10:32:45	0.944	0.926	27.460	26.810	10.830	1.054
x		-	-	27.330	27.170	10.960	-
σ		-	-	0.323	0.536	0.161	-
%RSD		-	-	1.183	1.972	1.466	-

14918;2 MF4N29 6/30/2011 10:34:39 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:39	0.976	-0.181	TM 152900.000	T 23880.000	381.400T	15120.000	TM 105600.000
2	10:35:03	1.022	-0.159	TM 158800.000	T 24570.000	398.900T	14990.000	TM 105600.000
3	10:35:27	1.035	-0.070	TM 159900.000	T 24890.000	T 427.700T	15600.000	TM 107100.000
x		-	-0.137	TM 157200.000	T 24450.000	T 402.600	T 15240.000	TM 106100.000
σ		-	0.059	TM 3773.000	T 516.300	T 23.370	T 320.400	TM 868.300
%RSD		-	42.910	TM 2.400	T 2.112	T 5.803	T 2.102	TM 0.818

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:39	0.932	6.119	12.870	47.930	14.020	300.700	1.059
2	10:35:03	0.936	5.838	14.130	49.200	13.630	306.200	1.056
3	10:35:27	0.942	6.140	13.700	49.040	14.350	317.300	1.178
x		-	6.032	13.560	48.720	14.000	308.100	1.098
σ		-	0.168	0.639	0.692	0.364	8.480	0.069
%RSD		-	2.792	4.712	1.419	2.597	2.753	6.316

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:39	23.080	3.142	3.681	4.397	16.820	6.054	0.000
2	10:35:03	24.200	3.321	3.398	4.305	16.610	6.898	0.000
3	10:35:27	23.750	3.218	3.689	4.951	15.270	7.402	0.000
x		23.680	3.227	3.589	4.551	16.230	6.784	0.000
σ		0.566	0.090	0.166	0.349	0.837	0.681	0.000
%RSD		2.392	2.786	4.619	7.678	5.154	10.040	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:39	0.000	1.034	12.160	8.308	8.345	8.373	7.925
2	10:35:03	0.000	1.043	12.440	7.924	8.539	8.389	7.799
3	10:35:27	0.000	1.027	12.660	8.328	8.362	8.081	8.005
x		0.000	-	12.420	8.187	8.415	8.281	7.909
σ		0.000	-	0.249	0.227	0.107	0.174	0.104
%RSD		0.000	-	2.002	2.778	1.276	2.096	1.313

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:39	1.154	0.987	0.032	0.411	0.146	0.915	36.360
2	10:35:03	1.188	0.432	0.121	1.162	0.200	0.862	38.020
3	10:35:27	1.157	0.145	0.181	0.927	0.478	1.052	38.130
x		-	0.521	0.111	0.834	0.275	0.943	37.500
σ		-	0.428	0.075	0.384	0.178	0.098	0.992
%RSD		-	82.130	67.620	46.060	64.800	10.410	2.645

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:34:39	0.983	0.978	0.342	0.352	0.548	1.149
2	10:35:03	0.986	0.976	0.346	0.360	0.593	1.132
3	10:35:27	0.978	0.978	0.469	0.492	0.717	1.132
x		-	-	0.386	0.401	0.619	-
σ		-	-	0.072	0.079	0.087	-
%RSD		-	-	18.730	19.670	14.100	-

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:21	0.999	-0.079	TM 244000.000	T 54120.000	T 841.900	T 4672.000	TM 146000.000
2	10:37:45	1.022	-0.106	TM 248900.000	T 55560.000	T 860.900	T 4643.000	TM 144900.000
3	10:38:10	1.022	-0.090	TM 250800.000	T 55680.000	T 852.800	T 4767.000	TM 145400.000
x		-	-0.092	TM 247900.000	T 55120.000	T 851.900	T 4694.000	TM 145400.000
σ		-	0.013	TM 3466.000	T 870.800	T 9.566	T 64.590	TM 554.500
%RSD		-	14.620	TM 1.398	T 1.580	T 1.123	T 1.376	TM 0.381

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:21	0.825	16.490	159.900	388.900	234.600	T 1180.000	6.274
2	10:37:45	0.834	16.660	155.900	390.200	235.800	T 1182.000	6.566
3	10:38:10	0.835	19.770	157.700	390.100	237.300	T 1176.000	6.685
x		-	17.640	157.900	389.700	235.900	T 1179.000	6.508
σ		-	1.847	2.010	0.738	1.311	T 3.038	0.212
%RSD		-	10.470	1.273	0.189	0.556	T 0.258	3.254

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:21	145.400	10.050	17.170	27.520	30.210	17.490	0.000
2	10:37:45	148.000	9.746	17.280	27.940	34.490	18.890	0.000
3	10:38:10	150.100	10.060	16.790	28.760	37.060	18.600	0.000
x		147.800	9.950	17.080	28.070	33.920	18.330	0.000
σ		2.384	0.177	0.256	0.633	3.460	0.738	0.000
%RSD		1.613	1.782	1.496	2.255	10.200	4.028	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:21	0.000	1.033	28.630	20.570	21.420	20.600	20.670
2	10:37:45	0.000	1.045	29.170	20.850	20.980	21.540	21.340
3	10:38:10	0.000	1.031	27.680	21.020	21.920	20.460	21.180
x		0.000	-	28.490	20.810	21.440	20.860	21.070
σ		0.000	-	0.753	0.225	0.473	0.587	0.351
%RSD		0.000	-	2.641	1.082	2.206	2.813	1.667

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:21	1.225	1.417	-0.059	1.525	0.049	0.459	39.990
2	10:37:45	1.275	2.339	-0.083	1.017	0.066	0.457	40.840
3	10:38:10	1.239	1.894	-0.080	1.099	0.063	0.401	40.340
x		-	1.883	-0.074	1.214	0.060	0.439	40.390
σ		-	0.461	0.013	0.273	0.009	0.033	0.426
%RSD		-	24.490	17.610	22.480	15.280	7.553	1.054

Run	Time	159Tb16	5Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:37:21	1.022	0.989	0.105	0.110	2.608	1.246
2	10:37:45	1.015	1.010	0.076	0.061	2.573	1.242
3	10:38:10	0.993	0.997	0.075	0.065	2.567	1.207
x		-	-	0.085	0.079	2.583	-
σ		-	-	0.017	0.027	0.022	-
%RSD		-	-	20.300	34.210	0.857	-

zzzzzz 6/30/2011 10:40:04 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:04	0.978	20.980	τ107300.000	τ21240.000	τ1490.000	τ5342.000	τ94360.000
2	10:40:28	0.997	21.110	τ108100.000	τ21480.000	τ1516.000	τ5400.000	τ92880.000
3	10:40:52	1.004	21.380	τ108500.000	τ21530.000	τ1513.000	τ5433.000	τ94870.000
x		-	21.160	τ108000.000	τ21420.000	τ1506.000	τ5392.000	τ94040.000
σ		-	0.205	τ625.600	τ155.800	τ14.280	τ46.060	τ1036.000
%RSD		-	0.967	τ0.579	τ0.727	τ0.948	τ0.854	τ1.101

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:04	0.948	7.382	260.800	108.400	257.300	τ740.800	235.800
2	10:40:28	0.949	8.482	260.800	107.900	260.500	τ738.700	243.100
3	10:40:52	0.959	6.965	259.500	107.000	257.700	τ745.600	232.000
x		-	7.610	260.400	107.800	258.500	τ741.700	237.000
σ		-	0.784	0.770	0.735	1.738	τ3.562	5.630
%RSD		-	10.300	0.296	0.682	0.672	τ0.480	2.376

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:04	244.700	112.700	212.400	23.180	24.600	11.530	0.000
2	10:40:28	243.700	113.100	218.100	23.960	17.470	12.360	0.000
3	10:40:52	241.200	112.700	213.600	23.940	20.150	12.060	0.000
x		243.200	112.800	214.700	23.690	20.740	11.980	0.000
σ		1.821	0.264	2.987	0.447	3.602	0.421	0.000
%RSD		0.749	0.234	1.391	1.885	17.370	3.516	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:04	0.000	1.024	10.100	5.549	5.673	5.163	5.071
2	10:40:28	0.000	1.052	10.120	5.071	5.739	5.215	5.125
3	10:40:52	0.000	1.045	9.951	5.189	5.855	5.235	5.219
x		0.000	-	10.060	5.270	5.756	5.204	5.138
σ		0.000	-	0.093	0.249	0.092	0.037	0.075
%RSD		0.000	-	0.925	4.729	1.605	0.718	1.456

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:04	1.160	28.350	26.100	27.240	28.050	52.070	1114.000
2	10:40:28	1.164	26.140	26.480	27.970	27.020	50.580	1086.000
3	10:40:52	1.150	28.960	26.220	28.820	27.020	50.460	1082.000
x		-	27.820	26.270	28.010	27.360	51.040	1094.000
σ		-	1.486	0.196	0.793	0.597	0.898	17.590
%RSD		-	5.340	0.746	2.832	2.180	1.759	1.607

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:40:04	1.011	0.977	28.110	27.820	11.680	1.153
2	10:40:28	0.971	0.987	26.970	27.110	11.280	1.106
3	10:40:52	0.997	0.958	27.390	26.490	11.060	1.099
x		-	-	27.490	27.140	11.340	-
σ		-	-	0.579	0.666	0.314	-
%RSD		-	-	2.107	2.453	2.766	-

CCV2 CCV 6/30/2011 10:42:47 AM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:47	1.145	925.000	τ50540.000	τ50590.000	τ50830.000	τ10370.000	τ54320.000
2	10:43:11	1.179	928.200	τ51070.000	τ50900.000	τ51160.000	τ10200.000	τ53410.000
3	10:43:35	1.195	931.300	τ50900.000	τ50990.000	τ51430.000	τ10350.000	τ52660.000
x		-	92.819%	τ50840.000	τ50820.000	τ51140.000	τ10310.000	τ53460.000
σ		-	n/a	τ271.600	τ207.900	τ301.300	τ95.590	τ830.300
%RSD		-	0.342	τ0.534	τ0.409	τ0.589	τ0.927	τ1.553

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:47	1.137	1012.000	996.100	959.300	τ1036.000	τ52130.000	τ945.700
2	10:43:11	1.146	1031.000	986.400	965.400	τ1036.000	τ53010.000	τ957.900
3	10:43:35	1.133	1020.000	955.400	944.800	τ1017.000	τ51850.000	τ966.900
x		-	1021.000	97.930%	95.650%	τ102.936%	τ52330.000	τ95.683%
σ		-	9.903	n/a	n/a	τn/a	τ603.800	τn/a
%RSD		-	0.970	2.170	1.103	τ1.058	τ1.154	τ1.114

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:47	995.100	953.000	929.000	919.600	1022.000	1034.000	0.000
2	10:43:11	991.800	954.500	951.800	927.900	1042.000	1050.000	0.000
3	10:43:35	981.600	946.900	944.300	933.900	1049.000	1056.000	0.000
x		98.951%	95.145%	94.170%	92.711%	1037.000	104.662%	0.000
σ		n/a	n/a	n/a	n/a	13.860	n/a	0.000
%RSD		0.714	0.422	1.233	0.774	1.336	1.069	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:47	0.000	1.103	968.900	969.300	970.400	956.800	959.500
2	10:43:11	0.000	1.125	968.000	973.600	964.400	966.500	965.000
3	10:43:35	0.000	1.145	970.100	986.400	971.400	971.600	976.400
x		0.000	-	969.000	976.400	968.700	965.000	967.000
σ		0.000	-	1.051	8.902	3.767	7.537	8.595
%RSD		0.000	-	0.109	0.912	0.389	0.781	0.889

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:47	1.221	1019.000	τ992.200	1027.000	1041.000	τ1038.000	τ1113.000
2	10:43:11	1.236	1028.000	τ988.800	1035.000	1034.000	τ1037.000	τ1132.000
3	10:43:35	1.242	1044.000	τ994.000	993.800	1028.000	τ1032.000	τ1141.000
x		-	1031.000	τ99.168%	1019.000	103.430%	τ103.557%	τ102.607%
σ		-	12.490	τn/a	21.810	n/a	τn/a	τn/a
%RSD		-	1.212	τ0.267	2.141	0.646	τ0.337	τ1.257

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:47	1.023	1.006	τ1004.000	τ1006.000	τ1036.000	1.134
2	10:43:11	1.050	1.010	τ1002.000	τ1003.000	τ1030.000	1.141
3	10:43:35	1.051	1.021	τ977.600	τ981.700	τ1020.000	1.126
x		-	-	τ99.469%	τ99.687%	τ102.863%	-
σ		-	-	τn/a	τn/a	τn/a	-
%RSD		-	-	τ1.490	τ1.323	τ0.782	-

CCB2 CCB 6/30/2011 10:45:33 AM QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:45:33	1.123	-0.071	31.330	18.100	16.810	9.728	33.040
2	10:45:57	1.116	-0.086	27.430	17.270	16.650	9.148	22.330
3	10:46:21	1.114	-0.101	28.450	18.550	16.760	9.423	18.250
x		-	-0.086	29.070	17.970	16.740	9.433	24.540
σ		-	0.015	2.020	0.650	0.081	0.290	7.639
%RSD		-	17.080	6.951	3.615	0.486	3.075	31.130

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:45:33	1.137	0.172	-0.150	0.232	0.143	21.270	0.087
2	10:45:57	1.090	0.643	0.387	0.203	0.174	21.060	0.094
3	10:46:21	1.114	0.660	0.073	0.184	0.165	21.330	0.177
x		-	0.492	0.103	0.206	0.161	21.220	0.120
σ		-	0.277	0.270	0.024	0.016	0.141	0.050
%RSD		-	56.420	260.900	11.730	10.120	0.665	41.700

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:45:33	-0.284	0.061	-0.024	0.192	-0.661	0.036	0.000
2	10:45:57	-0.099	0.074	-0.137	0.287	-0.131	0.074	0.000
3	10:46:21	-0.191	0.110	-0.058	0.229	-0.133	0.055	0.000
x		-0.191	0.082	-0.073	0.236	-0.309	0.055	0.000
σ		0.092	0.025	0.058	0.048	0.305	0.019	0.000
%RSD		48.250	30.500	79.330	20.220	99.050	34.730	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:45:33	0.000	1.104	0.922	0.907	0.862	0.873	0.949
2	10:45:57	0.000	1.089	0.869	1.045	0.798	0.892	0.841
3	10:46:21	0.000	1.077	0.599	0.455	0.537	0.415	0.515
x		0.000	-	0.797	0.803	0.733	0.727	0.768
σ		0.000	-	0.173	0.309	0.172	0.270	0.226
%RSD		0.000	-	21.750	38.460	23.490	37.220	29.370

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
		ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:45:33	1.113	-0.243	1.994	0.300	0.313	0.886	0.201
2	10:45:57	1.098	-0.386	1.829	0.197	0.236	0.910	0.178
3	10:46:21	1.113	-0.997	1.809	0.200	0.306	0.849	0.189
x		-	-0.542	1.877	0.232	0.285	0.881	0.189
σ		-	0.400	0.102	0.059	0.043	0.031	0.012
%RSD		-	73.860	5.417	25.300	14.970	3.501	6.292

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:45:33	1.048	0.997	0.284	0.273	0.142	1.018
2	10:45:57	1.004	0.985	0.263	0.263	0.129	0.982
3	10:46:21	1.035	1.020	0.277	0.271	0.136	1.016
x		-	-	0.274	0.269	0.136	-
σ		-	-	0.011	0.005	0.007	-
%RSD		-	-	3.873	1.960	4.840	-

Mass Uncorrected ICPS

S0 S0 6/30/2011 9:55:57 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	09:56:21	93712.252	74.400	32952.376	2514.177	2510.176	118813.960	18069.137
2	09:56:46	92853.785	250.602	33745.856	3074.265	3270.299	125006.020	18399.474
3	09:57:10	91789.303	403.805	33763.890	3190.285	3530.349	121824.140	18149.218
x		92785.113	242.935	33487.374	2926.242	3103.608	121881.370	18205.943
σ		963.312	164.836	463.409	361.543	530.120	3096.425	172.319
%RSD		1.038	67.852	1.384	12.355	17.081	2.541	0.947

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	09:56:21	209694.020	60.000	2450.168	540.008	340.003	98008.221	130.000
2	09:56:46	204484.120	50.000	2630.194	860.021	820.019	99275.191	430.005
3	09:57:10	205010.100	70.000	3130.274	790.017	1140.036	96369.338	760.016
x		206396.080	60.000	2736.879	730.015	766.686	97884.250	440.007
σ		2868.181	10.000	352.381	168.233	402.674	1456.888	315.127
%RSD		1.390	16.667	12.875	23.045	52.521	1.488	71.619

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	09:56:21	130.000	30.000	150.001	126.000	70.000	454.006	30.000
2	09:56:46	470.006	300.003	580.009	182.001	90.000	472.006	30.000
3	09:57:10	520.008	430.005	790.017	240.002	60.000	514.007	30.000
x		373.338	253.336	506.676	182.668	73.333	480.006	30.000
σ		212.214	204.045	326.250	57.004	15.275	30.790	0.000
%RSD		56.842	80.543	64.390	31.206	20.830	6.415	0.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	09:56:21	30.000	351108.150	610.010	960.026	1130.036	600.010	1790.090
2	09:56:46	34.000	372066.170	430.005	820.019	910.023	670.013	1500.063
3	09:57:10	28.000	361594.320	430.005	650.012	900.023	440.005	1160.038
x		30.667	361589.540	490.007	810.019	980.027	570.009	1483.397
σ		3.055	10479.009	103.926	155.249	130.007	117.902	315.356
%RSD		9.962	2.898	21.209	19.166	13.266	20.684	21.259

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	09:56:21	326110.810	660.012	240.002	0.000	10.000	80.000	90.000
2	09:56:46	333301.760	720.015	780.017	0.000	0.000	140.001	240.002
3	09:57:10	338498.150	760.016	1200.040	0.000	0.000	120.000	100.000
x		332636.900	713.348	740.020	0.000	3.333	113.334	143.334
σ		6220.375	50.334	481.268	0.000	5.774	30.551	83.866
%RSD		1.870	7.056	65.034	0.000	173.205	26.956	58.511

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	09:56:21	754489.360	790947.200	80.000	170.001	1070.032	580039.940
2	09:56:46	776774.990	808026.950	80.000	180.001	3210.289	605473.630
3	09:57:10	788429.450	840757.210	100.000	160.001	4320.523	604305.030
x		773231.270	813243.790	86.667	170.001	2866.948	596606.200
σ		17245.314	25311.478	11.547	10.000	1652.221	14358.695
%RSD		2.230	3.112	13.324	5.882	57.630	2.407

S1 S 6/30/2011 9:59:04 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	09:59:04	92485.381	588.210	2172456.400	1557522.100	79918.435	1611243.000	74003.023
2	09:59:28	91684.265	593.810	2193933.600	1557824.800	79918.435	1543623.500	72125.364
3	09:59:52	91451.577	598.010	2233154.000	1579533.200	83333.995	1617437.200	72898.494
x		91873.741	593.343	2199848.000	1564960.000	81056.955	1590767.900	73008.961
σ		542.322	4.917	30777.987	12621.618	1971.974	40945.566	943.691
%RSD		0.590	0.829	1.399	0.807	2.433	2.574	1.293

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	09:59:04	204413.320	40.000	22093.659	8011.797	8031.806	1269271.200	4880.667
2	09:59:28	203745.750	10.000	20181.398	7791.700	7401.534	1253150.200	4190.492
3	09:59:52	204524.580	30.000	20561.831	8872.203	6981.364	1244559.500	4750.632
x		204227.880	26.667	20945.629	8225.233	7471.568	1255660.300	4607.264
σ		421.227	15.275	1012.256	570.998	528.711	12545.611	366.744
%RSD		0.206	57.282	4.833	6.942	7.076	0.999	7.960

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	09:59:04	910.023	2610.191	2400.161	886.022	390.004	1444.058	400.004
2	09:59:28	860.021	2240.141	2000.112	928.024	380.004	1464.060	510.007
3	09:59:52	1010.029	1880.099	2300.148	954.025	350.003	1656.077	710.014
x		926.691	2243.477	2233.474	922.691	373.337	1521.398	540.009
σ		76.380	365.057	208.192	34.314	20.817	117.063	157.167
%RSD		8.242	16.272	9.321	3.719	5.576	7.694	29.105

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	09:59:04	24.000	370932.950	100.000	170.001	190.001	130.000	370.004
2	09:59:28	28.000	376661.000	130.000	130.000	190.001	150.001	290.002
3	09:59:52	30.000	361288.210	140.001	230.001	310.003	190.001	360.004
x		27.333	369627.390	123.334	176.668	230.002	156.667	340.003
σ		3.055	7769.106	20.817	50.333	69.283	30.551	43.590
%RSD		11.177	2.102	16.878	28.490	30.123	19.500	12.820

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	09:59:04	338100.720	890.022	6071.032	120.000	1890.100	11843.926	20621.900
2	09:59:28	339568.180	910.023	5991.005	170.001	1740.085	11653.801	21162.532
3	09:59:52	338793.670	780.017	6871.322	170.001	1700.081	12314.244	21563.011
x		338820.860	860.021	6311.120	153.334	1776.755	11937.324	21115.815
σ		734.104	70.003	486.797	28.868	100.177	339.983	472.291
%RSD		0.217	8.140	7.713	18.827	5.638	2.848	2.237

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	09:59:04	769948.690	799704.590	12304.238	28733.098	21112.473	599538.330
2	09:59:28	781932.940	850408.490	11873.946	29043.600	21162.532	617950.300
3	09:59:52	782966.800	810997.150	11883.953	28703.050	21673.144	602929.690
x		778282.810	820370.080	12020.712	28826.582	21316.050	606806.110
σ		7236.049	26619.736	245.591	188.542	310.264	9798.983
%RSD		0.930	3.245	2.043	0.654	1.456	1.615

S2 S 6/30/2011 10:01:46 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:01:46	91329.454	56240.424	τ22562130.000	τ16088712.000	τ19259979.000	τ3259954.200	566701.770
2	10:02:11	90852.531	56218.556	τ22456074.000	τ16047842.000	τ19460183.000	τ3277413.000	556457.030
3	10:02:35	90098.223	55826.328	τ22374557.000	τ15981483.000	τ19585057.000	3030354.700	556157.930
x		90760.069	56095.103	τ22464254.000	τ16039346.000	τ19435073.000	τ3189240.600	559772.240
σ		620.801	233.022	τ94054.024	τ54117.191	τ163987.060	τ137875.850	6003.010
%RSD		0.684	0.415	τ0.419	τ0.337	τ0.844	τ4.323	1.072

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:01:46	206122.800	25237.822	351679.220	347947.180	671087.460	τ28344034.000	434277.270
2	10:02:11	202926.500	24096.247	351516.060	350251.570	660939.290	τ28193753.000	436295.580
3	10:02:35	207265.920	24747.136	351322.300	353412.950	653129.690	τ28974801.000	432761.120
x		205438.410	24693.735	351505.860	350537.230	661718.810	τ28504196.000	434444.660
σ		2249.205	572.658	178.680	2744.063	9004.227	τ414425.010	1773.166
%RSD		1.095	2.319	0.051	0.783	1.361	τ1.454	0.408

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:01:46	94971.881	108226.980	108528.800	68091.574	6801.295	22910.688	10453.059
2	10:02:11	92911.082	108921.180	106355.780	69207.853	7371.521	23647.648	10493.082
3	10:02:35	94368.695	108257.160	107522.740	68721.982	6811.299	23481.428	9832.706
x		94083.886	108468.440	107469.110	68673.803	6994.705	23346.588	10259.616
σ		1059.509	392.375	1087.500	559.697	326.371	386.541	370.255
%RSD		1.126	0.362	1.012	0.815	4.666	1.656	3.609

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:01:46	28.000	359543.530	96630.745	171348.160	179447.130	108548.920	286784.530
2	10:02:11	34.000	360716.840	96489.986	171126.050	183124.180	107804.430	286449.210
3	10:02:35	22.000	361318.820	98159.046	171499.600	182831.200	110168.800	287526.310
x		28.000	360526.400	97093.259	171324.600	181800.830	108840.720	286920.010
σ		6.000	902.841	925.678	187.890	2043.625	1208.889	551.186
%RSD		21.429	0.250	0.953	0.110	1.124	1.111	0.192

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:01:46	325764.570	15997.162	581444.530	11243.539	169490.560	535974.600	214217.230
2	10:02:11	323626.220	16367.498	586702.380	11053.420	169995.320	547671.590	217445.900
3	10:02:35	317629.980	16287.424	594958.930	11933.986	176316.170	555621.610	226304.960
x		322340.260	16217.361	587701.950	11410.315	171934.020	546422.600	219322.700
σ		4217.007	194.856	6812.420	463.368	3803.439	9882.878	6258.600
%RSD		1.308	1.202	1.159	4.061	2.212	1.809	2.854

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:01:46	776743.670	814783.820	1094260.700	2660281.600	1962068.500	572946.360
2	10:02:11	782601.290	819983.920	1093559.600	2673909.800	2026537.300	599662.390
3	10:02:35	770700.080	813329.730	1108106.600	2744364.700	2019615.000	588892.740
x		776681.680	816032.490	1098642.300	2692852.000	2002740.200	587167.160
σ		5950.844	3498.418	8203.801	45128.683	35392.419	13441.344
%RSD		0.766	0.429	0.747	1.676	1.767	2.289

S3 S 6/30/2011 10:04:29 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:04:29	86074.448	251791.750	↹103008860.000	↹72436016.000	↹86891704.000	↹14545917.000	2526707.900
2	10:04:54	84150.812	246606.330	↹101178010.000	↹71437300.000	↹86291369.000	↹14269402.000	2554771.900
3	10:05:18	83485.199	243628.680	↹102556340.000	↹70957164.000	↹86990148.000	↹14477949.000	2459549.400
x		84570.153	247342.250	↹102247740.000	↹71610160.000	↹86724407.000	↹14431089.000	2513676.400
σ		1344.596	4130.993	↹953637.930	↹754427.680	↹378238.240	↹144090.410	48930.532
%RSD		1.590	1.670	↹0.933	↹1.054	↹0.436	↹0.998	1.947

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:04:29	190197.540	116528.980	1636961.700	1568660.600	3019965.500	↹126139810.000	1910378.800
2	10:04:54	192896.250	116357.870	1630520.500	1575919.900	2982431.900	↹127795980.000	1868019.500
3	10:05:18	198739.810	116468.580	1591167.100	1566404.900	2959236.000	↹125322460.000	1897176.300
x		193944.530	116451.810	1619549.800	1570328.400	2987211.100	↹126419410.000	1891858.200
σ		4366.552	86.780	24790.232	4971.939	30645.522	↹1260240.300	21674.643
%RSD		2.251	0.075	1.531	0.317	1.026	↹0.997	1.146

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:04:29	414536.320	478116.100	460163.590	309625.230	31828.340	102133.240	47092.013
2	10:04:54	409338.460	483097.520	458963.290	308093.070	31718.144	101861.700	46319.997
3	10:05:18	406218.410	474203.830	465181.110	307663.760	32719.949	101218.050	45157.024
x		410031.070	478472.490	461436.000	308460.680	32088.811	101737.660	46189.678
σ		4201.986	4457.539	3298.423	1031.114	549.352	470.033	974.055
%RSD		1.025	0.932	0.715	0.334	1.712	0.462	2.109

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:04:29	66.000	340913.450	433232.340	789850.210	854507.380	498204.190	1298515.700
2	10:04:54	62.000	348875.020	434666.570	770616.590	854392.050	498594.870	1276886.400
3	10:05:18	48.000	342014.200	444094.330	798377.120	844309.050	495356.600	1313106.900
x		58.667	343934.220	437331.080	786281.310	851069.490	497385.220	1296169.700
σ		9.452	4314.107	5900.883	14220.216	5855.000	1767.667	18223.824
%RSD		16.111	1.254	1.349	1.809	0.688	0.355	1.406

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:04:29	299531.240	67657.930	2495960.500	52326.554	767172.970	2489402.800	986380.310
2	10:04:54	296684.300	67637.854	2495250.900	51744.862	780189.100	2526994.500	991756.140
3	10:05:18	294213.930	65690.605	2560398.800	49959.790	750944.530	2453164.000	1003030.400
x		296809.820	66995.463	2517203.400	51343.735	766102.200	2489853.700	993722.290
σ		2660.876	1130.085	37409.998	1233.317	14651.660	36917.331	8497.404
%RSD		0.896	1.687	1.486	2.402	1.912	1.483	0.855

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:04:29	747264.900	788220.520	↹4918578.800	↹11646714.000	↹8967125.500	526663.620
2	10:04:54	746858.410	789265.180	↹5004227.900	↹11935829.000	↹9332593.000	544816.210
3	10:05:18	744398.840	813110.060	↹4862097.100	↹11830100.000	↹9007441.300	551228.560
x		746174.050	796865.250	↹4928301.300	↹11804214.000	↹9102386.600	540902.800
σ		1550.753	14078.109	↹71562.448	↹146285.540	↹200381.130	12741.475
%RSD		0.208	1.767	↹1.452	↹1.239	↹2.201	2.356

S4 S 6/30/2011 10:07:13 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:07:13	80835.550	469129.820	τ199289910.000	τ139691010.000	τ172500410.000	τ27957314.000	τ5305727.900
2	10:07:37	79348.402	462563.620	τ198317620.000	τ138030760.000	τ168925250.000	τ27999800.000	τ5228769.800
3	10:08:02	79212.300	459804.110	τ200388580.000	τ138605710.000	τ170266720.000	τ28020841.000	τ5251726.800
x		79798.750	463832.520	τ199332040.000	τ138775830.000	τ170564130.000	τ27992652.000	τ5262074.800
σ		900.470	4790.595	τ1036121.500	τ843095.380	τ1806041.700	τ32361.585	τ39508.856
%RSD		1.128	1.033	τ0.520	τ0.608	τ1.059	τ0.116	τ0.751

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:07:13	187681.120	225879.630	3135643.000	3055403.500	τ5836443.200	τ247997020.000	τ3713825.300
2	10:07:37	183073.660	223580.970	τ3202722.400	3024906.400	τ5913078.300	τ242626380.000	τ3675043.400
3	10:08:02	184902.360	225272.020	τ3229109.500	τ3091564.600	τ5894794.800	τ241116850.000	τ3688128.600
x		185219.050	224910.870	τ3189158.300	τ3057291.500	τ5881438.800	τ243913420.000	τ3692332.400
σ		2319.998	1191.125	τ48186.953	τ33369.167	τ40025.306	τ3616145.400	τ19729.750
%RSD		1.253	0.530	τ1.511	τ1.091	τ0.681	τ1.483	τ0.534

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:07:13	722152.720	905563.460	855272.740	578222.400	56629.652	188879.660	82922.084
2	10:07:37	740585.070	890640.310	846562.040	574424.740	59067.530	186927.280	84007.138
3	10:08:02	749839.520	893623.970	859928.540	582359.640	58606.013	189710.400	83072.782
x		737525.770	896609.250	853921.110	578335.590	58101.065	188505.780	83334.001
σ		14094.652	7896.772	6784.982	3968.661	1295.007	1428.734	587.803
%RSD		1.911	0.881	0.795	0.686	2.229	0.758	0.705

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:07:13	150.001	329583.700	875141.530	1526642.700	1665542.000	993995.650	2549502.400
2	10:07:37	110.000	330143.910	857516.600	1527817.000	1659977.900	973934.290	2531110.900
3	10:08:02	126.000	326497.780	852913.840	1533265.700	1667557.700	973353.900	2575772.200
x		128.667	328741.800	861857.320	1529241.800	1664359.200	980427.950	2552128.500
σ		20.133	1963.455	11732.389	3533.882	3925.863	11753.560	22446.137
%RSD		15.647	0.597	1.361	0.231	0.236	1.199	0.880

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:07:13	279490.230	128399.970	τ4831021.300	90026.362	1478157.100	τ4856655.300	τ1989628.500
2	10:07:37	278352.670	123666.740	τ4721742.900	94127.427	1442933.700	τ4834210.700	τ1977436.300
3	10:08:02	279652.750	129648.950	τ4827297.500	91202.307	1451443.600	τ4798771.800	τ1997876.200
x		279165.210	127238.550	τ4793353.900	91785.365	1457511.500	τ4829879.300	τ1988313.600
σ		708.362	3155.688	τ62044.888	2111.789	18378.947	τ29183.829	τ10283.198
%RSD		0.254	2.480	τ1.294	2.301	1.261	τ0.604	τ0.517

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:07:13	710051.660	757430.000	τ9611230.900	τ23267703.000	τ17994301.000	499047.250
2	10:07:37	728086.530	769844.330	τ9615098.400	τ23306937.000	τ17879367.000	506194.250
3	10:08:02	729023.620	764835.850	τ9690514.700	τ23342368.000	τ18089162.000	520486.410
x		722387.270	764036.730	τ9638948.000	τ23305669.000	τ17987610.000	508575.970
σ		10693.221	6245.625	τ44699.937	τ37348.711	τ105057.160	10916.221
%RSD		1.480	0.817	τ0.464	τ0.160	τ0.584	2.146

S5 S 6/30/2011 10:09:57 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:09:57	76586.382	846623.660	T 390724440.000	T 268007130.000	T 332733140.000	T 55098604.000	TM 10426965.000
2	10:10:22	74576.904	834716.910	T 385812580.000	T 266545580.000	T 336419460.000	T 54025291.000	TM 10204230.000
3	10:10:46	75689.570	825621.990	T 381549030.000	T 265713040.000	T 328516480.000	T 53124143.000	T 10239761.000
x		75617.619	835654.190	T 386028680.000	T 266755250.000	T 332556360.000	T 54082679.000	TM 10290319.000
σ		1006.670	10532.161	T 4591519.200	T 1161329.200	T 3954454.500	T 988480.570	TM 119665.280
%RSD		1.331	1.260	T 1.189	T 0.435	T 1.189	T 1.828	TM 1.163

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:09:57	183306.030	M 439308.100	T 6226217.800	T 5923500.000	T 11452595.000	T 472557820.000	T 6852968.100
2	10:10:22	180760.270	M 432914.780	T 6049552.600	T 5938424.300	T 11122158.000	T 462228180.000	T 6934321.200
3	10:10:46	184073.860	426636.360	T 6085930.900	T 5879953.100	T 11241140.000	T 468145860.000	T 6740589.400
x		182713.390	M 432953.080	T 6120567.100	T 5913959.200	T 11271964.000	T 467643960.000	T 6842626.200
σ		1734.471	M 6335.960	T 93286.636	T 30380.775	T 167361.210	T 5183077.500	T 97279.096
%RSD		0.949	M 1.463	T 1.524	T 0.514	T 1.485	T 1.108	T 1.422

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:09:57	1413352.700	1608403.400	1520087.300	1054212.000	M 105520.850	337420.030	147103.420
2	10:10:22	1397548.500	1609167.900	1523587.600	1044719.800	103318.030	335685.800	146064.950
3	10:10:46	1385512.700	1625907.000	1516783.300	1040438.300	101226.100	333472.910	146296.830
x		1398804.700	1614492.700	1520152.700	1046456.700	M 103354.990	335526.250	146488.400
σ		13962.397	9892.424	3402.601	7049.178	M 2147.616	1978.389	545.096
%RSD		0.998	0.613	0.224	0.674	M 2.078	0.590	0.372

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:09:57	250.002	311177.870	M 1644455.600	2921878.500	TM 3230532.500	M 1875473.400	TM 4923350.500
2	10:10:22	234.002	311269.440	M 1664567.000	2959294.600	TM 3196590.300	TM 1885719.400	TM 4946135.300
3	10:10:46	248.002	327648.570	1659255.200	2869682.600	T 3171390.000	1890478.800	T 4831906.600
x		244.002	316698.630	M 1656092.600	2916951.900	TM 3199504.300	TM 1883890.500	TM 4900464.100
σ		8.718	9483.042	M 10422.043	45008.668	TM 29678.744	TM 7668.055	TM 60455.695
%RSD		3.573	2.994	M 0.629	1.543	TM 0.928	TM 0.407	TM 1.234

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:09:57	262414.050	233395.350	T 8814454.800	M 177831.080	2691687.200	T 9040319.300	T 3877272.600
2	10:10:22	254368.890	M 234874.560	T 8867446.900	M 177507.890	2650055.200	T 9107375.200	T 3912558.300
3	10:10:46	269498.390	235391.300	T 8765186.400	176093.990	2694405.000	T 9192428.500	T 3855111.400
x		262093.780	M 234553.730	T 8815696.000	M 177144.320	2678715.800	T 9113374.400	T 3881647.400
σ		7569.836	M 1035.926	T 51141.553	M 923.853	24857.973	T 76231.862	T 28972.257
%RSD		2.888	M 0.442	T 0.580	M 0.522	0.928	T 0.836	T 0.746

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:09:57	697761.140	741533.230	T 18310456.000	T 44415821.000	TM 33653167.000	472407.140
2	10:10:22	710155.680	747692.240	T 18205147.000	T 44693935.000	TM 34059967.000	478516.620
3	10:10:46	708179.470	765545.310	T 18236812.000	T 44292943.000	TM 33945202.000	489179.780
x		705365.430	751590.260	T 18250805.000	T 44467567.000	TM 33886112.000	480034.510
σ		6659.224	12471.602	T 54030.931	T 205442.770	TM 209738.510	8488.717
%RSD		0.944	1.659	T 0.296	T 0.462	TM 0.619	1.768

ICV 6/30/2011 10:12:42 AM QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:12:42	86314.101	48600.446	↑9036254.400	↑3831060.100	2023332.600	↑6223613.100	233010.370
2	10:13:07	85241.467	48414.943	↑9008572.600	↑3882304.500	2074336.900	↑6351476.200	234317.310
3	10:13:31	84243.246	48517.421	↑9330372.200	↑4050770.700	2251049.800	↑6220938.700	242272.410
x		85266.271	48510.937	↑9125066.400	↑3921378.400	2116239.800	↑6265342.700	236533.360
σ		1035.650	92.921	↑178337.940	↑114948.950	119501.740	↑74605.794	5012.935
%RSD		1.215	0.192	↑1.954	↑2.931	5.647	↑1.191	2.119

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:12:42	200074.590	340.003	351964.770	356319.870	669146.620	↑6103252.100	425776.190
2	10:13:07	200297.060	460.006	345541.130	338009.010	652300.180	↑6024783.700	430149.140
3	10:13:31	198436.460	680.013	350853.210	350843.010	663294.240	↑6306330.300	439502.810
x		199602.710	493.341	349453.040	348390.630	661580.350	↑6144788.700	431809.380
σ		1016.103	172.439	3433.098	9398.539	8552.997	↑145296.550	7012.297
%RSD		0.509	34.953	0.982	2.698	1.293	↑2.365	1.624

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:12:42	84127.703	105188.900	194837.160	125275.900	13064.778	42376.221	18189.259
2	10:13:07	85805.659	102734.680	197354.570	124391.750	12964.705	42217.847	19310.435
3	10:13:31	85353.500	105872.930	197132.140	124969.760	12484.363	42207.823	18019.087
x		85095.621	104598.830	196441.290	124879.140	12837.948	42267.297	18506.260
σ		868.193	1650.239	1393.665	448.987	310.275	94.464	701.614
%RSD		1.020	1.578	0.709	0.360	2.417	0.223	3.791

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:12:42	38.000	360757.650	6141.056	10593.141	12224.183	6961.357	17518.589
2	10:13:07	18.000	360278.110	4740.629	8091.833	8572.057	5050.714	12994.726
3	10:13:31	30.000	358033.640	4700.619	8181.874	8161.865	5310.790	13485.090
x		28.667	359689.800	5194.101	8955.616	9652.702	5774.287	14666.135
σ		10.066	1454.179	820.331	1418.853	2236.392	1036.224	2482.435
%RSD		35.116	0.404	15.794	15.843	23.169	17.945	16.926

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:12:42	325499.810	16097.252	595238.000	11353.608	176245.480	1091392.900	205030.330
2	10:13:07	321681.550	15746.940	607904.150	11063.426	171953.940	1087718.600	204969.640
3	10:13:31	329023.510	17158.239	617950.300	10713.213	177548.290	1108871.900	207559.290
x		325401.620	16334.144	607030.820	11043.416	175249.240	1095994.500	205853.090
σ		3671.966	734.867	11381.307	320.666	2927.209	11302.533	1477.930
%RSD		1.128	4.499	1.875	2.904	1.670	1.031	0.718

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:12:42	771775.050	834818.080	2314414.500	↑5492055.400	↑4191739.200	585999.870
2	10:13:07	775543.150	807326.300	2270213.500	↑5567448.700	↑4262715.300	601750.920
3	10:13:31	780377.050	815265.050	2359514.100	↑5712491.600	↑4385864.800	605670.130
x		775898.420	819136.480	2314714.000	↑5590665.200	↑4280106.400	597806.970
σ		4311.992	14148.866	44651.055	↑112036.960	↑98224.325	10411.333
%RSD		0.556	1.727	1.929	↑2.004	↑2.295	1.742

ICB 6/30/2011 10:15:27 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:15:27	85656.948	99.400	76937.386	11113.457	11543.730	117233.560	18329.402
2	10:15:52	86920.029	175.601	109514.790	31900.468	33260.947	126677.730	18619.702
3	10:16:16	87686.764	362.804	193706.960	81103.762	87353.135	145510.450	19931.117
x		86754.580	212.602	126719.710	41372.562	44052.604	129807.250	18960.074
σ		1024.972	135.544	60256.039	35943.721	39039.869	14395.864	853.383
%RSD		1.181	63.755	47.551	86.878	88.621	11.090	4.501

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:15:27	194928.140	40.000	2450.168	710.014	550.008	120525.370	320.003
2	10:15:52	204696.530	60.000	2730.209	1140.036	1420.057	153385.950	770.017
3	10:16:16	203442.320	150.001	4150.482	1960.108	3230.292	227469.620	2230.139
x		201022.330	83.334	3110.286	1270.053	1733.452	167126.980	1106.720
σ		5314.851	58.595	911.653	635.108	1367.349	54780.289	998.590
%RSD		2.644	70.314	29.311	50.006	78.880	32.778	90.230

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:15:27	130.000	150.001	150.001	172.001	80.000	508.007	10.000
2	10:15:52	250.002	280.002	320.003	296.002	40.000	556.009	50.000
3	10:16:16	460.006	770.017	710.014	568.009	80.000	642.012	140.001
x		280.003	400.006	393.339	345.337	66.667	568.676	66.667
σ		167.036	326.964	287.119	202.561	23.094	67.894	66.584
%RSD		59.655	81.740	72.995	58.656	34.641	11.939	99.875

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:15:27	46.000	342992.700	440.005	840.020	910.023	460.006	1240.043
2	10:15:52	26.000	357156.330	720.015	1120.035	1370.053	720.015	2020.114
3	10:16:16	30.000	353984.100	950.025	1670.078	1560.068	980.027	2490.174
x		34.000	351377.710	703.348	1210.044	1280.048	720.016	1916.777
σ		10.583	7432.839	255.418	422.286	334.238	260.010	631.439
%RSD		31.127	2.115	36.315	34.898	26.111	36.112	32.943

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:15:27	307779.730	620.011	480.006	20.000	140.001	17018.105	170.001
2	10:15:52	326385.760	870.021	1550.067	50.000	450.006	15716.914	500.007
3	10:16:16	326171.910	800.018	4140.480	20.000	1100.034	14015.498	1360.052
x		320112.470	763.350	2056.851	30.000	563.347	15583.506	676.687
σ		10680.998	128.976	1882.124	17.321	489.950	1505.743	614.383
%RSD		3.337	16.896	91.505	57.735	86.971	9.662	90.793

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:15:27	745274.240	776962.910	2670.200	6451.165	2540.181	567310.650
2	10:15:52	775731.050	810746.130	5450.832	12294.231	5890.972	601306.310
3	10:16:16	782256.670	804283.510	10353.000	26269.308	14515.898	620113.380
x		767753.990	797330.850	6158.011	15004.901	7649.017	596243.450
σ		19739.559	17932.684	3889.914	10183.344	6178.389	26762.967
%RSD		2.571	2.249	63.168	67.867	80.774	4.489

ICSA 6/30/2011 10:18:13 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:18:13	77610.288	195.201	T 385464080.000	T 265851270.000	T 312949260.000	TM 280152150.000	TM 10542585.000
2	10:18:37	75945.654	176.401	T 387197780.000	T 264886010.000	T 314950650.000	TM 279558960.000	TM 10505801.000
3	10:19:02	76175.631	143.801	T 386300080.000	T 266703150.000	T 322524000.000	TM 278569910.000	TM 10475905.000
x		76577.191	171.801	T 386320650.000	T 265813480.000	T 316807970.000	TM 279427010.000	TM 10508097.000
σ		902.048	26.007	T 867031.920	T 909157.320	T 5050357.400	TM 799331.770	TM 33399.051
%RSD		1.178	15.138	T 0.224	T 0.342	T 1.594	TM 0.286	TM 0.318

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:18:13	174246.000	M 526107.590	31507.772	61826.847	46239.790	T 458468470.000	4660.608
2	10:18:37	173135.270	M 523564.460	33491.377	59468.859	43553.048	T 459228600.000	4770.637
3	10:19:02	174750.900	M 523286.490	34342.993	59559.159	45267.303	T 460656580.000	4340.528
x		174044.060	M 524319.510	33114.047	60284.955	45020.047	T 459451220.000	4590.591
σ		826.526	M 1554.745	1454.786	1336.081	1360.330	T 1110911.800	223.440
%RSD		0.475	M 0.297	4.393	2.216	3.022	T 0.242	4.867

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:18:13	4510.570	7971.779	9902.745	1452.059	510.007	684.013	70.000
2	10:18:37	4500.567	7421.542	9522.538	1320.049	440.005	696.014	90.000
3	10:19:02	4370.535	7741.678	10162.891	1400.055	460.006	676.013	30.000
x		4460.557	7711.666	9862.725	1390.721	470.006	685.346	63.333
σ		78.122	276.344	322.047	66.498	36.056	10.067	30.551
%RSD		1.751	3.583	3.265	4.782	7.671	1.469	48.238

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:18:13	212.001	301209.110	M 1574295.600	2833581.200	M 3084449.800	M 1788029.400	TM 4716337.600
2	10:18:37	212.001	305653.680	M 1588843.200	2855133.700	M 3064019.700	M 1793686.800	TM 4773360.500
3	10:19:02	232.002	298799.120	M 1602670.700	2829341.200	TM 3150771.500	M 1834684.800	TM 4837024.000
x		218.668	301887.300	M 1588603.200	2839352.000	TM 3099747.000	M 1805467.000	TM 4775574.000
σ		11.547	3477.239	M 14189.109	13830.750	TM 45353.818	M 25460.968	TM 60373.682
%RSD		5.281	1.152	M 0.893	0.487	TM 1.463	M 1.410	TM 1.264

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:18:13	244066.600	530.008	630.011	3300.305	4480.562	10112.863	3020.255
2	10:18:37	242181.190	500.007	390.004	3620.367	3890.424	10182.903	2840.226
3	10:19:02	239130.490	460.006	210.001	3400.324	4450.555	9482.517	2690.203
x		241792.760	496.674	410.006	3440.332	4273.847	9926.094	2850.228
σ		2490.875	35.120	210.718	163.739	332.393	385.742	165.254
%RSD		1.030	7.071	51.394	4.759	7.777	3.886	5.798

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:18:13	678416.750	739574.460	3690.381	8452.000	73741.947	452306.640
2	10:18:37	682560.240	739397.340	2020.114	5160.746	73008.944	461753.860
3	10:19:02	676807.370	729846.220	1120.035	2810.221	74193.813	470538.770
x		679261.450	736272.670	2276.844	5474.322	73648.235	461533.090
σ		2968.001	5566.176	1304.263	2833.931	597.967	9118.073
%RSD		0.437	0.756	57.284	51.768	0.812	1.976

ICSAB 6/30/2011 10:21:00 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:21:00	78361.056	8097.035	T 387180830.000	T 266829510.000	T 317822020.000	TM 285518110.000	TM 10591942.000
2	10:21:24	77363.220	7957.173	T 387193560.000	T 266778240.000	T 320424810.000	TM 281609000.000	TM 10738867.000
3	10:21:49	76242.415	7892.144	T 387209760.000	T 264413760.000	T 314584690.000	TM 276862630.000	TM 10636395.000
x		77322.230	7982.117	T 387194720.000	T 266007170.000	T 317610510.000	TM 281329920.000	TM 10655735.000
σ		1059.915	104.699	T 14499.572	T 1380171.700	T 2925798.600	TM 4334486.300	TM 75347.444
%RSD		1.371	1.312	T 0.004	T 0.519	T 0.921	TM 1.541	TM 0.707

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:21:00	176609.040	M 528661.370	95253.374	120273.680	164171.210	T 461367720.000	73962.858
2	10:21:24	174649.920	M 528259.750	95353.908	119790.450	162798.730	T 468497660.000	74153.646
3	10:21:49	172478.970	M 515597.610	94258.114	119881.050	162284.080	T 464911100.000	71332.188
x		174579.310	M 524172.910	94955.132	119981.730	163084.670	T 464925490.000	73149.564
σ		2065.943	M 7429.139	605.725	256.865	975.520	T 3564992.200	1576.782
%RSD		1.183	M 1.417	0.638	0.214	0.598	T 0.767	2.156

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:21:00	17088.172	20812.121	22694.412	11003.389	1370.053	3754.395	1720.083
2	10:21:24	17588.658	21713.193	23425.355	11123.463	1430.057	3558.355	1310.048
3	10:21:49	17448.520	21973.511	23635.632	11037.410	1440.058	3818.408	1370.053
x		17375.117	21499.608	23251.799	11054.754	1413.389	3710.386	1466.728
σ		258.191	609.443	494.029	61.888	37.862	135.497	221.454
%RSD		1.486	2.835	2.125	0.560	2.679	3.652	15.098

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:21:00	238.002	300395.580	M 1602812.700	2855273.600	M 3094271.500	M 1841008.600	TM 4876806.100
2	10:21:24	220.001	299266.860	M 1578503.800	2793257.100	M 3063347.700	M 1830849.500	TM 4742777.700
3	10:21:49	244.002	307616.960	M 1590730.700	2806002.700	TM 3189235.200	M 1829390.700	TM 4765379.800
x		234.002	302426.470	M 1590682.400	2818177.800	TM 3115618.100	M 1833749.600	TM 4794987.900
σ		12.490	4530.391	M 12154.485	32751.919	TM 65602.392	M 6328.650	TM 71752.229
%RSD		5.338	1.498	M 0.764	1.162	TM 2.106	M 0.345	TM 1.496

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:21:00	243073.180	3240.294	86016.671	5930.985	31718.144	104736.250	40215.232
2	10:21:24	236576.810	3130.274	87292.841	5060.717	30996.879	106758.170	38852.220
3	10:21:49	244644.420	2710.206	87222.498	5500.847	30455.950	104333.910	39283.161
x		241431.470	3026.925	86844.003	5497.516	31056.991	105276.110	39450.205
σ		4277.034	279.749	717.354	435.143	633.241	1299.173	696.691
%RSD		1.772	9.242	0.826	7.915	2.039	1.234	1.766

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:21:00	699964.920	739939.110	198851.040	488193.330	431132.430	462307.930
2	10:21:24	688252.600	748202.980	201925.250	492314.170	424639.600	467326.040
3	10:21:49	692273.640	747139.820	202805.140	493095.290	424373.380	468013.700
x		693497.050	745093.970	201193.810	491200.930	426715.140	465882.560
σ		5951.234	4495.778	2076.048	2633.779	3827.801	3114.756
%RSD		0.858	0.603	1.032	0.536	0.897	0.669

CCV1 CCV 6/30/2011 10:23:45 AM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:23:45	81141.432	441653.710	↹193727060.000	↹135983130.000	↹170597600.000	↹28354375.000	↹5436061.100
2	10:24:10	81856.685	434773.120	↹195078430.000	↹135211270.000	↹168357370.000	↹27874510.000	↹5182960.100
3	10:24:34	79080.216	436437.180	↹195867170.000	↹136331270.000	↹168116370.000	↹28742203.000	↹5304527.900
x		80692.778	437621.340	↹194890890.000	↹135841890.000	↹169023780.000	↹28323696.000	↹5307849.700
σ		1441.584	3589.889	↹1082311.700	↹573199.590	↹1368282.800	↹434659.260	↹126583.160
%RSD		1.787	0.820	↹0.555	↹0.422	↹0.810	↹1.535	↹2.385

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:23:45	188631.050	220260.080	3049017.500	2991262.300	↹5886347.700	↹247745000.000	↹3542711.300
2	10:24:10	186448.310	221282.610	2983605.900	2943717.200	↹5794207.700	↹241750870.000	↹3574506.500
3	10:24:34	183790.970	223925.240	3088628.100	2935658.000	↹5940086.800	↹241034020.000	↹3609913.500
x		186290.110	221822.640	3040417.200	2956879.200	↹5873547.400	↹243509960.000	↹3575710.500
σ		2423.915	1891.318	53036.704	30048.064	↹73777.136	↹3685121.400	↹33617.280
%RSD		1.301	0.853	1.744	1.016	↹1.256	↹1.513	↹0.940

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:23:45	698603.120	865844.360	830849.260	561001.970	55897.350	186816.120	82248.982
2	10:24:10	724390.680	838410.660	839615.330	557158.400	56298.607	183661.650	78873.806
3	10:24:34	729856.630	851718.780	843250.760	564012.610	58144.508	186676.680	82098.291
x		717616.810	851991.270	837905.110	560724.330	56780.155	185718.150	81073.693
σ		16691.601	13718.882	6375.180	3435.530	1198.477	1782.343	1906.647
%RSD		2.326	1.610	0.761	0.613	2.111	0.960	2.352

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:23:45	116.000	328453.150	855367.110	1473526.900	1620016.000	964639.600	2448116.600
2	10:24:10	138.001	325255.420	842129.670	1484838.800	1575113.200	942534.830	2513035.000
3	10:24:34	104.000	326497.780	835205.580	1509047.300	1628825.900	934856.580	2522603.800
x		119.334	326735.450	844234.120	1489137.700	1607985.000	947343.670	2494585.100
σ		17.243	1612.063	10244.182	18146.220	28806.636	15462.880	40526.365
%RSD		14.450	0.493	1.213	1.219	1.791	1.632	1.625

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:23:45	273325.910	128943.870	↹4699543.500	87383.282	1473245.000	↹4963944.800	↹2073324.600
2	10:24:10	277550.320	123586.180	↹4771655.800	86629.623	1424974.000	↹4826428.000	↹2040333.800
3	10:24:34	277580.790	124200.420	↹4744944.900	91956.158	1436353.700	↹4915094.700	↹2016451.400
x		276152.340	125576.830	↹4738714.700	88656.354	1444857.600	↹4901822.500	↹2043369.900
σ		2447.809	2932.073	↹36457.595	2882.452	25234.111	↹69712.466	↹28557.884
%RSD		0.886	2.335	↹0.769	3.251	1.746	↹1.422	↹1.398

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:23:45	747890.280	801816.180	↹9999109.300	↹24407661.000	↹18852875.000	517501.520
2	10:24:10	781087.110	832053.430	↹9878008.100	↹24703895.000	↹18742091.000	555786.630
3	10:24:34	759515.850	807744.600	↹9893961.500	↹24244013.000	↹18393647.000	537355.170
x		762831.080	813871.400	↹9923693.000	↹24451856.000	↹18662871.000	536881.110
σ		16844.893	16022.673	↹65797.759	↹233104.820	↹239643.980	19146.959
%RSD		2.208	1.969	↹0.663	↹0.953	↹1.284	3.566

CCB1 CCB 6/30/2011 10:26:31 AM QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:26:31	89781.635	253.202	226894.370	78875.815	90498.741	180477.430	20361.602
2	10:26:55	89105.762	303.803	338402.360	137628.330	145611.260	246570.650	23956.058
3	10:27:19	89435.404	574.009	673788.360	317904.810	330143.910	415426.660	29143.763
x		89440.934	377.005	413028.360	178136.320	188751.300	280824.910	24487.141
σ		337.970	172.477	232605.550	124556.770	125511.950	121162.290	4415.102
%RSD		0.378	45.749	56.317	69.922	66.496	43.145	18.030

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:26:31	201439.810	280.002	4320.523	1800.091	2530.179	273457.910	1450.059
2	10:26:55	202046.610	310.003	4860.661	1760.087	3070.264	347437.390	2030.115
3	10:27:19	202623.090	560.009	6611.224	3720.388	7291.488	623767.390	4300.518
x		202036.500	383.338	5264.136	2426.855	4297.311	414887.560	2593.564
σ		591.702	153.735	1197.465	1120.411	2607.058	184638.370	1506.448
%RSD		0.293	40.104	22.748	46.167	60.667	44.503	58.084

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:26:31	390.004	590.010	500.007	388.004	60.000	654.012	40.000
2	10:26:55	350.003	590.010	670.013	492.007	110.000	616.011	60.000
3	10:27:19	1040.030	1320.049	1140.036	828.019	230.001	728.015	110.000
x		593.346	833.356	770.019	569.343	133.334	666.012	70.000
σ		387.357	421.488	331.527	229.976	87.370	56.958	36.056
%RSD		65.283	50.577	43.054	40.393	65.527	8.552	51.508

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:26:31	36.000	357584.780	3620.367	6011.012	6861.318	3900.426	11063.426
2	10:26:55	20.000	361226.990	3190.285	5290.784	5810.945	3490.341	8742.139
3	10:27:19	34.000	362512.660	3200.287	6081.035	6951.353	3820.409	10052.829
x		30.000	360441.480	3336.980	5794.277	6541.205	3737.059	9952.798
σ		8.718	2556.124	245.472	437.441	634.024	217.377	1163.872
%RSD		29.059	0.709	7.356	7.550	9.693	5.817	11.694

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:26:31	332435.840	650.012	2440.167	30.000	590.010	8452.000	830.019
2	10:26:55	333087.820	930.024	3500.343	50.000	860.021	9842.712	950.025
3	10:27:19	334452.990	960.026	7351.513	180.001	1500.063	11223.526	2640.195
x		333325.550	846.687	4430.674	86.667	983.364	9839.413	1473.413
σ		1029.371	170.985	2584.467	81.446	467.397	1385.766	1012.243
%RSD		0.309	20.195	58.331	93.976	47.530	14.084	68.701

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:26:31	798826.570	852861.420	6231.087	13455.067	8522.033	624605.950
2	10:26:55	804199.860	855503.410	8411.981	21012.355	12414.314	635251.790
3	10:27:19	802474.800	858019.940	19430.566	44154.522	24306.531	639779.190
x		801833.740	855461.590	11357.878	26207.315	15080.959	633212.310
σ		2743.409	2579.511	7075.683	15995.463	8223.190	7789.506
%RSD		0.342	0.302	62.298	61.034	54.527	1.230

zzzzzz 6/30/2011 10:29:15 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:29:15	116126.870	104.600	TM 1666039900.000	T 281896500.000	747546.310	T 41503991.000	TM 49710983.000
2	10:29:39	114757.560	78.600	TM 1705442100.000	T 287592770.000	710998.230	T 41288228.000	TM 49998781.000
3	10:30:03	115551.660	67.600	TM 1714601400.000	T 292552800.000	714732.980	T 42259261.000	TM 51124874.000
x		115478.690	83.600	TM 1695361100.000	T 287347360.000	724425.840	T 41683827.000	TM 50278213.000
σ		687.564	19.000	TM 25802605.000	T 5332387.500	20109.807	T 509884.280	TM 747216.910
%RSD		0.595	22.727	TM 1.522	T 1.856	2.776	T 1.223	TM 1.486

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:29:15	237752.270	1530.066	222234.310	35805.862	T 3925843.400	477951.790	87292.841
2	10:29:39	243792.900	1560.068	225950.510	37098.496	T 3954852.500	464195.970	88066.626
3	10:30:03	248862.110	1310.048	229161.040	38321.074	T 3987751.800	450071.210	88780.146
x		243469.090	1466.727	225781.960	37075.144	T 3956149.200	464072.990	88046.538
σ		5561.994	136.515	3466.437	1257.769	T 30974.524	13940.699	743.856
%RSD		2.284	9.307	1.535	3.392	T 0.783	3.004	0.845

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:29:15	48114.734	1810.092	11753.867	14037.515	5070.720	12398.303	7551.596
2	10:29:39	48184.922	1820.093	11243.539	14682.033	5180.751	12442.333	6891.330
3	10:30:03	50962.618	2000.112	12084.087	15496.721	5240.769	12666.491	7111.416
x		49087.425	1876.766	11693.831	14738.757	5164.080	12502.376	7184.781
σ		1624.344	106.938	423.478	731.255	86.242	143.823	336.192
%RSD		3.309	5.698	3.621	4.961	1.670	1.150	4.679

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:29:15	60.000	350669.660	6421.154	7961.775	9182.360	5130.737	12894.654
2	10:29:39	50.000	351261.110	6961.357	8251.906	8411.981	4750.632	13174.858
3	10:30:03	74.000	359890.410	6451.165	7871.735	8762.149	4840.656	12084.087
x		61.333	353940.390	6611.225	8028.472	8785.497	4907.342	12717.867
σ		12.055	5161.344	303.594	198.668	385.720	198.633	566.468
%RSD		19.656	1.458	4.592	2.475	4.390	4.048	4.454

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:29:15	276951.130	640.011	490.007	90.000	170.001	4570.585	124160.150
2	10:29:39	274199.150	750.016	410.005	30.000	160.001	4830.653	128621.560
3	10:30:03	278474.550	550.008	330.003	40.000	40.000	4110.473	129789.960
x		276541.610	646.679	410.005	53.333	123.334	4503.904	127523.890
σ		2166.921	100.170	80.002	32.146	72.342	364.691	2971.089
%RSD		0.784	15.490	19.512	60.273	58.656	8.097	2.330

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:29:15	751340.680	811718.860	2670.200	6131.052	5520.853	461507.620
2	10:29:39	753801.190	808706.710	1990.111	5140.740	4520.572	465725.020
3	10:30:03	763865.620	827143.010	1620.074	4410.545	3410.326	471175.230
x		756335.830	815856.190	2093.461	5227.446	4483.917	466135.960
σ		6636.024	9890.018	532.637	863.525	1055.741	4846.888
%RSD		0.877	1.212	25.443	16.519	23.545	1.040

14920S;2 MF4N31S 6/30/2011 10:31:57 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:31:57	99279.716	12985.520	τ348025600.000	τ78214329.000	τ5537786.100	τ14287163.000	τ12172532.000
2	10:32:21	95938.024	12753.753	τ344599930.000	τ77178989.000	τ5387495.200	τ14215108.000	τ12268586.000
3	10:32:45	95250.358	12524.591	τ336327300.000	τ75703387.000	τ5285551.600	τ13801697.000	τ11831516.000
x		96822.699	12754.621	τ342984280.000	τ77032235.000	τ5403611.000	τ14101323.000	τ12090878.000
σ		2155.439	230.466	τ6014176.400	τ1261887.500	τ126887.150	τ261972.510	τ229691.220
%RSD		2.226	1.807	τ1.753	τ1.638	τ2.348	τ1.858	τ1.900

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:31:57	245526.410	1790.090	1098361.300	1146351.100	1800956.700	τ3590641.800	1101952.700
2	10:32:21	238613.640	1760.087	1086242.700	1120431.000	1812822.000	τ3569332.900	1072264.700
3	10:32:45	232716.580	1530.066	1070089.900	1086179.000	1762542.700	τ3490473.000	1051450.000
x		238952.210	1693.414	1084897.900	1117653.700	1792107.200	τ3550149.200	1075222.500
σ		6411.621	142.257	14183.602	30182.041	26281.878	τ 52767.967	25380.932
%RSD		2.683	8.401	1.307	2.700	1.467	τ1.486	2.361

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:31:57	213397.500	126305.110	242394.050	17394.468	1340.050	2462.170	1170.038
2	10:32:21	216879.070	125620.300	232595.010	17456.528	1290.047	2348.154	1480.061
3	10:32:45	215037.000	123314.310	230923.530	16773.874	1280.046	2540.181	1310.048
x		215104.520	125079.910	235304.190	17208.290	1303.381	2450.168	1320.049
σ		1741.767	1566.918	6196.609	377.493	32.148	96.574	155.253
%RSD		0.810	1.253	2.633	2.194	2.466	3.942	11.761

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:31:57	46.000	371616.960	5800.942	2930.240	3600.363	2150.129	4770.637
2	10:32:21	30.000	378713.740	5590.875	2590.188	3790.402	1870.098	5040.711
3	10:32:45	22.000	371698.630	5320.793	2350.155	3860.417	2130.127	4520.572
x		32.667	374009.770	5570.870	2623.528	3750.394	2050.118	4777.307
σ		12.220	4073.956	240.699	291.476	134.564	156.223	260.134
%RSD		37.409	1.089	4.321	11.110	3.588	7.620	5.445

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:31:57	313589.510	4320.523	147990.700	2840.226	43663.316	282923.670	2343314.500
2	10:32:21	315390.820	4340.528	143897.450	2590.188	45818.707	289568.920	2281698.400
3	10:32:45	313019.640	4760.635	144310.770	2450.168	42600.755	277448.760	2262217.800
x		313999.990	4473.895	145399.640	2626.861	44027.593	283313.780	2295743.600
σ		1237.737	248.525	2253.421	197.598	1639.612	6069.489	42333.455
%RSD		0.394	5.555	1.550	7.522	3.724	2.142	1.844

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:31:57	833886.010	873682.630	286804.850	718021.020	214257.710	559242.040
2	10:32:21	841909.650	911252.170	298067.040	706130.690	212567.700	566361.220
3	10:32:45	819523.490	878017.680	295342.330	700796.610	207458.130	566082.590
x		831773.050	887650.830	293404.740	708316.100	211427.850	563895.280
σ		11341.673	20553.971	5875.792	8817.716	3540.202	4032.235
%RSD		1.364	2.316	2.003	1.245	1.674	0.715

14918;2 MF4N29 6/30/2011 10:34:39 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:34:39	100154.080	149.201	TM 714846110.000	T 77281114.000	1513121.400	T 49985846.000	TM 12850494.000
2	10:35:03	95749.014	155.201	TM 721442080.000	T 77344569.000	1544505.000	T 49034643.000	TM 12775988.000
3	10:35:27	94579.305	200.201	TM 719483300.000	T 77605307.000	T 1640307.100	T 50637928.000	TM 12877416.000
x		96827.466	168.201	TM 718590490.000	T 77410330.000	T 1565977.800	T 49886139.000	TM 12834633.000
σ		2939.697	27.875	TM 3387407.800	T 171809.700	T 66256.034	T 806279.250	TM 52541.443
%RSD		3.036	16.572	TM 0.471	T 0.222	T 4.231	T 1.616	TM 0.409

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:34:39	221404.100	1670.078	99777.981	174458.050	94901.508	1734385.800	4970.692
2	10:35:03	220563.790	1590.071	99868.485	178224.980	91785.282	1754979.400	4930.681
3	10:35:27	219146.500	1660.077	102322.320	177184.700	96520.149	1814213.200	5450.832
x		220371.470	1640.075	100656.260	176622.580	94402.313	1767859.500	5117.401
σ		1141.019	43.593	1443.557	1945.358	2406.582	41443.039	289.451
%RSD		0.518	2.658	1.434	1.101	2.549	2.344	5.656

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:34:39	19520.664	3450.333	4230.501	3696.383	1080.033	1648.076	1090.033
2	10:35:03	20341.579	3610.365	3920.430	3590.361	1060.032	1798.091	1150.037
3	10:35:27	19991.184	3520.347	4230.501	3962.440	990.027	1914.103	1200.040
x		19951.142	3527.015	4127.144	3749.728	1043.364	1786.756	1146.704
σ		411.920	80.224	179.019	191.690	47.261	133.375	55.079
%RSD		2.065	2.275	4.338	5.112	4.530	7.465	4.803

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:34:39	38.000	349762.120	11523.717	14085.553	15546.765	9162.350	22614.310
2	10:35:03	24.000	346795.090	11583.756	13234.903	15586.800	8992.264	21793.290
3	10:35:27	36.000	352066.750	12014.040	14155.608	15606.817	8872.203	22844.603
x		32.667	349541.320	11707.171	13825.355	15580.127	9008.939	22417.401
σ		7.572	2642.758	267.446	512.545	30.577	145.790	552.625
%RSD		23.179	0.756	2.284	3.707	0.196	1.618	2.465

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:34:39	288125.860	750.016	800.018	40.000	240.002	4710.621	69655.589
2	10:35:03	280048.880	660.012	1210.041	110.000	310.003	4350.530	71824.154
3	10:35:27	287505.990	640.011	1540.066	90.000	730.015	5400.817	73199.723
x		285226.910	683.346	1183.375	80.000	426.673	4820.656	71559.822
σ		4495.002	58.597	370.744	36.056	265.023	533.719	1786.792
%RSD		1.576	8.575	31.329	45.069	62.114	11.072	2.497

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:34:39	786402.960	831770.700	3460.335	8602.071	11733.854	519179.170
2	10:35:03	784366.250	833362.400	3550.353	8922.228	13284.940	527240.270
3	10:35:27	790644.220	831885.890	4780.640	12144.128	15426.661	526931.350
x		787137.810	832339.660	3930.443	9889.476	13481.818	524450.260
σ		3202.845	887.585	737.667	1959.137	1854.259	4567.512
%RSD		0.407	0.107	18.768	19.810	13.754	0.871

ZZZZZZ 6/30/2011 10:37:21 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:37:21	102720.090	204.001	TM 1182794000.000	T 182182960.000	T 3509595.900	T 17121243.000	TM 19977390.000
2	10:37:45	100356.710	185.001	TM 1184370600.000	T 183719420.000	T 3528796.700	T 16805824.000	TM 19617383.000
3	10:38:10	100329.560	193.401	TM 1192605100.000	T 183992950.000	T 3492421.200	T 17220092.000	TM 19642635.000
x		101135.450	194.134	TM 1186589900.000	T 183298440.000	T 3510271.300	T 17049053.000	TM 19745803.000
σ		1372.404	9.521	TM 5268651.800	T 975668.130	T 18197.176	T 216363.400	TM 200957.660
%RSD		1.357	4.904	TM 0.444	T 0.532	T 0.518	T 1.269	TM 1.018

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:37:21	250160.050	4930.681	736740.860	1558245.200	1725152.400	T 7102088.100	29434.239
2	10:37:45	247625.090	4930.681	724192.900	1547422.100	1715703.900	T 7041461.100	30455.950
3	10:38:10	247118.140	5830.952	742783.620	1548325.600	1729845.500	T 7023731.600	31117.088
x		248301.090	5230.771	734572.460	1551331.000	1723567.300	T 7055760.300	30335.759
σ		1629.740	519.772	9483.154	6004.952	7202.821	T 41088.762	847.838
%RSD		0.656	9.937	1.291	0.387	0.418	T 0.582	2.795

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:37:21	130474.930	11133.470	18930.028	19110.220	1940.105	3970.441	2170.132
2	10:37:45	131411.760	10693.201	18839.933	19366.496	2180.133	4202.494	2380.159
3	10:38:10	133849.770	11093.445	18439.516	20183.400	2360.156	4186.491	2140.128
x		131912.150	10973.372	18736.492	19553.372	2160.132	4119.809	2230.140
σ		1742.177	243.459	261.105	560.465	210.738	129.603	130.784
%RSD		1.321	2.219	1.394	2.866	9.756	3.146	5.864

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:37:21	56.000	350047.630	25918.796	32880.243	37318.955	21022.367	54623.417
2	10:37:45	44.000	346112.020	25798.622	32489.529	35585.422	21332.735	54643.478
3	10:38:10	30.000	350822.620	24987.470	33431.265	37960.305	20752.051	55536.226
x		43.333	348994.090	25568.296	32933.679	36954.894	21035.718	54934.373
σ		13.013	2525.844	506.586	473.136	1228.586	290.572	521.316
%RSD		30.030	0.724	1.981	1.437	3.325	1.381	0.949

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:37:21	271579.570	760.016	330.003	140.001	120.000	2290.147	73049.108
2	10:37:45	260942.720	840.020	210.001	90.000	140.001	2220.138	73561.204
3	10:38:10	268402.060	810.018	230.001	100.000	140.001	2010.113	74464.938
x		266974.780	803.351	256.669	110.000	133.334	2173.466	73691.750
σ		5460.171	40.416	64.292	26.458	11.547	145.734	716.886
%RSD		2.045	5.031	25.049	24.052	8.660	6.705	0.973

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:37:21	756731.300	822369.970	1040.030	2580.186	45949.041	478834.990
2	10:37:45	761862.720	805130.420	770.017	1500.063	44675.816	480406.360
3	10:38:10	778445.420	815955.540	780.017	1640.075	46239.790	494328.690
x		765679.810	814485.310	863.355	1906.775	45621.549	484523.350
σ		11349.162	8713.306	153.087	587.378	831.830	8527.951
%RSD		1.482	1.070	17.732	30.805	1.823	1.760

zzzzzz 6/30/2011 10:40:04 AM

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:40:04	106011.240	11991.225	τ497534660.000	τ68122835.000	τ5841959.400	τ17482025.000	τ11289105.000
2	10:40:28	103935.600	11852.532	τ495648040.000	τ68143513.000	τ5889109.500	τ17606356.000	τ11099292.000
3	10:40:52	103185.260	11907.569	τ493124680.000	τ67698580.000	τ5820870.800	τ17530415.000	τ11214129.000
x		104377.370	11917.109	τ495435790.000	τ67988310.000	τ5850646.500	τ17539599.000	τ11200842.000
σ		1463.869	69.837	τ2212639.800	τ251125.860	τ34938.943	τ62672.170	τ95601.378
%RSD		1.402	0.586	τ0.447	τ0.369	τ0.597	τ0.357	τ0.854

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:40:04	217628.100	1970.109	989495.780	388715.230	1708719.400	τ4080915.400	997049.010
2	10:40:28	217496.520	2250.142	983465.980	385057.250	1718032.600	τ4039639.800	1018426.200
3	10:40:52	215117.960	1840.095	971021.940	378591.180	1688088.900	τ4050825.600	967086.780
x		216747.530	2020.115	981327.900	384121.220	1704947.000	τ4057126.900	994187.330
σ		1412.777	209.547	9420.680	5126.523	15324.192	τ 21347.106	25789.063
%RSD		0.652	10.373	0.960	1.335	0.899	τ0.526	2.594

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:40:04	201702.750	114173.840	213984.470	15532.753	1550.067	2716.207	1480.061
2	10:40:28	198911.710	113187.590	216747.490	15380.621	1100.034	2820.223	1670.078
3	10:40:52	195918.890	112442.900	211818.880	15494.720	1260.045	2768.215	1700.081
x		198844.450	113268.110	214183.610	15469.364	1303.382	2768.215	1616.740
σ		2892.517	868.270	2470.335	79.172	228.125	52.008	119.314
%RSD		1.455	0.767	1.153	0.512	17.503	1.879	7.380

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:40:04	32.000	352943.810	9682.624	9682.624	10873.309	5850.958	14946.252
2	10:40:28	42.000	343797.960	9532.544	8772.154	10833.285	5830.952	14926.236
3	10:40:52	22.000	345989.690	9462.506	9042.289	11143.476	5910.978	15336.583
x		32.000	347577.150	9559.225	9165.689	10950.023	5864.296	15069.690
σ		10.000	4775.109	112.458	467.611	168.726	41.647	231.352
%RSD		31.250	1.374	1.176	5.102	1.541	0.710	1.535

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:40:04	286672.750	4260.508	129870.550	2630.194	41257.606	259157.000	2092302.800
2	10:40:28	285656.660	3970.441	131663.610	2700.204	39814.336	254074.740	2084124.200
3	10:40:52	289335.180	4380.537	131734.120	2810.221	40135.052	253861.750	2056768.400
x		287221.530	4203.829	131089.430	2713.540	40402.331	255697.830	2077731.800
σ		1899.668	210.841	1056.168	90.752	757.850	2997.621	18609.712
%RSD		0.661	5.015	0.806	3.344	1.876	1.172	0.896

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:40:04	764522.870	832618.890	277722.980	666832.420	208429.340	517604.430
2	10:40:28	796516.750	824201.580	275823.880	674139.240	210027.910	539189.230
3	10:40:52	775689.290	849150.710	282740.800	664279.880	205303.440	542703.310
x		778909.640	835323.730	278762.550	668417.180	207920.230	533165.660
σ		16238.226	12692.591	3573.723	5117.159	2403.028	13590.474
%RSD		2.085	1.519	1.282	0.766	1.156	2.549

CCV2 CCV 6/30/2011 10:42:47 AM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:42:47	81056.046	441564.540	τ198074900.000	τ137074210.000	τ168003980.000	τ28312898.000	τ5430687.000
2	10:43:11	78683.469	430825.350	τ196126490.000	τ135211140.000	τ166066220.000	τ27525889.000	τ5294405.900
3	10:43:35	77635.397	427272.500	τ194957310.000	τ135147760.000	τ166903090.000	τ28157383.000	τ5278231.700
x		79124.971	433220.800	τ196386230.000	τ135811040.000	τ166991090.000	τ27998724.000	τ5334441.600
σ		1752.542	7441.053	τ1574939.500	τ1094399.800	τ971872.050	τ416803.940	τ83742.441
%RSD		2.215	1.718	τ0.802	τ0.806	τ0.582	τ1.489	τ1.570

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:42:47	181528.000	219126.260	3086562.500	2914249.500	τ5878845.400	τ240189100.000	τ3452536.000
2	10:43:11	180093.590	221515.470	3018565.800	2903945.800	τ5818159.700	τ241578440.000	τ3456680.600
3	10:43:35	182194.740	221333.230	2966894.500	2862015.900	τ5739801.700	τ237314690.000	τ3496942.700
x		181272.110	220658.320	3024007.600	2893403.700	τ5812268.900	τ239694080.000	τ3468719.800
σ		1073.695	1329.927	60019.298	27666.537	τ69708.747	τ2174551.600	τ24529.491
%RSD		0.592	0.603	1.985	0.956	τ1.199	τ0.907	τ0.707

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:42:47	709198.750	844780.580	820695.510	549519.070	55445.946	182075.530	79355.935
2	10:43:11	698457.590	834933.280	829446.240	546088.190	55576.350	181820.960	80380.502
3	10:43:35	692346.380	826860.360	820988.530	544958.460	55415.852	180839.060	79426.247
x		700000.910	835524.740	823710.090	546855.240	55479.383	181578.520	79720.895
σ		8531.529	8974.739	4969.807	2375.093	85.314	652.914	572.318
%RSD		1.219	1.074	0.603	0.434	0.154	0.360	0.718

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:42:47	102.000	327882.820	829540.470	1465136.900	1604832.500	931171.320	2429776.800
2	10:43:11	100.000	321406.660	814804.740	1447610.400	1569772.200	926265.810	2407455.000
3	10:43:35	114.000	315736.850	806092.390	1449180.400	1563768.100	921782.530	2413585.800
x		105.334	321675.440	816812.530	1453975.900	1579457.600	926406.560	2416939.200
σ		7.572	6077.441	11852.278	9697.533	22179.436	4695.980	11532.532
%RSD		7.189	1.889	1.451	0.667	1.404	0.507	0.477

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:42:47	272391.800	125237.630	τ4680065.300	94559.702	1463695.600	τ4962624.500	τ2031512.400
2	10:43:11	269061.880	124703.910	τ4603083.500	93956.531	1434114.000	τ4880281.200	τ2024125.300
3	10:43:35	267762.570	126013.060	τ4605947.900	89835.404	1418573.200	τ4834419.100	τ2034883.200
x		269738.750	125318.200	τ4629698.900	92783.879	1438794.300	τ4892441.600	τ2030173.600
σ		2387.687	658.280	τ43642.092	2571.202	22922.405	τ64961.989	τ5502.457
%RSD		0.885	0.525	τ0.943	2.771	1.593	τ1.328	τ0.271

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:42:47	756022.190	808392.970	τ10029485.000	τ24416155.000	τ18739974.000	526220.850
2	10:43:11	736407.520	805140.880	τ9944803.100	τ24207044.000	τ18538903.000	522957.040
3	10:43:35	735428.390	796328.630	τ9803075.200	τ23956435.000	τ18633001.000	529907.500
x		742619.370	803287.490	τ9925787.900	τ24193211.000	τ18637293.000	526361.800
σ		11617.505	6242.064	τ114396.550	τ230172.260	τ100604.010	3477.372
%RSD		1.564	0.777	τ1.153	τ0.951	τ0.540	0.661

CCB2 CCB 6/30/2011 10:45:33 AM QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.00

Run	Time	6Li	9Be	23Na	24Mg	27Al	39K	44Ca
1	10:45:33	82592.562	182.601	153787.380	52144.021	58796.638	134000.900	19320.446
2	10:45:57	83133.564	177.001	141395.590	51020.783	59769.861	137295.780	19010.113
3	10:46:21	83226.495	169.801	144298.670	54115.875	59519.025	135663.380	18209.279
x		82984.207	176.468	146493.880	52426.893	59361.842	135653.350	18846.613
σ		342.342	6.417	6480.995	1566.815	505.293	1647.466	573.343
%RSD		0.413	3.636	4.424	2.989	0.851	1.214	3.042

Run	Time	45Sc	47Ti	51V	52Cr	55Mn	56Fe	59Co
1	10:45:33	181578.510	90.000	5800.942	1350.051	1490.062	184710.390	710.014
2	10:45:57	189287.950	200.001	5910.978	1310.048	1730.084	190258.180	760.016
3	10:46:21	185346.930	200.001	5520.853	1230.042	1650.076	189065.610	1060.032
x		185404.460	163.334	5744.258	1296.714	1623.407	188011.390	843.354
σ		3855.041	63.509	201.145	61.105	122.213	2920.279	189.306
%RSD		2.079	38.883	3.502	4.712	7.528	1.553	22.447

Run	Time	60Ni	65Cu	66Zn	75As	77Se	78Se	82Se
1	10:45:33	130.000	280.002	430.005	244.002	30.000	438.005	40.000
2	10:45:57	270.002	300.003	340.003	308.003	60.000	454.006	70.000
3	10:46:21	200.001	330.003	410.005	284.002	60.000	452.006	10.000
x		200.001	303.336	393.338	278.669	50.000	448.006	40.000
σ		70.001	25.167	47.259	32.332	17.321	8.718	30.000
%RSD		35.000	8.297	12.015	11.602	34.641	1.946	75.000

Run	Time	83Kr	89Y	94Mo	95Mo	96Mo	97Mo	98Mo
1	10:45:33	32.000	327546.730	1260.045	2160.131	2380.159	1410.056	3890.424
2	10:45:57	14.000	332069.110	1230.042	2410.163	2300.148	1450.059	3650.373
3	10:46:21	22.000	335869.200	990.027	1470.061	1840.095	950.025	2750.212
x		22.667	331828.350	1160.038	2013.451	2173.467	1270.047	3430.336
σ		9.019	4166.454	147.996	486.913	291.467	277.867	601.110
%RSD		39.788	1.256	12.758	24.183	13.410	21.879	17.523

Run	Time	103Rh	106Cd	107Ag	108Cd	111Cd	121Sb	137Ba
1	10:45:33	298839.800	610.010	10903.328	30.000	480.006	4590.590	510.007
2	10:45:57	302948.160	600.010	10212.920	20.000	370.004	4820.651	480.006
3	10:46:21	298941.480	510.007	9962.778	20.000	470.006	4420.547	490.007
x		300243.140	573.343	10359.675	23.333	440.005	4610.596	493.340
σ		2343.162	55.077	487.146	5.774	60.829	200.801	15.276
%RSD		0.780	9.606	4.702	24.744	13.825	4.355	3.096

Run	Time	159Tb	165Ho	203Tl	205Tl	208Pb	209Bi
1	10:45:33	737792.990	815505.670	3200.287	7491.571	5680.904	586289.130
2	10:45:57	769917.380	825813.550	3070.264	7471.563	5680.904	607728.320
3	10:46:21	746847.990	797039.300	3120.273	7431.546	5580.872	587342.930
x		751519.450	812786.180	3130.274	7464.893	5647.560	593786.790
σ		16563.849	14578.617	65.586	30.563	57.753	12085.206
%RSD		2.204	1.794	2.095	0.409	1.023	2.035

Sentinel, Inc. SAMPLE PREPARATION

HOT BLOCK

ICP-MS

BATCH SHEET FOR WATER/AQUEOUS

DATE: 6/28/11 PREP METHOD: **200.8** SAMPLE TYPE: **LW**

SDG NO.: MF4N01 ANALYSIS METHOD: **MS** ANALYST: MM

CASE NO.: 41486 BATCH NO: 1 RUN NO.: 1-2

NITRIC ACID LOT / EXP. DATE: 1111070 4/14

HYDROCHLORIC ACID LOT / EXP. DATE: 502267 4/14

BATCH NO.	LAB ID NUMBER	SAMPLE DESCRIPTION	Initial Volume,mL	Final Volume, mL	Sample pH	Date Analyzed	Sample Weigh/Pour Initials	Sample Prep Initials
1	PBW	PBW	50	50	N/A	6/28/11	RR	RR
2	LCS	LCS	50	50	N/A			
3 QC	14920	MF4N31	50	50	<2			
4 QC	14920D	MF4N31D	50	50	<2			
5 QC	14920S	MF4N31S	50	50	<2			
6	14912	MF4N01	50	50	<2			
7	14913	MF4N02	50	50	<2			
8	14914	MF4N03	50	50	<2			
9	14915	MF4N04	50	50	<2			
10	14916	MF4N11	50	50	<2			
11	14917	MF4N17	50	50	<2			
12	14918	MF4N29	50	50	<2			
13	14919	MF4N30	50	50	<2			
14	14921	MF4N32	50	50	<2			
15	14922	MF4N53	50	50	<2			
16	14923	MF4N54	50	50	<2			
17	14924	MF4N67	50	50	<2			
18								
19								
20								
21								
22								
23								
24								
25								
26								

* - Denotes that the pH of the sample has been adjusted in sample receipt and pH should be rechecked by analyst before sample is prepped for analysis.

Sample Relinquished by:		Sample Received by:	
RR	6/28/11	RR	6/28/11
MM	6/28/11	MM	6/28/11
/	/ /	/	/ /

Reviewed By: 7/1/11

Analyst/Date

Reviewed By: 7/1/11

QA Officer/Supervisor/Date

From: (972) 315-3922
Reshma Hooda
EA Engineering, Science, & Tec
405 S. Hwy 121 Bypass
Suite C-100
Lewisville, TX 75067

Origin ID: JMDA

FedEx Express

J11201104290225

Ship Date: 23JUN11
ActWgt: 20.0 LB
CAD: 1247365/INET3180

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

SHIP TO: (256) 534-9800

BILL SENDER

Randi Richey
Sentinel
4733 COMMERCIAL DR NW

HUNTSVILLE, AL 35816

Ref # 1434265 A 3
Invoice #
PO #
Dept #

6/27/11
1050

FRI - 24 JUN A4
PRIORITY OVERNIGHT

TRK# 7948 7981 0994
0201

XX HSVA

35816
AL-US
MEM

50FG1/C8B0/F5F4

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From: (972) 315-3922
Reshma Hooda
EA Engineering, Science, & Tec
405 S. Hwy 121 Bypass
Suite C-100
Lewisville, TX 75067

Origin ID: JMDA

FedEx Express

J11201104290225

Ship Date: 23JUN11
ActWgt: 20.0 LB
CAD: 1247365/INET3180

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code

Ref # 1434265 A 3
Invoice #
PO #
Dept #

6/24/11
1050

SHIP TO: (256) 534-9800 BILL SENDER

Randi Richey
Sentinel
4733 COMMERCIAL DR NW

HUNTSVILLE, AL 35816

FRI - 24 JUN A4
PRIORITY OVERNIGHT

TRK# 7948 7980 9784
0201

XX HSVA

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Project Code / CLP Case No. | Station No. | Month/Day/Year: 06/22/11 | Time: 1535 | Designate: Comp. / Grab

Tag Number: 6- 455816

Station Location | Samplers (Signatures)

Lab Sample No: L / M / H

Case No: 41486
Sample No: MF4N01
Station Location: LMW-1
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-MS
Concentration: L
Tag No: 6455816

Preservative: Yes ☐ No ☐

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No. | Station No. | Month/Day/Year: 06/22/11 | Time: 1625 | Designate: Comp. / Grab

Tag Number: 6- 455817

Station Location | Samplers (Signatures)

Case No: 41486
Sample No: MF4N02
Station Location: LMW-2
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-MS
Concentration: L
Tag No: 6455817

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No. | Station No. | Month/Day/Year: 06/23/11 | Time: 0845 | Designate: Comp. / Grab

Tag Number: 6- 455818

Station Location | Samplers (Signatures)

Case No: 41486
Sample No: MF4N03
Station Location: LMW-105
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-MS
Concentration: L
Tag No: 6455818

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No.	Station No.	Month/Day/Year	Time	Designate: Comp.	Designate: Grab
		6-22-11	1523		

Station Location

Samplers (Signatures): Dwaine Beard

Tag Number 6- 455819

Lab Sample No.

Case No: 41486
Sample No: MF4N04
Station Location: LMW-103
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-MS
Concentration: L
Tag No: 6455819

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

G.P.O. U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No.	Station No.	Month/Day/Year	Time	Designate: Comp.	Designate: Grab
		6-22-11	1624		

Station Location

Samplers (Signatures): Dwaine Beard

Tag Number 6- 455826

Lab Sample No.

Case No: 41486
Sample No: MF4N11
Station Location: LMW-404
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-MS
Concentration: L
Tag No: 6455826

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

G.P.O. U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No.	Station No.	Month/Day/Year	Time	Designate: Comp.	Designate: Grab
		6-22-11	1120		

Station Location

Samplers (Signatures): Dwaine Beard

Tag Number 6- 455832

Lab Sample No.

Case No: 41486
Sample No: MF4N17
Station Location: LMW-401
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-MS
Concentration: L
Tag No: 6455832

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

G.P.O. U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No. | Station No. | Month/Day/Year: 06/22/11 | Time: 1115 | Designate: Comp. | Grab

Tag Number: 6- 455844

Station Location | Samplers (Signatures)

Case No: 41486
Sample No: MF4N29
Station Location: WMW-04A
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-AES
Concentration: M
Tag No: 6455844

Volatile Organics (VOA) | Preservative: Yes ☐ No ☐

Lab Sample No.

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No. | Station No. | Month/Day/Year: 06/22/11 | Time: 1200 | Designate: Comp. | Grab

Tag Number: 6- 455845

Station Location | Samplers (Signatures)

Case No: 41486
Sample No: MF4N30
Station Location: WMW-04B
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-AES
Concentration: M
Tag No: 6455845

Volatile Organics (VOA) | Preservative: Yes ☐ No ☐

Lab Sample No.

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No. | Station No. | Month/Day/Year: 06/22/11 | Time: 1345 | Designate: Comp. | Grab

Tag Number: 6- 455834

Station Location | Samplers (Signatures)

Case No: 41486
Sample No: MF4N31
Station Location: WMW-05A
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-AES
Concentration: M
Tag No: 6455834

Volatile Organics (VOA) | Preservative: Yes ☐ No ☐

Lab Sample No.

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

06/22/11 1345

Comp. | Grab

Station Location | Samplers (Signature(s))

Tag Number 6- 455846

Lab Sample No.

Case No: 41486
Sample No: MF4N31
Station Location: WMW-05A
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-AES
Concentration: M
Tag No: 6455846

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code CLP Case No.	Station No.	Month/Day/Year	Time	Designate: Comp.	Designate: Grab
		06/22/11	1430		

Station Location | Samplers (Signatures)

Tag Number 6- 455847

Lab Sample No.

Case No: 41486
Sample No: MF4N32
Station Location: WMW-05B
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-AES
Concentration: L
Tag No: 6455847

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code CLP Case No.	Station No.	Month/Day/Year	Time	Designate: Comp.	Designate: Grab
		06/22/11	1430		

Station Location | Samplers (Signatures)

Tag Number 6- 455886

Lab Sample No.

Case No: 41486
Sample No: MF4N67
Station Location: WMW-05B DUP
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-AES
Concentration: M
Tag No: 6455886

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No.	Station No.	Month/Day/Year	Time	Designate: Comp.	Grab
		6-22-11	1722		

Station Location

Samplers (Signatures) Dwaine Beard

Tag Number 6- 6455871

Lab Sample No.

Case No: 41486
Sample No: MF4N53
Station Location: WMW-22A
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-MS
Concentration: L
Tag No: 6455871

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

Project Code / CLP Case No.	Station No.	Month/Day/Year	Time	Designate: Comp.	Grab
		6-23-11	900	-	

Station Location

Samplers (Signatures) Dwaine Beard

Tag Number 6- 6455872

Lab Sample No.

Case No: 41486
Sample No: MF4N54
Station Location: WMW-22B
Sample Type: Grab
Preservative: HNO3
Analysis: TM ISM01.2 / ICP-MS
Concentration: L
Tag No: 6455872

Volatile Organics (VOA)

Preservative: Yes ☐ No ☐

GPO U.S. GOVERNMENT PRINTING OFFICE: 2009-546-765

LAB ID #	EPA SAMPLE #	CASE #	SDG #	SAMP TYPE	DATE REC'D	TIME REC'D	CLIENT NAME	PARA-METERS	SAMPLE DESCR.	COMMENTS/ NOTES	TEMP °C	COLOR/ TEXTURE	SUL-FIDES	OXID.	PH	INIT
14904	MB9F13	41407	MB9EQ6	WS	6/24/11	0925	R2	MES/MS Hg/CN	WS	21D	3.3	Varied	NA	NA	NA	
14905	MB9F05	41407	MB9F05	WW	6/24/11	0925	R2	MES Hg CN	WW	QC 21D	3.4	Clear				
14906	10										3.3					
14907	MB9FJ8	41477	MB9FJ8	WW	6/24/11	0925	R2	MES Hg	WW	21D	5.2	Clear	NA	NA	<2	
14908	K0									QC	5.2					
14909	K1															
14910	K3															
14911	K4															
14912	MF4N01	41486	MF4N01	WW	6/25/11	1050	R6	MS	WW		2.3/5.3	Clear	NA	NA	<2	
14913	02															
14914	03															
14915	04															
14916	11															
14917	17															
14918	29															
14919	30															
14920	31									QC						
14921	32															
14922	53															
14923	54											Pink				
14924	67															

Signed 6/25/11 Date

* pH adjusted for this SDG to: TM/DM <2; CN >12

Reviewed By 6/25/11 Date

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL SAMPLE SEAL

SAMPLE NO. Cooler

DATE 04/23/11

SIGNATURE

PRINT NAME AND TITLE (Inspector, Analyst or Technician)
Kari Jacobs SCL

SEAL BROKEN BY

DATE

EPA FORM 7500-2(R7-75)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL SAMPLE SEAL

SAMPLE NO. Cooler

DATE 8/23/11

SIGNATURE

PRINT NAME AND TITLE (Inspector, Analyst or Technician)
Katrina Hoola, SCL

SEAL BROKEN BY

DATE

EPA FORM 7500-2(R7-75)

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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL SAMPLE SEAL

SAMPLE NO. Cooler

DATE 08/23/11

SIGNATURE

PRINT NAME AND TITLE (Inspector, Analyst or Technician)

Diane Thomas

SEAL BROKEN BY

DATE

EPA FORM 7500-2(R7-75)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL SAMPLE SEAL

SAMPLE NO. Cooler

DATE 08/23/11

SIGNATURE

PRINT NAME AND TITLE (Inspector, Analyst or Technician)

Diane Thomas

SEAL BROKEN BY

DATE

EPA FORM 7500-2(R7-75)

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Contract Laboratory Program

Sample Delivery Group (SDG) Cover Sheet

SDG Number MF4N01 Case Number 41486 Contract Number EPW09040
Lab Code Sentinel SDG Turnaround 21 Delivery CLIN(s) NA

First Sample Received in SDG MF4N01 Last Sample Received in SDG MF4N67
First Sample Receipt Date 6/27/11 Last Sample Receipt Date 6/27/11

USEPA Sample Numbers in SDG (Listed in Numerical Order)

CLP Sample ID	Sample Type	Requested Analytical CLIN(s)/SubCLIN(s)	Solicitation Number	MA Number(s)
1 MF4N01	LW	0018C	NA	NA
2 02				
3 03				
4 04				
5 11				
6 17				
7 29				
8 30				
9 31				
10 32				
11 53				
12 54				
13 67				
14				
15				
16				
17				
18				
19				
20				

Note: *There are a maximum of 20* ***field*** *samples (excluding PE samples) in an SDG. Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).*

Signature _____ Date 6/27/11

SOW: ISM01.2 - MS

Sentinel, Inc. | Sample Receipt

SDG TRACKING REPORT

Case No.: 41486 **Sample Delivery Group:** MF4N01

Laboratory ID Number	EPA Sample	Tracking Number	Date Received	pH TM	pH CN	QC FB PE	Matrix	Parameters	Initials
14912	MF4N01	6455816	06/25/2011	<2	NA		LW	MS	RR
14913	MF4N02	6455817	06/25/2011	<2	NA		LW		RR
14914	MF4N03	6455818	06/25/2011	<2	NA		LW		RR
14915	MF4N04	6455819	06/25/2011	<2	NA		LW		RR
14916	MF4N11	6455826	06/25/2011	<2	NA		LW		RR
14917	MF4N17	6455832	06/25/2011	<2	NA		LW		RR
14918	MF4N29	6455844	06/25/2011	<2	NA		LW		RR
14919	MF4N30	6455845	06/25/2011	<2	NA		LW		RR
14920	MF4N31	6455834,46	06/25/2011	<2	NA	QC	LW		RR
14921	MF4N32	6455847	06/25/2011	<2	NA		LW		RR
14922	MF4N53	6455871	06/25/2011	<2	NA		LW		RR
14923	MF4N54	6455872	06/25/2011	<2	NA		LW		RR
14924	MF4N67	6455886	06/25/2011	<2	NA		LW		RR

Notes: * See Digestate Tracking Report

SDG Completion Date: 06/25/2011 Report Deadline: 07/16/2011

Analyst Check Out	Analyst Check Out	Analyst Check Out	Analyst Check Out	Analyst Check Out
RR 1080 06/25/11	/ /	/ /	/ /	/ /
Analyst Check In	**Analyst Check In**	**Analyst Check In**	**Analyst Check In**	**Analyst Check In**
RR 1080 06/28/11	/ /	/ /	/ /	/ /
Transfer to Lab	**Transfer to Storage - Sample**	**Final Disposal - Sample**	**Transfer to Storage - Digestates**	**Final Disposal - Digestates**
Area: Cooler	Area:	Area:	Area: *	Area: *
Date: 06/25/11	Date:	Date:	Date:	Date:
By: TFY	By:	By:	By:	By:

Sentinel, Inc.

ISM01.2 **Sample Preparation**

DEENA HOTBLOCK USAGE LOG
95°C (±3°C)

AES Spike Sol'n Vendor/Lot #'s /Exp. Date: CLPP-SPK-1 IV-D2MEB324145|6|12 CLPP-SPK-5 IV|B2MEB263095|6|12
Spike Vol. Added - Waters: 50uL of each spike solution, Soils : 200 uL of each spike solution
AES - LCS Vendor /Lot #/ Exp. Date: CLP-AES-CRQL-2 IV|A2MEB194195|3|12 (1 mL)
MS Spike Sol'n Vendor/Lot #'s /Exp. Date: CLPP-SPK-1 IV|D2-MEB324145|6|12 CLPP-SPK-4 IV|A2-MEB194140|6|12
Spike Vol. Added - Waters: 50 uL of each spike solution, Soils : 500 uL of each spike solution
MS - LCSS Vendor /Lot #/ Exp. Date: CLP-MS-CRQL-3 IV|C2-MEB296009|4|12 (1 mL)
MS - LCSW : 50 mL of MS-LCSW solution (see MS-LCSW log)
IV: Inorganic Ventures

BATCH #	DATE	TIME IN/OUT	METHOD	TEMP SETTING (Deg C)	TEMP READING (Deg C)	HOT BLOCK #	ANALYST INITIALS	SUPER-VISORY INITIALS
MF4N05	6/24/11	952 - 1202	200.8	95	95	D-1	RR	—
↓ 61	↓	↓	↓	↓	↓	↓	↓	↓
MC0179	6/24/11	1311 - 1522	200.7	95	95	D-1	RR	—
↓ C1	↓	↓	↓	↓	↓	↓	↓	↓
MB91J8	6/28/11	815 - 1025	200.7	95	95	D-1	RR	—
MF4N01			200.8					
↓ 06	↓	↓	↓	↓	↓	↓	↓	↓
MB9EM1 MS	6/29/11		3050B/LS	95	95	D-1	RR	—
↓ MES								
MC1JR4 MES	↓	↓	↓	↓	↓	↓	↓	↓
MB9E06 MES	6/30/11	956 - 1100	3050B/LS	95	95	D-1	RR	—
↓ MS	↓	↓	↓	↓	↓	↓	↓	↓
MB91D5 MS	6/30/11	1140 -	200.8	95	95	D-1	RR	—
MC1JR2								
MYZYR0 ↓								
↓ MES								
MC01G7								
↓ G4 ↓	↓	↓	↓	↓	↓	↓	↓	↓

Sentinel, Inc.

ISM01.2 **Sample Preparation**

ICP-AES / ICP-MS Reagents Log

1. 50% Trace Metal Nitric Acid: 1000 mL Trace Metal Concentrated HNO_3 --> 2 L DI H_2O
   Vendor: LD Lot: 1110070 Exp: 2/12
2. 50% Trace Metal Hydrochloric Acid: 1000 mL Trace Metal Concentrated HCL --> 2 L DI H_2O
   Vendor: LD Lot: 50267 Exp: 2/12
3. 50% Optima Nitric Acid: 1000 mL Optima Concentrated HNO_3 --> 2 L DI H_2O
   Vendor: LD Lot: 50181 Exp: 2/12
4. 50% Optima Hydrochloric Acid: 1000 mL Optima Concentrated HCL --> 2 L DI H_2O
   Vendor: LD Lot: P563492 Exp: 7/11

Date	50% Trace Metal Nitric Acid	50% Trace Metal Hydrochloric Acid	50% Optima Nitric Acid	50% Optima Hydrochloric Acid	Comments	Analyst Initials	Supervisor Initials
6/24/11	✓	✓			None	RR	L
6/28/11	✓	✓			None	RR	L
6/30/11	✓	✓			None	RR	L

MS-LCSW LOG

CLP-MS-CRQL-3 VENDOR/ LOT / EXP. DATE: IV/C2-MEB2960009/6/11
Al VENDOR/ LOT / EXP. DATE: CPI/10B031/ 11/18/11
Ca VENDOR/ LOT / EXP. DATE: CPI/10B041/ 11/18/11
Mg VENDOR/ LOT / EXP. DATE: CPI/10A1401/ 11/18/11
Na VENDOR/ LOT / EXP. DATE: CPI/10B067/ 11/18/11
K VENDOR/ LOT / EXP. DATE: CPI/09L1741/ 11/10/11
Fe VENDOR/ LOT / EXP. DATE: CPI/10C186/ 11/18/11
Optima Nitric Acid VENDOR/ LOT / EXP. DATE: LD/120126001/ 11/11

IV: Inorganic Ventures

Fill a 1 L plastic flask approximately half full with MS Blank Solution.
Add 2 mL of CLP-MS-CRQL-3
Add 1 mL each of Ca, Mg, Na, and K
Add 40uL of Al
Add 400 µL of Fe.
Fill to volume with MS Blank Solution

DATE	MS-LCSW	ANALYST INITIALS	SUPERVISORY INITIALS
9/21/10	✓	RR	—
9/24/10	✓	MM	↓
10/30/10	✓	[illegible]	—
12/15/10	✓	MM	MM
1/6/11 ~~1/4/11~~	✓	MM	RR
1/25/11	✓	RR	—
3/3/11	✓	MM	RR
3/31/11	✓	MM	RR
5/9/11	✓	MM	RR

Sentinel, Inc.

ISM01.2

MS BLANK SOLUTION LOG

Preparation: Make a 1% Nitric soultion using 18 megaohm water.

Note: Always start out fresh. (i.e. empty residual blank solution and rinse container with 18 megaohm water before preparing the fresh solution).

Note: Vendor is Lab Depot

DATE	AMOUNT (L)	HNO_3 LOT#	ANALYST INITIALS	SUPERVISORY INITIALS
9/21/10	3L	1206120		
9/27/10	2L	1206120		
9/29/10	3L	1206120		
10/20/10	3.8L	1206120		
10/22/10	1.0L	1206120		
10/31/10	3.8L	1206120		
11/2/10	3.8L	1206120		
11/9/10	3.8L	1110070		
11/17/10	3.8L	1110070		
11/24/10	3.8L	1110070		
11/30/10	3.8L	1110070		
12/10/10	3.8L	1110070		RR
~~12/6~~ RR 2/8/11				
12/16/10	3.8L	1110070		RR
1/5/11	3.8L	1110070		RR
1/28/11	3.8L x2	1110070		RR
3/2/11	3.8L x2	1110070		RR
3/8/11	3.8L x2	1110070		RR
3/15/11	20L	1110070		RR
5/9/11	20L	1110070		RR

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ISM01.2 | **ICP MS STANDARDS LOG** | Analysis Preparation

TUNE SOLN. VENDOR/LOT/EXP.DATE: Be: CPI/1QC002/11/11 Mg: CPI/1QA140/11/11 Co: CPI/1QB043/11/11
VENDOR/LOT /EXP.DATE: In: CPI/1QGL0931/11/11 Pb: CPI/1QC044/11/11 Li: CPI/A2-QL0241/11/11 U: CPI/Q8J200/11/11
ICV VENDOR/LOT /EXP.DATE: EPA/Q307/NA
ICSA VENDOR/LOT /EXP.DATE: EPA/Q803/NA
ICSAB VENDOR/LOT #/EXP.DATE: EPA/Q803/NA EPA/Q803/NA
ISS VENDOR/LOT /EXP. DATE: IV/D2-MEB324 Q211/11
IV: Inorganic Ventures EPA: Environmental Protection Agency

ICB, and CCB are the Blank Solution; the acid lot number used in making up this solution is included in the MS Blank Solution Log.

TUNE: 50 uL Be, Mg, Co, In, Pb, Li, U --> 500 mL MS Blank Solution

ICV: 10 mL ICV1 (0307) --> 500 mL MS Blank Solution

ICSA: 10mL ICS Part AMS --> 500mL MS Blank Solution

ICSAB: 10mL ICS Part AMS + 10mL ICS Part BMS --> 500mL MS Blank Solution

CCV: 250 mL of S2000 --> 500 mL MS Blank Solution

Internal Standard: 10mL 6020 ISS --> 500mL MS Blank Solution

DATE	TUNE CRITERIA MET	TUNE SOLN.	ICV	ICSA	ICSAB	CCV	Internal Standard Solution	COMMENTS	ANALYST INITIALS	SUPERVISORY INITIALS
6/28/11	✓		✓					None	[illegible]	PR
6/30/11	✓							None	[illegible]	PR

Sentinel, Inc.

ISM01.2 **Analysis Preparation**

ICP-MS S1 STANDARDS LOG

Primary Standards:

CLP-MS-CRQL-3 (Vendor / Lot # / Exp.Date): IV/CZ-MEB296DD911/10/11
CGAL1-1 (Vendor / Lot # / Exp.Date): CPI / 10A2571/11/11
CGCA1-1 (Vendor / Lot # / Exp.Date): CPI / 10B0411/11/11
CGMG1-1 (Vendor / Lot # / Exp.Date): CPI / 10A0401/11/11
CGNA1-1 (Vendor / Lot # / Exp.Date): CPI / 10B0167/11/11
CGK1-1 (Vendor / Lot # / Exp.Date): CPI / 09L174/11/11
CGFE1-1 (Vendor / Lot # / Exp.Date): CPI / 10C1861/11/11
ICP-MS Blank Solution - see ICP-MS Blank solution log for acid lot numbers and expiration dates.

Al(0.1): 1mL CGAL1-1 --> 100mL MS Blank Solution
S1: 100uL CLP-MS-CRQL-3 + 200uL Al(0.1) + 50uL CGCA1 + 50uL CGMG1 + 50uL CGNA1 + 50uL CGK1 + 20uL CGFE1 --> 100mL MS Blank Sol.

((Primary Standard Analyte Concentration, ug/mL * Spike Amount mL) / (100 mL)) * 1000mL/L) = S1 Analyte Concentration, ug/L

Primary Standard Analyte	Primary Std. Analyte Conc. (ug/mL)	Spike Amount (mL)	S1 Analyte Conc. (ug/L)
AL(0.1)			
Al	10	0.2	20
CGCA1-1			
Ca	1000	0.05	500
CGMG1-1			
Mg	1000	0.05	500
CGNA1-1			
NA	1000	0.05	500
CGK1-1			
K	1000	0.05	500
CGFE1-1			
Fe	1000	0.02	200
CLP-MS-CRQL-3			
Ba	10	0.1	10
Cu	2	0.1	2
Zn	2	0.1	2
Sb	2	0.1	2
Be	1	0.1	1
Cr	2	0.1	2
Mn	1	0.1	1
Se	5	0.1	5
Tl	1	0.1	1
As	1	0.1	1
Cd	1	0.1	1
Co	1	0.1	1
Pb	1	0.1	1
Ni	1	0.1	1
Ag	1	0.1	1
V	5	0.1	5

6/27/11 — Date Prepared
[signature] 6/27/11 — Analyst, Date
[signature] 6/27/11 — Supervisor, Date

ICP-MS S2000 - S100 STANDARDS LOG

Primary Standards:

IV-26 (Vendor / Lot # / Exp.Date): IV / C2-M0B297091 / 11/11

CGFe10-1 (Vendor / Lot # / Exp.Date): CPI / 10L8861 / 11/11

CGNa10-1 (Vendor / Lot # / Exp.Date): CPI / 10B0671 / 11/11

CGAl10-1 (Vendor / Lot # / Exp.Date): CPI / 10A2571 / 11/11

CGCa10-1 (Vendor / Lot # / Exp.Date): CPI / 10B0411 / 11/11

CGMg10-1 (Vendor / Lot # / Exp.Date): CPI / 10A0401 / 11/11

CGK10-1 (Vendor / Lot # / Exp.Date): CPI / 09L474 / 11/11

CBa1-1 (Vendor / Lot # / Exp.Date): CPI / 10B0004 / 11/11

ICP-MS Blank Solution: see ICP-MS Blank Solution Log for acid lot numbers and expiration dates.

S2000: 10mL IV-26 + 5.0mL CGFe10 + 5.0 mL CGNa10 + 5.0 mL CGAl10 + 5.0 mL CGCa10 + 5.0 mL CGMg10 + 4.0 mL CGK10 + 100 uL CGBa1 --> 500mL MS Blank Solution

S1000: 50mL S2000 --> 100mL MS Blank Solution

S500: 25mL S2000 --> 100mL MS Blank Solution

S100: 10mL S1000 --> 100mL MS Blank Solution

((Primary Standard Analyte Concentration, ug/mL * Spike Amount mL) / (500 mL)) * 1000mL) = S2000 Analyte Concentration, ug/L

Primary Standard Analyte	Primary Std. Analyte Conc. (ug/mL)	Spike Amount (mL)	S2000 Analyte Conc. (ug/L)	S1000 Analyte Conc. (ug/L) (1:2 Dil. of S2000)	S500 Analyte Conc. (ug/L) (1:4 Dil. of S2000)	S100 Analyte Conc. (ug/L) (1:10 Dil. of S1000)
CGFE10-1						
Fe	10000	5	100000	50000	25000	5000
CGNA10-1						
Na	10000	5	100000	50000	25000	5000
CGAL10-1						
Al	10000	5	100000	50000	25000	5000
CGCA10-1						
Ca	10000	5	100000	50000	25000	5000
CGMG10-1						
Mg	10000	5	100000	50000	25000	5000
CGK10-1						
K	10000	4	80000	40000	20000	8000
CGBA1-1						
Ba	1000	0.1	200	100	50	10
IV-26						
Al	100	10	2000	1000	500	100
Ba	100	10	2000	1000	500	100
Cd	100	10	2000	1000	500	100
Co	100	10	2000	1000	500	100
Pb	100	10	2000	1000	500	100
Se	100	10	2000	1000	500	100
Na	100	10	2000	1000	500	100
V	100	10	2000	1000	500	100
Sb	100	10	2000	1000	500	100
Be	100	10	2000	1000	500	100
Ca	100	10	2000	1000	500	100
Cu	100	10	2000	1000	500	100
Mg	100	10	2000	1000	500	100
Ni	100	10	2000	1000	500	100
Tl	100	10	2000	1000	500	100
Zn	100	10	2000	1000	500	100
As	100	10	2000	1000	500	100
Cr	100	10	2000	1000	500	100
Fe	100	10	2000	1000	500	100
Mn	100	10	2000	1000	500	100
K	1000	10	20000	10000	5000	1000
Ag	100	10	2000	1000	500	100

6/27/11 — Date Prepared

[illegible] 6/27/11 — Analyst, Date

[illegible] 6/27/11 — Supervisor, Date

Sentinel, Inc.

ISM01.2 Sample Analysis

ICP MS USE LOG

DATE	SDG NUMBER	RUN NUMBER	MATRIX	ICP #	START TIME	END TIME	COMMENTS	ANALYST INITIALS	SUPER-VISORY INITIALS
6/23/11	MB96T2	11062332	LW	MSϕ	0913	1548	RR/DIL	[illegible]	RR
6/23/11	MB9EP3	11062333	LS	MSϕ	0913	1548	PS	[illegible]	↓
6/23/11	MB96T5	11062334	LW	MSϕ	0913	1723	None	[illegible]	↓
6/23/11	MY7H07	11062335	LW	MSϕ	0913	1836	None	[illegible]	↓
6/23/11	MY7H09	11062336	LW	MSϕ	0913	1948	RR	[illegible]	↓
6/27/11	MF4N61	11062730	LW	MSϕ	1042	1352	None	[illegible]	RR
6/27/11	MF4N05	11062731	LW	MSϕ	1042	1537	None	[illegible]	↓
6/28/11	MF4W01	11062830	LW	MSϕ	1009	1228	None	[illegible]	RR
6/28/11	MF4N06	11062831	LW	MSϕ	1009	1416	None	[illegible]	↓
6/30/11	MF4N06	11063030	LW	MSϕ	0913	1045	DIL	[illegible]	RR
6/30/11	MF4N01	11063031	LW	MSϕ	0913	1045	DIL	[illegible]	↓
6/30/11	MF4N05	11063032	LW	MSϕ	0913	1045	PS	[illegible]	↓

Randi Richey

From: "Blackmon, Jacqueline" <jblackmon3@fedcsc.com>
To: "Beverly Kilgore " <bkilgore@sentinellab.com>; "Melvin Kilgore" <mkilgore@sentinellab.com>; "Randi Richey" <rrichey@sentinellab.com>
Cc: "Marvelyn Humphrey" <humphrey.marvelyn@epa.gov>; "Mahmoud Elfeky" <Elfeky.Mahmoud@epamail.epa.gov>; "Myra Perez" <perez.myra@epa.gov>; "Raymond Flores" <Flores.Raymond@epamail.epa.gov>
Sent: Wednesday, June 29, 2011 10:18 AM
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems | FINAL

Randi,
Please note that any waivers required for this issue will need to be submitted to the laboratory's PO.

Summary Start
Issue: Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. These samples were run undiluted. Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.
Resolution: Per Region 6, the Region will not pursue the required Na and Ca diluted analyses. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.
Summary End

Please let me know if you have any questions or problems. To waive any defect(s) associated with this issue, please contact your PO.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com
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From: Blackmon, Jacqueline
Sent: Wednesday, June 29, 2011 11:13 AM
To: 'Raymond Flores'
Cc: 'Mahmoud Elfeky'; 'Myra Perez'
Subject: FW: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Ray,
Please note the responses to your previous questions for this issue below. I will proceed to inform the lab that Region 6 will not pursue the required Na and Ca diluted analyses. The laboratory will have to submit any required waivers to their PO.

1.) That is correct, any dilutions and/or reanalyses (unless it is an actual reanalysis request that is scheduled and marked as billable) are not billable.

2.) The delay that the Ca and Na diluted results would add to the data delivery would be: "It would delay package submittal by at least 5 days. If dilutions are not required then packages are ready to be put together.

However, all data would be submitted within the 21 day TAT."

I will inform the lab of the Region's resolution.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

15000 Conference Center Drive, Chantilly VA 20151
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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Wednesday, June 29, 2011 10:46 AM
To: Blackmon, Jacqueline
Cc: Elfeky.Mahmoud@epamail.epa.gov; Perez.Myra@epamail.epa.gov
Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Region 6 will not pursue the required Na & Ca diluted analyses and agrees to related wavier requests for such.

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Wednesday, June 29, 2011 11:01 AM
To: Blackmon, Jacqueline
Cc: Beverly Kilgore; Melvin Kilgore
Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

It would delay package submittal by at least 5 days. If dilutions are not required then packages are ready to be put together. However, all data would be submitted within the 21 day TAT.

Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

----- Original Message -----
From: Blackmon, Jacqueline
To: Randi Richey
Sent: Wednesday, June 29, 2011 9:35 AM
Subject: FW: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Randi,

The Region would like to know if you could you provide an estimate of how long a delay the Ca and Na diluted results would add to the data delivery?

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

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Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Wednesday, June 29, 2011 9:55 AM
To: Blackmon, Jacqueline
Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Checking on the need for Ca and Na results. In the meantime, please confirm that if the diluted Ca & Na analyses were run, they would not be billable. Also, could you get an estimate of how long a delay the Ca & Na diluted results would add to the data delivery by the lab. Thanks.

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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From: Blackmon, Jacqueline
Sent: Tuesday, June 28, 2011 1:22 PM
To: 'Raymond Flores'
Cc: 'Mahmoud Elfeky'; 'Myra Perez'
Subject: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Ray,

SENTIN has confirmed that these samples were run undiluted. Out of 2 of the SDGs that the laboratory has analyzed so far, 3 samples are below the CRQL for Cr. The other samples ran at a range of 7 - 170 ppb for Cr.

Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted.

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

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Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Tuesday, June 28, 2011 1:16 PM
To: Blackmon, Jacqueline
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Yes these samples were run undiluted. Out of 2 of the SDGs that we have analyzed so far 3 samples are below the CRQL for Cr. The other samples ran at a range of 7 - 170 ppb for Cr.

Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

----- Original Message -----
From: Blackmon, Jacqueline
To: Randi Richey
Sent: Tuesday, June 28, 2011 9:05 AM
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Randi,

Can you please confirm that these analyses were run undiluted? Also, did the lab achieve the CRQLs for Chromium, e.g, was Chromium quantified as a positive or reported down to the CRQL or MDL as undetected?

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Tuesday, June 28, 2011 9:57 AM
To: Blackmon, Jacqueline
Cc: Elfeky.Mahmoud@epamail.epa.gov; Perez.Myra@epamail.epa.gov
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Assuming these analyses were run undiluted, did the lab achieve the CRQLs for Chromium, e.g, was Chromium quantified as a positive or reported down to the CRQL or MDL as undetected?

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov
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-----"Blackmon, Jacqueline" <jblackmon3@fedcsc.com> wrote: -----

To: Raymond Flores/R6/USEPA/US@EPA
From: "Blackmon, Jacqueline" <jblackmon3@fedcsc.com>

Date: 06/28/2011 08:13AM
Cc: Mahmoud Elfeky/R6/USEPA/US@EPA, Myra Perez/R6/USEPA/US@EPA
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems
Ray,
SENTIN is reporting the following issue for Case 41486. Please advise.

Issue: Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.

Please let me know if you have any questions or problems.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Monday, June 27, 2011 5:01 PM
To: Blackmon, Jacqueline
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Shipping information

Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. Can you please ask the region if they will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.

Thanks
Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

CLP Laboratory Waiver Request Form

Waiver Item No.: 1

Date: 6/30/11

Laboratory Name: SENTIN

Contract Number: EPW09040

Modified Analysis No.: NA

SOW: ISM01.2

Case/SDG: 41486/MF4N06, MF4N61, MF4N05, MF4N01

Faction Affected: All samples

Sample Numbers: All samples

Modified Analysis or SOW# Citation to be waived: TR.1.3/TR.1.4

Justification for Non-Compliance:

Many samples contained extremely high concentrations of calcium and sodium. Per discussions with Region VI, it was mutually agreed that Ca and Na would not be diluted and reanalyzed on the ICP-MS due the negative impacts on the life of the detector. Therefore, these two analytes were not reported in the forms and on the EDD because of compliance issues related to the fact that these samples were not diluted and reanalyzed. Ca and sodium raw data is provided in the SDG packages.

Thank you for your consideration.

Initial Assesment Screening Results

13:39 Thu, Jun 30, 2011

SDG MF4N06 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125102 **Version** 7.09
DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Automated Defect Detail

METHOD = ICP MS

Defect Analysis	Column ID	Analyte	Peak	Peak Comparison	Reported/Recalculated Value	Expected Value
Test IAT-04-12 **Defect** TR.1.3 **Associated Samples:** **Comments:**	**Required analyte data are missing for the sample.** **MF4N60, MF4N38, MF4N14, MF4N15, MF4N21, MF4N10, MF4N20, MF4N07, MF4N44, MF4N43, MF4N08, MF4N59, MF4N06, MF4N37, MF4N09**					
MF4N06					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N07					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N08					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N09					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N10					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N14					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N15					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N20					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N21					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N37					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N38					CAS Number =7440-70-2, CAS Number =7440-23-5	Analysis/Analyte for each requested analyte
MF4N43					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N44					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N59					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N60					CAS Number =7440-23-5, CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
Test IAT-04-120 **Defect** TR.1.4 **Associated Samples:** **Comments:**	**Required Reported Result data are missing for the sample.** **MF4N60, MF4N38, MF4N14, MF4N15, MF4N21, MF4N10, MF4N20, MF4N07, MF4N44, MF4N43, MF4N08, MF4N59, MF4N06, MF4N37, MF4N09**					
MF4N06					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N07					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N08					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N09					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N10					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N14					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N15					7440-23-5, 7440-70-2	ReportedResult for each analyte

Randi Richey

From: "MelvinKilgore" <mkilgore@southeasternbioenergy.com>
To: <flores.raymond@epamail.epa.gov>
Cc: "'Beverly Kilgore'" <bkilgore@sentinellab.com>; <rrichey@sentinellab.com>
Sent: Tuesday, June 28, 2011 1:32 PM
Subject: Case 41480

Hi Ray,

Regarding the subject case we have four SDGs (MF4N01, MF4N06, MF4N05 and MF4N61) that have very high Ca and Na concentrations in most of the samples. The trace elements (including Cr) are low. I would prefer not to dilute these samples because we do not want to subject the mass spectrometer to excessive Na and Ca concentrations that would result from diluting and reanalyzing almost every sample in the case to get these two analytes within a reportable range.

Our software will not report EDD data outside of acceptable limits. Therefore, if acceptable to R6, we would like to run the samples undiluted and report all analytes except for Ca and Na. The data for these two analytes (undiluted) would still be included as part of the raw data. R6 could either request that Ca and Na not be required for reporting or could provide a waiver for the missing data for these two analytes in the EDD. Please feel free to contact Beverly or myself to discuss at your convenience.
Thanks,

Melvin

Melvin V. Kilgore, Jr.

Sentinel, Inc.
4733 Commercial Drive
Huntsville, AL 35816
(256) 534-9800 ext 22
(256) 864-2569 (fax)

Randi Richey

From: "Blackmon, Jacqueline" <jblackmon3@fedcsc.com>
To: "Beverly Kilgore " <bkilgore@sentinellab.com>; "Melvin Kilgore" <mkilgore@sentinellab.com>; "Randi Richey" <rrichey@sentinellab.com>
Cc: "Marvelyn Humphrey" <humphrey.marvelyn@epa.gov>; "Mahmoud Elfeky" <Elfeky.Mahmoud@epamail.epa.gov>; "Myra Perez" <perez.myra@epa.gov>; "Raymond Flores" <Flores.Raymond@epamail.epa.gov>
Sent: Wednesday, June 29, 2011 10:18 AM
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems | FINAL

Randi,
Please note that any waivers required for this issue will need to be submitted to the laboratory's PO.

Summary Start
Issue: Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. These samples were run undiluted. Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.
Resolution: Per Region 6, the Region will not pursue the required Na and Ca diluted analyses. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.
Summary End

Please let me know if you have any questions or problems. To waive any defect(s) associated with this issue, please contact your PO.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

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Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Blackmon, Jacqueline
Sent: Wednesday, June 29, 2011 11:13 AM
To: 'Raymond Flores'
Cc: 'Mahmoud Elfeky'; 'Myra Perez'
Subject: FW: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Ray,
Please note the responses to your previous questions for this issue below. I will proceed to inform the lab that Region 6 will not pursue the required Na and Ca diluted analyses. The laboratory will have to submit any required waivers to their PO.

1.) That is correct, any dilutions and/or reanalyses (unless it is an actual reanalysis request that is scheduled and marked as billable) are not billable.

2.) The delay that the Ca and Na diluted results would add to the data delivery would be: "It would delay package submittal by at least 5 days. If dilutions are not required then packages are ready to be put together.

However, all data would be submitted within the 21 day TAT."

I will inform the lab of the Region's resolution.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Wednesday, June 29, 2011 10:46 AM
To: Blackmon, Jacqueline
Cc: Elfeky.Mahmoud@epamail.epa.gov; Perez.Myra@epamail.epa.gov
Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Region 6 will not pursue the required Na & Ca diluted analyses and agrees to related wavier requests for such.

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Wednesday, June 29, 2011 11:01 AM
To: Blackmon, Jacqueline
Cc: Beverly Kilgore; Melvin Kilgore
Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

It would delay package submittal by at least 5 days. If dilutions are not required then packages are ready to be put together. However, all data would be submitted within the 21 day TAT.

Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

----- Original Message -----
From: Blackmon, Jacqueline
To: Randi Richey
Sent: Wednesday, June 29, 2011 9:35 AM
Subject: FW: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Randi,

The Region would like to know if you could you provide an estimate of how long a delay the Ca and Na diluted results would add to the data delivery?

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Wednesday, June 29, 2011 9:55 AM
To: Blackmon, Jacqueline
Subject: Re: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Checking on the need for Ca and Na results. In the meantime, please confirm that if the diluted Ca & Na analyses were run, they would not be billable. Also, could you get an estimate of how long a delay the Ca & Na diluted results would add to the data delivery by the lab. Thanks.

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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From: Blackmon, Jacqueline
Sent: Tuesday, June 28, 2011 1:22 PM
To: 'Raymond Flores'
Cc: 'Mahmoud Elfeky'; 'Myra Perez'
Subject: UPDATED Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Ray,

SENTIN has confirmed that these samples were run undiluted. Out of 2 of the SDGs that the laboratory has analyzed so far, 3 samples are below the CRQL for Cr. The other samples ran at a range of 7 - 170 ppb for Cr.

Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted.

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Tuesday, June 28, 2011 1:16 PM
To: Blackmon, Jacqueline
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Yes these samples were run undiluted. Out of 2 of the SDGs that we have analyzed so far 3 samples are below the CRQL for Cr. The other samples ran at a range of 7 - 170 ppb for Cr.

Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

---- Original Message ----
From: Blackmon, Jacqueline
To: Randi Richey
Sent: Tuesday, June 28, 2011 9:05 AM
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Randi,

Can you please confirm that these analyses were run undiluted? Also, did the lab achieve the CRQLs for Chromium, e.g, was Chromium quantified as a positive or reported down to the CRQL or MDL as undetected?

Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
Sent: Tuesday, June 28, 2011 9:57 AM
To: Blackmon, Jacqueline
Cc: Elfeky.Mahmoud@epamail.epa.gov; Perez.Myra@epamail.epa.gov
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems

Jackie,

Assuming these analyses were run undiluted, did the lab achieve the CRQLs for Chromium, e.g, was Chromium quantified as a positive or reported down to the CRQL or MDL as undetected?

Raymond Flores
Inorganics Program Manager
OSRTI/ASB

703-981-1917 cell
US Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
mail code - 5203P
Washington DC 20460
email: flores.raymond@epa.gov

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-----"Blackmon, Jacqueline" <jblackmon3@fedcsc.com> wrote: -----

To: Raymond Flores/R6/USEPA/US@EPA
From: "Blackmon, Jacqueline" <jblackmon3@fedcsc.com>

Date: 06/28/2011 08:13AM
Cc: Mahmoud Elfeky/R6/USEPA/US@EPA, Myra Perez/R6/USEPA/US@EPA
Subject: Region 06 | Case 41486 | Lab SENTIN | Issue Laboratory problems
Ray,
SENTIN is reporting the following issue for Case 41486. Please advise.

Issue: Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. Please advise if the samples will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.

Please let me know if you have any questions or problems.
Thanks,
Jackie (Blackmon) Washington
Environmental Coordinator- Regions 6, 9 and ASB (QB/PE)
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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From: Randi Richey [mailto:rrichey@sentinellab.com]
Sent: Monday, June 27, 2011 5:01 PM
To: Blackmon, Jacqueline
Subject: Re: Region 06 | Case 41486 | Lab SENTIN | Shipping information

Almost every sample in this case have a very high concentration of Ca and Na with ranges of 100-400 ppm. Can you please ask the region if they will require dilutions to be made for these analytes or can the number be reported from the original run undiluted. Repeated analysis will impact the life of the detector in the ICP-MS.

Thanks
Randi D. Richey
Laboratory Supervisor/ Environmental Chemist
Sentinel Inc.
(256) 534-9800 ext. 32

Initial Assesment Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Cover Page

Uploaded	EXES Method	EDD Method	EXES Case	EDD Case	EXES Contract	EDD Contract	EXES Sdg	EDD Sdg	File Name	Mod/Flex
30June2011:17:16:55	ICP_MS	ICP_MS	41486	41486	EPW09040	EPW09040	MF4N01	MF4N01	41486_MF4N01_EPW09040_1_SEDD_5-2_GENERAL_2B_3_ICP_MS.zip	DEFAULT

Initial Assesment Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Sample Summary and Lab Receipt Date

Sample Number	ICP_AES	ICP_MS	Hg	CN	Automated
LCS_LCSWMS(LCSW)		X			
MF4N01		06/25/2011			X
MF4N02		06/25/2011			X
MF4N03		06/25/2011			X
MF4N04		06/25/2011			X
MF4N11		06/25/2011			X
MF4N17		06/25/2011			X
MF4N29		06/25/2011			X
MF4N30		06/25/2011			X
MF4N31		06/25/2011			X
MF4N31A		06/25/2011			
MF4N31D		06/25/2011			
MF4N31L		06/25/2011			
MF4N31S		06/25/2011			
MF4N32		06/25/2011			X
MF4N53		06/25/2011			X
MF4N54		06/25/2011			X
MF4N67		06/25/2011			X
PBW_PBW(PBW)		X			
Totals	**0**	**19**	**0**	**0**	

Initial Assesment Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Grace Period Notification

Some defects have been modified/enhanced in the CCS automated screening system. CLP laboratories are allowed a two-week grace period to make necessary changes for future submissions. If any of these defects are applicable to this SDG, they will be listed in the CCS Notification section following the defect detail.

NONE FOUND

Initial Assesment Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

File Skeleton

METHOD = ICP MS

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1	Tune	121820110628100934		06282011T10:09:34			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
2	ICAL	121820110628103518		06282011T10:35:18			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
3	ICAL	121820110628103826		06282011T10:38:26			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
4	ICAL	121820110628104108		06282011T10:41:08			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
5	ICAL	121820110628104351		06282011T10:43:51			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
6	ICAL	121820110628104635		06282011T10:46:35			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
7	ICAL	121820110628104919		06282011T10:49:19			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
8	ICV	121820110628105850		06282011T10:58:50			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
9	ICB	121820110628110136		06282011T11:01:36			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
10	ICSA	121820110628112305		06282011T11:23:05			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
11	ICSAB	121820110628112553		06282011T11:25:53			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834			
12	CCV	121820110628112839		06282011T11:28:39			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628113124			
13	CCB	121820110628113124		06282011T11:31:24			1	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628113124			
14	MB	121820110628113408	I	06282011T11:34:08	W		1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
15	LCS	121820110628113651	I	06282011T11:36:51	W		1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
16	SD	121820110628113933	I	06282011T11:39:33	W	L	5.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
17	FS	121820110628114216	I	06282011T11:42:16	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
18	Dup	121820110628114458	I	06282011T11:44:58	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
19	MS	121820110628114741	I	06282011T11:47:41	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
20	PDS	121820110628115025	I	06282011T11:50:25	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
21	FS	121820110628115309	I	06282011T11:53:09	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
22	FS	121820110628115553	I	06282011T11:55:53	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
23	FS	121820110628115837	I	06282011T11:58:37	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
24	FS	1218201106	I	06282011T	W	L	1.0	MS0 11062830	MS0		121820110628	121820110628112	121820110628	121820110628113408		

Initial Assesment Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

File Skeleton

METHOD = ICP MS

#	QC	Analysis	Type	Date	M	L	DF	File ID	Inst	Col	Run	AB	ABE	PREP	Clean	Store
		28120122		12:01:22							00934	839	122834			
25	FS	121820110628 120407	I	06282011T1 2:04:07	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
26	FS	121820110628 120651	I	06282011T1 2:06:51	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
27	FS	121820110628 120932	I	06282011T1 2:09:32	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
28	FS	121820110628 121214	I	06282011T1 2:12:14	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
29	FS	121820110628 121456	I	06282011T1 2:14:56	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
30	FS	121820110628 121739	I	06282011T1 2:17:39	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
31	FS	121820110628 122021	I	06282011T1 2:20:21	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
32	FS	121820110628 122304	I	06282011T1 2:23:04	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
33	CCV	121820110628 122548		06282011T1 2:25:48			1	MS0 11062830	MS0		121820110628100934	121820110628122548	121820110628122834			
34	CCB	121820110628 122834		06282011T1 2:28:34			1	MS0 11062830	MS0		121820110628100934	121820110628122548	121820110628122834			
35	Tune	123120110630 091315		06302011T0 9:13:15			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
36	ICAL	123120110630 095557		06302011T0 9:55:57			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
37	ICAL	123120110630 095904		06302011T0 9:59:04			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
38	ICAL	123120110630 100146		06302011T1 0:01:46			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
39	ICAL	123120110630 100429		06302011T1 0:04:29			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
40	ICAL	123120110630 100713		06302011T1 0:07:13			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
41	ICAL	123120110630 100957		06302011T1 0:09:57			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
42	ICV	123120110630 101242		06302011T1 0:12:42			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
43	ICB	123120110630 101527		06302011T1 0:15:27			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
44	ICSA	123120110630 101813		06302011T1 0:18:13			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
45	ICSAB	123120110630 102100		06302011T1 0:21:00			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
46	CCV	123120110630 102345		06302011T1 0:23:45			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630102631			
47	CCB	123120110630 102631		06302011T1 0:26:31			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630102631			

Initial Assesment Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

File Skeleton

METHOD = ICP MS

#	QC	Analysis	Type	Date	M	L	DF	File ID	Inst	Col	Run	AB	ABE	PREP	Clean	Store
48	MS	123120110630103157	DL-01	06302011T10:31:57	W	L	2.0	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533	121820110628113408		
49	FS	123120110630103439	DL-01	06302011T10:34:39	W	L	2.0	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533	121820110628113408		
50	CCV	123120110630104247		06302011T10:42:47			1	MS0 11063031	MS0		123120110630091315	123120110630104247	123120110630104533			
51	CCB	123120110630104533		06302011T10:45:33			1	MS0 11063031	MS0		123120110630091315	123120110630104247	123120110630104533			

Initial Assesment Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09
DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Automated Defect Detail

METHOD = ICP_MS

Defect Analysis	Column ID	Analyte	Peak	Peak Comparison	Reported/Recalculated Value	Expected Value
Test IAT-04-12						
Defect TR.1.3	**Required analyte data are missing for the sample.**					
Associated Samples:	**MF4N03, MF4N04, MF4N01, MF4N11, MF4N02, MF4N31, MF4N30, MF4N67, MF4N32, MF4N53, MF4N29, MF4N17, MF4N54**					
Comments:						
MF4N01					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N02					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N03					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N04					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N11					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N17					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N29					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N30					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N31					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N32					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N53					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N54					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
MF4N67					CAS Number =7440-70-2	Analysis/Analyte for each requested analyte
Test IAT-04-120						
Defect TR.1.4	**Required Reported Result data are missing for the sample.**					
Associated Samples:	**MF4N03, MF4N04, MF4N01, MF4N11, MF4N02, MF4N31, MF4N30, MF4N67, MF4N32, MF4N53, MF4N29, MF4N17, MF4N54**					
Comments:						
MF4N01					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N02					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N03					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N04					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N11					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N17					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N29					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N30					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N31					7440-70-2, 7440-23-5	ReportedResult for each analyte
MF4N32					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N53					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N54					7440-23-5, 7440-70-2	ReportedResult for each analyte
MF4N67					7440-23-5, 7440-70-2	ReportedResult for each analyte

Initial Assesment Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Initial Assesment Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09
DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Grace Period Defect Detail

NONE FOUND

CCS Semi-Automated Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Cover Page

Uploaded	EXES Method	EDD Method	EXES Case	EDD Case	EXES Contract	EDD Contract	EXES Sdg	EDD Sdg	File Name	Mod/Flex
30June2011:17:16:55	ICP_MS	ICP_MS	41486	41486	EPW09040	EPW09040	MF4N01	MF4N01	41486_MF4N01_EPW09040_1_SEDD_5-2_GENERAL_2B_3_ICP_MS.zip	DEFAULT

CCS Semi-Automated Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09
DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Sample Summary and Lab Receipt Date

Sample Number	ICP_AES	ICP_MS	Hg	CN	Automated	Manual
LCS_LCSWMS(LCSW)		X				
MF4N01		06/25/2011			X	
MF4N02		06/25/2011			X	
MF4N03		06/25/2011			X	
MF4N04		06/25/2011			X	
MF4N11		06/25/2011			X	
MF4N17		06/25/2011			X	
MF4N29		06/25/2011			X	
MF4N30		06/25/2011			X	
MF4N31		06/25/2011			X	
MF4N31A		06/25/2011				
MF4N31D		06/25/2011				
MF4N31L		06/25/2011				
MF4N31S		06/25/2011				
MF4N32		06/25/2011			X	
MF4N53		06/25/2011			X	
MF4N54		06/25/2011			X	
MF4N67		06/25/2011			X	
PBW_PBW(PBW)		X				
Totals	**0**	**19**	**0**	**0**		

CCS Semi-Automated Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09
DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Defect Summary

Method	Defect	Defect Message	Samples with defect	Percent of Total Defect
ICP MS	A2.14.3	AnalyteType is incorrect.	13	46.43
	A2.23	The Sample CollectedDate in the EDD is inconsistent with Traffic Report data.	2	7.14
	A7.14.3	AnalyteType is incorrect.	13	46.43
			28	100%

CCS Semi-Automated Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Grace Period Notification

Some defects have been modified/enhanced in the CCS automated screening system. CLP laboratories are allowed a two-week grace period to make necessary changes for future submissions. If any of these defects are applicable to this SDG, they will be listed in the CCS Notification section following the defect detail.

NONE FOUND

CCS Semi-Automated Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

File Skeleton

METHOD = ICP_MS

#	QC	Analysis	Type	Date	M	L	DF	File ID	Inst	Col	Run	AB	ABE	PREP	Clean	Store
1	Tune	121820110628100934		06282011T10:09:34			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
2	ICAL	121820110628103518		06282011T10:35:18			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
3	ICAL	121820110628103826		06282011T10:38:26			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
4	ICAL	121820110628104108		06282011T10:41:08			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
5	ICAL	121820110628104351		06282011T10:43:51			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
6	ICAL	121820110628104635		06282011T10:46:35			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
7	ICAL	121820110628104919		06282011T10:49:19			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
8	ICV	121820110628105850		06282011T10:58:50			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
9	ICB	121820110628110136		06282011T11:01:36			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
10	ICSA	121820110628112305		06282011T11:23:05			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
11	ICSAB	121820110628112553		06282011T11:25:53			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834			
12	CCV	121820110628112839		06282011T11:28:39			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628113124			
13	CCB	121820110628113124		06282011T11:31:24			1	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628113124			
14	MB	121820110628113408	I	06282011T11:34:08	W		1.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
15	LCS	121820110628113651	I	06282011T11:36:51	W		1.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
16	SD	121820110628113933	I	06282011T11:39:33	W	L	5.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
17	FS	121820110628114216	I	06282011T11:42:16	W	L	1.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
18	Dup	121820110628114458	I	06282011T11:44:58	W	L	1.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
19	MS	121820110628114741	I	06282011T11:47:41	W	L	1.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
20	PDS	121820110628115025	I	06282011T11:50:25	W	L	1.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
21	FS	121820110628115309	I	06282011T11:53:09	W	L	1.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
22	FS	121820110628115553	I	06282011T11:55:53	W	L	1.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
23	FS	121820110628115837	I	06282011T11:58:37	W	L	1.0	MS0 11062830	MS0		12182011062800934	121820110628112839	121820110628122834	121820110628113408		
24	FS	1218201106	I	06282011T	W	L	1.0	MS0 11062830	MS0		1218201106281	121820110628112	121820110628	121820110628113408		

CCS Semi-Automated Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

File Skeleton

METHOD = ICP MS

#	QC	Analysis	Type	Date	M	L	DF	File ID	Inst	Col	Run	AB	ABE	PREP	Clean	Store
		28120122		12:01:22							00934	839	122834			
25	FS	121820110628120407	I	06282011T12:04:07	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
26	FS	121820110628120651	I	06282011T12:06:51	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
27	FS	121820110628120932	I	06282011T12:09:32	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
28	FS	121820110628121214	I	06282011T12:12:14	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
29	FS	121820110628121456	I	06282011T12:14:56	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
30	FS	121820110628121739	I	06282011T12:17:39	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
31	FS	121820110628122021	I	06282011T12:20:21	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
32	FS	121820110628122304	I	06282011T12:23:04	W	L	1.0	MS0 11062830	MS0		121820110628100934	121820110628112839	121820110628122834	121820110628113408		
33	CCV	121820110628122548		06282011T12:25:48			1	MS0 11062830	MS0		121820110628100934	121820110628122548	121820110628122834			
34	CCB	121820110628122834		06282011T12:28:34			1	MS0 11062830	MS0		121820110628100934	121820110628122548	121820110628122834			
35	Tune	123120110630091315		06302011T09:13:15			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
36	ICAL	123120110630095557		06302011T09:55:57			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
37	ICAL	123120110630095904		06302011T09:59:04			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
38	ICAL	123120110630100146		06302011T10:01:46			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
39	ICAL	123120110630100429		06302011T10:04:29			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
40	ICAL	123120110630100713		06302011T10:07:13			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
41	ICAL	123120110630100957		06302011T10:09:57			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
42	ICV	123120110630101242		06302011T10:12:42			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
43	ICB	123120110630101527		06302011T10:15:27			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
44	ICSA	123120110630101813		06302011T10:18:13			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
45	ICSAB	123120110630102100		06302011T10:21:00			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533			
46	CCV	123120110630102345		06302011T10:23:45			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630102631			
47	CCB	123120110630102631		06302011T10:26:31			1	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630102631			

CCS Semi-Automated Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

File Skeleton

METHOD = ICP MS

#	QC	Analysis	Type	Date	M	L	DF	File ID	Inst	Col	Run	AB	ABE	PREP	Clean	Store
48	MS	123120110630103157	DL-01	06302011T10:31:57	W	L	2.0	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533	121820110628113408		
49	FS	123120110630103439	DL-01	06302011T10:34:39	W	L	2.0	MS0 11063031	MS0		123120110630091315	123120110630102345	123120110630104533	121820110628113408		
50	CCV	123120110630104247		06302011T10:42:47			1	MS0 11063031	MS0		123120110630091315	123120110630104247	123120110630104533			
51	CCB	123120110630104533		06302011T10:45:33			1	MS0 11063031	MS0		123120110630091315	123120110630104247	123120110630104533			

CCS Semi-Automated Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09
DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Automated Defect Detail

METHOD = ICP_MS

Defect Analysis	Column ID	Analyte	Peak	Peak Comparison	Reported/Recalculated Value	Expected Value
Test SAM-08-1041 **Defect A2.14.3** **AnalyteType is incorrect.** **Associated Samples:** **MF4N03, MF4N04, MF4N01, MF4N02, MF4N11, MF4N31, MF4N30, MF4N32, MF4N67, MF4N29, MF4N53, MF4N17, MF4N54** **Comments:**						
121820110628113651		7439-95-4			CASRegistryNumber =7439-95-4, AnalyteType =Spike	
		7440-09-7			CASRegistryNumber =7440-09-7, AnalyteType =Spike	
		7440-23-5			CASRegistryNumber =7440-23-5, AnalyteType =Spike	
Test SAM-04-2 **Defect A2.23** **The Sample CollectedDate in the EDD is inconsistent with Traffic Report data.** **Associated Samples:** **MF4N04, MF4N31** **Comments:**						
MF4N04					06222011T15:24:00	06222011 15:23:00
MF4N31					06222011T13:25:00	06222011 13:45:00
Test SAM-10-5011 **Defect A7.14.3** **AnalyteType is incorrect.** **Associated Samples:** **MF4N03, MF4N04, MF4N01, MF4N02, MF4N11, MF4N31, MF4N30, MF4N32, MF4N67, MF4N29, MF4N53, MF4N17, MF4N54** **Comments:**						
121820110628113651		7439-95-4	24		Spike	[Instrument_Performance, Target]
		7440-09-7	39		Spike	[Target]
		7440-23-5	23		Spike	[Target]

CCS Semi-Automated Screening Results

17:17 Thu, Jun 30, 2011

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09

DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Manual Defect Detail

NONE FOUND

CCS Semi-Automated Screening Results

SDG MF4N01 **Lab** SENTIN **Case** 41486 **Contract** EPW09040 **Client** EPA Region 6 **SOW** ISM01.2 **Stage** 2b **Tracking ID** 125134 **Version** 7.09
DRD __/__/____ **LRD** 06/25/2011 **Mailed** __/__/____ **Submission Type** Self Inspection **Screening Type** Semi-Automated

Grace Period Defect Detail

NONE FOUND

https://www.campusship.ups.com/cship/create?ActionOriginPair=default__PrintWindow... 8/22/2011

MBGJOU
281-983-2100 2133
USEPA ENVIRONMENTAL SVCS DIV
10625 FALLSTONE RD
HOUSTON TX 77099

SHIP TO:
V. MALOTT, 6SF-RA
281-983-2100 2133
US EPA REGION 6
SUITE 1200
1445 ROSS AVENUE
DALLAS TX 75

T

UPS GROUND
TRACKING #: 1Z A42 00V

BILLING: P/P

Reference # 1: CSA_9173

VINCENT MALOTT
Location:
SUPERFUND
Sender:
EPA R6 HOUSTON LAB
08/24/11 07:03 1 of 1
082420070348

13 LBS 1 OF 1
DWT: 12,9,7

202-2750

X 752 9-33

03 9732 1950

CS 13.0 W2F870 18.0A 07/2011

SITE NAME: West CR 112 GWP

CASE NUMBER: 41486

This box contains the following SDGs:

MF4N61	SDMS DocID	667118
MF4N01		667119
MF4N06		667120
MF4N05		667121