0012368

SINGLE-SHELL TANK WASTE CHARACTERIZATION FOR TANK 241-U-110 CORE 12
SEGMENT 2 3 4

DATA PACKAGE

SECTION

3 OF 10

Analytical Batch

Lab Segment Serial #: F1043

Customer ID: 000012

Instrument	WA77390
Procedure/Rev	LA-218-113/A-1
Technologist	M. Lavarias
Date	April 02, 1990
Temperature	100
Starting Time	03-26-90
Ending Time	03-29-90
Chemist	S. A. Catlow

Tritium Analysis
Water Digestion

**Results Based upon 2nd leaching.

	Description		Lab ID
1	Initial LMCS Check Std		F0927
2	Reagent Blank		F0928
3	Sample	Comp 06	F0929
4	Duplicate Sample	Comp 06	F0930
5	Spike Sample	Comp 06	F0931
6	Final LMCS Check Std		F0932
7	Initial LMCS Check Std		F0951
8	Reagent Blank		F0952
9	Sample	Comp 08	F0953
10	Duplicate Sample	Comp 08	F0954
11	Spike Sample	Comp 08	F0955

	Description		Lab ID
12	Final LMCS Check Std		F0956
13	Initial LMCS Check Std		F1053
14	Reagent Blank		F1054
15	Sample	Comp 12	F1055
16	Duplicate Sample	Comp 12	F1056
17	Spike Sample	Comp 12	F1057
18	Final LMCS Check Std		F1058
19			
20			
21			
22			

Standard Type	Primary Book # & Aliquot Vol.	Second Book # & Aliquot Vol.	Third Book # & Aliquot Vol.	Final Vol. of Std.
LMCS Check Std	140B44/1.0 mL			20 mL
Spike	140B44/1.0 mL	F0929/1.0 mL		20 mL

SST-102 Rev. I 10/2/90 Interim

Single Shell Tank
Calibration Record

Analyte:	H-3		
Procedure:	LA-508-121	Revision:	A-0
Instrument:	Liquid Scintillation Counter	Property Number:	WA77390
Technologist:	R. A Jones	Payroll Number:	65801
Date:	September 20, 1988		

Calibration Standard ID: Packard 6008501 #54

Analyte Concentration: (See Attached)

Type of Calibration:

Comments:

SST-103 Rev. B 9/27/90 Interim

-20-88 PAfonso

USER: 1 ID:H-3 TRITIUM PRESET TIME: 10.00 MON 19 SEP 1988 14:37
SAMPLE REPEAT: 1 CYCLE REPEAT: 1 SCR:N RS232:N
H#: 3 AQC:Y QCF:N RCM:Y 2 PHASE MONITOR:Y POST CHK:N VIAL:G VOLUME:1
RCM-TIME: 0.10 INT:999.95
CHANNEL 1-LL: 0 UL: 400 2SIGMA: 0.10 BKG SUB: 0.00 BKG 2SIG: 0.00 LSR: 0

SINGLE LABEL DPM
UNKNOWN ID:H-3 TRITIUM UNKNOWN REPLICATES: 1
UNKNOWN NORM FACTOR ISO1:0.1.00000
UNKNOWN UNITS ISO1:DPM
UNKNOWN HALF LIFE CORRECTION:N
INDIVIDUAL UNKNOWN NORM FACTORS:N BACKGROUND QUENCH CURVES:Y
STANDARD ID:PACKARD 6008501 #54
HALF LIFE(DAYS) ISO1: 4503.000 To = 6-12-86
STANDARD DPM ISO1: 260100.0

SAM	POS	CH	CPM	2SIG%	TIME	EL TIME	AVG H#	RCM%	2P	ERR
B1	**- 1	1	28.10	11.93	10.00	11.04	55.0	0.61		
	H#: 55, 55, 55									

BACKGROUND QUENCH CURVES: CONSTANT

CHANNEL 1
QUENCH CURVE COEFFICIENTS
A: 28.10000 B:0.00000000 C:0.00000000 D:0.00000000000

BACKGROUND QUENCH CURVE CORRELATION TABLE

BKG	H#	MEASURED CPM.	CALCULATED CPM.	PERCENT DIFF.	FLAG
1	55.0	28.10	28.10	0.00	

BACKGROUND QUENCH LIMITS LOW:0.000 HIGH:1000.
TOTAL QUENCH LIMITS LOW:0.000 HIGH:1000.

	SAM	POS	CH	CPM	2SIG%	TIME	EL TIME	AVG H#	RCM%	2P	ERR
A	S1	**- 3	1	148243.70	0.16	10.00	22.72	-5.0	0.00		
		H#: -5, -5, -5									
		ISO1 %EFF CH1:64.75									
B	S2	**- 4	1	142518.20	0.17	10.00	34.25	13.3	0.00		
		H#: 13, 14, 13									
		ISO1 %EFF CH1:62.25									
C	S3	**- 5	1	127749.40	0.18	10.00	45.75	43.3	0.00		
		H#: 43, 44, 43									
		ISO1 %EFF CH1:55.80									

9-20-88 [illegible]

	SAM	POS	CH	CPM	2SIG%	TIME	EL TIME	AVG H#	RCM%	2P	ERR
D	S4	**- 6	1	111143.00	0.19	10.00	57.17	76.0	0.00		
		H#: 76, 76, 76									
		ISO1 %EFF CH1:48.54									
E	S5	**- 7	1	95303.30	0.20	10.00	68.56	105.3	0.00		
		H#: 105, 106, 105									
		ISO1 %EFF CH1:41.62									
F	S6	**- 8	1	77574.80	0.23	10.00	79.88	135.3	0.00		
		H#: 135, 136, 135									
		ISO1 %EFF CH1:33.88									
G	S7	**- 9	1	57990.70	0.26	10.00	91.13	173.0	0.00		
		H#: 173, 172, 174									
		ISO1 %EFF CH1:25.32									

POWERFAIL RECOVERY MON 19 SEP 1988 16:16

H	S8	**-10	1	41786.70	0.31	10.00	109.66	207.3	0.00		
		H#: 207, 207, 208									
		ISO1 %EFF CH1:18.24									
I	S9	**-11	1	34400.70	0.34	10.00	120.86	221.7	0.01		
		H#: 223, 220, 222									
		ISO1 %EFF CH1:15.02									
J	S10	**-12	1	23670.80	0.41	10.00	132.04	252.0	0.01		
		H#: 252, 253, 251									
		ISO1 %EFF CH1:10.33									

ISOTOPE 1 QUENCH STANDARDS

STANDARD	H#	%EFF CH1
1	-5.00	64.75
2	13.33	62.25
3	43.33	55.80
4	76.00	48.54
5	105.3	41.62
6	135.3	33.88
7	173.0	25.32
8	207.3	18.24
9	221.7	15.02
10	252.0	10.33

QUENCH LIMITS LOW:0.000 HIGH:252.0

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Analytical Batch

Lab Segment Serial #: F1043

Customer ID: 000012

Instrument	WA77479
Procedure/Rev	LA-355-131/A-2
Technologist	S. Riel
Date	April 10, 1990
Temperature	70 F
Starting Time	1040
Ending Time	1115
Chemist	R. K. Fuller

Arsenic Analysis
Water Digestion

**Results based upon 2nd leaching.

	Description	Lab ID
1	Initial LMCS Check Std	F1053
2	Reagent Blank	F1054
3	Sample Comp 12	F1055
4	Duplicate Sample Comp 12	F1056
5	Spike Sample Comp 12	F1057
6	Final LMCS Check Std	F1058
7		
8		
9		
10		
11		

	Description	Lab ID
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

Standard Type	Primary Book # & Aliquot Vol.	Second Book # & Aliquot Vol.	Third Book # & Aliquot Vol.	Final Vol. of Std.
LMCS Check Std	58C11BU/.035 mL			35 mL
Spike	58C11BU/.035 mL	F1055/1.00 mL		35 mL

SST-102 Rev. I 10/2/90 Interim

Single Shell Tank
Calibration Record

Analyte:	As		
Procedure:	LA-355-131	Revision:	A-2
Instrument:	Perkin-Elmer	Property Number:	WA77479
Technologist:	S. Riel	Payroll Number:	6C280
Date:	April 10, 1990		

Calibration Standard ID: 102C3Z

Analyte Concentration: 1.001 ppm

Type of Calibration: Linear Regression

Aliquot	Weight	Instrument Reading Units= mm
0	0 ng	5.0
25 ul	25 ng	60.0
50 ul	50 ng	108.0
75 ul	75 ng	153.0

Comments:

SST-103 Rev. B 9/27/90 Interim

Analytical Batch

Lab Segment Serial #: F1043

Customer ID: 000012

Instrument	WA77479
Procedure/Rev	LA-325-102/A-1
Technologist	J. Hopkins
Date	February 27, 1990
Temperature	N/A
Starting Time	1400
Ending Time	1500
Chemist	R. K. Fuller

Mercury Analysis
Water Digestion

	Description		Lab ID
1	Initial LMCS Check Std		F1035
2	Reagent Blank		F1036
3	Sample	Comp 15	F1037
4	Duplicate Sample	Comp 15	F1038
5	Spike Sample	Comp 15	F1039
6	LMCS Check Std		F1040
7	LMCS Check Std		F1053
8	Sample	Comp 12	F1055
9	Duplicate Sample	Comp 12	F1056
10	Spike Sample	Comp 12	F1057
11	Final LMCS Check Std		F1058

	Description	Lab ID
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

Standard Type	Primary Book # & Aliquot Vol.	Second Book # & Aliquot Vol.	Third Book # & Aliquot Vol.	Final Vol. of Std.
LMCS Check Std	58C11BP/.025 mL			25 mL
Spike	58C11BP/.025 mL	F1055/2.00 mL		25 mL

SST-102 Rev. I 10/2/90 Interim

Single Shell Tank
Calibration Record

Analyte:	Hg		
Procedure:	LA-325-102	Revision:	A-1
Instrument:	Perkin-Elmer AA	Property Number:	WA77479
Technologist:	J. Hopkins	Payroll Number:	6A543
Date:	February 27, 1990		

Calibration Standard ID: 102C3V

Analyte Concentration: 1.00 ppm

Type of Calibration: Linear Regression

Aliquot	Weight	Instrument Reading Units= mm
0	0 ng	6.0
10 uL	10 ng	55.0
20 uL	20 ng	91.5
40 uL	40 ng	182.0

Comments:

SST-103 Rev. B 9/27/90 Interim

Analytical Batch

Lab Segment Serial #: F1043

Customer ID: 000012

Instrument	WA77479
Procedure/Rev	LA-365-131/A-3
Technologist	S. Riel
Date	March 30, 1990
Temperature	N/A
Starting Time	1415
Ending Time	1500
Chemist	R. K. Fuller

Selenium Analysis
Water Digestion

**Results based upon 2nd leaching.

	Description	Lab ID
1	Initial LMCS Check Std	F1053
2	Reagent Blank	F1054
3	Sample Comp 12	F1055
4	Duplicate Sample Comp 12	F1056
5	Spike Sample Comp 12	F1057
6	Final LMCS Check Std	F1058
7		
8		
9		
10		
11		

	Description	Lab ID
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

Standard Type	Primary Book # & Aliquot Vol.	Second Book # & Aliquot Vol.	Third Book # & Aliquot Vol.	Final Vol. of Std.
LMCS Check Std	58C11BU/.035 mL			35 mL
Spike	58C11BU/.035 mL	F1055/1.00 mL		35 mL

SST-102 Rev. I 10/2/90 Interim

Single Shell Tank
Calibration Record

Analyte:	Se		
Procedure:	LA-365-131	Revision:	A-3
Instrument:	Perkin-Elmer AA	Property Number:	WA77479
Technologist:	Steve Riel	Payroll Number:	6C280
Date:	March 30, 1990		

Calibration Standard ID: 102C3Z

Analyte Concentration: 1.00ppm

Type of Calibration: Linear Regression

Aliquot	Weight	Instrument Reading Units= mm
0	0	3.5
25 ul	25 ng	24.0
50 ul	50 ng	45.0
75 ul	75 ng	66.0

Comments: 000012 - Customer ID

SST-103 Rev. A 9/25/90 Interim

ACID DIGESTION TEST ANALYSIS

Single Shell Tank Project

Acid Digestion
Units For Samples Are Wet Weight

Tank: 241-U-110
Customer ID: Core 12 Composite

	Check Standard	Blank	Sample	Duplicate Sample	Spike Of Sample	Check Standard
Laboratory ID:		F1060	F1061	F1062	F1063	
Acid Digestion		Complete	1.04E+01 g/L	1.01E+01 g/L	1.04E+01 g/L	
Laboratory ID:	F1059	F0934	F1061	F1062	F1063	F1083
Arsenic	106.00%	<5.00E-03 ppm	<9.62E-01 ug/g	<9.90E-01 ug/g	93.50%	106.00%
Laboratory ID:	F1059	F1060	F1061	F1062	F1063	F1064
Mercury	95.20%	<1.00E-02 ppm	5.60E-01 ug/g	5.65E-01 ug/g	82.50%	100.00%
Laboratory ID:	F1059	F1060	F1061	F1062	F1063	F1064
Selenium	93.80%	8.44E-03 ppm	1.83 ug/g	1.87 ug/g	75.40%	91.20%

ICP Results Data Summary

Date Analyzed:	April 11, 1990	Acid digested LMCS Standard	F1152
Procedure:	LA-505-151/A-0	Reagent Blank	F1160
Analyst:	J. A. White	Composite of Core 12	F1061
Digestion	Acid Digestion	Duplicate of Composite of Core 12	F1062
Procedure:	LA-505-159/A-0	Spike of F1153	F1155
		Acid digested LMCS Standard	F1156

	Instrument Starting LMCS Standard %	Acid Digest. LMCS Standard %	Reagent BLANK ppm	Wet Weight Sample ug/g	Wet Weight Sample Duplicate ug/g	Spike Recovery %	LMCS ACID Digestion %	Closing LMCS Standard %
Aluminum	101.78%		0.25	58064	55061	NOT CALC.	97.99%	102.64%
Antimony	107.90%		0.13 LT	377	-154 LT			106.08%
Barium	95.14%		0.00 LT	47	33	NOT CALC.	89.61%	96.69%
Beryllium	97.69%		0.00 LT	2	-2 LT			98.19%
Boron	93.56%	90.08%	0.05	176	29	100.05%		95.13%
Cadmium	100.84%	97.73%	0.01 LT	11 LT	-11 LT	NOT CALC.		101.15%
Calcium	95.29%	96.01%	0.08	572	633	98.87%		96.98%
Cerium	104.84%		-0.05 LT	800	-985 LT	NOT CALC.	83.83%	100.65%
Chromium	95.66%		-0.01 LT	541	678	67.45%	87.83%	97.22%
Copper	97.14%	95.27%	0.01 LT	65	-14 LT	NOT CALC.		98.74%
Europium	105.33%		0.00 LT	11	-19 LT			102.50%
Iron	98.96%		0.08	16009	15987	NOT CALC.	93.59%	100.66%
Lanthanum	100.70%	92.96%	0.00 LT	81	-32 LT	NOT CALC.		98.51%
Lithium	94.66%		0.00 LT	12	-57 LT	NOT CALC.	92.31%	96.13%
Magnesium	98.43%	96.03%	0.02	484	494	165.52%		98.81%
Manganese	99.40%		0.02	3691	4135	103.81%	93.36%	100.91%
Mercury	99.78%		0.00 LT	349	598			103.62%
Molybdenum	98.33%	98.27%	0.00 LT	29	-13 LT	NOT CALC.		100.44%
Nickel	99.76%		0.01 LT	125	72	91.34%	92.03%	100.37%
Potassium	99.76%	94.76%	-0.21 LT	323 LT	-1733 LT	NOT CALC.		99.17%
Samarium	105.61%		-0.06 LT	666	-1195 LT			108.95%
Selenium	100.84%		-0.03 LT	779	313			104.25%
Silver	106.86%	55.70%	0.03	46 LT	-59 LT	NOT CALC.		106.27%
Sodium	96.21%	97.26%	0.37	86886	75266	NOT CALC.		96.49%
Strontium	97.42%	94.81%	0.00	434	516	98.26%		98.79%
Sulfur	90.76%		0.05	624	600			94.29%
Tantalum	95.64%		-0.01 LT	102	-145 LT	NOT CALC.	71.76%	98.61%
Tin	105.07%		0.04	103	42 LT	NOT CALC.	93.60%	104.74%
Titanium	98.08%		0.04	39	-8 LT	NOT CALC.	88.49%	98.43%
Vanadium	99.45%		-0.01 LT	61	-16 LT	NOT CALC.		100.91%
Zinc	99.13%	98.37%	0.02	117	195	94.51%		99.80%
Zirconium	100.95%		0.00 LT	126	3 LT	NOT CALC.	91.34%	101.75%

LT: Less Than
NC: Not Calibrated
NOT CALC: Not Calculated
Instrument Standards Outside Control Limits

Single Shell Tank Project

Acid Digestion
Results On The Laboratory Digestion

Tank: 241-U-110
Customer ID: Core 12 Composite

	Check Standard	Blank	Sample	Duplicate Sample	Spike Of Sample	Check Standard
Laboratory ID: Acid Digestion		F1060 Complete	F1061 1.04E+01 g/L	F1062 1.01E+01 g/L	F1063 1.04E+01 g/L	
Laboratory ID: Arsenic	F1059 106.00%	F0934 <5.00E-03 ppm	F1061 <1.00E-02 ppm	F1062 <1.00E-02 ppm	F1063 93.50%	F1083 106.00%
Laboratory ID: Mercury	F1059 95.20%	F1060 <1.00E-02 ppm	F1061 5.82E-03 ppm	F1062 5.71E-03 ppm	F1063 82.50%	F1064 100.00%
Laboratory ID: Selenium	F1059 93.80%	F1060 8.44E-03 ppm	F1061 1.90E-02 ppm	F1062 1.89E-02 ppm	F1063 75.40%	F1064 91.20%

Analytical Batch

Lab Segment Serial #: F1043

Customer ID: 000012

Instrument	N/A
Procedure/Rev	LA-505-159/A-0
Technologist	J. Worrell
Date	February 19, 1990
Temperature	N/A
Starting Time	0800
Ending Time	1530
Chemist	S. A. Jones

Acid Digestion

NOTE: Sample is not spiked prior to digestion.

	Description		Lab ID
1	Reagent Blank		F1060
2	Sample	Comp 12	F1061
3	Duplicate Sample	Comp 12	F1062
4	Spike Sample	Comp 12	F1063
5			
6			
7			
8			
9			
10			
11			

	Description	Lab ID
12		
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22		

Standard Type	Primary Book # & Aliquot Vol.	Second Book # & Aliquot Vol.	Third Book # & Aliquot Vol.	Final Vol. of Std.

SST-102 Rev. I 10/2/90 Interim

Analytical Batch

Lab Segment Serial #: F1043

Customer ID: 000012

Instrument	WB39939
Procedure/Rev	LA-505-151/A-0
Technologist	J. A. White
Date	April 11, 1990
Temperature	N/A
Starting Time	1000
Ending Time	1530
Chemist	S. A. Jones

ICP
Acid Digestion

	Description		Lab ID
1	Initial LMCS Check Std		N/A
2	Digested LMCS Std		F1152
3	Reagent Blank		F1160
4	Sample	89-079	F1153
5	Duplicate Sample	89-079	F1154
6	Spike Sample	89-079	F1155
7	Digested LMCS Std		F1156
8	LMCS Check Std		N/A
9	Sample	89-078	F1129
10	Duplicate Sample	89-078	F1130
11	Sample	89-080	F1177

	Description		Lab ID
12	Duplicate Sample	89-080	F1178
13	Sample	89-080	F0720
14	Duplicate Sample	89-082	F0721
15	Sample	89-077	F1105
16	Duplicate Sample	89-077	F1106
17	LMCS Check Std		N/A
18	Sample	Comp 12	F1061
19	Duplicate Sample	Comp 12	F1062
20	Final LMCS Check Std		N/A
21			
22			

Standard Type	Primary Book # & Aliquot Vol.	Second Book # & Aliquot Vol.	Third Book # & Aliquot Vol.	Final Vol. of Std.
LMCS Check Std	78C11G/1.0 mL	82B38D/1.0 mL	77C11G/1.0 mL	11.0 mL
Digested Std	81C11A/5.0 mL			50.0 mL
Digested Std	82C11A/5.0 mL			50.0 mL
Spike	103C15C/5.0 mL		F1153/.3935 g	50.0 mL

SST-102 Rev. 1 10/2/90 Interim

ICP Results Raw Data Summary

Date Analyzed:	April 11, 1990	Acid digested LMCS Standard	F1152
Procedure:	LA-505-151/A-0	Reagent Blank	F1160
Analyst:	J. A. White	Composite of Core 12	F1061
Digestion	Acid Digestion	Duplicate of Composite of Core 12	F1062
Procedure:	LA-505-159/A-0	Spike of F1153	F1155
		Acid digested LMCS Standard	F1156

	Instrument Starting LMCS Standard %		Acid Digest. LMCS Standard %	Reagent BLANK ppm	Wet Weight Sample ug/g	Wet Weight Sample Duplicate ug/g	Spike Recovery %	LMCS ACID Digestion %	Closing LMCS Standard %	
Aluminum	101.78%			0.25	58064	55061	NOT CALC.	97.99%	102.64%	
Antimony	107.90%			0.13 LT	377	-154 LT			106.08%	
Arsenic	115.37%	#		0.01 LT	114	-21 LT			118.45%	#
Barium	95.14%			0.00 LT	47	33	NOT CALC.	89.61%	96.69%	
Beryllium	97.69%			0.00 LT	2	-2 LT			98.19%	
Bismuth	111.62%	#	105.72%	0.18	21272	24607	NOT CALC.		111.84%	#
Boron	93.56%		90.08%	0.05	176	29	100.05%		95.13%	
Cadmium	100.84%		97.73%	0.01 LT	11 LT	-11 LT	NOT CALC.		101.15%	
Calcium	95.29%		96.01%	0.08	572	633	98.87%		96.98%	
Cerium	104.84%			-0.05 LT	800	-985 LT	NOT CALC.	83.83%	100.65%	
Chromium	95.66%			-0.01 LT	541	678	67.45%	87.83%	97.22%	
Cobalt	107.69%			0.01 LT	33 LT	20 LT	NOT CALC.	93.64%	117.73%	#
Copper	97.14%		95.27%	0.01 LT	65	-14 LT	NOT CALC.		98.74%	
Europium	105.33%			0.00 LT	11	-19 LT			102.50%	
Iron	98.96%			0.08	16009	15987	NOT CALC.	93.59%	100.66%	
Lanthanum	100.70%		92.96%	0.00 LT	81	-32 LT	NOT CALC.		98.51%	
Lead	112.84%	#	106.31%	0.04 LT	430	181	NOT CALC.		114.71%	#
Lithium	94.66%			0.00 LT	12	-57 LT	NOT CALC.	92.31%	96.13%	
Magnesium	98.43%		96.03%	0.02	484	494	165.52%		98.81%	
Manganese	99.40%			0.02	3691	4135	103.81%	93.36%	100.91%	
Mercury	99.78%			0.00 LT	349	598			103.62%	
Molybdenum	98.33%		98.27%	0.00 LT	29	-13 LT	NOT CALC.		100.44%	
Neodymium	122.59%	#		-0.24 LT	114 LT	-1517 LT	NOT CALC.	95.19%	125.42%	#
Nickel	99.76%			0.01 LT	125	72	91.34%	92.03%	100.37%	
Phosphorous	81.30%	#	105.27%	0.05	10940	4319	240.13%		87.05%	#
Potassium	99.76%		94.76%	-0.21 LT	323 LT	-1733 LT	NOT CALC.		99.17%	
Samarium	105.61%			-0.06 LT	666	-1195 LT			108.95%	
Selenium	100.84%			-0.03 LT	779	313			104.25%	
Silicon	83.39%	#		0.26	4468	4073	6.62%		84.63%	#
Silver	106.86%		55.70%	0.03	46 LT	-59 LT	NOT CALC.		106.27%	
Sodium	96.21%		97.26%	0.37	86886	75266	NOT CALC.		96.49%	
Strontium	97.42%		94.81%	0.00	434	516	98.26%		98.79%	
Sulfur	90.76%			0.05	624	600			94.29%	
Tantalum	95.64%			-0.01 LT	102	-145 LT	NOT CALC.	71.76%	98.61%	
Thallium	110.19%	#		-0.10 LT	1609	-509 LT	NOT CALC.		111.93%	#
Thorium	110.09%	#		-0.04 LT	553	1715 LT			108.49%	
Tin	105.07%			0.04	103	42 LT	NOT CALC.	93.60%	104.74%	
Titanium	98.08%			0.04	39	-8 LT	NOT CALC.	88.49%	98.43%	
Tungsten	85.15%	#		0.01 LT	140	-2 LT			86.54%	#
Uranium	112.27%	#		-0.59 LT	9627	-312 LT			116.42%	#
Vanadium	99.45%			-0.01 LT	61	-16 LT	NOT CALC.		100.91%	
Zinc	99.13%		98.37%	0.02	117	195	94.51%		99.80%	
Zirconium	100.95%			0.00 LT	126	3 LT	NOT CALC.	91.34%	101.75%	

LT: Less Than
NC: Not Calibrated
NOT CALC: Not Calculated
Instrument Standards Outside Control Limits

ICP Results Raw Data Report

Date Analyzed:	April 11, 1990	Acid digested LMCS Standard	F1152
Procedure:	LA-505-151/A-0	Reagent Blank	F1160
Analyst:	J. A. White	Composite of Core 12	F1061
Digestion	Acid Digestion	Duplicate of Composite of Core 12	F1062
Procedure:	LA-505-159/A-0	Spike of F1153	F1155
		Acid digested LMCS Standard	F1156

	SST-1	SST-2	SST-3	Starting LMCS Standard Instrument Standard ppm	Recovery %		LMCS Acid Digestion Standard ppm	Acid Digestion Standard Recovery %	Reagent Blank ppm	Digestion Weight Volume Sample Dilution Three ppm
Aluminum				50.89	101.78%				0.25	
Antimony	10.79				107.90%				0.13 LT	
Arsenic				57.69	115.37%	#			0.01 LT	
Barium	9.51				95.14%				0.00 LT	
Beryllium				9.77	97.69%				0.00 LT	
Bismuth		55.92			111.62%	#	10.57	105.72%	0.18	
Boron	9.36				93.56%		9.01	90.08%	0.05	
Cadmium	10.08				100.84%		9.77	97.73%	0.01 LT	
Calcium	9.53				95.29%		9.60	96.01%	0.08	
Cerium	10.48				104.84%				-0.05 LT	
Chromium	9.57				95.66%				-0.01 LT	
Cobalt	10.77				107.69%				0.01 LT	
Copper	9.71				97.14%		9.53	95.27%	0.01 LT	
Europium		10.53			105.33%				0.00 LT	
Iron	9.90				98.96%				0.08	
Lanthanum		50.45			100.70%		9.30	92.96%	0.00 LT	
Lead		56.53			112.84%	#	10.63	106.31%	0.04 LT	
Lithium	9.47				94.66%				0.00 LT	
Magnesium	9.84				98.43%		9.60	96.03%	0.02	
Manganese	9.94				99.40%				0.02	
Mercury				24.95	99.78%				0.00 LT	
Molybdenum				49.16	98.33%		9.83	98.27%	0.00 LT	
Neodymium	12.26				122.59%	#			-0.24 LT	
Nickel	9.98				99.76%				0.01 LT	
Phosphorous				40.65	81.30%	#	10.53	105.27%	0.05	
Potassium	24.94				99.76%		9.48	94.76%	-0.21 LT	
Samarium		10.56			105.61%				-0.06 LT	
Selenium				50.42	100.84%				-0.03 LT	
Silicon				41.70	83.39%	#			0.26	
Silver		10.69			106.86%		5.57	55.70%	0.03	
Sodium	24.05				96.21%		9.73	97.26%	0.37	
Strontium	9.74				97.42%		9.48	94.81%	0.00	
Sulfur				45.38	90.76%				0.05	
Tantalum				47.82	95.64%				-0.01 LT	
Thallium				55.10	110.19%	#			-0.10 LT	
Thorium		55.15			110.09%	#			-0.04 LT	
Tin	52.54				105.07%				0.04	
Titanium				49.04	98.08%				0.04	
Tungsten				21.29	85.15%	#			0.01 LT	
Uranium		56.25			112.27%	#			-0.59 LT	
Vanadium				9.95	99.45%				-0.01 LT	
Zinc	9.91				99.13%		9.84	98.37%	0.02	
Zirconium				50.48	100.95%				0.00 LT	
Dilution Factor	1.00	1.00	1.00				10.00		1.00	1.00

ICP Results Raw Data Report

	0.01043 g/mL 0.5217 g 50.00 mL Sample Dilution Two ppm	Sample Dilution One ppm	Digestion Weight Volume Sample Duplicate Dilution Three ppm	0.01008 g/mL 0.5041 g 50.00 mL Sample Duplicate Dilution Two ppm	Sample Duplicate Dilution One ppm	Digestion Weight Volume Spike of Sample Dilution Three ppm	0.00787 g/mL 0.3935 g 50.00 Spike of Sample Dilution Two ppm	Spike of Sample Dilution One ppm
Aluminum	605.84	623.90		555.12	572.40		588.57	597.41
Antimony	-9.18	3.94		10.90	-1.55 LT		-6.89	-3.82 LT
Arsenic	0.16	1.19		2.82	-0.21 LT		-2.70	-0.09 LT
Barium	-0.05	0.49		0.69	0.33		8.69	9.34
Beryllium	-0.02	0.02		-0.01	-0.02 LT		-0.13	-0.04 LT
Bismuth	221.95	226.81		248.09	242.53		85.06	96.03
Boron	1.70	1.84		3.18	0.29		11.15	9.44
Cadmium	-0.19	0.11 LT		0.17	-0.11 LT		9.06	9.24
Calcium	5.97	4.10		6.38	4.63		14.79	13.70
Cerium	-10.12	8.35		21.01	-9.94 LT		-45.76	-7.12 LT
Chromium	5.64	8.34		6.84	8.83		14.57	17.23
Cobalt	-1.38	0.35 LT		2.35	0.20 LT		8.30	9.29
Copper	-0.51	0.68		0.97	-0.14 LT		7.11	9.01
Europium	-0.22	0.11		0.30	-0.19 LT		-0.92	-0.25 LT
Iron	167.04	164.24		161.18	164.70		94.94	91.83
Lanthanum	-0.56	0.85		2.67	-0.32 LT		7.58	8.52
Lead	-15.99	4.49		6.40	1.83		-1.60	6.82
Lithium	-0.71	0.12		-0.12	-0.57 LT		6.96	8.78
Magnesium	5.06	4.61		4.98	7.44		18.07	11.42
Manganese	38.51	38.23		41.69	43.01		70.83	69.36
Mercury	3.60	3.64		6.03	0.42		1.71	0.28
Molybdenum	-0.41	0.31		0.27	-0.13 LT		7.99	8.90
Neodymium	-34.82	1.19 LT		-4.76	-15.29 LT		-59.58	-7.99 LT
Nickel	0.94	1.31		2.45	0.72		9.16	10.20
Phosphorous	114.15	129.22		43.54	39.85		63.97	61.43
Potassium	-36.00	3.37 LT		1.01	-17.47 LT		-73.02	-13.95 LT
Samarium	-12.64	6.95		19.29	-12.05 LT		-59.71	-17.91 LT
Selenium	-0.08	8.13		10.05	3.16		-10.52	4.91
Silicon	46.62	34.06		41.07	34.09		24.10	28.92
Silver	-0.62	0.48 LT		1.15	-0.59 LT		3.09	6.50
Sodium	906.57	900.50		758.83	772.35		971.56	961.17
Strontium	4.53	4.59		5.20	5.05		14.68	14.65
Sulfur	4.39	6.51		6.50	6.05		4.17	7.26
Tantalum	-2.35	1.07		2.87	-1.46 LT		-4.81	0.79 LT
Thallium	9.84	16.79		29.33	-5.13 LT		-58.97	-14.47 LT
Thorium	-3.84	5.77		17.30	-6.85 LT		-37.61	-11.42 LT
Tin	1.88	1.07		3.19	0.42 LT		9.23	9.54
Titanium	-0.33	0.41		0.73	-0.08 LT		7.49	8.52
Tungsten	0.23	1.46		2.67	-0.02 LT		-3.88	-0.31 LT
Uranium	-42.82	100.45		162.72	-3.14 LT		-301.30	-42.63 LT
Vanadium	0.35	0.64		0.97	-0.16 LT		-2.46	-0.54 LT
Zinc	1.02	1.22		1.97	1.22		9.69	9.63
Zirconium	-0.23	1.32		3.54	0.03 LT		3.54	6.21
Dilution Factor	101.00	21.00	1.00	101.00	21.00	1.00	101.00	21.00

ICP Results Raw Data Report

	Spike Recovery %	Standard LMCS Acid Digestion ppm	Acid Digestion Standard Recovery %	SST-1	SST-2	Ending LMCS Standard SST-3	Standard Recovery %
Aluminum	NOT CALC.	9.80	97.99%			51.32	102.64%
Antimony				10.61			106.08%
Arsenic						59.23	118.45%
Barium	NOT CALC.	8.96	89.61%	9.67			96.69%
Beryllium						9.82	98.19%
Bismuth	NOT CALC.				56.03		111.84%
Boron	100.05%			9.51			95.13%
Cadmium	NOT CALC.			10.12			101.15%
Calcium	98.87%			9.70			96.98%
Cerium	NOT CALC.	8.38	83.83%	10.07			100.65%
Chromium	67.45%	8.78	87.83%	9.72			97.22%
Cobalt	NOT CALC.	9.36	93.64%	11.77			117.73%
Copper	NOT CALC.			9.87			98.74%
Europium					10.25		102.50%
Iron	NOT CALC.	9.36	93.59%	10.07			100.66%
Lanthanum	NOT CALC.				49.36		98.51%
Lead	NOT CALC.				57.47		114.71%
Lithium	NOT CALC.	9.23	92.31%	9.61			96.13%
Magnesium	165.52%			9.88			98.81%
Manganese	103.81%	9.34	93.36%	10.09			100.91%
Mercury						25.91	103.62%
Molybdenum	NOT CALC.					50.22	100.44%
Neodymium	NOT CALC.	9.52	95.19%	12.54			125.42%
Nickel	91.34%	9.20	92.03%	10.04			100.37%
Phosphorous	240.13%					43.53	87.05%
Potassium	NOT CALC.			24.79			99.17%
Samarium					10.90		108.95%
Selenium		3.41				52.12	104.25%
Silicon	6.62%					42.31	84.63%
Silver	NOT CALC.				10.63		106.27%
Sodium	NOT CALC.			24.12			96.49%
Strontium	98.26%			9.88			98.79%
Sulfur						47.15	94.29%
Tantalum	NOT CALC.	7.14	71.76%			49.31	98.61%
Thallium	NOT CALC.					55.97	111.93%
Thorium					54.35		108.49%
Tin	NOT CALC.	9.36	93.60%	52.37			104.74%
Titanium	NOT CALC.	8.85	88.49%			49.22	98.43%
Tungsten						21.64	86.54%
Uranium		2.65			58.33		116.42%
Vanadium	NOT CALC.					10.09	100.91%
Zinc	94.51%			9.98			99.80%
Zirconium	NOT CALC.	9.12	91.34%			50.88	101.75%
Dilution Factor		10.00		1.00	1.00	1.00	

ICP Results Raw Data Report

		Spike Standard LMCS ppm added	Spike Standard ID Book # 5.0 mL 103C15C + 5.0 mL 104C15D	SST-1	SST-2	LMCS Standards Values ppm SST-3	LMCS Standard IDs Book # 78C11G 82B38D 77C11G	ACID DIGESTION LMCS STANDARD VALUES ppm in Sample	ACID DIGEST. LMCS IDs Book # 81C11A 82C11A
Aluminum		10.00				50.00		100.00	
Antimony				10.00					
Arsenic	#					50.00			
Barium		10.00		10.00				100.00	
Beryllium						10.00			
Bismuth	#	10.00			50.10			100.00	
Boron		10.00		10.00				100.00	
Cadmium		10.00		10.00				100.00	
Calcium		10.00		10.00				100.00	
Cerium		10.00		10.00				100.00	
Chromium		10.00		10.00				100.90	
Cobalt	#	10.00		10.00				100.00	
Copper		10.00		10.00				100.00	
Europium					10.00				
Iron		10.00		10.00				100.00	
Lanthanum		10.00			50.10			100.00	
Lead	#	10.00			50.10			100.00	
Lithium		10.00		10.00				100.00	
Magnesium		10.00		10.00				100.00	
Manganese		10.00		10.00				100.00	
Mercury						25.00			
Molybdenum		10.00				50.00		99.80	
Neodymium	#	10.00		10.00				100.00	
Nickel		10.00		10.00				100.00	
Phosphorous	#	10.00				50.00		100.00	
Potassium		10.00		25.00				100.00	
Samarium					10.00				
Selenium						50.00			
Silicon	#	10.00				50.00		100.00	
Silver		10.00			10.00				
Sodium		10.00		25.00				100.00	
Strontium		10.00		10.00				100.00	
Sulfur						50.00			
Tantalum		9.95				50.00		99.50	
Thallium	#					50.00			
Thorium					50.10				
Tin		10.00		50.00				100.00	
Titanium		10.00				50.00		100.10	
Tungsten	#					25.00			
Uranium	#				50.10				
Vanadium						10.00			
Zinc		10.00		10.00				100.00	
Zirconium		9.98				50.00		99.80	
Dilution Factor								10.00	

ICP Calibration Report

Procedure: LA-505-151 Revision: A-0
Instrument: WB39939
Technologist: J. A. White
Date: April 11, 1990 Time: 10:37

Calibration Standards for ICP Program "SST"

Element	Standard	Element	Standard
Aluminum	SST-3	Antimony	SST-4
Arsenic	SST-4	Barium	SST-2
Beryllium	SST-2	Bismuth	SST-4
Boron	SST-3	Cadmium	SST-2
Calcium	SST-2	Cerium	SST-5
Chromium	SST-2	Cobalt	SST-2
Copper	SST-2	Europium	SST-5
Iron	SST-2	Lanthanum	SST-5
Lead	SST-4	Lithium	SST-1
Magnesium	SST-2	Manganese	SST-2
Mercury	SST-3	Molybdenum	SST-3
Neodymium	SST-5	Nickel	SST-2
Phosphorous	SST-3	Potassium	SST-1
Samarium	SST-5	Selenium	SST-4
Silicon	SST-3	Silver	SST-2
Sodium	SST-1	Strontium	SST-2
Sulfur	SST-3	Tantalum	SST-3
Thallium	SST-4	Thorium	SST-4
Tin	SST-4	Titanium	SST-3
Tungsten	SST-3	Uranium	SST-4
Vanadium	SST-2	Zinc	SST-2
Zirconium	SST-3		

ICP Standard Formulations

SST-0:
Calibration blank, 1 M ultrex HNO_3.

SST-1:
Stock solutions from AESAR/John Mathey Inc., Seabrook, NH 03874. Individual element solutions as follows:

Li	$LiCO_3$ 10,000 ppm in 5% HNO_3 Lot# 14394A
K	KNO_3 10,000 ppm in 5% HNO_3 Lot# 14379A
Na	$NaCO_3$ 10,000 ppm in 5% HNO_3 Lot# 14400A

200 mL of standard made by combining 25 mL HCl/HNO_3 mixed acid, 1 mL each single element standards, and water.

SST-2:
Stock solutions from VHG labs, Inc., 180 Zachary Rd. #5, Manchester, NH 03103. Mixed element standards as follows:

SM-10	Li, Na, K, Rb, Cs, Be, Mg, Ca, Sr, & Ba 100 ppm Lot# 0-119A
SM-20	V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ag, & Cd 100 ppm Lot# 0-119B

50 mL of each mixed standard are added to a 250 mL volumetric flask and diluted to volume with 1 M HNO3.

SST-3:
Stock solutions from AESAR/John Mathey Inc., Seabrook, NH 03874. Individual element solutions as follows:

Al	Al 10,000 ppm in 10% HCl Lot# 9-053A
B	H_3BO_3 10,000 ppm in 1% NH_4OH Lot# 9-335A
Hg	Hg 10,000 ppm in 5% HNO_3 Lot# 8-656S
Mo	Mo 10,000 ppm in 5% HCl Lot# 9-159T
P	P 10,000 ppm in 5% HNO3 Lot# 9-160A
Si	Si 1000 ppm in KOH Lot# 086DM Spex Industries, Edison, NJ
S	$(NH_4)_2SO_4$ in H_2O Lot# 9-231M
Ta	TaCl5 10,000 ppm in 5% HCl/tr HF Lot# 9-335M
Ti	Ti 10,000 ppm in 5% HF Lot# 9-079EE
W	W 10,000 ppm in 5% HF/tr HNO_3 Lot# 8-685L
Zr	$ZrCl_2O$ 10,100 ppm in 5% HCl Lot# 9-078G

50 mL of each mixed standard are added to a 250 mL volumetric flask and diluted to volume with 1 M HNO33.

SST-4:
Stock solution from VHG labs, Inc., 180 Zachary Rd. #5, Manchester, NH 03103. Mixed element standard as follows:

SM-50 Ga, In, Tl, Ge, Sn, Pb, As, Sb, Bi, Se, Te, Th, & U 100 ppm Lot# 0-119D

Solution is used directly for calibration.

SST-5:
Stock solution from VHG labs, Inc., 180 Zachary Rd. #5, Manchester, NH 03103. Mixed element standard as follows:

SM-60 Sc, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, & Lu 100 ppm Lot# 7-165F

50 mL of SM-60 is added to a 250 mL volumetric flask and diluted to volume with 1 M HNO_3.

ICP Calibration, April 11, 1990

```
11-Apr-90        08:37:50

Condition     Value                Min      /  Max

VACUUM   =    26.70                7.000    /  50.00
SPTEMP   =    37.40                37.00    /  39.00
MAINS    =    233.5                220.0    /  247.0
-1000V   =    -1005                -1010    /  -990
CTEMP    =    23.60                19.00    /  35.00
+5V      =    5.160                4.750    /  5.250
+12V     =    12.15                11.70    /  12.30
-12V     =    -12.2                -12.3    /  -11.7
+24V     =    23.14                22.50    /  26.50
-100V    =    -100                 -101     /  -99.0
+5VSQ    =    5.155                4.750    /  5.250
+15VSQ   =    15.13                14.70    /  15.30
 15VSQ   =    -15.2                -15.3    /  -14.7

Position Calibration in Progress
         SLIT     PM       ALPHA    BETA     ALPHA    BETA     ALPHA    BETA
         POS'N             SLIT     SLIT     LAMBDA1  LAMBDA1  LAMBDA2  LAMBDA2
Previous data :
INSTR    0.00000 588.738 1.00101 0.23145 1.00013 -0.0937 0.00000 0.00000
Current data  :
INSTR    0.00000 587.667 1.00088 -0.2500 1.00010 -0.0844 0.00000 0.00000
START THE PLASMA NOW, PLEASE.11-Apr-90        08:46:08

Sample name     : SSTO
Programme       : SST              11-Apr-90  10:12:37

NAME        MV INT       RSD

AL           1.87      0.42
SB           0.36      0.73
AS           1.00      0.35
BA           3.69      0.43
BE           0.69      0.91
BI           3.59      0.61
B            4.03      1.01
CD           2.15      0.37
CA           0.47      0.32
CE           4.98      0.42
CR           1.32      3.92
CO           0.27      0.75
CU           2.77      0.37
EU           3.85      0.50
FE           1.50      1.03
LA           0.35      0.33
PB           0.37      0.59
LI           3.82      0.41
MG           0.42      0.50
MN           0.81      0.29
HG           3.52      0.10
MO           1.60      0.45
ND           5.28      1.56
NI           3.15      0.62
P            1.25      0.44
K            3.20      0.97
SM           4.80      0.54
SE           1.63      0.34
SI           3.07      0.53
```

ICP Calibration, April 11, 1990

Sample name : SST0
Programme : SST 11-Apr-90 10:13:37

NAME	MV INT	RSD
AL	1.87	0.42
SB	0.36	0.73
AS	1.00	0.35
BA	3.69	0.43
BE	0.69	0.91
BI	3.59	0.61
B	4.03	1.01
CD	2.15	0.37
CA	0.47	0.32
CS	4.98	0.43
CR	1.32	3.92
CO	0.27	0.75
CU	2.77	0.37
DY	3.85	0.50
ER	1.50	1.02
LA	0.35	0.33
PB	0.27	0.99
LI	3.82	0.41
MG	0.43	0.50
MN	0.81	0.29
HG	3.52	0.10
MO	1.60	0.45
ND	5.38	1.56
NI	3.15	0.62
P	1.25	0.44
K	3.20	0.07
SM	4.60	0.54
SE	1.53	0.34
SI	3.07	0.53
AG	13.92	0.51
NA	5.14	0.50
SR	3.50	0.43
S	0.70	0.80
TA	3.46	0.73
TL	3.36	0.53
TH	1.01	0.40
SN	1.12	1.00
TI	3.32	0.38
W	1.25	0.28
U	4.81	0.44
VI	3.86	0.70
ZN	2.20	0.50
ZR	4.43	0.35

Sample name : SST1
Programme : SST 11-Apr-90 10:16:22

NAME	MV INT	RSD
LI	433.93	0.61
K	13.16	0.29
NA	59.06	0.48

Sample name : SST2
Programme : SST 11-Apr-90 10:18:18

NAME	MV INT	RSD

ICP Calibration, April 11, 1990

Sample name : SSI2
Programme : SST 11-Apr-90 10:18:18

NAME	MV INT	RSD
BA	279.22	0.36
BE	426.94	0.19
CD	288.78	0.16
CA	403.99	0.36
CR	64.44	2.50
CO	5.14	2.00
CU	96.12	0.47
FE	116.90	0.18
MG	403.11	0.11
MN	260.10	0.35
NI	147.91	0.37
AG	439.97	0.46
SR	485.30	0.30
VI	158.77	0.47
ZN	572.94	0.14

Sample name : SSI3
Programme : SST 11-Apr-90 10:21:05

NAME	MV INT	RSD
AL	20.39	0.56
B	671.19	0.79
MG	649.75	0.73
MO	262.00	0.70
P	55.05	0.94
SI	79.48	0.77
S	37.48	0.81
TA	196.08	0.86
TI	447.39	0.72
W	60.63	0.83
ZR	148.67	0.73

Sample name : SSI4
Programme : SST 11-Apr-90 10:23:25

NAME	MV INT	RSD
BR	6.23	0.33
AS	109.53	0.32
BI	95.65	0.24
PB	4.48	0.24
SE	44.84	0.87
TL	37.72	0.32
TH	13.28	0.13
SN	205.66	0.39
U	11.50	0.02

Sample name : SSI5
Programme : SST 11-Apr-90 10:26:00

NAME	MV INT	RSD
SI	[illegible]	[illegible]

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Sample name : SST5
Programme : SST 11-Apr-90 10:26:00

NAME	MV INT	RSD
CE	13.63	0.66
EU	428.34	0.85
LA	5.14	0.84
ND	15.32	0.17
SM	12.90	0.42

Programme name : SST Channel name : AL Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.7778	21.410	-0.505256E+01	0.269998E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	1.8713	0.0000	0.0000	0.0000	0.0000		CRV1
SST3	0	20.390	50.000	50.000	50.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : SB1 Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.3458	6.5422	-0.630454E+01	0.170455E+02		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	0.3640	0.0000	0.0000	0.0000	0.0000		CRV1
SST4	0	6.2307	100.00	100.00	100.00	-0.000	-0.000	CRV1

Programme name : SST Channel name : AS Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.9525	115.01	-0.923853E+00	0.921396E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	1.0027	0.0000	0.0000	0.0000	0.0000		CRV1

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Programme name : SST Channel name : AS Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.9525	115.01	-0.923853E+00	0.921396E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	1.0027	0.0000	0.0000	0.0000	0.0000		CRV1
SST4	0	109.53	100.00	100.00	100.00	-0.000	-0.000	CRV1

Programme name : SST Channel name : BA Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.5014	293.18	-0.267533E+00	0.725874E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.6857	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	279.22	20.000	20.000	20.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : BE1 Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.6546	448.28	-0.323287E-01	0.469212E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	0.6990	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	426.94	20.000	20.000	20.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : BI Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.4111	100.43	-0.390037E+01	0.108625E+01		

Name	Number	Int.	Conc	True	Calc	Conc	% Error	Curve

ICP Calibration, April 11, 1990

Programme name : SST Channel name : BI Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.4111	100.43	-0.390037E+01	0.108625E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.5907	0.0000	0.0000	0.0000	0.0000		CRV1
SST4	0	95.650	100.00	100.00	100.00	-0.000	-0.000	CRV1

Programme name : SST Channel name : B Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.8288	704.75	-0.302052E+00	0.749447E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	4.0303	0.0000	0.0000	-0.000	-0.000		CRV1
SST3	0	671.19	50.000	50.000	50.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : CD Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	2.0425	303.22	-0.150018E+00	0.697757E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	2.1500	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	288.70	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : CA Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.4481	424.19	-0.233775E-01	0.495635E-01		

Name	Number	Int.	Conc	True	Calc	Conc	% Error	Curve

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Programme name : SST Channel name : CA Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.4481	424.19	-0.233775E-01	0.495635E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	0.4717	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	403.99	20.000	20.000	20.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : CE Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	4.7329	14.316	-0.115164E+02	0.231160E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	4.9820	0.0000	0.0000	0.0000	0.0000		CRV1
SST5	0	13.634	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : CK Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.2546	67.660	-0.418482E+00	0.316872E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	1.2207	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	64.438	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : CO Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.2546	5.3952	-0.110054E+01	0.410649E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve

ICP Calibration, April 11, 1990

Programme name : SST Channel name : CO Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.2546	5.3952	-0.110054E+01	0.410649E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	0.2680	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	5.1383	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : CU Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	2.6347	100.93	-0.594173E+00	0.214245E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	2.7733	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	96.124	20.000	20.000	20.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : EU Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.6600	449.75	-0.181532E+00	0.471159E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.8527	0.0000	0.0000	0.0000	0.0000		CRV1
SST5	0	438.34	20.000	20.000	20.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : FE Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.4256	122.74	-0.260088E+00	0.173315E+00		

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Programme name : SST Channel name : FE Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.4256	122.74	-0.360088E+00	0.173315E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	1.5007	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	116.90	20.000	20.000	20.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : LA Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.3281	5.4009	-0.143939E+01	0.416811E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	0.3453	0.0000	0.0000	-0.000	-0.000		CRV1
SST5	0	5.1437	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : PB Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.2546	4.7029	-0.636428E+01	0.237472E+02		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	0.2690	0.0000	0.0000	-0.000	-0.000		CRV1
SST4	0	4.4790	100.00	100.00	100.00	0.0000	0.0000	CRV1

Programme name : SST Channel name : LI Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.6312	455.63	-0.444341E+00	0.116249E+00		

Name	Number	Int.	Conc	True	Calc	Conc	% Error	Curve

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Programme name : SST Channel name : LI Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.6312	455.63	-0.444341E+00	0.116249E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.8223	0.0000	0.0000	0.0000	0.0000		CRV1
SST1	0	433.93	50.000	50.000	50.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : MG Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.3955	423.27	-0.206772E-01	0.496651E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	0.4163	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	403.11	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : MN Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.7673	273.11	-0.622975E-01	0.771327E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	0.8077	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	260.10	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : MO Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.2412	682.24	-0.272115E+00	0.773712E-01		

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Programme name : SST Channel name : HG Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.3412	682.24	-0.272115E+00	0.773712E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.5170	0.0000	0.0000	-0.000	-0.000		CRV1
SST3	0	649.75	50.000	50.000	50.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : MO Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.5162	275.10	-0.306443E+00	0.192007E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	1.5960	0.0000	0.0000	0.0000	0.0000		CRV1
SST3	0	262.00	50.000	50.000	50.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : ND Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	5.0201	16.086	-0.105311E+02	0.199289E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	5.2843	0.0000	0.0000	0.0000	0.0000		CRV1
SST5	0	15.320	20.000	20.000	20.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : NI Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	2.9912	155.30	-0.435026E+00	0.138162E+00		

Name	Number	Int.	Conc	True	Calc	Conc	% Error	Curve

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Programme name : SST Channel name : NI Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	2.9912	155.30	-0.435026E+00	0.138162E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.1487	0.0000	0.0000	-0.000	-0.000		CRV1
SST2	0	147.91	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : P Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.1831	57.810	-0.115712E+01	0.929166E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	1.2453	0.0000	0.0000	0.0000	0.0000		CRV1
SST3	0	55.057	50.000	50.000	50.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : K Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.0394	13.816	-0.160636E+02	0.502092E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.1993	0.0000	0.0000	0.0000	0.0000		CRV1
SST1	0	13.158	50.000	50.000	50.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : SM Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	4.5635	13.545	-0.118663E+02	0.247025E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve

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Programme name : SST Channel name : SM Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	4.5635	13.545	-0.118663E+02	0.247025E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	4.8037	0.0000	0.0000	0.0000	0.0000		CRV1
SST5	0	13.900	20.000	20.000	20.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : SE Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.5476	47.083	-0.276979E+01	0.231417E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	1.6290	0.0000	0.0000	-0.000	-0.000		CRV1
SST4	0	44.841	100.00	100.00	100.00	0.0000	0.0000	CRV1

Programme name : SST Channel name : SI Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	2.9209	83.454	-0.201208E+01	0.654407E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.0747	0.0000	0.0000	0.0000	0.0000		CRV1
SST3	0	79.480	50.000	50.000	50.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : AG Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	13.225	461.96	-0.653483E+00	0.469434E-01		

Name	Number	Int.	Conc	True	Calc	Conc	% Error	Curve

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Programme name : SST Channel name : AG Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	13.325	461.96	-0.653483E+00	0.469434E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	13.921	0.0000	0.0000	-0.000	-0.000		CRV1
SST2	0	439.97	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : NA Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	4.8786	62.014	-0.476149E+01	0.927202E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	5.1353	0.0000	0.0000	0.0000	0.0000		CRV1
SST1	0	59.061	50.000	50.000	50.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : SR Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.3234	509.56	-0.145220E+00	0.415111E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.4983	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	485.30	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : S Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.5641	39.355	-0.950184E+00	0.135935E+01		

Name	Number	Int.	Conc	True	Calc	Conc	% Error	Curve

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Programme name : SST Channel name : S Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.6641	39.355	-0.950184E+00	0.135935E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	0.6990	0.0000	0.0000	0.0000	0.0000		CRV1
SST3	0	37.481	50.000	50.000	50.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : TA Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.2826	111.38	-0.168356E+01	0.487236E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.4553	0.0000	0.0000	-0.000	-0.000		CRV1
SST3	0	106.08	50.000	50.000	50.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : TL2 Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.6705	39.607	-0.114116E+02	0.295357E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.8637	0.0000	0.0000	0.0000	0.0000		CRV1
SST4	0	37.721	100.00	100.00	100.00	-0.000	-0.000	CRV1

Programme name : SST Channel name : TH Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.9630	13.942	-0.826538E+01	0.815395E+01		

Name	Number	Int.	Conc	True	Calc	Conc	% Error	Curve

ICP Calibration, April 11, 1990

Programme name : SST Channel name : TH Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	0.9630	13.942	-0.826538E+01	0.815395E+01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SSTO	0	1.0137	0.0000	0.0000	0.0000	0.0000		CRV1
SST4	0	13.276	100.00	100.00	100.00	0.0000	0.0000	CRV1

Programme name : SST Channel name : SN Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.0524	215.94	-0.546753E+00	0.468906E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SSTO	0	1.1133	0.0000	0.0000	0.0000	0.0000		CRV1
SST4	0	205.66	100.00	100.00	100.00	0.0000	0.0000	CRV1

Programme name : SST Channel name : TI Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.1584	469.76	-0.374343E+00	0.112596E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SSTO	0	3.3247	0.0000	0.0000	0.0000	0.0000		CRV1
SST3	0	447.39	50.000	50.000	50.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : W Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.1850	63.663	-0.105022E+01	0.841978E+00		

Name	Number	Int.	Conc	True	Calc	Conc	% Error	Curve

ICP Calibration, April 11, 1990

Programme name : SST Channel name : W Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	1.1850	63.663	-0.105022E+01	0.841972E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	1.2473	0.0000	0.0000	0.0000	0.0000		CRV1
SST3	0	60.632	50.000	50.000	50.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : U Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	4.5723	12.070	-0.720222E+02	0.149641E+02		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	4.8130	0.0000	0.0000	-0.000	-0.000		CRV1
SST4	0	11.496	100.00	100.00	100.00	0.0000	0.0000	CRV1

Programme name : SST Channel name : V1 Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	3.6645	166.71	-0.497999E+00	0.139104E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	3.8573	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	158.77	20.000	20.000	20.000	0.0000	0.0000	CRV1

Programme name : SST Channel name : ZN Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	2.0894	601.59	-0.770691E-01	0.350420E-01		

Name	Number	Int.	Conc	True	Calc	Conc	% Error	Curve

ICP Calibration, April 11, 1990

Programme name : SST Channel name : ZN Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	2.0804	601.59	-0.770691E-01	0.350420E-01		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	2.1993	0.0000	0.0000	0.0000	0.0000		CRV1
SST2	0	572.94	20.000	20.000	20.000	-0.000	-0.000	CRV1

Programme name : SST Channel name : ZR Polynomial type : CC

Curve	Min Int	Max Int	Curve Coefficients C0	C1	C2	C3
CRV1	4.2044	155.47	-0.154050E+01	0.348093E+00		

Name	Number	Int. (X)	Conc (Y)	True (Y)	Calc Conc	Conc Error	% Error	Curve
SST0	0	4.4257	0.0000	0.0000	-0.000	-0.000		CRV1
SST3	0	148.07	50.000	50.000	50.000	0.0000	0.0000	CRV1

ICP Analysis; April 11, 1990 Acid Blank

Sample name : HNO3
Programme : SST 11-Apr-90 10:37:18

NAME	MV INT	CONCEN	RSD
Al	1.89	0.064	33.54
Sb	0.37	0.153	19.25
As	1.00	0.002	112.39
Ba	3.74	0.004	31.70
Be	0.69	0.000	283.95
Bi	3.64	0.054	49.53
B	4.15	0.009	29.70
Cd	2.17	0.001	45.73
Ca	0.47	-0.000	-188.75
Ce	5.07	0.194	34.44
Cr	1.25	(-0.021	-30.37
Co	0.28	0.029	14.29
Cu	2.81	0.008	33.14
Eu	3.90	0.002	30.59
Fe	1.52	0.003	69.98
La	0.35	0.017	52.04
Pb	0.27	0.103	35.25
Li	3.93	0.012	23.82
Mg	0.42	0.000	76.98
Mn	0.76	(-0.003	-11.37
Hg	3.51	-0.000	-563.03
Mo	1.60	-0.000	-1361.1
Nd	5.24	-0.080	-136.23
Ni	3.20	0.008	21.28
P	1.24	-0.008	-145.50
K	3.22	0.137	56.01
Sm	4.89	0.203	31.29
Se	1.65	0.038	40.77
Si	3.14	0.045	34.27
Ag	14.18	0.012	27.77
Na	5.20	0.057	43.29
Sr	3.55	0.002	27.63
S	0.71	0.030	3.94
Ta	3.50	0.020	57.65
Tl	2.91	0.138	94.15
Th	1.03	0.103	56.01
Sn	1.15	0.017	42.86
Ti	3.37	0.005	30.75
W	1.28	0.026	73.87
U	4.89	1.082	32.61
V	3.90	0.005	90.29
Zn	2.29	0.001	59.89
Zr	4.49	0.023	29.89

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 78C11G
Sample code 1 : SST1
Sample code 2 : DIRECT
Programme : SST 11-Apr-90 10:41:45

NAME	MV INT	CONCEN	RSD
Al	1.87	-0.001	-5254.8
Sb	0.98	10.551	2.22
As	1.10	0.085	5.73
Ba	139.21	9.837	1.05
Be	0.65	0.000	1417.55
Bi	3.64	0.056	12.89
B	133.40	9.695	0.92
Cd	146.58	10.077	1.40
Ca	204.12	10.093	1.00
Ce	9.24	9.834	2.22
Cr	30.99	9.402	1.07
Co	2.96	11.056	1.01
Cu	49.53	10.018	0.95
Eu	4.26	0.019	7.34
Fe	59.68	10.083	1.45
La	0.36	0.050	20.97
Pb	0.27	0.063	43.30
Li	90.78	10.108	0.78
Mg	204.56	10.139	1.24
Mn	131.06	10.047	1.12
Hg	3.61	0.007	44.98
Mo	1.63	0.007	31.03
Nd	9.93	9.262	2.74
Ni	76.09	10.078	1.02
P	1.24	-0.002	-477.27
K	8.14	24.610	0.99
Sm	4.63	-0.431	-20.26
Se	3.26	3.772	1.77
Si	3.11	0.022	64.80
Ag	13.51	-0.019	-25.31
Na	31.75	24.674	1.12
Sr	243.80	9.975	1.10
S	0.89	0.257	5.72
Ta	3.40	-0.026	-24.78
Tl	3.83	-0.110	-40.65
Th	1.01	0.003	1586.92
Sn	106.55	51.546	1.45
Ti	3.32	-0.012	-15.79
W	1.45	0.171	7.33
U	4.96	2.190	23.00
V	3.73	-0.017	-37.71
Zn	286.82	9.974	1.13
Zr	4.36	-0.033	-33.40

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 82R38D
Sample code 1 : SST2
Sample code 2 : DIRECT
Programme : SST 11-Apr-90 10:46:21

NAME	MV INT	CONCEN	%SD
Al	3.30	3.851	1.05
Sb	0.37	0.182	10.83
As	3.59	1.460	3.39
Ba	3.67	-0.001	-104.09
Be	0.68	-0.001	-27.73
Bi	53.00	53.674	1.54
B	4.55	0.039	7.52
Cd	2.14	-0.001	-139.95
Ca	0.78	0.015	1.69
Ce	4.94	-0.089	-60.30
Cr	1.47	0.048	5.48
Co	0.26	-0.015	-31.49
Cu	3.58	0.194	0.44
Eu	223.34	10.337	1.52
Fe	1.74	0.041	4.77
La	12.31	)49.453	1.56
Pb	2.52	50.574	1.15
Li	3.79	-0.003	-277.48
Mg	0.55	0.007	1.52
Mn	0.85	0.003	14.04
Hg	3.88	0.028	6.12
Mo	1.58	-0.003	-44.39
Nd	5.35	0.140	86.41
Ni	3.13	-0.002	-94.72
P	1.40	0.144	19.08
K	2.99	(-1.074	-7.26
Sm	8.87	10.043	1.08
Se	1.66	0.069	57.83
Si	3.74	0.433	1.09
Ag	237.10	10.477	1.33
Na	4.83	(-0.282	-5.59
Sr	3.49	-0.000	-305.29
S	0.78	0.106	13.87
Ta	3.65	0.095	15.22
Tl	5.73	5.502	3.79
Th	7.58	53.536	1.65
Sn	1.25	0.063	9.64
Ti	3.58	0.038	5.03
W	1.21	-0.032	-35.92
U	8.35	52.863	1.05
V	5.58	0.223	1.22
Zn	2.33	0.005	16.16
Zr	4.58	0.055	8.64

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 72C116
Sample code 1 : SST3
Sample code 2 : DIRECT
Programme : SST 11-Apr-90 10:50:21

NAME	mV INT	CONCEN	RSD
Al	20.60	50.563	0.76
Sb	0.47	1.790	8.57
As	63.82	57.881	1.47
Ba	3.80	0.008	38.79
Be	207.98	9.726	1.39
Bi	4.44	0.924	7.69
B	5.24	0.091	5.71
Cd	2.38	0.016	8.81
Ca	1.33	0.043	1.24
Ce	4.85	-0.301	-47.69
Cr	1.35	0.009	49.12
Co	0.28	0.067	3.53
Cu	2.96	0.039	20.39
Eu	3.76	-0.004	-53.01
Fe	1.88	0.065	6.08
La	0.34	-0.021	-61.10
Pb	0.27	0.103	13.32
Li	3.79	-0.004	-91.06
Mg	0.70	0.014	1.96
Mn	0.97	0.012	10.38
Hg	333.99	25.569	1.20
Mo	262.21	50.040	0.89
Nd	5.15	-0.267	-48.36
Ni	6.58	0.474	1.91
P	56.71	51.533	1.85
K	3.10	-0.500	-36.95
Sm	4.71	-0.221	-65.85
Se	24.21	52.257	0.80
Si	66.48	41.491	1.32
Ag	20.25	0.297	2.58
Na	5.20	0.058	101.14
Sr	3.52	0.001	211.02
S	36.79	49.060	1.46
Ta	101.13	47.591	0.77
Tl	22.29	54.423	1.46
Th	1.11	0.769	12.85
Sn	1.57	0.220	6.01
Ti	434.29	48.525	0.85
W	26.43	21.200	1.63
U	6.02	17.997	7.89
V	81.07	9.968	0.98
Zn	3.32	0.039	3.00
Zr	145.36	49.055	0.93

ICP Analysis; April 11, 1990 Acid Digested LMCS Standard

Sample name : F1152
Sample code 1 : DIGEST
Sample code 2 : STD
Sample code 3 : 81C11A
Programme : SST 11-Apr-90 10:55:51

NAME	MV INT	CONCEN	RSD
Al	2.03	0.419	8.57
Sb	0.37	0.114	52.68
As	1.40	0.368	2.61
Ba	3.75	0.005	42.06
Be	0.72	0.001	16.30
Bi	13.32	10.572	0.75
B	124.22	9.008	0.59
Cd	142.21	9.773	0.38
Ca	194.18	9.601	0.70
Ce	5.04	0.131	55.39
Cr	1.33	0.003	228.42
Co	0.27	0.011	94.37
Cu	47.24	9.527	0.61
Eu	3.85	0.000	1734.45
Fe	2.03	0.091	4.09
La	2.58	9.296	0.52
Pb	0.72	10.631	0.47
Li	3.86	0.005	37.13
Mg	193.76	9.603	0.50
Mn	1.09	0.022	6.51
Hg	3.67	0.013	26.61
Mo	52.76	9.827	0.55
Nd	5.37	0.179	86.33
Ni	3.23	0.011	36.23
P	12.58	10.527	1.96
K	5.03	9.476	1.07
Sm	4.75	-0.044	-182.70
Se	1.67	0.086	45.95
Si	11.58	5.568	1.22
Ag	47.61	1.582	9.69
Na	15.62	9.726	0.21
Sr	231.90	9.481	0.60
S	0.97	0.363	2.40
Ta	3.46	0.003	554.79
Tl	3.93	0.193	35.00
Th	1.02	0.068	41.57
Sn	1.39	0.135	6.29
Ti	3.71	0.044	5.21
W	1.48	0.192	5.27
U	4.84	0.409	121.69
V	3.96	0.013	11.38
Zn	282.91	9.037	0.51
Zr	4.42	-0.000	-1898.0

ICP Analysis; April 11, 1990 Reagent Blank

Sample name : F1160
Sample code 1 : REABLK
Sample code 2 : DIRECT
Sample code 3 : 89079
Programme : SST 11-Apr-90 11:00:20

NAME	MV INT	CONCEN	RSD
Al	1.95	0.245	29.84
Sb	0.37	0.131	54.30
As	1.01	0.006	405.37
Ba	3.67	-0.001	-469.89
Be	0.69	-0.000	-398.21
Bi	3.76	0.179	59.25
B	4.75	0.054	21.80
Cd	2.23	0.005	50.70
Ca	2.14	0.083	1.18
Ce	4.96	-0.048	-391.08
Cr	1.28	-0.014	-55.40
Co	0.27	0.011	134.57
Cu	2.81	0.007	158.81
Eu	3.82	-0.002	-180.53
Fe	1.96	0.080	6.69
La	0.35	-0.000	*******
Pb	0.27	0.040	69.28
Li	3.83	0.000	1513.66
Mg	0.72	0.015	0.51
Mn	1.09	0.022	7.24
Hg	3.53	0.002	265.02
Mo	1.60	0.000	2078.71
Nd	5.16	0.242	-62.26
Ni	3.18	0.005	127.40
P	1.30	0.048	39.52
K	3.16	-0.208	-99.08
Sm	4.78	-0.063	-305.11
Se	1.62	-0.028	-154.33
Si	3.47	0.256	27.74
Ag	14.62	0.033	36.57
Na	5.59	0.360	17.90
Sr	3.55	0.002	96.02
S	0.74	0.054	9.01
Ta	3.44	-0.007	-380.24
Tl	3.83	-0.104	-204.09
Th	1.01	-0.038	-332.66
Sn	1.19	0.036	19.12
Ti	3.69	0.042	13.71
W	1.25	0.005	332.83
U	4.77	-0.589	-190.19
V	3.81	-0.007	-133.60
Zn	2.72	0.018	6.03
Zr	4.42	-0.000	-4166.4

ICP Analysis; April 11, 1990 Sample 89-079

Sample name : F1153
Sample code 1 : SAMPLE
Sample code 2 : 100-10
Sample code 3 : 89079
Programme : SST 11-Apr-90 11:04:38

NAME	MV INT	CONCEN	DILCOR	RSD
Al	4.13	6.086	614.66	1.22
Sb	0.36	-0.114	-11.48	-37.75
As	0.96	-0.036	-3.598	-37.57
Ba	3.54	-0.011	-1.097	-12.48
Be	0.66	-0.001	-0.138	-9.80
Bi	4.10	0.557	56.309	2.37
B	4.46	0.032	3.220	63.45
Cd	2.04	(-0.008	(-0.771	-8.69
Ca	1.23	0.038	3.806	0.92
Ce	4.74	-0.566	-57.12	-10.22
Cr	1.40	0.026	2.582	26.31
Co	0.26	-0.047	-4.701	-13.48
Cu	2.65	-0.026	-2.662	-10.29
Eu	3.65	(-0.010	(-0.988	-9.63
Fe	5.22	0.644	65.042	1.13
La	0.34	-0.038	-3.789	-16.97
Pb	0.26	-0.087	-8.795	-68.64
Li	3.60	(-0.025	(-2.556	-8.07
Mg	0.65	0.012	1.174	1.37
Mn	6.83	0.464	46.914	0.44
Hg	3.59	0.005	0.537	196.31
Mo	1.51	(-0.017	(-1.739	-18.47
Nd	4.93	(-0.705	(-71.19	-7.23
Ni	3.10	-0.006	-0.633	-46.29
P	1.55	0.280	28.279	5.40
K	3.04	-0.793	-80.12	-7.31
Sm	4.57	-0.582	-58.80	-10.43
Se	1.57	-0.143	-14.49	-25.04
Si	3.46	0.252	25.447	5.66
Ag	13.23	-0.032	-3.270	-13.57
Na	12.83	7.132	720.37	1.05
Sr	4.40	0.037	3.766	2.24
S	0.72	0.024	2.380	73.51
Ta	3.28	(-0.088	(-8.842	-5.41
Tl	3.65	(-0.644	(-65.03	-21.89
Th	0.97	-0.394	-39.80	-9.78
Sn	1.08	-0.017	-1.761	-37.23
Ti	3.17	-0.017	-1.766	-8.38
W	1.20	-0.039	-3.912	-18.99
U	4.60	-3.227	-326.0	-11.64
V	3.66	(-0.025	(-2.551	-12.70
Zn	2.22	0.001	0.060	60.08
Zr	4.29	-0.049	-4.934	-12.55

Dilution Factor : 101.000

ICP Analysis; April 11, 1990 Sample 89-079

Sample name : F1153
Sample code 1 : SAMPLE
Sample code 2 : 500-10
Sample code 3 : 89079
Programme : SST 11-Apr-90 11:09:01

NAME	MV INT	CONCEN	DILCOR	RSD
Al	12.59	28.946	607.88	1.48
Sb	0.36	-0.108	-2.267	-24.12
As	0.97	-0.027	-0.568	-37.56
Ba	3.66	-0.002	-0.037	-157.31
Be	0.66	-0.001	-0.030	-20.82
Bi	6.64	3.313	69.574	1.06
B	4.60	0.042	0.890	2.31
Cd	2.05	-0.007	-0.143	-26.78
Ca	3.49	0.150	3.140	1.67
Ce	4.69	(-0.676	(-14.19	-19.06
Cr	2.23	0.289	6.075	0.23
Co	0.26	-0.033	-0.690	-21.65
Cu	2.68	-0.021	-0.438	-28.60
Eu	3.61	(-0.012	(-0.243	-18.80
Fe	19.02	3.037	63.767	1.41
La	0.32	-0.044	-0.934	-10.83
Pb	0.26	-0.127	-2.660	-10.83
Li	3.56	(-0.031	(-0.643	-16.15
Mg	1.36	0.047	0.983	1.19
Mn	29.23	2.192	46.042	1.13
Hg	3.52	0.000	0.002	519.85
Mo	1.52	-0.014	-0.288	-17.13
Nd	4.91	(-0.739	(-15.53	-26.95
Ni	3.43	0.039	0.824	15.41
P	2.83	1.477	31.012	2.81
K	3.01	(-0.951	(-19.96	-20.38
Sm	4.52	(-0.711	(-14.92	-19.46
Se	1.64	0.026	0.551	110.33
Si	4.67	1.044	21.933	1.61
Ag	13.16	(-0.036	(-0.753	-20.71
Na	41.73	33.926	712.45	1.66
Sr	8.13	0.192	4.033	1.35
S	0.87	0.231	4.853	4.59
Ta	3.23	(-0.107	(-2.254	-13.64
Tl	3.68	-0.530	-11.12	-28.53
Th	0.96	(-0.462	(-9.703	-17.02
Sn	1.11	-0.004	-0.086	-294.13
Ti	3.16	-0.018	-0.381	-32.65
W	1.21	-0.029	-0.619	-34.91
U	4.66	-2.240	-47.03	-34.40
V	3.72	-0.018	-0.373	-28.19
Zn	2.45	0.009	0.182	11.15
Zr	4.29	-0.046	-0.962	-29.74

Dilution factor : 21.0000

ICP Analysis; April 11, 1990 Sample Duplicate of 89-079

Sample name : F1154
Sample code 1 : DUPSAM
Sample code 2 : 100-10
Sample code 3 : 89079
Programme : SST 11-Apr-90 11:14:41

NAME	MV INT	CONCEN	DILCOR	RSD
Al	4.26	6.457	652.11	0.71
Sb	0.36	-0.017	-1.732	-200.00
As	1.00	-0.005	-0.620	-98.36
Ba	3.69	0.000	0.010	2557.62
Be	0.68	-0.000	-0.033	-71.43
Bi	4.16	0.618	62.462	4.26
B	4.71	0.051	5.170	39.15
Cd	2.13	-0.002	-0.171	-86.63
Ca	1.28	0.040	4.046	1.10
Ce	4.90	-0.188	-19.09	-66.58
Cr	1.45	0.043	4.289	13.54
Co	0.27	0.004	0.415	100.00
Cu	2.73	-0.010	-1.003	-56.61
Eu	3.78	-0.003	-0.338	-58.79
Fe	5.46	0.687	69.383	1.02
La	0.34	-0.011	-1.123	-114.56
Pb	0.26	-0.142	-14.39	0.00
Li	3.71	-0.013	-1.276	-31.43
Mg	2.21	0.089	9.021	1.15
Mn	6.73	0.457	46.143	0.86
Hg	3.70	0.021	2.092	11.35
Mo	1.56	-0.006	-0.621	-74.67
Nd	5.09	-0.391	-39.45	-4.57
Ni	3.20	0.008	0.772	59.47
P	1.67	0.399	40.291	3.50
K	3.13	-0.373	-37.53	-39.68
Sm	4.73	-0.184	-18.55	-57.11
Se	1.63	-0.008	-0.857	-164.39
Si	3.57	0.327	32.981	6.13
Ag	13.73	-0.009	-0.918	-81.50
Na	13.21	7.483	755.73	0.85
Sr	4.46	0.040	4.024	1.23
S	0.74	0.051	5.171	20.10
Ta	3.39	-0.033	-3.379	-52.15
Tl	3.87	0.025	2.486	762.31
Th	1.00	-0.120	-12.08	-62.49
Sn	1.13	0.006	0.609	211.64
Ti	3.27	-0.006	-0.614	-54.60
W	1.24	-0.006	-0.567	-165.91
U	4.75	-0.888	-89.68	-75.26
V	3.84	-0.002	-0.230	-356.36
Zn	2.27	0.003	0.255	27.26
Zr	4.39	-0.012	-1.242	-83.20

Dilution factor : 101.000

ICP Analysis; April 11, 1990 Sample Duplicate of 89-079

Sample name : F1154
Sample code 1 : DUPSAM
Sample code 2 : 500-10
Sample code 3 : 89079
Programme : SST 11-Apr-90 11:18:56

NAME	MV INT	CONCEN	DILCOR	RSD
Al	13.78	32.143	675.01	0.90
Sb	0.37	0.182	3.818	19.52
As	1.04	0.031	0.651	30.05
Ba	3.92	0.017	0.359	5.27
Be	0.69	0.000	0.001	300.01
Bi	6.61	3.281	68.898	1.49
B	5.52	0.112	2.348	17.14
Cd	2.18	0.002	0.044	10.00
Ca	3.49	0.150	3.146	0.91
Ce	5.04	0.126	2.654	32.99
Cr	2.35	0.325	6.824	0.68
Co	0.27	0.025	0.517	32.33
Cu	2.84	0.015	0.307	13.83
Eu	3.89	0.002	0.037	34.75
Fe	20.47	3.287	69.036	1.08
La	0.35	0.031	0.642	20.03
Pb	0.27	0.103	2.161	26.65
Li	3.79	-0.004	-0.089	-33.00
Mg	1.40	0.049	1.030	1.27
Mn	29.42	2.207	46.348	0.93
Hg	4.43	0.072	1.511	20.57
Mo	1.64	0.009	0.179	22.82
Nd	5.21	-0.154	-3.236	-30.79
Ni	3.60	0.062	1.312	7.47
P	3.51	2.100	44.098	0.34
K	3.20	-0.013	-0.281	-346.45
Sm	4.85	0.108	2.265	31.09
Se	1.75	0.277	5.816	4.31
Si	5.14	1.349	28.333	1.21
Ag	14.15	0.011	0.222	14.67
Na	44.73	36.717	771.05	1.04
Sr	8.35	0.202	4.225	[illegible]
S	0.94	0.324	6.813	4.67
Ta	2.49	0.018	0.382	[illegible]
Te	3.97	0.299	6.285	18.80
Th	1.02	0.087	1.826	5.41
Sn	1.19	0.034	0.708	26.74
Ti	3.38	0.006	0.131	15.44
W	1.31	0.056	1.167	22.95
U	5.01	2.878	60.440	7.58
V	3.98	0.015	0.325	25.06
Zn	2.63	0.015	0.315	5.43
Zr	4.49	0.022	0.463	19.14

Dilution factor : 21.0000

ICP Analysis; April 11, 1990 Spike of Sample 89-079

Sample name : F1155
Sample code 1 : SPIKES
Sample code 2 : 100-10
Sample code 3 : 89079
Programme : SST 11-Apr-90 11:23:10

NAME	MV INT	CONCEN	DILCOR	RSD
Al	4.03	5.827	588.57	4.04
Sb	0.36	-0.068	-6.886	-25.00
As	0.97	-0.027	-2.699	-29.33
Ba	4.87	0.086	8.693	2.02
Be	0.66	-0.001	-0.134	-22.69
Bi	4.37	0.842	85.063	7.18
B	5.50	0.110	11.152	4.55
Cd	3.44	0.090	9.061	1.22
Ca	3.43	0.146	14.791	0.34
Ce	4.79	-0.453	-45.76	-19.26
Cr	1.78	0.144	14.573	1.72
Co	0.29	0.082	8.295	17.32
Cu	3.10	0.070	7.112	5.58
Eu	3.66	(-0.009	(-0.918	-18.26
Fe	6.92	0.940	94.940	1.00
La	0.36	0.075	7.578	11.56
Pb	0.27	-0.016	-1.599	-229.13
Li	4.42	0.069	6.959	2.45
Mg	4.02	0.179	18.065	0.35
Mn	9.90	0.701	70.830	0.40
Hg	3.74	0.017	1.714	47.74
Mo	2.01	0.079	7.990	2.91
Nd	4.99	(-0.590	(-59.58	-11.81
Ni	3.81	0.091	9.159	3.48
P	1.93	0.633	63.972	4.81
K	3.06	-0.723	-73.02	-8.79
Sm	4.56	-0.591	-59.71	-16.56
Se	1.58	-0.104	-10.52	-23.41
Si	3.44	0.239	24.103	9.33
Ag	14.57	0.031	3.093	42.92
Na	15.51	9.619	971.56	0.40
Sr	7.00	0.145	14.678	0.68
S	0.73	0.041	4.165	38.07
Ta	3.36	-0.048	-4.806	-41.39
Tl	3.67	(-0.584	(-58.97	-19.10
Th	0.97	-0.372	-37.61	-14.36
Sn	1.31	0.091	9.234	5.25
Ti	3.98	0.074	7.494	3.22
W	1.20	-0.038	-3.883	-28.16
U	4.61	-2.983	-301.3	-19.57
V	3.67	-0.024	-2.456	-10.66
Zn	4.94	0.096	9.686	1.08
Zr	4.53	0.035	3.539	23.95

Dilution factor : 101.000

ICP Analysis; April 11, 1990 Spike of Sample 89-079

Sample name : F1155
Sample code 1 : SPIKES
Sample code 2 : 500-10
Sample code 3 : 89079
Programme : SST 11-Apr-90 11:27:19

NAME	MV INT	CONCEN	DILCOR	RSD
Al	12.41	28.448	597.41	2.12
Sb	0.35	-0.182	-3.818	-27.06
As	1.09	-0.004	-0.090	-85.72
Ba	9.81	0.445	9.341	0.93
Be	0.65	(-0.002	(-0.038	-5.97
Bi	7.80	4.573	96.028	0.99
B	10.03	0.450	9.443	1.13
Cd	8.46	0.440	9.239	1.03
Ca	13.63	0.652	13.698	0.58
Ce	4.84	-0.339	-7.120	-14.47
Cr	3.91	0.821	17.232	0.86
Co	0.38	0.442	9.285	4.39
Cu	4.78	0.429	9.010	0.87
Eu	3.60	(-0.012	(-0.251	-5.53
Fe	26.73	4.373	91.828	0.90
La	0.44	0.406	8.520	1.19
Pb	0.28	0.325	6.815	15.90
Li	7.42	0.418	8.771	0.78
Mg	11.36	0.544	11.416	0.92
Mn	43.63	3.303	69.360	0.78
Hg	3.69	0.013	0.283	12.47
Mo	3.80	0.424	8.900	1.55
Nd	5.09	-0.381	-7.993	-10.40
Ni	6.66	0.486	10.196	1.96
P	4.39	2.925	61.425	5.97
K	3.07	-0.664	-13.95	-4.60
Sm	4.46	(-0.853	(-17.91	-5.28
Se	1.73	0.234	4.908	8.10
Si	5.18	1.377	28.923	1.00
Ag	20.51	0.309	6.499	10.22
Na	54.50	45.770	961.17	0.76
Sr	20.31	0.698	14.652	0.87
S	0.95	0.346	7.260	3.88
Ta	3.53	0.038	0.788	39.42
Tl	3.63	(-0.689	(-14.47	-2.20
Th	0.95	(-0.544	(-11.42	-6.54
Sn	2.05	0.454	9.541	3.42
Ti	6.93	0.406	8.523	1.13
W	1.20	-0.015	-0.306	-80.77
U	4.68	-2.030	-42.63	-13.52
V	3.66	(-0.026	(-0.536	-6.33
Zn	15.28	0.458	9.626	0.52
Zr	5.28	0.296	6.211	2.62

Dilution factor : 21.0000

ICP Analysis; April 11, 1990 Acid Digested LMCS Standard

Sample name : F1156
Sample code 1 : DIGEST
Sample code 2 : STD
Sample code 3 : 82C11A
Programme : SST 11-Apr-90 11:31:21

NAME	MV INT	CONCEN	RSD
Al	5.59	9.799	2.10
Sb	0.36	-0.040	-173.21
As	1.25	0.224	5.83
Ba	127.13	8.951	1.35
Be	0.70	0.001	58.09
Bi	3.71	0.133	24.04
B	4.45	0.034	19.30
Cd	2.25	0.007	36.29
Ca	5.71	0.260	1.32
Ce	8.61	8.383	3.19
Cr	29.04	8.783	1.23
Co	2.55	9.364	1.42
Cu	2.71	-0.013	-38.32
Eu	4.11	0.013	18.88
Fe	55.50	9.359	1.34
La	0.35	0.021	41.63
Pb	0.26	-0.198	-18.33
Li	83.23	9.231	1.79
Mg	2.14	0.085	1.80
Mn	121.84	9.336	1.32
Hg	3.79	0.021	11.90
Mo	1.67	0.015	7.90
Nd	10.06	9.519	1.42
Ni	69.76	9.203	1.64
P	1.25	0.005	291.56
K	2.99	(-1.066	-13.68
Sm	4.49	(-0.786	-16.42
Se	3.10	3.414	2.44
Si	3.82	0.489	3.90
Ag	14.90	0.046	10.38
Na	5.37	0.215	18.55
Sr	3.50	-0.000	-3220.1
S	0.83	0.174	7.85
Ta	18.11	7.140	2.13
Tl	3.84	-0.007	-347.61
Th	1.00	-0.109	-93.78
Sn	20.26	9.360	2.06
Ti	81.91	8.849	1.36
W	2.07	0.693	9.43
U	4.99	2.649	31.54
V	3.72	-0.018	-21.14
Zn	3.93	0.061	1.77
Zr	30.61	9.116	1.64

ICP Analysis; April 11, 1990 Acid Blank

Sample name : HNO3
Programme : SST 11-Apr-90 11:35:28

NAME	MV INT	CONCEN	RSD
Al	1.84	-0.085	-36.60
Sb	0.36	-0.017	-435.90
As	0.99	-0.009	-59.01
Ba	3.63	-0.004	-51.61
Be	0.68	-0.000	-66.93
Bi	3.57	-0.020	-95.31
B	6.46	0.182	33.26
Cd	2.13	-0.001	-68.42
Ca	0.51	0.002	4.19
Ce	4.93	-0.143	-62.11
Cr	1.22	(-0.033	-2.00
Co	0.27	0.001	916.57
Cu	2.74	-0.008	-14.39
Eu	3.80	-0.002	-57.20
Fe	1.50	-0.000	-1222.3
La	0.34	-0.003	-229.12
Pb	0.26	-0.166	-14.29
Li	3.88	0.006	97.24
Mg	0.44	0.001	2.99
Mn	0.74	(-0.005	-27.88
Hg	6.03	0.194	27.57
Mo	1.56	-0.007	-25.39
Nd	5.09	-0.384	-20.89
Ni	3.14	-0.001	-320.44
P	1.23	-0.014	-28.43
K	3.14	-0.318	-35.27
Sm	4.75	-0.139	-65.14
Se	1.60	-0.071	-22.20
Si	3.12	0.028	197.21
Ag	13.99	0.003	110.89
Na	5.05	-0.080	-38.82
Sr	3.47	-0.001	-84.15
S	0.69	-0.008	-127.66
Ta	3.40	-0.026	-22.11
Tl	3.84	-0.070	-150.17
Th	1.01	-0.065	-75.35
Sn	1.15	0.019	87.59
Ti	3.27	-0.006	-41.65
W	1.23	-0.015	-79.80
U	4.74	-1.038	-54.91
V	3.84	-0.002	-77.33
Zn	2.19	-0.000	-309.72
Zr	4.41	-0.007	-110.88

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 78C11G
Sample code 1 : SST1
Sample code 2 : DIRECT
Programme : SST 11-Apr-90 11:39:14

NAME	NV INT	CONCEN	RSD
Al	1.96	0.245	24.83
Sb	1.00	10.869	0.95
As	1.15	0.138	14.29
Ba	137.09	9.683	0.88
Be	0.71	0.001	10.63
Bi	3.83	0.257	14.02
B	133.07	9.671	0.75
Cd	148.25	10.195	1.12
Ca	199.37	9.858	0.82
Ce	9.43	10.281	1.53
Cr	31.61	9.598	0.97
Co	3.14	11.805	1.97
Cu	49.14	9.933	0.84
Eu	4.55	0.023	23.53
Fe	59.58	10.066	1.23
La	0.37	0.101	20.68
Pb	0.27	0.095	50.09
Li	88.78	9.876	1.14
Mg	202.74	10.048	0.93
Mn	131.49	10.080	0.92
Hg	4.03	0.040	19.08
Mo	1.81	0.041	104.37
Nd	10.76	10.910	0.77
Ni	76.55	10.141	1.06
P	1.33	0.078	13.47
K	8.28	25.525	1.92
Sm	4.87	0.152	38.01
Se	3.40	4.090	2.21
Si	3.25	0.117	10.39
Ag	14.49	0.027	19.74
Na	31.67	24.604	1.23
Sr	241.20	9.867	0.93
S	0.92	0.295	2.57
Ta	3.55	0.046	39.93
Tl	4.11	0.737	9.35
Th	1.07	0.435	21.30
Sn	108.92	52.702	1.24
Ti	3.42	0.011	113.74
W	1.51	0.219	12.31
U	5.20	5.751	7.14
V	3.97	0.015	38.14
Zn	289.09	10.053	0.96
Zr	4.53	0.036	38.96

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 82B38D
Sample code 1 : SST2
Programme : SST 11-Apr-90 11:42:59

NAME	MV INT	CONCEN	RSD
Al	3.47	4.319	0.87
Sb	0.39	0.517	1.90
As	2.78	1.641	0.69
Ba	3.91	0.016	25.27
Be	0.70	0.001	80.49
Bi	55.46	56.342	1.10
B	6.71	0.201	53.41
Cd	2.26	0.007	44.24
Ca	0.81	0.017	2.20
Ce	5.27	0.674	29.18
Cr	1.53	0.067	8.83
Co	0.28	0.067	18.70
Cu	3.87	0.234	3.62
Eu	226.04	10.469	1.46
Fe	1.85	0.060	7.22
La	12.46	150.488	1.52
Pb	2.67	57.152	0.67
Li	4.15	0.038	51.12
Mg	0.58	0.008	2.82
Mn	0.85	0.006	19.88
Hg	5.85	0.181	44.24
Mo	1.69	0.018	44.44
Nd	5.68	0.796	26.45
Ni	3.37	0.030	33.86
P	1.50	0.239	6.29
K	3.16	-0.216	-116.31
Sm	9.21	10.885	0.64
Se	1.77	0.322	13.19
Si	3.96	0.577	5.78
Ag	243.31	10.769	1.39
Na	5.15	0.017	500.74
Sr	3.69	0.008	24.83
S	0.82	0.158	14.80
Ta	3.88	0.207	19.70
Tl	6.05	6.466	1.60
Th	7.79	55.240	1.25
Sn	1.32	0.100	18.08
Ti	3.78	0.052	10.51
W	1.29	0.034	79.79
U	8.70	58.225	0.93
V	5.86	0.238	3.61
Zn	2.48	0.010	14.22
Zr	4.80	0.131	13.01

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 77C116
Sample code 1 : SST3
Programme : SST 11-Apr-90 11:46:36

NAME	MV INT	CONCEN	RSD
Al	20.82	51.165	0.89
Sb	0.47	1.835	8.83
As	63.94	57.993	0.80
Ba	3.74	0.004	20.30
Be	173.99	8.131	35.65
Bi	4.38	0.858	6.87
B	5.73	0.128	5.60
Cd	2.31	0.011	8.67
Ca	1.34	0.043	1.16
Ce	4.77	-0.480	-6.97
Cr	1.33	0.002	50.17
Co	0.30	0.146	18.67
Cu	2.90	0.027	4.80
Eu	3.70	-0.007	-10.13
Fe	1.86	0.062	1.39
La	0.34	-0.018	-46.15
Pb	0.27	0.087	31.49
Li	3.77	-0.006	-62.06
Mg	0.70	0.914	1.13
Mn	0.95	0.011	10.45
Hg	332.74	25.473	0.60
Mo	262.73	50.140	0.62
Nd	4.99	(-0.595	-9.24
Ni	6.55	0.470	1.27
P	55.25	50.190	1.20
K	3.05	-0.767	-3.03
Sm	4.62	-0.432	-10.94
Se	24.08	51.952	0.74
Si	67.04	41.862	1.20
Ag	20.56	0.312	3.02
Na	5.11	-0.024	-64.78
Sr	3.47	-0.001	-26.30
S	36.63	48.838	0.40
Ta	102.33	48.174	0.31
Tl	16.27	36.628	86.12
Th	1.10	0.674	4.25
Sn	1.56	0.215	4.88
Ti	438.35	48.982	1.22
W	26.49	21.256	1.34
U	5.88	15.943	3.56
V	81.29	9.998	0.79
Zn	3.22	0.036	2.49
Zr	147.72	49.880	1.03

ICP Analysis; April 11, 1990 Acid Blank

Sample name : HNO3
Sample code 1 : DIRECT
Programme : SSY 11-Apr-90 14:29:39

NAME	MV INT	CONCEN	RSD
Al	1.85	-0.052	-22.55
Sb	0.36	-0.017	-300.01
As	1.00	-0.002	-274.96
Ba	3.68	-0.001	-205.53
Be	0.67	-0.001	-34.64
Bi	3.58	-0.009	-440.93
B	4.36	0.025	10.57
Cd	2.13	-0.002	-19.05
Ca	0.45	-0.001	-3.21
Ce	4.99	0.018	268.07
Cr	1.23	(-0.030	-9.35
Co	0.27	0.015	15.73
Cu	2.75	-0.004	-54.37
Eu	3.86	0.000	681.47
Fe	1.52	0.003	91.68
La	0.35	0.006	156.13
Pb	0.26	-0.087	-15.75
Li	3.75	-0.008	-22.27
Mg	0.41	-0.000	-23.09
Mn	0.73	(-0.006	-8.67
Hg	4.21	0.054	23.06
Mo	1.57	-0.005	-18.11
Nd	5.18	-0.204	-16.95
Ni	3.17	0.004	60.08
P	1.18	(-0.060	-10.97
K	3.17	-0.144	-41.62
Sm	4.82	0.036	114.56
Se	1.61	-0.042	-65.98
Si	3.09	0.008	117.00
Ag	13.96	0.002	139.20
Na	5.11	-0.020	-123.35
Sr	3.51	0.000	211.60
S	0.69	-0.015	-71.00
Ta	3.44	-0.006	-80.06
Tl	3.92	0.170	50.18
Th	1.02	0.071	46.63
Sn	1.15	0.017	8.65
Ti	3.32	-0.001	-275.39
W	1.24	-0.009	-106.15
U	4.81	-0.115	-249.62
V	3.90	0.006	79.65
Zn	2.17	-0.001	-24.22
Zr	4.45	0.008	42.72

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 78C11G
Sample code 1 : SST1
Sample code 2 : DIRECT
Programme : SST 11-Apr-90 14:33:18

NAME	MV INT	CONCEN	RSD
Al	1.98	0.283	3.82
Sb	1.00	10.790	1.14
As	1.16	0.143	9.35
Ba	134.76	9.514	1.23
Be	0.71	0.001	19.47
Bi	3.84	0.266	12.71
B	128.87	9.356	1.37
Cd	146.67	10.084	1.06
Ca	192.72	9.529	1.36
Ce	9.52	10.484	1.20
Cr	31.51	9.566	0.86
Co	2.89	10.769	1.98
Cu	48.11	9.714	1.12
Eu	4.53	0.032	1.26
Fe	58.60	9.896	1.46
La	0.37	0.106	2.20
Pb	0.37	0.103	35.25
Li	85.25	9.466	1.35
Mg	198.61	9.843	1.29
Mn	129.67	9.940	1.01
Hg	3.86	0.026	13.31
Mo	1.72	0.024	4.07
Nd	11.44	12.259	0.51
Ni	75.36	9.976	1.26
P	1.28	0.033	34.33
K	8.17	24.939	0.88
Sm	4.94	0.348	15.77
Se	3.40	4.091	0.37
Si	3.29	0.139	3.94
Ag	14.45	0.025	14.05
Na	31.08	24.053	1.23
Sr	238.18	9.742	1.35
S	0.90	0.277	4.18
Ta	3.62	0.082	8.02
Tl	4.14	0.822	12.01
Th	1.08	0.560	3.03
Sn	108.58	52.537	1.13
Ti	3.42	0.010	11.84
W	1.51	0.222	2.65
U	5.26	6.714	4.04
V	4.02	0.021	24.59
Zn	285.07	9.913	0.98
Zr	4.58	0.055	9.87

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 82B38D
Sample code 1 : SST2
Sample code 2 : DIRECT
Programme : SST 11-Apr-90 14:37:06

NAME	MV INT	CONCEN	RSD
Al	3.40	4.122	2.40
Sb	0.39	0.443	3.85
As	2.69	1.552	1.95
Ba	3.79	0.007	43.51
Be	0.68	-0.000	-75.50
Bi	55.07	55.923	1.99
B	5.01	0.074	29.91
Cd	2.19	0.003	47.97
Ca	0.79	0.016	2.62
Ce	5.11	0.301	40.67
Cr	1.49	0.094	9.79
Co	0.27	0.008	132.29
Cu	3.79	0.218	2.65
Eu	227.41	10.533	0.80
Fe	1.81	0.054	2.76
La	12.45	150.449	1.05
Pb	2.65	56.534	1.38
Li	3.94	0.014	83.62
Mg	0.56	0.007	3.42
Mn	0.86	0.004	3.75
Hg	4.33	0.063	31.44
Mo	1.64	0.009	37.55
Nd	5.54	0.500	21.99
Ni	3.27	0.017	33.57
P	1.40	0.144	14.00
K	3.06	-0.683	-21.53
Sm	9.08	10.561	1.89
Se	1.73	0.231	6.68
Si	3.86	0.517	2.47
Ag	241.55	10.686	1.02
Na	4.99	-0.137	-32.87
Sr	3.59	0.004	35.95
S	0.78	0.108	12.94
Ta	3.77	0.155	7.08
Tl	5.93	6.093	1.13
Th	7.78	55.153	1.03
Sn	1.31	0.094	1.82
Ti	3.67	0.039	10.75
W	1.25	0.006	260.29
U	8.57	56.245	2.44
V	5.82	0.254	5.92
Zn	2.40	0.007	7.37
Zr	4.71	0.098	13.47

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 77C11G
Sample code 1 : SSI3
Sample code 2 : DIRECT
Programme : SST 11-Apr-90 14:40:54

NAME	MV INT	CONCEN	RSD
Al	20.72	50.889	1.60
Sb	0.47	1.727	4.45
As	63.61	57.685	1.63
Ba	3.69	-0.000	-1589.1
Be	308.89	9.769	0.76
Bi	4.32	0.789	9.09
B	5.51	0.111	4.86
Cd	2.28	0.009	11.21
Ca	1.33	0.042	1.77
Ce	4.70	(-0.649	-7.17
Cr	1.31	-0.004	-96.05
Co	0.29	0.078	5.26
Cu	2.86	0.019	6.12
Eu	3.65	(-0.009	-6.49
Fe	1.85	0.061	9.64
La	0.34	-0.029	-21.82
Pb	0.27	0.008	346.42
Li	3.69	-0.016	-18.49
Mg	0.69	0.014	1.85
Mn	0.93	0.009	8.94
Hg	325.93	24.946	1.74
Mo	257.65	49.164	1.84
Nd	4.99	(-0.584	-20.68
Ni	6.48	0.460	0.52
P	44.99	40.650	0.84
K	3.00	(-0.982	-5.99
Sm	4.56	(-0.603	-7.74
Se	23.42	50.431	1.96
Si	66.79	41.695	1.95
Ag	20.31	0.300	4.37
Na	5.02	-0.109	-14.98
Sr	3.42	-0.003	-15.55
S	34.08	45.380	0.92
Ta	101.60	47.818	1.90
Tl	22.52	55.695	1.13
Th	1.09	0.628	1.50
Sn	1.57	0.221	5.96
Ti	438.86	49.039	1.60
W	20.53	21.287	1.70
U	5.82	15.064	0.76
V	80.88	9.945	1.25
Zn	3.17	0.034	3.63
Zr	149.44	50.476	1.50

ICP Analysis; April 11, 1990 Core 12 Composite Sample

Sample name : F1061
Sample code 1 : SAMPLE
Sample code 2 : 100-10
Sample code 3 : 000012
Programme : SST 11-Apr-90 14:45:47

NAME	MV INT	CONCEN	DILCOR	RSD
Al	4.09	5.998	605.64	0.43
Sb	0.36	-0.091	-9.182	-10.82
As	1.00	0.002	0.155	950.11
Ba	3.68	-0.001	-0.054	-266.65
Be	0.69	-0.000	-0.019	-100.00
Bi	5.61	2.197	221.95	0.41
B	4.25	0.017	1.696	3.80
Cd	2.12	-0.002	-0.188	-67.54
Ca	1.66	0.059	5.965	0.27
Ce	4.94	-0.100	-10.12	-69.01
Cr	1.50	0.056	5.643	8.86
Co	0.26	-0.014	-1.383	-34.64
Cu	2.75	-0.005	-0.512	-46.73
Eu	3.81	-0.002	-0.216	-49.73
Fe	11.04	1.654	167.04	0.48
La	0.34	-0.006	-0.561	-198.43
Pb	0.26	-0.158	-15.99	-8.66
Li	3.76	-0.007	-0.712	-16.18
Mg	1.42	0.050	5.055	0.50
Mn	5.75	0.381	38.511	0.15
Hg	3.98	0.036	3.602	8.79
Mo	1.57	-0.004	-0.407	-65.47
Nd	5.11	-0.345	-34.82	-21.34
Ni	3.22	0.009	0.944	39.55
P	2.46	1.130	114.15	5.03
K	3.13	-0.356	-36.00	-14.11
Sm	4.75	-0.125	-12.64	-46.54
Se	1.63	-0.001	-0.078	-3004.5
Si	3.78	0.462	46.619	7.79
Ag	13.79	-0.006	-0.620	-57.27
Na	14.82	8.976	906.57	0.54
Sr	4.58	0.045	4.525	1.53
S	0.73	0.043	4.393	51.44
Ta	3.41	-0.023	-2.346	-77.63
Tl	3.90	0.097	9.844	119.93
Th	1.01	-0.038	-3.843	-119.31
Sn	1.16	0.019	1.876	15.86
Ti	3.30	-0.003	-0.330	-58.76
W	1.25	0.002	0.227	380.59
U	4.78	-0.424	-42.82	-52.87
V	3.88	0.003	0.352	139.19
Zn	2.49	0.010	1.017	0.88
Zr	4.42	-0.002	-0.234	-289.66

Dilution factor : 101.000

ICP Analysis; April 11, 1990 Core 12 Composite Sample

Sample name : F1061
Sample code 1 : SAMPLE
Sample code 2 : 500-10
Sample code 3 : 000012
Programme : SST 11-Apr-90 14:50:35

NAME	MV INT	CONCEN	DILCOR	RSD
Al	12.88	29.710	623.90	0.70
Sb	0.38	0.188	3.938	18.18
As	1.06	0.057	1.193	31.29
Ba	4.01	0.023	0.488	4.91
Be	0.70	0.001	0.016	12.50
Bi	13.53	10.801	226.81	0.62
B	5.20	0.088	1.838	13.95
Cd	2.23	0.005	0.113	51.50
Ca	4.41	0.195	4.101	0.93
Ce	5.15	0.398	8.349	17.16
Cr	2.57	0.397	8.342	1.36
Co	0.37	0.016	0.345	75.00
Cu	2.92	0.032	0.681	4.78
Eu	3.96	0.005	0.110	17.14
Fe	46.63	7.821	164.24	1.06
La	0.36	0.040	0.846	27.37
Pb	0.28	0.214	4.488	11.11
Li	3.87	0.006	0.121	25.15
Mg	4.84	0.230	4.610	0.88
Mn	24.41	1.820	38.239	0.89
Hg	5.76	0.173	3.640	19.76
Mo	1.67	0.015	0.305	10.09
Nd	5.31	0.056	1.186	174.77
Ni	3.60	0.062	1.309	2.91
P	7.87	6.154	129.22	1.90
K	3.23	0.161	3.374	44.45
Sm	4.94	0.331	6.951	18.68
Se	1.80	0.387	8.132	15.84
Si	5.55	1.622	34.063	16.52
Ag	14.41	0.023	0.483	11.98
Na	51.38	42.881	900.50	0.62
Sr	8.77	0.219	4.592	0.66
S	0.93	0.310	6.509	5.34
Ta	3.56	0.051	1.068	19.03
Tl	4.13	0.799	16.788	3.01
Th	1.05	0.275	5.765	16.36
Sn	1.22	0.051	1.071	19.79
Ti	3.50	0.019	0.407	4.94
W	1.33	0.069	1.456	15.85
U	5.13	4.784	100.45	6.18
V	4.09	0.031	0.641	13.09
Zn	3.85	0.058	1.217	1.59
Zr	4.61	0.063	1.318	8.06

Dilution factor : 21.0000

Sample name : F1062
Sample code 1 : DUPSAM
Sample code 2 : 100-10
Sample code 3 : 000012

ICP Analysis; April 11, 1990 Core 12 Composite Sample Duplicate

Sample name : F1062
Sample code 1 : DUPSAM
Sample code 2 : 100-10
Sample code 3 : 000012
Programme : SST 11-Apr-90 14:54:52

NAME	MV INT	CONCEN	DILCOR	RSD
Al	3.91	5.496	555.12	0.98
Sb	0.37	0.108	10.903	36.46
As	1.03	0.028	2.823	57.20
Ba	3.78	0.007	0.692	64.90
Be	0.69	-0.000	-0.009	-599.99
Bi	5.85	2.456	248.09	2.98
B	4.45	0.032	3.184	23.76
Cd	2.17	0.002	0.167	157.27
Ca	1.75	0.063	6.378	1.22
Ce	5.07	0.208	21.012	100.30
Cr	1.53	0.068	6.838	7.29
Co	0.27	0.023	2.350	26.96
Cu	2.82	0.010	0.967	97.41
Er	3.92	0.003	0.301	105.79
Fe	10.71	1.596	161.18	0.84
La	0.35	0.026	2.666	40.24
Pb	0.27	0.063	6.396	57.28
Li	3.81	-0.001	-0.117	-658.37
Mg	1.41	0.049	4.976	0.48
Mn	6.16	0.413	41.694	0.88
Hg	4.29	0.060	6.025	22.53
Mo	1.61	0.003	0.265	134.19
Nd	5.26	-0.047	-4.763	-334.04
Ni	3.32	0.024	2.447	37.93
P	1.71	0.431	43.544	4.81
K	3.20	0.010	1.014	1940.13
Sm	4.88	0.191	19.294	105.44
Se	1.67	0.100	10.050	36.25
Si	3.70	0.407	41.067	7.17
Ag	14.16	0.011	1.149	102.57
Na	13.24	7.513	758.83	0.05
Sr	4.74	0.051	5.200	2.77
S	0.75	0.064	6.499	21.16
Ta	3.51	0.028	2.871	111.45
Tl	3.96	0.290	29.334	91.23
Th	1.03	0.171	17.295	81.14
Sn	1.18	0.032	3.193	45.77
Ti	3.59	0.007	0.728	68.84
W	1.28	0.026	2.665	57.21
U	4.92	1.611	162.72	80.50
V	3.93	0.010	0.965	100.00
Zn	2.76	0.020	1.971	4.55
Zr	4.53	0.035	3.539	57.73

Dilution factor : 101.000

ICP Analysis; April 11, 1990 Core 12 Composite Sample Duplicate

Sample name : F1062
Sample code 1 : DUPSAM
Sample code 2 : 500-10
Sample code 3 : 000012
Programme : SST 11-Apr-90 14:59:06

NAME	MV INT	CONCEN	DILCOR	RSD
Al	11.97	27.257	572.40	0.88
Sb	0.36	-0.074	-1.551	-74.18
As	0.99	-0.010	-0.213	-68.84
Ba	3.90	0.016	0.334	7.95
Be	0.67	-0.001	-0.022	-25.85
Bi	14.32	11.549	242.53	1.20
B	4.32	0.014	0.291	28.65
Cd	2.08	-0.005	-0.106	-16.42
Ca	4.92	0.220	4.626	0.43
Ce	4.78	-0.473	-9.935	-8.58
Cr	2.65	0.420	8.826	0.59
Co	0.27	0.010	0.201	89.21
Cu	2.74	-0.007	-0.142	-57.91
Eu	3.66	-0.009	-0.188	-10.56
Fe	46.75	7.843	164.70	0.46
La	0.34	-0.015	-0.321	-41.66
Pb	0.27	0.087	1.829	78.73
Li	3.59	(-0.027	(-0.572	-8.82
Mg	7.55	0.354	7.441	0.60
Mn	27.06	2.048	43.011	0.85
Hg	3.77	0.020	0.415	9.04
Mo	1.56	-0.006	-0.128	-6.57
Nd	4.92	(-0.728	(-15.29	-5.07
Ni	3.40	0.034	0.721	9.05
P	3.29	1.898	39.851	3.41
K	3.03	(-0.832	(-17.47	-1.94
Sm	4.57	-0.574	-12.05	-10.21
Se	1.69	0.150	3.159	13.14
Si	5.56	1.623	34.091	1.95
Ag	13.32	-0.028	-0.592	-10.37
Na	44.80	36.779	772.35	0.49
Sr	9.29	0.240	5.046	0.66
S	0.91	0.288	6.052	3.40
Ta	3.31	-0.070	-1.463	-10.84
Tl	3.78	-0.244	-5.127	-21.20
Th	0.97	-0.326	-6.849	-15.28
Sn	1.16	0.020	0.424	45.80
Ti	3.29	-0.004	-0.081	-54.52
W	1.25	-0.001	-0.024	-909.26
U	4.80	-0.150	-3.143	-240.60
V	3.80	-0.008	-0.162	-61.18
Zn	3.86	0.058	1.223	3.09
Zr	4.43	0.002	0.032	461.12

Dilution factor : 21.0000

ICP Analysis; April 11, 1990 Acid Blank

Sample name : HNO3
Programme : SSI 11-Apr-90 15:03:03

NAME	MV INT	CONCEN	RSD
Al	1.75	(-0.325	-10.41
Sb	0.35	-0.233	-18.41
As	0.96	-0.038	-19.41
Ba	3.46	(-0.017	-14.60
Be	0.65	(-0.002	-10.94
Bi	3.36	(-0.246	-13.87
B	3.90	-0.007	-52.81
Cd	2.02	(-0.009	-13.36
Ca	0.44	(-0.001	-8.99
Ce	4.70	(-0.646	-15.97
Cr	1.16	(-0.050	-5.83
Co	0.27	-0.008	-86.60
Cu	2.61	(-0.034	-15.36
Eu	3.62	(-0.011	-13.99
Fe	1.45	-0.009	-33.20
La	0.34	-0.035	-20.78
Pb	0.26	-0.345	-11.17
Li	3.56	(-0.031	-9.40
Mg	0.40	-0.001	-8.52
Mn	0.69	(-0.009	-8.08
Hg	3.65	0.010	18.14
Mo	1.49	(-0.021	-9.71
Nd	4.89	(-0.792	-14.63
Ni	3.02	-0.018	-6.27
P	1.11	(-0.129	-28.01
K	3.00	(-0.981	-13.57
Sm	4.53	(-0.664	-17.01
Se	1.54	(-0.206	-19.59
Si	2.94	-0.091	-12.98
Ag	13.15	(-0.036	-17.18
Na	4.81	(-0.306	-17.76
Sr	3.34	-0.007	-16.41
S	0.65	(-0.068	-10.94
Ta	3.26	(-0.095	-10.53
Tl	3.69	-0.521	-38.31
Th	0.97	-0.391	-26.21
Sn	1.11	-0.005	-18.56
Ti	3.14	(-0.021	-12.57
W	1.18	(-0.054	-25.25
U	4.52	(-4.399	-13.80
V	3.67	-0.024	-24.00
Zn	2.07	(-0.005	-14.32
Zr	4.25	-0.060	-17.72

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 78C11G
Sample code 1 : SST1
Sample code 2 : DIRECT
Programme : SST 11-Apr-90 15:06:33

NAME	MV INT	CONCEN	RSD
Al	1.91	0.106	24.69
Sb	0.99	10.608	0.65
As	1.13	0.116	3.59
Ba	136.89	9.669	1.01
Be	0.70	0.000	14.29
Bi	3.71	0.133	30.44
B	130.96	9.513	0.84
Cd	147.12	10.115	0.72
Ca	196.13	9.698	0.97
Ce	9.34	10.065	1.19
Cr	32.00	9.722	0.57
Co	3.14	11.773	3.89
Cu	48.86	9.874	0.87
Eu	4.41	0.026	4.71
Fe	59.58	10.066	0.87
La	0.36	0.071	6.79
Pb	0.37	-0.055	-24.74
Li	86.52	9.613	0.94
Mg	199.37	9.881	1.04
Mn	131.64	10.091	0.70
Hg	3.76	0.019	10.22
Mo	1.66	0.012	3.97
Nd	11.58	12.542	0.98
Ni	75.80	10.037	0.91
P	1.23	-0.010	-174.00
K	8.14	24.793	1.05
Sm	4.77	-0.074	-103.62
Se	3.40	4.107	0.70
Si	3.20	0.081	14.41
Ag	13.97	0.002	132.65
Na	31.15	24.122	0.94
Sr	241.48	9.879	1.07
S	0.88	0.243	3.64
Ta	3.50	0.022	54.89
Tl	4.04	0.508	5.82
Th	1.05	0.296	17.19
Sn	108.24	52.371	0.93
Ti	3.30	-0.002	-85.07
W	1.46	0.178	5.22
U	5.09	4.180	8.83
V	3.91	0.007	19.82
Zn	286.99	9.980	0.76
Zr	4.46	0.012	59.93

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 82B38D
Sample code 1 : SSI2
Sample code 2 : DIRECT
Programme : SSI 11-Apr-90 15:12:12

NAME	MV INT	CONCEN	RSD
Al	3.47	4.324	1.03
Sb	0.40	0.580	7.78
As	2.77	1.627	1.71
Ba	3.98	0.032	6.16
Be	0.72	0.001	38.64
Bi	55.17	56.032	0.84
B	5.22	0.089	18.84
Cd	2.29	0.010	5.92
Ca	0.80	0.016	0.94
Ce	5.39	0.935	5.02
Cr	1.55	0.074	3.74
Co	0.29	0.071	6.66
Cu	3.91	0.243	1.82
Eu	221.41	10.250	0.70
Fe	1.90	0.069	4.14
La	12.19	>49.355	0.69
Pb	2.69	57.469	0.62
Li	4.04	0.025	18.69
Mg	0.58	0.008	1.66
Mn	0.89	0.006	15.55
Hg	4.66	0.088	30.42
Mo	1.71	0.022	2.47
Nd	5.73	0.893	16.92
Ni	3.46	0.043	6.46
P	1.49	0.325	9.96
K	3.21	0.038	143.47
Sm	9.21	10.895	0.55
Se	1.80	0.393	11.91
Si	4.04	0.632	6.34
Ag	240.31	10.627	0.70
Na	5.26	0.113	19.00
Sr	3.75	0.010	2.98
S	0.81	0.150	15.29
Ta	3.96	0.247	1.98
Tl	6.18	6.829	0.83
Th	7.68	54.354	0.69
Sn	1.34	0.107	1.85
Ti	3.84	0.058	4.11
W	1.31	0.053	23.51
U	8.71	58.325	0.65
V	5.95	0.270	1.01
Zn	2.50	0.011	10.23
Zr	4.88	0.157	4.23

ICP Analysis; April 11, 1990 LMCS Check Standard

Sample name : 77C11G
Sample code 1 : SST3
Sample code 2 : DIRECT
Programme : SST 11-Apr-90 15:16:17

NAME	MV INT	CONCEN	RSD
Al	20.88	51.322	0.21
Sb	0.48	1.938	4.16
As	65.28	59.237	0.52
Ba	3.82	0.010	10.54
Be	209.56	9.819	0.45
Bi	4.53	1.017	7.69
B	5.47	0.108	4.72
Cd	3.34	0.014	6.74
Ca	1.34	0.043	0.24
Ce	4.89	-0.210	-22.55
Cr	1.36	0.012	36.15
Co	0.30	0.131	5.41
Cu	2.96	0.040	7.16
Eu	3.31	-0.002	-26.51
Fe	1.91	0.070	3.35
La	0.35	0.008	57.74
Pb	0.28	0.174	7.87
Li	3.78	-0.005	-62.65
Mg	0.71	0.015	0.52
Mn	0.95	0.011	6.08
Hg	338.34	25.906	0.58
Mo	263.16	50.221	0.70
Nd	5.17	-0.234	-31.62
Ni	6.69	0.489	1.56
P	48.09	43.526	1.40
K	3.10	-0.520	-16.18
Sm	4.74	-0.149	-41.61
Se	24.15	52.124	0.86
Si	67.74	43.314	0.43
Ag	20.88	0.327	4.19
Na	5.22	0.075	33.04
Sr	3.53	0.001	37.83
S	35.38	47.145	1.60
Ta	104.65	49.305	0.83
Tl	22.81	55.966	0.48
Th	1.13	0.927	3.66
Sn	1.63	0.250	2.95
Ti	440.44	49.217	0.29
W	36.94	21.636	0.65
U	5.95	17.069	2.19
V	82.02	10.091	1.35
Zn	3.27	0.037	1.10
Zr	150.59	50.877	0.14

Analytical Batch

Lab Segment Serial #: F1043

Customer ID: 000012

Instrument	Perkin-Elmer AA
Procedure/Rev	LA-355-131/A-2
Technologist	J. Hopkins
Date	March 15, 1990
Temperature	N/A
Starting Time	1300
Ending Time	1400
Chemist	R. K. Fuller

Arsenic Analysis

Acid Digestion

	Description		Lab ID
1	Initial LMCS Check Std		F0933
2	Reagent Blank	Comp 06	F0934
3	Sample	Comp 06	F0935
4	Duplicate Sample	Comp 06	F0936
5	Spike Sample	Comp 06	F0937
6	LMCS Check Std		F1011
7	Reagent Blank	Comp 14	F1012
8	Sample	Comp 14	F1013
9	Duplicate Sample	Comp 14	F1014
10	Sample	Comp 15	F1037
11	Duplicate Sample	Comp 15	F1038

	Description		Lab ID
12	LMCS Check Std		F1059
13	Sample	Comp 12	F1061
14	Duplicate Sample	Comp 12	F1062
15	Spike Sample	Comp 12	F1063
16	LMCS Check Std		F1083
17	Sample	Comp 13	F1085
18	Duplicate Sample	Comp 13	F1086
19	Spike Sample	Comp 13	F1087
20	Final LMCS Check Std		F1088
21			
22			

Standard Type	Primary Book # & Aliquot Vol.	Second Book # & Aliquot Vol.	Third Book # & Aliquot Vol.	Final Vol. of Std.
LMCS Check Std	58C11BR/35 uL			35 mL
Spike	58C11BR/35 uL	F1061/.500 mL		35 mL

SST-102 Rev. I 10/2/90 Interim

Single Shell Tank
Calibration Record

Analyte:	As		
Procedure:	LA-355-131	Revision:	A-2
Instrument:	Perkin-Elmer	Property Number:	WA77479
Technologist:	S. Riel	Payroll Number:	6C280
Date:	March 15, 1990		

Calibration Standard ID: 38C9-2

Analyte Concentration: 1.00 ppm

Type of Calibration: Linear Regression

Aliquot	Weight	Instrument Reading Units= mm
0	0 ng	2
25 ul	25 ng	52
50 ul	50 ng	104
75 ul	75 ng	143

Comments:

SST-103 Rev. B 9/27/90 Interim

Analytical Batch

Lab Segment Serial #: F1043

Customer ID: 000012

Instrument	WA77479
Procedure/Rev	LA-325-102/A-1
Technologist	J. Hopkins
Date	February 27, 1990
Temperature	N/A
Starting Time	1300
Ending Time	1400
Chemist	R. K. Fuller

Mercury Analysis
Acid Digestion

	Description		Lab ID
1	Initial LMCS Check Std		F1059
2	Reagent Blank		F1060
3	Sample	Comp 12	F1061
4	Duplicate Sample	Comp 12	F1062
5	Spike Sample	Comp 12	F1063
6	LMCS Check Std		F1064
7	LMCS Check Std		F1083
8	Sample	Comp 13	F1085
9	Duplicate Sample	Comp 13	F1086
10	Spike Sample	Comp 13	F1087
11	LMCS Check Std		F1088

	Description		Lab ID
12	LMCS Check Std		F1077
13	Sample	Comp 13	F1079
14	Duplicate Sample	Comp 13	F1080
15	LMCS Check Std		F1082
16	LMCS Check Std		F0933
17	Sample	Comp 06	F0935
18	Duplicate Sample	Comp 06	F0936
19	Spike Sample	Comp 06	F0937
20	Final LMCS Check Std		F0938
21			
22			

Standard Type	Primary Book # & Aliquot Vol.	Second Book # & Aliquot Vol.	Third Book # & Aliquot Vol.	Final Vol. of Std.
LMCS Check Std	58C11BP/25 uL			25 mL
Spike	58C11BP/20 uL	F0935/250 uL		25 mL

SST-102 Rev. I 10/2/90 Interim

Single Shell Tank
Calibration Record

Analyte:	Hg		
Procedure:	LA-325-102	Revision:	A-1
Instrument:	Perkin-Elmer AA	Property Number:	WA77479
Technologist:	J. Hopkins	Payroll Number:	6A543
Date:	February 27, 1990		

Calibration Standard ID: 102C3V

Analyte Concentration: 1.00 ppm

Type of Calibration: Linear Regression

Aliquot	Weight	Instrument Reading Units= mm
0	0 ng	8.00
10 uL	10 ng	53.00
20 uL	20 ng	95.00
40 uL	40 ng	181.00

Comments:

SST-103 Rev. B 9/27/90 Interim

Analytical Batch

Lab Segment Serial #: F1043

Customer ID: 000012

Instrument	WA77479
Procedure/Rev	LA-365-131/A-3
Technologist	S. Riel
Date	March 29, 1990
Temperature	N/A
Starting Time	0945
Ending Time	1005
Chemist	R. K. Fuller

Selenium Analysis
Acid Digestion

	Description		Lab ID
1	Initial LMCS Check Std		F1059
2	Reagent Blank		F1060
3	Sample	Comp 12	F1061
4	Duplicate Sample	Comp 12	F1062
5	Spike Sample	Comp 12	F1063
6	Final LMCS Check Std		F1064
7			
8			
9			
10			
11			

	Description	Lab ID
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

Standard Type	Primary Book # & Aliquot Vol.	Second Book # & Aliquot Vol.	Third Book # & Aliquot Vol.	Final Vol. of Std.
LMCS Check Std	58C11BS/.035 mL			35 mL
Spike	58C11BS/.035 mL	F1061/.100 mL		35 mL

SST-102 Rev. I 10/2/90 Interim

Single Shell Tank
Calibration Record

ANALYTE:	Se		
PROCEDURE:	LA-365-131	REVISION:	A-3
INSTRUMENT:	Perkin-Elmer AA	PROPERTY NUMBER:	WA77479
TECHNOLOGIST:	Steve Riel	PAYROLL NUMBER:	6C280
DATE:	March 29, 1990		

CALIBRATION STANDARD ID: 36C9BZ

ANALYTE CONCENTRATION: 1.00ppm

TYPE OF CALIBRATION: Linear Regression

Aliquot	Weight	Instrument Reading Units= mm
0	0	3
25 ul	25 ng	26
50 ul	50 ng	47
75 ul	75 ng	75

COMMENTS: 000012 - Customer ID

SST-103 Rev. A 9/25/90 Interim

APPENDIX A
ANALYTICAL ANALYSIS CARDS

UNDIGESTED SAMPLE ANALYSIS

APPENDIX A

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-5000	SEG.COMP#3	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
APPR/OTR	LI-000-200	NONE		0

Sample Size: ?

Customer ID: 000012

LOAC N 313 4 pg 27

core composite

Remarks, Calculations, Results:

A. JAR ID# 396
B. JAR TARE WT. 228.50
C. JAR TOTAL WT. 351.43
D. C-B= 122.93
E. EST. VOL./LENGTH
F. VISUAL REMARKS

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
61300 68090				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2/14/90		

84-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-1831	SEG.COMP#3	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
DSC	LA-514-112	EXOTHERMS	E21D1	0

Sample Size: ?

Customer ID: ~~000014~~ 000012

Remarks, Calculations, Results: See attached (1)

Bottle 357
6.8 g/Mg
dark brown; sealed as-is

event	begin	peak	end	cal/gm (+ = endo)
H_2O/NPH loss	<50°	117°	165	>+132.13
decomp/ht. loss	350°	>500°	>500°	+ —

sample did not fuse

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
188 54168				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3/13/90		RMS

84-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-5002	SEG.COMP#3	2-15-90	13:44	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PRT-SIZE	LI-000-200	NONE		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

PARTICLE SIZE DISTRIBUTION

analysis unnecessary

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr

84-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-5001	SEG.COMP#3	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
~~DSC~~ ~~PSA~~ SAMP	LI-000-200	NONE		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

10.40g
Vial # 338

sent to PNL

LOAC N 313 4 pg 27

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
61300 68090				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2/14/90		

84-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-5003	SEG.COMP#3	2-15-90	13:44	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
HOMOGZT	LI-000-200	NONE		0

Sample Size	Customer ID
?	000012

Remarks, Calculations, Results:

Homogenization Complete

Jar# 396
core composite.

WHC N 3134 pg 27

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
61300 68090				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2/14/90			

84-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-5080	SEG.COMP#3	2-15-90	13:44	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TGA	LI-000-200	NONE		0

Sample Size	Customer ID
?	000012

Remarks, Calculations, Results: see attached (1)

Bottle 357
6.50 mg
damp, dark brown
granular, used
as-is.

event	begin	peak	end	% of sample
H_2O/VPH loss	<40°	90°	149°	29.1
decomp/endothermic	149°	>500°	500°	—
total loss to 500°	<40°	—	500°	35.6

sample did not fuse

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
BB 5468				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3/13/90		DMS

94-6800-061 (R-10-83)

pH Analysis of Solid Sample

Serial No.	Sample Point	Date	Time Issued	Priority
F 1042.-5315	SEG.COMP#2	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
pH	LA-212-103	NONE		0

Sample Size: ? 1 ml

Customer ID: 000012

Remarks, Calculations, Results:
REAGENT BLANK
H_2O 23.5°C
4.81

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R Bennett
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date: 2-28-90 | Time Completed: | Lab Unit Mgr:

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1041.-5515	SEG.COMP#1	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
pH	LA-212-103	% RECOVERY		0

Sample Size: ? 1 ml

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
pH FOUND 10.08
STD ID 7Ball-B
SAMPLE TEMP 23.3
10.08 / 10.00 100.8%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R Bennett
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date: 2-28-90 | Time Completed: | Lab Unit Mgr:

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1044.-5115	SEG.COMP#4	2-15-90	13:45	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
pH	LA-212-103	NONE		0

Sample Size: ? 1.620 g / 1.620 ml

Customer ID: 000012

Remarks, Calculations, Results:
pH 12.53
SAMPLE TEMP 23.6

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R Bennett
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date: 2-28-90 | Time Completed: | Lab Unit Mgr:

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-5015	SEG.COMP#3	2-15-90	13:44	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
pH	LA-212-103	NONE		0

Sample Size: ? 2.141 g / 2.141 ml

Customer ID: 000012

Remarks, Calculations, Results:
pH 12.94
SAMPLE TEMP 23.5

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R Bennett
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date: 2-28-90 | Time Completed: | Lab Unit Mgr:

54-8800-081 (R-10-83)

pH Analysis of Solid Sample

Serial No.	Sample Point	Date	Time Issued	Priority
F 1046.-5515	SEG.COMP#6	2-15-90	13:46	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
pH	LA-212-103	% RECOVERY		0

Sample Size	Customer ID
? 1 ml	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
pH FOUND ~~10.04~~
STD ID ~~7C01-B~~
SAMPLE TEMP ~~23.4~~

10.04 / 10.00 100.4%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
LC269				RE Bennett
Hrs	Hrs	Hrs	Hrs	Hrs
Date 2-28-90	Time Completed	Lab Unit Mgr		

S4-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1042.-5310	SEG.COMP#2	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
% H20	LA-564-101	%		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK .0088 .0095

21.2326 G. 21.7643

21.2326 T. 21.7643 .00915 g

21.2238 W1 21.7548

21.2253 W2 21.7572

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				RE Bennett
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-21-90		

S4-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1041.-5510	SEG.COMP#1	2-15-90	13:42	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
% H20	LA-564-101	% RECOVERY		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results

LMCS CHECK SAMPLE 67.56

LMCS ID UC/AH

23.0966 G 22.9503

21.7131 T. 21.5749 56.85% / 58%

56.14% 22.3199 W1 22.1586

22.3070 W2 22.1430 96.4%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				RE Bennett
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-21-90		

S4-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1044.-5110	SEG.COMP#4	2-15-90	13:44	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
% H20	LA-564-101	%		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

G. 22.0171

T. 21.3361 38.68%

W1 21.7537

W2 21.7539

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				RE Bennett
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-21-90		

S4-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-5010	SEG.COMP#3	2-15-90	13:44	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
% H20	LA-564-101	%		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

G. 22.4026

T. 21.5030 40.31%

W1 22.0400

W2 22.0402

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				RE Bennett
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-21-90		

S4-6800-081 (R-10-83)

Percent Water Analysis

Serial No.	Sample Point	Date	Time Issued	Priority
F 1046.-5510	SEG.COMP#8	2-15-90	13:46	26

Determination	Method/Standard	Result Units	Charge Code	Remarks
% H20	LA-564-101	% RECOVERY		0

Sample Size	Customer ID
?	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID ~~NC1144~~

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
22.8350	23.4478	22.0493	22.6552	22.6501
21.4351	22.0406	22.0957		
Hrs	Hrs	Hrs	Hrs	Hrs

Date 2-21-90 | Time Completed | Lab Unit Mgr.

84-8400-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1042.-5397	SEG.COMP#2	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	PPM	E21D1	0

Sample Size: ? 1ml

Customer ID: #12

Remarks, Calculations, Results:

REAGENT BLANK

peak Hgt = 2mm

10/100ml = <1.0E-2 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Helene Myers				RK Fuller 7-27-90
Hrs: 6C823	Hrs	Hrs	Hrs	Hrs

Date: 7-18-90 | Time Completed | Lab Unit Mgr

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1041.-5597	SEG.COMP#1	2-15-90	13:42	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	% RECOVERY	E21D1	0

Sample Size: ? .025ml

Customer ID: #12

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID SEC11-CE

peak Hgt = 62.8 mm

29.63/25ml = 1.19/1.25 = 95.2%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Helene Myers				RK Fuller 7-27-90
Hrs: 6C823	Hrs	Hrs	Hrs	Hrs

Date: 7-18-90 | Time Completed | Lab Unit Mgr

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1046.-5597	SEG.COMP#6	2-15-90	13:46	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	% RECOVERY	E21D1	0

Sample Size: ? .025ml

Customer ID: #12

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID SEC11-CE

peak Hgt = 63mm

29.74/25ml = 1.19/1.25 = 95.2%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Helene Myers				RK Fuller 7-27-90
Hrs: 6C823	Hrs	Hrs	Hrs	Hrs

Date: 7-18-90 | Time Completed | Lab Unit Mgr

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-5097	SEG.COMP#3	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	PPM	E21D1	0

Sample Size: ? .0313g in 25ml used 20ml : (.0250g) DF = 1.25

Customer ID: #12

Remarks, Calculations, Results: used F1055 (comp #2)

peak Hgt = 54.8mm

(25.42/31.3)(1.25) = 1.02 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Helene Myers				RK Fuller 7-27-90
Hrs: 6C823	Hrs	Hrs	Hrs	Hrs

Date: 7-18-90 | Time Completed | Lab Unit Mgr

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1044.-5197	SEG.COMP#4	2-15-90	13:44	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	PPM	E21D1	0

Sample Size: DF = 1.25
? .0322g in 25ml used 20ml = (.02578g)

Customer ID: #12

Remarks, Calculations, Results: used F1055 (comp-2)

DUPLICATE SAMPLE

peak Hgt = 48 mm

(21.84/32.2)(1.25) = 8.5E-1 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Lelane Myers				RK Fuller 7-27-90
Hrs: 60823	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
7-18-90		Neal N. Pool / Dyane Smith

54-8600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1045.-5297	SEG.COMP#5	2-15-90	13:45	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	% RECOVERY	E21D1	0

Sample Size: ? .6304g ~~used~~ in 25ml used ~~20ml~~ 2ml + ~~.025ml~~ .025ml LMCS ~~DF = 1.25~~ 12.5 DF

Customer ID: #12

Remarks, Calculations, Results: (used F 1055 comp-2)

SPIKE SAMPLE
SPIKE ID ~~58CU-CE~~
SPIKE VOLUME ~~.020ml~~ .025ml
~~peak Hgt = 62 (0.20ml)~~
peak Hgt 2ND RUN used 2ml (.0024g) .025ml LMCS = 58.7mm (0.W)

73.5%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Lelane Myers				RK Fuller 7-27-90
Hrs: 60823	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
7-18-90		Dyane Smith

54-8600-081 (R-10-83)

F01045.-5297

$$\frac{27.47 - \left[(25.42)\left(\frac{(.0309)}{.0343}\right)\left(\frac{1.25}{12.5}\right)\right]}{25\ ml} =$$

$$\cancel{9.2E-1\ ppm}\ \cancel{mg} / \cancel{1.25}\ \cancel{mg} = \cancel{73.5\%}\ \cancel{mg}$$

$$\frac{25.001}{25} = 1.00\ ppm / 1.25 = 80.0\%$$

Serial No.	Sample Point	Date	Time Issued	Priority
F 1042.-5378	SEG.COMP#2	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CN	LA-695-101	G/L		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

ABS = .016

<.5mg CN⁻

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 6-22-90 | Time Completed | Lab Unit Mgr

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1041.-5578	SEG.COMP#1	2-15-90	13:43	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CN	LA-695-101	% RECOVERY		0

Sample Size: ? 100x10x 500ul

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 95CHF

ABS = .372

94.4%

$$\frac{[(.372-.016)-.001327]100}{(.081989)500} = .8652/.917$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 6-22-90 | Time Completed | Lab Unit Mgr

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1044.-5178	SEG.COMP#4	2-15-90	13:45	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CN	LA-695-101	G/L		0

Sample Size: ? .0748g

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

ABS = .029

$$\frac{[(.029-.016)-.001327]}{0.081989} = .1424 = <.5mg CN$$

$$\frac{.5}{.0748} = <6.68 mg CN/gm$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 6-22-90 | Time Completed | Lab Unit Mgr

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1043.-5078	SEG.COMP#3	2-15-90	13:44	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CN	LA-695-101	G/L		0

Sample Size: ? .0625g

Customer ID: 000012

Remarks, Calculations, Results:

ABS = .033

$$\frac{(.033-.016)-.001327}{(0.081989)} = .1912 = <.5mg CN$$

$$\frac{.5mg}{.0625g} = <8 mg CN/gm$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 6-22-90 | Time Completed | Lab Unit Mgr

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1046.-5578	SEG.COMP#6	2-15-90	13:46	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CN	LA-695-101	% RECOVERY		0

Sample Size	Customer ID
? 100ul-10ml-500ul	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 75C11.F

ABS = .369

$$\frac{[(.369 - .016) - .001327]\,100}{(0.081989)\,600} = 8.578E^{-1} \quad 93.58\% \quad .917$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs		Hrs
Date 6-22-90	Time Completed	Lab Unit Mgr		

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1045.-5276	SEG.COMP#5	2-15-90	13:45	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CN	LA-695-101	% RECOVERY		0

Sample Size	Customer ID
? .09169 + 75C11-F 100 ~~ml~~ 500ul	000012

Remarks, Calculations, Results:

SPIKED SAMPLE

ABS = .392

$$\frac{(.392 - .016) - .001327}{0.081989} = \frac{4.5698 - .1912}{4.585} * 100 = 95.58$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs
Date 6-22-90	Time Completed	Lab Unit Mgr		

84-6800-081 (R-10-83)

KOH FUSION ANALYSIS

APPENDIX A

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6000	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
FUSION	LA-549-141	G/L		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

GRAMS SAMPLE .6352
VOLUME ON COMPLETION 250 mL

2.54^{-3} g/ml

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
68598/RA				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-22-90			EH

54-6800-061 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1072.-6300	SEG.COMP#6	2-16-90	8: 7	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
FUSION	LA-549-141	G/L	E21D1	0

Sample Size: 250 mL

Customer ID: 000013

Remarks, Calculations, Results:

REAGENT BLANK

complete

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
68598/RA				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-22-90			

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6100	SEG.COMP#10	2-15-90	13:50	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
FUSION	LA-549-141	G/L		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE ANALYSIS
GRAMS SAMPLE .5864
VOLUME ON COMPLETION 250 mL

2.346^{-3} g/ml

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
68598/RA				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-22-90			EH

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1048.-6325	SEG.COMP#8	2-15-90	13:47	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	uCI/L		0

Sample Size: ? ~~10ml~~ 50l

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

<2.81^{-2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-23-90			DMS

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1047.-6525	SEG.COMP#7	2-15-90	13:46	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	% RECOVERY		0

Sample Size: ? 10ml

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 102844

9.933^{-3} / 1.0012^{-2} 99.1%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-23-90			DMS

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6125	SEG.COMP#10	2-15-90	13:50	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	uCI/L		0

Sample Size: ? 100-10-100

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

<1.81 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-23-90			DMS

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6025	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	uCI/L		0

Sample Size: ? 100-10-100

Customer ID: 000012

Remarks, Calculations, Results:

<1.94 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-23-90			DMS

84-6800-081 (R-10-83)

14/2

$\frac{3}{10} - .8$

F1048

$\frac{3}{10}$

Alpha Calculation by DM on 02-24-1990 at 06:34:34
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : .05 mL Dilution : 1

Mount # 1

$\frac{3}{10} - 0.8 < 2.8125E-02$ uCi/L alpha

Mount # 2

$\frac{3}{10} - 0.8 < 2.8125E-02$ uCi/L alpha

F1048-6325

14/2

$\frac{474}{10} - .8$

F1047

$\frac{473}{10}$

Alpha Calculation by DM on 02-24-1990 at 06:31:39
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{474}{10} - 0.8 = 9.9436E-03$ uCi/L alpha

Mount # 2

$\frac{473}{10} - 0.8 = 9.9223E-03$ uCi/L alpha

F1047-6525

14/2

$\frac{11}{10} - .8$

F1050

$\frac{6}{10}$

Alpha Calculation by DM on 02-24-1990 at 06:33:32
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : .1 mL Dilution : 101

Mount # 1

$\frac{11}{10} - 0.8 < 2.1966E+00$ uCi/L alpha

Mount # 2

$\frac{6}{10} - 0.8 < 1.4203E+00$ uCi/L alpha

F1050-6125

14/2

$\frac{10}{10} - .8$

F1049

$\frac{10}{10}$

Alpha Calculation by DM on 02-24-1990 at 06:32:56
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : .1 mL Dilution : 101

Mount # 1

$\frac{10}{10} - 0.8 < 1.9397E+00$ uCi/L alpha

Mount # 2

$\frac{10}{10} - 0.8 < 1.9397E+00$ uCi/L alpha

F1049-6025

Total Alpha Analysis on the Fusion Dissolution

Serial No.	Sample Point	Date	Time Issued	Priority
F 1076.-6525	SEG.COMP#12	2-16-90	8: 9	26

Determination	Method/Standard	Result Units	Charge Code	Returns
A1	LA-508-101	% RECOVERY	E21D1	0

Sample Size: 2 100 ml

Customer ID: 000013

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 1262844

9.99^{-3} µrad/g / 1.0521^{-2}

98.68

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 B598/AH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-23-90		

84-8800-061 (R-10-83)

14/2

$\frac{476}{10}$ - .8

$\frac{467}{10}$

F1076

Alpha Calculation by MAJ on 02-24-1990 at 11:52:51
Set #14 2 -inch mount Alpha eff. : .2111
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{476}{10}$ - 0.8 = 9.9863E-03 uCi/L alpha

Mount # 2

$\frac{467}{10}$ - 0.8 = 9.7943E-03 uCi/L alpha

F1076-6525

3-4

Serial No.	Sample Point	Date	Time Issued	Priority
F 1048.-6320	SEG.COMP#8	2-15-90	13:47	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	uCI/L		0

Sample Size: ? ~~10 ml~~ 50 ml

Customer ID: 000012

Remarks, Calculations, Results: REAGENT BLANK ~~Counted on 13, 14 or 15~~

-1.93^{-1} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/PH				GL
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-23-90		[illegible]	DMS

54-6600-061 (R-10-83)

1-2

Serial No.	Sample Point	Date	Time Issued	Priority
F 1047.-6520	SEG.COMP#7	2-15-90	13:46	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	% RECOVERY		0

Sample Size: ? 10 ml

Customer ID: 000012

Remarks, Calculations, Results: LMCS CHECK SAMPLE ~~Counted on 13, 14 or 15~~ to
LMCS ID 102844

102.2%

$1.399^{-1} / 1.369^{2-1}$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/PH				GL
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-23-90		[illegible]	DMS

54-6600-061 (R-10-83)

7-8

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6120	SEG.COMP#10	2-15-90	13:50	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	uCI/L		0

Sample Size: ? 100-10-100

Customer ID: 000012

Remarks, Calculations, Results: DUPLICATE SAMPLE [redacted]

3.04^{3} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/PH				GL
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-23-90		[illegible]	

54-6600-061 (R-10-83)

5-6

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6020	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	uCI/L		0

Sample Size: ? 100-10-100

Customer ID: 000012

Remarks, Calculations, Results: [redacted]

3.49^{3} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/PH				GL
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-23-90		[illegible]	DMS

54-6600-061 (R-10-83)

14/2

$\frac{291}{10} - 23$

F1048

$\frac{286}{10}$

Beta Calculation by DM on 02-24-1990 at 06:34:32
Det #14 2 -inch mount Beta eff. : .2734
Sample size : .05 mL Dilution : 1

Mount # 1

$\frac{291}{10} - 23.0 = 2.0101E-01$ uCi/L beta

Mount # 2

$\frac{286}{10} - 23.0 = 1.8453E-01$ uCi/L beta

F1048-6320

14/2

$\frac{8712}{10} - 23$

F1047

$\frac{8734}{10}$

Beta Calculation by DM on 02-24-1990 at 06:31:37
Det #14 2 -inch mount Beta eff. : .2734
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{8712}{10} - 23.0 = 1.3975E-01$ uCi/L beta

Mount # 2

$\frac{8734}{10} - 23.0 = 1.4011E-01$ uCi/L beta

F1047-6520

14/2

$\frac{18651}{10} - 23$

F1050

$\frac{18324}{10}$

Beta Calculation by DM on 02-24-1990 at 06:33:30
Det #14 2 -inch mount Beta eff. : .2734
Sample size : .1 mL Dilution : 101

Mount # 1

$\frac{18651}{10} - 23.0 = 3.0654E+03$ uCi/L beta

Mount # 2

$\frac{18324}{10} - 23.0 = 3.0110E+03$ uCi/L beta

F1050-6120

14/2

$\frac{20463}{10} - 23$

F1049

$\frac{21989}{10}$

Beta Calculation by DM on 02-24-1990 at 06:32:55
Det #14 2 -inch mount Beta eff. : .2734
Sample size : .1 mL Dilution : 101

Mount # 1

$\frac{20463}{10} - 23.0 = 3.3669E+03$ uCi/L beta

Mount # 2

$\frac{21989}{10} - 23.0 = 3.6208E+03$ uCi/L beta

F1049-6020

5-6

Serial No.	Sample Point	Date	Time Issued	Priority
F 1076.-6520	SEG.COMP#12	2-16-90	8: 9	26

Determination	Method/Standard	Result Units	Charge Code	Rerune
TB	LA-508-101	% RECOVERY	E21D1	0

Sample Size	Customer ID
? 10ml	000013

Remarks, Calculations, Results

LMCS CHECK SAMPLE
LMCS ID 107-844

Counter #13,14,15

104.4%

1.429^{-1} / 1.3692^{-1}

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 0598/RH				9c
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-23-90		[illegible]	

84-8800-081 (R-10-83)

14/2

$\frac{8880}{10} - 23$

$\frac{8923}{10}$

F1076

Beta Calculation by MAI on 02-24-1990 at 11:52:49
Det #14 2 -inch mount Beta eff. : .2734
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{8880}{10} - 23.0 = 1.4252E-01$ uCi/L beta

Mount # 2

$\frac{8923}{10} - 23.0 = 1.4322E-01$ uCi/L beta

F1076-6520

3211

Serial No.	Sample Point	Date	Time Issued	Priority
F 1048.-6330	SEG.COMP#8	2-15-90	13:47	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	uCI/L		0

Sample Size: ? 1ml Li .001 1

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

Cs^{137} < 6.23^{-2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6600-061 (R-10-83)

4248

Serial No.	Sample Point	Date	Time Issued	Priority
F 1047.-6530	SEG.COMP#7	2-15-90	13:46	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	% RECOVERY		0

Sample Size: ? 500ml Li .001 2

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 122544

Co^{60} 2.21' uci/l / 2.1046' 105.0%

Cs^{137} 3.00' uci/l / 2.9006' % 103.4%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6600-061 (R-10-83)

2101

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6130	SEG.COMP#10	2-15-90	13:50	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	uCI/L		0

Sample Size: ? 50ml

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

Cs^{137} 1.26^{2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6600-061 (R-10-83)

1963

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6030	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	uCI/L		0

Sample Size: ? 50ml

Customer ID: 000012

Remarks, Calculations, Results:

Cs^{137} 1.36^{2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6600-061 (R-10-83)

2102

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7530	SEG.COMP#18	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	% RECOVERY		0

Sample Size: ? 500λ Li·ol'

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 122844

Co^{60} 2.17 nci/l / 2.1046' 103.1%

Cs^{137} 3.15 nci/l / 3.2906' 108.6%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8600-061 (R-10-83)

4247

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7230	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	% RECOVERY		0

Sample Size: ? 1 ml + 500λ std Li·ol' 122844

Customer ID: 000012

Remarks, Calculations, Results:

SPIKED SAMPLE F1055

Cs^{137} (8.19' - 6.79') x 2 = 2.80' / 2.9006' 96.5%

~~4.645' - 6.79'~~

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1000.-6340	SEG.COMP#8	2-12-90	11:14	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
U	LA-925-106	G/L	WB75L	0

Sample Size: ? ~~50 ul~~ KF .050 ml

Customer ID: 000014

Remarks, Calculations, Results: Spike 54B38 100 ul spike 5.62E-4 g/l Value

REAGENT BLANK

$$\frac{(.982)(.02)(5.62E^{-4})(.1)(20)}{.260 - [(.982)(.02)]} =$$

<.02
.00
.260
~~<9.18E-5 g/l~~
<9.19x10^-5 g/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6BS98				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 6-27-90 ~~2-30-90~~ Time Completed: Lab Unit Mgr:

54-8800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 999.-6540	SEG.COMP#7	2-12-90	11:12	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
U	LA-925-106	% RECOVERY	WB75L	0

Sample Size: ?.100ml-10ml-10ml

Customer ID: 000014

Remarks, Calculations, Results: Spike 54B38 - .100ml Vol 5.64E-4 g/l

LMCS CHECK SAMPLE
LMCS ID 58B38

87.8% .14 .435

$$\frac{(.982)(.14)(5.62E^{-4})(.1)(1010)}{.435 - [(.982)(.14)]} = 2.62E^{-2} / 2.99E^{-2}$$

~~87.7%~~

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6BS98				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 6-27-90 ~~7-30-90~~ Time Completed: Lab Unit Mgr:

54-8800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1003.-6240	SEG.COMP#11	2-12-90	11:17	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
U	LA-925-106	% RECOVERY	WB75L	0

Sample Size: ~~Sample~~ Std (?.100ml+.100ml)-10ml-.100ml

Customer ID: 000014

Remarks, Calculations, Results:
SPIKE SAMPLE F1001 Value 5.62E-4 g/l 88.0%
SPIKE ID SB38
SPIKE VOLUME .100ml

~~87.1%~~ .200 .500

$$\frac{(.982)(.20)(5.62E^{-4})(.1)(1020)}{.500 - [(.200)(.982)]} = 3.70E^{-2} / 1.08E^{-2}$$

~~2.6286E-2~~ ~~2.99E-1 g/l~~

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6BS98				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 6-27-90 ~~7-30-90~~ Time Completed: Lab Unit Mgr:

54-8800-061 (R-10-83)

F1000.-6340

$$\frac{L.02\,(5.62E\text{-}4)(.1)(20)}{\left(\frac{5.7}{5.6}\right)(.16) - .02} = L9.19E\text{-}5\,g/L$$

F0999.-6540

$$\frac{(.14)(5.62E\text{-}4)(.1)(1010)}{\left(\frac{5.7}{5.6}\right)(.435) - .14} = 2.62E\text{-}2\,g/L$$

$$\frac{2.62E\text{-}2}{2.99E\text{-}2} \quad 87.8\%$$

F1003.-6240

$$\frac{.20(5.62E\text{-}4)(.1)(1020)}{\left(\frac{5.7}{5.6}\right)(.50) - .20} = 3.71E\text{-}2$$

$$\frac{3.71E\text{-}2 - 1.05E\text{-}2}{2.99E\text{-}2} \times 100 \quad 88.0\%$$

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6140	SEG.COMP#10	2-15-90	13:50	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
U	LA-925-106	G/L		0

Sample Size: ? .100 - 10 ml - .50 ml

Customer ID: 000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE Spike 54B38 Value 5.62E-4 g/l
Volume .100 ml

.34
.58

$$\frac{(.984)(.34)(5.62E^{-4})(.1)(202)}{.58 - [(.984)(.34)]} = 1.55E^{-2}\ g/l$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598				
Hrs	Hrs	Hrs	Hrs	Hrs
Date: ~~7-30-90~~ 6-27-90	Time Completed	Lab Unit Mgr		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6040	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
U	LA-925-106	G/L		0

Sample Size: ? .100 ml - 10 ml - .50 ml

Customer ID: 000012

Remarks, Calculations, Results:
Spike 54B38 Value 5.62E-4 g/l
Volume .100 ml

.4
.64

$$\frac{(.984)(.4)(5.62E^{-4})(.1)(202)}{.64 - [(.984)(.4)]} = 1.81E^{-2}\ g/l$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598				
Hrs	Hrs	Hrs	Hrs	Hrs
Date: 6-27-90	Time Completed	Lab Unit Mgr		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1052.-6540	SEG.COMP#12	2-15-90	13:53	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
U	LA-925-106	% RECOVERY		0

Sample Size: ? .100 ml - 10 ml - .100 ml

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE Spike Value 5.62E-4 g/l
LMCS ID 58B38 Spike Volume .100 ml
Spike ID 54B38

89.2% .14
.43

$$\frac{(.982)(.14)(5.62E^{-4}\ g/l)(.1)(1010)}{.43 - [(.982)(.14)]} = 2.68E^{-2}\ g/l \quad 2.99E^{-2}\ g/l$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598				
Hrs	Hrs	Hrs	Hrs	Hrs
Date: 6-27-90 ~~7-30-90~~	Time Completed	Lab Unit Mgr		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1027.-6250	SEG.COMP#11	2-12-90	12:43 26	

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	% RECOVERY	WB75L	0

Sample Size: ? .1mL-11mL & .5mL-11mL

Customer ID: 000015

Remarks, Calculations, Results:

SPIKE SAMPLE F1025 .1mL Sample
SPIKE ID PIC/IC 1mL Spike
SPIKE VOLUME 1mL 10mL 1N HNO_3
or
.5mL Sample
1mL Spike
10mL 1N HNO_3

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 5-14-90 Time Completed: Lab Unit Mgr: Kathy Hendrickson

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1024.-6350	SEG.COMP#8	2-12-90	12:41 19	

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	PPM	WB75L	0

Sample Size: ? .1mL-10mL & .5mL-10mL

Customer ID: 000015

Remarks, Calculations, Results:

REAGENT BLANK

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 5-14-90 Time Completed: Lab Unit Mgr: Kathy Hendrickson

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6150	SEG.COMP#10	2-15-90	13:50	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	PPM		0

Sample Size: ? .1mL-10mL & .5mL-10mL

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs

Date: 5-14-90 Time Completed: Lab Unit Mgr: Kathy Hendrickson

54-6800-061 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1049.-6050	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	PPM		0

Sample Size: ? .1mL-10mL & .5mL-10mL

Customer ID: 000012

Remarks, Calculations, Results:

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Hrs	Hrs	Hrs	Hrs	Hrs

Date: Time Completed: Lab Unit Mgr: Kathy Hendrickson

54-6800-061 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1227.-8550	SEG.COMP#19	3- 6-90	18:16	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	% RECOVERY	E21D1	0

Sample Size	Customer ID
? Direct.	500082

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID_____
Digested LMCS
SML 78C11L
83B38A
77C11K

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs
Janice G. White			[illegible]	
Date	Time Completed	Lab Unit Mgr.		
5-14-90		[illegible]	Kathy Thomalka	

84-8800-081 (R-10-83)

3.3 3002

Serial No.	Sample Point	Date	Time Issued	Priority
F 1048.-6381	SEG.COMP#8	2-15-90	13:48	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
PU	LA-503-156	uCI/L		0

Sample Size: ? ~~Hwd~~ RH Load 50λ spike 10843-8

Customer ID: 000012

Remarks, Calculations, Results:
REAGENT BLANK
1200λ CON HNO_3
<8.29^{-3} neil
"AEA-480 MIN" ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 6598/RH				GW
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		

84-6800-061 (R-10-83)

3.2 2770

Serial No.	Sample Point	Date	Time Issued	Priority
F 1047.-6581	SEG.COMP#7	2-15-90	13:47	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PU	LA-503-156	% RECOVERY		0

Sample Size: ? 100-10-100 + 50λ-10843-8

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 16843
1mL 8M HNO_3
105.6% 1.028^{2}/97.329
"AEA-480 MIN" ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 6598/RH				GW
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		

84-6800-061 (R-10-83)

3.2 2773

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6181	SEG.COMP#10	2-15-90	13:50	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PU	LA-503-156	uCI/L		0

Sample Size: ? 250λ + 50λ spike 10843-8

Customer ID: 000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE
380λ CON HNO_3
8.29^{-1} neil
"AEA-480 MIN" ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 6598/RH				GW
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		

84-6800-061 (R-10-83)

3.4 4761

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6081	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PU	LA-503-156	uCI/L		0

Sample Size: ? 250λ + 50λ spike 10843-8

Customer ID: 000012

Remarks, Calculations, Results:
380λ CON HNO_3
9.10^{-1} neil
"AEA-480 MIN" ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 6598/RH				GW
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		

84-6800-061 (R-10-83)

3.3 3006

Serial No.	Sample Point	Date	Time Issued	Priority
F 1082.-7581	SEG.COMP#18	2-16-90	8:15	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PU	LA-503-156	% RECOVERY	E21D1	0

Sample Size: ? 100-10-100 + 50 [illegible] 10843-B

Customer ID: 000013

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 16843
Int 8M HNO_3

"AEA-480 MIN"
ATTACH PRINT OUT

98.1%

95.458 / 97.329

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
68598/KH				[illegible]
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		[illegible]

84-6600-081 (R-10-83)

3.4 4764

Serial No.	Sample Point	Date	Time Issued	Priority
F 1081.-7281	SEG.COMP#17	2-16-90	8:13	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PU	LA-503-156	% RECOVERY	E21D1	0

Sample Size: ? 100 70-1 / 1 ML + 50 λ SPIKE

Customer ID: 000013

Remarks, Calculations, Results:
SPIKED SAMPLE F1055 10843-B
120ml Con HNO_3

"AEA-480 MIN"
ATTACH PRINT OUT

99.013 / 97.329 101.7%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
68598/KH				[illegible]
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		[illegible]

84-6600-081 (R-10-83)

4.2 6068

Serial No.	Sample Point	Date	Time Issued	Priority
F 1048.-6382	SEG.COMP#8	2-15-90	13:48	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	uCI/L		0

Sample Size: ? 1mL + 100λ Am spike — Customer ID: 000012

Remarks, Calculations, Results: 9843
REAGENT BLANK
1200λ CON HNO_3
$<2.28^{-2}$ neill

"AEA-480 MIN"
ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

4.1 5633

Serial No.	Sample Point	Date	Time Issued	Priority
F 1047.-6582	SEG.COMP#7	2-15-90	13:47	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	% RECOVERY		0

Sample Size: ? 100-10-1000 + 100λ Am spike — Customer ID: 000012

Remarks, Calculations, Results: 9843
LMCS CHECK SAMPLE
LMCS ID 16843
1mL 8M HNO_3
105.99%
16.652 / 15.711

"AEA-480 MIN"
ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

4.1 5636

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6182	SEG.COMP#10	2-15-90	13:50	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	uCI/L		0

Sample Size: ? 1mL RH + 100λ Am spike — Customer ID: 000012

Remarks, Calculations, Results: 9843
DUPLICATE SAMPLE
380λ CON HNO_3
$<7.96^{-2}$ neill

"AEA-480 MIN"
ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

4.4 8117

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6082	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	uCI/L		0

Sample Size: RH 250 ? 1mL + 100λ Am spike — Customer ID: 000012

Remarks, Calculations, Results: 9843
380λ CON HNO_3
8.59^{-2} neill

"AEA-480 MIN"
ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

3.2 2774

Serial No.	Sample Point	Date	Time Issued	Priority
F 1076.-6582	SEG.COMP#12	2-16-90	8: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	% RECOVERY	E21D1	0

Sample Size: ? 1mL 100% Spike

Customer ID: 000013

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 16843
1mL 8M HNO3
106.688

9843

"NEA-480 MIN"
ATTACH PRINT OUT

16.752 / 15.711

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
68598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8800-081 (R-10-83)

4.2 6071

Serial No.	Sample Point	Date	Time Issued	Priority
F 1075.-6282	SEG.COMP#11	2-16-90	8: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	% RECOVERY	E21D1	0

Sample Size: ? 1mL 100% SPIKE

Customer ID: 000013

Remarks, Calculations, Results:

SPIKED SAMPLE F1055 9843
1200% Con HNO3
101.302

15.923 / 15.711

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
68598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1000.-6383	SEG.COMP#8	2-12-90	11:14 19	

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	uCI/L	WB75L	0

Sample Size: ? 250λ mT 500λ

Customer ID: 000014

Remarks, Calculations, Results:

REAGENT BLANK $\frac{(50cpm)(1000)(2)(3)(4)}{(.5)(2.226)} = <1.08$ neill

<1.08 neill

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
63598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-12-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 999.-6583	SEG.COMP#7	2-12-90	11:13 26	

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	% RECOVERY	WB75L	0

Sample Size: ? ~~250λ~~ 100λ mT 500

Customer ID: 000014

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 148833

$8.583 \frac{1}{neill} / 128.11$ 67.0%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
63598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-12-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6183	SEG.COMP#10	2-15-90	13:51	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	uCI/L		0

Sample Size: ? 250λ mT 500λ

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

<1.08 neill

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
63598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-12-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6083	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	uCI/L		0

Sample Size: ? 250λ mT 500λ

Customer ID: 000012

Remarks, Calculations, Results:

<1.08 neill

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
63598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-12-90		

54-6800-081 (R-10-83)

#3 3-13-90 DM F01000.-6383

$\frac{58}{5} - 12$

#2 3-13-90 DM F0999.-6583

$\frac{8014}{5} - 15$

$$\frac{(1578.8\text{cpm})(1000)(2)(3)(10)}{(.5)(2.22E^{6})}$$

#2 3-13-90 DM F1050.-6183

$\frac{82}{5} - 15 < 50\text{cpm}$

$$\frac{(50\text{cpm})(1000)(2)(3)(4)}{(.5)(2.22E^{6})}$$

#1 3-13-90 DM F1049.-6083

$\frac{64}{5} - 7 < 50\text{cpm}$

$$\frac{(50\text{cpm})(1000)(2)(3)(4)}{(.5)(2.22E^{6})}$$

Serial No.	Sample Point	Date	Time Issued	Priority
F 1076.-6583	SEG.COMP#12	2-16-90	8: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	% RECOVERY	E21D1	0

Sample Size: ? 250λ (100) MT 500λ

Customer ID: 000013

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 148833

65.5%

83.968 wet / 128.11 acid

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 859 8/21				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-12-90		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1075.-6283	SEG.COMP#11	2-16-90	8: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	% RECOVERY	E21D1	0

Sample Size: ? 250λ + 250λ (100.) MT 500λ

Customer ID: 000013

Remarks, Calculations, Results:

SPIKED SAMPLE STD 148833

7882 E¹ / 1.2811 E²

61.5%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 859 8/21				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-12-90		

54-8800-081 (R-10-83)

#2 3-13-90 DM

FO1076.-6583

$\frac{7842}{5} - 15$

$$\frac{(1553.4)(1000)(2)(3)(10)}{(.5)(2.22E^{6})}$$

#1 3-13-90 DM

FO1075.-6283

$\frac{7326}{5} - 7$

$$\frac{(1458.2)(1000)(2)(3)(10)}{(.5)(2.22E^{6})}$$

3,4

Serial No.	Sample Point	Date	Time Issued	Priority
F 1048.-6384	SEG.COMP#8	2-15-90	13:48	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	uCI/L		0

Sample Size: ? 1ml + 100λ Tc spike. 49B39

Customer ID: 000012

Remarks, Calculations, Results:
REAGENT BLANK
D <20.00
D+S 2733.16
<1.95^{-2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6c916				
Hrs: Sue Lai	Hrs	Hrs	Hrs	Hrs
Date: 3-2-90	Time Completed	Lab Unit Mgr		

54-6800-061 (R-10-83)

1,2

Serial No.	Sample Point	Date	Time Issued	Priority
F 1047.-6584	SEG.COMP#7	2-15-90	13:47	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	% RECOVERY		0

Sample Size: ? 250λ + 100λ Tc^{99} spike 49B39

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID_____
68B39
D 158.456
D+S 2879.446
6.169^{-1} / 6.3021^{-1} 97.1%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6c916				
Hrs: Sue Lai	Hrs	Hrs	Hrs	Hrs
Date: 3-2-90.	Time Completed	Lab Unit Mgr		

54-6800-061 (R-10-83)

7,8

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6184	SEG.COMP#10	2-15-90	13:51	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	uCI/L		0

Sample Size: ? 1ml + 100λ Tc^{99} spike

Customer ID: 000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE 49B39
D <20.00
D+S 2728.52
<1.96^{-2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6c916				
Hrs: Sue Lai	Hrs	Hrs	Hrs	Hrs
Date: 3-2-90	Time Completed	Lab Unit Mgr		

54-6800-061 (R-10-83)

5,6

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6084	SEG.COMP#9	2-15-90	13:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	uCI/L		0

Sample Size: ? 1ml + 100λ Tc^{99} spike

Customer ID: 000012

Remarks, Calculations, Results: 49B39
D <20.00
D+S 2649.58
<2.01^{-2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6c916				
Hrs: Sue Lai	Hrs	Hrs	Hrs	Hrs
Date: 3-2-90	Time Completed	Lab Unit Mgr		

54-6800-061 (R-10-83)

11,12

Serial No.	Sample Point	Date	Time Issued	Priority
F 1052.-6584	SEG.COMP#12	2-15-90	13:53	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	% RECOVERY		0

Sample Size: ? 250λ + 100λ Tc^{99} spike 49839

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID_____

68839

Q 151.7888

Q DS 2878.686

92.8%

5.897^{-1}

6.3521^{-1}

KT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6c916				Sue
Hrs: Sue Lai	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-2-90		

54-8800-061 (R-10-83)

9,10

Serial No.	Sample Point	Date	Time Issued	Priority
F 1051.-6284	SEG.COMP#11	2-15-90	13:52	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	% RECOVERY		0

Sample Size: ? 1ml + 250λ 8M + 100λ spike 49839

Customer ID: 000012

Remarks, Calculations, Results:

SPIKED SAMPLE

Q 172.098

Q DS 2881.486

105.9%

6.729^{-1} note/6.3521^{-1}

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6c916				Sue
Hrs: Sue Lai	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-2-90		

54-8800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1049.-6086	SEG.COMP#9	2-15-90	13:50	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	uCI/L		0

Sample Size: ? 100-10-250 + 1mL Sr. Carrier
Customer ID: G00012

Remarks, Calculations, Results: SEP 13:15 4-4-90

8.0334 G. 7.9642
7.9409 T. 7.8721 1.22 ^{3} mi/l
.0925 N. .0921

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				one
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-4-90			DMS

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1050.-6186	SEG.COMP#10	2-15-90	13:51	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	uCI/L		0

Sample Size: ? 100-10-250 + 1mL Sr. Carrier
Customer ID: G00012

Remarks, Calculations, Results: SEP 13:15 4-4-90

DUPLICATE SAMPLE

8.0049 G. 7.9754
7.9135 T. 7.8839 1.08 ^{3} mi/l
.0914 N. .0915

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				one
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-4-90			DMS

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 975.-6586	SEG.COMP#7	2- 7-90	10:42	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	% RECOVERY	WB75L	0

Sample Size: ? 1mL + 1mL Sr. Carrier
Customer ID: G00007

Remarks, Calculations, Results: SEP 13:05 4-4-90

LMCS CHECK SAMPLE
LMCS ID 106349

97.7%

8.0374 G. 8.0809 1.35 / 1.382
7.9424 T. 7.9856
.0950 N. .0953

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				one
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-4-90			DMS

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 976.-6386	SEG.COMP#8	2- 7-90	10:43	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	uCI/L	WB75L	0

Sample Size: ? 1mL + 1mL Sr. Carrier
Customer ID: G00007

Remarks, Calculations, Results: SEP 13:05 4-4-90

REAGENT BLANK

8.0140 G. 8.1747
7.9185 T. 8.0794 6.10 $^{-2}$ mi/l
.0955 N. .0953

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				one
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-4-90			DMS

54-6800-061 (R-10-83)

10/2 4-18-90 @ 1925 DM ΔT= 9.28

DF 1
MF 1
SS 1

① 639/10 - 11

② 626/10

Sr Calculation by AJ on 04-19-1990 at 10:02:49
Det #10 2 -inch mount Sr eff : .3792 Y eff : .4215

Sample size : 1 mL Dilution : 1 Method : 1

Mount # 1 Decay time = 9.28 hrs

639/10 - 11.0 = 5.6807E-02 uCi/L strontium
.902 .0630

Mount # 2 Decay time = 9.28 hrs

626/10 - 11.0 = 5.5411E-02 uCi/L strontium
.0642
.863

F0976-6386

10/2 4-18-90 @ 1945 DM ΔT= 9.50

F0975-6586

DF 1
MF 1
SS 1

① 11116/10 - 11

② 12301/10

Sr Calculation by AJ on 04-19-1990 at 10:03:31
Det #10 2 -inch mount Sr eff : .3792 Y eff : .4215

Sample size : 1 mL Dilution : 1 Method : 1

Mount # 1 Decay time = 9.5 hrs

11116/10 - 11.0 = 1.1793E+00 uCi/L strontium
1.412
.835

Mount # 2 Decay time = 9.5 hrs

12301/10 - 11.0 = 1.3063E+00 uCi/L strontium
1.4183
.921

10 2" 4-5-90 0025 ΔT 11.17
DF 404

23613/10 - 29
23318/10

Sr Calculation by VR on 04-05-1990 at 02:46:07
Det #10 2 -inch mount Sr eff : .3792 Y eff : .4215

Sample size : 1 mL Dilution : 404 Method : 1

Mount # 1 Decay time = 11.17 hrs

23613/10 - 29.0 = 9.9357E+02 uCi/L strontium
1.09 3
.915

Mount # 2 Decay time = 11.17 hrs

23318/10 - 29.0 = 9.8100E+02 uCi/L strontium
1.073 3
.914

F1050.-6186

10 2" 4-5-90 VR 0100 ΔT 11.75
DF 404

26360/10 - 29
27158/10

Sr Calculation by VR on 04-05-1990 at 02:45:22
Det #10 2 -inch mount Sr eff : .3792 Y eff : .4215

Sample size : 1 mL Dilution : 404 Method : 1

Mount # 1 Decay time = 11.75 hrs

26360/10 - 29.0 = 1.1045E+03 uCi/L strontium
1.20 3
.921

Mount # 2 Decay time = 11.75 hrs

27158/10 - 29.0 = 1.1584E+03 uCi/L strontium
1.23 3
.925

F1049.-6086

Strontium 90 Analysis on the Fusion Dissolution

Serial No.	Sample Point	Date	Time Issued	Priority
F 1004.-6586	SEG.COMP#12	2-12-90	11:18	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	% RECOVERY	WB75L	0

Sample Size: 2 1mL + 1m Sr Genie

Customer ID: G0001F

Remarks, Calculations, Results:

SEP 13.'2w 4-4-90

LMCS CHECK SAMPLE
LMCS ID-16844

8.0048 @ 5. 79727
7.908S 1. 7.8769 100.3%
.0953 N. .0958 1.386/1.386

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
4-4-90		

SL-MCC-Lab (R-10-83)

10 2" 4-5-90 VR 0005

$\frac{13051}{10} - 29$

$\frac{12681}{10}$

ΔT 10.75
DF. 1

F-1004

Sr Calculation by VR on 04-05-1990 at 02:44:24
Det #10 2 -inch mount Sr eff : .3792 Y eff : .4215

Sample size : 1 mL Dilution : 1 Method : 1

Mount # 1 Decay time = 10.75 hrs

$\frac{13051}{10} - 29.0 = 1.3310E+00$ uCi/L strontium

1.403
.963

Mount # 2 Decay time = 10.75 hrs

$\frac{12681}{10} - 29.0 = 1.311BE+00$ uCi/L strontium

1.369
.958

WATER DIGESTION ANALYSIS

APPENDIX A

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7000	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H20-DGST	LA-504-101	G/L		0

Sample Size: ?

Customer ID: 000012

Remarks, Calc

GRAMS
VOLUMI
COMPLI

1055 50ml

7.44 -3 g/ml

2-23-90

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Chemist
80518 Jerry Kunkel				
Hrs 1.5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7300	SEG.COMP#14	2-15-90	13:58	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H20-DGST	LA-504-101	G/L		0

Sample Size: ?

Customer ID: 000012

Remarks Calculations, Results:

REAGENT BLANK

completed

2-23-90

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Chemist
80518 Jerry Kunkel				
Hrs 1.5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7200	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H20-DGST	LA-504-101	% RECOVERY		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Res

SPIKED ANAL
GRAMS SAMPL
VOLUME ON
COMPLETION
VOLUME SPIK
SPIKE ID___

1057

8.57 -3 g/ml

2-23-90

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Chemist
80518 Jerry Kunkel				
Hrs 1.5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7100	SEG.COMP#16	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H20-DGST	LA-504-101	G/L		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations

DUPLICATE
GRAMS SAM
VOLUME ON
COMPLETIO

1056

9.46 -3 g/ml

2-23-90

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Chemist
80518 Jerry Kunkel				
Hrs 1.5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7100	SEG.COMP#16	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H2O-DGST	LA-504-101	G/L	E21D1	0

Sample Size: ?

Customer ID: 2nd LEACH 000012

Remarks, Calculations, Results:

DUPLICATE ANALYSIS
GRAMS SAMPLE _____
VOLUME ON COMPLETION 100 ml

1.002 -2 g/ml

#356

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3-28-90			DMS

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7000	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H2O-DGST	LA-504-101	G/L	E21D1	0

Sample Size: ?

Customer ID: 2nd LEACH 000012

Remarks, Calculations, Results:

GRAMS SAMPLE _____
VOLUME ON COMPLETION 100 ml

1.013 -2 g/ml

#356

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3-19-90			DMS

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7200	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H2O-DGST	LA-504-101	% RECOVERY	E21D1	0

Sample Size: ?

Customer ID: 2nd LEACH 000012

Remarks, Calculations, Results:

SPIKED ANALYSIS
GRAMS SAMPLE _____
VOLUME ON COMPLETION 100 ml
VOLUME SPIKE _____
SPIKE ID _____

1.070 -2 g/ml

#356

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3-19-90			DMS

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7000	SEG.COMP#15	2-15-90	14: 3	2c

Determination	Method/Standard	Result Units	Charge Code	Reruns
H2O-DGST	LA-504-101	G/L	E21D1	1

Sample Size: ? 1.0028g

Customer ID: #12-380 Comp-2

Remarks, Calculations, Results:
GRAMS SAMPLE 1.0028g
VOLUME ON COMPLETION 100 ml
1.003 E -2 g/ml
1.003E 1 g/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
5-29-90		

S4-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7300	SEG.COMP#14	2-15-90	13:58	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H2O-DGST	LA-504-101	G/L		1

Sample Size: ? 100 ml

Customer ID: #12 Comp-2

Remarks, Calculations, Results:
REAGENT BLANK

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
5-29-90		

S4-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7200	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H2O-DGST	LA-504-101	% RECOVERY	E21D1	1

Sample Size: ? 1.0007g

Customer ID: #12-380 Comp-2

Remarks, Calculations, Results:
SPIKED ANALYSIS
GRAMS SAMPLE 1.0007g
VOLUME ON COMPLETION 100 ml
VOLUME SPIKE
SPIKE ID
1.001 E -2 g/ml
1.001 E 1 g/ml

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
5-29-90		

S4-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7100	SEG.COMP#16	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H2O-DGST	LA-504-101	G/L	E21D1	1

Sample Size: ? 1.0086g

Customer ID: #12-380 Comp-2

Remarks, Calculations, Results:
DUPLICATE ANALYSIS
GRAMS SAMPLE 1.0086g
VOLUME ON COMPLETION 100 ml
1.008 E -2 g/ml
1.008 E 1 g/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
5-29-90		

S4-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7314	SEG.COMP#14	2-15-90	13:58	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PH	LA-211-102	% RECOVERY		0

Sample Size: ? 1 ml Blk

Customer ID: 000012

Remarks, Calculations, Results:

23.0°C

9.99

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				RE Bennett
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7514	SEG.COMP#13	2-15-90	13:53	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PH	LA-211-102	% RECOVERY		0

Sample Size: ? 1 ml

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
pH FOUND 10.08
STD ID TRIP B
SAMPLE TEMP 23.0

100.8%

10.08/10.00

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				RE Bennett
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7114	SEG.COMP#16	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PH	LA-211-102	NONE		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

Duplicate

pH 11.71
SAMPLE TEMP 23.1

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				RE Bennett
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7014	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PH	LA-211-102	NONE		0

Sample Size: ? 1 ml

Customer ID: 000012

Remarks, Calculations, Results:

23.1°C

11.65

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				RE Bennett
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

pH Analysis on the Water Digestion

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7514	SEG.COMP#18	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PH	LA-211-102	% RECOVERY		0

Sample Size	Customer ID
? 1 ml	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
pH FOUND 10.09
STD ID 10.00
SAMPLE TEMP 23.1

10.09/10.00

100.9%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R Bennett
	Hrs	Hrs	Hrs	Hrs
Date 2-27-90	Time Completed	Lab Unit Mgr		

54-6900-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7371	SEG.COMP#14	2-15-90	13:59	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
F	LA-533-105	PPM		0

Sample Size: ? Direct

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

<2.1 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB107/REW				Chemical 94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed | Lab Unit Mgr

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7571	SEG.COMP#13	2-15-90	13:55	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
F	LA-533-105	% RECOVERY		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID [illegible]

106.8%

64.09/6

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB107/REW				Chemical 94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed | Lab Unit Mgr

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7171	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
F	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

8.249 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB107/REW				Chemical 94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed | Lab Unit Mgr

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7071	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
F	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

69.61 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB107/REW				Chemical 94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed | Lab Unit Mgr

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7271	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
F	LA-533-105	% RECOVERY		0

Sample Size: ?.100 - 10mL

Customer ID: 000012

Remarks, Calculations, Results:

SPIKE SAMPLE
SPIKE ID 3509-69
SPIKE VOLUME .300/5mL

$$\frac{\left(\frac{5.3}{30}\right)(392.4)-(69.6)\left(\frac{100.1}{10.03}\right)}{\frac{(.300)(55)}{5.3}(101)} \times 100 = 110.4\%$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B107/NEW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-1-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1082.-7571	SEG.COMP#18	2-16-90	8:14	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
F	LA-533-105	% RECOVERY	E21D1	0

Sample Size: ? 10-10

Customer ID: 000013

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 6CUHK

62.72/60

104.5%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B107/NEW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3/1/90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7372	SEG.COMP#14	2-15-90	13:59	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CL	LA-533-105	PPM		0

Sample Size: ? Direct

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

<.1ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	~~Analyst - 5~~ Chemist
68107/REW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit No:

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7572	SEG.COMP#13	2-15-90	13:55	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CL	LA-533-105	% RECOVERY		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 6C1HR

74.06/73 102.9%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	~~Analyst - 5~~ Chemist
68107/REW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit No:

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7172	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CL	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

<10.1 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	~~Analyst - 5~~ Chemist
68107/REW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit No:

54-6600-061 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1055.-7072	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CL	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

6.304 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	~~Analyst - 5~~ Chemist
68107/REW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit No:

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1082.-7572	SEG.COMP#18	2-16-90	8:15	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CL	LA-533-105	% RECOVERY	E21D1	0

Sample Size: ? 100-10

Customer ID: 000013

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 6C17HK

69.83/72 96.99%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B107/NEW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3/1/90		

54-8800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7272	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CL	LA-533-105	% RECOVERY		0

Sample Size: ? .100 - 10 mL

Customer ID: 000012

Remarks, Calculations, Results:

SPIKE SAMPLE
SPIKE ID 3509-69
SPIKE VOLUME .300/5mL

$$\frac{(1.06)(439) - (\cancel{63.0}\ 63.0)\left(\frac{10.01}{10.03}\right)}{\frac{(.300)(67)}{5.3}} \cdot 100 = \cancel{105.1\%}\ 119.8\%$$

101

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B107/NEW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-1-90		

54-8800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7373	SEG.COMP#14	2-15-90	13:59	26

Determination	Method/Standard	Result Units	Charge Code	Rerune
NO3	LA-533-105	PPM		0

Sample Size: ? Direct

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

<1 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Chemical
GB107/NEW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 2/1/90 | Time Completed | Lab Unit Mgr

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7573	SEG.COMP#13	2-15-90	13:55	26

Determination	Method/Standard	Result Units	Charge Code	Rerune
NO3	LA-533-105	% RECOVERY		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 6C11HB

606.9/599 101.3%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Chemical
GB107/NEW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 2/1/90 | Time Completed | Lab Unit Mgr

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7173	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Rerune
NO3	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

4.66² ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Chemical
GB107/NEW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 2/1/90 | Time Completed | Lab Unit Mgr

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7073	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Rerune
NO3	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

3.79² ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Chemical
GB107/NEW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 2/1/90 | Time Completed | Lab Unit Mgr

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7273	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
NO3	LA-533-105	% RECOVERY		0

Sample Size	Customer ID
? .100-10mL	000017

Remarks, Calculations, Results:

SPIKE SAMPLE
SPIKE ID 35C9-69
SPIKE VOLUME .300/5mL

$$\frac{\frac{5.3}{50}(3780) - (379)\left(\frac{10.01}{10.03}\right)}{\frac{(.300)(596)}{5.3}(101)} \cdot 100 = 106.5\%$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B107/NEW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-1-90		

54-6800-081 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1082.-7573	SEG.COMP#18	2-16-90	8:15	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
NO3	LA-533-105	% RECOVERY	E21D1	0

Sample Size	Customer ID
? 100-10	000013

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 6C17A8

103.4%

619.3 / 6.599

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B107/NEW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3/1/90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7374	SEG.COMP#14	2-15-90	13:59	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PO4	LA-533-105	PPM		0

Sample Size: ? Direct

Customer ID: 000012

Remarks, Calculations, Results:
REAGENT BLANK

<1 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB107/NEW				Chemical
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit Mgr:

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7574	SEG.COMP#13	2-15-90	13:55	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PO4	LA-533-105	% RECOVERY		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 6C11AR

619.3 / 599 103.4%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB107/NEW				Chemical
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit Mgr:

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7174	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PO4	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE

3.87² ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB107/NEW				Chemical
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit Mgr:

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7074	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PO4	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

3.434² ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB107/NEW				Chemical
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit Mgr:

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7274	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PO4	LA-533-105	% RECOVERY		0

Sample Size	Customer ID
? .100-10 mL	000012

Remarks, Calculations, Results:

SPIKE SAMPLE
SPIKE ID 35C9-69
SPIKE VOLUME .300/5mL

$$\frac{(1.06)(3900\,\mu P) - (343)\left(\frac{10.01}{10.03}\right)}{\frac{(.300)(601)}{5.3}\cdot .101}\cdot 100 = 110.4\%$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B107/NEW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-1-90		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1082.-7574	SEG.COMP#18	2-16-90	8:15	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PO4	LA-533-105	% RECOVERY	E21D1	0

Sample Size	Customer ID
? 100-10	000013

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 6C11AB

106.8%

639.5/599

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B107/NEW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3/1/90		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7375	SEG.COMP#14	2-15-90	13:59	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SO4	LA-533-105	PPM		0

Sample Size: ? Direct

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

<1 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	~~Analyst - 5~~ Chemist
6B107/NEW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit Mgr:

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7575	SEG.COMP#13	2-15-90	13:55	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SO4	LA-533-105	% RECOVERY		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 6C17AA

600.2 96.5%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	~~Analyst - 5~~ Chemist
6B107/NEW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit Mgr:

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7175	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SO4	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

<101 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	~~Analyst - 5~~ Chemist
6B107/NEW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit Mgr:

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7075	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SO4	LA-533-105	PPM		0

Sample Size: ? 100-10

Customer ID: 000012

Remarks, Calculations, Results:

<101 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	~~Analyst - 5~~ Chemist
6B107/NEW				94171
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date: 3/1/90 | Time Completed: | Lab Unit Mgr:

54-6600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7275	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SO4	LA-533-105	% RECOVERY		0

Sample Size	Customer ID
? .100-10 mL	000012

Remarks, Calculations, Results:

SPIKE SAMPLE
SPIKE ID 3099-69
SPIKE VOLUME .300/5 mL

$$\frac{\frac{5.3}{5.0}(3390)}{\frac{(.300)(596)}{5.3}.101} \times 100 = 105.5\%$$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
68107/NKW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
3-1-90		

54-8600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1082.-7575	SEG.COMP#18	2-16-90	8:15	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SO4	LA-533-105	% RECOVERY	E21D1	0

Sample Size	Customer ID
? 100-10	000013

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 6C1HB

583.7/599

93.8%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
68107/NKW				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
3/1/90		

54-8600-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 907.-8250	SEG.COMP#17	1-24-90	8:11	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	PPM	E21D1	1

Sample Size: .5mL - 10mL

Customer ID: #5

Remarks, Calculations, Results:
SPIKE SAMPLE
SPIKE ID
SPIKE VOLUME 1mL EACH
78C11-S
87B38-B
77C11-R

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283			[illegible]	
Hrs	Hrs	Hrs	Hrs	Hrs
Janice White				

Date: 07-09-90 | Time Completed: | Lab Unit No.: [illegible]

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 904.-8350	SEG.COMP#14	1-24-90	8:8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	PPM	E21D1	0

Sample Size: ? 1mL-10mL

Customer ID: #5

Remarks, Calculations, Results:
REAGENT BLANK
H_2O Digestion
Completed

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs
Janice White				

Date: ~~7-3-90~~ 6-13-90 7-9-90 s.c. | Time Completed: | Lab Unit No.: [illegible]

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-8150	SEG.COMP#16	2-15-90	14:5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	PPM	E21D1	0

Sample Size: ? 1mL-10mL

Customer ID: #12

Remarks, Calculations, Results:
DUPLICATE SAMPLE
H_2O Digestion
Completed

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs
Janice White				

Date: ~~07-03-90~~ 7-9-90 s.c. | Time Completed: | Lab Unit No.: [illegible]

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-8050	SEG.COMP#15	2-15-90	14:3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	PPM	E21D1	1

Sample Size: .5mL-10mL

Customer ID: 000012

Remarks, Calculations, Results:
Completed

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283			[illegible]	
Hrs	Hrs	Hrs	Hrs	Hrs
Janice White				

Date: 07-09-90 | Time Completed: | Lab Unit No.: [illegible]

54-6800-081 (R-10-83)

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Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7326	SEG.COMP#14	2-15-90	13:58	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TOC	LA-344-105	G/L		0

Sample Size: ? 200 uL

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

3.5 ug

.4996 ug/min

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80028				R Blanchette
Hrs	Hrs	Hrs	Hrs	Hrs
Ed Cole				

Date	Time Completed	Lab Unit Mgr
2-26-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7526	SEG.COMP#13	2-15-90	13:54	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TOC	LA-344-105	% RECOVERY		0

Sample Size: ? 200uL-2mL-200uL

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 702112

KF

95.3%

2.86/3.00

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80028				R Blanchette
Hrs	Hrs	Hrs	Hrs	Hrs
Ed Cole				

Date	Time Completed	Lab Unit Mgr
2-26-90		KF

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7126	SEG.COMP#16	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TOC	LA-344-105	G/L		0

Sample Size: ? 1mL+100uL 5M H_2SO_4 - 200uL

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

7.70^{-3} g/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80028				R Blanchette
Hrs	Hrs	Hrs	Hrs	Hrs
Ed Cole				

Date	Time Completed	Lab Unit Mgr
2-26-90		KF

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7026	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TOC	LA-344-105	G/L		0

Sample Size: ? 1mL+100uL 5M H_2SO_4 - 200uL

Customer ID: 000012

Remarks, Calculations, Results:

9.35^{-3} g/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80028				R Blanchette
Hrs	Hrs	Hrs	Hrs	Hrs
Ed Cole				

Date	Time Completed	Lab Unit Mgr
2-26-90		KF

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7526	SEG.COMP#18	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TOC	LA-344-105	% RECOVERY		0

Sample Size: ? 200ul-2ml -200ul

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 70611 C

KJ

2.904 / 3.00

96.8%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
30028				
Hrs	Hrs	Hrs	Hrs	Hrs
Date	Time Completed	Lab Unit Mgr		
2-26-90				

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7226	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TOC	LA-344-105	% RECOVERY		0

Sample Size: ? 200ul + 100ul .5M H_2SO_4 - 200ul

Customer ID: 000012

Remarks, Calculations, Results:

SPIKE SAMPLE
SPIKE ID 70611
SPIKE VOLUME 200ul

See Reverse Side

$\frac{115.1 - 1.7}{119.9} \times 100 = 94.6\%$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
30028				
Hrs	Hrs	Hrs	Hrs	Hrs
Date	Time Completed	Lab Unit Mgr		
2-26-90				

84-8800-081 (R-10-83)

Total Organic Carbon Analysis on the Water Digestion

F 1057.-7226

$$\frac{115.1 - 1.7}{\frac{(1500)(.2)(.2)}{3.5}} = 94.5\%$$

A. Dziewiecki
10/16/90

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7328	SEG.COMP#14	2-15-90	13:59	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NH3	LA-634-102	M		0

Sample Size: ?2ml 0.0971 N HCl
Customer ID: 000012

Remarks, Calculations, Results:
REAGENT BLANK
Impl Blk : 25
Blk : 26
< 2.43^{-3} m
< 43.695 ppm $4.37 \times 10^{+1}$ PPM

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R Blank
Hrs	Hrs	Hrs	Hrs	Hrs
Date 3-1-90	Time Completed	Lab Unit Mgr		

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7528	SEG.COMP#13	2-15-90	13:54	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NH3	LA-634-102	% RECOVERY		0

Sample Size: ?250λ 0.0971 N HCl
Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID ~~3C110M~~
103.0%
ID : 148
Blk : 26
4.738^{-2} / 4.60^{-2}

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R Blank
Hrs	Hrs	Hrs	Hrs	Hrs
Date 3-1-90	Time Completed	Lab Unit Mgr		

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7128	SEG.COMP#16	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NH3	LA-634-102	M		0

Sample Size: ?2ml 0.0971 N HCl
Customer ID: 000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE
Impl : 25
Blk : 26
< 2.43^{-3} m
< 43.7 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R Blank
Hrs	Hrs	Hrs	Hrs	Hrs
Date 3-1-90	Time Completed	Lab Unit Mgr		

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7028	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NH3	LA-634-102	M		0

Sample Size: ?2ml 0.0971 N HCl
Customer ID: 000012

Remarks, Calculations, Results:
Impl : 27
Blk : 26
< 2.43^{-3} m
< 43.7 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R Blank
Hrs	Hrs	Hrs	Hrs	Hrs
Date 3-1-90	Time Completed	Lab Unit Mgr		

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1034.-7528	SEG.COMP#18	2-12-90	12:50 26	

Determination	Method/Standard	Result Units	Charge Code	Rerun
~~NH3~~	~~LA-634-102~~	~~% RECOVERY~~	~~WB75L~~	0

Sample Size	Customer ID
250λ 0.0971 = HCl	000015

Remarks, Calculations, Results:

?

LMCS CHECK SAMPLE
LMCS ID 4C110M

98.9%

STd : 143
Blk : 26

4.544-2 Dor / 4.60-2

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-1-90		

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1033.-7228	SEG.COMP#17	2-12-90	12:48 26	

Determination	Method/Standard	Result Units	Charge Code	Rerun
NH3	LA-634-102	% RECOVERY	WB75L	0

Sample Size	Customer ID
? 2ml + 250λ std 0.0971 = HCl	000015

Remarks, Calculations, Results:

SPIKED SAMPLE 4C110M STD
Spk Bottle F1033

Spiked Smpl : 140
Blk : 26

101.3%

4.466-2 / 4.60-2

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-1-90		

84-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7327	SEG.COMP#14	2-15-90	13:58	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CO3	LA-622-102	G/L		0

Sample Size: ? 200 uL

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

.457 ug/min

3.2ug

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80028				
Hrs	Hrs	Hrs	Hrs	Hrs
Ed Cohn				
Date	Time Completed	Lab Unit Mgr		
2-28-90				

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7527	SEG.COMP#13	2-15-90	13:54	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CO3	LA-622-102	% RECOVERY		0

Sample Size: ? 50 uL

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 696110

102.9%

$2.058^{-1} / 2.00^{-1}$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80028				
Hrs	Hrs	Hrs	Hrs	Hrs
Ed Cohn				
Date	Time Completed	Lab Unit Mgr		
2-28-90				

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7127	SEG.COMP#16	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CO3	LA-622-102	G/L		0

Sample Size: ? 200 uL

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

5.00^{-3} m

6.00^{-2} g/L

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80028				
Hrs	Hrs	Hrs	Hrs	Hrs
Ed Cohn				
Date	Time Completed	Lab Unit Mgr		
2-28-90				

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7027	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CO3	LA-622-102	G/L		0

Sample Size: ? 200 uL

Customer ID: 000012

Remarks, Calculations, Results:

5.08^{-3} m

6.10^{-2} g/L

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80628				
Hrs	Hrs	Hrs	Hrs	Hrs
Ed Cohn				
Date	Time Completed	Lab Unit Mgr		
2-28-90				

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7527	SEG.COMP#18	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CO3	LA-622-102	% RECOVERY		0

Sample Size: ? 50uL

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 69C11D

KP

101.1%

$2.022^{-1} / 2.00^{-1}$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80027				R Brooks
Hrs	Hrs	Hrs	Hrs	Hrs
8				
Date	Time Completed	Lab Unit Mgr		
2-28-90				

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7227	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
CO3	LA-622-102	% RECOVERY		0

Sample Size: ? 200uL

Customer ID: 000012

Remarks, Calculations, Results:

SPIKED SAMPLE
SPIKE ID. 69C11D
SPIKE VOL. 100uL

$\frac{157.9 - 12.2}{160} \times 100 = 91.1\%$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80027				R Brooks
Hrs	Hrs	Hrs	Hrs	Hrs
8				
Date	Time Completed	Lab Unit Mgr		
2-28-90				

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7379	SEG.COMP#14	2-15-90	14: 0	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
NO2	LA-645-001	M		0

Sample Size: ? ml

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

<7.8 $^{-6}$ m

<.359 ppm

<.054

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				RK Fuller 3-9-90
Mary Tracy	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7579	SEG.COMP#13	2-15-90	13:55	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
NO2	LA-645-001	% RECOVERY		0

Sample Size: ? 100-10-50

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID SCM#4

1.109

4.991^{-1} / 5.00^{-1} 99.8%

1.110

99.9%

4.996^{-1} / 5.00^{-1}

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				RK Fuller 3-9-90
Mary Tracy	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7179	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
NO2	LA-645-001	M		0

Sample Size: ? ml

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE
Batch # 300

<7.8 $^{-6}$ m

<.054

<.356 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				RK Fuller 3-9-90
Mary Tracy	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1055.-7079	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
NO2	LA-645-001	M		0

Sample Size: ? ml

Customer ID: 000012

Remarks, Calculations, Results:

Batch # 299

<7.8 $^{-6}$ m

<.054

<.359 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				RK Fuller 3-9-90
Mary Tracy	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7579	SEG.COMP#18	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NO2	LA-645-001	% RECOVERY		0

Sample Size	Customer ID
? 100-10-50	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 2C/AU

1.093 98.4% KH

$4.918^{-1} / 5.00^{-1}$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R.K. Kelly 3-9-90
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7279	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NO2	LA-645-001	% RECOVERY		0

Sample Size	Customer ID
? ml + 100-10-50 of spike	000012

Remarks, Calculations, Results:

SPIKED SAMPLE
Bottle # 299

98.6%

$4.932^{-1} / 5.00^{-1}$

1.096

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				R.K. Kelly 3-9-90
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7325	SEG.COMP#14	2-15-90	13:58	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	uCI/L		0

Sample Size: ? 10 ml

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

$<1.25^{-4}$ uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7525	SEG.COMP#13	2-15-90	13:54	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	% RECOVERY		0

Sample Size: ? 10 ml

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 102844

98.8%

$9.90^{-3}/1.0012^{-2}$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7125	SEG.COMP#16	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	uCI/L		0

Sample Size: ? 50 L

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

2.99^{-2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7025	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	uCI/L		0

Sample Size: ? 50 L

Customer ID: 000012

Remarks, Calculations, Results:

4.69^{-2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8800-081 (R-10-83)

14/2

$\frac{2}{10} - .5$

$\frac{6}{10}$

Alpha Calculation by DM on 02-28-1990 at 06:06:42
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{2}{10} - 0.5 < 1.1117E-04$ uCi/L alpha

Mount # 2

$\frac{6}{10} - 0.5 < 1.3811E-04$ uCi/L alpha

F 1054.-7325

14/2

$\frac{455}{10} - .5$

$\frac{487}{10}$

Alpha Calculation by DM on 02-28-1990 at 06:06:02
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{455}{10} - 0.5 = 9.6022E-03$ uCi/L alpha

Mount # 2

$\frac{487}{10} - 0.5 = 1.0285E-02$ uCi/L alpha

F 1053.-7525

14/2

$\frac{2}{10} - .5$

$\frac{12}{10}$

Alpha Calculation by DM on 02-28-1990 at 06:08:53
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : .05 mL Dilution : 1

Mount # 1

$\frac{2}{10} - 0.5 < 2.2235E-02$ uCi/L alpha

Mount # 2

$\frac{12}{10} - 0.5 = 2.9874E-02$ uCi/L alpha

F 1056.-7125

14/2

$\frac{1}{10} - .5$

$\frac{16}{10}$

Alpha Calculation by DM on 02-28-1990 at 06:08:18
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : .05 mL Dilution : 1

Mount # 1

$\frac{1}{10} - 0.5 < 2.2235E-02$ uCi/L alpha

Mount # 2

$\frac{16}{10} - 0.5 = 4.6944E-02$ uCi/L alpha

F 1055.-7025

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7225	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	% RECOVERY		0

Sample Size: ? 50 λ + 10 ml spk

Customer ID: 000012

Remarks, Calculations, Results:

SPIKED SAMPLE
#299
102644 10 ml spk

$\frac{2.16 - 4.69 \times 10^{-2}}{(20)(01)} = 1.057 \times 10^{-2} / 1.0021 \times 10^{-2}$

105.5%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC269				
	Hrs	Hrs	Hrs	Hrs
Date: 2-27-90	Time Completed	Lab Unit Mgr		

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7525	SEG.COMP#16	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AT	LA-508-101	% RECOVERY		0

Sample Size: ? 10 ml

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 102694

111.88

$1.12^{-2} / 1.0021^{-2}$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC269				
	Hrs	Hrs	Hrs	Hrs
Date: 2-27-90	Time Completed	Lab Unit Mgr		

54-6800-061 (R-10-83)

14/2

$\frac{490}{10} - .5$

$\frac{533}{10}$

Alpha Calculation by DM on 02-28-1990 at 06:09:29
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : .05 mL Dilution : 1

Mount # 1

$\frac{490}{10} - 0.5 = 2.0698E+00$ uCi/L alpha

Mount # 2

$\frac{533}{10} - 0.5 = 2.2533E+00$ uCi/L alpha

F 1057.-7225

14/2

$\frac{536}{10} - .5$

$\frac{525}{10}$

Alpha Calculation by DM on 02-28-1990 at 06:07:19
Det #14 2 -inch mount Alpha eff. : .2111
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{536}{10} - 0.5 = 1.1331E-02$ uCi/L alpha

Mount # 2

$\frac{525}{10} - 0.5 = 1.1096E-02$ uCi/L alpha

F 1058.-7525

3-4

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7320	SEG.COMP#14	2-15-90	13:58	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	uCI/L		0

Sample Size: ? 10ml

Customer ID: 000012

Remarks, Calculations, Results:
REAGENT BLANK
H_2O

Counton Det 13,14,15

9.226^{-4} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs
Date: 2-27-90	Time Completed	Lab Unit Mgr		

1-2

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7520	SEG.COMP#13	2-15-90	13:54	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	% RECOVERY		0

Sample Size: ? 10ml

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 102844

Counton Det 13,14,15

1.411^{-1} / 1.3688 103%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs
Date: 2-27-90	Time Completed	Lab Unit Mgr		

7-8

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7120	SEG.COMP#16	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	uCI/L		0

Sample Size: ? 50λ

Customer ID: 000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE
#300

Counton Det 13,14,15

5.98 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs
Date: 2-27-90	Time Completed	Lab Unit Mgr		

5-6

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7020	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	uCI/L		0

Sample Size: ? 50λ

Customer ID: 000012

Remarks, Calculations, Results:
#299

Counton Det 13,14,15

4.47 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C269				
Hrs	Hrs	Hrs	Hrs	Hrs
Date: 2-27-90	Time Completed	Lab Unit Mgr		

14/2

$\frac{243}{10} - 19$

$\frac{249}{10}$

Beta Calculation by DM on 02-28-1990 at 06:06:40
Det #14 2 -inch mount Beta eff. : .2734
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{243}{10} - 19.0 = 8.7322E-04$ uCi/L beta

Mount # 2

$\frac{249}{10} - 19.0 = 9.7208E-04$ uCi/L beta

F 1054.-7320

14/2

$\frac{8822}{10} - 19$

$\frac{8680}{10}$

Beta Calculation by DM on 02-28-1990 at 06:06:00
Det #14 2 -inch mount Beta eff. : .2734
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{8822}{10} - 19.0 = 1.4222E-01$ uCi/L beta

Mount # 2

$\frac{8680}{10} - 19.0 = 1.3988E-01$ uCi/L beta

F 1053.-7520

14/2

$\frac{2040}{10} - 19$

$\frac{1969}{10}$

Beta Calculation by DM on 02-28-1990 at 06:08:51
Det #14 2 -inch mount Beta eff. : .2734
Sample size : .05 mL Dilution : 1

Mount # 1

$\frac{2040}{10} - 19.0 = 6.0961E+00$ uCi/L beta

Mount # 2

$\frac{1969}{10} - 19.0 = 5.8621E+00$ uCi/L beta

F 1056.-7120

14/2

$\frac{1562}{10} - 19$

$\frac{1532}{10}$

Beta Calculation by DM on 02-28-1990 at 06:08:16
Det #14 2 -inch mount Beta eff. : .2734
Sample size : .05 mL Dilution : 1

Mount # 1

$\frac{1562}{10} - 19.0 = 4.5210E+00$ uCi/L beta

Mount # 2

$\frac{1532}{10} - 19.0 = 4.4221E+00$ uCi/L beta

F 1055.-7020

9-10

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7220	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	% RECOVERY		0

Sample Size	Customer ID
? 50x + 10ml spk	000012

Remarks, Calculations, Results:

SPIKED SAMPLE
#299
102644 10ml spk

Counter Det 13,14,15

$\frac{33.3 - 4.47}{(20)(10)} = 1.44 \times 10^{-1} / 1.362 \times 10^{-1}$

105.3%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs
Date 2-27-90	Time Completed	Lab Unit Mgr		

54-0000-001 (R-10-83)

11-12

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7520	SEG.COMP#18	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TB	LA-508-101	% RECOVERY		0

Sample Size	Customer ID
? 10ml	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 102644

Counter Det 13,14,15

106.2%

$1.453^{-1} / 1.3688^{-1}$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC269				
Mary Fraley	Hrs	Hrs	Hrs	Hrs
Date 2-27-90	Time Completed	Lab Unit Mgr		

54-0000-001 (R-10-83)

14/2

$\frac{10184}{10} - 19$

$\frac{10397}{10}$

Beta Calculation by DM on 02-28-1990 at 06:09:27
Det #14 2 -inch mount Beta eff. : .2734
Sample size : .05 mL Dilution : 1

Mount # 1

$\frac{10184}{10} - 19.0 = 3.2932E+01$ uCi/L beta

Mount # 2

$\frac{10397}{10} - 19.0 = 3.3634E+01$ uCi/L beta

F 1057.-7220

14/2

$\frac{8933}{10} - 19$

$\frac{9087}{10}$

Beta Calculation by DM on 02-28-1990 at 06:07:17
Det #14 2 -inch mount Beta eff. : .2734
Sample size : 10 mL Dilution : 1

Mount # 1

$\frac{8933}{10} - 19.0 = 1.4405E-01$ uCi/L beta

Mount # 2

$\frac{9087}{10} - 19.0 = 1.4659E-01$ uCi/L beta

F 1058.-7520

4246

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7030	SEG.COMP#15	2-15-90	14: 3	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	uCI/L		0

Sample Size: ? 1ml

Customer ID: 000012

Remarks, Calculations, Results:

Cs^{137} 6.79 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

3210

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7130	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	uCI/L		0

Sample Size: ? 1ml

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

Cs^{137} 7.71 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

2102

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7530	SEG.COMP#18	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	% RECOVERY		0

Sample Size: ? 500λ Li 0.01/2

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 122844

Co^{60} 2.17 uci/l / 2.1046 103.1%

Cs^{137} 3.15 uci/l / 2.9006 108.6%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

4248

Serial No.	Sample Point	Date	Time Issued	Priority
F 1047.-6530	SEG.COMP#7	2-15-90	13:46	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	% RECOVERY		0

Sample Size: ? 500λ Li 0.01/2

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 122844

Co^{60} 2.21 uci/l / 2.1046 105.0%

Cs^{137} 3.00 uci/l / 2.9006 103.4%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

3211

Serial No.	Sample Point	Date	Time Issued	Priority
F 1048.-6330	SEG.COMP#8	2-15-90	13:47	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	uCI/L		0

Sample Size	Customer ID
? ml Li .001	000012

Remarks, Calculations, Results:

REAGENT BLANK.

Cs^{137} < 6.23 $^{-2}$ uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				gw
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

4247

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7230	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
GEA	LA-548-121	% RECOVERY		0

Sample Size	Customer ID
? ml + 500x std Li .001 122844	000012

Remarks, Calculations, Results:

SPIKED SAMPLE F1055

Cs^{137} (8.19' - 6.79') x 2 = 2.80' 96.5%

~~4.695' - 6.79'~~ 2.9006'

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				gw
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-061 (R-10-83)

3.3 3005

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7081	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
PU	LA-503-156	uCI/L		0

Sample Size: ? 1ml + 50λ Pu spike — Customer ID: 000012

Remarks, Calculations, Results: 1200λ Con HNO_3 10843-B

"AEA-480 MIN" ATTACH PRINT OUT

<1.18-2 neill

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		

54-6600-081 (R-10-83)

3.2 2775

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7181	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
PU	LA-503-156	uCI/L		0

Sample Size: ? 1ml + 50λ Pu spike — Customer ID: 000012

Remarks, Calculations, Results: DUPLICATE SAMPLE 1200λ Con HNO_3 10843-B

"AEA-480 MIN" ATTACH PRINT OUT

<7.76-3 neill

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6600-081 (R-10-83)

3.4 4764

Serial No.	Sample Point	Date	Time Issued	Priority
F 1081.-7281	SEG.COMP#17	2-16-90	8:13	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
PU	LA-503-156	% RECOVERY	E21D1	0

Sample Size: ? 1ml LT 50λ SPIKE — Customer ID: 000013

Remarks, Calculations, Results: SPIKED SAMPLE F1053 1200λ Con HNO_3 10843-B

"AEA-480 MIN" ATTACH PRINT OUT

99.013 / 97.329 101.7%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		

54-6600-081 (R-10-83)

3.3 3006

Serial No.	Sample Point	Date	Time Issued	Priority
F 1082.-7581	SEG.COMP#18	2-16-90	8:15	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
PU	LA-503-156	% RECOVERY	E21D1	0

Sample Size: ? 100-10-100 + 50λ spike — Customer ID: 000013

Remarks, Calculations, Results: LMCS CHECK SAMPLE LMCS ID 16843 1ml 8M HNO_3 10843-B

"AEA-480 MIN" ATTACH PRINT OUT

98.1%

95.458 / 97.329

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		

54-6600-081 (R-10-83)

3.2 2770

Serial No.	Sample Point	Date	Time Issued	Priority
F 1047.-6581	SEG.COMP#7	2-15-90	13:47	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
PU	LA-503-156	% RECOVERY		0

Sample Size	Customer ID
? 100-10-100 + 50λ-10B43-B	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 16543
1m 8M HNO_3

105.69 "AEA-480 MIN" ATTACH PRINT OUT

1.028²/97.329

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 6598/RH				GW
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		

84-6800-081 (R-10-83)

3.3 3002

Serial No.	Sample Point	Date	Time Issued	Priority
F 1048.-6381	SEG.COMP#8	2-15-90	13:48	19

Determination	Method/Standard	Result Units	Charge Code	Reruns
PU	LA-503-156	uCI/L		0

Sample Size	Customer ID
? RH 50λ spike 10B43-B	000012

Remarks, Calculations, Results:

REAGENT BLANK
1200λ CON HNO_3

<8.29⁻³ "AEA-480 MIN" ATTACH PRINT OUT
neill

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 6598/RH				GW
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-26-90		

84-6800-081 (R-10-83)

4.4 8120

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7082	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	uCI/L		0

Sample Size: ? 1ml + 100λ Am spike
Customer ID: 000012

Remarks, Calculations, Results:
1200 λ Con HNO_3
<3.66^{-2} uCi/l
"AEA-480 MIN" ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 8598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

4.2 6069

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7182	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	uCI/L		0

Sample Size: ? 1ml + 1ml 100λ spike 9843
Customer ID: 000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE
1200 λ Con HNO_3
"AEA-480 MIN" ATTACH PRINT OUT
<2.39^{-2} uCi/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 8598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

4.2 6071

Serial No.	Sample Point	Date	Time Issued	Priority
F 1075.-6282	SEG.COMP#11	2-16-90	8: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	% RECOVERY	E21D1	0

Sample Size: ? 1mL 100λ-1m + 100λ SPIKE 9843
Customer ID: 000013

Remarks, Calculations, Results:
SPIKED SAMPLE F1055 9843
1200λ Con HNO_3
101.30%
15.923 / 15.711

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 8598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

3.2 2774

Serial No	Sample Point	Date	Time Issued	Priority
F 1076.-6582	SEG.COMP#12	2-16-90	8: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AM	LA-503-156	% RECOVERY	E21D1	0

Sample Size: ? 1ml + 1ml 100λ spike 9843
Customer ID: 000013

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 16843
1mL 8M HNO_3
106.60
16.752 / 15.711
"AEA-480 MIN" ATTACH PRINT OUT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 8598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

H.1 5633

Serial No.	Sample Point	Date	Time Issued	Priority
F 1047.-6582	SEG.COMP#7	2-15-90	13:47	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
AM	LA-503-156	% RECOVERY		0

Sample Size: ? 100-10-1000 + 100x Am spike 9B43

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 16B43
1mL 8M HNO_3

"AEA-480 MIN"
ATTACH PRINT OUT

105.9980
16.652/15.711

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6600-061 (R-10-83)

4.2 6068

Serial No.	Sample Point	Date	Time Issued	Priority
F 1048.-6382	SEG.COMP#8	2-15-90	13:48	19

Determination	Method/Standard	Result Units	Charge Code	Rerun
AM	LA-503-156	uCI/L		0

Sample Size: ? Inl + 100x Am Spike 9B43

Customer ID: 000012

Remarks, Calculations, Results:
REAGENT BLANK
1200x CON HNO_3

"AEA-480 MIN"
ATTACH PRINT OUT

$<2.28^{-2}$ uCi/L

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6600-061 (R-10-83)

2

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7388	SEG.COMP#14	2-15-90	14: 2	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
C14	LA-348-104	uCI/L		0

Sample Size: ? 10 ml

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK comp-2

$\frac{(25)(1000)}{(2.22E6)(10)} = <1.13E-3$ uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Sue Lai				
Hrs 6c916	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
7-18-90		

54-9600-081 (R-10-83)

1

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7588	SEG.COMP#13	2-15-90	13:57	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
C14	LA-348-104	% RECOVERY		0

Sample Size: ? 1 ml

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE 15 mL

LMCS ID 3143

$\frac{(1769.527)(1000)}{2.22E6} = 7.94E-1 / 8.89E-1 = 89.3\%$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Sue Lai				
Hrs 6c916	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
7-18-90		

54-9600-081 (R-10-83)

4

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7188	SEG.COMP#16	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
C14	LA-348-104	uCI/L		0

Sample Size: ? 10 ml

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE comp-2

$\frac{(10.9423)(1000)}{(2.22E6)(10)} = 4.64E-3$ uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Sue Lai				
Hrs 6c916	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
7-18-90		

54-9600-081 (R-10-83)

3

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7088	SEG.COMP#15	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
C14	LA-348-104	uCI/L		0

Sample Size: ? 10 ml

Customer ID: 000012

Remarks, Calculations, Results:

comp-2

$\frac{(9.02542)(1000)}{(2.22E6)(10)} = 4.23E-3$ uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Sue Lai				
Hrs 6c916	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
7-18-90		

54-9600-081 (R-10-83)

6

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7588	SEG.COMP#18	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
C14	LA-348-104	% RECOVERY		0

Sample Size: ? 1 ml

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 31B46

$\frac{(1949.061)(1000)}{2.22E6} = 8.78E-1 / 8.8916E-1 = 98.7\%$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Sue Lai	Em Bauch		[illegible]	
Hrs	Hrs	Hrs	Hrs	Hrs
6c916			Dwyne Sauchuk	

Date	Time Completed	Lab Unit Mgr.	
7-18-90		[illegible]	Dwyne Sauchuk

84-6860-081 (R-10-83)

5

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7288	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
C14	LA-348-104	% RECOVERY		0

Sample Size: ? 10ml + 1 ml STD

Customer ID: 000012

Remarks, Calculations, Results:

spike comp-a 93.8%

STD: 31B46

$(1955.144 - 102.9423) = \frac{(1852.2)(1000)}{2.22E6} = 8.34E-1 / 8.8916E-1 =$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
Sue Lai	Em Bauch		[illegible]	
Hrs	Hrs	Hrs	Hrs	Hrs
6c916				

Date	Time Completed	Lab Unit Mgr.	
7-18-90		[illegible]	Dwyne Sauchuk

84-6860-081 (R-10-83)

A5023

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7385	SEG.COMP#14	2-15-90	14: 1	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
I129	LA-378-103	uCI/L		0

Sample Size: ? 1ml

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

$\frac{(<.119^{-4})(1000)}{.1770} = <6.72^{-2}$ neill

g. 2.1515
+. 2.1461
n. .0054
/.0305

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80725/d.c.				Gne
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
3-1-90	3/8 1143	mel

54-6800-061 (R-10-83)

A5021

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7585	SEG.COMP#13	2-15-90	13:56	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
I129	LA-378-103	% RECOVERY		0

Sample Size: ? 1ml

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 124B44

94.7% $\frac{(.169^{-3})(1000)}{.3049} = 5.542^{-1}$

5.8524

g. 2.1418
+. 2.1325
n. .0093
/.0305

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80725/d.c.				Gne
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
3-1-90	3/8 1144	mel

54-6800-061 (R-10-83)

A-5026

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7185	SEG.COMP#16	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
I129	LA-378-103	uCI/L		0

Sample Size: ? 1ml

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

$\frac{(<.116^{-4})(1000)}{.0721} = <1.61^{-1}$

Rerun

Sample Lost in Analysis

g. 2.1283
+. 2.1261
n. .0022
/.0305

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80725/d.c.				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-1-90		

54-6800-061 (R-10-83)

A5025

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7085	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
I129	LA-378-103	uCI/L		0

Sample Size: ? 1ml

Customer ID: 000012

Remarks, Calculations, Results:

$\frac{(<.120^{-4})(1000)}{.2951} = <4.07^{-2}$ neill

g. 2.1433
+. 2.1343
n. .0090
/.0305

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80725/d.c.				Gne
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-1-90	3/8 1145	mel

54-6800-061 (R-10-83)

A5029

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7585	SEG.COMP#18	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
I129	LA-378-103	% RECOVERY		0

Sample Size	Customer ID
? 1ml	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 124644

102.4%

g. 2.1590
+. 2.1475
n. .0115 / .0305

$\frac{(.226^{-3})(1000)}{.377} = 5.994^{-1}$ / 5.8524^{-1}

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80725/LL				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
3-1-90	3/8 1140	

S4-6800-061 (R-10-83)

A-5028

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7285	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
I129	LA-378-103	% RECOVERY		0

Sample Size	Customer ID
? 1ml + 1ml std. (124644)	000012

Remarks, Calculations, Results:

SPIKED SAMPLE

g. 2.1227
+. 2.1116
n. .0111 / .0305

$\frac{(.219^{-3})(1000)}{.3639} = 6.018^{-1}$ / 5.8524^{-1}

102.8%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
80725/LL				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr.
3-1-90	3/8 1140	

S4-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7383	SEG.COMP#14	2-15-90	14: 1	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	uCI/L		0

Sample Size	Customer ID
? 250λ mT 500λ	000012

Remarks, Calculations, Results:
REAGENT BLANK

<1.08 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-8-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1029.-7583	SEG.COMP#13	2-12-90	12:44	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	% RECOVERY	WB75L	0

Sample Size	Customer ID
? 100λ mT 500λ	000015

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 148833

62.8%

80.454

128.11

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-8-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7183	SEG.COMP#16	2-15-90	14: 6	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	uCI/L		0

Sample Size	Customer ID
? 250λ mT 500λ	000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE

<1.08 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-8-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7083	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
NP	LA-933-141	uCI/L		0

Sample Size	Customer ID
? 250λ mT 500λ	000012

Remarks, Calculations, Results:

<1.08 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-8-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7583	SEG.COMP#13	2-15-90	13:56	26

Determination	Method/Standard	Result Units	Charge Code	Rerune
NP	LA-933-141	% RECOVERY		0

Sample Size	Customer ID
?100λ MT 500λ	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 148833

70.5%

90.34 / 128.11

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6BS98/RH				gre
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-8-90		

54-6800-081 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1057.-7283	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Rerune
NP	LA-933-141	% RECOVERY		0

Sample Size	Customer ID
?250λ + 100λ std MT500λ	000012

Remarks, Calculations, Results:

SPIKED SAMPLE

59.2%

75.784 / 128.11

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6BS98/RH				gre
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-8-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7586	SEG.COMP#13	2-15-90	13:53	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	% RECOVERY	E21D1	0

Sample Size: 1 ML + 1ml Sr carrier

Customer ID:

Remarks, Calculations, Results: SEP 10:40

LMCS CHECK SAMPLE
LMCS ID 18646

RERUN

8.1394 G. 7.9769
8.0458 T. 7.8822
0.0936 N. 0.0947
.1 .1

1.1085 / 1.2545 = 88.4%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598	[illegible]	[illegible]	[illegible]	[illegible]
Hrs	Hrs	Hrs	Hrs	Hrs
[illegible]				Kathy Hamdike

Date	Time Completed	Lab Unit Mgr
6-25-90		[illegible] Kathy Hamdike

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7386	SEG.COMP#14	2-15-90	13:58	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	uCI/L	E21D1	0

Sample Size: 7 1ml + 1ml Sr carrier

Customer ID:

Remarks, Calculations, Results: SEP 10:40

REAGENT BLANK

RERUN

8.1555 G. 8.1674
8.0626 T. 8.0756
0.0929 N. 0.0918
.1 .1

<3.80 E-3 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598	[illegible]	[illegible]	[illegible]	[illegible]
Hrs	Hrs	Hrs	Hrs	Hrs
[illegible]				

Date	Time Completed	Lab Unit Mgr
6-25-90		[illegible] Kathy Hamdike

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7286	SEG.COMP#17	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	% RECOVERY	E21D1	0

Sample Size: 1 ML + 1ml Sr Std + 1ml Sr carrier

Customer ID:

Remarks, Calculations, Results: 18846 SEP 11:00

SPIKED SAMPLE

RERUN

7.9533 G. 7.8985
7.8614 T. 7.8053
0.0919 N. 0.0932
.1 .1

2.395 - 1.164 = 1.231 uci/l
~~2.315~~

1.231 / 1.2545 = 98.1%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598	[illegible]	[illegible]		[illegible]
Hrs	Hrs	Hrs	Hrs	Hrs
[illegible]				

Date	Time Completed	Lab Unit Mgr
6-25-90		[illegible] Kathy Hamdike

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7586	SEG.COMP#18	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	% RECOVERY	E21D1	0

Sample Size: 1 ML + 1ml Sr. carr

Customer ID:

Remarks, Calculations, Results: SEP 10:40

LMCS CHECK SAMPLE
LMCS ID 18846

RERUN

7.9592 G. 8.1773
7.8675 T. 8.0844
0.0917 N. 0.0929
.1 .1

1.1166 / 1.2545 = 92.9%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6B598	[illegible]	[illegible]	[illegible]	[illegible]
Hrs	Hrs	Hrs	Hrs	Hrs
[illegible]				Kathy Hamdike

Date	Time Completed	Lab Unit Mgr
6-25-90		[illegible] Kathy Hamdike

54-8800-081 (R-10-83)

11/2 6-25-90 AJ 1655 FO1057.-7286 ΔT 5.92

1057-7286 1ml

20929 / 10 - 22

Sr Calculation by VR on 06-26-1990 at 03:20:57
Det #11 2 -inch mount Sr eff : .3919 Y eff : .4443

Sample size : 1 mL Dilution : 1 Method : 1

20784 / 10

Mount # 1 Decay time = 5.92 hrs

20929 / 10 - 22.0 = 2.2239E+00 uCi/L strontium 2.4199 .919

Mount # 2 Decay time = 5.92 hrs

20784 / 10 - 22.0 = 2.2083E+00 uCi/L strontium 2.369 .932

2.395 - ~~1.678~~ 1.164 = ~~1.717~~ 1.231

11/2 6-25-90 AJ 1830 FO1058.-7586 ΔT 7.83

1058-7586 1ml

10072 / 10 - 22

Sr Calculation by VR on 06-26-1990 at 03:18:37
Det #11 2 -inch mount Sr eff : .3919 Y eff : .4443

Sample size : 1 mL Dilution : 1 Method : 1

10821 / 10

Mount # 1 Decay time = 7.83 hrs

10072 / 10 - 22.0 = 1.0369E+00 uCi/L strontium 1.131 .919

Mount # 2 Decay time = 7.83 hrs

10821 / 10 - 22.0 = 1.1157E+00 uCi/L strontium 1.20097 .929

11/2 6-25-90 AJ 2315 FO1053.-7586 ΔT 12.58

1053-7586 1ml

10609 / 10 - 22

Sr Calculation by VR on 06-26-1990 at 03:15:04
Det #11 2 -inch mount Sr eff : .3919 Y eff : .4443

Sample size : 1 mL Dilution : 1 Method : 1

10609 / 10

Mount # 1 Decay time = 12.58 hrs

10609 / 10 - 22.0 = 1.0436E+00 uCi/L strontium 1.115

Mount # 2 Decay time = 12.58 hrs

10609 / 10 - 22.0 = 1.0436E+00 uCi/L strontium 1.102 .947

11/2 6-25-90 AJ 2250 FO1054.-7386 ΔT 12.17

1054-7386 1ml

170 / 10 - 22

Sr Calculation by VR on 06-26-1990 at 03:13:44
Det #11 2 -inch mount Sr eff : .3919 Y eff : .4443

Sample size : 1 mL Dilution : 1 Method : 1

155 / 10

Mount # 1 Decay time = 12.17 hrs

170 / 10 - 22.0 < 3.4848E-03 uCi/L strontium $<3.75E^{-3}$ uCi/L .929

Mount # 2 Decay time = 12.17 hrs

155 / 10 - 22.0 < 3.4848E-03 uCi/L strontium $<3.80E^{-3}$ uCi/L .918

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7186	SEG.COMP#16	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	uCI/L		0

Sample Size: ? 1ml n 1ml Sr carrier

Customer ID:

Remarks, Calculations, Results: SEP 10:55

DUPLICATE SAMPLE

RERUN

8.1503 G. 7.9399
8.0560 T. 7.8452
0.0943 N. 0.0947
.1 .1

1.40 uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB598				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
6-25-90		

LA-6800-001 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7086	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SR	LA-220-101	uCI/L		0

Sample Size: ? 1ml n 1ml Sr carrier

Customer ID:

Remarks, Calculations, Results: SEP 10:55

RERUN

8.1532 G 8.1462
8.0571 T. 8.0507
0.0961 N. 0.0955
.1 .1

1.164

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GB598				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
6-25-90		

LA-6800-001 (R-10-83)

11/2 6-25-90 AJ 2210 FO1056.-7186 AT 11.25 1ml

① 13352/10 - 22

Sr Calculation by VR on 06-26-1990 at 03:16:26
Det #11 2 -inch mount Sr eff : .3919 Y eff : .4443

Sample size : 1 mL Dilution : 1 Method : 1

② 13012/10

Mount # 1 Decay time = 11.25 hrs

13352 / 16 - 22.0 = 1.3358E+00 uCi/L strontium

1.42 uci/l

.943

Mount # 2 Decay time = 11.25 hrs

13012 / 10 - 22.0 = 1.3012E+00 uCi/L strontium

1.374 uci/l

.947

11/2 6-25-90 AJ 2005 FO1055.-7086 AT 9.17 1ml

① 10976/10 - 22

Sr Calculation by VR on 06-26-1990 at 03:17:15
Det #11 2 -inch mount Sr eff : .3919 Y eff : .4443

Sample size : 1 mL Dilution : 1 Method : 1

② 10941/10

Mount # 1 Decay time = 9.17 hrs

10976 / 10 - 22.0 = 1.1167E+00 uCi/L strontium

1.162

.961

Mount # 2 Decay time = 9.17 hrs

10941 / 10 - 22.0 = 1.1131E+00 uCi/L strontium

1.166

.955

344

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7384	SEG.COMP#14	2-15-90	14: 1	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	uCI/L		0

Sample Size: ? 100λ + 100λ spike, 49839

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

~~4.446 uci/L~~

<2.83⁻¹ uci/L

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-15-90		

54-8800-081 (R-10-83)

~~1088~~ 1-2 142

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7584	SEG.COMP#13	2-15-90	13:56	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	% RECOVERY		0

Sample Size: ? 250λ + 100λ spike, 49839

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 68839

~~3.49 uci/L~~

116.30%

7.387⁻¹ / 6.3521⁻¹

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-15-90		

54-8800-081 (R-10-83)

748

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7184	SEG.COMP#16	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	uCI/L		0

Sample Size: ? 1ml + 100λ spike, 49839

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

~~3.416 uci/L~~ KT

6.83⁻² uci/L

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-15-90		

54-8800-081 (R-10-83)

546

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7084	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
TC99	LA-438-101	uCI/L		0

Sample Size: ? 1ml + 100λ spike, 49839

Customer ID: 000012

Remarks, Calculations, Results:

~~2.598~~ KT uci/L

5.20⁻² uci/L

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 BS98/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-15-90		

54-8800-081 (R-10-83)

11412

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7584	SEG.COMP#18	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
TC99	LA-438-101	% RECOVERY		0

Sample Size: ? 250λ + 100λ spike 49839

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 68839

~~3.734~~

117.6%

7.469 / .63521

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 B598/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-15-90		

84-6800-081 (R-10-83)

9410

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7284	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
TC99	LA-438-101	% RECOVERY		0

Sample Size: ? 1ml + (100 to 250λ std + 100λ) 68839

Customer ID: 000012

Remarks, Calculations, Results:

SPIKED SAMPLE

spike 49839

111.7%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6 B597/RH				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr
3-15-90		

84-6800-081 (R-10-83)

$$\frac{2142.203 - 41.227}{5.8795^3} = \frac{41.227}{.35734} \quad S$$

F01057.-7284

$$\frac{2300.9 - 183.38}{5.8795^3} = \frac{183.38}{.3602} \quad SHS$$

$$509.11 - \overset{\cancel{115.37}}{115.37} = \frac{(393.736)(4)(1000)}{2.22^6}$$

$$7.094^{-1} / 6.3521^{-1}$$

16

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7387	SEG.COMP#14	2-15-90	14: 2	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H3	LA-218-113	uCI/L		0

Sample Size: ? 1 ml

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

3.772 <25

$<1.13^{-2}$ uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6545				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3/29/90			OMS

54-6600-061 (R-10-83)

15

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7587	SEG.COMP#13	2-15-90	13:57	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H3	LA-218-113	% RECOVERY		0

Sample Size: ? 1 ml

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 140644

1597.885

7.198^{-1} / 7.076^{-1} 101.7 %

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6545				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3/29/90			OMS

54-6600-061 (R-10-83)

18-19

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7187	SEG.COMP#16	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H3	LA-218-113	uCI/L		0

Sample Size: ? 1000 µ

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE taken from spike sample

53.89141
53.56292

2.42^{-2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6545				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3/29/90			OMS

54-6600-061 (R-10-83)

17

Serial No	Sample Point	Date	Time Issued	Priority
F 1055.-7087	SEG.COMP#15	2-15-90	14: 4	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H3	LA-218-113	uCI/L		0

Sample Size: ? 1 ml

Customer ID: 000012

Remarks, Calculations, Results:

50.00574

2.25^{-2} uci/l

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6545				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3/29/90			OMS

54-6600-061 (R-10-83)

21

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7587	SEG.COMP#18	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H3	LA-218-113	% RECOVERY		0

Sample Size: ? 1ml

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 140 BYK

1574.466

7.092⁻¹/7.076⁻¹ 100.2%

DMS

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65545				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3/29/90			DMS

54-8800-081 (R-10-83)

20

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7287	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
H3	LA-218-113	% RECOVERY		0

Sample Size: ? 1000λ + 1000λ std 140 BYK = 1ml

Customer ID: 000012

Remarks, Calculations, Results:

SPIKED SAMPLE

743.8165

91.5%

6.476⁻¹/7.076⁻¹

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65545				
Hrs	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3/29/90			DMS

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7395	SEG.COMP#14	2-15-90	14: 2	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	PPM		0

Sample Size: ? 1 mL

Customer ID: 000012

Remarks, Calculations, Results: pk Hgt: 5.0 mm 2nd Leach

REAGENT BLANK

$<5/1000 = <5.00^{-3}$ ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC280				RK Tullo 4-11-90
Hrs 25m	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-10-90		ZMP	DH

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7595	SEG.COMP#13	2-15-90	13:57	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	% RECOVERY		0

Sample Size: ? 35L

Customer ID: 000012

Remarks, Calculations, Results: pk Hgt: 26.0 mm 2nd Leach

LMCS CHECK SAMPLE
LMCS ID 38C116L

100%

$39.7866/35 = 1.137/1.13$

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC280				RK Tullo 4-11-90
Hrs 25m	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-10-90		ZMP	DH

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7195	SEG.COMP#16	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	PPM		0

Sample Size: ? 1 mL

Customer ID: 000012

Remarks, Calculations, Results: pk Hgt: 5.0 mm 2nd Leach

DUPLICATE SAMPLE

$<5ng/1000 = <5.00^{-3}$ ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC280				RK Tullo 4-11-90
Hrs 25m	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-10-90		ZMP	DH

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7095	SEG.COMP#15	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	PPM		0

Sample Size: ? 1 mL

Customer ID: 000012

Remarks, Calculations, Results: pk Hgt: 5.5 2nd Leach

$<5/1000 = <5.00^{-3}$ ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC280				RK Tullo 4-11-90
Hrs 25m	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-10-90		ZMP	DH

54-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7595	SEG.COMP#18	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	% RECOVERY		0

Sample Size: ? 35L

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 5R11BU

pk Hgt. 83.0mm 2nd leach

96.7%

38.262/35 = 1.093/1.13

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC280				RK Fuller 4-11-90
Hrs 25m	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-10-90		ZMO	AH

84-6800-051 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7295	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	% RECOVERY		0

Sample Size: ? 1ml

Customer ID: 000012

Remarks, Calculations, Results:
SPIKED SAMPLE
5R11BU 35L

pk Hgt. 83.0mm 2nd Leach

96.7%

38.262/35 = 1.093/1.13

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GC280				RK Fuller 4-11-90
Hrs 25m	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
4-10-90		ZMO	AH

84-6800-051 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1036.-8397	SEG.COMP#20	2-12-90	12:51	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	PPM	HB75L	0

Sample Size: Customer ID: 000015

Remarks, Calculations, Results:

REAGENT BLANK

Peak height 6, ~~.6494 ng~~ $< 1.00 \times 10^{-2}$ ppm

< 0.01 ppm

RKT

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				RK Fuller 3-1-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1035.-8597	SEG.COMP#19	2-12-90	12:51	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	% RECOVERY	HB75L	0

Sample Size: 25l Customer ID: 000015

Remarks, Calculations, Results:

LMCS CHECK SAMPLE

LMCS ID 58C11BP

Peak ht: 140, 30.46ng, 1.22 ppm, ~~93.7%~~ 97.6%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				RK Fuller 3-1-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7197	SEG.COMP#16	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	PPM		0

Sample Size: ? 2ml Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

PKHT 10, .574ng, 2.87×10^{-4} ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				RK Fuller 3-1-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				

Date	Time Completed	Lab Unit Mgr
2-27-90		

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7097	SEG.COMP#15	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	PPM		0

Sample Size: ? 2ml Customer ID: 000012

Remarks, Calculations, Results:

Peak height - 10.5, .689ng, 3.45×10^{-4} ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				RK Fuller 3-1-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				

Date	Time Completed	Lab Unit Mgr
2.27.90		

54-6800-081 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1058.-7597	SEG.COMP#18	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
Hg	LA-325-102	% RECOVERY		0

Sample Size	Customer ID
? 25l	000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 58C11BP
peak height 138, 30.00 ng, 1.20 ppm, ~~92.31%~~
96.0%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6A543				RK Fuller 3-1-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7297	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
HG	LA-325-102	% RECOVERY		0

Sample Size	Customer ID
? 2ml+25l 58C11P	000012

Remarks, Calculations, Results:

SPIKED SAMPLE
peak height 121, 26.01 ng, 1.020 ppm, 78.34% Spike recovery

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6A543				RK Fuller 3-1-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				

Date	Time Completed	Lab Unit Mgr
2-27-90		

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1054.-7396	SEG.COMP#14	2-15-90	14: 2	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
SE	LA-365-131	PPM		0

Sample Size: ? 1 mL

Customer ID: 000012

Remarks, Calculations, Results:
REAGENT BLANK pK Hgt: 6.5mm 2nd Leach

~~37.6~~ 3.777/1000 = .00378

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Review
GC280				RK Fellow 4-2-90
Hrs: 25m	Hrs	Hrs	Hrs	Hrs

Date: 3-30-90 | Time Completed | Lab Unit Mgr

84-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1053.-7596	SEG.COMP#13	2-15-90	13:57	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
SE	LA-365-131	% RECOVERY		0

Sample Size: ? 25m

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 58C11Bu
pK Hgt: 36.0mm 2nd Leach

39.1487/35 = 1.118 / 1.13 98.9%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Review
GC280				RK Fellow 4-2-90
Hrs: 25m	Hrs	Hrs	Hrs	Hrs

Date: 3-30-90 | Time Completed | Lab Unit Mgr

84-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1056.-7196	SEG.COMP#16	2-15-90	14: 7	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
SE	LA-365-131	PPM		0

Sample Size: ? 1 mL

Customer ID: 000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE pK Hgt: 4.0mm 2nd Leach

.7794/1000 = .00078 ~~.00078~~ (97)

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Review
GC280				RK Fellow 4-2-90
Hrs: 25m	Hrs	Hrs	Hrs	Hrs

Date: 3-30-90 | Time Completed | Lab Unit Mgr

84-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1055.-7096	SEG.COMP#15	2-15-90	14: 5	26

Determination	Method/Standard	Result Units	Charge Code	Rerun
SE	LA-365-131	PPM		0

Sample Size: ? 1 mL

Customer ID: 000012

Remarks, Calculations, Results:
pK Hgt: 4.0mm 2nd Leach

.7794/1000 = ~~2.79~~ ppm ~~.00078~~ .00078 ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - Review
GC280				RK Fellow 4-2-90
Hrs: 25m	Hrs	Hrs	Hrs	Hrs

Date: 3-30-90 | Time Completed | Lab Unit Mgr

84-6600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1058.-7596	SEG.COMP#18	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SE	LA-365-131	% RECOVERY		0

Sample Size: ? 35x

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 58C11BU

pk Hgt: 36.5mm 2nd Leach

100.5%

39.748/35 - 1.136/1.13

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C280				RK Tiller 4-2-90
Hrs: 25m	Hrs	Hrs	Hrs	Hrs

Date: 3-30-90 | Time Completed | Lab Unit Mgr

54-6800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1057.-7296	SEG.COMP#17	2-15-90	14: 8	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SE	LA-365-131	% RECOVERY		0

Sample Size: ? 1 mL 35x spike

Customer ID: 000012

Remarks, Calculations, Results:

SPIKED SAMPLE
58C11BU

pk Hgt: 29.5mm 2nd Leach

~~31.355~~ 31.355 ~~167.8%~~

31.355 - .7794 / 35 = .8736 / 1.13 = 77.3% ~~26.5588 / 35 = .7585 / 1.13~~

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C280				RK Tiller 4-2-90
Hrs: 25m	Hrs	Hrs	Hrs	Hrs

Date: 3-30-90 | Time Completed | Lab Unit Mgr

54-6800-081 (R-10-83)

ACID DIGESTION ANALYSIS

APPENDIX A

Serial No.	Sample Point	Date	Time Issued	Priority
F 1061.-8000	SEG.COMP#21	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ACD-DGST	LA-505-159	G/L		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

GRAMS SAMPLE _____
VOLUME ON
COMPLETION 50ml

~~1.043 -2 g/ml~~ SJ

1.043x10¹ g/ml

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
61483				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-19-90			SSH

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1060.-8300	SEG.COMP#20	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ACD-DGST	LA-505-159	G/L		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK
VOLUME ON
COMPLETION 50ml

complete

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
61483				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-19-90			SSH

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1063.-8200	SEG.COMP#23	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ACD-DGST	LA-505-158	% RECOVERY		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results: 1.042x10¹ g/L

SPIKED ANALYSIS
GRAMS SAMPLE _____
VOLUME ON
COMPLETION 50ml
VOLUME SPIKE _____
SPIKE ID 103C15D & 104C15-B

~~1.042 -2 g/ml~~ SJ

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
61483				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-19-90			SSH

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1062.-8100	SEG.COMP#22	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ACD-DGST	LA-505-159	G/L		0

Sample Size: ?

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE ANALYSIS
GRAMS SAMPLE _____
VOLUME ON
COMPLETION 50ml

~~1.0082 -2 g/ml~~ SJ

1.0082x10¹ g/L

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
61483				
Hrs .5	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
2-19-90			SSH

54-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1160.-8350	SEGMENT-X	3- 5-90	11:37	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	PPM	E21D1	0

Sample Size: ?

Customer ID: 689079

Remarks, Calculations, Results:
REAGENT BLANK

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs
J. White				
Date	Time Completed	Lab Unit Mgr		
4-11-90		AP		

84-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1152.-8550	SEGMENT-P	3- 5-90	11:36	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	% RECOVERY	E21D1	0

Sample Size: ? Direct 81C11A

Customer ID: 689079

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID
78C11F
82B38C
77C11F

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs
J. White				
Date	Time Completed	Lab Unit Mgr		
4-11-90		AP		

84-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1156.-8550	SEGMENT-T	3- 5-90	11:36	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	% RECOVERY	E21D1	0

Sample Size: ? Direct

Customer ID: 689079

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 8ZC11A

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs
J. White				
Date	Time Completed	Lab Unit Mgr		
4-11-90		AP		

84-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1155.-6250	SEGMENT-S	3- 5-90	11:36	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
ICP	LA-505-151	PPM	E21D1	0

Sample Size: ? 100-10 & 500-10

Customer ID: 689079

Remarks, Calculations, Results:
SPIKE SAMPLE
SPIKE ID
SPIKE VOLUME

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
65283				
Hrs	Hrs	Hrs	Hrs	Hrs
J. White				
Date	Time Completed	Lab Unit Mgr		
4-11-90		AP		

84-6800-061 (R-10-83)

ICP Analysis - Acid Digestion

Serial No.	Sample Point	Date	Time Issued	Priority
F 1062.-8150	SEG.COMP#22	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Rerunn
ICP	LA-505-151	PPM		0

Sample Size: ? 100-10 E 500-10

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

Analyst-1	Analyst-2	Analyst-3	Analyst-4	Analyst-5
105283				
Hrs	Hrs	Hrs	Hrs	Hrs
J. Wilhelm				
Date 4-11-90	Time Completed	Lab Unit Mgr		

B4-8600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1061.-8050	SEG.COMP#21	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Rerunn
ICP	LA-505-151	PPM		0

Sample Size: ? 100-10 E 500-10

Customer ID: 000012

Remarks, Calculations, Results:

Analyst-1	Analyst-2	Analyst-3	Analyst-4	Analyst-5
105283				
Hrs	Hrs	Hrs	Hrs	Hrs
J. Wilhelm				
Date 4-11-90	Time Completed	Lab Unit Mgr		

B4-8600-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 934.-8395	SEG.COMP#20	1-24-90	8:49	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	PPM	WB75L	0

Sample Size: ? 1 ml

Customer ID:

Remarks, Calculations, Results:
REAGENT BLANK
peak height 2, -1.0256ng, <.005ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6A543				RK Tilla 3-26-90
Hrs	Hrs	Hrs	Hrs	Hrs
J Hopkins				
Date	Time Completed	Lab Unit Mgr		
3-15-90				

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1059.-8595	SEG.COMP#19	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	% RECOVERY		0

Sample Size: ? ~~500l~~ 35l QH

Customer ID: 000012

Remarks, Calculations, Results:
LMCS CHECK SAMPLE
LMCS ID 58C11BR QH
peak height ~~74, 37.2~~ 85, 43.04ng, 106.01%
1.23ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6A543				RK Tilla 3-26-90
Hrs	Hrs	Hrs	Hrs	Hrs
J Hopkins				
Date	Time Completed	Lab Unit Mgr		
~~3-15-90~~ 3-15-90				

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1062.-8195	SEG.COMP#22	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	PPM		0

Sample Size: ? 500l

Customer ID: 000012

Remarks, Calculations, Results:
DUPLICATE SAMPLE
peak height 5, .567ng, 1.13×10^{-3} ppm
$< 1.0^{-2}$ ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6A543				RK Tilla 3-26-90
Hrs	Hrs	Hrs	Hrs	Hrs
J Hopkins				
Date	Time Completed	Lab Unit Mgr		
3-15-90				

84-8800-081 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1061.-8095	SEG.COMP#21	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	PPM		0

Sample Size: ? 500l

Customer ID: 000012

Remarks, Calculations, Results:
peak height 5, .567ng, 1.13×10^{-3} ppm
$< 1.0^{-2}$ ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6A543				RK Tilla 3-26-90
Hrs	Hrs	Hrs	Hrs	Hrs
J Hopkins				
Date	Time Completed	Lab Unit Mgr		
3-15-90				

84-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1083.-8595	SEG.COMP#19	2-16-90	8:15	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	% RECOVERY	E21D1	0

Sample Size: ? 35λ

Customer ID: 000013

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 58C11BR
peak height 85, 43.04ng, 106.01%, 1.229ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GA543				TK 2-26-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				

Date	Time Completed	Lab Unit Mgr	
3-15-90			

84-6800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1063.-8295	SEG.COMP#23	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
AS	LA-355-131	% RECOVERY		0

Sample Size: ? 500λ

Customer ID: 000012

Remarks, Calculations, Results:

SPIKE SAMPLE
SPIKE ID 58C11BR
SPIKE VOLUME 35λ
peak height 76.5, 37.95ng, 93.49% Recovery
1.084ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
GA543				TK 2-26-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				

Date	Time Completed	Lab Unit Mgr	
3-15-90			

84-6800-061 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1063.-8297	SEG.COMP#23	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
HG	LA-325-102	% RECOVERY		0

Sample Size: ? 2ml + 25l

000012

Remarks, Calculations, Results:

SPIKE SAMPLE
SPIKE ID S8C11P
SPIKE VOLUME 25l

Peak height 174, 38.32ng, 1.07ppm
82.46% recovery

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				R.H. Fellow 3-9-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				
Date	Time Completed	Lab Unit Mgr		
2-27-90				

34-8600-001 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1064.-8597	SEG.COMP#24	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
HG	LA-325-102	% RECOVERY		0

Sample Size: ? 25l

000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID S8C11P

PK Ht-143, 31.13ng, 1.25ppm - ~~95.97%~~ *

100.0%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				R.H. Fellow 3-9-90
Hrs	Hrs	Hrs	Hrs	Hrs
J. Hopkins				
Date	Time Completed	Lab Unit Mgr		
2-27-90				

Serial No.	Sample Point	Date	Time Issued	Priority
F 1060.-8397	SEG.COMP#20	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
HG	LA-325-102	PPM		0

Sample Size: ? 0

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

PK Ht 8 = ~~.1149ng~~

< 0.01 ppm RK 7

$<1.00 \times 10^{-2}$ ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				RK 3-9-90
Hrs	Hrs	Hrs	Hrs	Hrs
J Hopkins				
Date: 2-27-90	Time Completed	Lab Unit Mgr		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1059.-8597	SEG.COMP#19	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
HG	LA-325-102	% RECOVERY		0

Sample Size: ? 251

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE

LMCS ID 58C118P

peak HT-137.5, 29.85ng, 1.19ppm ~~91.85%~~

95.2%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				RK 3-9-90
Hrs	Hrs	Hrs	Hrs	Hrs
J Hopkins				
Date: 2-27-90	Time Completed	Lab Unit Mgr		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1062.-8197	SEG.COMP#22	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
HG	LA-325-102	PPM		0

Sample Size: ? 2ml

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE

PK HT-58, 11.41ng, 5.71×10^{-3} ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				RK 3-9-90
Hrs	Hrs	Hrs	Hrs	Hrs
J Hopkins				
Date: 2-27-90	Time Completed	Lab Unit Mgr		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1061.-8097	SEG.COMP#21	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
HG	LA-325-102	PPM		0

Sample Size: ? 2ml

Customer ID: 000012

Remarks, Calculations, Results:

59, 11.64ng, 5.82×10^{-3} ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6A543				RK 3-9-90
Hrs	Hrs	Hrs	Hrs	Hrs
J Hopkins				
Date: 2-27-90	Time Completed	Lab Unit Mgr		

54-8800-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1060.-8396	SEG.COMP#20	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SE	LA-365-131	PPM		0

Sample Size: ? 100 λ

Customer ID: 000012

Remarks, Calculations, Results:

REAGENT BLANK

pk Height = 3.0 mm

.844 / .1 = 8.439 ppb

8.44^{-3} ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C230				RK 3-29-90
Hrs: 25	Hrs	Hrs	Hrs	Hrs

Date: 3-29-90 | Time Completed: | Lab Unit Mgr: | RMS

84-8800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1059.-8596	SEG.COMP#19	2-15-90	14: 9	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SE	LA-365-131	% RECOVERY		0

Sample Size: ? 35 λ

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE
LMCS ID 58011BS

pk Height = 38.0 mm

37.764 ng / 35 = 1.079

93.8% RMS

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C280				RK 3-29-90
Hrs: 25	Hrs	Hrs	Hrs	Hrs

Date: 3-29-90 | Time Completed: | Lab Unit Mgr: | RMS

84-8800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1062.-8196	SEG.COMP#22	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SE	LA-365-131	PPM		0

Sample Size: ? 100 λ

Customer ID: 000012

Remarks, Calculations, Results:

DUPLICATE SAMPLE
pk Height = 4.0 mm

18.987 ppb

1.89^{-2} ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C280				RK 3-29-90
Hrs: 25	Hrs	Hrs	Hrs	Hrs

Date: 3-29-90 | Time Completed: | Lab Unit Mgr: | RMS

84-8800-061 (R-10-83)

Serial No	Sample Point	Date	Time Issued	Priority
F 1061.-8096	SEG.COMP#21	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SE	LA-365-131	PPM		0

Sample Size: ? 100 λ

Customer ID: 000012

Remarks, Calculations, Results:

pk Height = 4.0 mm

1.899 / .1 = 18.99 ppb

1.90^{-2} ppm

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst - 5
6C280				RK 3-29-90
Hrs: 25	Hrs	Hrs	Hrs	Hrs

Date: 3-29-90 | Time Completed: | Lab Unit Mgr: | RMS

84-8800-061 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1064.-8596	SEG.COMP#24	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SE	LA-365-131	% RECOVERY		0

Sample Size: ? 35λ

Customer ID: 000012

Remarks, Calculations, Results:

LMCS CHECK SAMPLE pk Height 37 mm
LMCS ID 58C11BS

36.709 / 35 = 1.049 ppm

91.2%
DMS

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6C290				RK Tull 3-29-90
Hrs: 25 m	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3-29-90			DMS

54-6960-081 (R-10-83)

Serial No.	Sample Point	Date	Time Issued	Priority
F 1063.-8296	SEG.COMP#23	2-15-90	14:10	26

Determination	Method/Standard	Result Units	Charge Code	Reruns
SE	LA-365-131	% RECOVERY		0

Sample Size: ? 100λ + 35λ LMCS SPIKE

Customer ID: 000012

Remarks, Calculations, Results:

SPIKE SAMPLE pk Height = 31 mm
SPIKE ID 58C11BS
SPIKE VOLUME 35λ

30.3797 / 35 = .868

75.4%

Analyst - 1	Analyst - 2	Analyst - 3	Analyst - 4	Analyst
6C290				RK Tull 3-29-90
Hrs: 25 m	Hrs	Hrs	Hrs	Hrs

Date	Time Completed	Lab Unit Mgr	
3-29-90			DMS

54-6960-081 (R-10-83)

APPENDIX B
ANALYTICAL DETECTION LIMITS

SINGLE SHELL TANK PROJECT
Analytical Detection Limits
October 12, 1990

The following detection limits are derived on ideal matrices. These values were derived by using either calibration standards or pure matrix standards. Detection limits on actual single shell tank samples are likely to be much higher. No information regarding procedure detection limits is available for procedures not listed in this report.

Procedure LA-355-131
Arsenic Analysis by Hydride Generation Atomic Absorption

Detection Limit = 0.005 ppm in solution
Typical sample dilution for the Fusion Dissolution was 0.0025g/mL.
Typical sample dilution for the Water Digestion was 0.010g/mL.
Typical sample dilution for the acid Digestion was 0.010g/mL.

Procedure LA-325-102
Mercury Analysis by Atomic Absorption Manual Cold Vapor Technique

Detection Limit = 0.002 ppm in solution
Typical sample dilution for the Fusion Dissolution was 0.0025g/mL.
Typical sample dilution for the Water Digestion was 0.010g/mL.
Typical sample dilution for the acid Digestion was 0.010g/mL.
Solids were analyzed directly.

Procedure LA-362-131
Selenium Analysis by Hydride Generation Atomic Absorption

Detection Limit = 0.005 ppm in solution
Typical sample dilution for the Fusion Dissolution was 0.0025g/mL.
Typical sample dilution for the Water Digestion was 0.010g/mL.
Typical sample dilution for the acid Digestion was 0.010g/mL.

Procedure **LA-533-105**
Anion Analysis on Dionex Model 4000i

Typical sample dilution was 0.000099g/mL

Fluoride
Detection Limit in solution = 0.09 ppm.

Chloride
Detection Limit in solution = 0.04 ppm.

Nitrate
Detection Limit in solution = 0.24 ppm.

Phosphate
Detection Limit in solution = 0.13 ppm.

Sulfate
Detection Limit in solution = 0.13 ppm.

Procedure **LA-622-102**
Determination of Carbonate in Solutions by Coulometry

Detection Limit = 5 ppm in solution
Typical sample dilution was 0.01g/mL

Procedure **LA-344-105**
Total Organic Carbon
Determination of Carbon Insolation by Combustion and Coulometry

Detection Limit = 5.5 ppm in solution
Typical sample dilution was 0.01g/mL

Procedure LA-505-151
Inductively Coupled Plasma (ICP) Emission Spectrometer Operations and Analysis

Typical sample dilution for the Fusion Dissolution was 0.00019g/mL.

Typical sample dilution for the Water Digestion was 0.000476g/mL.

Typical sample dilution for the acid Digestion was 0.000476g/mL.

Instrument Detection Limit ppm.

Aluminum	0.0745	Antimony	0.1424
Arsenic	0.0223	Barium	0.0026
Beryllium	0.0006	Bismuth	0.0839
Boron	0.0083	Cadmium	0.0039
Calcium	0.0002	Cerium	0.1359
Chromium	0.0039	Cobalt	0.0246
Copper	0.0158	Europium	0.0024
Iron	0.0073	Lanthanum	0.0141
Lead	0.0273	Lithium	0.0032
Magnesium	0.0001	Manganese	0.0011
Mercury	0.0036	Molybdenum	0.0049
Neodymium	0.2130	Nickel	0.0147
Phosphorous	0.0308	Potassium	0.2122
Samarium	0.1525	Selenium	0.0631
Silicon	0.0314	Silver	0.0183
Sodium	0.0483	Strontium	0.0010
Sulfur	0.0163	Tantalum	0.0273
Thallium	0.0646	Thorium	0.0122
Tin	0.0144	Titanium	0.0035
Tungsten	0.0273	Uranium	1.1405
Vanadium	0.0186	Zinc	0.0017
Zirconium	0.0141		