1226136

14-ESQ-0084

SECTION 2 OF 4

INFORMATION REQUESTED IN SUPPORT OF THE MAY 19 AND 20 2014 US ENVIRONMENTAL PROTECTION AGENCY (EPA) TREATMENT STORAGE AND DISPOSAL (TSD) UNITS AND WASTE GENERATOR ACTIVITIES INSPECTIONS OF THE HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT ACTIVITIES

LABCORE Completed Batch Report for Batch# 00013338

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903100045	ICV				
2	S0903100046	ICB				
3	S0903100047	LLS				
4	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
5	S09T001762	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
6	S09T001783	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
7	S09T001772	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
8	S0903100048	DUP	S09T001772			
9	S0903100049	SPK-IC	S09T001772			
10	S0903100050	CCV				
11	S0903100051	CCB				

Units shown for QC (BLK/BKG) may not reflect the actual units.

03/11/2009 WED 11:00 [TX/RX NO 5490] 001

3/11/2009 10:57:54AM
IncompleteBatchShort Version 2.7.22
batchreports 2.7.25

LABCORE Data Entry Template for Batch# 00013338

Analyst: Edwards, Cheryl **Standard ID / Book#:** See bench Sheet

Instrument: IC-6 (SMALL ORG ACIDS)

Method: IC - ANIONS/SMALL ORG. ACIDS, LA-533-115 Rev/Mod 5-0

Prep Batch: N/A

Batch Comment: AW 106 Instrument Run

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICV		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
2	ICB		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
3	LLS		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
4	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
5	SAMPLE	S09T001762	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
6	SAMPLE	S09T001783	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
7	SAMPLE	S09T001772	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
8	DUP	S09T001772	0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
9	SPK-IC	S09T001772	0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
10	CCV		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
11	CCB		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					

Final Page for Batch# 00013338

Analyst Signature 3/11/09 Date

Data Entry Signature 3-11-09 Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

ATL IC Instrument Run Bench Sheet

Page 1 of __

Project # AW-106 **Batch # 00013338**

Analyst Cheryl Edwards **Date 3/6/09**

Procedure/Method	Calibration Date	Eluent Type	Eluent ID[1]	Expiration Date
[ ] LA-533-101-ICCAT	NA	H_2SO_4	NA	NA
[ ] LA-533-107-IC846	NA	Na_2CO_3	NA	NA
		$NaHCO_3$	NA	NA
		$Na_2CO_3/NaHCO_3$	NA	NA
[X] LA-533-115-IC6	2/3/09	EG40	SN # 080510687010	5/2010

IC Note Book # HNF-N-577 1 **Page(s) 25**

Standard Type	Std ID[1]	Expiration Date
Calibration	NA	NA
CCV	113N28C	3/13/09
ICV	NA	NA

Standard Type	Std ID[1]	Expiration Date
LLS	113N28C	3/13/09
Spike[2]	113N28C	3/13/09
Pipette ID	G10779, D61799	

#	Sample Number/Std Type	Dilution Factor (DF)	Dilution Description[3]
1	CCV (113N28C)	126	0.080 mL + 10.0 mL
2	CCB	1	Direct
3	LLS (113N28C)	2010	1.0 mL + 9.0 mL - 0.050 mL + 10.0 mL
4	FIELD BLANK 51	1	Direct
5	FIELD BLANK 62	1	Direct
6	S09T001783	10201	0.100 mL – 10.0 mL – 0.100 mL - 10.0 mL
7	S09T001772 SAM	10201	0.100 mL – 10.0 mL – 0.100 mL - 10.0 mL
8	S09T001772 DUP	10201	0.100 mL – 10.0 mL – 0.100 mL - 10.0 mL
9	S09T001772 SPK	10201	0.100 mL – 10.0 mL – 0.100 mL - 10.0 mL
10	CCV (113N28C)	126	0.080mL + 10.0 mL
11	CCB	1	Direct
12			
13			
14			
15			
16			
17			
18			

(1) Eluent ID/Std ID = Standards Lab Book Number, IC Note Book Standard ID, or Vendor Catalog Number

(2) Spike typically prepared using Cal, ICV, or CCV stock standards from Standards Lab.

(3) Dilution description example: 0.100 mL stock std added to 10 mL reagent water.

(1) Eluent ID/Std ID = Standards Lab Book Number, IC Note Book Standard ID, or Vendor Catalog Number
(2) Spike typically prepared using Cal, ICV, or CCV stock standards from Standards Lab.
(3) Dilution description example: 0.100 mL stock std added to 10 mL reagent water.

Sample Analysis Report

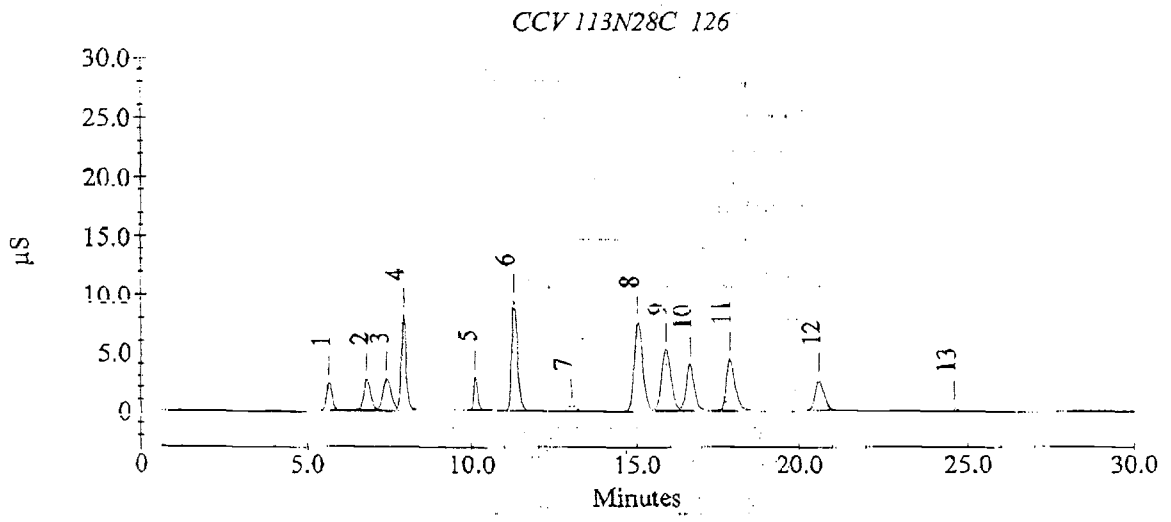
Sample Name : CCV 113N28C 126
Data File Name : c:\peaknet\data\009030600_005.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/09 5:36:19 PM
System Operator : CE
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.66	0.47473	283308	24107
2	GLYCOLATE	6.82	3.04449	406066	26843
3	ACETATE	7.44	3.83123	472697	26925
4	FORMATE	7.95	3.62495	820390	81668
5	CHLORIDE	10.13	0.71490	239307	28626
6	NITRITE	11.30	4.41153	1086898	94937
7	Unknown 1	13.00	0.00000	101185	5222
8	SULFATE	15.05	5.29390	1307420	76232
9	OXALATE	15.89	4.26915	1024373	51808
10	BROMIDE	16.65	4.47560	681984	39427
11	NITRATE	17.88	4.34312	829474	43424
12	PHOSPHATE	20.62	4.45673	499186	25675
13	Unknown 2	24.61	0.00000	15593	2610



03/11/2009 WED 11:00 [TX/RX NO 5490] 008

Sample Analysis Report

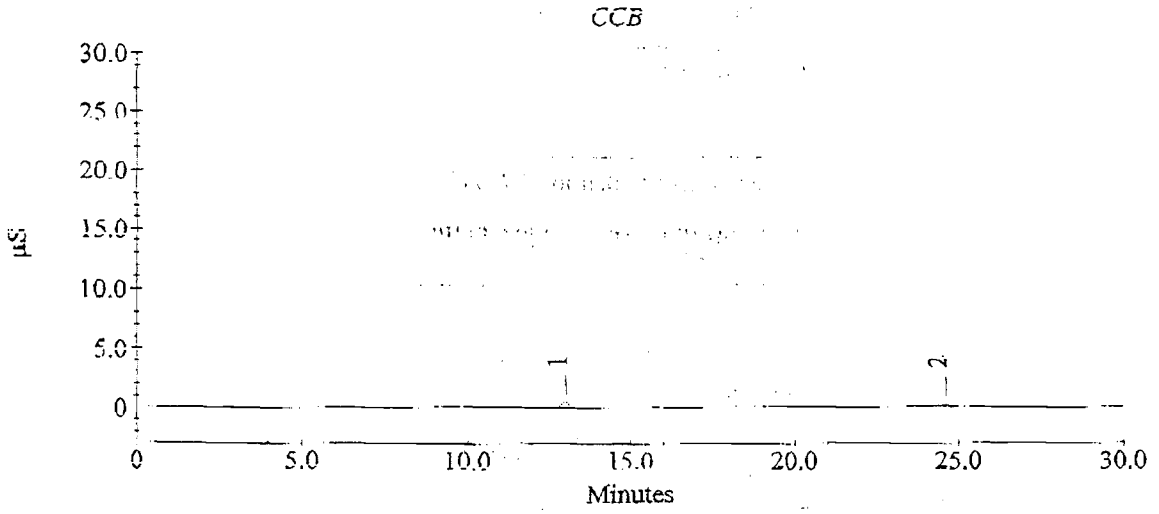
Sample Name : CCB
Data File Name : c:\peaknet\data\009030600_006.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/09 6:08:17 PM
System Operator : CE
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	13.01	0.00000	75430	3955
2	Unknown 2	24.61	0.00000	15704	2572



Sample Analysis Report

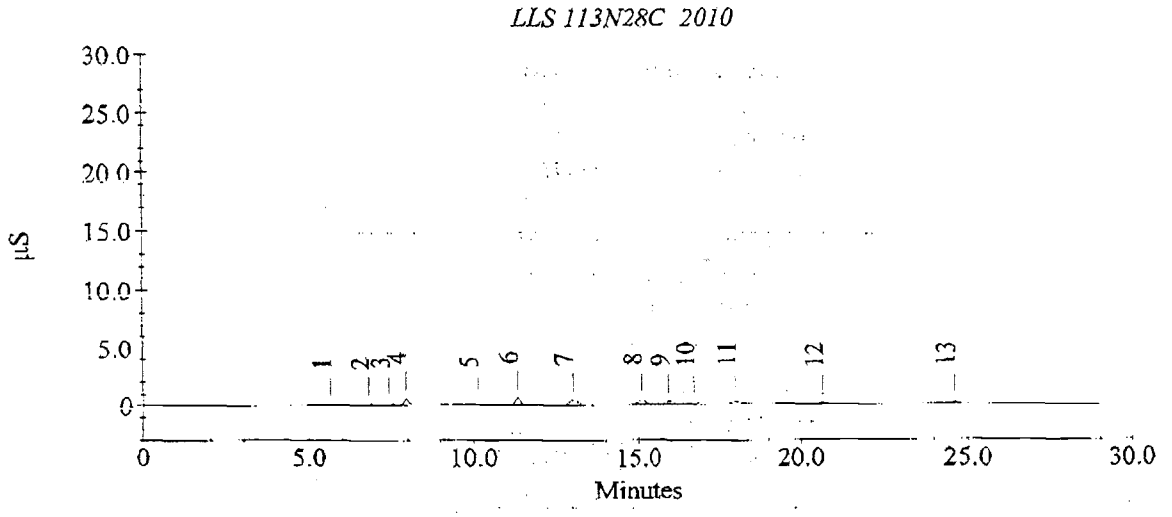
Sample Name : LLS 113N28C 2010
Data File Name : c:\peaknet\data\009030600_007.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/09 6:40:11 PM
System Operator : CE
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.65	0.02477	14816	1350
2	GLYCOLATE	6.81	0.15612	21243	1546
3	ACETATE	7.42	0.20450	30180	2075
4	FORMATE	7.94	0.21494	51245	5618
5	CHLORIDE	10.13	0.04111	13679	1666
6	NITRITE	11.33	0.26025	65126	6109
7	Unknown 1	13.00	0.00000	81958	4324
8	SULFATE	15.08	0.30257	74533	4582
9	OXALATE	15.93	0.23164	57697	3326
10	BROMIDE	16.71	0.21747	32971	2340
11	NITRATE	17.99	0.23516	44705	2530
12	PHOSPHATE	20.66	0.24445	27251	1515
13	Unknown 2	24.61	0.00000	15434	2477



Sample Analysis Report

Sample Name : FB 51
Data File Name : R:\PKNT TRANSFER FILES\090306 IC6\009030600_008.DXD

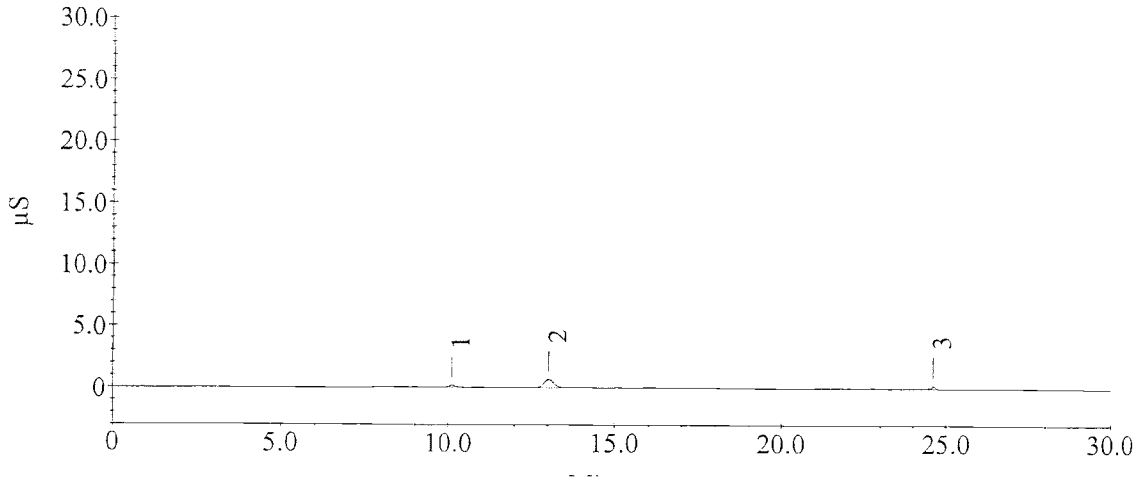
Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/2009 7:12:08 PM
System Operator : CE
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/2009 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	CHLORIDE	10.11	0.03254	10827	1346
2	Unknown 1	13.02	0.00000	132588	6593
3	Unknown 2	24.60	0.00000	15286	2611

FB 51



Sample Analysis Report

Sample Name : FB 62
Data File Name : R:\PKNT TRANSFER FILES\090306 IC6\009030600_009.DXD

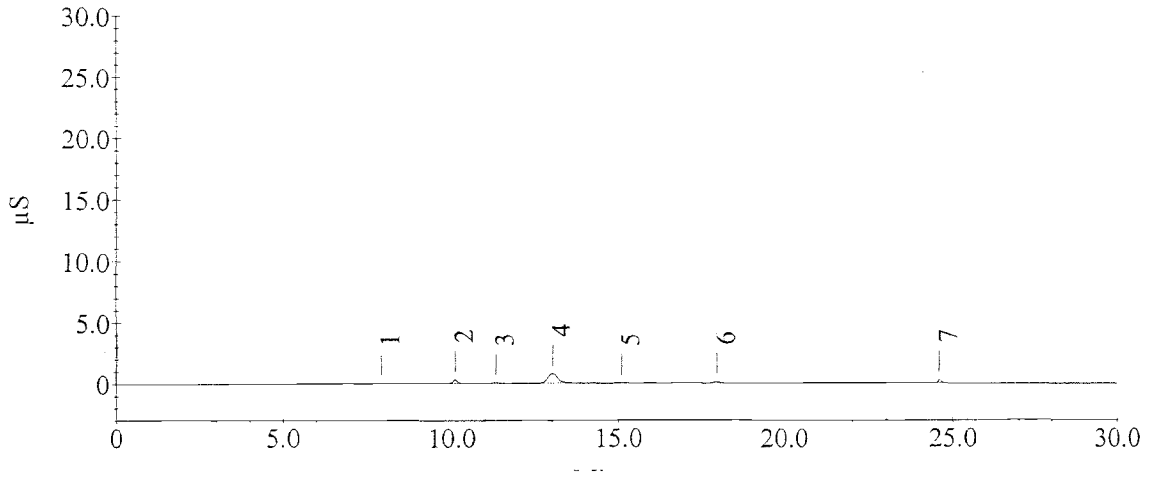
Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/2009 7:44:04 PM
System Operator : CE
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/2009 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FORMATE	7.93	0.00570	1364	179
2	CHLORIDE	10.12	0.08085	26913	3356
3	NITRITE	11.32	0.01914	4795	492
4	Unknown 1	13.02	0.00000	161007	7783
5	SULFATE	15.11	0.01255	3092	257
6	NITRATE	18.00	0.09512	18080	1090
7	Unknown 2	24.60	0.00000	15118	2602

FB 62



Sample Analysis Report

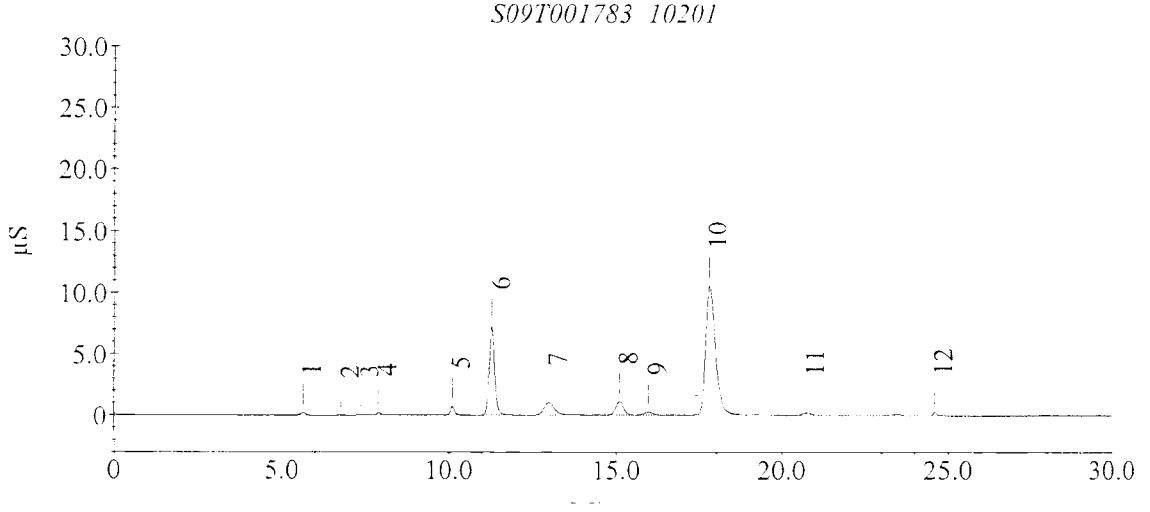
Sample Name : S09T001783 10201
Data File Name : R:\PKNT TRANSFER FILES\090306 IC6\009030600_010.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/2009 8:16:02 PM
System Operator : CE
Dilution Factor : 10201.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/2009 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.64	349.07743	20465	1872
2	GLYCOLATE	6.79	190.94046	2549	205
3	ACETATE	7.39	326.69966	4780	345
4	FORMATE	7.92	710.08073	16636	1860
5	CHLORIDE	10.12	1783.56249	58247	7195
6	NITRITE	11.29	33612.07412✓	815155	72027
7	Unknown 1	13.00	0.00000	214891	9986
8	SULFATE	15.11	7591.26177	183357	10971
9	OXALATE	15.97	1533.61970	37477	2234
10	NITRATE	17.77	115289.23166✓	2175809	105161
11	PHOSPHATE	20.75	2860.92205	31266	1697
12	Unknown 2	24.60	0.00000	14792	2549



Sample Analysis Report

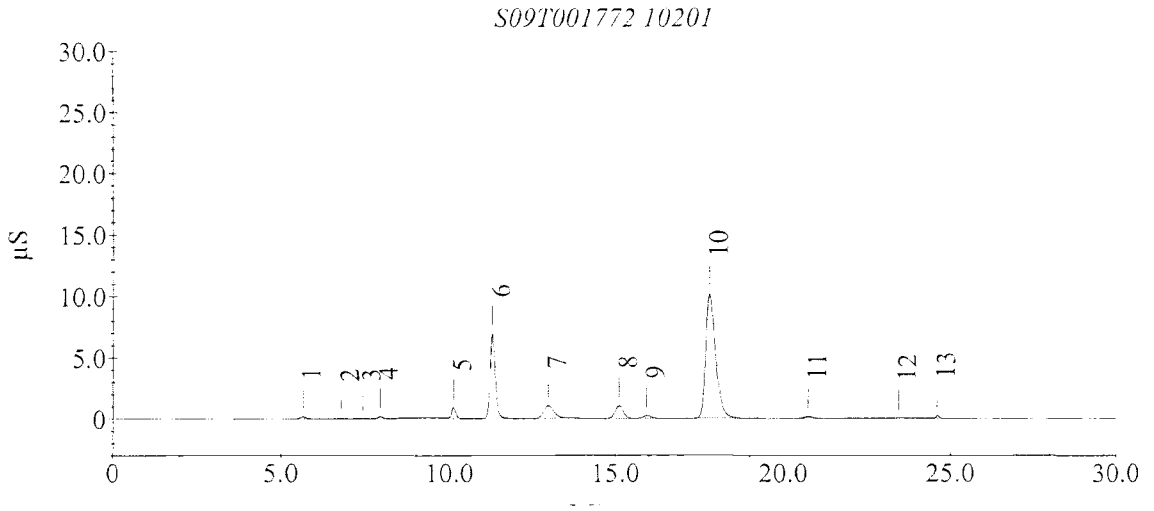
Sample Name : S09T001772 10201
Data File Name : R:\PKNT TRANSFER FILES\090306 IC6\009030600_013.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/2009 9:51:52 PM
System Operator : CE
Dilution Factor : 10201.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/2009 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.64	315.43234	18493	1725
2	GLYCOLATE	6.77	144.08813	1924	165
3	ACETATE	7.41	246.76119	3613	287
4	FORMATE	7.92	663.42909	15544	1761
5	CHLORIDE	10.12	2169.48062	70874	8694
6	NITRITE	11.29	32143.25270✓	779950	68862
7	Unknown 1	12.99	0.00000	224315	10400
8	SULFATE	15.11	7175.23127	173305	10476
9	OXALATE	15.95	1446.78751	35358	2120
10	NITRATE	17.79	109927.74272✓	2073356	100967
11	PHOSPHATE	20.74	2661.76162	29089	1598
12	Unknown 2	23.44	0.00000	9158	449
13	Unknown 3	24.60	0.00000	15003	2600



Sample Analysis Report

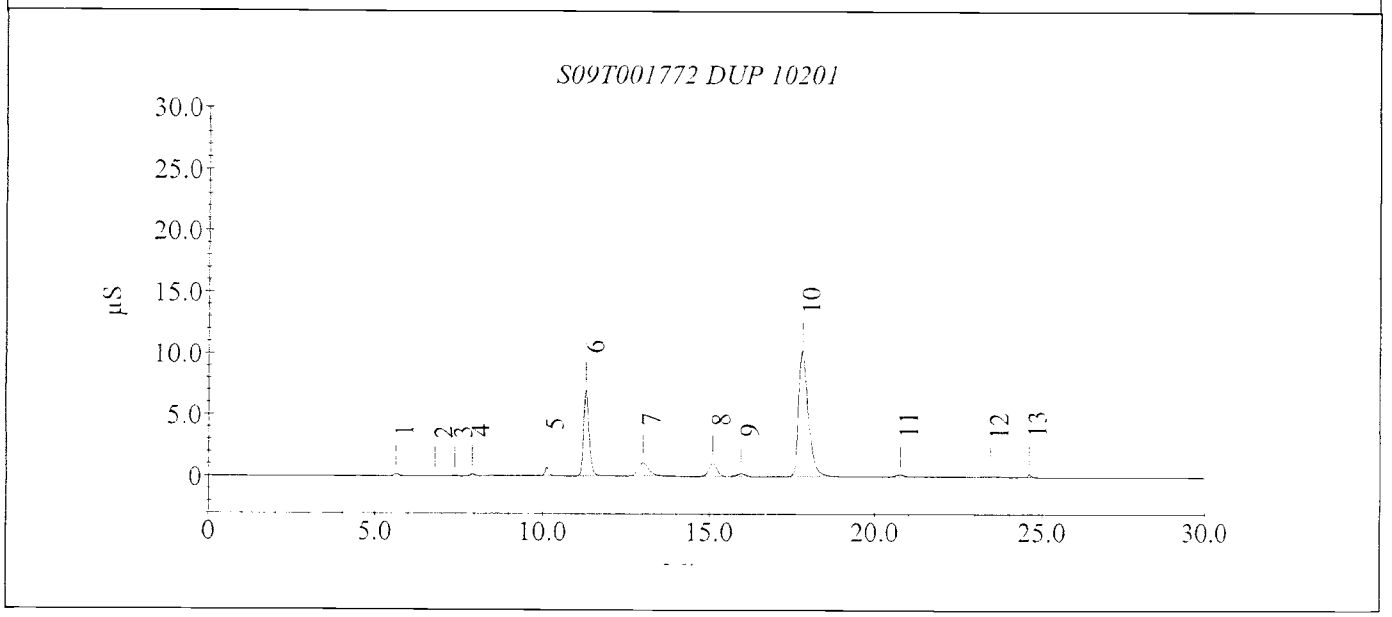
Sample Name : S09T001772 DUP 10201
Data File Name : R:\PKNT TRANSFER FILES\090306 IC6\009030600_014.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/2009 10:23:47 PM
System Operator : CE
Dilution Factor : 10201.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/2009 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.63	328.54086	19261	1749
2	GLYCOLATE	6.79	189.35245	2528	196
3	ACETATE	7.39	287.54141	4209	322
4	FORMATE	7.92	674.85847	15812	1787
5	CHLORIDE	10.11	1801.92457	58848	7137
6	NITRITE	11.29	32728.47336 ✓	793981	69851
7	Unknown 1	12.99	0.00000	229986	10610
8	SULFATE	15.10	7345.58906	177421	10683
9	OXALATE	15.95	1481.11810	36195	2169
10	NITRATE	17.79	112439.86671 ✓	2121344	102375
11	PHOSPHATE	20.74	2722.46567	29753	1626
12	Unknown 2	23.45	0.00000	10545	486
13	Unknown 3	24.60	0.00000	14925	2587



Sample Analysis Report

Sample Name : S09T001772 SPK 10201
Data File Name : R:\PKNT TRANSFER FILES\090306 IC6\009030600_015.DXD

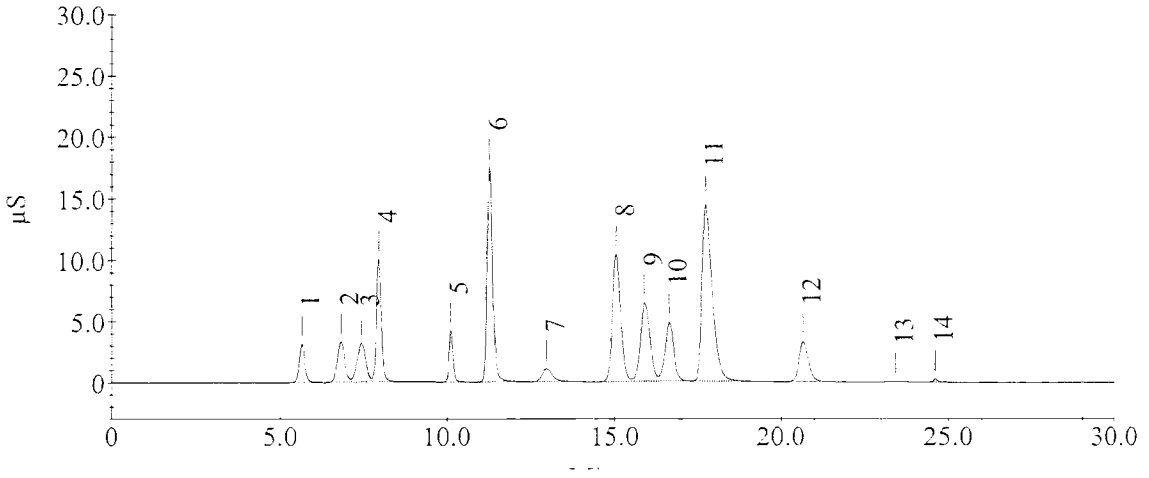
Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/2009 10:55:44 PM
System Operator : CE
Dilution Factor : 10201.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/2009 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.64	6405.14160	374438	31654
2	GLYCOLATE	6.80	38955.00923	506712	33130
3	ACETATE	7.42	49142.17740	573056	31804
4	FORMATE	7.93	46595.94860	1020307	99791
5	CHLORIDE	10.11	10674.37502	351321	41820
6	NITRITE	11.27	86963.75463 ✓	2069628	174806
7	Unknown 1	12.98	0.00000	229744	10702
8	SULFATE	15.04	74277.75288	1800116	104038
9	OXALATE	15.89	55526.74298	1292931	64412
10	BROMIDE	16.62	56868.34078	850587	48171
11	NITRATE	17.72	164207.00833 ✓	3116504	144357
12	PHOSPHATE	20.66	59164.89159	650621	32804
13	Unknown 2	23.43	0.00000	9274	452
14	Unknown 3	24.60	0.00000	14841	2523

S09T001772 SPK 10201



Sample Analysis Report

Sample Name : CCV 113N28C 126
Data File Name : c:\peaknet\data\009030600_016.DXD

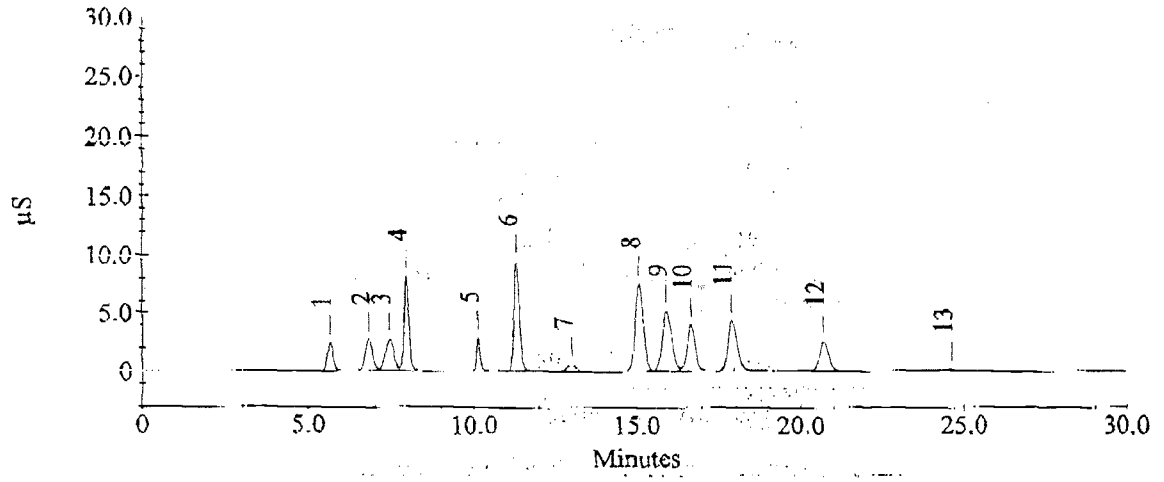
Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/6/09 11:27:39 PM
System Operator : CE
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.64	0.47405 100.2	282904	24059
2	GLYCOLATE	6.80	3.03798 102	405215	26808
3	ACETATE	7.41	3.82829 107	472389	26686
4	FORMATE	7.93	3.61011 102	817203	81236
5	CHLORIDE	10.12	0.71044 104.7	237807	28615
6	NITRITE	11.29	4.39153 100.4	1082051	94618
7	Unknown 1	13.00	0.00000 —	116732	5957
8	SULFATE	15.06	5.26805 102.4	1301019	75420
9	OXALATE	15.91	4.25565 101.6	1021254	51434
10	BROMIDE	16.65	4.44556 93.3	677383	39952
11	NITRATE	17.89	4.31275 98.0	823644	43054
12	PHOSPHATE	20.68	4.42739 101.2	495884	25287
13	Unknown 2	24.60	0.00000 —	14870	2498

CCV 113N28C 126



Sample Analysis Report

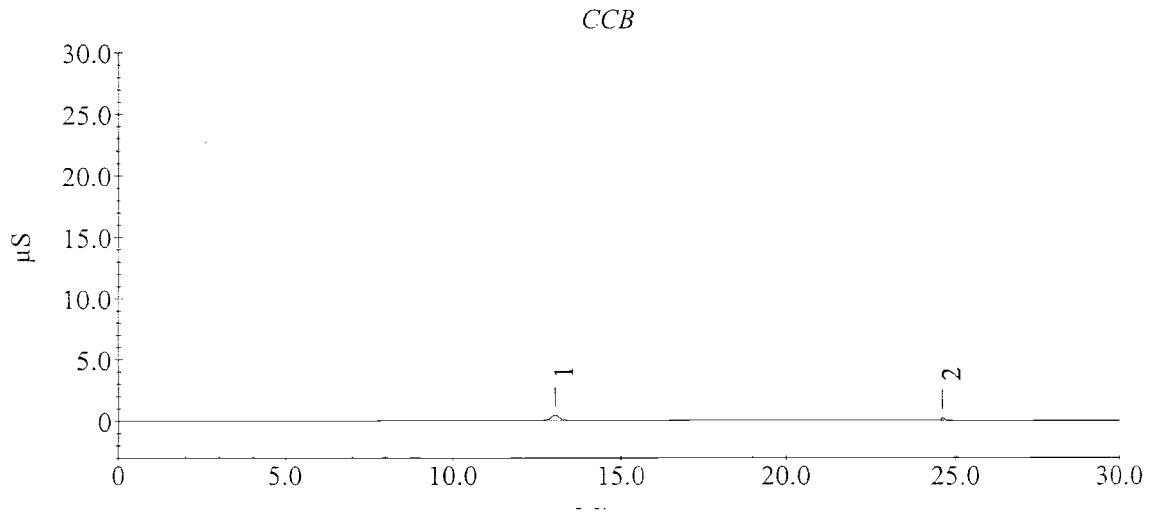
Sample Name : CCB
Data File Name : R:\PKNT TRANSFER FILES\090306 IC6\009030600_018.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/7/2009 12:31:27 AM
System Operator : CE
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/2009 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	13.01	0.00000	80193	4239
2	Unknown 2	24.60	0.00000	14886	2485



222-S Advanced Technologies and Laboratories **Ion Chromatography Data Review Checklist**

Worklist/Project: 13431 / AW-106EUAP 20090163 Check Procedure Used: ☐ LA-533-101 (Cat) ☐ LA-533-107 (846 Anions) ☒ LA-533-115 (IC6 Anions)

Run Date: 3/9/09 Instrument ID: IC-6 Prep Batches Analyzed (Worklist #): N/A Prep Method: NA

Review Items	Yes	No	N/A	Comments/Samples Affected
A. Calibration/Instrument Run QC				
1. Instrument calibrated per procedure and at specified levels?	✓			
2. If the Calibration date is different, has the change been recorded with the calibration record?			✓	
3. Calibration curve correlation coefficient ≥0.995 linear or ≥0.999 quadratic?	✓			
4. ICV/CCV analyzed at appropriate frequency and within control limits (Recovery: 90-110%)?	✓			
5. ICB/CCB analyzed at required frequency and < EQL (or RL) or <5% of the lowest sample result?	✓			
6. LLS run and within control limits? For IH, recovery is mandatory to verify RL ☐ 75-125% SW-846 9056A requirement ☒ 50-150%	✓			
B. Sample Results				
1. Were samples with concentrations > linear range for any analyte diluted and reanalyzed?	✓			
2. Are all reported results bracketed by in-control QC?	✓			
3. Are there 10 or fewer samples runs between bracketed, in-control QC?	✓			
C. Preparation/Matrix QC				
1. LCS/Prep Std prepared per prep batch and within control limits? Recovery: ☐ 80-120% or ☐ Statistical _____			✓	
2. LCS Dup (Prep Std Dup) prepared per prep batch, if required, and within control limits? Recovery: ☐ 80-120% or ☐ Statistical _____ ; RPD: ☐ ≤20% or ☐ Statistical _____			✓	
3. IH RLS run (when required) and within mandatory control limits (Recovery: 75-125%)?			✓	
4. Method/Media Blank prepared per prep batch and < EQL (or RL) or <5% of the lowest sample result?			✓	
5. Duplicate or MS Duplicate run at required frequency and within control limits? %RPD: ☒ ≤20% or ☐ Client-specified _____	✓			
6. MS run at required frequency and within control limit? Recovery: ☒ 75-125% or ☐ Client-specified _____	✓			
D. Other				
1. Are all problems and nonconformance issues documented appropriately?	✓			
2. Are current IDL/MDL/EQL/RL/Calibration data on file?	✓			
3. Calculations/transcriptions checked for errors?	✓			
4. Are all raw data complete and verified in Omni LIMS?	✓			
5. All client/project specific requirements met (e.g., MDL, Holding time, etc.)?	✓			
6. Date/time of analysis verified as correct?	✓			
7. All Benchsheet(s)/Worklist(s) properly completed and included, as required?	✓			
8. IH Only: Media Blank subtracted from Sample results?			✓	

1st Data Reviewer [signature] Date: 3/18/09 2nd Data Reviewer: [signature] Date: 03/19/09

LABCORE Completed Batch Report for Batch# 00013431

Analyst: Purinton, Tony **Book#:** 113N28C

Instrument: IC-6 (SMALL ORG ACIDS)

Method: IC - ANIONS/SMALL ORG. ACIDS, LA-533-115 Rev/Mod J-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW-106 Evap 3 Instrument Run

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 ICV	S0903170069		0	0	Fluoride	LIQUID	.4730158768	4.7276E-01			1.61E-03	ug/mL	99.946	% Recovery	
1 ICV	S0903170069		0	0	Glycolate	LIQUID	2.9761905	3.0507E+00			9.37E-03	ug/mL	102.5	% Recovery	
1 ICV	S0903170069		0	0	Acetate	LIQUID	3.5714286	3.8637E+00			6.04E-03	ug/mL	108.18	% Recovery	
1 ICV	S0903170069		0	0	Formate	LIQUID	3.53174606	3.6365E+00			4.67E-03	ug/mL	102.97	% Recovery	
1 ICV	S0903170069		0	0	Chloride	LIQUID	.678571434	6.9220E-01			9.98E-03	ug/mL	102.01	% Recovery	
1 ICV	S0903170069		0	0	Nitrite	LIQUID	4.373015908	4.4174E+00			0.0192	ug/mL	101.02	% Recovery	
1 ICV	S0903170069		0	0	Sulfate	LIQUID	5.142857184	5.2965E+00			0.0187	ug/mL	102.99	% Recovery	
1 ICV	S0903170069		0	0	Oxalate	LIQUID	4.190476224	4.2743E+00			0.0231	ug/mL	102	% Recovery	
1 ICV	S0903170069		0	0	Bromide	LIQUID	4.7619048	4.4311E+00			0.058	ug/mL	93.053	% Recovery	
1 ICV	S0903170069		0	0	Nitrate	LIQUID	4.3650794	4.3396E+00			0.0208	ug/mL	99.416	% Recovery	
1 ICV	S0903170069		0	0	Phosphate	LIQUID	4.373015908	4.4707E+00			0.0167	ug/mL	102.23	% Recovery	
Sample Sequence 2															
2 ICB	S0903170070		0	0	Fluoride	LIQUID		<1.6100E-03			1.61E-03	ug/mL			
2 ICB	S0903170070		0	0	Glycolate	LIQUID		<9.3700E-03			9.37E-03	ug/mL			
2 ICB	S0903170070		0	0	Acetate	LIQUID		<6.0400E-03			6.04E-03	ug/mL			
2 ICB	S0903170070		0	0	Formate	LIQUID		<4.6700E-03			4.67E-03	ug/mL			
2 ICB	S0903170070		0	0	Chloride	LIQUID		<9.9800E-03			9.98E-03	ug/mL			
2 ICB	S0903170070		0	0	Nitrite	LIQUID		<1.9200E-02			0.0192	ug/mL			
2 ICB	S0903170070		0	0	Sulfate	LIQUID		<1.8700E-02			0.0187	ug/mL			
2 ICB	S0903170070		0	0	Oxalate	LIQUID		<2.3100E-02			0.0231	ug/mL			
2 ICB	S0903170070		0	0	Bromide	LIQUID		<5.8000E-02			0.058	ug/mL			
2 ICB	S0903170070		0	0	Nitrate	LIQUID		<2.0800E-02			0.0208	ug/mL			
2 ICB	S0903170070		0	0	Phosphate	LIQUID		<1.6700E-02			0.0167	ug/mL			
Sample Sequence 3															
3 LLS	S0903170071		0	0	Fluoride	LIQUID	.0296517152	2.4140E-02			1.61E-03	ug/mL	81.412	% Recovery	
3 LLS	S0903170071		0	0	Glycolate	LIQUID	.186567	1.5070E-01			9.37E-03	ug/mL	80.775	% Recovery	
3 LLS	S0903170071		0	0	Acetate	LIQUID	.2238804	2.0466E-01			6.04E-03	ug/mL	91.415	% Recovery	
3 LLS	S0903170071		0	0	Formate	LIQUID	.22139284	2.1472E-01			4.67E-03	ug/mL	96.986	% Recovery	
3 LLS	S0903170071		0	0	Chloride	LIQUID	.042537276	4.2310E-02			9.98E-03	ug/mL	99.466	% Recovery	
3 LLS	S0903170071		0	0	Nitrite	LIQUID	.274129112	2.5549E-01			0.0192	ug/mL	93.201	% Recovery	
3 LLS	S0903170071		0	0	Sulfate	LIQUID	.322387776	2.8841E-01			0.0187	ug/mL	89.461	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013431

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
3	LLS	S0903170071		0 0		Oxalate	LIQUID	.262686336	2.2325E-01			0.0231	ug/mL	84.987	% Recovery	
3	LLS	S0903170071		0 0		Bromide	LIQUID	.2985072	2.1459E-01			0.058	ug/mL	71.888	% Recovery	
3	LLS	S0903170071		0 0		Nitrate	LIQUID	.2736316	2.3229E-01			0.0208	ug/mL	84.892	% Recovery	
3	LLS	S0903170071		0 0		Phosphate	LIQUID	.274129112	2.3550E-01			0.0167	ug/mL	85.908	% Recovery	
Sample Sequence 4																
5	SAMPLE	S09T001807		0 1		Fluoride	LIQUID	N/A	3.8714E+02			1.7887	ug/mL			
5	SAMPLE	S09T001807		0 1		Glycolate	LIQUID	N/A	2.4626E+02			10.41	ug/mL			
5	SAMPLE	S09T001807		0 1		Acetate	LIQUID	N/A	4.4024E+02			6.7104	ug/mL			
5	SAMPLE	S09T001807		0 1		Formate	LIQUID	N/A	8.1608E+02			5.1884	ug/mL			
5	SAMPLE	S09T001807		0 1		Chloride	LIQUID	N/A	1.8473E+03			11.088	ug/mL			
4	SAMPLE	S09T001807		0 0		Nitrite	LIQUID	N/A	3.3883E+04			195.86	ug/mL			
5	SAMPLE	S09T001807		0 1		Sulfate	LIQUID	N/A	7.8354E+03			20.776	ug/mL			
5	SAMPLE	S09T001807		0 1		Oxalate	LIQUID	N/A	1.9134E+03			25.664	ug/mL			
5	SAMPLE	S09T001807		0 1		Bromide	LIQUID	N/A	<6.4438E+01			64.438	ug/mL			U
4	SAMPLE	S09T001807		0 0		Nitrate	LIQUID	N/A	1.1605E+05			212.18	ug/mL			
5	SAMPLE	S09T001807		0 1		Phosphate	LIQUID	N/A	3.0881E+03			18.554	ug/mL			
Sample Sequence 6																
7	DUP	S0903170072	S09T001807	0 1		Fluoride	LIQUID	3.8714E+02	3.8516E+02			1.7887	ug/mL	0.51275	% RPD	
7	DUP	S0903170072	S09T001807	0 1		Glycolate	LIQUID	2.4626E+02	2.4434E+02			10.41	ug/mL	0.78272	% RPD	
7	DUP	S0903170072	S09T001807	0 1		Acetate	LIQUID	4.4024E+02	4.2972E+02			6.7104	ug/mL	2.4185	% RPD	
7	DUP	S0903170072	S09T001807	0 1		Formate	LIQUID	8.1608E+02	7.9894E+02			5.1884	ug/mL	2.1226	% RPD	
7	DUP	S0903170072	S09T001807	0 1		Chloride	LIQUID	1.8473E+03	1.8291E+03			11.088	ug/mL	0.99010	% RPD	
6	DUP	S0903170072	S09T001807	0 0		Nitrite	LIQUID	3.3883E+04	3.3552E+04			195.86	ug/mL	0.98169	% RPD	
7	DUP	S0903170072	S09T001807	0 1		Sulfate	LIQUID	7.8354E+03	7.7542E+03			20.776	ug/mL	1.0417	% RPD	
7	DUP	S0903170072	S09T001807	0 1		Oxalate	LIQUID	1.9134E+03	1.8905E+03			25.664	ug/mL	1.2040	% RPD	
7	DUP	S0903170072	S09T001807	0 1		Bromide	LIQUID	<6.4438E+01	<6.4438E+01			64.438	ug/mL			
6	DUP	S0903170072	S09T001807	0 0		Nitrate	LIQUID	1.1605E+05	1.1478E+05			212.18	ug/mL	1.1004	% RPD	
7	DUP	S0903170072	S09T001807	0 1		Phosphate	LIQUID	3.0881E+03	3.0645E+03			18.554	ug/mL	0.76716	% RPD	
Sample Sequence 8																
9	SPK-IC	S0903170073	S09T001807	0 1		Fluoride	LIQUID	59.6	1.0097E+03			1.61E-03	ug/mL	103.42	% Recovery	
9	SPK-IC	S0903170073	S09T001807	0 1		Glycolate	LIQUID	375	4.2632E+03			9.37E-03	ug/mL	106.06	% Recovery	
9	SPK-IC	S0903170073	S09T001807	0 1		Acetate	LIQUID	450	5.5557E+03			6.04E-03	ug/mL	112.55	% Recovery	
9	SPK-IC	S0903170073	S09T001807	0 1		Formate	LIQUID	445	5.5386E+03			4.67E-03	ug/mL	105.07	% Recovery	
9	SPK-IC	S0903170073	S09T001807	0 1		Chloride	LIQUID	85.5	2.7237E+03			9.98E-03	ug/mL	101.49	% Recovery	
8	SPK-IC	S0903170073	S09T001807	0 0		Nitrite	LIQUID	551	8.9422E+04			0.0192	ug/mL	99.8	% Recovery	
9	SPK-IC	S0903170073	S09T001807	0 1		Sulfate	LIQUID	648	1.4458E+04			0.0187	ug/mL	101.18	% Recovery	
9	SPK-IC	S0903170073	S09T001807	0 1		Oxalate	LIQUID	528	7.1571E+03			0.0231	ug/mL	98.328	% Recovery	
9	SPK-IC	S0903170073	S09T001807	0 1		Bromide	LIQUID	600	5.6028E+03			0.058	ug/mL	92.455	% Recovery	
8	SPK-IC	S0903170073	S09T001807	0 0		Nitrate	LIQUID	550	1.6942E+05			0.0208	ug/mL	96.072	% Recovery	
9	SPK-IC	S0903170073	S09T001807	0 1		Phosphate	LIQUID	551	8.7768E+03			0.0167	ug/mL	102.22	% Recovery	
Sample Sequence 10																

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013431

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
10	CCV	S0903170074		0 0		Fluoride	LIQUID	.4730158768	4.6997E-01			1.61E-03	ug/mL	99.356	% Recovery	
10	CCV	S0903170074		0 0		Glycolate	LIQUID	2.9761905	3.0014E+00			9.37E-03	ug/mL	100.85	% Recovery	
10	CCV	S0903170074		0 0		Acetate	LIQUID	3.5714286	3.8032E+00			6.04E-03	ug/mL	106.49	% Recovery	
10	CCV	S0903170074		0 0		Formate	LIQUID	3.53174606	3.5938E+00			4.67E-03	ug/mL	101.76	% Recovery	
10	CCV	S0903170074		0 0		Chloride	LIQUID	.678571434	6.8523E-01			9.98E-03	ug/mL	100.98	% Recovery	
10	CCV	S0903170074		0 0		Nitrite	LIQUID	4.373015908	4.3644E+00			0.0192	ug/mL	99.804	% Recovery	
10	CCV	S0903170074		0 0		Sulfate	LIQUID	5.142857184	5.2584E+00			0.0187	ug/mL	102.25	% Recovery	
10	CCV	S0903170074		0 0		Oxalate	LIQUID	4.190476224	4.2432E+00			0.0231	ug/mL	101.26	% Recovery	
10	CCV	S0903170074		0 0		Bromide	LIQUID	4.7619048	4.4250E+00			0.058	ug/mL	92.925	% Recovery	
10	CCV	S0903170074		0 0		Nitrate	LIQUID	4.3650794	4.3273E+00			0.0208	ug/mL	99.134	% Recovery	
10	CCV	S0903170074		0 0		Phosphate	LIQUID	4.373015908	4.3893E+00			0.0167	ug/mL	100.37	% Recovery	
Sample Sequence 11																
11	CCB	S0903170075		0 0		Fluoride	LIQUID		<1.6100E-03			1.61E-03	ug/mL			
11	CCB	S0903170075		0 0		Glycolate	LIQUID		<9.3700E-03			9.37E-03	ug/mL			
11	CCB	S0903170075		0 0		Acetate	LIQUID		<6.0400E-03			6.04E-03	ug/mL			
11	CCB	S0903170075		0 0		Formate	LIQUID		<4.6700E-03			4.67E-03	ug/mL			
11	CCB	S0903170075		0 0		Chloride	LIQUID		<9.9800E-03			9.98E-03	ug/mL			
11	CCB	S0903170075		0 0		Nitrite	LIQUID		<1.9200E-02			0.0192	ug/mL			
11	CCB	S0903170075		0 0		Sulfate	LIQUID		<1.8700E-02			0.0187	ug/mL			
11	CCB	S0903170075		0 0		Oxalate	LIQUID		<2.3100E-02			0.0231	ug/mL			
11	CCB	S0903170075		0 0		Bromide	LIQUID		<5.8000E-02			0.058	ug/mL			
11	CCB	S0903170075		0 0		Nitrate	LIQUID		<2.0800E-02			0.0208	ug/mL			
11	CCB	S0903170075		0 0		Phosphate	LIQUID		<1.6700E-02			0.0167	ug/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013431

Comments Section:

Comments for sample: S0903170069, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_A003.DXD

Comments for sample: S0903170074, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_018.DXD

Comments for sample: S0903170075, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_019.DXD

Comments for sample: S0903170070, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_A005.DXD

Comments for sample: S0903170071, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_A006.DXD

Comments for sample: S09T001807, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_A007.DXD

Comments for sample: S09T001807, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_A013.DXD

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Comments for sample: S0903170072, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_A008.DXD

Comments for sample: S0903170072, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_A014.DXD

Comments for sample: S0903170073, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_A009.DXD

Comments for sample: S0903170073, test: IC - ANIONS/SMALL ORG. ACIDS
z:\PKNTTR~1\090309~1\009030900_A015.DXD

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013431

3/19/09

Reviewer Signature **Date**

RPP-RPT-40709 Rev. 1

LABCORE Completed Batch Report for Batch# 00013431

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903170069	ICV				
2	S0903170070	ICB				
3	S0903170071	LLS				
4	S09T001807	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
5	S09T001807	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
6	S0903170072	DUP	S09T001807			
7	S0903170072	DUP	S09T001807			
8	S0903170073	SPK-IC	S09T001807			
9	S0903170073	SPK-IC	S09T001807			
10	S0903170074	CCV				
11	S0903170075	CCB				

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Batch# 00013431

Analyst: Purinton, Tony **Standard ID / Book#:**

Instrument: IC-6 (SMALL ORG ACIDS)

Method: IC - ANIONS/SMALL ORG. ACIDS, LA-533-115 Rev/Mod I-0

Prep Batch: N/A

Batch Comment: AW-106 Evap 3 Instrument Run

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICV		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
2	ICB		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
3	LLS		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
4	SAMPLE	S09T001807	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
5	DUP	S09T001807	0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
6	SPK-IC	S09T001807	0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
7	CCV		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					
8	CCB		0		LIQUID		
	Analytes Requested:	Acetate, Bromide, Chloride, Fluoride, Formate, Glycolate, Nitrate, Nitrite, Oxalate, Phosphate, Sulfate					

Final Page for Batch# 00013431

Analyst Signature Date

Data Entry Signature 3/17/09 Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

ATL 222-S Laboratory: IC Instrument Run Bench Sheet

Project # _AW 106 EVAP 3_____ **Batch #** 13431

Analyst _A PURINTON_____ **Date** __03/09/09 and 3/10/09

Procedure	Calibration Date	Eluent Type	Eluent ID(1)	Expiration Date
[ ] LA-533-101		H_2SO_4		
[ ] LA-533-107		$Na_2CO_3/NaHCO_3$		
[X] LA-533-115	02/03/09	EG40	SER # 080510687010	

IC Log Book # ___HNF-N-577 1_____ **Page(s)** ____26_____

Standard Type	Std ID(1)	Expiration Date
Calibration	N/A	N/A
CCV	113N28C	
ICV	113N28C	

Standard Type	Std ID(1)	Expiration Date
LLS	113N28C	3/13/2009
Spike(2)	113N28C	3/13/09
Pipette ID	D61799, G10779	435870, 437916

#	Sample Number/Std Type	Dil Factor (DF)	Dilution Description(3)
1	ICV 090309-8	126	0.08ML-10ML
2	ICB	1	DIRECT
3	LLS 090309-10	2010	1ML 59N28D+9MLQH2O-0.05ML+10ML
4	S09T001807 SAM	10201	.1ML-10ML-.1-10Ml
5	S09T001807 DUP	10201	.1ML-10ML-.1-10Ml
6	S09T001807 SPK	10201	.1ML-10ML-.1-10Ml
7	S09T001807 SAM	2121	.1Ml-10Ml-.500Ml-10Ml
8	S09T001807 DUP	2121	.1ML-10ML-.500ML-10ML
9	S09T001807 SPK	2121	.1ML-10ML-.500ML-10ML
10	S09T001807 SAM	1111	~~.1ML-10ML-.250ML-10ML~~ 0.1-10ml + 1-10ml cm
11	S09T001807 DUP	1111	~~.1ML-10ML-.250ML-10ML~~ 0.1-10ml + 1-10ml 03/19/09
12	S09T001807 SPK	1111	~~.1ML-10ML-.250ML-10ML~~ 0.1-10ml + 1-10ml
~~13~~	~~CCB~~	~~1~~	~~DIRECT~~ KB 3/11/09
14	CCV 090309-8	126	0.08ML-10ML
15	CCB	1	DIRECT
16			
17			
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Fax sent by : 5093737334 03-18-09 10:35 Pg. 1/2
CORR 8U 4228
RPT-40709 Rev. 1
[TX/RX NO 5485] 001

Schedule File: C:\PeakNet\Schedule\AW-106T.sas

Line	Vial #	Inj./Vial	Volume	Inj. Type	Cut Vol.	Syr. Spd.	Sample	Sample Type	Level	Method	Sample Prep.	Data File	Dilution
1	1	2	25	Full	0	5	CCB	Sample		as15hood4_new08090300.met		009030900	1
2	2	2	25	Full	0	5	CCV 113N28C 126	Sample		as15hood4_new08090300.met		009030900	1
3	1	1	25	Full	0	5	CCB	Sample		as15hood4_new08090300.met		009030900	1
4	3	1	25	Full	0	5	LLS 113N28C 2010	Sample		as15hood4_new08090300.met		009030900	1
5	4	1	25	Full	0	5	S09T001807 SAM 10201	Sample		as15hood4_new08090300.met		009030900	10201
6	5	1	25	Full	0	5	SO9T001807 DUP 10201	Sample		as15hood4_new08090300.met		009030900	10201
7	6	1	25	Full	0	5	S09T001807 SPK 10201	Sample		as15hood4_new08090300.met		009030900	10201
8	7	1	25	Full	0	5	S09T001807 SAM 2121	Sample		as15hood4_new08090300.met		009030900	2121
9	8	1	25	Full	0	5	S09T001807 DUP 2121	Sample		as15hood4_new08090300.met		009030900	2121
10	9	1	25	Full	0	5	S09T001807 SPK 2121	Sample		as15hood4_new08090300.met		009030900	2121
11	10	1	25	Full	0	5	S09T001807 SAM 1111	Sample		as15hood4_new08090300.met		009030900	1111
12	11	1	25	Full	0	5	S09T001807 DUP 1111	Sample		as15hood4_new08090300.met		009030900	1111
13	12	1	25	Full	0	5	S09T001807 SPK 1111	Sample		as15hood4_new08090300.met		009030900	1111
14	2	2	25	Full	0	5	CCV 113N28C 126	Sample		as15hood4_new08090300.met		009030900	1
15	1	1	25	Full	0	5	CCB	Sample		as15hood4_new08090300.met		009030900	1
16	1	1	25	Full	0	5	STOP	Sample		30 deg stop hood 4.met		009030900	1

Sample Analysis Report

Sample Name : CCV 113N28C 126
Data File Name : c:\peaknet\data\009030900_A003.DXD

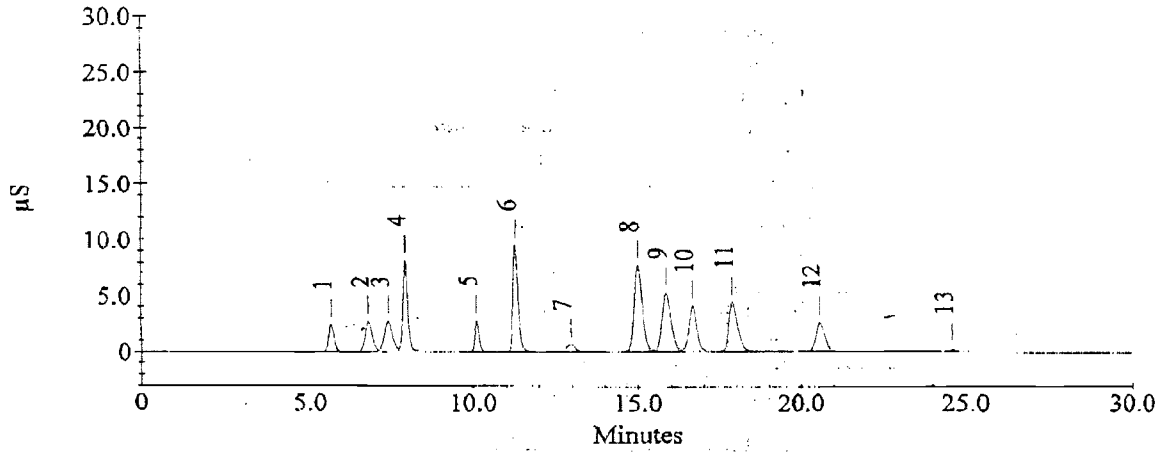
Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/9/09 10:46:06 PM
System Operator : ADP
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.64	0.47276 100.0	282133	24230
2	GLYCOLATE	6.79	3.05067 102.5	406873	26935
3	ACETATE	7.41	3.86372 108.2	476105	26682
4	FORMATE	7.93	3.63649 103.0	822866	80916
5	CHLORIDE	10.12	0.69220 102.0	231662	27681
6	NITRITE	11.30	4.41744 101.0	1088332	95301
7	Unknown 1	12.98	0.00000	123841	6339
8	SULFATE	15.01	5.29649 103.0	1308062	76608
9	OXALATE	15.85	4.27429 102.0	1025561	52151
10	BROMIDE	16.65	4.43110 93.0	675168	39692
11	NITRATE	17.89	4.33960 99.4	828798	43441
12	PHOSPHATE	20.58	4.47074 102.2	500763	25802
13	Unknown 2	24.62	0.00000	15469	2599

CCV 113N28C 126



Sample Analysis Report

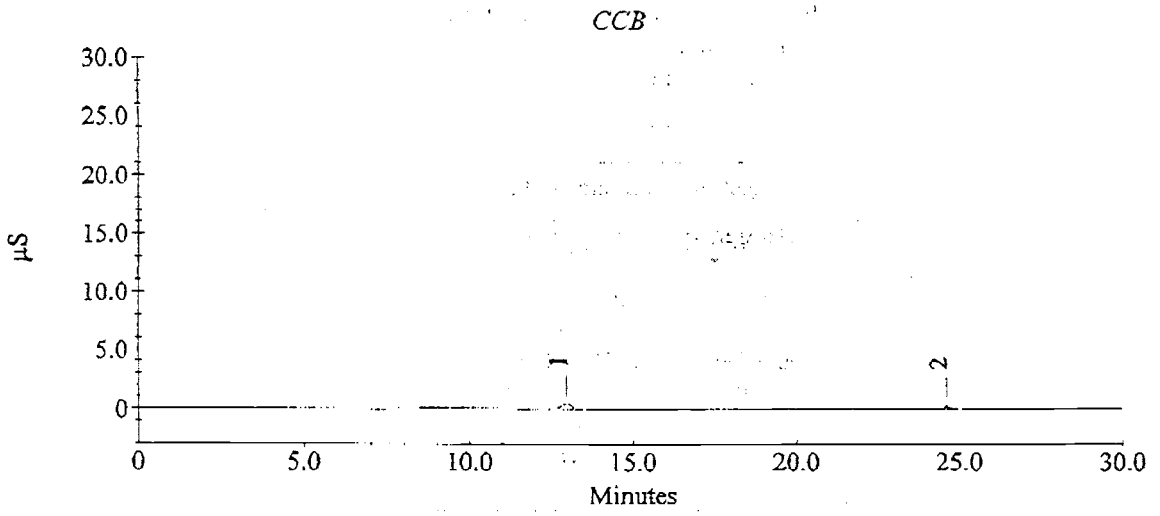
Sample Name : CCB
Data File Name : c:\peaknet\data\009030900_A005.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/9/09 11:49:57 PM
System Operator : ADP
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	12.98	0.00000	84381	4517
2	Unknown 2	24.62	0.00000	15515	2543



Sample Analysis Report

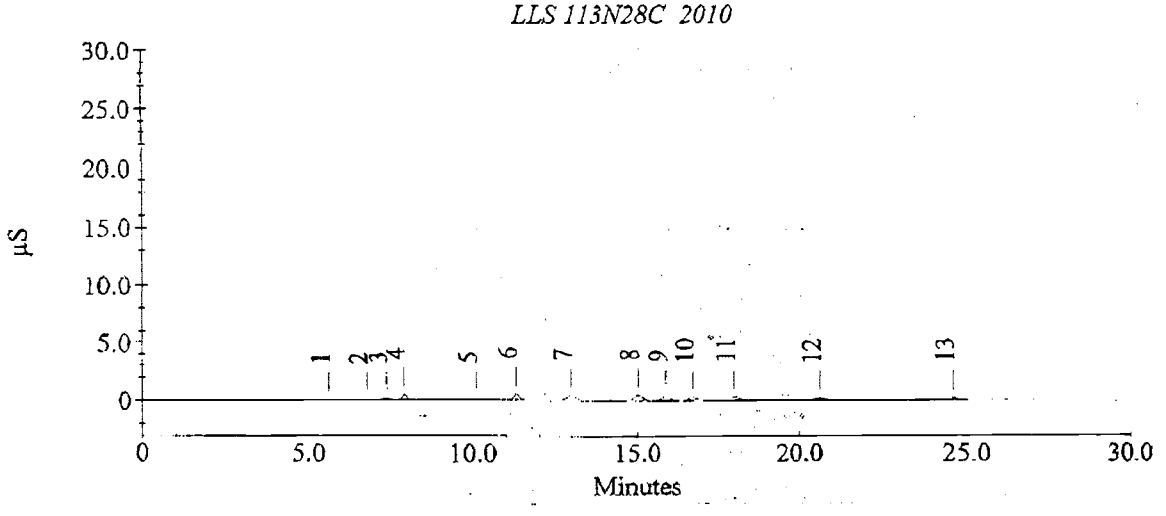
Sample Name : LLS 113N28C 2010
Data File Name : c:\peaknet\data\009030900_A006.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/10/09 12:21:53 AM
System Operator : ADP
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.63	0.02414	14436	1339
2	GLYCOLATE	6.78	0.15070	20506	1528
3	ACETATE	7.38	0.20466	30204	2034
4	FORMATE	7.92	0.21472	51195	5526
5	CHLORIDE	10.13	0.04231	14078	1774
6	NITRITE	11.32	0.25549	63935	6055
7	Unknown 1	12.97	0.00000	85880	4595
8	SULFATE	15.04	0.28841	71045	4485
9	OXALATE	15.89	0.22325	55612	3268
10	BROMIDE	16.72	0.21459	32536	2320
11	NITRATE	18.00	0.23229	44159	2532
12	PHOSPHATE	20.64	0.23550	26253	1487
13	Unknown 2	24.62	0.00000	15667	2530



Sample Analysis Report

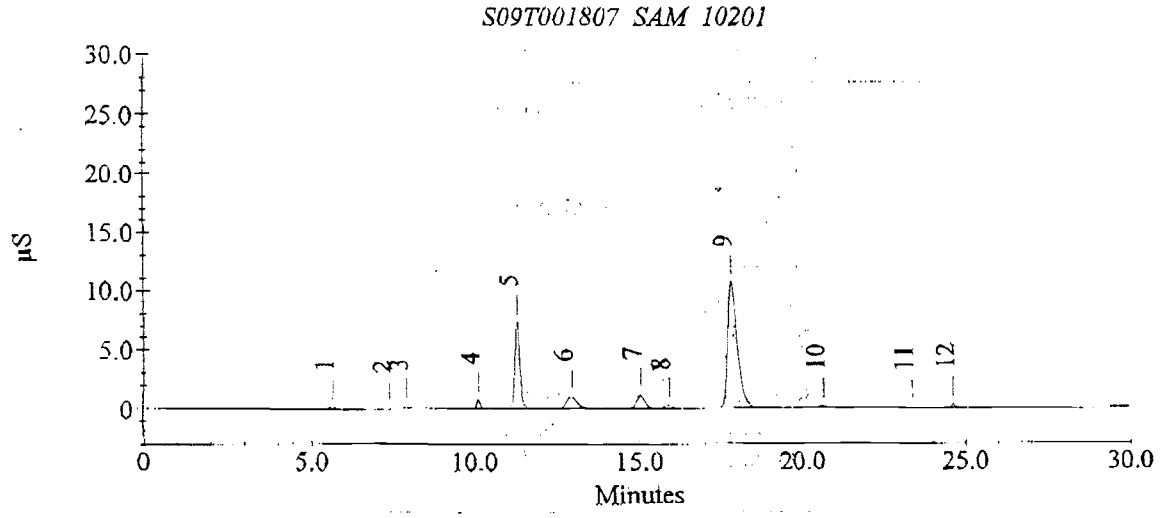
Sample Name : S09T001807 SAM 10201
Data File Name : c:\peaknet\data\009030900_A007.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/10/09 12:53:50 AM
System Operator : ADP
Dilution Factor : 10201.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.63	350.40299	20543	1831
2	ACETATE	7.40	252.64523	3699	302
3	FORMATE	7.92	726.47330	17020	1863
4	CHLORIDE	10.13	1915.17814	62553	7679
5	NITRITE	11.30	33882.50616 ✓	821633	72789
6	Unknown 1	12.96	0.00000	203806	9807
7	SULFATE	15.04	7643.13502	184611	11229
8	OXALATE	15.89	1580.22566	38614	2300
9	NITRATE	17.79	116050.41434 ✓	2190364	106207
10	PHOSPHATE	20.65	2730.80830	29844	1690
11	Unknown 2	23.36	0.00000	8104	447
12	Unknown 3	24.62	0.00000	15439	2503



Fax sent by : 5093737334 CORR BC 2PGS 03-10-09 10:56 Pg: 10/29

Sample Analysis Report

Sample Name : S09T001807 SAM 1111
Data File Name : c:\peaknet\data\009030900_A013.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/10/09 4:05:34 AM
System Operator : ADP
Dilution Factor : 1111.00

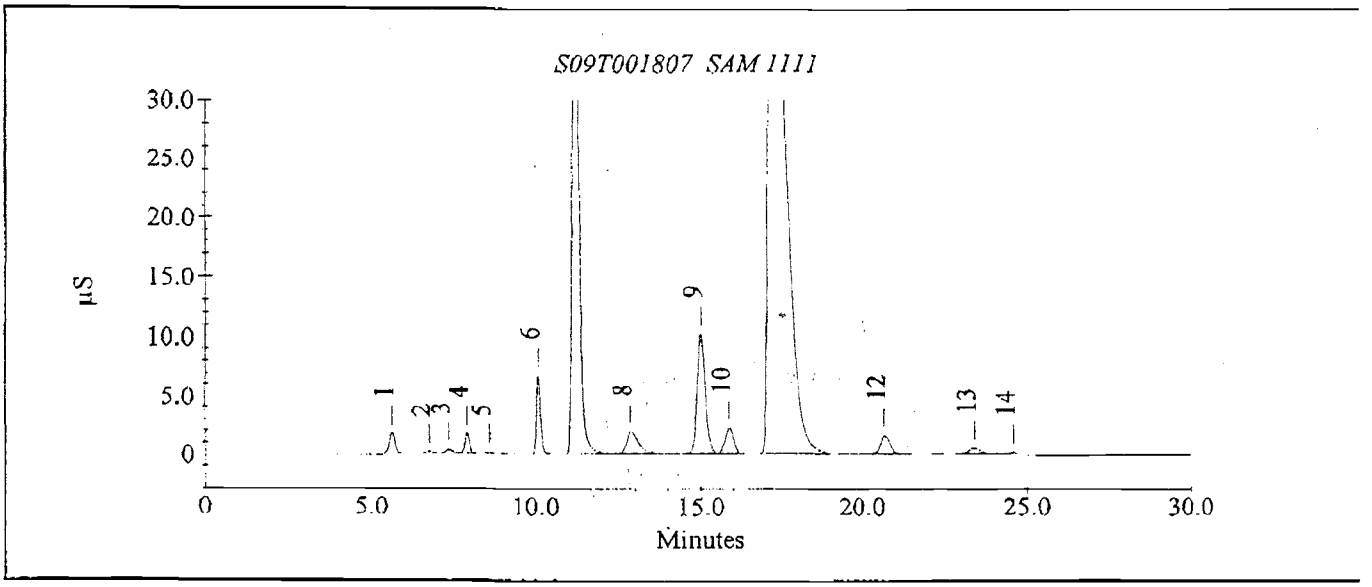
System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.61	387.14004	208081	17895
2	GLYCOLATE	6.75	246.26184	30147	2165
3	ACETATE	7.35	440.23595	57774	3649
4	FORMATE	7.90	816.07830	173652	17616
5	Unknown 1	8.60	0.00000	11678	1628
6	CHLORIDE	10.10	1847.30730	561388	67103
7	NITRITE	11.18	32095.40951	6572564	479726
8	Unknown 2	12.88	0.00000	445965	18898
9	SULFATE	15.00	7835.43660	1743341	101379
10	OXALATE	15.86	1913.44362	422903	22355
11	Unknown 3	17.19	0.00000	19635839	599635
12	PHOSPHATE	20.69	3088.13312	310748	16114
13	Unknown 4	23.42	0.00000	116926	4685
14	Unknown 5	24.60	0.00000	13325	2355

Sample Analysis Report

Sample Name : S09T001807 SAM 1111
Data File Name : c:\peaknet\data\009030900_A013.DXD



Sample Analysis Report

Sample Name : SO9T001807 DUP 10201
Data File Name : c:\peaknet\data\009030900_A008.DXD

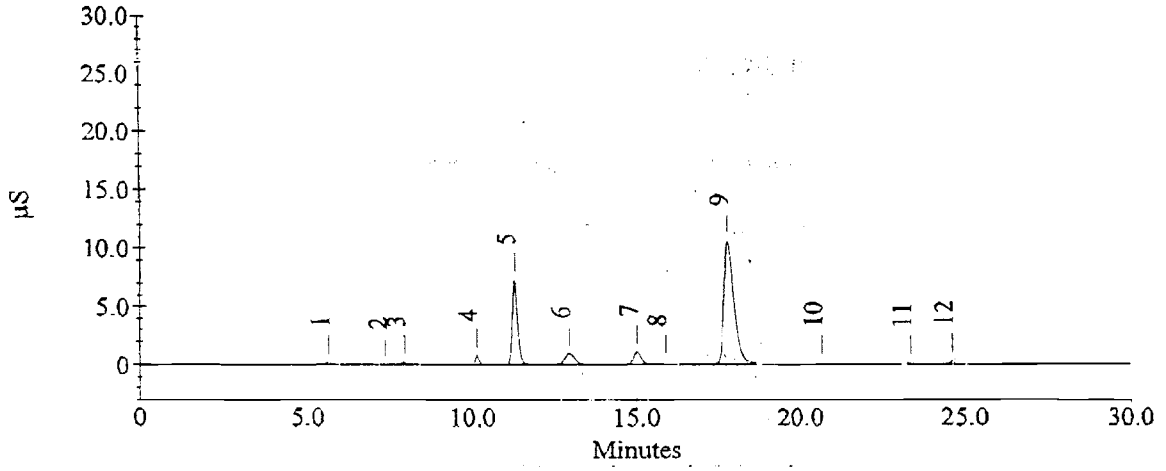
Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/10/09 1:25:48 AM
System Operator : ADP
Dilution Factor : 10201.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.63	327.52070	19202	1799
2	ACETATE	7.36	254.02052	3719	301
3	FORMATE	7.92	674.76447	15810	1777
4	CHLORIDE	10.13	1783.56860	58248	7231
5	NITRITE	11.30	33552.35211 ✓	813724	72072
6	Unknown 1	12.96	0.00000	201681	9610
7	SULFATE	15.04	7421.88533	179265	10990
8	OXALATE	15.88	1578.11487	38562	2285
9	NITRATE	17.79	114779.67792 ✓	2166066	105198
10	PHOSPHATE	20.65	2681.93236	29310	1684
11	Unknown 2	23.35	0.00000	8166	445
12	Unknown 3	24.62	0.00000	15634	2513

SO9T001807 DUP 10201



Sample Analysis Report

Sample Name : S09T001807 DUP 1111
Data File Name : c:\peaknet\data\009030900_A014.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/10/09 4:37:32 AM
System Operator : ADP
Dilution Factor : 1111.00

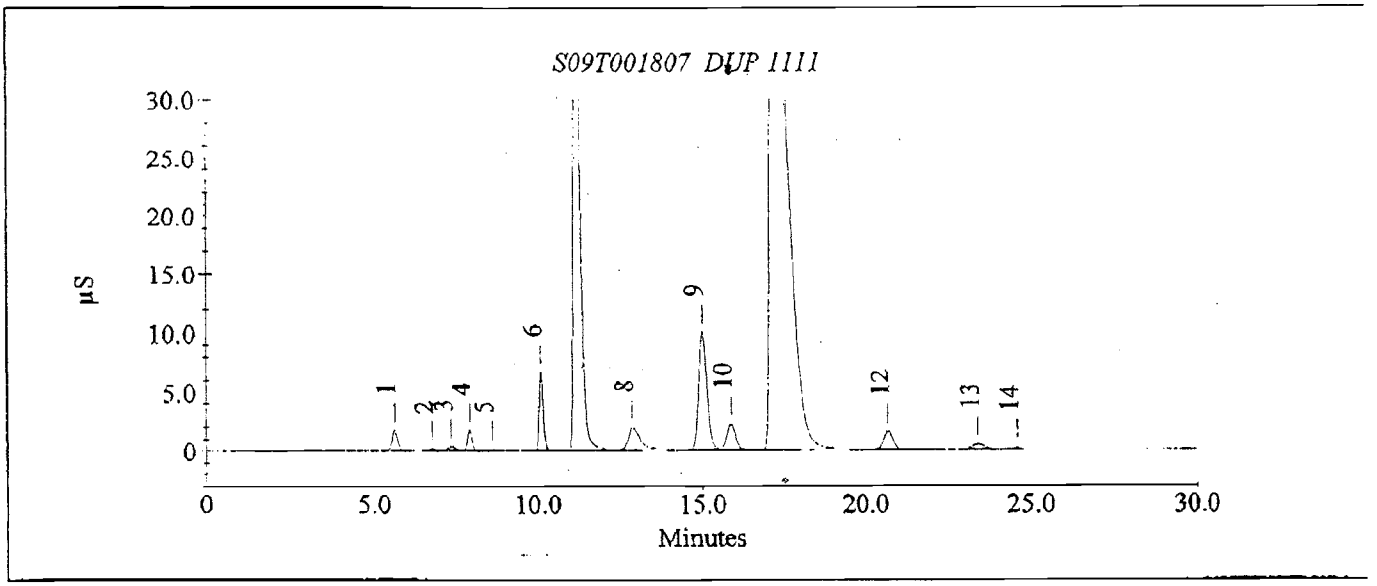
System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.61	385.16160	207019	17834
2	GLYCOLATE	6.75	244.34422	29912	2155
3	ACETATE	7.35	429.72435	56428	3630
4	FORMATE	7.90	798.94085	170048	17469
5	Unknown 1	8.60	0.00000	11539	1614
6	CHLORIDE	10.10	1829.09232	555769	66449
7	NITRITE	11.18	31739.62171	6505770	476408
8	Unknown 2	12.87	0.00000	447545	18950
9	SULFATE	15.00	7754.23426	1725209	100433
10	OXALATE	15.86	1890.52732	417919	22135
11	Unknown 3	17.19	0.00000	19431683	596507
12	PHOSPHATE	20.69	3064.49883	308362	15983
13	Unknown 4	23.41	0.00000	115373	4622
14	Unknown 5	24.60	0.00000	13562	2382

Sample Analysis Report

Sample Name : S09T001807 DUP 1111
Data File Name : c:\peaknet\data\009030900_A014.DXD



Sample Analysis Report

Sample Name : S09T001807 SPK 10201
Data File Name : c:\peaknet\data\009030900_A009.DXD

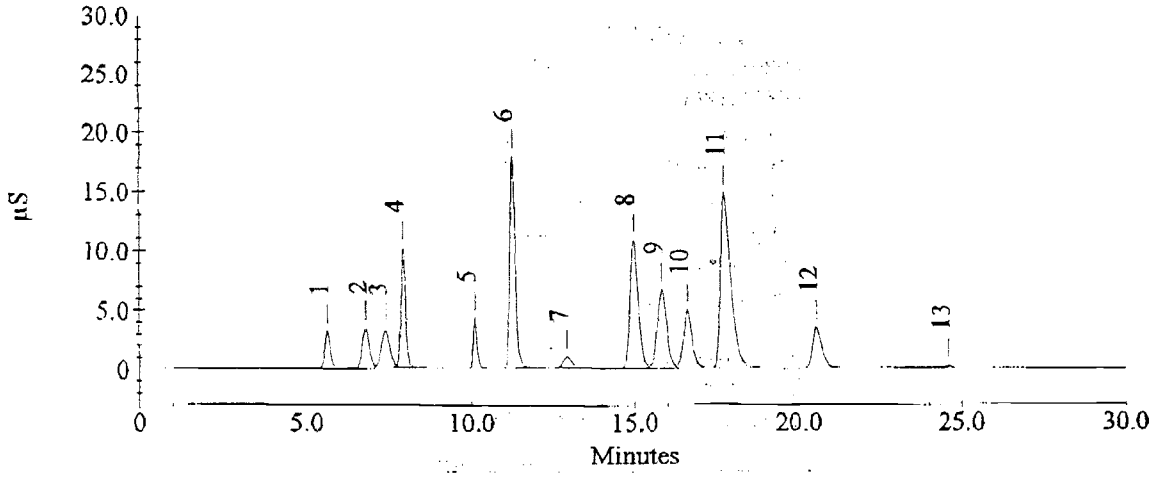
Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/10/09 1:57:45 AM
System Operator : ADP
Dilution Factor : 10201.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.63	6515.66212	380879	32324
2	GLYCOLATE	6.79	39764.59804	516972	33983
3	ACETATE	7.41	50081.73594	582125	32016
4	FORMATE	7.93	47498.42774	1038816	100962
5	CHLORIDE	10.12	10963.68951	360935	43153
6	NITRITE	11.27	89422.40367 ✓	2126344	178903
7	Unknown 1	12.95	0.00000	198198	9536
8	SULFATE	14.98	76496.21570	1854089	107940
9	OXALATE	15.82	57099.80663	1327820	66502
10	BROMIDE	16.62	57976.86523	867280	48672
11	NITRATE	17.72	169418.28250 ✓	3217356	148385
12	PHOSPHATE	20.56	60637.92733	666929	34150
13	Unknown 2	24.62	0.00000	15720	2543

S09T001807 SPK 10201



Sample Analysis Report

Sample Name : S09T001807 SPK 1111
Data File Name : C:\PEAKNET\DATA\009030900_A015.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/10/09 5:09:30 AM
System Operator : ADP
Dilution Factor : 1111.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

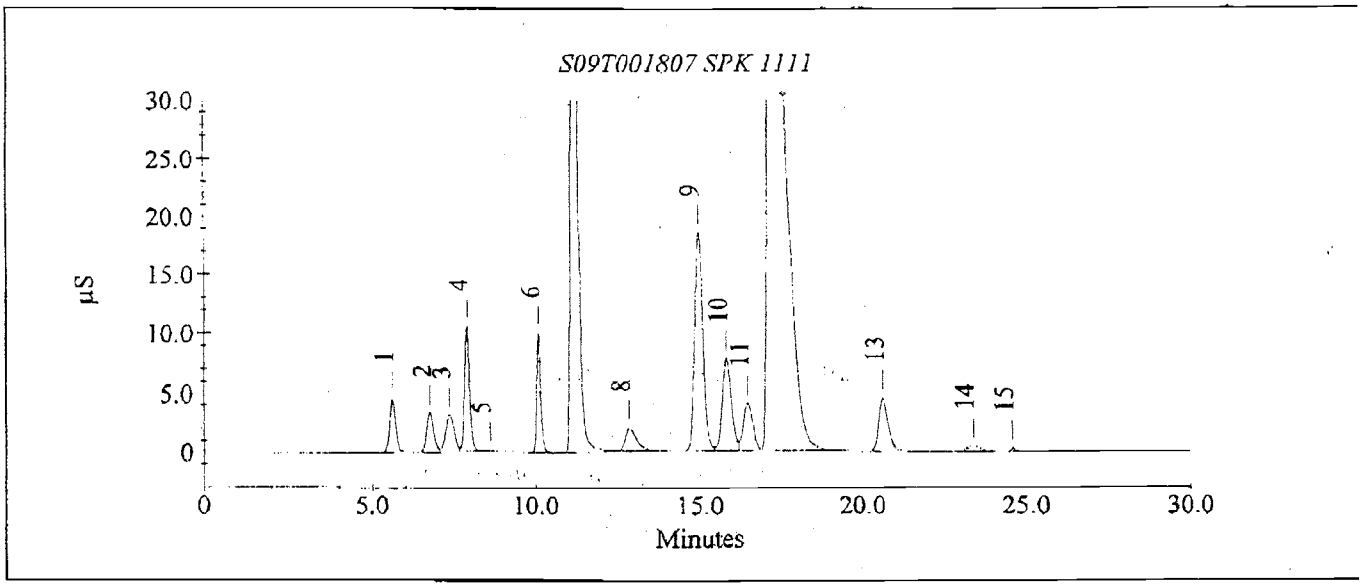
Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	FLUORIDE	5.61	1009.68732	541230	44947
2	GLYCOLATE	6.76	4263.20806	509108	32935
3	ACETATE	7.37	5555.74725	591057	31587
4	FORMATE	7.91	5538.55159	1107272	105152
5	Unknown 1	8.60	0.00000	12207	1710
6	CHLORIDE	10.10	2723.71459	833801	99447
7	NITRITE	11.17	37464.13308	7566959	540024
8	Unknown 2	12.87	0.00000	461283	19375
9	SULFATE	14.95	14457.64610	3226702	185589
10	OXALATE	15.80	7157.06225	1517373	76541
11	BROMIDE	16.46	5602.77241	768962	38956
12	NITRATE	17.16	105395.19609	20505654	620299
13	PHOSPHATE	20.62	8776.78384	888315	44304
14	Unknown 3	23.40	0.00000	117707	4689
15	Unknown 4	24.60	0.00000	13412	2358

03-10-09 10:57 Pg: 22/29 CORR BC 2888 Fax sent by : 5093737334

Sample Analysis Report

Sample Name : S09T001807 SPK 1111
Data File Name : C:\PEAKNET\DATA\009030900_A015.DXD



Sample Analysis Report

Sample Name : CCV 113N28C 126
Data File Name : c:\peaknet\data\009030900_018.DXD

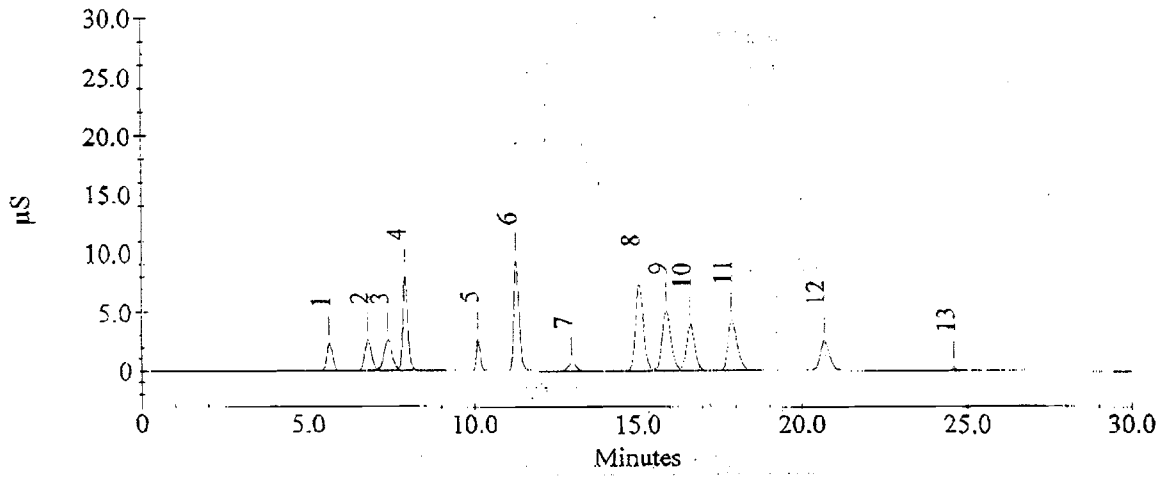
Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/10/09 6:45:15 AM
System Operator : ADP
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/09 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	%	Peak Area	Peak Height
1	FLUORIDE 59.6	5.63	0.46997	99.3	280476	24032
2	GLYCOLATE 375	6.78	3.00141	100.8	400436	26666
3	ACETATE 450	7.39	3.80325	104.5	469757	26360
4	FORMATE 445	7.92	3.59378	101.8	813694	80632
5	CHLORIDE 85.5	10.11	0.68523	100.9	229317	27758
6	NITRITE 551	11.28	4.36443	99.8	1075481	94322
7	Unknown 1	12.99	0.00000		129126	6507
8	SULFATE 648	15.05	5.25835	102.2	1298618	75624
9	OXALATE 528	15.90	4.24322	101.3	1018383	51531
10	BROMIDE 600	16.64	4.42499	92.9	674232	39654
11	NITRATE 550	17.88	4.32727	99%	826430	43014
12	PHOSPHATE 551	20.67	4.38933	100.4%	491600	25226
13	Unknown 2	24.60	0.00000		15908	2547

CCV 113N28C 126



Sample Analysis Report

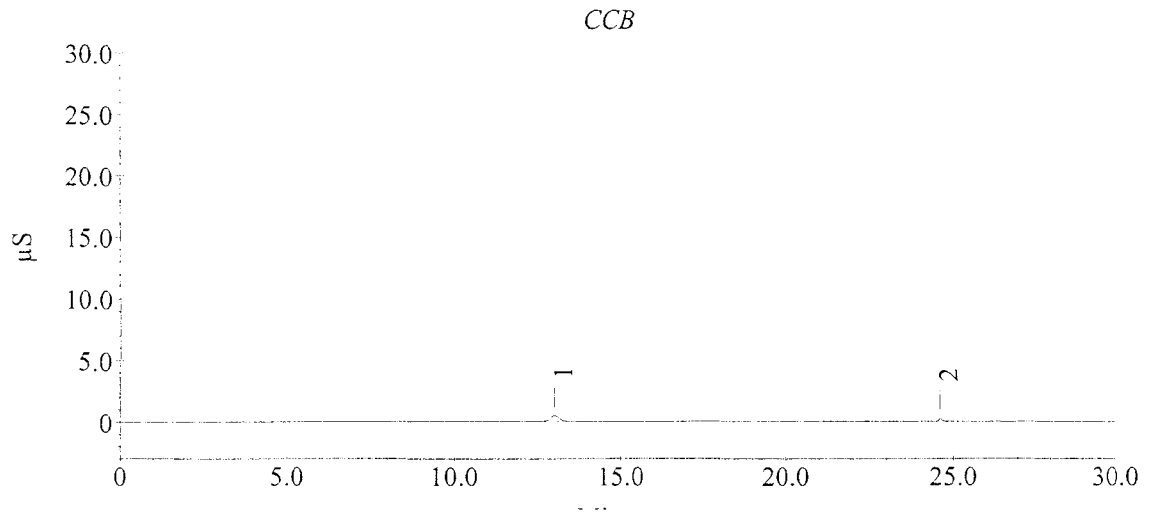
Sample Name : CCB
Data File Name : Z:\PKNT TRANSFER FILES\090309 IC-6\009030900_019.DXD

Method File Name : ...\as15hood4_new08090300.met
Date Time Collected : 3/10/2009 8:17:12 AM
System Operator : ADP
Dilution Factor : 1.00

System Name : HD4-ANION_WC80541
Calibration Date : 3/3/2009 3:44:38 PM
Calibration Level : 0

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount (µg/mL)	Peak Area	Peak Height
1	Unknown 1	13.00	0.00000	84124	4470
2	Unknown 2	24.60	0.00000	15646	2544



222-S Advanced Technologies and Laboratories — **ICP-AES DATA REVIEW CHECKLIST**

Worklist/Project Information: AW106 EVAP3 — Check Procedure Used: ☒ LA-505-161 (TJA) ☐ LA-505-170 (JY) ☐ LA-505-171 (TJA-IH)

Run Date: 3/19/09 — Instrument ID: ICAP 61E — Prep Batches Analyzed (Worklist #): N/A — Prep Method: N/A

Review Items	Yes	No	N/A	Comments/Samples Affected
A. Calibration/Instrument Run QC				
1. Instrument calibrated per procedure and at specified levels?	X			ICV: Te is out of control limit (116.35%). Te is opportunistic element.
2. ICV/CCV analyzed at appropriate frequency and within control limits (Recovery: 90-110%)?	X			
3. ICB/CCB analyzed at required frequency and < EQL (or RL) or <5% of the lowest sample result with client consent N/A if all samples are ND.	X			CCV: Te (110.27%)
4. LLS run and within control limits (Recovery: ~~75~~ 70-130-125%)? For IH, recovery is mandatory to verify RL.	~~X~~	X		MidCCB: Traces of Ni but < EQL
5. ICSA or ICSA/ICSAB run at required frequency and within control limits (Recovery: 80-120%)?	X			Ending CCV: Rb = 88.1%
B. Sample Results				
1. Were samples with concentrations > linear range for any analyte diluted and reanalyzed?			X	Ending LLS: Ba = 133% K = 135%
2. Are all reported results bracketed by in-control QC?	X			
3. Are there 10 or fewer samples run between bracketed, in-control QC?	X			Ending CCB: Traces of Fe but < EQL
C. Preparation/Matrix QC				
1. LCS/Prep Std prepared per prep batch and within control limits? Recovery: ☐ 80-120% or ☐ Statistical			X	Beginning LLS: Rb = 62.7%
2. LCS Dup (Prep Std Dup) prepared per prep batch, if required, and within control limits? Recovery: ☐ 80-120% or ☐ Statistical RPD: ☐ ≤20% or ☐ Statistical			X	
3. IH RLS run (when required) and within mandatory control limits (Recovery: 75-125%)?			X	
4. Method/Media Blank prepared per prep batch and < EQL (or RL) or <5% of the lowest sample result?			X	
5. Duplicate or MS Duplicate run at required frequency and within control limits? %RPD: ☒ ≤20% or ☐ Client-specified	X			Ni > 20% RPD but √ flagged.
6. MS run at required frequency and within control limit? Recovery: ☐ 75-125% or ☐ Client-specified			X	
7. PDS analyzed if required and within control limit (Recovery: 75-125%)?				Serial: Na = 10.8% Diff.
8. 5x serial dilution analyzed per prep batch and within control limit (% Diff <10%) and the sample result is 50x MDL?		X		
D. Other				
1. Are all problems and nonconformance issues documented appropriately?			X	K failed but < 50X DL.
2. Are current IDL / MDL / EQL / RL / IEC data on file?	X			
3. Calculations/transcriptions checked for errors?	X			
4. Are all raw data complete and verified in OmniLIMS?	X			
5. Is calibration data included?	X			
6. All client/project specific requirements met (e.g., MDL, holding times, etc.)?	X			
7. Date/time of analysis verified as correct?	X			
8. Prep/Breakdown Batch Benchsheet/Worklist properly completed and included, as required?			X	
9. IH Only: Media Blank subtracted from Sample results?			X	

1st Data Reviewer: Sandra M. Pang — Date: 3/23/09 — 2nd Data Reviewer: Roxie R. Ross — Date: 3/23/09

A-6004-348 (REV 0)

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RPP-RPT-40709 Rev. 1

LABCORE Completed Batch Report for Batch# 00013485

Analyst: Monteith, Kenneth

Instrument: ICP-TJA

Method: ICP-TOTAL METALS, LA-505-161 Rev/Mod I-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP3

Book#: 0829102, A-0829110, A-102-080918-1, A-104-081110-3, A-104-081110-4, A-106-090305-1, A-106-090305-6, A

See bench sheet

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1																
4	ICV	S0903230009		0	3	Silver	LIQUID	1	9.7346E-01			5.00E-03	ug/mL	97.346	% Recovery	
1	ICV	S0903230009		0	0	Aluminum	LIQUID	5	4.9479E+00			0.03	ug/mL	98.959	% Recovery	
1	ICV	S0903230009		0	0	Arsenic	LIQUID	5	5.1655E+00			0.05	ug/mL	103.31	% Recovery	
4	ICV	S0903230009		0	3	Boron	LIQUID	5	5.1822E+00			0.03	ug/mL	103.64	% Recovery	
1	ICV	S0903230009		0	0	Barium	LIQUID	5	4.9285E+00			3.00E-03	ug/mL	98.57	% Recovery	
1	ICV	S0903230009		0	0	Beryllium	LIQUID	5	5.0172E+00			1.00E-03	ug/mL	100.34	% Recovery	
1	ICV	S0903230009		0	0	Bismuth	LIQUID	5	4.9293E+00			0.1	ug/mL	98.586	% Recovery	
1	ICV	S0903230009		0	0	Calcium	LIQUID	5	5.4670E+00			0.05	ug/mL	109.34	% Recovery	
1	ICV	S0903230009		0	0	Cadmium	LIQUID	5	4.9615E+00			5.00E-03	ug/mL	99.231	% Recovery	
1	ICV	S0903230009		0	0	Cerium	LIQUID	5	5.1832E+00			0.03	ug/mL	103.66	% Recovery	
1	ICV	S0903230009		0	0	Cobalt	LIQUID	5	5.0288E+00			0.01	ug/mL	100.58	% Recovery	
1	ICV	S0903230009		0	0	Chromium	LIQUID	5	4.9936E+00			5.00E-03	ug/mL	99.871	% Recovery	
1	ICV	S0903230009		0	0	Copper	LIQUID	5	4.9665E+00			5.00E-03	ug/mL	99.331	% Recovery	
1	ICV	S0903230009		0	0	Europium	LIQUID	5	4.8410E+00			5.00E-03	ug/mL	96.821	% Recovery	
1	ICV	S0903230009		0	0	Iron	LIQUID	5	5.0437E+00			5.00E-03	ug/mL	100.87	% Recovery	
1	ICV	S0903230009		0	0	Potassium	LIQUID	5	5.0874E+00			0.5	ug/mL	101.75	% Recovery	
1	ICV	S0903230009		0	0	Lanthanum	LIQUID	5	4.9529E+00			3.00E-03	ug/mL	99.058	% Recovery	
1	ICV	S0903230009		0	0	Lithium	LIQUID	5	5.2058E+00			3.00E-03	ug/mL	104.12	% Recovery	
1	ICV	S0903230009		0	0	Magnesium	LIQUID	5	4.9265E+00			0.05	ug/mL	98.53	% Recovery	
1	ICV	S0903230009		0	0	Manganese	LIQUID	5	4.9101E+00			3.00E-03	ug/mL	98.202	% Recovery	
4	ICV	S0903230009		0	3	Molybdenum	LIQUID	5	4.9459E+00			0.02	ug/mL	98.918	% Recovery	
1	ICV	S0903230009		0	0	Sodium	LIQUID	5	5.1195E+00			0.1	ug/mL	102.39	% Recovery	
1	ICV	S0903230009		0	0	Neodymium	LIQUID	5	4.9042E+00			0.01	ug/mL	98.084	% Recovery	
1	ICV	S0903230009		0	0	Nickel	LIQUID	5	4.9311E+00			0.02	ug/mL	98.622	% Recovery	
2	ICV	S0903230009		0	1	Niobium	LIQUID	5	5.2522E+00			0.03	ug/mL	105.04	% Recovery	
1	ICV	S0903230009		0	0	Phosphorus	LIQUID	5	4.9820E+00			0.05	ug/mL	99.64	% Recovery	
1	ICV	S0903230009		0	0	Lead	LIQUID	5	5.1677E+00			0.05	ug/mL	103.35	% Recovery	
3	ICV	S0903230009		0	2	Palladium	LIQUID	5	4.9555E+00			0.1	ug/mL	99.11	% Recovery	
1	ICV	S0903230009		0	0	Praseodymium	LIQUID	5	4.9015E+00			0.01	ug/mL	98.029	% Recovery	
1	ICV	S0903230009		0	0	Rubidium	LIQUID	5	4.9260E+00			1	ug/mL	98.521	% Recovery	
3	ICV	S0903230009		0	2	Rhodium	LIQUID	5	5.1055E+00			0.05	ug/mL	102.11	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
3	ICV	S0903230009		0 2		Ruthenium	LIQUID	5	4.8592E+00			0.03	ug/mL	97.184	% Recovery	
4	ICV	S0903230009		0 3		Sulfur	LIQUID	5	4.9995E+00			0.1	ug/mL	99.99	% Recovery	
4	ICV	S0903230009		0 3		Antimony	LIQUID	5	4.9408E+00			0.05	ug/mL	98.815	% Recovery	
1	ICV	S0903230009		0 0		Selenium	LIQUID	5	5.0742E+00			0.1	ug/mL	101.48	% Recovery	
4	ICV	S0903230009		0 3		Silicon	LIQUID	5	4.7762E+00			0.03	ug/mL	95.525	% Recovery	
1	ICV	S0903230009		0 0		Samarium	LIQUID	5	4.9836E+00			0.02	ug/mL	99.673	% Recovery	
2	ICV	S0903230009		0 1		Tin	LIQUID	5	5.0805E+00			0.03	ug/mL	101.61	% Recovery	
1	ICV	S0903230009		0 0		Strontium	LIQUID	5	4.9985E+00			3.00E-03	ug/mL	99.97	% Recovery	
2	ICV	S0903230009		0 1		Tantalum	LIQUID	5	5.1875E+00			0.05	ug/mL	103.75	% Recovery	
2	ICV	S0903230009		0 1		Tellurium	LIQUID	5	5.5176E+00			0.1	ug/mL	110.35	% Recovery	
1	ICV	S0903230009		0 0		Thorium	LIQUID	5	4.9381E+00			0.05	ug/mL	98.762	% Recovery	
4	ICV	S0903230009		0 3		Titanium	LIQUID	5	5.0429E+00			5.00E-03	ug/mL	100.86	% Recovery	
1	ICV	S0903230009		0 0		Thallium	LIQUID	5	4.9983E+00			0.1	ug/mL	99.965	% Recovery	
1	ICV	S0903230009		0 0		Uranium	LIQUID	5	5.1264E+00			0.1	ug/mL	102.53	% Recovery	
1	ICV	S0903230009		0 0		Vanadium	LIQUID	5	5.0621E+00			5.00E-03	ug/mL	101.24	% Recovery	
2	ICV	S0903230009		0 1		Tungsten	LIQUID	5	5.0684E+00			0.2	ug/mL	101.37	% Recovery	
1	ICV	S0903230009		0 0		Yttrium	LIQUID	5	4.8779E+00			2.00E-03	ug/mL	97.558	% Recovery	
1	ICV	S0903230009		0 0		Zinc	LIQUID	5	4.8811E+00			5.00E-03	ug/mL	97.622	% Recovery	
2	ICV	S0903230009		0 1		Zirconium	LIQUID	5	4.8729E+00			5.00E-03	ug/mL	97.458	% Recovery	
Sample Sequence 5																
5	LLS	S0903230011		0 0		Silver	LIQUID	.02	2.0760E-02			5.00E-03	ug/mL	103.8	% Recovery	
5	LLS	S0903230011		0 0		Aluminum	LIQUID	.1	1.0083E-01			0.03	ug/mL	100.83	% Recovery	
5	LLS	S0903230011		0 0		Arsenic	LIQUID	.2	2.2020E-01			0.05	ug/mL	110.1	% Recovery	
6	LLS	S0903230011		0 1		Boron	LIQUID	.1	1.0086E-01			0.03	ug/mL	100.86	% Recovery	
5	LLS	S0903230011		0 0		Barium	LIQUID	.01	1.0140E-02			3.00E-03	ug/mL	101.4	% Recovery	
5	LLS	S0903230011		0 0		Beryllium	LIQUID	.001	1.1700E-03			1.00E-03	ug/mL	117	% Recovery	
5	LLS	S0903230011		0 0		Bismuth	LIQUID	.2	2.2475E-01			0.1	ug/mL	112.38	% Recovery	
5	LLS	S0903230011		0 0		Calcium	LIQUID	.2	1.8522E-01			0.05	ug/mL	92.61	% Recovery	
5	LLS	S0903230011		0 0		Cadmium	LIQUID	.01	1.2320E-02			5.00E-03	ug/mL	123.2	% Recovery	
5	LLS	S0903230011		0 0		Cerium	LIQUID	.2	2.1114E-01			0.03	ug/mL	105.57	% Recovery	
6	LLS	S0903230011		0 1		Cobalt	LIQUID	.04	5.0320E-02			0.01	ug/mL	125.8	% Recovery	
5	LLS	S0903230011		0 0		Chromium	LIQUID	.02	2.1640E-02			5.00E-03	ug/mL	108.2	% Recovery	
6	LLS	S0903230011		0 1		Copper	LIQUID	.02	2.0350E-02			5.00E-03	ug/mL	101.75	% Recovery	
7	LLS	S0903230011		0 2		Europium	LIQUID	.1	9.7190E-02			5.00E-03	ug/mL	97.19	% Recovery	
5	LLS	S0903230011		0 0		Iron	LIQUID	.05	5.3110E-02			5.00E-03	ug/mL	106.22	% Recovery	
5	LLS	S0903230011		0 0		Potassium	LIQUID	.5	6.4153E-01			0.5	ug/mL	128.31	% Recovery	
5	LLS	S0903230011		0 0		Lanthanum	LIQUID	.01	1.1190E-02			3.00E-03	ug/mL	111.9	% Recovery	
5	LLS	S0903230011		0 0		Lithium	LIQUID	.02	2.2400E-02			3.00E-03	ug/mL	112	% Recovery	
5	LLS	S0903230011		0 0		Magnesium	LIQUID	.2	2.0274E-01			0.05	ug/mL	101.37	% Recovery	
5	LLS	S0903230011		0 0		Manganese	LIQUID	.02	2.0920E-02			3.00E-03	ug/mL	104.6	% Recovery	
6	LLS	S0903230011		0 1		Molybdenum	LIQUID	.1	1.0072E-01			0.02	ug/mL	100.72	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
5	LLS	S0903230011		0	0	Sodium	LIQUID	.2	2.1336E-01			0.1	ug/mL	106.68	% Recovery	
5	LLS	S0903230011		0	0	Neodymium	LIQUID	.1	9.9590E-02			0.01	ug/mL	99.59	% Recovery	
5	LLS	S0903230011		0	0	Nickel	LIQUID	.04	4.7280E-02			0.02	ug/mL	118.2	% Recovery	
9	LLS	S0903230011		0	4	Niobium	LIQUID	.1	1.0690E-01			0.03	ug/mL	106.9	% Recovery	
6	LLS	S0903230011		0	1	Phosphorus	LIQUID	.4	3.9177E-01			0.05	ug/mL	97.942	% Recovery	
5	LLS	S0903230011		0	0	Lead	LIQUID	.2	2.4174E-01			0.05	ug/mL	120.87	% Recovery	
8	LLS	S0903230011		0	3	Palladium	LIQUID	1	9.3357E-01			0.1	ug/mL	93.357	% Recovery	
7	LLS	S0903230011		0	2	Praseodymium	LIQUID	.1	9.8310E-02			0.01	ug/mL	98.31	% Recovery	
7	LLS	S0903230011		0	2	Rubidium	LIQUID	1	6.2757E-01			1.00E-03	ug/mL	62.757	% Recovery	
8	LLS	S0903230011		0	3	Rhodium	LIQUID	.1	9.4310E-02			0.05	ug/mL	94.31	% Recovery	
8	LLS	S0903230011		0	3	Ruthenium	LIQUID	.1	9.6540E-02			0.03	ug/mL	96.54	% Recovery	
6	LLS	S0903230011		0	1	Sulfur	LIQUID	.2	1.9401E-01			0.1	ug/mL	97.005	% Recovery	
6	LLS	S0903230011		0	1	Antimony	LIQUID	.1	8.2250E-02			0.05	ug/mL	82.25	% Recovery	
5	LLS	S0903230011		0	0	Selenium	LIQUID	.2	1.7523E-01			0.1	ug/mL	87.615	% Recovery	
6	LLS	S0903230011		0	1	Silicon	LIQUID	.1	1.0041E-01			0.03	ug/mL	100.41	% Recovery	
5	LLS	S0903230011		0	0	Samarium	LIQUID	.1	1.0873E-01			0.02	ug/mL	108.73	% Recovery	
9	LLS	S0903230011		0	4	Tin	LIQUID	.1	8.7260E-02			0.03	ug/mL	87.26	% Recovery	
5	LLS	S0903230011		0	0	Strontium	LIQUID	.02	2.0440E-02			3.00E-03	ug/mL	102.2	% Recovery	
9	LLS	S0903230011		0	4	Tantalum	LIQUID	1	9.9117E-01			0.05	ug/mL	99.117	% Recovery	
9	LLS	S0903230011		0	4	Tellurium	LIQUID	1	1.0068E+00			0.1	ug/mL	100.68	% Recovery	
7	LLS	S0903230011		0	2	Thorium	LIQUID	.1	9.6660E-02			0.05	ug/mL	96.66	% Recovery	
6	LLS	S0903230011		0	1	Titanium	LIQUID	.02	1.9500E-02			5.00E-03	ug/mL	97.5	% Recovery	
5	LLS	S0903230011		0	0	Thallium	LIQUID	.4	3.5696E-01			0.1	ug/mL	89.24	% Recovery	
6	LLS	S0903230011		0	1	Uranium	LIQUID	.5	5.0393E-01			0.1	ug/mL	100.79	% Recovery	
6	LLS	S0903230011		0	1	Vanadium	LIQUID	.05	5.0470E-02			5.00E-03	ug/mL	100.94	% Recovery	
9	LLS	S0903230011		0	4	Tungsten	LIQUID	1	9.5679E-01			0.2	ug/mL	95.679	% Recovery	
7	LLS	S0903230011		0	2	Yttrium	LIQUID	.1	9.9370E-02			2.00E-03	ug/mL	99.37	% Recovery	
6	LLS	S0903230011		0	1	Zinc	LIQUID	.02	1.7360E-02			5.00E-03	ug/mL	86.8	% Recovery	
6	LLS	S0903230011		0	1	Zirconium	LIQUID	.02	1.8780E-02			5.00E-03	ug/mL	93.9	% Recovery	
Sample Sequence 10																
10	ICB	S0903230010		0	0	Silver	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
10	ICB	S0903230010		0	0	Aluminum	LIQUID		<3.0000E-02			0.03	ug/mL			
10	ICB	S0903230010		0	0	Arsenic	LIQUID		<5.0000E-02			0.05	ug/mL			
10	ICB	S0903230010		0	0	Boron	LIQUID		<3.0000E-02			0.03	ug/mL			
10	ICB	S0903230010		0	0	Barium	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
10	ICB	S0903230010		0	0	Beryllium	LIQUID		<1.0000E-03			1.00E-03	ug/mL			
10	ICB	S0903230010		0	0	Bismuth	LIQUID		<1.0000E-01			0.1	ug/mL			
10	ICB	S0903230010		0	0	Calcium	LIQUID		<5.0000E-02			0.05	ug/mL			
10	ICB	S0903230010		0	0	Cadmium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
10	ICB	S0903230010		0	0	Cerium	LIQUID		<3.0000E-02			0.03	ug/mL			
10	ICB	S0903230010		0	0	Cobalt	LIQUID		<1.0000E-02			0.01	ug/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
10	ICB	S0903230010		0 0		Chromium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Copper	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Europium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Iron	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Potassium	LIQUID		<5.0000E-01			0.5	ug/mL			
10	ICB	S0903230010		0 0		Lanthanum	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Lithium	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Magnesium	LIQUID		<5.0000E-02			0.05	ug/mL			
10	ICB	S0903230010		0 0		Manganese	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Molybdenum	LIQUID		<2.0000E-02			0.02	ug/mL			
10	ICB	S0903230010		0 0		Sodium	LIQUID		<1.0000E-01			0.1	ug/mL			
10	ICB	S0903230010		0 0		Neodymium	LIQUID		<1.0000E-02			0.01	ug/mL			
10	ICB	S0903230010		0 0		Nickel	LIQUID		<2.0000E-02			0.02	ug/mL			
10	ICB	S0903230010		0 0		Niobium	LIQUID		<3.0000E-02			0.03	ug/mL			
10	ICB	S0903230010		0 0		Phosphorus	LIQUID		<5.0000E-02			0.05	ug/mL			
10	ICB	S0903230010		0 0		Lead	LIQUID		<5.0000E-02			0.05	ug/mL			
10	ICB	S0903230010		0 0		Palladium	LIQUID		<1.0000E-01			0.1	ug/mL			
10	ICB	S0903230010		0 0		Praseodymium	LIQUID		<1.0000E-02			0.01	ug/mL			
10	ICB	S0903230010		0 0		Rubidium	LIQUID		<1.0000E+00			1	ug/mL			
10	ICB	S0903230010		0 0		Rhodium	LIQUID		<5.0000E-02			0.05	ug/mL			
10	ICB	S0903230010		0 0		Ruthenium	LIQUID		<3.0000E-02			0.03	ug/mL			
10	ICB	S0903230010		0 0		Sulfur	LIQUID		<1.0000E-01			0.1	ug/mL			
10	ICB	S0903230010		0 0		Antimony	LIQUID		<5.0000E-02			0.05	ug/mL			
10	ICB	S0903230010		0 0		Selenium	LIQUID		<1.0000E-01			0.1	ug/mL			
10	ICB	S0903230010		0 0		Silicon	LIQUID		<3.0000E-02			0.03	ug/mL			
10	ICB	S0903230010		0 0		Samarium	LIQUID		<2.0000E-02			0.02	ug/mL			
10	ICB	S0903230010		0 0		Tin	LIQUID		<3.0000E-02			0.03	ug/mL			
10	ICB	S0903230010		0 0		Strontium	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Tantalum	LIQUID		<5.0000E-02			0.05	ug/mL			
10	ICB	S0903230010		0 0		Tellurium	LIQUID		<1.0000E-01			0.1	ug/mL			
10	ICB	S0903230010		0 0		Thorium	LIQUID		<5.0000E-02			0.05	ug/mL			
10	ICB	S0903230010		0 0		Titanium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Thallium	LIQUID		<1.0000E-01			0.1	ug/mL			
10	ICB	S0903230010		0 0		Uranium	LIQUID		<1.0000E-01			0.1	ug/mL			
10	ICB	S0903230010		0 0		Vanadium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Tungsten	LIQUID		<2.0000E-01			0.2	ug/mL			
10	ICB	S0903230010		0 0		Yttrium	LIQUID		<2.0000E-03			2.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Zinc	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
10	ICB	S0903230010		0 0		Zirconium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
Sample Sequence 11																
11	ICSA	S0903230012		0 0		Silver	LIQUID		<6.0000E-03			6.00E-03	ug/mL	N/A		

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
11	ICSA	S0903230012		0	0	Aluminum	LIQUID	200	1.9685E+02			0.03	ug/mL	98.424	% Recovery	
11	ICSA	S0903230012		0	0	Arsenic	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Boron	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Barium	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Beryllium	LIQUID		<1.0000E-03			1.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Bismuth	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Calcium	LIQUID	200	1.9383E+02			0.05	ug/mL	96.915	% Recovery	
11	ICSA	S0903230012		0	0	Cadmium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Cerium	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Cobalt	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Chromium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Copper	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Europium	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Iron	LIQUID	200	1.8498E+02			5.00E-03	ug/mL	92.492	% Recovery	
11	ICSA	S0903230012		0	0	Potassium	LIQUID		<5.0000E-01			0.5	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Lanthanum	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Lithium	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Magnesium	LIQUID	200	1.8749E+02			0.05	ug/mL	93.745	% Recovery	
11	ICSA	S0903230012		0	0	Manganese	LIQUID		<1.0000E-02			0.01	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Molybdenum	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Sodium	LIQUID	200	1.7534E+02			0.1	ug/mL	87.672	% Recovery	
11	ICSA	S0903230012		0	0	Neodymium	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Nickel	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Niobium	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Phosphorus	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Lead	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Palladium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Praseodymium	LIQUID		<1.0000E-02			0.01	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Rubidium	LIQUID		<1.0000E+00			1	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Rhodium	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Ruthenium	LIQUID		<3.0000E-01			0.3	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Sulfur	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Antimony	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Selenium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Silicon	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Samarium	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Tin	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Strontium	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Tantalum	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Tellurium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Thorium	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
11	ICSA	S0903230012		0	0	Titanium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Thallium	LIQUID		<5.0000E-01			0.5	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Uranium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Vanadium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Tungsten	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Yttrium	LIQUID		<2.0000E-03			2.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Zinc	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
11	ICSA	S0903230012		0	0	Zirconium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
Sample Sequence 12																
12	ICSAB	S0903230013		0	0	Silver	LIQUID	1	9.7652E-01			5.00E-03	ug/mL	97.652	% Recovery	
12	ICSAB	S0903230013		0	0	Aluminum	LIQUID	200	1.9318E+02			0.03	ug/mL	96.589	% Recovery	
12	ICSAB	S0903230013		0	0	Arsenic	LIQUID	5	4.8832E+00			0.05	ug/mL	97.663	% Recovery	
12	ICSAB	S0903230013		0	0	Boron	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Barium	LIQUID	0	<3.0000E-03			3.00E-03	ug/mL	N/A		
13	ICSAB	S0903230013		0	1	Beryllium	LIQUID	.5	4.5814E-01			1.00E-03	ug/mL	91.628	% Recovery	
12	ICSAB	S0903230013		0	0	Bismuth	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Calcium	LIQUID	200	1.8987E+02			0.05	ug/mL	94.933	% Recovery	
12	ICSAB	S0903230013		0	0	Cadmium	LIQUID	.2	1.6963E-01			5.00E-03	ug/mL	84.815	% Recovery	
12	ICSAB	S0903230013		0	0	Cerium	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Cobalt	LIQUID	5	4.7132E+00			0.01	ug/mL	94.265	% Recovery	
12	ICSAB	S0903230013		0	0	Chromium	LIQUID	5	4.6932E+00			5.00E-03	ug/mL	93.864	% Recovery	
12	ICSAB	S0903230013		0	0	Copper	LIQUID	5	4.8993E+00			5.00E-03	ug/mL	97.986	% Recovery	
12	ICSAB	S0903230013		0	0	Europium	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Iron	LIQUID	200	1.8099E+02			5.00E-03	ug/mL	90.497	% Recovery	
12	ICSAB	S0903230013		0	0	Potassium	LIQUID		<5.0000E-01			0.5	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Lanthanum	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Lithium	LIQUID	1	9.5602E-01			3.00E-03	ug/mL	95.602	% Recovery	
12	ICSAB	S0903230013		0	0	Magnesium	LIQUID	200	1.8531E+02			0.05	ug/mL	92.656	% Recovery	
12	ICSAB	S0903230013		0	0	Manganese	LIQUID	5	4.6218E+00			3.00E-03	ug/mL	92.435	% Recovery	
12	ICSAB	S0903230013		0	0	Molybdenum	LIQUID	5	4.5438E+00			0.02	ug/mL	90.876	% Recovery	
12	ICSAB	S0903230013		0	0	Sodium	LIQUID	200	1.7490E+02			0.1	ug/mL	87.45	% Recovery	
12	ICSAB	S0903230013		0	0	Neodymium	LIQUID		<1.0000E-02			0.01	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Nickel	LIQUID	5	4.6914E+00			0.02	ug/mL	93.828	% Recovery	
12	ICSAB	S0903230013		0	0	Niobium	LIQUID	5	4.7702E+00			0.03	ug/mL	95.403	% Recovery	
12	ICSAB	S0903230013		0	0	Phosphorus	LIQUID	1	1.0161E+00			0.05	ug/mL	101.61	% Recovery	
13	ICSAB	S0903230013		0	1	Lead	LIQUID	1	9.7420E-01			0.05	ug/mL	97.42	% Recovery	
12	ICSAB	S0903230013		0	0	Palladium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Praseodymium	LIQUID		<1.0000E-02			0.01	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Rubidium	LIQUID		<1.0000E+00			1	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Rhodium	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
12	ICSAB	S0903230013		0	0	Ruthenium	LIQUID		<3.0000E-01			0.3	ug/mL	N/A		

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
12	ICSAB	S0903230013		0 0		Sulfur	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Antimony	LIQUID	5	4.8033E+00			0.05	ug/mL	96.066	% Recovery	
12	ICSAB	S0903230013		0 0		Selenium	LIQUID	5	4.8653E+00			0.1	ug/mL	97.307	% Recovery	
12	ICSAB	S0903230013		0 0		Silicon	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Samarium	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Tin	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Strontium	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Tantalum	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Tellurium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Thorium	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Titanium	LIQUID	50	4.6072E+01			5.00E-03	ug/mL	92.143	% Recovery	
12	ICSAB	S0903230013		0 0		Thallium	LIQUID		<7.0000E-01			0.7	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Uranium	LIQUID	5	4.6877E+00			0.1	ug/mL	93.753	% Recovery	
12	ICSAB	S0903230013		0 0		Vanadium	LIQUID	1	9.5070E-01			5.00E-03	ug/mL	95.07	% Recovery	
12	ICSAB	S0903230013		0 0		Tungsten	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Yttrium	LIQUID		<2.0000E-03			2.00E-03	ug/mL	N/A		
12	ICSAB	S0903230013		0 0		Zinc	LIQUID	5	4.8004E+00			5.00E-03	ug/mL	96.009	% Recovery	
12	ICSAB	S0903230013		0 0		Zirconium	LIQUID	5	4.2005E+00			5.00E-03	ug/mL	84.009	% Recovery	
Sample Sequence 14																
14	SERDIL	S0903230015	S09T001773	0 0		Silver	LIQUID		<1.0000E+01			10	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Aluminum	LIQUID		6.2697E+03			60	ug/mL	.31371	% Diff	
14	SERDIL	S0903230015	S09T001773	0 0		Arsenic	LIQUID		<1.0000E+02			100	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Boron	LIQUID		<6.0000E+01			60	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Barium	LIQUID		<6.0000E+00			6	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Beryllium	LIQUID		<2.0000E+00			2	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Bismuth	LIQUID		<2.0000E+02			200	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Calcium	LIQUID		<1.0000E+02			100	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Cadmium	LIQUID		<1.0000E+01			10	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Cerium	LIQUID		<6.0000E+01			60	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Cobalt	LIQUID		<2.0000E+01			20	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Chromium	LIQUID		5.9786E+02			10	ug/mL	1.1216	% Diff	
14	SERDIL	S0903230015	S09T001773	0 0		Copper	LIQUID		<1.0000E+01			10	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Europium	LIQUID		<1.0000E+01			10	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Iron	LIQUID		<1.0000E+01			10	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Potassium	LIQUID		1.8808E+03			1.00E+03	ug/mL	25.924	% Diff	
14	SERDIL	S0903230015	S09T001773	0 0		Lanthanum	LIQUID		<6.0000E+00			6	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Lithium	LIQUID		<6.0000E+00			6	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Magnesium	LIQUID		<1.0000E+02			100	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Manganese	LIQUID		<6.0000E+00			6	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Molybdenum	LIQUID		<4.0000E+01			40	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Sodium	LIQUID		9.5178E+04			200	ug/mL	10.826	% Diff	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
14	SERDIL	S0903230015	S09T001773	0 0		Neodymium	LIQUID		<2.0000E+01			20	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Nickel	LIQUID		<4.0000E+01			40	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Niobium	LIQUID		<6.0000E+01			60	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Phosphorus	LIQUID		9.6066E+02			100	ug/mL	6.2039	% Diff	
14	SERDIL	S0903230015	S09T001773	0 0		Lead	LIQUID		<1.0000E+02			100	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Palladium	LIQUID		<2.0000E+02			200	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Praseodymium	LIQUID		<2.0000E+01			20	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Rubidium	LIQUID		<2.0000E+03			2.00E+03	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Rhodium	LIQUID		<1.0000E+02			100	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Ruthenium	LIQUID		<6.0000E+01			60	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Sulfur	LIQUID		2.4573E+03			200	ug/mL	1.1069	% Diff	
14	SERDIL	S0903230015	S09T001773	0 0		Antimony	LIQUID		<1.0000E+02			100	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Selenium	LIQUID		<2.0000E+02			200	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Silicon	LIQUID		<6.0000E+01			60	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Samarium	LIQUID		<4.0000E+01			40	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Tin	LIQUID		<6.0000E+01			60	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Strontium	LIQUID		<6.0000E+00			6	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Tantalum	LIQUID		<1.0000E+02			100	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Tellurium	LIQUID		<2.0000E+02			200	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Thorium	LIQUID		<1.0000E+02			100	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Titanium	LIQUID		<1.0000E+01			10	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Thallium	LIQUID		<2.0000E+02			200	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Uranium	LIQUID		<2.0000E+02			200	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Vanadium	LIQUID		<1.0000E+01			10	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Tungsten	LIQUID		<4.0000E+02			400	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Yttrium	LIQUID		<4.0000E+00			4	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Zinc	LIQUID		<1.0000E+01			10	ug/mL	N/A		
14	SERDIL	S0903230015	S09T001773	0 0		Zirconium	LIQUID		<1.0000E+01			10	ug/mL	N/A		
Sample Sequence 15																
15	SAMPLE	S09T001773		0 0		Silver	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
15	SAMPLE	S091001773		0 0		Aluminum	LIQUID	N/A	6.2501E+03			12	ug/mL			
15	SAMPLE	S09T001773		0 0		Arsenic	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
15	SAMPLE	S09T001773		0 0		Boron	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
15	SAMPLE	S09T001773		0 0		Barium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Beryllium	LIQUID	N/A	<4.0000E-01			0.4	ug/mL			U
15	SAMPLE	S09T001773		0 0		Bismuth	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
15	SAMPLE	S09T001773		0 0		Calcium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
15	SAMPLE	S09T001773		0 0		Cadmium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Cerium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
15	SAMPLE	S09T001773		0 0		Cobalt	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
15	SAMPLE	S09T001773		0 0		Chromium	LIQUID	N/A	5.9123E+02			2	ug/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
15	SAMPLE	S09T001773		0 0		Copper	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Europium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Iron	LIQUID	N/A	2.0100E+00			2	ug/mL			J
15	SAMPLE	S09T001773		0 0		Potassium	LIQUID	N/A	1.4936E+03			200	ug/mL			J
15	SAMPLE	S09T001773		0 0		Lanthanum	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Lithium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Magnesium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
15	SAMPLE	S09T001773		0 0		Manganese	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Molybdenum	LIQUID	N/A	3.0861E+01			8	ug/mL			J
15	SAMPLE	S09T001773		0 0		Sodium	LIQUID	N/A	8.5880E+04			40	ug/mL			e
15	SAMPLE	S09T001773		0 0		Neodymium	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
15	SAMPLE	S09T001773		0 0		Nickel	LIQUID	N/A	1.0900E+01			8	ug/mL			J
15	SAMPLE	S09T001773		0 0		Niobium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
15	SAMPLE	S09T001773		0 0		Phosphorus	LIQUID	N/A	1.0242E+03			20	ug/mL			
15	SAMPLE	S09T001773		0 0		Lead	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
15	SAMPLE	S09T001773		0 0		Palladium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
15	SAMPLE	S09T001773		0 0		Praseodymium	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
15	SAMPLE	S09T001773		0 0		Rubidium	LIQUID	N/A	<4.0000E+02			400	ug/mL			U
15	SAMPLE	S09T001773		0 0		Rhodium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
15	SAMPLE	S09T001773		0 0		Ruthenium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
15	SAMPLE	S09T001773		0 0		Sulfur	LIQUID	N/A	2.4848E+03			40	ug/mL			
15	SAMPLE	S09T001773		0 0		Antimony	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
15	SAMPLE	S09T001773		0 0		Selenium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
15	SAMPLE	S09T001773		0 0		Silicon	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
15	SAMPLE	S09T001773		0 0		Samarium	LIQUID	N/A	<8.0000E+00			8	ug/mL			U
15	SAMPLE	S09T001773		0 0		Tin	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
15	SAMPLE	S09T001773		0 0		Strontium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Tantalum	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
15	SAMPLE	S09T001773		0 0		Tellurium	LIQUID	N/A	<4.0000E+01			40	ug/mL			Ua
15	SAMPLE	S09T001773		0 0		Thorium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
15	SAMPLE	S09T001773		0 0		Titanium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Thallium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
15	SAMPLE	S09T001773		0 0		Uranium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
15	SAMPLE	S09T001773		0 0		Vanadium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Tungsten	LIQUID	N/A	<8.0000E+01			80	ug/mL			U
15	SAMPLE	S09T001773		0 0		Yttrium	LIQUID	N/A	<8.0000E-01			0.8	ug/mL			U
15	SAMPLE	S09T001773		0 0		Zinc	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
15	SAMPLE	S09T001773		0 0		Zirconium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
Sample Sequence 16																
16	DUP	S0903230016	S09T001773	0 0		Silver	LIQUID	<2.0000E+00	<2.0000E+00			2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Aluminum	LIQUID	6.2501E+03	6.2797E+03			12	ug/mL	0.47247	% RPD	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
16	DUP	S0903230016	S09T001773	0 0		Arsenic	LIQUID	<2.0000E+01	<2.0000E+01			20	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Boron	LIQUID	<1.2000E+01	1.2709E+01			12	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Barium	LIQUID	<1.2000E+00	<1.2000E+00			1.2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Beryllium	LIQUID	<4.0000E-01	<4.0000E-01			0.4	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Bismuth	LIQUID	<4.0000E+01	<4.0000E+01			40	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Calcium	LIQUID	<2.0000E+01	<2.0000E+01			20	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Cadmium	LIQUID	<2.0000E+00	<2.0000E+00			2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Cerium	LIQUID	<1.2000E+01	<1.2000E+01			12	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Cobalt	LIQUID	<4.0000E+00	<4.0000E+00			4	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Chromium	LIQUID	5.9123E+02	5.9185E+02			2	ug/mL	0.10481	% RPD	
16	DUP	S0903230016	S09T001773	0 0		Copper	LIQUID	<2.0000E+00	<2.0000E+00			2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Europium	LIQUID	<2.0000E+00	<2.0000E+00			2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Iron	LIQUID	2.0100E+00	2.4273E+00			2	ug/mL	18.809	% RPD	
16	DUP	S0903230016	S09T001773	0 0		Potassium	LIQUID	1.4936E+03	1.5671E+03			200	ug/mL	4.8028	% RPD	
16	DUP	S0903230016	S09T001773	0 0		Lanthanum	LIQUID	<1.2000E+00	<1.2000E+00			1.2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Lithium	LIQUID	<1.2000E+00	<1.2000E+00			1.2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Magnesium	LIQUID	<2.0000E+01	<2.0000E+01			20	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Manganese	LIQUID	<1.2000E+00	<1.2000E+00			1.2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Molybdenum	LIQUID	3.0861E+01	2.8256E+01			8	ug/mL	8.8130	% RPD	
16	DUP	S0903230016	S09T001773	0 0		Sodium	LIQUID	8.5880E+04	8.8192E+04			40	ug/mL	2.6564	% RPD	
16	DUP	S0903230016	S09T001773	0 0		Neodymium	LIQUID	<4.0000E+00	<4.0000E+00			4	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Nickel	LIQUID	1.0900E+01	8.3255E+00			8	ug/mL	26.782	% RPD	
16	DUP	S0903230016	S09T001773	0 0		Niobium	LIQUID	<1.2000E+01	<1.2000E+01			12	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Phosphorus	LIQUID	1.0242E+03	1.0341E+03			20	ug/mL	0.96196	% RPD	
16	DUP	S0903230016	S09T001773	0 0		Lead	LIQUID	<2.0000E+01	<2.0000E+01			20	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Palladium	LIQUID	<4.0000E+01	<4.0000E+01			40	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Praseodymium	LIQUID	<4.0000E+00	<4.0000E+00			4	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Rubidium	LIQUID	<4.0000E+02	<4.0000E+02			400	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Rhodium	LIQUID	<2.0000E+01	<2.0000E+01			20	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Ruthenium	LIQUID	<1.2000E+01	<1.2000E+01			12	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Sulfur	LIQUID	2.4848E+03	2.4970E+03			40	ug/mL	0.48978	% RPD	
16	DUP	S0903230016	S09T001773	0 0		Antimony	LIQUID	<2.0000E+01	<2.0000E+01			20	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Selenium	LIQUID	<4.0000E+01	<4.0000E+01			40	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Silicon	LIQUID	<1.2000E+01	1.2049E+01			12	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Samarium	LIQUID	<8.0000E+00	<8.0000E+00			8	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Tin	LIQUID	<1.2000E+01	<1.2000E+01			12	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Strontium	LIQUID	<1.2000E+00	<1.2000E+00			1.2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Tantalum	LIQUID	<2.0000E+01	<2.0000E+01			20	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Tellurium	LIQUID	<4.0000E+01	<4.0000E+01			40	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Thorium	LIQUID	<2.0000E+01	<2.0000E+01			20	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Titanium	LIQUID	<2.0000E+00	<2.0000E+00			2	ug/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
16	DUP	S0903230016	S09T001773	0 0		Thallium	LIQUID	<4.0000E+01	<4.0000E+01			40	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Uranium	LIQUID	<4.0000E+01	<4.0000E+01			40	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Vanadium	LIQUID	<2.0000E+00	<2.0000E+00			2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Tungsten	LIQUID	<8.0000E+01	<8.0000E+01			80	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Yttrium	LIQUID	<8.0000E-01	<8.0000E-01			0.8	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Zinc	LIQUID	<2.0000E+00	<2.0000E+00			2	ug/mL			
16	DUP	S0903230016	S09T001773	0 0		Zirconium	LIQUID	<2.0000E+00	<2.0000E+00			2	ug/mL			
Sample Sequence 17																
17	SPK-POST	S0903230017	S09T001773	0 0		Silver	LIQUID	800	7.4093E+02			5.00E-03	ug/mL	92.616	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Aluminum	LIQUID	4000	1.0158E+04			0.03	ug/mL	97.694	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Arsenic	LIQUID	4000	4.1043E+03			0.05	ug/mL	102.61	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Boron	LIQUID	4000	3.9614E+03			0.03	ug/mL	99.035	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Barium	LIQUID	4000	3.9363E+03			3.00E-03	ug/mL	98.408	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Beryllium	LIQUID	4000	3.8208E+03			1.00E-03	ug/mL	95.52	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Bismuth	LIQUID	4000	3.9844E+03			0.1	ug/mL	99.611	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Calcium	LIQUID	4000	3.6837E+03			0.05	ug/mL	92.093	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Cadmium	LIQUID	4000	3.8839E+03			5.00E-03	ug/mL	97.098	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Cerium	LIQUID	4000	3.8883E+03			0.03	ug/mL	97.208	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Cobalt	LIQUID	4000	3.8966E+03			0.01	ug/mL	97.415	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Chromium	LIQUID	4000	4.5039E+03			5.00E-03	ug/mL	97.817	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Copper	LIQUID	4000	3.9813E+03			5.00E-03	ug/mL	99.533	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0 1		Europium	LIQUID	4000	3.9567E+03			5.00E-03	ug/mL	98.917	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Iron	LIQUID	4000	3.8670E+03			5.00E-03	ug/mL	96.625	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Potassium	LIQUID	4000	5.1642E+03			0.5	ug/mL	91.764	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Lanthanum	LIQUID	4000	3.8911E+03			3.00E-03	ug/mL	97.278	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Lithium	LIQUID	4000	3.8401E+03			3.00E-03	ug/mL	96.001	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Magnesium	LIQUID	4000	3.7951E+03			0.05	ug/mL	94.878	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Manganese	LIQUID	4000	3.9093E+03			3.00E-03	ug/mL	97.733	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Molybdenum	LIQUID	4000	3.8690E+03			0.02	ug/mL	95.952	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Sodium	LIQUID	4000	8.9841E+04			0.1	ug/mL	99.021	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Neodymium	LIQUID	4000	3.8920E+03			0.01	ug/mL	97.3	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Nickel	LIQUID	4000	3.8512E+03			0.02	ug/mL	96.007	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0 1		Niobium	LIQUID	4000	4.0159E+03			0.03	ug/mL	100.4	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Phosphorus	LIQUID	4000	5.0216E+03			0.05	ug/mL	99.935	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Lead	LIQUID	4000	4.0025E+03			0.05	ug/mL	100.06	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0 1		Palladium	LIQUID	4000	3.9911E+03			0.1	ug/mL	99.777	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0 1		Praseodymium	LIQUID	4000	3.8586E+03			0.01	ug/mL	96.465	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0 1		Rubidium	LIQUID	4000	3.7772E+03			1	ug/mL	94.43	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0 1		Rhodium	LIQUID	4000	4.0133E+03			0.05	ug/mL	100.33	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0 1		Ruthenium	LIQUID	4000	3.7470E+03			0.03	ug/mL	93.675	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0 0		Sulfur	LIQUID	4000	6.4170E+03			0.1	ug/mL	98.304	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	Rep	R	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
17	SPK-POST	S0903230017	S09T001773	0	0		Antimony	LIQUID	4000	3.8397E+03			0.05	ug/mL	95.992	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Selenium	LIQUID	4000	4.3391E+03			0.1	ug/mL	108.48	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Silicon	LIQUID	4000	3.7860E+03			0.03	ug/mL	94.65	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Samarium	LIQUID	4000	3.8747E+03			0.02	ug/mL	96.866	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0	1		Tin	LIQUID	4000	3.9410E+03			0.03	ug/mL	98.525	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Strontium	LIQUID	4000	3.9016E+03			3.00E-03	ug/mL	97.541	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0	1		Tantalum	LIQUID	4000	4.0677E+03			0.05	ug/mL	101.69	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0	1		Tellurium	LIQUID	4000	4.2870E+03			0.1	ug/mL	107.18	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0	1		Thorium	LIQUID	4000	3.8898E+03			0.05	ug/mL	97.244	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Titanium	LIQUID	4000	3.8537E+03			5.00E-03	ug/mL	96.341	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Thallium	LIQUID	4000	3.8990E+03			0.1	ug/mL	97.476	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Uranium	LIQUID	8000	7.7766E+03			0.1	ug/mL	97.207	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Vanadium	LIQUID	4000	3.9537E+03			5.00E-03	ug/mL	98.843	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0	1		Tungsten	LIQUID	4000	3.9939E+03			0.2	ug/mL	99.846	% Recovery	
18	SPK-POST	S0903230017	S09T001773	0	1		Yttrium	LIQUID	4000	3.8869E+03			2.00E-03	ug/mL	97.174	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Zinc	LIQUID	4000	3.9101E+03			5.00E-03	ug/mL	97.753	% Recovery	
17	SPK-POST	S0903230017	S09T001773	0	0		Zirconium	LIQUID	4000	3.5973E+03			5.00E-03	ug/mL	89.933	% Recovery	
Sample Sequence 19																	
22	CCV	S0903230018		0	3		Silver	LIQUID	1	9.7829E-01			5.00E-03	ug/mL	97.829	% Recovery	
19	CCV	S0903230018		0	0		Aluminum	LIQUID	5	4.9782E+00			0.03	ug/mL	99.563	% Recovery	
19	CCV	S0903230018		0	0		Arsenic	LIQUID	5	5.2050E+00			0.05	ug/mL	104.1	% Recovery	
20	CCV	S0903230018		0	1		Boron	LIQUID	5	5.1941E+00			0.03	ug/mL	103.88	% Recovery	
19	CCV	S0903230018		0	0		Barium	LIQUID	5	5.0317E+00			3.00E-03	ug/mL	100.63	% Recovery	
19	CCV	S0903230018		0	0		Beryllium	LIQUID	5	5.0622E+00			1.00E-03	ug/mL	101.24	% Recovery	
19	CCV	S0903230018		0	0		Bismuth	LIQUID	5	4.9689E+00			0.1	ug/mL	99.377	% Recovery	
19	CCV	S0903230018		0	0		Calcium	LIQUID	5	5.3779E+00			0.05	ug/mL	107.56	% Recovery	
19	CCV	S0903230018		0	0		Cadmium	LIQUID	5	4.9829E+00			5.00E-03	ug/mL	99.657	% Recovery	
19	CCV	S0903230018		0	0		Cerium	LIQUID	5	5.2408E+00			0.03	ug/mL	104.82	% Recovery	
19	CCV	S0903230018		0	0		Cobalt	LIQUID	5	5.0358E+00			0.01	ug/mL	100.72	% Recovery	
19	CCV	S0903230018		0	0		Chromium	LIQUID	5	4.9697E+00			5.00E-03	ug/mL	99.393	% Recovery	
19	CCV	S0903230018		0	0		Copper	LIQUID	5	5.0716E+00			5.00E-03	ug/mL	101.43	% Recovery	
19	CCV	S0903230018		0	0		Europium	LIQUID	5	4.9718E+00			5.00E-03	ug/mL	99.435	% Recovery	
19	CCV	S0903230018		0	0		Iron	LIQUID	5	5.0365E+00			5.00E-03	ug/mL	100.73	% Recovery	
19	CCV	S0903230018		0	0		Potassium	LIQUID	5	5.1308E+00			0.5	ug/mL	102.62	% Recovery	
19	CCV	S0903230018		0	0		Lanthanum	LIQUID	5	5.0242E+00			3.00E-03	ug/mL	100.48	% Recovery	
19	CCV	S0903230018		0	0		Lithium	LIQUID	5	5.2090E+00			3.00E-03	ug/mL	104.18	% Recovery	
19	CCV	S0903230018		0	0		Magnesium	LIQUID	5	4.9208E+00			0.05	ug/mL	98.416	% Recovery	
19	CCV	S0903230018		0	0		Manganese	LIQUID	5	4.8972E+00			3.00E-03	ug/mL	97.945	% Recovery	
22	CCV	S0903230018		0	3		Molybdenum	LIQUID	5	5.0210E+00			0.02	ug/mL	100.42	% Recovery	
19	CCV	S0903230018		0	0		Sodium	LIQUID	5	5.0168E+00			0.1	ug/mL	100.34	% Recovery	
19	CCV	S0903230018		0	0		Neodymium	LIQUID	5	5.0439E+00			0.01	ug/mL	100.88	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
19	CCV	S0903230018		0 0		Nickel	LIQUID	5	4.9293E+00			0.02	ug/mL	98.586	% Recovery	
20	CCV	S0903230018		0 1		Niobium	LIQUID	5	5.2734E+00			0.03	ug/mL	105.47	% Recovery	
19	CCV	S0903230018		0 0		Phosphorus	LIQUID	5	5.0457E+00			0.05	ug/mL	100.91	% Recovery	
19	CCV	S0903230018		0 0		Lead	LIQUID	5	5.1931E+00			0.05	ug/mL	103.86	% Recovery	
21	CCV	S0903230018		0 2		Palladium	LIQUID	5	4.9116E+00			0.1	ug/mL	98.232	% Recovery	
19	CCV	S0903230018		0 0		Praseodymium	LIQUID	5	5.0371E+00			0.01	ug/mL	100.74	% Recovery	
19	CCV	S0903230018		0 0		Rubidium	LIQUID	5	4.5024E+00			1	ug/mL	90.049	% Recovery	
21	CCV	S0903230018		0 2		Rhodium	LIQUID	5	5.0090E+00			0.05	ug/mL	100.18	% Recovery	
21	CCV	S0903230018		0 2		Ruthenium	LIQUID	5	4.8531E+00			0.03	ug/mL	97.061	% Recovery	
22	CCV	S0903230018		0 3		Sulfur	LIQUID	5	5.0057E+00			0.1	ug/mL	100.11	% Recovery	
22	CCV	S0903230018		0 3		Antimony	LIQUID	5	4.9916E+00			0.05	ug/mL	99.833	% Recovery	
19	CCV	S0903230018		0 0		Selenium	LIQUID	5	5.1564E+00			0.1	ug/mL	103.13	% Recovery	
22	CCV	S0903230018		0 3		Silicon	LIQUID	5	4.8027E+00			0.03	ug/mL	96.054	% Recovery	
19	CCV	S0903230018		0 0		Samarium	LIQUID	5	5.0689E+00			0.02	ug/mL	101.38	% Recovery	
20	CCV	S0903230018		0 1		Tin	LIQUID	5	5.0659E+00			0.03	ug/mL	101.32	% Recovery	
19	CCV	S0903230018		0 0		Strontium	LIQUID	5	5.0692E+00			3.00E-03	ug/mL	101.38	% Recovery	
20	CCV	S0903230018		0 1		Tantalum	LIQUID	5	5.2880E+00			0.05	ug/mL	105.76	% Recovery	
20	CCV	S0903230018		0 1		Tellurium	LIQUID	5	5.5134E+00			0.1	ug/mL	110.27	% Recovery	
19	CCV	S0903230018		0 0		Thorium	LIQUID	5	4.9305E+00			0.05	ug/mL	98.611	% Recovery	
22	CCV	S0903230018		0 3		Titanium	LIQUID	5	5.0834E+00			5.00E-03	ug/mL	101.67	% Recovery	
19	CCV	S0903230018		0 0		Thallium	LIQUID	5	4.9580E+00			0.1	ug/mL	99.16	% Recovery	
19	CCV	S0903230018		0 0		Uranium	LIQUID	5	5.3140E+00			0.1	ug/mL	106.28	% Recovery	
19	CCV	S0903230018		0 0		Vanadium	LIQUID	5	5.0679E+00			5.00E-03	ug/mL	101.36	% Recovery	
20	CCV	S0903230018		0 1		Tungsten	LIQUID	5	5.2449E+00			0.2	ug/mL	104.9	% Recovery	
19	CCV	S0903230018		0 0		Yttrium	LIQUID	5	4.9154E+00			2.00E-03	ug/mL	98.309	% Recovery	
19	CCV	S0903230018		0 0		Zinc	LIQUID	5	4.8596E+00			5.00E-03	ug/mL	97.191	% Recovery	
20	CCV	S0903230018		0 1		Zirconium	LIQUID	5	4.8885E+00			5.00E-03	ug/mL	97.769	% Recovery	
Sample Sequence 23																
23	CCB	S0903230019		0 0		Silver	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Aluminum	LIQUID		<3.0000E-02			0.03	ug/mL			
23	CCB	S0903230019		0 0		Arsenic	LIQUID		<5.0000E-02			0.05	ug/mL			
23	CCB	S0903230019		0 0		Boron	LIQUID		<3.0000E-02			0.03	ug/mL			
23	CCB	S0903230019		0 0		Barium	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Beryllium	LIQUID		<1.0000E-03			1.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Bismuth	LIQUID		<1.0000E-01			0.1	ug/mL			
23	CCB	S0903230019		0 0		Calcium	LIQUID		<5.0000E-02			0.05	ug/mL			
23	CCB	S0903230019		0 0		Cadmium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Cerium	LIQUID		<3.0000E-02			0.03	ug/mL			
23	CCB	S0903230019		0 0		Cobalt	LIQUID		<1.0000E-02			0.01	ug/mL			
23	CCB	S0903230019		0 0		Chromium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Copper	LIQUID		<5.0000E-03			5.00E-03	ug/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
23	CCB	S0903230019		0 0		Europium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Iron	LIQUID		1.2010E-02			5.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Potassium	LIQUID		<5.0000E-01			0.5	ug/mL			
23	CCB	S0903230019		0 0		Lanthanum	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Lithium	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Magnesium	LIQUID		<5.0000E-02			0.05	ug/mL			
23	CCB	S0903230019		0 0		Manganese	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Molybdenum	LIQUID		<2.0000E-02			0.02	ug/mL			
23	CCB	S0903230019		0 0		Sodium	LIQUID		<1.0000E-01			0.1	ug/mL			
23	CCB	S0903230019		0 0		Neodymium	LIQUID		<1.0000E-02			0.01	ug/mL			
23	CCB	S0903230019		0 0		Nickel	LIQUID		2.3650E-02			0.02	ug/mL			
23	CCB	S0903230019		0 0		Niobium	LIQUID		<3.0000E-02			0.03	ug/mL			
23	CCB	S0903230019		0 0		Phosphorus	LIQUID		<5.0000E-02			0.05	ug/mL			
23	CCB	S0903230019		0 0		Lead	LIQUID		<5.0000E-02			0.05	ug/mL			
23	CCB	S0903230019		0 0		Palladium	LIQUID		<1.0000E-01			0.1	ug/mL			
23	CCB	S0903230019		0 0		Praseodymium	LIQUID		<1.0000E-02			0.01	ug/mL			
23	CCB	S0903230019		0 0		Rubidium	LIQUID		<1.0000E+00			1	ug/mL			
23	CCB	S0903230019		0 0		Rhodium	LIQUID		<5.0000E-02			0.05	ug/mL			
23	CCB	S0903230019		0 0		Ruthenium	LIQUID		<3.0000E-02			0.03	ug/mL			
23	CCB	S0903230019		0 0		Sulfur	LIQUID		<1.0000E-01			0.1	ug/mL			
23	CCB	S0903230019		0 0		Antimony	LIQUID		<5.0000E-02			0.05	ug/mL			
23	CCB	S0903230019		0 0		Selenium	LIQUID		<1.0000E-01			0.1	ug/mL			
23	CCB	S0903230019		0 0		Silicon	LIQUID		<3.0000E-02			0.03	ug/mL			
23	CCB	S0903230019		0 0		Samarium	LIQUID		<2.0000E-02			0.02	ug/mL			
23	CCB	S0903230019		0 0		Tin	LIQUID		<3.0000E-02			0.03	ug/mL			
23	CCB	S0903230019		0 0		Strontium	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Tantalum	LIQUID		<5.0000E-02			0.05	ug/mL			
23	CCB	S0903230019		0 0		Tellurium	LIQUID		<1.0000E-01			0.1	ug/mL			
23	CCB	S0903230019		0 0		Thorium	LIQUID		<5.0000E-02			0.05	ug/mL			
23	CCB	S0903230019		0 0		Titanium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Thallium	LIQUID		<1.0000E-01			0.1	ug/mL			
23	CCB	S0903230019		0 0		Uranium	LIQUID		<1.0000E-01			0.1	ug/mL			
23	CCB	S0903230019		0 0		Vanadium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Tungsten	LIQUID		<2.0000E-01			0.2	ug/mL			
23	CCB	S0903230019		0 0		Yttrium	LIQUID		<2.0000E-03			2.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Zinc	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
23	CCB	S0903230019		0 0		Zirconium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
Sample Sequence 24																
24	SAMPLE	S09T001751		0 0		Silver	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0 0		Aluminum	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
24	SAMPLE	S09T001751		0 0		Arsenic	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	Rep	R	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
24	SAMPLE	S09T001751		0	0		Boron	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Barium	LIQUID	N/A	<3.0000E-03			3.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Beryllium	LIQUID	N/A	<1.0000E-03			1.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Bismuth	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
24	SAMPLE	S09T001751		0	0		Calcium	LIQUID	N/A	3.2130E-01			0.05	ug/mL			J
24	SAMPLE	S09T001751		0	0		Cadmium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Cerium	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Cobalt	LIQUID	N/A	<1.0000E-02			0.01	ug/mL			U
24	SAMPLE	S09T001751		0	0		Chromium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Copper	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Europium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Iron	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Potassium	LIQUID	N/A	<5.0000E-01			0.5	ug/mL			U
24	SAMPLE	S09T001751		0	0		Lanthanum	LIQUID	N/A	<3.0000E-03			3.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Lithium	LIQUID	N/A	<3.0000E-03			3.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Magnesium	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
24	SAMPLE	S09T001751		0	0		Manganese	LIQUID	N/A	<3.0000E-03			3.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Molybdenum	LIQUID	N/A	<2.0000E-02			0.02	ug/mL			U
24	SAMPLE	S09T001751		0	0		Sodium	LIQUID	N/A	5.2755E-01			0.1	ug/mL			J
24	SAMPLE	S09T001751		0	0		Neodymium	LIQUID	N/A	<1.0000E-02			0.01	ug/mL			U
24	SAMPLE	S09T001751		0	0		Nickel	LIQUID	N/A	<2.0000E-02			0.02	ug/mL			U
24	SAMPLE	S09T001751		0	0		Niobium	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Phosphorus	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
24	SAMPLE	S09T001751		0	0		Lead	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
24	SAMPLE	S09T001751		0	0		Palladium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
24	SAMPLE	S09T001751		0	0		Praseodymium	LIQUID	N/A	<1.0000E-02			0.01	ug/mL			U
24	SAMPLE	S09T001751		0	0		Rubidium	LIQUID	N/A	<1.0000E+00			1	ug/mL			U
24	SAMPLE	S09T001751		0	0		Rhodium	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
24	SAMPLE	S09T001751		0	0		Ruthenium	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Sulfur	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
24	SAMPLE	S09T001751		0	0		Antimony	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
24	SAMPLE	S09T001751		0	0		Selenium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
24	SAMPLE	S09T001751		0	0		Silicon	LIQUID	N/A	1.2006E+00			0.03	ug/mL			
24	SAMPLE	S09T001751		0	0		Samarium	LIQUID	N/A	<2.0000E-02			0.02	ug/mL			U
24	SAMPLE	S09T001751		0	0		Tin	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Strontium	LIQUID	N/A	4.5110E-02			3.00E-03	ug/mL			
24	SAMPLE	S09T001751		0	0		Tantalum	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
24	SAMPLE	S09T001751		0	0		Tellurium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			Ua
24	SAMPLE	S09T001751		0	0		Thorium	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
24	SAMPLE	S09T001751		0	0		Titanium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0	0		Thallium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
24	SAMPLE	S09T001751		0 0		Uranium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
24	SAMPLE	S09T001751		0 0		Vanadium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0 0		Tungsten	LIQUID	N/A	<2.0000E-01			0.2	ug/mL			U
24	SAMPLE	S09T001751		0 0		Yttrium	LIQUID	N/A	<2.0000E-03			2.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0 0		Zinc	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
24	SAMPLE	S09T001751		0 0		Zirconium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
Sample Sequence 25																
25	SAMPLE	S09T001761		0 0		Silver	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Aluminum	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Arsenic	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
25	SAMPLE	S09T001761		0 0		Boron	LIQUID	N/A	1.4805E+00			0.03	ug/mL			
25	SAMPLE	S09T001761		0 0		Barium	LIQUID	N/A	<3.0000E-03			3.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Beryllium	LIQUID	N/A	<1.0000E-03			1.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Bismuth	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
25	SAMPLE	S09T001761		0 0		Calcium	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
25	SAMPLE	S09T001761		0 0		Cadmium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Cerium	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Cobalt	LIQUID	N/A	<1.0000E-02			0.01	ug/mL			U
25	SAMPLE	S09T001761		0 0		Chromium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Copper	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Europium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Iron	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Potassium	LIQUID	N/A	<5.0000E-01			0.5	ug/mL			U
25	SAMPLE	S09T001761		0 0		Lanthanum	LIQUID	N/A	<3.0000E-03			3.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Lithium	LIQUID	N/A	<3.0000E-03			3.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Magnesium	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
25	SAMPLE	S09T001761		0 0		Manganese	LIQUID	N/A	<3.0000E-03			3.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Molybdenum	LIQUID	N/A	<2.0000E-02			0.02	ug/mL			U
25	SAMPLE	S09T001761		0 0		Sodium	LIQUID	N/A	3.0045E+00			0.1	ug/mL			
25	SAMPLE	S09T001761		0 0		Neodymium	LIQUID	N/A	<1.0000E-02			0.01	ug/mL			U
25	SAMPLE	S09T001761		0 0		Nickel	LIQUID	N/A	<2.0000E-02			0.02	ug/mL			U
25	SAMPLE	S09T001761		0 0		Niobium	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Phosphorus	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
25	SAMPLE	S09T001761		0 0		Lead	LIQUID	N/A	5.1400E-02			0.05	ug/mL			J
25	SAMPLE	S09T001761		0 0		Palladium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
25	SAMPLE	S09T001761		0 0		Praseodymium	LIQUID	N/A	<1.0000E-02			0.01	ug/mL			U
25	SAMPLE	S09T001761		0 0		Rubidium	LIQUID	N/A	<1.0000E+00			1	ug/mL			U
25	SAMPLE	S09T001761		0 0		Rhodium	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
25	SAMPLE	S09T001761		0 0		Ruthenium	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Sulfur	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
25	SAMPLE	S09T001761		0 0		Antimony	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
25	SAMPLE	S09T001761		0 0		Selenium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
25	SAMPLE	S09T001761		0 0		Silicon	LIQUID	N/A	4.1043E+00			0.03	ug/mL			
25	SAMPLE	S09T001761		0 0		Samarium	LIQUID	N/A	<2.0000E-02			0.02	ug/mL			U
25	SAMPLE	S09T001761		0 0		Tin	LIQUID	N/A	<3.0000E-02			0.03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Strontium	LIQUID	N/A	<3.0000E-03			3.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Tantalum	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
25	SAMPLE	S09T001761		0 0		Tellurium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			Ua
25	SAMPLE	S09T001761		0 0		Thorium	LIQUID	N/A	<5.0000E-02			0.05	ug/mL			U
25	SAMPLE	S09T001761		0 0		Titanium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Thallium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
25	SAMPLE	S09T001761		0 0		Uranium	LIQUID	N/A	<1.0000E-01			0.1	ug/mL			U
25	SAMPLE	S09T001761		0 0		Vanadium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Tungsten	LIQUID	N/A	<2.0000E-01			0.2	ug/mL			U
25	SAMPLE	S09T001761		0 0		Yttrium	LIQUID	N/A	<2.0000E-03			2.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Zinc	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
25	SAMPLE	S09T001761		0 0		Zirconium	LIQUID	N/A	<5.0000E-03			5.00E-03	ug/mL			U
Sample Sequence 26																
26	SAMPLE	S09T001782		0 0		Silver	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Aluminum	LIQUID	N/A	6.4742E+03			12	ug/mL			
26	SAMPLE	S09T001782		0 0		Arsenic	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
26	SAMPLE	S09T001782		0 0		Boron	LIQUID	N/A	1.4307E+01			12	ug/mL			J
26	SAMPLE	S09T001782		0 0		Barium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Beryllium	LIQUID	N/A	<4.0000E-01			0.4	ug/mL			U
26	SAMPLE	S09T001782		0 0		Bismuth	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
26	SAMPLE	S09T001782		0 0		Calcium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
26	SAMPLE	S09T001782		0 0		Cadmium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Cerium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
26	SAMPLE	S09T001782		0 0		Cobalt	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
26	SAMPLE	S09T001782		0 0		Chromium	LIQUID	N/A	6.0260E+02			2	ug/mL			
26	SAMPLE	S09T001782		0 0		Copper	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Europium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Iron	LIQUID	N/A	2.7327E+00			2	ug/mL			J
26	SAMPLE	S09T001782		0 0		Potassium	LIQUID	N/A	1.4958E+03			200	ug/mL			J
26	SAMPLE	S09T001782		0 0		Lanthanum	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Lithium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Magnesium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
26	SAMPLE	S09T001782		0 0		Manganese	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Molybdenum	LIQUID	N/A	2.8292E+01			8	ug/mL			J
26	SAMPLE	S09T001782		0 0		Sodium	LIQUID	N/A	9.1003E+04			40	ug/mL			
26	SAMPLE	S09T001782		0 0		Neodymium	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
26	SAMPLE	S09T001782		0 0		Nickel	LIQUID	N/A	<8.0000E+00			8	ug/mL			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
26	SAMPLE	S09T001782		0 0		Niobium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
26	SAMPLE	S09T001782		0 0		Phosphorus	LIQUID	N/A	1.0598E+03			20	ug/mL			
26	SAMPLE	S09T001782		0 0		Lead	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
26	SAMPLE	S09T001782		0 0		Palladium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
26	SAMPLE	S09T001782		0 0		Praseodymium	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
26	SAMPLE	S09T001782		0 0		Rubidium	LIQUID	N/A	<4.0000E+02			400	ug/mL			U
26	SAMPLE	S09T001782		0 0		Rhodium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
26	SAMPLE	S09T001782		0 0		Ruthenium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
26	SAMPLE	S09T001782		0 0		Sulfur	LIQUID	N/A	2.5600E+03			40	ug/mL			
26	SAMPLE	S09T001782		0 0		Antimony	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
26	SAMPLE	S09T001782		0 0		Selenium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
26	SAMPLE	S09T001782		0 0		Silicon	LIQUID	N/A	1.2617E+01			12	ug/mL			J
26	SAMPLE	S09T001782		0 0		Samarium	LIQUID	N/A	<8.0000E+00			8	ug/mL			U
26	SAMPLE	S09T001782		0 0		Tin	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
26	SAMPLE	S09T001782		0 0		Strontium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Tantalum	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
26	SAMPLE	S09T001782		0 0		Tellurium	LIQUID	N/A	<4.0000E+01			40	ug/mL			Ua
26	SAMPLE	S09T001782		0 0		Thorium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
26	SAMPLE	S09T001782		0 0		Titanium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Thallium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
26	SAMPLE	S09T001782		0 0		Uranium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
26	SAMPLE	S09T001782		0 0		Vanadium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Tungsten	LIQUID	N/A	<8.0000E+01			80	ug/mL			U
26	SAMPLE	S09T001782		0 0		Yttrium	LIQUID	N/A	<8.0000E-01			0.8	ug/mL			U
26	SAMPLE	S09T001782		0 0		Zinc	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
26	SAMPLE	S09T001782		0 0		Zirconium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
Sample Sequence 27																
27	SAMPLE	S09T001794		0 0		Silver	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Aluminum	LIQUID	N/A	6.5071E+03			12	ug/mL			
27	SAMPLE	S09T001794		0 0		Arsenic	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
27	SAMPLE	S09T001794		0 0		Boron	LIQUID	N/A	1.3088E+01			12	ug/mL			J
27	SAMPLE	S09T001794		0 0		Barium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Beryllium	LIQUID	N/A	<4.0000E-01			0.4	ug/mL			U
27	SAMPLE	S09T001794		0 0		Bismuth	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
27	SAMPLE	S09T001794		0 0		Calcium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
27	SAMPLE	S09T001794		0 0		Cadmium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Cerium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
27	SAMPLE	S09T001794		0 0		Cobalt	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
27	SAMPLE	S09T001794		0 0		Chromium	LIQUID	N/A	6.1130E+02			2	ug/mL			
27	SAMPLE	S09T001794		0 0		Copper	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Europium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
27	SAMPLE	S09T001794		0 0		Iron	LIQUID	N/A	2.2174E+00			2	ug/mL			J
27	SAMPLE	S09T001794		0 0		Potassium	LIQUID	N/A	1.5938E+03			200	ug/mL			J
27	SAMPLE	S09T001794		0 0		Lanthanum	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Lithium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Magnesium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
27	SAMPLE	S09T001794		0 0		Manganese	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Molybdenum	LIQUID	N/A	3.0038E+01			8	ug/mL			J
27	SAMPLE	S09T001794		0 0		Sodium	LIQUID	N/A	9.0892E+04			40	ug/mL			
27	SAMPLE	S09T001794		0 0		Neodymium	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
27	SAMPLE	S09T001794		0 0		Nickel	LIQUID	N/A	8.9924E+00			8	ug/mL			J
27	SAMPLE	S09T001794		0 0		Niobium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
27	SAMPLE	S09T001794		0 0		Phosphorus	LIQUID	N/A	1.0679E+03			20	ug/mL			
27	SAMPLE	S09T001794		0 0		Lead	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
27	SAMPLE	S09T001794		0 0		Palladium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
27	SAMPLE	S09T001794		0 0		Praseodymium	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
27	SAMPLE	S09T001794		0 0		Rubidium	LIQUID	N/A	<4.0000E+02			400	ug/mL			U
27	SAMPLE	S09T001794		0 0		Rhodium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
27	SAMPLE	S09T001794		0 0		Ruthenium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
27	SAMPLE	S09T001794		0 0		Sulfur	LIQUID	N/A	2.5924E+03			40	ug/mL			
27	SAMPLE	S09T001794		0 0		Antimony	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
27	SAMPLE	S09T001794		0 0		Selenium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
27	SAMPLE	S09T001794		0 0		Silicon	LIQUID	N/A	1.2766E+01			12	ug/mL			J
27	SAMPLE	S09T001794		0 0		Samarium	LIQUID	N/A	<8.0000E+00			8	ug/mL			U
27	SAMPLE	S09T001794		0 0		Tin	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
27	SAMPLE	S09T001794		0 0		Strontium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Tantalum	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
27	SAMPLE	S09T001794		0 0		Tellurium	LIQUID	N/A	<4.0000E+01			40	ug/mL			Ua
27	SAMPLE	S09T001794		0 0		Thorium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
27	SAMPLE	S09T001794		0 0		Titanium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Thallium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
27	SAMPLE	S09T001794		0 0		Uranium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
27	SAMPLE	S09T001794		0 0		Vanadium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Tungsten	LIQUID	N/A	<8.0000E+01			80	ug/mL			U
27	SAMPLE	S09T001794		0 0		Yttrium	LIQUID	N/A	<8.0000E-01			0.8	ug/mL			U
27	SAMPLE	S09T001794		0 0		Zinc	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
27	SAMPLE	S09T001794		0 0		Zirconium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
Sample Sequence 28																
28	SAMPLE	S09T001806		0 0		Silver	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Aluminum	LIQUID	N/A	6.5253E+03			12	ug/mL			
28	SAMPLE	S09T001806		0 0		Arsenic	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
28	SAMPLE	S09T001806		0 0		Boron	LIQUID	N/A	1.4485E+01			12	ug/mL			J

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
28	SAMPLE	S09T001806		0 0		Barium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Beryllium	LIQUID	N/A	<4.0000E-01			0.4	ug/mL			U
28	SAMPLE	S09T001806		0 0		Bismuth	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
28	SAMPLE	S09T001806		0 0		Calcium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
28	SAMPLE	S09T001806		0 0		Cadmium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Cerium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
28	SAMPLE	S09T001806		0 0		Cobalt	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
28	SAMPLE	S09T001806		0 0		Chromium	LIQUID	N/A	6.1375E+02			2	ug/mL			
28	SAMPLE	S09T001806		0 0		Copper	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Europium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Iron	LIQUID	N/A	2.4242E+00			2	ug/mL			J
28	SAMPLE	S09T001806		0 0		Potassium	LIQUID	N/A	1.5270E+03			200	ug/mL			J
28	SAMPLE	S09T001806		0 0		Lanthanum	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Lithium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Magnesium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
28	SAMPLE	S09T001806		0 0		Manganese	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Molybdenum	LIQUID	N/A	2.9504E+01			8	ug/mL			J
28	SAMPLE	S09T001806		0 0		Sodium	LIQUID	N/A	9.0890E+04			40	ug/mL			
28	SAMPLE	S09T001806		0 0		Neodymium	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
28	SAMPLE	S09T001806		0 0		Nickel	LIQUID	N/A	1.3102E+01			8	ug/mL			J
28	SAMPLE	S09T001806		0 0		Niobium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
28	SAMPLE	S09T001806		0 0		Phosphorus	LIQUID	N/A	1.0842E+03			20	ug/mL			
28	SAMPLE	S09T001806		0 0		Lead	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
28	SAMPLE	S09T001806		0 0		Palladium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
28	SAMPLE	S09T001806		0 0		Prascodymium	LIQUID	N/A	<4.0000E+00			4	ug/mL			U
28	SAMPLE	S09T001806		0 0		Rubidium	LIQUID	N/A	<4.0000E+02			400	ug/mL			U
28	SAMPLE	S09T001806		0 0		Rhodium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
28	SAMPLE	S09T001806		0 0		Ruthenium	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
28	SAMPLE	S09T001806		0 0		Sulfur	LIQUID	N/A	2.6012E+03			40	ug/mL			
28	SAMPLE	S09T001806		0 0		Antimony	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
28	SAMPLE	S09T001806		0 0		Selenium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
28	SAMPLE	S09T001806		0 0		Silicon	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
28	SAMPLE	S09T001806		0 0		Samarium	LIQUID	N/A	<8.0000E+00			8	ug/mL			U
28	SAMPLE	S09T001806		0 0		Tin	LIQUID	N/A	<1.2000E+01			12	ug/mL			U
28	SAMPLE	S09T001806		0 0		Strontium	LIQUID	N/A	<1.2000E+00			1.2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Tantalum	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
28	SAMPLE	S09T001806		0 0		Tellurium	LIQUID	N/A	<4.0000E+01			40	ug/mL			Ua
28	SAMPLE	S09T001806		0 0		Thorium	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
28	SAMPLE	S09T001806		0 0		Titanium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
28	SAMPLE	S09T001806		0 0		Thallium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U
28	SAMPLE	S09T001806		0 0		Uranium	LIQUID	N/A	<4.0000E+01			40	ug/mL			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
28	SAMPLE	S09T001806		0	0	Vanadium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
28	SAMPLE	S09T001806		0	0	Tungsten	LIQUID	N/A	<8.0000E+01			80	ug/mL			U
28	SAMPLE	S09T001806		0	0	Yttrium	LIQUID	N/A	<8.0000E-01			0.8	ug/mL			U
28	SAMPLE	S09T001806		0	0	Zinc	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
28	SAMPLE	S09T001806		0	0	Zirconium	LIQUID	N/A	<2.0000E+00			2	ug/mL			U
Sample Sequence 29																
29	ICSA	S0903230020		0	0	Silver	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Aluminum	LIQUID	200	1.9876E+02			0.03	ug/mL	99.379	% Recovery	
29	ICSA	S0903230020		0	0	Arsenic	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Boron	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Barium	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Beryllium	LIQUID		<1.0000E-03			1.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Bismuth	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Calcium	LIQUID	200	1.9183E+02			0.05	ug/mL	95.917	% Recovery	
29	ICSA	S0903230020		0	0	Cadmium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Cerium	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Cobalt	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Chromium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Copper	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Europium	LIQUID		<6.0000E-02			0.06	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Iron	LIQUID	200	1.8520E+02			5.00E-03	ug/mL	92.598	% Recovery	
29	ICSA	S0903230020		0	0	Potassium	LIQUID		<5.0000E-01			0.5	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Lanthanum	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Lithium	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Magnesium	LIQUID	200	1.8905E+02			0.05	ug/mL	94.525	% Recovery	
29	ICSA	S0903230020		0	0	Manganese	LIQUID		<1.0000E-02			0.01	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Molybdenum	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Sodium	LIQUID	200	1.8011E+02			0.1	ug/mL	90.055	% Recovery	
29	ICSA	S0903230020		0	0	Neodymium	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Nickel	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Niobium	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Phosphorus	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Lead	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Palladium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Praseodymium	LIQUID		<1.0000E-02			0.01	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Rubidium	LIQUID		<1.0000E+00			1	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Rhodium	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Ruthenium	LIQUID		<3.0000E-01			0.3	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Sulfur	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Antimony	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
29	ICSA	S0903230020		0	0	Selenium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
29	ICSA	S0903230020		0 0		Silicon	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Samarium	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Tin	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Strontium	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Tantalum	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Tellurium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Thorium	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Titanium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Thallium	LIQUID		<5.0000E-01			0.5	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Uranium	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Vanadium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Tungsten	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Yttrium	LIQUID		<2.0000E-03			2.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Zinc	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
29	ICSA	S0903230020		0 0		Zirconium	LIQUID		<5.0000E-03			5.00E-03	ug/mL	N/A		
Sample Sequence 30																
30	ICSAB	S0903230021		0 0		Silver	LIQUID	1	9.7128E-01			5.00E-03	ug/mL	97.128	% Recovery	
30	ICSAB	S0903230021		0 0		Aluminum	LIQUID	200	1.9539E+02			0.03	ug/mL	97.697	% Recovery	
30	ICSAB	S0903230021		0 0		Arsenic	LIQUID	5	4.9371E+00			0.05	ug/mL	98.742	% Recovery	
30	ICSAB	S0903230021		0 0		Boron	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Barium	LIQUID	0	<3.0000E-03			3.00E-03	ug/mL	N/A		
31	ICSAB	S0903230021		0 1		Beryllium	LIQUID	.5	4.6715E-01			1.00E-03	ug/mL	93.43	% Recovery	
30	ICSAB	S0903230021		0 0		Bismuth	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Calcium	LIQUID	200	1.8719E+02			0.05	ug/mL	93.593	% Recovery	
30	ICSAB	S0903230021		0 0		Cadmium	LIQUID	.2	1.6823E-01			5.00E-03	ug/mL	84.115	% Recovery	
30	ICSAB	S0903230021		0 0		Cerium	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Cobalt	LIQUID	5	4.7332E+00			0.01	ug/mL	94.664	% Recovery	
30	ICSAB	S0903230021		0 0		Chromium	LIQUID	5	4.6595E+00			5.00E-03	ug/mL	93.19	% Recovery	
30	ICSAB	S0903230021		0 0		Copper	LIQUID	5	5.0665E+00			5.00E-03	ug/mL	101.33	% Recovery	
30	ICSAB	S0903230021		0 0		Europium	LIQUID		<3.0000E-02			0.03	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Iron	LIQUID	200	1.8169E+02			5.00E-03	ug/mL	90.845	% Recovery	
30	ICSAB	S0903230021		0 0		Potassium	LIQUID		<5.0000E-01			0.5	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Lanthanum	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Lithium	LIQUID	1	9.6684E-01			3.00E-03	ug/mL	96.684	% Recovery	
30	ICSAB	S0903230021		0 0		Magnesium	LIQUID	200	1.8782E+02			0.05	ug/mL	93.911	% Recovery	
30	ICSAB	S0903230021		0 0		Manganese	LIQUID	5	4.6114E+00			3.00E-03	ug/mL	92.227	% Recovery	
30	ICSAB	S0903230021		0 0		Molybdenum	LIQUID	5	4.5712E+00			0.02	ug/mL	91.423	% Recovery	
30	ICSAB	S0903230021		0 0		Sodium	LIQUID	200	1.7735E+02			0.1	ug/mL	88.673	% Recovery	
30	ICSAB	S0903230021		0 0		Neodymium	LIQUID		<1.0000E-02			0.01	ug/mL	N/A		
31	ICSAB	S0903230021		0 1		Nickel	LIQUID	1	9.6799E-01			0.02	ug/mL	96.799	% Recovery	
30	ICSAB	S0903230021		0 0		Niobium	LIQUID	5	4.8274E+00			0.03	ug/mL	96.547	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
30	ICSAB	S0903230021		0 0		Phosphorus	LIQUID	1	9.9716E-01			0.05	ug/mL	99.716	% Recovery	
31	ICSAB	S0903230021		0 1		Lead	LIQUID	1	1.0146E+00			0.05	ug/mL	101.46	% Recovery	
30	ICSAB	S0903230021		0 0		Palladium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Praseodymium	LIQUID		<1.0000E-02			0.01	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Rubidium	LIQUID		<1.0000E+00			1	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Rhodium	LIQUID		<5.0000E-02			0.05	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Ruthenium	LIQUID		<3.0000E-01			0.3	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Sulfur	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Antimony	LIQUID	5	4.8619E+00			0.05	ug/mL	97.238	% Recovery	
30	ICSAB	S0903230021		0 0		Selenium	LIQUID	5	5.0907E+00			0.1	ug/mL	101.81	% Recovery	
30	ICSAB	S0903230021		0 0		Silicon	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Samarium	LIQUID		<2.0000E-02			0.02	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Tin	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Strontium	LIQUID		<3.0000E-03			3.00E-03	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Tantalum	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Tellurium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Thorium	LIQUID		<1.0000E-01			0.1	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Titanium	LIQUID	50	4.6590E+01			5.00E-03	ug/mL	93.18	% Recovery	
30	ICSAB	S0903230021		0 0		Thallium	LIQUID		<7.0000E-01			0.7	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Uranium	LIQUID	5	4.8716E+00			0.1	ug/mL	97.432	% Recovery	
30	ICSAB	S0903230021		0 0		Vanadium	LIQUID	1	9.5501E-01			5.00E-03	ug/mL	95.501	% Recovery	
30	ICSAB	S0903230021		0 0		Tungsten	LIQUID		<2.0000E-01			0.2	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Yttrium	LIQUID		<2.0000E-03			2.00E-03	ug/mL	N/A		
30	ICSAB	S0903230021		0 0		Zinc	LIQUID	5	4.7788E+00			5.00E-03	ug/mL	95.577	% Recovery	
30	ICSAB	S0903230021		0 0		Zirconium	LIQUID	5	4.2297E+00			5.00E-03	ug/mL	84.595	% Recovery	
Sample Sequence 32																
32	CCV	S0903230022		0 0		Silver	LIQUID	5	4.7142E+00			5.00E-03	ug/mL	94.284	% Recovery	
32	CCV	S0903230022		0 0		Aluminum	LIQUID	5	4.9564E+00			0.03	ug/mL	99.128	% Recovery	
32	CCV	S0903230022		0 0		Arsenic	LIQUID	5	5.1371E+00			0.05	ug/mL	102.74	% Recovery	
33	CCV	S0903230022		0 1		Boron	LIQUID	5	5.2006E+00			0.03	ug/mL	104.01	% Recovery	
32	CCV	S0903230022		0 0		Barium	LIQUID	5	5.0160E+00			3.00E-03	ug/mL	100.32	% Recovery	
32	CCV	S0903230022		0 0		Beryllium	LIQUID	5	5.0621E+00			1.00E-03	ug/mL	101.24	% Recovery	
32	CCV	S0903230022		0 0		Bismuth	LIQUID	5	5.0021E+00			0.1	ug/mL	100.04	% Recovery	
32	CCV	S0903230022		0 0		Calcium	LIQUID	5	5.3622E+00			0.05	ug/mL	107.24	% Recovery	
32	CCV	S0903230022		0 0		Cadmium	LIQUID	5	4.9684E+00			5.00E-03	ug/mL	99.368	% Recovery	
32	CCV	S0903230022		0 0		Cerium	LIQUID	5	5.2336E+00			0.03	ug/mL	104.67	% Recovery	
32	CCV	S0903230022		0 0		Cobalt	LIQUID	5	5.0268E+00			0.01	ug/mL	100.54	% Recovery	
32	CCV	S0903230022		0 0		Chromium	LIQUID	5	4.9707E+00			5.00E-03	ug/mL	99.414	% Recovery	
32	CCV	S0903230022		0 0		Copper	LIQUID	5	5.0392E+00			5.00E-03	ug/mL	100.78	% Recovery	
32	CCV	S0903230022		0 0		Europium	LIQUID	5	4.9411E+00			5.00E-03	ug/mL	98.822	% Recovery	
32	CCV	S0903230022		0 0		Iron	LIQUID	5	5.0067E+00			5.00E-03	ug/mL	100.13	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
32	CCV	S0903230022		0 0		Potassium	LIQUID	5	5.0139E+00			0.5	ug/mL	100.28	% Recovery	
32	CCV	S0903230022		0 0		Lanthanum	LIQUID	5	5.0097E+00			3.00E-03	ug/mL	100.19	% Recovery	
32	CCV	S0903230022		0 0		Lithium	LIQUID	5	5.1456E+00			3.00E-03	ug/mL	102.91	% Recovery	
32	CCV	S0903230022		0 0		Magnesium	LIQUID	5	4.8763E+00			0.05	ug/mL	97.527	% Recovery	
32	CCV	S0903230022		0 0		Manganese	LIQUID	5	4.8934E+00			3.00E-03	ug/mL	97.868	% Recovery	
35	CCV	S0903230022		0 3		Molybdenum	LIQUID	5	5.0350E+00			0.02	ug/mL	100.7	% Recovery	
32	CCV	S0903230022		0 0		Sodium	LIQUID	5	4.9525E+00			0.1	ug/mL	99.05	% Recovery	
32	CCV	S0903230022		0 0		Neodymium	LIQUID	5	5.0242E+00			0.01	ug/mL	100.48	% Recovery	
32	CCV	S0903230022		0 0		Nickel	LIQUID	5	4.9511E+00			0.02	ug/mL	99.021	% Recovery	
33	CCV	S0903230022		0 1		Niobium	LIQUID	5	5.2742E+00			0.03	ug/mL	105.48	% Recovery	
32	CCV	S0903230022		0 0		Phosphorus	LIQUID	5	5.0024E+00			0.05	ug/mL	100.05	% Recovery	
32	CCV	S0903230022		0 0		Lead	LIQUID	5	5.1750E+00			0.05	ug/mL	103.5	% Recovery	
34	CCV	S0903230022		0 2		Palladium	LIQUID	5	4.9803E+00			0.1	ug/mL	99.606	% Recovery	
32	CCV	S0903230022		0 0		Praseodymium	LIQUID	5	5.0163E+00			0.01	ug/mL	100.33	% Recovery	
32	CCV	S0903230022		0 0		Rubidium	LIQUID	5	4.4036E+00			1	ug/mL	88.072	% Recovery	
34	CCV	S0903230022		0 2		Rhodium	LIQUID	5	5.0844E+00			0.05	ug/mL	101.69	% Recovery	
34	CCV	S0903230022		0 2		Ruthenium	LIQUID	5	4.9116E+00			0.03	ug/mL	98.231	% Recovery	
33	CCV	S0903230022		0 1		Sulfur	LIQUID	5	5.2314E+00			0.1	ug/mL	104.63	% Recovery	
33	CCV	S0903230022		0 1		Antimony	LIQUID	5	4.9449E+00			0.05	ug/mL	98.898	% Recovery	
32	CCV	S0903230022		0 0		Selenium	LIQUID	5	5.0411E+00			0.1	ug/mL	100.82	% Recovery	
35	CCV	S0903230022		0 3		Silicon	LIQUID	5	4.8271E+00			0.03	ug/mL	96.542	% Recovery	
32	CCV	S0903230022		0 0		Samarium	LIQUID	5	5.0325E+00			0.02	ug/mL	100.65	% Recovery	
33	CCV	S0903230022		0 1		Tin	LIQUID	5	5.0601E+00			0.03	ug/mL	101.2	% Recovery	
32	CCV	S0903230022		0 0		Strontium	LIQUID	5	5.0558E+00			3.00E-03	ug/mL	101.12	% Recovery	
33	CCV	S0903230022		0 1		Tantalum	LIQUID	5	5.2819E+00			0.05	ug/mL	105.64	% Recovery	
33	CCV	S0903230022		0 1		Tellurium	LIQUID	5	5.4119E+00			0.1	ug/mL	108.24	% Recovery	
32	CCV	S0903230022		0 0		Thorium	LIQUID	5	4.9241E+00			0.05	ug/mL	98.481	% Recovery	
35	CCV	S0903230022		0 3		Titanium	LIQUID	5	5.0970E+00			5.00E-03	ug/mL	101.94	% Recovery	
32	CCV	S0903230022		0 0		Thallium	LIQUID	5	4.9535E+00			0.1	ug/mL	99.07	% Recovery	
32	CCV	S0903230022		0 0		Uranium	LIQUID	5	5.2966E+00			0.1	ug/mL	105.93	% Recovery	
32	CCV	S0903230022		0 0		Vanadium	LIQUID	5	5.0636E+00			5.00E-03	ug/mL	101.27	% Recovery	
33	CCV	S0903230022		0 1		Tungsten	LIQUID	5	5.1749E+00			0.2	ug/mL	103.5	% Recovery	
32	CCV	S0903230022		0 0		Yttrium	LIQUID	5	4.9073E+00			2.00E-03	ug/mL	98.146	% Recovery	
32	CCV	S0903230022		0 0		Zinc	LIQUID	5	4.8659E+00			5.00E-03	ug/mL	97.317	% Recovery	
33	CCV	S0903230022		0 1		Zirconium	LIQUID	5	4.9056E+00			5.00E-03	ug/mL	98.111	% Recovery	
Sample Sequence 36																
36	LLS	S0903230024		0 0		Silver	LIQUID	.02	1.9840E-02			5.00E-03	ug/mL	99.2	% Recovery	
36	LLS	S0903230024		0 0		Aluminum	LIQUID	.1	1.0074E-01			0.03	ug/mL	100.74	% Recovery	
36	LLS	S0903230024		0 0		Arsenic	LIQUID	.2	2.0547E-01			0.05	ug/mL	102.74	% Recovery	
37	LLS	S0903230024		0 1		Boron	LIQUID	.1	1.0030E-01			0.03	ug/mL	100.3	% Recovery	
36	LLS	S0903230024		0 0		Barium	LIQUID	.01	1.0080E-02			3.00E-03	ug/mL	100.8	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
36	LLS	S0903230024		0	0	Beryllium	LIQUID	.001	1.3300E-03			1.00E-03	ug/mL	133	% Recovery	
36	LLS	S0903230024		0	0	Bismuth	LIQUID	.2	1.4536E-01			0.1	ug/mL	72.68	% Recovery	
36	LLS	S0903230024		0	0	Calcium	LIQUID	.2	1.8452E-01			0.05	ug/mL	92.26	% Recovery	
36	LLS	S0903230024		0	0	Cadmium	LIQUID	.01	1.0310E-02			5.00E-03	ug/mL	103.1	% Recovery	
36	LLS	S0903230024		0	0	Cerium	LIQUID	.2	2.0587E-01			0.03	ug/mL	102.94	% Recovery	
37	LLS	S0903230024		0	1	Cobalt	LIQUID	.04	4.2880E-02			0.01	ug/mL	107.2	% Recovery	
36	LLS	S0903230024		0	0	Chromium	LIQUID	.02	2.1400E-02			5.00E-03	ug/mL	107	% Recovery	
37	LLS	S0903230024		0	1	Copper	LIQUID	.02	1.9480E-02			5.00E-03	ug/mL	97.4	% Recovery	
38	LLS	S0903230024		0	2	Europium	LIQUID	.1	1.0033E-01			5.00E-03	ug/mL	100.33	% Recovery	
36	LLS	S0903230024		0	0	Iron	LIQUID	.05	5.4460E-02			5.00E-03	ug/mL	108.92	% Recovery	
36	LLS	S0903230024		0	0	Potassium	LIQUID	.5	6.7645E-01			0.5	ug/mL	135.29	% Recovery	
36	LLS	S0903230024		0	0	Lanthanum	LIQUID	.01	1.1280E-02			3.00E-03	ug/mL	112.8	% Recovery	
36	LLS	S0903230024		0	0	Lithium	LIQUID	.02	2.1730E-02			3.00E-03	ug/mL	108.65	% Recovery	
36	LLS	S0903230024		0	0	Magnesium	LIQUID	.2	2.0306E-01			0.05	ug/mL	101.53	% Recovery	
36	LLS	S0903230024		0	0	Manganese	LIQUID	.02	2.1000E-02			3.00E-03	ug/mL	105	% Recovery	
37	LLS	S0903230024		0	1	Molybdenum	LIQUID	.1	1.0054E-01			0.02	ug/mL	100.54	% Recovery	
36	LLS	S0903230024		0	0	Sodium	LIQUID	.2	2.0915E-01			0.1	ug/mL	104.58	% Recovery	
36	LLS	S0903230024		0	0	Neodymium	LIQUID	.1	1.0173E-01			0.01	ug/mL	101.73	% Recovery	
36	LLS	S0903230024		0	0	Nickel	LIQUID	.04	5.1060E-02			0.02	ug/mL	127.65	% Recovery	
40	LLS	S0903230024		0	4	Niobium	LIQUID	.1	9.9630E-02			0.03	ug/mL	99.63	% Recovery	
37	LLS	S0903230024		0	1	Phosphorus	LIQUID	.4	4.0855E-01			0.05	ug/mL	102.14	% Recovery	
36	LLS	S0903230024		0	0	Lead	LIQUID	.2	2.3389E-01			0.05	ug/mL	116.94	% Recovery	
39	LLS	S0903230024		0	3	Palladium	LIQUID	1	9.0811E-01			0.1	ug/mL	90.811	% Recovery	
38	LLS	S0903230024		0	2	Praseodymium	LIQUID	.1	1.0425E-01			0.01	ug/mL	104.25	% Recovery	
38	LLS	S0903230024		0	2	Rubidium	LIQUID	1	8.5896E-01			0.01	ug/mL	85.896	% Recovery	
39	LLS	S0903230024		0	3	Rhodium	LIQUID	.1	9.5440E-02			0.05	ug/mL	95.44	% Recovery	
39	LLS	S0903230024		0	3	Ruthenium	LIQUID	.1	9.4540E-02			0.03	ug/mL	94.54	% Recovery	
37	LLS	S0903230024		0	1	Sulfur	LIQUID	.2	1.8759E-01			0.1	ug/mL	93.795	% Recovery	
37	LLS	S0903230024		0	1	Antimony	LIQUID	.1	8.7600E-02			0.05	ug/mL	87.6	% Recovery	
36	LLS	S0903230024		0	0	Selenium	LIQUID	.2	1.5992E-01			0.1	ug/mL	79.96	% Recovery	
37	LLS	S0903230024		0	1	Silicon	LIQUID	.1	9.7220E-02			0.03	ug/mL	97.22	% Recovery	
36	LLS	S0903230024		0	0	Samarium	LIQUID	.1	1.0791E-01			0.02	ug/mL	107.91	% Recovery	
40	LLS	S0903230024		0	4	Tin	LIQUID	.1	8.6170E-02			0.03	ug/mL	86.17	% Recovery	
36	LLS	S0903230024		0	0	Strontium	LIQUID	.02	2.0120E-02			3.00E-03	ug/mL	100.6	% Recovery	
40	LLS	S0903230024		0	4	Tantalum	LIQUID	1	1.0270E+00			0.05	ug/mL	102.7	% Recovery	
40	LLS	S0903230024		0	4	Tellurium	LIQUID	1	9.8279E-01			0.1	ug/mL	98.279	% Recovery	
38	LLS	S0903230024		0	2	Thorium	LIQUID	.1	9.9520E-02			0.05	ug/mL	99.52	% Recovery	
37	LLS	S0903230024		0	1	Titanium	LIQUID	.02	2.0170E-02			5.00E-03	ug/mL	100.85	% Recovery	
36	LLS	S0903230024		0	0	Thallium	LIQUID	.4	3.4067E-01			0.1	ug/mL	85.168	% Recovery	
37	LLS	S0903230024		0	1	Uranium	LIQUID	.5	5.0746E-01			0.1	ug/mL	101.49	% Recovery	
37	LLS	S0903230024		0	1	Vanadium	LIQUID	.05	4.9760E-02			5.00E-03	ug/mL	99.52	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
40	LLS	S0903230024		0 4		Tungsten	LIQUID	1	9.7620E-01			0.2	ug/mL	97.62	% Recovery	
38	LLS	S0903230024		0 2		Yttrium	LIQUID	.1	1.0226E-01			2.00E-03	ug/mL	102.26	% Recovery	
37	LLS	S0903230024		0 1		Zinc	LIQUID	.02	1.7520E-02			5.00E-03	ug/mL	87.6	% Recovery	
37	LLS	S0903230024		0 1		Zirconium	LIQUID	.02	1.8370E-02			5.00E-03	ug/mL	91.85	% Recovery	
Sample Sequence 41																
41	CCB	S0903230023		0 0		Silver	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Aluminum	LIQUID		<3.0000E-02			0.03	ug/mL			
41	CCB	S0903230023		0 0		Arsenic	LIQUID		<5.0000E-02			0.05	ug/mL			
41	CCB	S0903230023		0 0		Boron	LIQUID		<3.0000E-02			0.03	ug/mL			
41	CCB	S0903230023		0 0		Barium	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Beryllium	LIQUID		<1.0000E-03			1.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Bismuth	LIQUID		<1.0000E-01			0.1	ug/mL			
41	CCB	S0903230023		0 0		Calcium	LIQUID		<5.0000E-02			0.05	ug/mL			
41	CCB	S0903230023		0 0		Cadmium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Cerium	LIQUID		<3.0000E-02			0.03	ug/mL			
41	CCB	S0903230023		0 0		Cobalt	LIQUID		<1.0000E-02			0.01	ug/mL			
41	CCB	S0903230023		0 0		Chromium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Copper	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Europium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Iron	LIQUID		1.2260E-02			5.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Potassium	LIQUID		<5.0000E-01			0.5	ug/mL			
41	CCB	S0903230023		0 0		Lanthanum	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Lithium	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Magnesium	LIQUID		<5.0000E-02			0.05	ug/mL			
41	CCB	S0903230023		0 0		Manganese	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Molybdenum	LIQUID		<2.0000E-02			0.02	ug/mL			
41	CCB	S0903230023		0 0		Sodium	LIQUID		<1.0000E-01			0.1	ug/mL			
41	CCB	S0903230023		0 0		Neodymium	LIQUID		<1.0000E-02			0.01	ug/mL			
41	CCB	S0903230023		0 0		Nickel	LIQUID		<2.0000E-02			0.02	ug/mL			
41	CCB	S0903230023		0 0		Niobium	LIQUID		<3.0000E-02			0.03	ug/mL			
41	CCB	S0903230023		0 0		Phosphorus	LIQUID		<5.0000E-02			0.05	ug/mL			
41	CCB	S0903230023		0 0		Lead	LIQUID		<5.0000E-02			0.05	ug/mL			
41	CCB	S0903230023		0 0		Palladium	LIQUID		<1.0000E-01			0.1	ug/mL			
41	CCB	S0903230023		0 0		Praseodymium	LIQUID		<1.0000E-02			0.01	ug/mL			
41	CCB	S0903230023		0 0		Rubidium	LIQUID		<1.0000E+00			1	ug/mL			
41	CCB	S0903230023		0 0		Rhodium	LIQUID		<5.0000E-02			0.05	ug/mL			
41	CCB	S0903230023		0 0		Ruthenium	LIQUID		<3.0000E-02			0.03	ug/mL			
41	CCB	S0903230023		0 0		Sulfur	LIQUID		<1.0000E-01			0.1	ug/mL			
41	CCB	S0903230023		0 0		Antimony	LIQUID		<5.0000E-02			0.05	ug/mL			
41	CCB	S0903230023		0 0		Selenium	LIQUID		<1.0000E-01			0.1	ug/mL			
41	CCB	S0903230023		0 0		Silicon	LIQUID		<3.0000E-02			0.03	ug/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
41	CCB	S0903230023		0 0		Samarium	LIQUID		<2.0000E-02			0.02	ug/mL			
41	CCB	S0903230023		0 0		Tin	LIQUID		<3.0000E-02			0.03	ug/mL			
41	CCB	S0903230023		0 0		Strontium	LIQUID		<3.0000E-03			3.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Tantalum	LIQUID		<5.0000E-02			0.05	ug/mL			
41	CCB	S0903230023		0 0		Tellurium	LIQUID		<1.0000E-01			0.1	ug/mL			
41	CCB	S0903230023		0 0		Thorium	LIQUID		<5.0000E-02			0.05	ug/mL			
41	CCB	S0903230023		0 0		Titanium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Thallium	LIQUID		<1.0000E-01			0.1	ug/mL			
41	CCB	S0903230023		0 0		Uranium	LIQUID		<1.0000E-01			0.1	ug/mL			
41	CCB	S0903230023		0 0		Vanadium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Tungsten	LIQUID		<2.0000E-01			0.2	ug/mL			
41	CCB	S0903230023		0 0		Yttrium	LIQUID		<2.0000E-03			2.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Zinc	LIQUID		<5.0000E-03			5.00E-03	ug/mL			
41	CCB	S0903230023		0 0		Zirconium	LIQUID		<5.0000E-03			5.00E-03	ug/mL			

Comments Section:

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Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013485

Sal M Pang 3/23/09

Reviewer Signature Date

RPP-RPT-40709 Rev. 1

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903230009	ICV				
2	S0903230009	ICV				
3	S0903230009	ICV				
4	S0903230009	ICV				
5	S0903230011	LLS				
6	S0903230011	LLS				
7	S0903230011	LLS				
8	S0903230011	LLS				
9	S0903230011	LLS				
10	S0903230010	ICB				
11	S0903230012	ICSA				
12	S0903230013	ICSAB				
13	S0903230013	ICSAB				
14	S0903230015	SERDIL	S09T001773			
15	S09T001773	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
16	S0903230016	DUP	S09T001773			
17	S0903230017	SPK-POST	S09T001773			
18	S0903230017	SPK-POST	S09T001773			
19	S0903230018	CCV				
20	S0903230018	CCV				
21	S0903230018	CCV				
22	S0903230018	CCV				
23	S0903230019	CCB				
24	S091001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
25	S09T001761	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
26	S09T001782	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
27	S09T001794	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
28	S09T001806	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
29	S0903230020	ICSA				
30	S0903230021	ICSAB				
31	S0903230021	ICSAB				
32	S0903230022	CCV				
33	S0903230022	CCV				
34	S0903230022	CCV				
35	S0903230022	CCV				

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013485

36	S0903230024	LLS
37	S0903230024	LLS
38	S0903230024	LLS
39	S0903230024	LLS
40	S0903230024	LLS
41	S0903230023	CCB

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Batch# 00013485

Analyst: Monteith, Kenneth
Instrument: ICP-TJA
Method: ICP-TOTAL METALS, LA-505-161 Rev/Mod I-0
Prep Batch:
Batch Comment: AW106 EVAP3

Standard ID / Book#: 0829102, A-0829110, A-102-080918-1, A-104-081110-3, A-104-081110-4, A-106-090305-1, A-106-090305-6, A

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICV		0		LIQUID		
	Analytes Requested:	Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium					
5	LLS		0		LIQUID		
	Analytes Requested:	Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium					
10	ICB		0		LIQUID		
	Analytes Requested:	Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium					
11	ICSA		0		LIQUID		
	Analytes Requested:	Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium					
12	ICSAB		0		LIQUID		
	Analytes Requested:	Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium					
14	SERDIL	S09T001773	0		LIQUID		
	Analytes Requested:	Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium					
15	SAMPLE	S09T001773	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium					
16	DUP	S09T001773	0		LIQUID		

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

LABCORE Data Entry Template for Batch# 00013485

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

17 SPK-POST **S09T001773** **0** **LIQUID**

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

19 CCV **0** **LIQUID**

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

23 CCB **0** **LIQUID**

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

24 SAMPLE **S09T001751** **0** **LIQUID** **20090162** **AW106 EVAP3**

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

25 SAMPLE **S09T001761** **0** **LIQUID** **20090162** **AW106 EVAP3**

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

26 SAMPLE **S09T001782** **0** **LIQUID** **20090162** **AW106 EVAP3**

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

27 SAMPLE **S09T001794** **0** **LIQUID** **20090162** **AW106 EVAP3**

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

28 SAMPLE **S09T001806** **0** **LIQUID** **20090163** **AW106 EVAP3**

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

29 ICSA **0** **LIQUID**

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

LABCORE Data Entry Template for Batch# 00013485

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

30 ICSAB 0 LIQUID

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

32 CCV 0 LIQUID

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

36 LLS 0 LIQUID

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

41 CCB 0 LIQUID

Analytes Requested: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cerium, Chromium, Cobalt, Copper, Europium, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Molybdenum, Neodymium, Nickel, Niobium, Palladium, Phosphorus, Potassium, Praseodymium, Rhodium, Rubidium, Ruthenium, Samarium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Tantalum, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium

Final Page for Batch# 00013485

3/23/09
Analyst Signature Date

Tracy Maling 3/23/09
Data Entry Signature Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

ICP BENCH SHEET

PROJECT: AW106 EVAP3

WORKLIST # DATE: 03/19/09 METHOD 50NEW INSTRUMENT FILE #090319B

INSTUMENT ID TJA WC38935 ANALYST: KRM

PIPETTE # F0787382F, D40632, 359680, 2346763, 4972882

Calibration Standards

CAL 1 0829104 . 10 PPM ND 0819214
CAL 2 0829103 10 PPM SI 0808536
CAL 3 0829112 10 PPM U 0808703
CAL 4 0829113 10 PPM Al 0807002
CAL 5 0829114 10 PPM CA 0807122
10 PPM TH 0808720

MATRIX 2% HN03 A-106-090316-3

Verification Standards

ICV/CCV # 1 A-106-090305-6
ICV/CCV # 2 A-104-081110-3
ICV/CCV # 3 A-105-081110-4
ICV/CCV # 4 A-106-090319-3

SPIKE

1.0 ML ZHS-64 13-147JB
1.0 ML ZHS-63 13-148JB
1.0 ML ZHS-51 13.-151JB
1.0 ML ZHS-52 13-152JB
1.0 ML ZHS-53 13-153JB

SAMPLE NUMBER	DF	DILUTION
ICV # 1	1	
ICV # 2	1	
ICV # 3	1	
ICV # 4	1	
LLS1 A-106-090319-1	1	
LLS 2 A-106-090319-2	1	
LLS 3 A-106-090213-2	1	
LLS 4 A 106 090305 4	1	
LLS 5 A-106-090305-5	1	
ICB	1	
ICSA 0829102	1	
ICSAB 0829110	1	
ICSA A-106-090316-5	1	
S09T001773_L	2000	0.025ML-9.975ML-2.0ML-8.0ML
S09T001773	400	0.025ML-9.975ML
S09T001773_D	400	0.025ML-9.975ML
S09T001773_A1	400	0.025ML-1.0MLZHS63-1.0MLZHS64-7.975ML
S09T001773_A2	400	0.025ML-1.0MLZHS51-1.0MLZHS52-1.0MLZHS53-6.975ML
CCV # 1	1	
CCV # 2	1	
CCV # 3	1	
CCV # 4	1	
CCB	1	
S09T001751	1	
S09T001761	1	
S09T001782	400	0.025ML-9.975ML
S09T001794	400	0.025ML-9.975ML
S09T001806	400	0.025ML-9.975ML
ICSA 0829102	1	
ICSAB 0829110	1	
ICSA A-106-090316-5	1	
CCV # 1	1	
CCV # 2	1	
CCV # 3	1	

03/19/2009 THU 20:57 [TX/RX NO 5538] 003

CCV # 4	1	
LLS1 A-106-090319-1	1	
LLS 2 A-106-090319-2	1	
LLS 3 A-106-090213-2	1	
LLS 4 A-106-090305-4	1	
LLS 5 A-106-090305-5	1	
CCB	1	

Method report ICP-50-New

Default measurement conditions

Flush time	10.0	**Rinse time**	30.0
Integration time	5.0		
Default condition name	ICP26364		
RFPower setting	1150	**Analysis pump rate**	100
Nebulizer type	Noordermeer V-groove	**Nebulizer pumped**	True

Pump conditions

Idle pump speed	100	**Rabbit pump time**	30
Tubing type	Tygon-Orange	**Rabbit pump speed**	100
Pump off during sampler positioning	False		

Line calibration information

Analyte	Reporting name	C0	C1	C2	C3	Correlation coefficient	Low limit	High limit	Date of last re-gression
Ag 328.068	Ag	0.0068102	0.0005522	0.0	0	1.0000	-12.333	3609.667	3/19/2009 2:05:31 PM
Al 308.215	Al	-0.1018	0.0013882	0.0	0	1.0000	73.333	7277.000	3/19/2009 2:05:31 PM
As 193.696	As	-0.0016947	0.0016947	0.0	0	1.0000	1.000	5901.667	3/19/2009 2:05:31 PM
B 249.678	B	-0.00364	0.00156	0.0	0	1.0000	2.333	6412.667	3/19/2009 2:05:31 PM
Ba 455.403	Ba	0.0002811	0.0001205	0.0	0	1.0000	-2.333	83018.333	3/19/2009 2:05:31 PM
Be 313.042	Be	-0.0035089	0.0001754	0.0	0	1.0000	20.000	57018.667	3/19/2009 2:05:31 PM
Bi 223.061	Bi	0.0107565	0.0035855	0.0	0	1.0000	-3.000	2786.000	3/19/2009 2:05:31 PM
Ca 317.933	Ca	-0.0043068	0.0005383	0.0	0	1.0000	8.000	18583.333	3/19/2009 2:05:32 PM
Cd 226.502	Cd	0.0001295	0.0003886	0.0	0	1.0000	-0.333	25730.667	3/19/2009 2:05:32 PM
Ce 413.765	Ce	-0.0030962	0.0010321	0.0	0	1.0000	3.000	9692.333	3/19/2009 2:05:32 PM
Co 228.616	Co	0.002117	0.0015877	0.0	0	1.0000	-1.333	6297.000	3/19/2009 2:05:32 PM
Cr 267.716	Cr	-0.0014766	0.0004922	0.0	0	1.0000	3.000	20320.333	3/19/2009 2:05:32 PM
Cu 324.754	Cu	-0.0030528	0.0006542	0.0	0	1.0000	4.667	15291.000	3/19/2009 2:05:32 PM
Eu 393.048	Eu	0.0003487	0.0001046	0.0	0	1.0000	-3.333	95593.000	3/19/2009 2:05:32 PM
Fe 259.940	Fe	-0.0014202	0.0003873	0.0	0	1.0000	3.667	25821.667	3/19/2009 2:05:32 PM
K 766.491	K	-0.0287522	0.0172513	0.0	0	1.0000	1.667	581.333	3/19/2009 2:05:33 PM
La 408.672	La	0.000324	0.0001389	0.0	0	1.0000	-2.333	72017.333	3/19/2009 2:05:33 PM
Li 670.784	Li	-0.0003442	0.0002582	0.0	0	1.0000	1.333	38733.000	3/19/2009 2:05:33 PM

Fax sent by 3039318334 Comm Co 4478 3/19/2009 2:11:47 PM

[TX/RX NO 5538] 001 2009 THU 20:57 RPT-40709 Rev. 1

Method report ICP-50-New

Mg 279.079	Mg	-0.0018154	0.0013615	0.0	0	1.0000	1.333	7346.000	3/19/2009 2:05:33 PM
Mn 257.610	Mn	-0.0001773	0.0001773	0.0	0	1.0000	1.000	56405.667	3/19/2009 2:05:33 PM
Mo 202.030	Mo	-0.00199	0.0014925	0.0	0	1.0000	1.333	6701.667	3/19/2009 2:05:33 PM
Na 588.995	Na	-0.0337113	0.004597	0.0	0	1.0000	7.333	2182.667	3/19/2009 2:05:33 PM
Nb 271.662	Nb	0.0	0.0018173	0.0	0	1.0000	0.000	5502.667	3/19/2009 2:05:34 PM
Nd 401.225	Nd	-0.0013361	0.0002358	0.0	0	1.0000	5.667	42416.333	3/19/2009 2:05:34 PM
Ni 231.604	Ni	0.0055324	0.0007216	0.0	0	1.0000	-7.667	13850.000	3/19/2009 2:05:34 PM
P 178.287	P	-0.0139059	0.0012642	0.0	0	1.0000	11.000	7921.333	3/19/2009 2:05:34 PM
Pb 220.353	Pb	0.0092708	0.000959	0.0	0	1.0000	-9.667	10417.333	3/19/2009 2:05:34 PM
Pd 363.470	Pd	-1.2702182	0.0003958	0.0	0	1.0000	3209.333	28475.333	3/19/2009 2:05:34 PM
Pr 390.844	Pr	0.002943	0.0001104	0.0	0	1.0000	-26.667	90584.000	3/19/2009 2:05:34 PM
Rb 780.023	Rb	-4.1701073	0.0247729	0.0	0	1.0000	168.333	572.000	3/19/2009 2:05:35 PM
Rh 369.236	Rh	-0.0635398	0.000307	0.0	0	1.0000	207.000	32785.000	3/19/2009 2:05:35 PM
Ru 240.272	Ru	0.0044164	0.0003011	0.0	0	1.0000	-14.667	33196.000	3/19/2009 2:05:35 PM
S 182.040	S	-0.013668	0.0006834	0.0	0	1.0000	20.000	14652.667	3/19/2009 2:05:35 PM
Sb 206.838	Sb	-0.0154178	0.0018501	0.0	0	1.0000	8.333	5413.333	3/19/2009 2:05:35 PM
Se 196.026	Se	-0.0300068	0.0029039	0.0	0	1.0000	10.333	3454.000	3/19/2009 2:05:35 PM
Si 251.611	Si	-0.0018372	0.0007874	0.0	0	1.0000	2.333	12703.000	3/19/2009 2:05:35 PM
Sm 442.435	Sm	0.0003681	0.0011043	0.0	0	1.0000	-0.333	9055.000	3/19/2009 2:05:36 PM
Sn 189.989	Sn	-0.0144191	0.0020589	0.0	0	1.0000	7.000	4861.667	3/19/2009 2:05:36 PM
Sr 421.552	Sr	0.0	0.0001493	0.0	0	1.0000	0.000	66974.667	3/19/2009 2:05:36 PM
Ta 240.063	Ta	0.0060364	0.0011318	0.0	0	1.0000	-5.333	8830.000	3/19/2009 2:05:36 PM
Te 214.275	Te	0.022177	0.0055443	0.0	0	1.0000	-4.000	1799.667	3/19/2009 2:05:36 PM
Th 283.730	Th	-0.022579	0.0015053	0.0	0	1.0000	15.000	6658.333	3/19/2009 2:05:36 PM
Ti 334.941	Ti	-0.0022674	0.0006802	0.0	0	1.0000	3.333	14704.667	3/19/2009 2:05:36 PM
Tl 190.864	Tl	-0.04306	0.0027485	0.0	0	1.0000	15.667	3654.000	3/19/2009 2:05:36 PM
U 385.958	U	0.0008683	0.0004341	0.0	0	1.0000	-2.000	23032.000	3/19/2009 2:05:37 PM
V 292.402	V	-0.0021361	0.0009155	0.0	0	1.0000	2.333	10925.667	3/19/2009 2:05:37 PM
W 220.448	W	-0.0060168	0.0036101	0.0	0	1.0000	1.667	2771.667	3/19/2009 2:05:37 PM
Y 371.030	Y	0.0003331	0.0003331	0.0	0	1.0000	-1.000	30022.000	3/19/2009 2:05:37 PM
Zn 213.856	Zn	-0.0059497	0.0004057	0.0	0	1.0000	14.667	24665.667	3/19/2009 2:05:37 PM
Zr 339.198	Zr	-0.0015297	0.0011473	0.0	0	1.0000	1.333	8717.667	3/19/2009 2:05:39 PM

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MAR-13-2009 THU 20:57 [TX/RX NO 5538] 002
RPT-40709 Rev. 1

Method	Sample Id1	Sample Id2	Volume	Save date	Ag	Al	As	B	Ba
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.00031	-0.00159	0.01394	0.00568	-0.00014
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	0.00207	15.57066	0.00889	0.02532	0.00078
ICP-50-New	73 SCREEN		1	3/19/2009 14:28	0.00007	15.91566	0.01365	0.02807	0.00078
ICP-50-New	51 SCREEN		1	3/19/2009 14:38	0.00067	0.008	0.00319	-0.00425	0.00006
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	4.73945	4.94793	5.16553	0.00205	4.92851
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	0.00011	0.01213	0.1729	5.19154	0.00183
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.01388	0.01605	0.0108	0.00272	-0.00091
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	0.97346	4.99998	5.13144	5.18222	5.08933
ICP-50-New	LLS1		1	3/19/2009 18:04	0.02076	0.10083	0.2202	-0.00529	0.01014
ICP-50-New	LLS2		1	3/19/2009 18:07	-0.0002	0.00539	-0.0156	0.10086	-0.00003
ICP-50-New	LLS3		1	3/19/2009 18:15	-0.00151	0.00507	0.00559	-0.00402	0
ICP-50-New	LLS4		1	3/19/2009 18:18	0.00033	0.00793	-0.00595	-0.00305	-0.00004
ICP-50-New	LLS5		1	3/19/2009 18:21	0.00067	0.00901	0.02744	0.00286	0.00013
ICP-50-New	ICB		1	3/19/2009 18:25	0.00069	0.00632	-0.01036	0.00023	0.00005
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.00571	196.8473	0.01951	-0.0019	0.00082
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	0.97652	193.1778	4.88317	-0.00243	0.00274
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.96513	249.8693	-0.15501	-0.00718	0.46586
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	-1.49525	6269.707	-3.22891	6.1226	0.07105
ICP-50-New	S09T001773		400	3/19/2009 18:44	1.32705	6250.083	-0.89294	9.65492	0.39325
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	1.09967	6279.658	-4.54598	2.70858	0.36327
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	740.9316	10157.83	4104.262	3961.39505	3936.3369
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	13.54498	6242.849	272.4909	1.35541	-1.48017
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	4.71216	4.97815	5.20503	0.00443	5.03173
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	0.0011	0.00722	0.18263	5.19413	0.00184
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.01687	0.01135	0.01209	0.00849	-0.00055
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	0.97829	5.01708	5.12954	5.20318	5.1297
ICP-50-New	CCB		1	3/19/2009 19:16	0.003	0.00651	-0.03542	0.00266	0.00008
ICP-50-New	S09T001751		1	3/19/2009 19:19	0.00129	0.00586	-0.02159	-0.00149	0.00045
ICP-50-New	S09T001761		1	3/19/2009 19:21	-0.00101	0.01538	0.01123	1.48047	0.00004
ICP-50-New	S09T001762		400	3/19/2009 19:24	1.20742	6474.18	4.55382	14.3071	0.36134
ICP-50-New	S09T001794		400	3/19/2009 19:28	0.9707	6507.094	-9.36778	13.08787	0.38133
ICP-50-New	S09T001806		400	3/19/2009 19:31	1.3987	6525.283	-2.81703	14.48549	0.33394
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.00436	198.7584	0.08197	-0.0135	0.0006
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.97128	195.3931	4.93712	-0.00001	0.00262
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.96915	250.7324	-0.08075	0.00421	0.47345
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	4.71418	4.9564	5.13713	0.00211	5.01598
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	0.0003	0.01159	0.16313	5.20058	0.0017
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	0.0165	0.01219	-0.00703	0.00301	-0.00061
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	0.97289	5.06081	5.18202	5.22237	5.19058
ICP-50-New	LLS1		1	3/19/2009 20:08	0.01984	0.10074	0.20547	-0.00554	0.01008
ICP-50-New	LLS2		1	3/19/2009 20:12	0.00121	0.01127	0.02064	0.1003	0.00017
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00045	0.01268	-0.0166	-0.00569	0.00004
ICP-50-New	LLS4		1	3/19/2009 20:33	-0.00018	0.00099	0.01435	-0.00355	-0.00004
ICP-50-New	LLS5		1	3/19/2009 20:35	0.0016	0.01099	0.01645	0.0059	0.00013
ICP-50-New	CCB		1	3/19/2009 20:41	0.00077	0.00037	-0.01584	-0.00206	0

Method	Sample Id1	Sample Id2	Volume	Save date	Be	Bi	Ca	Cd	Ce
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.00019	-0.04529	0.06087	0.00064	-0.00214
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	0.00036	-0.01114	0.00932	0.00322	-0.00201
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	0.00041	-0.02611	0.0043	0.00101	-0.00348
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.00029	0.05164	-0.01549	-0.00075	0.00356
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	5.01721	4.92931	5.46702	4.96154	5.18319
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	-0.00245	-0.01758	-0.04099	0.00404	-0.06659
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.00033	-0.07233	-0.032	0.00061	-0.00302
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	5.05577	4.99861	4.82686	5.10248	-0.00255
ICP-50-New	LLS1		1	3/19/2009 18:04	0.00117	0.22475	0.18522	0.01232	0.21114
ICP-50-New	LLS2		1	3/19/2009 18:07	0.00022	0.0246	-0.02834	-0.00185	-0.00474
ICP-50-New	LLS3		1	3/19/2009 18:15	0.00037	0.03345	-0.01962	0.00005	0.00252
ICP-50-New	LLS4		1	3/19/2009 18:18	0.00036	-0.07904	-0.03435	-0.00109	-0.00221
ICP-50-New	LLS5		1	3/19/2009 18:21	0.00025	0.01109	-0.03151	0.00076	-0.0015
ICP-50-New	ICB		1	3/19/2009 18:25	0.00022	-0.02992	-0.00151	0.00073	0.00191
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.00046	-0.07402	193.8306	-0.02045	-0.00958
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	0.01409	-0.33237	189.8651	0.16963	-0.06788
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.45814	-0.0481	237.8771	0.93207	-0.0027
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	0.71842	-49.43828	13.67888	0.48407	-15.15271
ICP-50-New	S09T001773		400	3/19/2009 18:44	0.15874	6.56365	8.43843	0.76711	-0.45666
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	0.16282	-12.58577	9.02254	0.17051	1.54285
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	3820.805	3984.44	3683.721	3803.93008	3888.326
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	-3.70266	27.63445	544.0906	3.41729	3996.4354
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	5.06224	4.96867	5.37788	4.98287	5.24078
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	-0.00236	-0.02773	-0.04142	0.00495	-0.05359
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.00016	0.0041	-0.02083	-0.00013	-0.00703
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.09822	5.18061	4.86393	5.15963	-0.00684
ICP-50-New	CCB		1	3/19/2009 19:16	0.00019	-0.0475	-0.00686	0.00147	-0.00938
ICP-50-New	S09T001761		1	3/19/2009 19:19	0.00035	0.04462	0.3213	-0.00098	-0.00415
ICP-50-New	S09T001761		1	3/19/2009 19:21	0.00022	-0.07299	0.00696	-0.00116	0.00231
ICP-50-New	S09T001762		400	3/19/2009 19:24	0.16623	-14.82974	4.459	0.84504	-1.05225
ICP-50-New	S09T001794		400	3/19/2009 19:28	0.18541	-27.49315	5.47452	1.70017	0.41858
ICP-50-New	S09T001806		400	3/19/2009 19:31	0.14153	14.00091	7.23907	1.25359	-1.67624
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.0006	-0.10852	191.8332	-0.02134	0.00485
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.01422	-0.20203	187.1863	0.16823	-0.06434
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.46715	-0.08641	239.158	0.94947	0.00653
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	5.06213	5.00208	5.36215	4.96842	5.23365
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	-0.00243	-0.0336	-0.04303	0.00314	-0.05235
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	0.00022	0.02581	-0.01976	0.00054	-0.00742
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.12649	5.1794	4.80529	5.14621	-0.01081
ICP-50-New	LLS1		1	3/19/2009 20:08	0.00133	0.14536	0.18452	0.01031	0.20587
ICP-50-New	LLS2		1	3/19/2009 20:12	0.00021	-0.03825	-0.02886	-0.00234	-0.00525
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00019	0.03044	-0.01896	0.00021	0.00351
ICP-50-New	LLS4		1	3/19/2009 20:33	0.00013	-0.00628	-0.03792	-0.00175	-0.00121
ICP-50-New	LLS5		1	3/19/2009 20:35	0.00007	0.0218	-0.02886	0.00044	0.00159
ICP-50-New	CCB		1	3/19/2009 20:41	0.00011	0.0224	-0.00368	0.00034	0.00292

Method	Sample Id1	Sample Id2	Volume	Save date	Co	Cr	Cu	Eu	Fe
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.00105	0.00062	0.00001	0.00001	0.00219
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	-0.00064	1.49402	0.00126	0.00022	0.01613
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	0.00471	1.49466	0.00206	0.00074	0.00231
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.00527	0.00094	0.00033	0.00059	0.00168
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	5.0288	4.99356	4.96653	4.84105	5.0437
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	0.00235	0.00088	-0.00622	-0.00286	0.00853
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.00481	-0.00057	0.00113	0.00046	0.00206
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	5.15787	5.15419	5.12748	-0.00043	5.10773
ICP-50-New	LLS1		1	3/19/2009 18:04	-0.00049	0.02164	0.00088	0.00049	0.05311
ICP-50-New	LLS2		1	3/19/2009 18:07	0.05032	-0.00053	0.02035	0.00012	0.00001
ICP-50-New	LLS3		1	3/19/2009 18:15	-0.00154	-0.00017	0.00103	0.09719	0
ICP-50-New	LLS4		1	3/19/2009 18:18	0.00268	0.00017	0.00007	0.00066	0.00103
ICP-50-New	LLS5		1	3/19/2009 18:21	-0.00106	0.00004	0.00047	0.00011	0.00065
ICP-50-New	ICB		1	3/19/2009 18:25	0.00274	0.00106	0.00095	0.00062	0.00168
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.0163	0.00129	-0.01259	0.04679	184.9837
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	4.71325	4.69318	4.89931	0.02655	180.99404
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.48026	0.47431	0.50619	0.02753	92.45737
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	4.18435	597.8613	0.85236	1.00559	1.28396
ICP-50-New	S09T001773		400	3/19/2009 18:44	1.9233	591.2301	0.30213	-0.02113	2.00998
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	1.26333	591.8529	0.88998	0.22867	2.42726
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	3896.605	4503.917	3981.327	-0.45643	3867.0126
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	-0.02499	572.5	-9.88208	3956.69932	3.64159
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	5.03576	4.96967	5.07162	4.97175	5.03654
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	0.00272	0.00131	-0.00618	-0.00222	0.01048
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.00219	-0.00035	-0.00033	-0.00052	0.004
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.21972	5.23285	5.14853	0.00025	5.15575
ICP-50-New	CCB		1	3/19/2009 19:16	-0.00104	0.00285	0.00049	0.00019	0.01201
ICP-50-New	S09T001751		1	3/19/2009 19:19	0.00162	0.00223	0.00124	0.00057	0.00414
ICP-50-New	S09T001761		1	3/19/2009 19:21	-0.00263	0.00404	0.00133	0.00093	0.00104
ICP-50-New	S09T001782		400	3/19/2009 19:24	1.66608	602.6024	0.51157	0.03088	2.73266
ICP-50-New	S09T001794		400	3/19/2009 19:28	0.82426	611.3	0.83442	0.1191	2.21738
ICP-50-New	S09T001806		400	3/19/2009 19:31	1.43904	613.7502	0.14934	-0.04832	2.42424
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.0129	0.00307	-0.0111	0.05428	185.19511
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	4.73319	4.6595	5.06648	0.02895	181.68947
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.48539	0.4836	0.5113	0.02979	93.58911
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	5.0268	4.97069	5.03921	4.94109	5.00669
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	0.00382	-0.0007	-0.00639	-0.00154	0.01077
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	-0.00004	0.00009	0.00097	0.00035	0.00516
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.19049	5.20416	5.2386	-0.00063	5.15851
ICP-50-New	LLS1		1	3/19/2009 20:08	0.00492	0.0214	0.00151	0.0003	0.05446
ICP-50-New	LLS2		1	3/19/2009 20:12	0.04288	-0.00174	0.01948	0.00057	0.00027
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00108	-0.00024	0.00056	0.10033	0.00026
ICP-50-New	LLS4		1	3/19/2009 20:33	0.00322	-0.00014	0.00011	0.00029	-0.00155
ICP-50-New	LLS5		1	3/19/2009 20:35	0.01006	0.00038	0.0007	0.00022	0.00181
ICP-50-New	CCB		1	3/19/2009 20:41	0.00106	0.00486	0.00122	0.00052	0.01226

Method	Sample Id1	Sample Id2	Volume	Save date	K	La	Li	Mg	Mn
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.03449	0.00001	-0.00077	0.0069	-0.00026
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	3.72051	0.00017	-0.00052	-0.00393	0.00065
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	3.92752	-0.00053	-0.00043	-0.0005	0.0002
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.07478	0.00109	-0.00052	0.00862	0.00012
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	5.08744	4.95288	5.20583	4.92651	4.91012
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	0.07426	-0.0014	-0.00017	0.10557	0.00087
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.02873	-0.00298	-0.00043	-0.00733	0.00238
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	5.50314	5.06136	5.43146	5.10766	5.09139
ICP-50-New	LLS1		1	3/19/2009 18:04	0.64153	0.01119	0.0224	0.20274	0.02092
ICP-50-New	LLS2		1	3/19/2009 18:07	-0.02229	-0.00051	-0.00042	-0.00806	0.00009
ICP-50-New	LLS3		1	3/19/2009 18:15	0.18922	0.00032	-0.00042	-0.00786	-0.00012
ICP-50-New	LLS4		1	3/19/2009 18:18	0.03894	-0.00003	-0.00042	-0.00498	0.00003
ICP-50-New	LLS5		1	3/19/2009 18:21	0.10016	0.00004	-0.00033	-0.00658	0.00008
ICP-50-New	ICB		1	3/19/2009 18:25	0.15026	0.00039	-0.00008	0.00412	-0.00006
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	-0.05572	-0.00244	0.0005	187.4898	0.00845
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	0.11636	-0.00486	0.95602	185.31185	4.62176
ICP-50-New	ICSAB		1	3/19/2009 18:36	-0.01115	-0.00207	-0.00017	237.85944	0.469
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	1880.8	-0.54742	-0.49962	-13.20832	0.15226
ICP-50-New	S09T001773		400	3/19/2009 18:44	1493.597	0.53781	0.06662	5.1299	0.28326
ICP-50-New	S09T001773_D		400	3/19/2009 18:49	1567.068	0.58994	0	-0.68824	0.2285
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	5164.155	3891.109	3840.056	3795.10079	3909.3212
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	1498.849	25.55014	0.433	60.05092	5.44256
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	5.13081	5.0242	5.20901	4.92078	4.89723
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	0.06638	-0.00106	-0.00033	0.0994	0.0011
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	-0.02231	-0.00087	-0.00025	-0.00595	0.00277
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.01386	5.08565	5.16721	5.09208	5.15281
ICP-50-New	CCB		1	3/19/2009 19:16	0.05001	0.00063	-0.00033	-0.00196	0.00067
ICP-50-New	S09T001751		1	3/19/2009 19:19	0.1224	-0.00027	-0.00033	0.00872	0.00102
ICP-50-New	S09T001761		1	3/19/2009 19:21	0.31721	0.0009	0.00167	0.01251	0.00001
ICP-50-New	S09T001782		400	3/19/2009 19:24	1495.796	0.14824	-0.06662	-1.18945	0.21596
ICP-50-New	S09T001794		400	3/19/2009 19:28	1593.771	0.40377	0.03331	-0.12877	0.23028
ICP-50-New	S09T001806		400	3/19/2009 19:31	1526.977	0.87853	0.03331	7.1081	0.22606
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.13916	-0.00376	0.00025	189.05062	0.00815
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.02735	-0.00654	0.96684	187.82202	4.61137
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.06683	-0.00232	-0.00025	239.83729	0.47413
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	5.0139	5.00969	5.14564	4.87634	4.89342
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	0.07195	-0.00296	-0.00042	0.09372	0.00035
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	0.11681	-0.00017	-0.00042	-0.0018	0.00287
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.04722	5.1449	5.37097	5.14963	5.13869
ICP-50-New	LLS1		1	3/19/2009 20:08	0.67645	0.01128	0.02173	0.20306	0.021
ICP-50-New	LLS2		1	3/19/2009 20:12	0.03933	0	-0.00008	0.00891	-0.00008
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00565	0.00143	-0.00016	-0.00506	0.00012
ICP-50-New	LLS4		1	3/19/2009 20:33	0.10123	-0.00047	-0.00041	-0.00387	0.00015
ICP-50-New	LLS5		1	3/19/2009 20:35	0.09	0.00133	-0.00025	-0.00086	0.00038
ICP-50-New	CCB		1	3/19/2009 20:41	0.135	0.00109	-0.00033	0.00752	0.00029

Fax sent by . 3023131334 03-23-09 08:57 pm Page 002

Method report ICP-50-New

Default measurement conditions

Flush time	10.0	**Rinse time**	30.0
Integration time	5.0		
Default condition name	ICP26364		
RFPower setting	1150	**Analysis pump rate**	100
Nebulizer type	Noordermeer V-groove	**Nebulizer pumped**	True

Pump conditions

Idle pump speed	100	**Rabbit pump time**	30
Tubing type	Tygon-Orange	**Rabbit pump speed**	100
Pump off during sampler positioning	False		

Line calibration information

Analyte	Reporting name	C0	C1	C2	C3	Correlation coefficient	Low limit	High limit	Date of last re-gression
Ag 328.068	Ag	0.0068102	0.0005522	0.0	0	1.0000	-12.333	3609.667	3/19/2009 2:05:31 PM
Al 308.215	Al	-0.1018	0.0013882	0.0	0	1.0000	73.333	7277.000	3/19/2009 2:05:31 PM
As 193.696	As	-0.0016947	0.0016947	0.0	0	1.0000	1.000	5901.667	3/19/2009 2:05:31 PM
B 249.678	B	-0.00364	0.00156	0.0	0	1.0000	2.333	6412.667	3/19/2009 2:05:31 PM
Ba 455.403	Ba	0.0002811	0.0001205	0.0	0	1.0000	-2.333	83018.333	3/19/2009 2:05:31 PM
Be 313.042	Be	-0.0035089	0.0001754	0.0	0	1.0000	20.000	57018.667	3/19/2009 2:05:31 PM
Bi 223.061	Bi	0.0107565	0.0035855	0.0	0	1.0000	-3.000	2786.000	3/19/2009 2:05:31 PM
Ca 317.933	Ca	-0.0043068	0.0005383	0.0	0	1.0000	8.000	18583.333	3/19/2009 2:05:32 PM
Cd 226.502	Cd	0.0001295	0.0003886	0.0	0	1.0000	-0.333	25730.667	3/19/2009 2:05:32 PM
Ce 413.765	Ce	-0.0030962	0.0010321	0.0	0	1.0000	3.000	9692.333	3/19/2009 2:05:32 PM
Co 228.616	Co	0.002117	0.0015877	0.0	0	1.0000	-1.333	6297.000	3/19/2009 2:05:32 PM
Cr 267.716	Cr	-0.0014766	0.0004922	0.0	0	1.0000	3.000	20320.333	3/19/2009 2:05:32 PM
Cu 324.754	Cu	-0.0030528	0.0006542	0.0	0	1.0000	4.667	15291.000	3/19/2009 2:05:32 PM
Eu 393.048	Eu	0.0003487	0.0001046	0.0	0	1.0000	-3.333	95593.000	3/19/2009 2:05:32 PM
Fe 259.940	Fe	-0.0014202	0.0003873	0.0	0	1.0000	3.667	25821.667	3/19/2009 2:05:32 PM
K 766.491	K	-0.0287522	0.0172513	0.0	0	1.0000	1.667	581.333	3/19/2009 2:05:33 PM
La 408.672	La	0.000324	0.0001389	0.0	0	1.0000	-2.333	72017.333	3/19/2009 2:05:33 PM
Li 670.784	Li	-0.0003442	0.0002582	0.0	0	1.0000	1.333	38733.000	3/19/2009 2:05:33 PM

Fax sent by 3035731334 09/18/2009 10:41 Page 002
[TX/RX NO 5538] 001
THU 20:57
RPT-40709 Rev. 1

Method report ICP-50-New

Mg 279.079	Mg	-0.0018154	0.0013615	0.0	0	1.0000	1.333	7346.000	3/19/2009 2:05:33 PM
Mn 257.610	Mn	-0.0001773	0.0001773	0.0	0	1.0000	1.000	56405.667	3/19/2009 2:05:33 PM
Mo 202.030	Mo	-0.00199	0.0014925	0.0	0	1.0000	1.333	6701.667	3/19/2009 2:05:33 PM
Na 588.995	Na	-0.0337113	0.004597	0.0	0	1.0000	7.333	2182.667	3/19/2009 2:05:33 PM
Nb 271.662	Nb	0.0	0.0018173	0.0	0	1.0000	0.000	5502.667	3/19/2009 2:05:34 PM
Nd 401.225	Nd	-0.0013361	0.0002358	0.0	0	1.0000	5.667	42416.333	3/19/2009 2:05:34 PM
Ni 231.604	Ni	0.0055324	0.0007216	0.0	0	1.0000	-7.667	13850.000	3/19/2009 2:05:34 PM
P 178.287	P	-0.0139059	0.0012642	0.0	0	1.0000	11.000	7921.333	3/19/2009 2:05:34 PM
Pb 220.353	Pb	0.0092708	0.000959	0.0	0	1.0000	-9.667	10417.333	3/19/2009 2:05:34 PM
Pd 363.470	Pd	-1.2702182	0.0003958	0.0	0	1.0000	3209.333	28475.333	3/19/2009 2:05:34 PM
Pr 390.844	Pr	0.002943	0.0001104	0.0	0	1.0000	-26.667	90584.000	3/19/2009 2:05:34 PM
Rb 780.023	Rb	-4.1701073	0.0247729	0.0	0	1.0000	168.333	572.000	3/19/2009 2:05:35 PM
Rh 369.236	Rh	-0.0635398	0.000307	0.0	0	1.0000	207.000	32785.000	3/19/2009 2:05:35 PM
Ru 240.272	Ru	0.0044164	0.0003011	0.0	0	1.0000	-14.667	33195.000	3/19/2009 2:05:35 PM
S 182.040	S	-0.013668	0.0006834	0.0	0	1.0000	20.000	14652.667	3/19/2009 2:05:35 PM
Sb 206.838	Sb	-0.0154178	0.0018501	0.0	0	1.0000	8.333	5413.333	3/19/2009 2:05:35 PM
Se 196.026	Se	-0.0300068	0.0029039	0.0	0	1.0000	10.333	3454.000	3/19/2009 2:05:35 PM
Si 251.611	Si	-0.0018372	0.0007874	0.0	0	1.0000	2.333	12703.000	3/19/2009 2:05:35 PM
Sm 442.435	Sm	0.0003681	0.0011043	0.0	0	1.0000	-0.333	9055.000	3/19/2009 2:05:36 PM
Sn 189.989	Sn	-0.0144191	0.0020599	0.0	0	1.0000	7.000	4861.667	3/19/2009 2:05:36 PM
Sr 421.552	Sr	0.0	0.0001493	0.0	0	1.0000	0.000	66974.667	3/19/2009 2:05:36 PM
Ta 240.063	Ta	0.0060364	0.0011318	0.0	0	1.0000	-5.333	8830.000	3/19/2009 2:05:36 PM
Te 214.275	Te	0.022177	0.0055443	0.0	0	1.0000	-4.000	1799.667	3/19/2009 2:05:36 PM
Th 283.730	Th	-0.022579	0.0015053	0.0	0	1.0000	15.000	6658.333	3/19/2009 2:05:36 PM
Ti 334.941	Ti	-0.0022674	0.0006802	0.0	0	1.0000	3.333	14704.667	3/19/2009 2:05:36 PM
Tl 190.864	Tl	-0.04306	0.0027485	0.0	0	1.0000	15.667	3654.000	3/19/2009 2:05:36 PM
U 385.958	U	0.0008683	0.0004341	0.0	0	1.0000	-2.000	23032.000	3/19/2009 2:05:37 PM
V 292.402	V	-0.0021361	0.0009155	0.0	0	1.0000	2.333	10925.667	3/19/2009 2:05:37 PM
W 220.448	W	-0.0060168	0.0036101	0.0	0	1.0000	1.667	2771.667	3/19/2009 2:05:37 PM
Y 371.030	Y	0.0003331	0.0003331	0.0	0	1.0000	-1.000	30022.000	3/19/2009 2:05:37 PM
Zn 213.856	Zn	-0.0059497	0.0004057	0.0	0	1.0000	14.667	24665.667	3/19/2009 2:05:37 PM
Zr 339.198	Zr	-0.0015297	0.0011473	0.0	0	1.0000	1.333	8717.667	3/19/2009 2:05:39 PM

Fax sent by 3033373334 03-13-09 08:07 Pg: 4/17
Comm ec 4805
[TX/RX NO 5538] 2009 THU 20:57 002
RRD RPT-40709 Rev.1

Method	Sample Id1	Sample Id2	Volume	Save date	Ag	Al	As	B	Ba
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.00031	-0.00159	0.01394	0.00568	-0.00014
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	0.00207	15.57066	0.00889	0.02532	0.00078
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	0.00007	15.91566	0.01365	0.02807	0.00078
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.00067	0.008	0.00319	-0.00425	0.00006
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	4.73945	4.94793	5.16553	0.00205	4.92851
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	0.00011	0.01213	0.1729	5.19154	0.00183
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.01388	0.01605	0.0108	0.00272	-0.00091
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	0.97346	4.99998	5.13144	5.18222	5.08933
ICP-50-New	LLS1		1	3/19/2009 18:04	0.02076	0.10083	0.2202	-0.00529	0.01014
ICP-50-New	LLS2		1	3/19/2009 18:07	-0.0002	0.00539	-0.0156	0.10086	-0.00003
ICP-50-New	LLS3		1	3/19/2009 18:15	-0.00151	0.00507	0.00559	-0.00402	0
ICP-50-New	LLS4		1	3/19/2009 18:18	0.00033	0.00793	-0.00595	-0.00305	-0.00004
ICP-50-New	LLS5		1	3/19/2009 18:21	0.00067	0.00901	0.02744	0.00286	0.00013
ICP-50-New	ICB		1	3/19/2009 18:25	0.00069	0.00632	-0.01036	0.00023	0.00005
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.00571	196.8473	0.01951	-0.0019	0.00082
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	0.97652	193.1778	4.88317	-0.00243	0.00274
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.96513	249.8693	-0.15501	-0.00718	0.46586
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	-1.49525	6269.707	-3.22891	6.1226	0.07105
ICP-50-New	S09T001773		400	3/19/2009 18:44	1.32705	6250.083	-0.89294	9.65492	0.39325
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	1.09967	6279.658	-4.54598	12.70858	0.36327
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	740.9316	10157.83	4104.262	3961.39505	3936.3369
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	13.54498	6242.849	272.4909	11.35541	-1.48017
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	4.71216	4.97815	5.20503	0.00443	5.03173
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	0.0011	0.00722	0.18263	5.19413	0.00184
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.01687	0.01135	0.01209	0.00849	-0.00055
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	0.97829	5.01708	5.12954	5.20318	5.1297
ICP-50-New	CCB		1	3/19/2009 19:16	0.003	0.00651	-0.03542	0.00266	0.00008
ICP-50-New	S09T001751		1	3/19/2009 19:19	0.00129	0.00586	-0.02159	-0.00149	0.00045
ICP-50-New	S09T001761		1	3/19/2009 19:21	-0.00101	0.01538	0.01123	1.48047	0.00004
ICP-50-New	S09T001762		400	3/19/2009 19:24	1.20742	6474.18	4.55382	14.3071	0.36134
ICP-50-New	S09T001794		400	3/19/2009 19:28	0.9707	6507.094	-9.36778	13.08787	0.38133
ICP-50-New	S09T001806		400	3/19/2009 19:31	1.3987	6525.283	-12.81703	14.48549	0.33394
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.00436	196.7584	0.08197	-0.0135	0.0006
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.97128	195.3931	4.93712	-0.00001	0.00262
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.96915	250.7324	-0.08075	0.00421	0.47345
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	4.71418	4.9564	5.13713	0.00211	5.01598
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	0.0003	0.01159	0.16313	5.20058	0.0017
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	0.0165	0.01219	-0.00703	0.00301	-0.00061
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	0.97289	5.06081	5.18202	5.22237	5.19058
ICP-50-New	LLS1		1	3/19/2009 20:08	0.01984	0.10074	0.20547	-0.00554	0.01008
ICP-50-New	LLS2		1	3/19/2009 20:12	0.00121	0.01127	0.02064	0.1003	0.00017
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00045	0.01268	-0.0166	-0.00569	0.00004
ICP-50-New	LLS4		1	3/19/2009 20:33	-0.00018	0.00099	0.01435	-0.00355	-0.00004
ICP-50-New	LLS5		1	3/19/2009 20:35	0.0018	0.01099	0.01645	0.0059	0.00013
ICP-50-New	CCB		1	3/19/2009 20:41	0.00077	0.00037	-0.01584	-0.00206	0

Fax sent by : 3033313534 Conn 80 4086 386 Apr-23-09 20:30 Pg: 8/12

Method	Sample Id1	Sample Id2	Volume	Save date	Be	Bi	Ca	Cd	Ce
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.00019	-0.04529	0.06087	0.00064	-0.00214
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	0.00036	-0.01114	0.00932	0.00322	-0.00201
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	0.00041	-0.02611	0.0043	0.00101	-0.00348
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.00029	0.05164	-0.01549	-0.00075	0.00356
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	5.01721	4.92931	5.46702	4.96154	5.18319
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	-0.00245	-0.01758	-0.04099	0.00404	-0.06659
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.00033	-0.07233	-0.032	0.00061	-0.00302
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	5.05577	4.99861	4.82686	5.10248	-0.00255
ICP-50-New	LLS1		1	3/19/2009 18:04	0.00117	0.22475	0.18522	0.01232	0.21114
ICP-50-New	LLS2		1	3/19/2009 18:07	0.00022	0.0246	-0.02834	-0.00185	-0.00474
ICP-50-New	LLS3		1	3/19/2009 18:15	0.00037	0.03345	-0.01962	0.00005	0.00252
ICP-50-New	LLS4		1	3/19/2009 18:18	0.00036	-0.07904	-0.03435	-0.00109	-0.00221
ICP-50-New	LLS5		1	3/19/2009 18:21	0.00025	0.01109	-0.03151	0.00076	-0.0015
ICP-50-New	ICB		1	3/19/2009 18:25	0.00022	-0.02992	-0.00151	0.00073	0.00191
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.00046	-0.07402	193.8306	-0.02045	-0.00958
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	0.01409	-0.33237	189.8651	0.16963	-0.06788
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.45814	-0.0481	237.8771	0.93207	-0.0027
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	0.71842	-49.43828	13.67888	0.48407	-15.15271
ICP-50-New	S09T001773		400	3/19/2009 18:44	0.15874	6.56365	8.43843	0.76711	-0.45666
ICP-50-New	S09T001773_D		400	3/19/2009 18:46	0.16282	-12.58577	9.02254	0.17051	1.54285
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	3820.805	3984.44	3683.721	3803.93008	3888.326
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	-3.70266	27.63445	544.0906	3.41729	3996.4354
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	5.06224	4.96867	5.37788	4.98287	5.24078
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	-0.00236	-0.02773	-0.04142	0.00495	-0.05359
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.00016	0.0041	-0.02083	-0.00013	-0.00703
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.09822	5.18061	4.86393	5.15963	-0.00684
ICP-50-New	CCB		1	3/19/2009 19:16	0.00019	-0.0475	-0.00686	-0.00147	-0.00938
ICP-50-New	S09T001761		1	3/19/2009 19:19	0.00035	0.04462	0.3213	-0.00098	-0.00415
ICP-50-New	S09T001761		1	3/19/2009 19:21	0.00022	-0.07299	0.00696	-0.00116	0.00231
ICP-50-New	S09T001762		400	3/19/2009 19:24	0.16623	-14.82974	4.459	0.84504	-4.05225
ICP-50-New	S09T001764		400	3/19/2009 19:28	0.18541	-27.49315	5.47452	1.70017	0.41858
ICP-50-New	S09T001806		400	3/19/2009 19:31	0.14153	14.00091	7.23907	1.25359	-1.57624
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.0006	-0.10852	191.8332	-0.02134	0.00485
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.01422	-0.20203	187.1863	0.16823	-0.06434
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.46715	-0.08641	239.158	0.94947	0.00653
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	5.06213	5.00208	5.36215	4.96842	5.23365
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	-0.00243	-0.0336	-0.04303	0.00314	-0.05235
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	0.00022	0.02581	-0.01976	0.00054	-0.00742
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.12649	5.1794	4.80529	5.14621	-0.01081
ICP-50-New	LLS1		1	3/19/2009 20:08	0.00133	0.14536	0.18452	0.01031	0.20587
ICP-50-New	LLS2		1	3/19/2009 20:12	0.00021	-0.03825	-0.02886	-0.00234	-0.00525
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00019	0.03044	-0.01896	0.00021	0.00351
ICP-50-New	LLS4		1	3/19/2009 20:33	0.00013	-0.00628	-0.03792	-0.00175	-0.00121
ICP-50-New	LLS5		1	3/19/2009 20:35	0.00007	0.0218	-0.02886	0.00044	0.00159
ICP-50-New	CCB		1	3/19/2009 20:41	0.00011	0.0224	-0.00368	0.00034	0.00292

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Method	Sample Id1	Sample Id2	Volume	Save date	Co	Cr	Cu	Eu	Fe
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.00105	0.00062	0.00001	0.00001	0.00219
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	-0.00064	1.49402	0.00126	0.00022	0.01613
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	0.00471	1.49466	0.00206	0.00074	0.00231
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.00527	0.00094	0.00033	0.00059	0.00168
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	5.0288	4.99356	4.96653	4.84105	5.0437
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	0.00235	0.00088	-0.00622	-0.00286	0.00853
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.00481	-0.00057	0.00113	0.00046	0.00206
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	5.15787	5.15419	5.12748	-0.00043	5.10773
ICP-50-New	LLS1		1	3/19/2009 18:04	-0.00049	0.02164	0.00088	0.00049	0.05311
ICP-50-New	LLS2		1	3/19/2009 18:07	0.05032	-0.00053	0.02035	0.00012	0.00001
ICP-50-New	LLS3		1	3/19/2009 18:15	-0.00154	-0.00017	0.00103	0.09719	0
ICP-50-New	LLS4		1	3/19/2009 18:18	0.00268	0.00017	0.00007	0.00066	0.00103
ICP-50-New	LLS5		1	3/19/2009 18:21	-0.00106	0.00004	0.00047	0.00011	0.00065
ICP-50-New	ICB		1	3/19/2009 18:25	0.00274	0.00106	0.00095	0.00062	0.00168
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.0163	0.00129	-0.01259	0.04679	184.9837
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	4.71325	4.69318	4.89931	0.02655	180.99404
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.48026	0.47431	0.50619	0.02753	92.45737
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	4.18435	597.8613	0.85236	1.00559	1.28396
ICP-50-New	S09T001773		400	3/19/2009 18:44	1.9233	591.2301	0.30213	-0.02113	2.00998
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	1.26333	591.8529	0.88998	0.22867	2.42726
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	3896.605	4503.917	3981.327	-0.45643	3867.0126
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	-0.02499	572.5	-9.88208	3956.69932	3.64159
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	5.03576	4.96967	5.07162	4.97175	5.03654
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	0.00272	0.00131	-0.00618	-0.00222	0.01048
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.00219	-0.00035	-0.00033	-0.00052	0.004
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.21972	5.23285	5.14853	0.00025	5.15575
ICP-50-New	CCB		1	3/19/2009 19:16	-0.00104	0.00285	0.00049	0.00019	0.01201
ICP-50-New	S09T001751		1	3/19/2009 19:19	0.00162	0.00223	0.00124	0.00057	0.00414
ICP-50-New	S09T001761		1	3/19/2009 19:21	-0.00263	0.00404	0.00133	0.00093	0.00104
ICP-50-New	S09T001782		400	3/19/2009 19:24	1.66608	602.6024	0.51157	0.03088	2.73266
ICP-50-New	S09T001794		400	3/19/2009 19:28	0.82426	611.3	0.83442	0.1191	2.21738
ICP-50-New	S09T001806		400	3/19/2009 19:31	1.43904	613.7502	0.14934	-0.04832	2.42424
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.0129	0.00307	-0.0111	0.05428	185.19511
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	4.73319	4.6595	5.06648	0.02895	181.68947
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.48539	0.4836	0.5113	0.02979	93.58911
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	5.0268	4.97069	5.03921	4.94109	5.00669
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	0.00382	-0.0007	-0.00639	-0.00154	0.01077
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	-0.00004	0.00009	0.00097	0.00035	0.00516
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.19049	5.20416	5.2386	-0.00063	5.15851
ICP-50-New	LLS1		1	3/19/2009 20:08	0.00492	0.0214	0.00151	0.0003	0.05446
ICP-50-New	LLS2		1	3/19/2009 20:12	0.04288	-0.00174	0.01948	0.00057	0.00027
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00108	-0.00024	0.00056	0.10033	0.00026
ICP-50-New	LLS4		1	3/19/2009 20:33	0.00322	-0.00014	0.00011	0.00029	-0.00155
ICP-50-New	LLS5		1	3/19/2009 20:35	0.01006	0.00038	0.0007	0.00022	0.00181
ICP-50-New	CCB		1	3/19/2009 20:41	0.00106	0.00486	0.00122	0.00052	0.01226

Fax sent by : 3853153534 03-17-09 19:57 Pg: 3/4

Method	Sample Id1	Sample Id2	Volume	Save date	K	La	Li	Mg	Mn
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.03449	0.00001	-0.00077	0.0069	-0.00026
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	3.72051	0.00017	-0.00052	-0.00393	0.00065
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	3.92752	-0.00053	-0.00043	-0.0005	0.0002
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.07478	0.00109	-0.00052	0.00862	0.00012
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	5.08744	4.95288	5.20583	4.92651	4.91012
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	0.07426	-0.0014	-0.00017	0.10557	0.00087
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.02873	-0.00298	-0.00043	-0.00733	0.00238
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	5.50314	5.06136	5.43146	5.10766	5.09139
ICP-50-New	LLS1		1	3/19/2009 18:04	0.64153	0.01119	0.0224	0.20274	0.02092
ICP-50-New	LLS2		1	3/19/2009 18:07	-0.02229	-0.00051	-0.00042	-0.00806	0.00009
ICP-50-New	LLS3		1	3/19/2009 18:15	0.18922	0.00032	-0.00042	-0.00786	-0.00012
ICP-50-New	LLS4		1	3/19/2009 18:18	0.03894	-0.00003	-0.00042	-0.00498	0.00003
ICP-50-New	LLS5		1	3/19/2009 18:21	0.10016	0.00004	-0.00033	-0.00658	0.00008
ICP-50-New	ICB		1	3/19/2009 18:25	0.15026	0.00039	-0.00008	0.00412	-0.00006
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	-0.05572	-0.00244	0.0005	187.4898	0.00845
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	0.11636	-0.00486	0.95602	185.31185	4.62176
ICP-50-New	ICSAB		1	3/19/2009 18:36	-0.01115	-0.00207	-0.00017	237.85944	0.469
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	1880.8	-0.54742	-0.49962	-13.20832	0.15226
ICP-50-New	S09T001773		400	3/19/2009 18:44	1493.597	0.53781	0.06662	5.1299	0.28326
ICP-50-New	S09T001773_D		400	3/19/2009 18:49	1567.068	0.58994	0	-0.68824	0.2285
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	5164.155	3891.109	3840.056	3795.10079	3909.3212
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	1498.849	25.55014	0.433	60.05092	5.44256
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	5.13081	5.0242	5.20901	4.92078	4.89723
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	0.06638	-0.00106	-0.00033	0.0994	0.0011
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	-0.02231	-0.00087	-0.00025	-0.00595	0.00277
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.01386	5.08565	5.16721	5.09208	5.15281
ICP-50-New	CCB		1	3/19/2009 19:16	0.05001	0.00063	-0.00033	-0.00196	0.00067
ICP-50-New	S09T001751		1	3/19/2009 19:19	0.1224	-0.00027	-0.00033	0.00872	0.00102
ICP-50-New	S09T001761		1	3/19/2009 19:21	0.31721	0.0009	0.00167	0.01251	0.00001
ICP-50-New	S09T001782		400	3/19/2009 19:24	1495.796	0.14824	-0.06662	-1.18945	0.21596
ICP-50-New	S09T001794		400	3/19/2009 19:28	1593.771	0.40377	0.03331	-0.12877	0.23028
ICP-50-New	S09T001806		400	3/19/2009 19:31	1526.977	0.87853	0.03331	7.1081	0.22606
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.13916	-0.00376	0.00025	189.05062	0.00815
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.02735	-0.00654	0.96684	187.82202	4.61137
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.06683	-0.00232	-0.00025	239.83729	0.47413
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	5.0139	5.00969	5.14564	4.87634	4.89342
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	0.07195	-0.00296	-0.00042	0.09372	0.00035
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	0.11681	-0.00017	-0.00042	-0.0018	0.00287
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.04722	5.1449	5.37097	5.14963	5.13869
ICP-50-New	LLS1		1	3/19/2009 20:08	0.67645	0.01128	0.02173	0.20306	0.021
ICP-50-New	LLS2		1	3/19/2009 20:12	0.03933	0	-0.00008	0.00891	-0.00008
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00565	0.00143	-0.00016	-0.00506	0.00012
ICP-50-New	LLS4		1	3/19/2009 20:33	0.10123	-0.00047	-0.00041	-0.00387	0.00015
ICP-50-New	LLS5		1	3/19/2009 20:35	0.09	0.00133	-0.00025	-0.00086	0.00038
ICP-50-New	CCB		1	3/19/2009 20:41	0.135	0.00109	-0.00033	0.00752	0.00029

[TX/RX NO 5538] 008 MAR-13-2009 THU 20:57 RPRPT-4070 Rev. 1

Fax sent by : 3053737334 Comm Dc 4883 03-13-09 20:31 Pg: 2/12

Method	Sample Id1	Sample Id2	Volume	Save date	Mo	Na	Nb	Nd	Ni
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.00064	0.01226	0.00064	0.00018	0.00215
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	0.07532	220.9684	-0.00272	-0.00016	0.02415
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	0.07744	230.1272	0.00592	0.00223	0.02337
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	-0.00573	0.00919	0.0105	0.00246	-0.00101
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	0.00424	5.11952	0.02023	4.90418	4.93109
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	5.07222	0.02605	5.2522	0.00508	0.00127
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	-0.00113	0.02758	-0.00212	-0.00088	0.00523
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	4.94591	5.38155	-0.00779	0.02302	5.08709
ICP-50-New	LLS1		1	3/19/2009 18:04	0.00208	0.21336	0.00486	0.09959	0.04728
ICP-50-New	LLS2		1	3/19/2009 18:07	0.10072	0	-0.00189	-0.00016	0.00928
ICP-50-New	LLS3		1	3/19/2009 18:15	0.00196	-0.00146	0.00124	0.00053	0.00841
ICP-50-New	LLS4		1	3/19/2009 18:18	-0.0038	0.00146	-0.00541	0.00008	0.005
ICP-50-New	LLS5		1	3/19/2009 18:21	-0.00085	0.00146	0.1069	-0.00132	0.00126
ICP-50-New	ICB		1	3/19/2009 18:25	-0.00119	0.00438	0.01278	0.00212	0.01524
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.01257	175.3442	-0.01413	0.01237	0.00691
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	4.54382	174.8999	4.77016	-0.01653	4.69139
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.00425	0.01461	-0.05643	0.00922	0.9515
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	23.95142	95177.55	1.86302	-0.30612	23.40644
ICP-50-New	S09T001773		400	3/19/2009 18:44	30.86062	85880.46	1.70443	-0.72175	10.90031
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	28.25584	88191.73	3.09442	0.09616	8.32552
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	3868.953	89841.3	14.727	3892.01745	3851.195
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	32.8029	88232.06	4015.887	3911.20041	11.79502
ICP-50-New	CCV_1(Chil)		1	3/19/2009 19:02	-0.00372	5.01681	0.01663	5.04388	4.9293
ICP-50-New	CCV_2(Chil)		1	3/19/2009 19:05	5.07577	0.02046	5.27337	0.00561	-0.00041
ICP-50-New	CCV_3(Chil)		1	3/19/2009 19:08	-0.00146	0.02777	-0.0095	-0.00178	0.00637
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.02096	5.02411	0.00431	0.02177	5.17088
ICP-50-New	CCB		1	3/19/2009 19:16	-0.00288	-0.00292	-0.00565	-0.00102	0.02365
ICP-50-New	S09T001751		1	3/19/2009 19:19	-0.00142	0.52755	0.00519	0.00163	0.00572
ICP-50-New	S09T001761		1	3/19/2009 19:21	-0.00423	3.00453	0.01796	0.00348	0.01141
ICP-50-New	S09T001782		400	3/19/2009 19:24	28.29181	91002.78	-1.82648	-1.33389	3.64731
ICP-50-New	S09T001794		400	3/19/2009 19:28	30.03825	90891.71	-0.19206	-0.06297	8.99242
ICP-50-New	S09T001806		400	3/19/2009 19:31	29.50369	90889.96	-0.58091	-1.37163	13.1024
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	-0.00689	180.1096	0.01144	0.01154	-0.01279
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	4.57117	177.3462	4.82737	-0.02379	4.69253
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.00275	0.00731	-0.04842	0.01154	0.96799
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	0.00138	4.95251	0.01886	5.02417	4.95106
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	5.10536	0.02338	5.27423	0.00521	-0.00849
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	-0.00254	0.02192	-0.01076	-0.00229	0.00464
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.03499	5.21847	-0.00515	0.02154	5.1515
ICP-50-New	LLS1		1	3/19/2009 20:08	-0.00473	0.20915	0.00293	0.10173	0.05106
ICP-50-New	LLS2		1	3/19/2009 20:12	0.10054	0.01017	0.00062	-0.00114	0.00884
ICP-50-New	LLS3		1	3/19/2009 20:28	-0.00139	0.00581	-0.00093	-0.00141	0.00123
ICP-50-New	LLS4		1	3/19/2009 20:33	0	0.00726	-0.0081	-0.00059	0.00556
ICP-50-New	LLS5		1	3/19/2009 20:35	-0.00389	0.00726	0.09963	-0.00039	0.00657
ICP-50-New	CCB		1	3/19/2009 20:41	0.00086	-0.00436	0.00308	-0.00007	0.01638

RRP-RPT-40709 Rev. 1 [TX/RX NO 5538] 009 MAR 19 2009 THU 20:57

Fax Sent by : 5093737334 Conn Co 4663 03-12-09 20:31 Pg: 3/13

Method	Sample Id1	Sample Id2	Volume	Save date	Mo	Na	Nb	Nd	Ni
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.00064	0.01226	0.00064	0.00018	0.00215
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	0.07532	220.9684	-0.00272	-0.00016	0.02415
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	0.07744	230.1272	0.00592	0.00223	0.02337
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	-0.00573	0.00919	0.0105	0.00246	-0.00101
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	0.00424	5.11952	0.02023	4.90418	4.93109
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	5.07222	0.02605	5.2522	0.00508	0.00127
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	-0.00113	0.02758	-0.00212	-0.00088	0.00523
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	4.94591	5.38155	-0.00779	0.02302	5.08709
ICP-50-New	LLS1		1	3/19/2009 18:04	0.00208	0.21336	0.00486	0.09959	0.04728
ICP-50-New	LLS2		1	3/19/2009 18:07	0.10072	0	-0.00189	-0.00016	0.00928
ICP-50-New	LLS3		1	3/19/2009 18:15	0.00196	-0.00146	0.00124	0.00053	0.00841
ICP-50-New	LLS4		1	3/19/2009 18:18	-0.0038	0.00146	-0.00541	0.00008	0.005
ICP-50-New	LLS5		1	3/19/2009 18:21	-0.00085	0.00146	0.1069	-0.00132	0.00126
ICP-50-New	ICB		1	3/19/2009 18:25	-0.00119	0.00438	0.01278	0.00212	0.01524
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.01257	175.3442	-0.01413	0.01237	0.00691
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	4.54382	174.8999	4.77016	-0.01653	4.69139
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.00425	0.01461	-0.05643	0.00922	0.9515
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	23.95142	95177.55	1.86302	-0.30612	23.40644
ICP-50-New	S09T001773		400	3/19/2009 18:44	30.86062	85880.46	1.70443	-0.72175	10.90031
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	28.25584	88191.73	3.09442	0.09616	8.32552
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	3868.953	89841.3	14.727	3892.01745	3851.195
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	32.8029	88232.06	4015.887	3911.20041	11.79502
ICP-50-New	CCV_1(Chil)		1	3/19/2009 19:02	-0.00372	5.01681	0.01663	5.04388	4.9293
ICP-50-New	CCV_2(Chil)		1	3/19/2009 19:05	5.07577	0.02046	5.27337	0.00561	-0.00041
ICP-50-New	CCV_3(Chil)		1	3/19/2009 19:08	-0.00146	0.02777	-0.0095	-0.00178	0.00637
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.02096	5.02411	0.00431	0.02177	5.17088
ICP-50-New	CCB		1	3/19/2009 19:16	-0.00288	-0.00292	-0.00565	-0.00102	0.02365
ICP-50-New	S09T001751		1	3/19/2009 19:19	-0.00142	0.52755	0.00519	0.00163	0.00572
ICP-50-New	S09T001761		1	3/19/2009 19:21	-0.00423	3.00453	0.01796	0.00348	0.01141
ICP-50-New	S09T001782		400	3/19/2009 19:24	28.29181	91002.78	-1.82648	-1.33389	3.64731
ICP-50-New	S09T001794		400	3/19/2009 19:28	30.03825	90891.71	-0.19206	-0.06297	8.99242
ICP-50-New	S09T001806		400	3/19/2009 19:31	29.50369	90889.96	-0.58091	-1.37163	13.1024
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	-0.00689	180.1096	0.01144	0.01154	-0.01279
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	4.57117	177.3462	4.82737	-0.02379	4.69253
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.00275	0.00731	-0.04842	0.01154	0.96799
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	0.00138	4.95251	0.01886	5.02417	4.95106
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	5.10536	0.02338	5.27423	0.00521	-0.00849
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	-0.00254	0.02192	-0.01076	-0.00229	0.00464
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.03499	5.21847	-0.00515	0.02154	5.1515
ICP-50-New	LLS1		1	3/19/2009 20:08	-0.00473	0.20915	0.00293	0.10173	0.05106
ICP-50-New	LLS2		1	3/19/2009 20:12	0.10054	0.01017	0.00062	-0.00114	0.00884
ICP-50-New	LLS3		1	3/19/2009 20:28	-0.00139	0.00581	-0.00093	-0.00141	0.00123
ICP-50-New	LLS4		1	3/19/2009 20:33	0	0.00726	-0.0081	-0.00059	0.00556
ICP-50-New	LLS5		1	3/19/2009 20:35	-0.00389	0.00726	0.09963	-0.00039	0.00657
ICP-50-New	CCB		1	3/19/2009 20:41	0.00086	-0.00436	0.00308	-0.00007	0.01638

DEC-03-2009 THU 20:57 [TX/RX NO 5538] 009
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Method	Sample Id1	Sample Id2	Volume	Save date	P	Pb	Pd	Pr	Rb
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.01006	0.01231	0.02161	-0.00197	-0.18158
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	2.57605	0.01652	0.03014	0.00095	-0.2226
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	2.65887	0.03167	-0.04057	0.00124	-0.2969
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.00747	0.03755	0.02396	0.00363	-0.07418
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	4.98198	5.16766	0.00378	4.90147	4.92604
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	-0.02962	-0.26525	-0.28673	-0.0018	-0.19999
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	-0.00779	0.03318	4.9555	0	-0.65239
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	5.03505	5.27097	-0.18189	0.00495	-0.51464
ICP-50-New	LLS1		1	3/19/2009 18:04	-0.00119	0.24174	0.00342	-0.00099	-0.27608
ICP-50-New	LLS2		1	3/19/2009 18:07	0.39177	0.0336	-0.00254	0.00098	-0.18508
ICP-50-New	LLS3		1	3/19/2009 18:15	0.00065	0.02313	-0.0076	0.09831	0.62757
ICP-50-New	LLS4		1	3/19/2009 18:18	-0.00703	0.02147	0.93357	-0.00059	-0.3055
ICP-50-New	LLS5		1	3/19/2009 18:21	-0.02013	0.02008	-0.03303	-0.0006	-0.42932
ICP-50-New	ICB		1	3/19/2009 18:25	0.0101	0.01813	0.03081	0.00127	0.05792
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.02305	-0.05862	-0.01781	-0.01111	-0.12458
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	1.01609	0.72026	-2.10334	-0.00986	0.02139
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.01419	0.9742	-0.04026	-0.01429	-0.60523
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	960.6601	15.27759	6.73714	-0.26885	-561.4327
ICP-50-New	S09T001773		400	3/19/2009 18:44	1024.244	6.72679	-1.27172	1.2873	-22.97924
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	1034.085	14.20483	-6.54897	0.25161	-244.2287
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	5021.633	4002.538	-76.95745	-28.25306	-211.9255
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	1022.407	-179.9783	3391.073	3858.59592	3777.1888
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	5.04574	5.19313	-0.08855	5.03709	4.50244
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	0.00416	-0.27675	-0.22329	0.00005	-0.51362
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.01293	0.03464	4.91159	0.00057	-0.34685
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.12244	5.3473	-0.13189	-0.00148	-0.76427
ICP-50-New	CCB		1	3/19/2009 19:16	0.02422	0.00388	-0.05756	0.00157	-0.4295
ICP-50-New	S09T001751		1	3/19/2009 19:19	-0.01082	0.00348	0.00355	0.00016	-0.26421
ICP-50-New	S09T001761		1	3/19/2009 19:21	-0.01883	0.0514	0.01478	0.0033	-0.07427
ICP-50-New	S09T001782		400	3/19/2009 19:24	1059.758	-0.31892	-25.84794	1.86257	-155.0749
ICP-50-New	S09T001794		400	3/19/2009 19:28	1067.91	-3.47852	-3.33934	1.09227	10.06057
ICP-50-New	S09T001806		400	3/19/2009 19:31	1084.199	3.71669	7.87371	2.73482	82.70153
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.02163	0.0038	-0.06997	-0.01542	-0.47911
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.99716	0.68542	-2.13322	-0.00974	-0.40171
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.03388	1.01459	-0.08818	-0.01497	-0.569
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	5.0024	5.175	-0.06866	5.01633	4.40359
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	-0.02558	-0.2733	-0.18303	-0.00301	-0.46408
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	0.00198	0.03902	4.98028	0.00153	-0.29736
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.07708	5.36006	-0.18407	0.00236	-0.68946
ICP-50-New	LLS1		1	3/19/2009 20:08	-0.03025	0.23389	-0.05018	0.0004	-0.46608
ICP-50-New	LLS2		1	3/19/2009 20:12	0.40855	0.01245	-0.03443	0.00216	-0.35835
ICP-50-New	LLS3		1	3/19/2009 20:28	-0.01764	0.02082	-0.06397	0.10425	0.85896
ICP-50-New	LLS4		1	3/19/2009 20:33	0.00986	0.02243	0.90811	0.00042	-0.33042
ICP-50-New	LLS5		1	3/19/2009 20:35	-0.02313	0.0356	-0.03232	0.00137	-0.3055
ICP-50-New	CCB		1	3/19/2009 20:41	-0.01591	0.026	-0.02798	0.00197	-0.24767

Method	Sample Id1	Sample Id2	Volume	Save date	Rh	Ru	S	Sb	Se
ICP-50-New	61 SCREEN		1	3/13/2009 14:22	-0.00219	0.0075	0.01067	-0.02566	-0.03992
ICP-50-New	94 SCREEN		1	3/13/2009 14:25	0.0049	0.00502	6.21411	-0.01543	-0.13861
ICP-50-New	73 SCREEN		1	3/13/2009 14:29	0.00015	0.00818	6.28621	-0.0217	-0.06516
ICP-50-New	51 SCREEN		1	3/13/2009 14:39	-0.00127	0.00776	-0.00168	-0.02132	-0.01092
ICP-50-New	ICV_1(Chill)		1	3/13/2009 17:27	0.03904	0.0067	0.02088	-0.01321	5.0742
ICP-50-New	ICV_2(Chill)		1	3/13/2009 17:34	-0.01292	-0.00512	5.23839	4.91892	-0.05857
ICP-50-New	ICV_3(Chill)		1	3/13/2009 17:37	5.10551	4.85918	0.03701	-0.01736	-0.03632
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	0.01973	0.0241	4.99951	4.94075	5.25366
ICP-50-New	LLS1		1	3/13/2009 18:04	0.00402	0.00386	-0.03315	-0.01314	0.17523
ICP-50-New	LLS2		1	3/13/2009 18:07	-0.0065	0.00662	0.19401	0.08225	-0.03693
ICP-50-New	LLS3		1	3/13/2009 18:15	-0.01066	0.00188	-0.02789	-0.02644	-0.05997
ICP-50-New	LLS4		1	3/13/2009 18:18	0.09431	0.09654	0.0044	-0.02434	-0.03868
ICP-50-New	LLS5		1	3/13/2009 18:21	-0.0029	-0.00073	-0.0233	-0.01918	-0.09363
ICP-50-New	ICB		1	3/13/2009 18:25	-0.00108	0.00155	0.00632	-0.02479	-0.0175
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	-0.00291	0.28654	-0.01545	-0.01595	-0.0212
ICP-50-New	ICSAB(INTA2)		1	3/13/2009 18:31	-0.00531	0.28032	0.00151	4.80332	4.86533
ICP-50-New	ICSAB		1	3/13/2009 18:36	-0.00813	0.1268	-0.01059	-0.04371	-0.01029
ICP-50-New	S09T001773_L		2000	3/13/2009 18:41	-11.72474	-7.73737	2457.297	-52.18753	-51.84368
ICP-50-New	S09T001773		400	3/13/2009 18:44	5.64584	3.89697	2484.846	-11.57994	-10.63457
ICP-50-New	S09T001773_D		400	3/13/2009 18:45	4.11679	5.62749	2497.021	-3.96713	-16.39381
ICP-50-New	S09T001773_A1		400	3/13/2009 18:49	24.2733	18.21854	6416.992	3839.66366	4339.1365
ICP-50-New	S09T001773_A2		400	3/13/2009 18:54	4013.285	3747.016	2441.035	-1.96859	-2.23132
ICP-50-New	CCV_1(Chil)		1	3/13/2009 19:02	0.04307	-0.00197	0.00634	-0.00488	5.15643
ICP-50-New	CCV_2(Chil)		1	3/13/2009 19:05	-0.0048	0.00503	5.2705	4.94986	-0.03814
ICP-50-New	CCV_3(Chil)		1	3/13/2009 19:08	5.00898	4.85306	0.03887	-0.00947	-0.05133
ICP-50-New	CCV_4(HS29&50)		1	3/13/2009 19:12	0.02245	0.01532	5.00567	4.99163	5.21176
ICP-50-New	CCB		1	3/13/2009 19:16	-0.00617	-0.00374	0.00346	-0.01907	-0.03047
ICP-50-New	S09T001751		1	3/13/2009 19:19	-0.00505	0.0041	0.03445	-0.00659	-0.03762
ICP-50-New	S09T001761		1	3/13/2009 19:21	0.00229	-0.00195	0.04787	-0.01448	-0.05904
ICP-50-New	S09T001782		400	3/13/2009 19:24	1.71982	5.72567	2560.014	-8.12187	-20.93875
ICP-50-New	S09T001794		400	3/13/2009 19:28	3.37659	7.73652	2592.38	-7.53298	-18.39453
ICP-50-New	S09T001806		400	3/13/2009 19:31	5.55007	6.86694	2601.162	-3.95159	-22.072
ICP-50-New	ICSA (INTA1)		1	3/13/2009 19:36	-0.02249	0.27503	-0.01215	-0.00792	0.03015
ICP-50-New	ICSAB(INTA2)		1	3/13/2009 19:38	-0.01233	0.28213	-0.02749	4.86192	5.09069
ICP-50-New	ICSAB		1	3/13/2009 19:42	-0.01604	0.13134	0.03645	-0.00623	-0.02059
ICP-50-New	CCV_1(Chil)		1	3/13/2009 19:46	0.03034	-0.0066	0.03341	-0.02259	5.04109
ICP-50-New	CCV_2(Chil)		1	3/13/2009 19:49	-0.02926	-0.0101	5.23136	4.94491	-0.04098
ICP-50-New	CCV_3(Chil)		1	3/13/2009 19:52	5.08438	4.91157	0.05458	-0.01415	-0.03973
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	0.01915	0.01508	5.09643	4.98076	5.22959
ICP-50-New	LLS1		1	3/19/2009 20:08	0.00131	0.00456	-0.00034	-0.01794	0.15992
ICP-50-New	LLS2		1	3/19/2009 20:12	-0.00054	0.00459	0.18759	0.0876	-0.0263
ICP-50-New	LLS3		1	3/19/2009 20:28	-0.00427	-0.00524	0.00161	0.00916	-0.00992
ICP-50-New	LLS4		1	3/19/2009 20:33	0.09544	0.09454	-0.01724	-0.0224	-0.03134
ICP-50-New	LLS5		1	3/19/2009 20:35	-0.00143	0.00508	-0.01288	-0.00843	-0.01633
ICP-50-New	CCB		1	3/19/2009 20:41	-0.00672	-0.00224	-0.00365	-0.00977	-0.04505

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Method	Sample Id1	Sample Id2	Volume	Save date	Si	Sm	Sn	Sr	Ta	
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	0.01052	0.00998	-0.02801	0.00005	0.00228	
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	0.02855	0.0063	0.01741	0.00025	0.00612	
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	0.02714	0.00297	-0.00419	0.00015	0.01473	
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.00347	0.00616	-0.02442	0.0001	0.00533	
ICP-50-New	ICV_1(Chill		1	3/19/2009 17:27	0.01403	4.98363	0.01121	4.99851	-0.04223	
ICP-50-New	ICV_2(Chill		1	3/19/2009 17:34	5.51631	0.00606	5.08052	0.00005	5.18746	
ICP-50-New	ICV_3(Chill		1	3/19/2009 17:37	0.05432	0.00002	0.0222	-0.0001	0.00864	
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	4.77624	0.00796	0.00316	5.19385	-0.05217	
ICP-50-New	LLS1		1	3/19/2009 18:04	0.00291	0.10873	0.00255	0.02044	-0.02396	
ICP-50-New	LLS2		1	3/19/2009 18:07	0.10041	0.00277	-0.01842	-0.00005	0.00043	
ICP-50-New	LLS3		1	3/19/2009 18:15	-0.0016	0.00111	-0.00942	-0.00005	0.00058	
ICP-50-New	LLS4		1	3/19/2009 18:18	-0.00246	0.00367	-0.00395	0.00005	-0.02945	
ICP-50-New	LLS5		1	3/19/2009 18:21	0.03218	0.00695	0.08726	0	0.99117	
ICP-50-New	ICB		1	3/19/2009 18:25	0.00213	0.00723	-0.03011	0	0.02029	
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	-0.01094	-0.03235	-0.03198	0.00174	0.11306	
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	0.17731	-0.01601	0.09614	0.00213	0.11621	
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.01854	-0.04625	-0.03191	0.00109	0.05142	
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	11.30323	3.19565	-30.37909	0.29773	-42.19215	
ICP-50-New	S09T001773		400	3/19/2009 18:44	11.06417	3.94805	3.47594	0.05955	2.52958	
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	12.04908	3.49312	-0.9585	0.07939	-1.06508	
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	3786.006	3874.657	28.07892	3901.63007	-40.92674	
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	430.9335	3904.209	3941.015	-0.83364	4067.654	
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	0.01542	5.06891	0.02703	5.06915	-0.03821	
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	5.84208	0.00587	5.06591	0.00015	5.28604	
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.07822	0.00699	0.01823	0.00015	0.01616	
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	4.80268	0.00752	-0.01669	5.22833	-0.01895	
ICP-50-New	CCB		1	3/19/2009 19:16	0.00349	0.0059	-0.00015	0.0001	0.01998	
ICP-50-New	S09T001751		1	3/19/2009 19:19	1.20061	0.00511	-0.01933	0.04511	0.00639	
ICP-50-New	S09T001761		1	3/19/2009 19:21	4.10427	0.00465	-0.02129	0.00015	0.01735	
ICP-50-New	S09T001782		400	3/19/2009 19:24	12.61656	2.94392	4.22211	0.11909	-5.71438	
ICP-50-New	S09T001784		400	3/19/2009 19:28	12.76622	3.33498	5.873	0.07939	0.30871	
ICP-50-New	S09T001806		400	3/19/2009 19:31	10.86117	4.94997	-4.11669	0.05955	3.50048	
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	-0.01066	-0.03903	-0.00893	0.00179	0.0737	
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.1699	-0.01909	0.07769	0.00208	0.06187	
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.0166	-0.05145	-0.00368	0.00119	0.0628	
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	0.01589	5.03247	0.02464	5.0558	-0.01988	
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	5.70849	0.00591	5.06014	0	5.28192	
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	0.04794	0.00371	0.02097	0.00015	0.02269	
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	4.82712	0.00828	0.01513	5.28664	-0.02606	
ICP-50-New	LLS1		1	3/19/2009 20:08	0.00403	0.10791	-0.01945	0.02012	0.00536	
ICP-50-New	LLS2		1	3/19/2009 20:12	0.09722	0.00796	-0.00866	0.00005	-0.00107	
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00072	0.00593	-0.02699	0.00005	-0.00391	
ICP-50-New	LLS4		1	3/19/2009 20:33	0.00004	0.00002	-0.01779	-0.0001	-0.00305	
ICP-50-New	LLS5		1	3/19/2009 20:35	0.03081	0.00847	0.08617	0.00015	1.02704	
ICP-50-New	CCB		1	3/19/2009 20:41	-0.00016	0.00383	-0.01651	0.00005	0.00227	

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Method	Sample Id1	Sample Id2	Volume	Save date	Te	Th	Ti	Tl	U
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	-0.01467	-0.00356	-0.00023	-0.04289	-0.00002
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	0.02777	0.00029	0	-0.04614	0.04414
ICP-50-New	73 SCREEN		1	3/19/2009 14:28	0.02378	-0.01006	-0.00025	-0.01774	0.05867
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	0.02597	-0.00854	-0.00025	-0.05259	0.01814
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	-0.0143	4.93809	0.00504	4.99827	5.12641
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	5.5176	0.05716	5.12276	-0.05842	-0.01159
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.01817	-0.01021	-0.00159	-0.05689	0.00326
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	0.02292	0.05772	5.04287	-0.05565	0.00447
ICP-50-New	LLS1		1	3/19/2009 18:04	-0.04792	0.00447	0.00006	0.35696	0.00368
ICP-50-New	LLS2		1	3/19/2009 18:07	-0.00933	0.00255	0.0195	-0.04279	0.50393
ICP-50-New	LLS3		1	3/19/2009 18:15	-0.01882	0.09666	-0.00068	-0.014	0.00392
ICP-50-New	LLS4		1	3/19/2009 18:18	0.0053	-0.00721	-0.00067	-0.03598	0.00304
ICP-50-New	LLS5		1	3/19/2009 18:21	1.00679	0.0012	0.00017	-0.0281	-0.0045
ICP-50-New	ICB		1	3/19/2009 18:25	0.05122	-0.00412	-0.00026	-0.02795	0.0203
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.0594	-0.0339	-0.00655	0.41634	0.04747
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	0.08265	0.11203	46.07157	0.60568	4.68766
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.01125	-0.04049	-0.01323	0.23719	0.01629
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	-65.76018	-14.42471	-1.38686	-16.6891	17.45838
ICP-50-New	S09T001773		400	3/19/2009 18:44	4.84518	0.51286	0.08555	-21.73725	13.90266
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	-4.64762	1.07122	0.3568	-30.66904	22.10947
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	17.87764	4027.938	3853.66	3899.04562	7776.567
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	4287.037	3889.77	4.14247	4125.49519	4160.4029
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	-0.01266	4.93053	0.00468	4.95801	5.31399
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	5.5134	0.05606	5.12771	-0.07288	0.00341
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.0069	0.00278	-0.00135	-0.06288	-0.00503
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	0.04767	0.05974	5.08342	-0.00591	-0.00255
ICP-50-New	CCB		1	3/19/2009 19:16	0.01826	0.00091	-0.00091	-0.071	-0.00751
ICP-50-New	S09T001751		1	3/19/2009 19:19	0.0294	0.00137	-0.00025	-0.01976	0.01133
ICP-50-New	S09T001761		1	3/19/2009 19:21	0.02203	-0.00968	-0.00072	-0.02899	0.02074
ICP-50-New	S09T001782		400	3/19/2009 19:24	1.39414	-0.1576	-0.27302	-33.6526	11.8463
ICP-50-New	S09T001794		400	3/19/2009 19:28	15.41821	1.9964	0.0011	-4.86485	17.32329
ICP-50-New	S09T001806		400	3/19/2009 19:31	17.74148	2.24869	0.36193	-21.47868	8.89298
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.05734	-0.05149	-0.00796	0.44316	0.10014
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.09575	0.09143	46.58997	0.60839	4.8716
ICP-50-New	ICSAB		1	3/19/2009 19:42	-0.04319	-0.03908	-0.01143	0.27478	0.02464
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	0.03125	4.92406	0.00443	4.95348	5.29661
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	5.41189	0.05311	5.13701	-0.04376	-0.0135
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	-0.0516	0.0051	-0.00021	-0.01981	-0.01088
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	0.02931	0.05153	5.09704	-0.07768	-0.01723
ICP-50-New	LLS1		1	3/19/2009 20:08	0.00488	0.00318	-0.0013	0.34067	0.00844
ICP-50-New	LLS2		1	3/19/2009 20:12	-0.02031	0.00487	0.02017	-0.0228	0.50746
ICP-50-New	LLS3		1	3/19/2009 20:28	0.06078	0.09952	-0.0009	-0.03839	0.00699
ICP-50-New	LLS4		1	3/19/2009 20:33	0.01824	-0.00845	-0.00089	-0.02405	-0.0114
ICP-50-New	LLS5		1	3/19/2009 20:35	0.98279	0.00319	0.00087	-0.0555	-0.00406
ICP-50-New	CCB		1	3/19/2009 20:41	0.04247	-0.00204	0	-0.06156	0.01024

Method	Sample Id1	Sample Id2	Volume	Save date	V	W	Y	Zn	Zr
ICP-50-New	61 SCREEN		1	3/19/2009 14:22	-0.00304	0.01331	0.00012	-0.00163	0.00153
ICP-50-New	94 SCREEN		1	3/19/2009 14:25	0.00031	0.05526	0.00012	-0.00189	0.00131
ICP-50-New	73 SCREEN		1	3/19/2009 14:29	0.00102	-0.00021	0	-0.00381	0.00275
ICP-50-New	51 SCREEN		1	3/19/2009 14:39	-0.00113	0.02864	0.00023	-0.00244	0.00089
ICP-50-New	ICV_1(Chill)		1	3/19/2009 17:27	5.06212	0.04692	4.87792	4.88111	-0.07866
ICP-50-New	ICV_2(Chill)		1	3/19/2009 17:34	-0.01104	5.06838	0.00023	-0.00297	4.87289
ICP-50-New	ICV_3(Chill)		1	3/19/2009 17:37	0.00553	-0.04377	-0.00044	0.002	-0.00048
ICP-50-New	ICV_4(HS29&50)		1	3/19/2009 17:43	5.17082	-0.02274	0.00001	5.03221	4.76314
ICP-50-New	LLS1		1	3/19/2009 18:04	-0.00146	0.03621	0.00015	0.00078	-0.00053
ICP-50-New	LLS2		1	3/19/2009 18:07	0.05047	-0.02558	-0.00011	0.01736	0.01878
ICP-50-New	LLS3		1	3/19/2009 18:15	-0.00054	-0.04427	0.09937	-0.00335	-0.00128
ICP-50-New	LLS4		1	3/19/2009 18:18	-0.00212	-0.0233	0.00001	-0.00328	0.00037
ICP-50-New	LLS5		1	3/19/2009 18:21	-0.00278	0.95679	0.00012	-0.00326	0.00218
ICP-50-New	ICB		1	3/19/2009 18:25	0.00072	-0.0771	0.00034	-0.00047	0.00009
ICP-50-New	ICSA (INTA1)		1	3/19/2009 18:27	0.00098	-0.8507	0.00029	-0.0135	-0.00673
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 18:31	0.9507	-0.96315	0.00031	4.80043	4.20047
ICP-50-New	ICSAB		1	3/19/2009 18:36	0.47355	-1.51166	0.00005	0.95083	-0.00141
ICP-50-New	S09T001773_L		2000	3/19/2009 18:41	-3.16482	36.75945	0.44851	-0.30982	2.6408
ICP-50-New	S09T001773		400	3/19/2009 18:44	0.94272	-30.08128	0.13868	-0.5422	0.17604
ICP-50-New	S09T001773_D		400	3/19/2009 18:45	-0.49397	-7.44497	0.13805	-1.2487	0.42638
ICP-50-New	S09T001773_A1		400	3/19/2009 18:49	3953.724	-7.63367	-0.60397	3910.10973	3597.3113
ICP-50-New	S09T001773_A2		400	3/19/2009 18:54	-1.47863	3993.857	3886.945	-4.11727	-60.47242
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:02	5.06793	0.11611	4.91545	4.85955	-0.06789
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:05	-0.00917	5.24486	0.00045	-0.00244	4.88847
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:08	0.007	-0.05921	0.00001	0.00201	-0.00064
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:12	5.22473	-0.11029	0.00034	5.07015	4.81256
ICP-50-New	CCB		1	3/19/2009 19:16	-0.00126	-0.01823	0.00012	-0.0009	-0.00119
ICP-50-New	S09T001751		1	3/19/2009 19:19	-0.00025	-0.02305	-0.0001	-0.00235	-0.00011
ICP-50-New	S09T001761		1	3/19/2009 19:21	-0.00079	-0.01487	0.00012	-0.00319	0.00103
ICP-50-New	S09T001782		400	3/19/2009 19:24	0.22109	14.23239	0.09288	-0.85928	0.23642
ICP-50-New	S09T001794		400	3/19/2009 19:28	0.51445	5.08401	0.09342	-0.50672	0.03541
ICP-50-New	S09T001806		400	3/19/2009 19:31	0.2328	24.24038	0.27329	-0.89514	0.32184
ICP-50-New	ICSA (INTA1)		1	3/19/2009 19:36	0.00153	-1.11717	0.00017	-0.01408	-0.00612
ICP-50-New	ICSAB(INTA2)		1	3/19/2009 19:38	0.95501	-1.18303	-0.00003	4.77885	4.22974
ICP-50-New	ICSAB		1	3/19/2009 19:42	0.47972	-1.36795	0.0006	0.95702	-0.00238
ICP-50-New	CCV_1(Chill)		1	3/19/2009 19:46	5.0636	0.02543	4.9073	4.86586	-0.07063
ICP-50-New	CCV_2(Chill)		1	3/19/2009 19:49	-0.01068	5.17493	0.00023	-0.00172	4.90556
ICP-50-New	CCV_3(Chill)		1	3/19/2009 19:52	0.00696	0.03705	0.00034	0.00215	-0.00051
ICP-50-New	CCV_4(HS29&50)		1	3/19/2009 19:55	5.23566	-0.07685	0.00001	5.05795	4.83169
ICP-50-New	LLS1		1	3/19/2009 20:08	0.00038	-0.05636	0.00015	0.00104	-0.00114
ICP-50-New	LLS2		1	3/19/2009 20:12	0.04976	-0.00772	-0.00021	0.01752	0.01837
ICP-50-New	LLS3		1	3/19/2009 20:28	0.00007	-0.01086	0.10226	-0.00335	-0.00167
ICP-50-New	LLS4		1	3/19/2009 20:33	-0.00156	-0.03256	-0.00022	-0.00398	0.00162
ICP-50-New	LLS5		1	3/19/2009 20:35	-0.00096	0.9762	0.00001	-0.00358	0.00197
ICP-50-New	CCB		1	3/19/2009 20:41	0.00007	-0.006	0.00012	-0.00089	-0.00051

222-S Advanced Technologies and Laboratories **ICP-MS Data Review Checklist**

Worklist/Project Information: 00013518/ MS Tc 99 on AW106 EVAP Procedure Used: LA-506-102

Run Date: 3/24/09 Instrument ID: PQ ExCell Prep Batches Run: no prep

Review Items	Yes	No	N/A
A. Tuning, Calibration, Instrument Run QC			
1. Was the instrument tuned according to the SOP?	X		
2. Are the mass calibration and resolution within required limits?	X		
3 Was the stability %RSD documented as <5%.	X		
4. Was the instrument calibrated per SOP and at specified levels?	X		
5. Were ICV/CCV analyzed at appropriate frequency and were recoveries within control limits? (90 -110%; If not in control, was the CCV reanalyzed to show return to control?	X		
6. Were ICB/CCB analyzed at appropriate frequency and were results < EQL (or, with client consent, <5% of lowest sample result)? N/A if all samples are ND.	X		
7. Was LLS run and was recovery 100±25% for IH or 100±30% for non-IH work?	X		
B. Sample Results			
1. Were samples with concentrations above the linear range for any analyte diluted and reanalyzed?			X
2. Are all reported results bracketed by in control QC?	X		
3. Were sample analyses done within holding time?			X
C. Preparation/Matrix QC			
1. Was a method blank done per prep batch and were results < EQL or less than 5% of lowest sample result?			X
2. Was an LCS done per prep batch and were recoveries within 80-120% ?			X
3. Was an MS run as required and were recoveries within 75-125% for all analytes for which the spike level is at least 25% of the sample result?			X
4. Was an MSD or DUP run at required frequency and was the % RPD within limits (<20%) for all analytes > EQL?	X		
5. Was a serial dilution done per prep batch and was the % difference within limits (<10%) for all analytes > 100 times the DL?	X		
6. Was a post digest spike analyzed if required and were the recoveries within 75-125% ?	X		
D. Other			
1. Are all nonconformances documented appropriately?			X
2. Is current IDL/MDL/EQL data on file?	X		
3. Were calculations checked for errors?	X		
4. Were transcriptions and data upload checked for errors? (Example: Are dilution factors that are entered into the sequence log correct?)	X		
5. Were all client/project specific requirements met?	X		
6. Was the date/time of analysis verified as correct?	X		

Comments/Samples Affected (give review item letter and number)

C1/C2/C3. There was no sample preparation other than dilution with 2% HNO_3, so there is no Preparation Blank, LCS, or pre-dig. spike. The ICV serves as the LCS and the ICB as the preparation blank. A post-digestive spike and post-digestive spike duplicate were done.

NOTE: The dilutions required for the samples were large enough to reduce any chloride content of the samples to a level that would not interfere with the Tc-99 analysis.

1st Level Data Reviewer Roxie R. Ross Date: 3/26/09 2nd Level Data Reviewer: [signature] Date: 3/26/09

Page 1 of 1

LABCORE Completed Batch Report for Batch# 00013518

Analyst: Monteith, Kenneth

Book#: see bench sheet

Instrument: ICP/MS PQ-EXCELL

Method: MS TC-99, LA-506-102 Rev/Mod E-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment:

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 ICV	S0903250003		0	0	Technetium-99	LIQUID	.000997	1.0090E-03			3.00E-07	ug/mL	101.2	% Recovery	
Sample Sequence 2															
2 ICB	S0903250004		0	0	Technetium-99	LIQUID		<3.0000E-07			3.00E-07	ug/mL			
Sample Sequence 3															
3 LLS	S0903250005		0	0	Technetium-99	LIQUID	.000002	1.9950E-06			3.00E-07	ug/mL	99.75	% Recovery	
Sample Sequence 4															
4 SAMPLE	S09T001751		0	0	Technetium-99	LIQUID	N/A	<3.0000E-06			3.00E-06	ug/mL			U
Sample Sequence 5															
5 SAMPLE	S09T001763		0	0	Technetium-99	LIQUID	N/A	<3.0000E-06			3.00E-06	ug/mL			U
Sample Sequence 6															
6 CCV	S0903250009		0	0	Technetium-99	LIQUID	.000997	1.0170E-03			3.00E-07	ug/mL	102.01	% Recovery	
Sample Sequence 7															
7 CCB	S0903250010		0	0	Technetium-99	LIQUID		5.4600E-07			3.00E-07	ug/mL			
Sample Sequence 8															
8 SERDIL	S0903250006	S09T001784	0	0	Technetium-99	LIQUID		5.0970E+00			0.015	ug/mL	2.3189	% Diff	
Sample Sequence 9															
9 SAMPLE	S09T001784		0	0	Technetium-99	LIQUID	N/A	5.2180E+00			3.00E-03	ug/mL			
Sample Sequence 10															
10 DUP	S0903250007	S09T001784	0	0	Technetium-99	LIQUID	5.2180E+00	5.0820E+00			3.00E-03	ug/mL	2.6408	% RPD	
Sample Sequence 11															
11 SPK-POST	S0903250008	S09T001784	0	0	Technetium-99	LIQUID	5.249	1.0690E+01			3.00E-07	ug/mL	104.25	% Recovery	
Sample Sequence 12															
12 SPKPOST-DUP	S0903250013	S09T001784	0	0	Technetium-99	LIQUID	5.249	1.0520E+01			3.00E-07	ug/mL	101.01	% Recovery	
													3.1570	% RPD	
Sample Sequence 13															
13 SAMPLE	S09T001796		0	0	Technetium-99	LIQUID	N/A	5.2580E+00			3.00E-03	ug/mL			
Sample Sequence 14															
14 SAMPLE	S09T001808		0	0	Technetium-99	LIQUID	N/A	5.1790E+00			3.00E-03	ug/mL			
Sample Sequence 15															

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013518

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
15 LLS	S0903250014		0 0		Technetium-99	LIQUID	.000002	2.2750E-06			3.00E-07	ug/mL	113.75	% Recovery	
Sample Sequence 16															
16 CCV	S0903250011		0 0		Technetium-99	LIQUID	.000997	1.0050E-03			3.00E-07	ug/mL	100.8	% Recovery	
Sample Sequence 17															
17 CCB	S0903250012		0 0		Technetium-99	LIQUID		<3.0000E-07			3.00E-07	ug/mL			

Comments Section:

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013518

Rosie R. Ross 3/26/09
Reviewer Signature Date

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RPP-RPT-40709 Rev. 1

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013518

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903250003	ICV				
2	S0903250004	ICB				
3	S0903250005	LLS				
4	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
5	S09T001763	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
6	S0903250009	CCV				
7	S0903250010	CCB				
8	S0903250006	SERDIL	S09T001784			
9	S09T001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
10	S0903250007	DUP	S09T001784			
11	S0903250008	SPK-POST	S09T001784			
12	S0903250013	SPKPOST-DUP	S091001784			
13	S09T001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
14	S09T001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
15	S0903250014	LLS				
16	S0903250011	CCV				
17	S0903250012	CCB				

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Batch# 00013518

Analyst: Monteith, Kenneth **Standard ID / Book#:** SEE BENCH SHEET

Instrument: ICP/MS PQ-EXCELL

Method: MS TC-99, 4A-506-102 Rev/Mod EO

Prep Batch:

Batch Comment:

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICV		0		LIQUID		
	Analytes Requested:	Technetium-99					
2	ICB		0		LIQUID		
	Analytes Requested:	Technetium-99					
3	LLS		0		LIQUID		
	Analytes Requested:	Technetium-99					
4	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Technetium-99					
5	SAMPLE	S09T001763	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Technetium-99					
6	CCV		0		LIQUID		
	Analytes Requested:	Technetium-99					
7	CCB		0		LIQUID		
	Analytes Requested:	Technetium-99					
8	SERDIL	S09T001784	0		LIQUID		
	Analytes Requested:	Technetium-99					
9	SAMPLE	S09T001784	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Technetium-99					
10	DUP	S09T001784	0		LIQUID		
	Analytes Requested:	Technetium-99					
11	SPK-POST	S09T001784	0		LIQUID		
	Analytes Requested:	Technetium-99					
12	SPKPOST-DUP	S09T001784	0		LIQUID		
	Analytes Requested:	Technetium-99					
13	SAMPLE	S09T001796	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Technetium-99					
14	SAMPLE	S09T001808	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Technetium-99					
15	LLS		0		LIQUID		
	Analytes Requested:	Technetium-99					
16	CCV		0		LIQUID		
	Analytes Requested:	Technetium-99					
17	CCB		0		LIQUID		
	Analytes Requested:	Technetium-99					

Final Page for Batch# 00013518

Analyst Signature — Date: 3/25/09

Data Entry Signature — Date: 3/25/09

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

ICP-MS BENCH SHEET
PROJECT: AW 106
WORKLIST # FILE # TC99090324
Date: 03/24/09 Analyst initials: KRM
Standard Book # and page: HNF-N-248 1 P. 81
Pipette: G0786593F, F0500319C, 512703, 446580 visual checks done

Calibration Standards: Tc^{99} CAL 090324-2 (29B64)
Verification Standards: Tc^{99} ICV/CCV 090324-3 (27B64)

Spike from a 50x dilution of MS Tc^{99}SPK 113B59 (080801-4)

SAMPLE NUMBER	DF	DILUTION
ICV	1	
ICB	1	
ICB	1	
LLS	1	
BLK	1	
S09T001751	10	1.00ML-0.03ML-9.00ML
S09T001763	10	1.00ML-0.03ML-9.00ML
S09T001784	200	0.050ML-0.03ML-9.95ML
S09T001796	200	0.050ML-0.03ML-9.95ML
S09T001808	200	0.050ML-0.03ML-9.95ML
S09T001784	100	0.100ML-0.03ML-9.90ML
S09T001796	100	0.100ML-0.03ML-9.90ML
S09T001808	100	0.100ML-0.03ML-9.90ML
CCV	1	
CCB	1	
CCB	1	
CCB	1	
CCB	1	
S09T001784_L	50000	0.100ML-9.9ML-0.020ML-0.03ML-9.98ML
S09T001784	10000	0.100ML-9.9ML-0.100ML-0.03ML-9.90ML
S09T001784_D	10000	0.100ML-9.9ML-0.100ML-0.03ML-9.90ML
S09T001784_A	10000	0.100ML-9.9ML-0.100ML-0.03ML-9.90ML
S09T001784_AA	10000	0.100ML-9.9ML-0.100ML-0.03ML-9.90ML
S09T001796	10000	0.100ML-9.9ML-0.100ML-0.03ML-0.05ML-9.85ML
S09T001808	10000	0.100ML-9.9ML-0.100ML-0.03ML-0.05ML-9.85ML
LLS	1	
CCV	1	
CCB	1	
CCB	1	

Dilution Key:
First entry is sample size in mL (www)
Second entry is internal standard in mL (xxx)
Third entry is post spike volume in mL (yyy)
Fourth entry is matrix volume in mL (zz.zzz)

Examples:
Single Dilution .www-.xxx-.yyy-zz.zzz
0.25-0.03-0.025-9.92 = 400 df
Double Dilution .www-zz.zzz-.www-.xxx-yyyy-zz.zzz
0.100-9.9-0.250-0.03-0.025-9.695 = 4000 df

Sample List

Num	Label	Type	Weight	Volume	Dilution	Rack	Row	Column	Height
1	rinse	Unknown	0 kg	0 ml	1.00	1	1	1	144
2	rinse	Unknown	0 kg	0 ml	1.00	1	1	1	144
3	blank	Blank	0 kg	0 ml	1.00	1	1	2	144
4	TC 99 CAL	Fully Quant Standard	0 kg	0 ml	1.00	1	1	3	144
5	TC 99 ICV	Unknown	0 kg	0 ml	1.00	1	1	4	144
6	ICB	Unknown	0 kg	0 ml	1.00	1	1	2	144
7	ICB	Unknown	0 kg	0 ml	1.00	1	1	2	144
8	LLS 2 ppt	Unknown	0 kg	0 ml	1.00	1	1	5	144
9	BLK	Unknown	0 kg	0 ml	1.00	1	1	1	144
10	S09T001751	Unknown	0 kg	0 ml	10.00	1	1	6	144
11	S09T001763	Unknown	0 kg	0 ml	10.00	1	1	7	144
12	S09T001784 200X	Unknown	0 kg	0 ml	200.00	1	1	8	144
13	S09T001796 200X	Unknown	0 kg	0 ml	200.00	1	1	9	144
14	S09T001808 200X	Unknown	0 kg	0 ml	200.00	1	1	10	144
15	S09T001784 100X	Unknown	0 kg	0 ml	100.00	1	1	11	144
16	S09T001796 100X	Unknown	0 kg	0 ml	100.00	1	1	12	144
17	S09T001808 100X	Unknown	0 kg	0 ml	100.00	1	2	1	144
18	TC 99 CCV	Unknown	0 kg	0 ml	1.00	1	1	4	144
19	CCB	Unknown	0 kg	0 ml	1.00	1	2	2	144
20	CCB	Unknown	0 kg	0 ml	1.00	1	2	2	144
21	CCB	Unknown	0 kg	0 ml	1.00	1	1	1	144
22	CCB	Unknown	0 kg	0 ml	1.00	1	1	2	144
23	S09T001784_L	Unknown	0 kg	0 ml	50,000.00	1	3	1	144
24	S09T001784	Unknown	0 kg	0 ml	10,000.00	1	3	2	144
25	S09T001784_D	Unknown	0 kg	0 ml	10,000.00	1	3	3	144
26	S09T001784_A	Unknown	0 kg	0 ml	10,000.00	1	3	4	144
27	S09T001784_AA	Unknown	0 kg	0 ml	10,000.00	1	3	5	144
28	S09T001796	Unknown	0 kg	0 ml	10,000.00	1	3	6	144
29	S09T001808	Unknown	0 kg	0 ml	10,000.00	1	3	7	144
30	LLS 2 ppt	Unknown	0 kg	0 ml	1.00	1	1	5	144
31	Tc 99 CCV	Unknown	0 kg	0 ml	1.00	1	1	4	144
32	CCB	Unknown	0 kg	0 ml	1.00	1	3	8	144

tc99090324.vge 3/24/09

Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	99Tc	115In
			ppt	ppb
1	rinse	3/24/2009 11:10:17	(P)9.410E-01	(P)9.680E-01
2	rinse	3/24/2009 11:10:26	(P)9.480E-01	(P)9.670E-01
3	rinse	3/24/2009 11:10:35	(P)8.920E-01	(P)9.680E-01
4	rinse	3/24/2009 11:10:45	(P)1.106E+00	(P)9.710E-01
5	rinse	3/24/2009 11:10:54	(P)1.056E+00	(P)9.740E-01
	Mean of rinse	3/24/2009 11:10:17	(P)9.890E-01	(P)9.680E-01
	SD of rinse		(P)8.900E-02	(P)n/a
	%RSD of rinse		(P)9.019	(P)n/a
1	rinse	3/24/2009 11:15:52	(P)1.099E+00	(P)1.022E+00
2	rinse	3/24/2009 11:16:01	(P)1.054E+00	(P)1.011E+00
3	rinse	3/24/2009 11:16:10	(P)9.790E-01	(P)9.990E-01
4	rinse	3/24/2009 11:16:19	(P)9.740E-01	(P)1.007E+00
5	rinse	3/24/2009 11:16:28	(P)1.003E+00	(P)9.990E-01
	Mean of rinse	3/24/2009 11:15:52	(P)1.022E+00	(P)1.022E+00
	SD of rinse		(P)5.400E-02	(P)n/a
	%RSD of rinse		(P)5.236	(P)n/a
1	blank	3/24/2009 11:21:26	(P)2.700E-02	(P)1.011E+00
2	blank	3/24/2009 11:21:35	(P)-5.800E-02	(P)9.980E-01
3	blank	3/24/2009 11:21:44	(P)8.000E-03	(P)1.002E+00
4	blank	3/24/2009 11:21:53	(P)-4.300E-02	(P)9.920E-01
5	blank	3/24/2009 11:22:02	(P)6.600E-02	(P)9.970E-01
	Mean of blank	3/24/2009 11:21:26	(P)0.000E+00	(P)1.011E+00
	SD of blank		(P)5.100E-02	(P)n/a
	%RSD of blank		(P)0.000	(P)n/a
1	TC 99 CAL	3/24/2009 11:27:01	(PM)2.001E+03	(P)9.780E-01
2	TC 99 CAL	3/24/2009 11:27:10	(P)1.992E+03	(P)9.700E-01
3	TC 99 CAL	3/24/2009 11:27:19	(PM)1.998E+03	(P)9.650E-01
4	TC 99 CAL	3/24/2009 11:27:28	(P)1.983E+03	(P)9.560E-01
5	TC 99 CAL	3/24/2009 11:27:38	(PM)1.996E+03	(P)9.590E-01
	Mean of TC 99 CAL	3/24/2009 11:27:01	(PM)1.994E+03	(P)9.780E-01
	SD of TC 99 CAL		(PM)7.086E+00	(P)n/a
	%RSD of TC 99 CAL		(PM)0.355	(P)n/a
1	TC 99 ICV	3/24/2009 11:32:36	(P)1.017E+03	(P)9.940E-01
2	TC 99 ICV	3/24/2009 11:32:45	(P)1.016E+03	(P)9.900E-01
3	TC 99 ICV	3/24/2009 11:32:54	(P)1.007E+03	(P)9.770E-01
4	TC 99 ICV	3/24/2009 11:33:03	(P)1.003E+03	(P)9.720E-01
5	TC 99 ICV	3/24/2009 11:33:12	(P)9.990E+02	(P)9.680E-01
	Mean of TC 99 ICV	3/24/2009 11:32:36	(P)1.009E+03	(P)9.940E-01
	SD of TC 99 ICV		(P)8.146E+00	(P)n/a
	%RSD of TC 99 ICV		(P)0.808	(P)n/a
1	ICB	3/24/2009 11:38:11	(P)5.300E-02	(P)1.024E+00
2	ICB	3/24/2009 11:38:20	(P)5.300E-02	(P)1.020E+00
3	ICB	3/24/2009 11:38:29	(P)-9.500E-02	(P)1.013E+00

		tc99090324.vge	3/24/09	
Run	Label	TimeStamp	99Tc	115In
			ppt	ppb
4	ICB	3/24/2009 11:38:38	(P)2.090E-01	(P)1.011E+00
5	ICB	3/24/2009 11:38:47	(P)4.400E-02	(P)1.008E+00
	Mean of ICB	3/24/2009 11:38:11	(P)5.300E-02	(P)1.024E+00
	SD of ICB		(P)1.080E-01	(P)n/a
	%RSD of ICB		(P)203.300	(P)n/a
1	ICB	3/24/2009 11:43:45	(P)3.840E-01	(P)1.033E+00
2	ICB	3/24/2009 11:43:55	(P)3.670E-01	(P)1.018E+00
3	ICB	3/24/2009 11:44:04	(P)5.700E-01	(P)1.017E+00
4	ICB	3/24/2009 11:44:13	(P)5.770E-01	(P)1.009E+00
5	ICB	3/24/2009 11:44:22	(P)6.030E-01	(P)1.006E+00
	Mean of ICB	3/24/2009 11:43:45	(P)5.000E-01	(P)1.033E+00
	SD of ICB		(P)1.150E-01	(P)n/a
	%RSD of ICB		(P)22.930	(P)n/a
1	LLS 2 ppt	3/24/2009 11:49:20	(P)1.995E+00	(P)1.051E+00
2	LLS 2 ppt	3/24/2009 11:49:30	(P)2.288E+00	(P)1.039E+00
3	LLS 2 ppt	3/24/2009 11:49:39	(P)1.889E+00	(P)1.026E+00
4	LLS 2 ppt	3/24/2009 11:49:48	(P)1.920E+00	(P)1.020E+00
5	LLS 2 ppt	3/24/2009 11:49:57	(P)1.886E+00	(P)1.019E+00
	Mean of LLS 2 ppt	3/24/2009 11:49:20	(P)1.995E+00	(P)1.051E+00
	SD of LLS 2 ppt		(P)1.690E-01	(P)n/a
	%RSD of LLS 2 ppt		(P)8.480	(P)n/a
1	BLK	3/24/2009 11:54:55	(P)-4.400E-02	(P)1.043E+00
2	BLK	3/24/2009 11:55:04	(P)5.000E-03	(P)1.027E+00
3	BLK	3/24/2009 11:55:13	(P)3.600E-02	(P)1.028E+00
4	BLK	3/24/2009 11:55:23	(P)9.000E-03	(P)1.023E+00
5	BLK	3/24/2009 11:55:32	(P)7.900E-02	(P)1.028E+00
	Mean of BLK	3/24/2009 11:54:55	(P)1.700E-02	(P)1.043E+00
	SD of BLK		(P)4.500E-02	(P)n/a
	%RSD of BLK		(P)266.100	(P)n/a
1	S09T001751	3/24/2009 12:00:30	(P)8.020E-01	(P)1.025E+00
2	S09T001751	3/24/2009 12:00:40	(P)-1.110E+00	(P)1.018E+00
3	S09T001751	3/24/2009 12:00:49	(P)-4.270E-01	(P)1.005E+00
4	S09T001751	3/24/2009 12:00:58	(P)-5.820E-01	(P)1.006E+00
5	S09T001751	3/24/2009 12:01:07	(P)3.180E-01	(P)1.004E+00
	Mean of S09T001751	3/24/2009 12:00:30	(P)-2.000E-01	(P)1.025E+00
	SD of S09T001751		(P)7.580E-01	(P)n/a
	%RSD of S09T001751		(P)379.200	(P)n/a
1	S09T001763	3/24/2009 12:06:25	(P)1.889E+00	(P)1.023E+00
2	S09T001763	3/24/2009 12:06:34	(P)2.698E+00	(P)9.930E-01
3	S09T001763	3/24/2009 12:06:44	(P)2.715E+00	(P)1.001E+00
4	S09T001763	3/24/2009 12:06:53	(P)1.816E+00	(P)9.930E-01
5	S09T001763	3/24/2009 12:07:02	(P)1.720E+00	(P)9.980E-01
	Mean of S09T001763	3/24/2009 12:06:06	(P)2.168E+00	(P)1.023E+00

		tc99090324.vge	3/24/09	
Run	Label	TimeStamp	99Tc	115In
			ppt	ppb
	SD of S09T001763		(P)4.960E-01	(P)n/a
	%RSD of S09T001763		(P)22.870	(P)n/a
1	S09T001784 200X	3/24/2009 12:12:22	(PM)4.692E+06	(P)1.067E+00
2	S09T001784 200X	3/24/2009 12:12:31	(PM)4.701E+06	(P)1.066E+00
3	S09T001784 200X	3/24/2009 12:12:40	(PM)4.683E+06	(P)1.059E+00
4	S09T001784 200X	3/24/2009 12:12:49	(PM)4.697E+06	(P)1.068E+00
5	S09T001784 200X	3/24/2009 12:12:59	(PM)4.693E+06	(P)1.068E+00
	Mean of S09T001784 200X	3/24/2009 12:12:03	(PM)4.693E+06	(P)1.067E+00
	SD of S09T001784 200X		(PM)6.824E+03	(P)n/a
	%RSD of S09T001784 200X		(PM)0.145	(P)n/a
1	S09T001796 200X	3/24/2009 12:18:19	(PM)4.684E+06	(P)1.068E+00
2	S09T001796 200X	3/24/2009 12:18:28	(PM)4.676E+06	(P)1.059E+00
3	S09T001796 200X	3/24/2009 12:18:38	(PM)4.670E+06	(P)1.067E+00
4	S09T001796 200X	3/24/2009 12:18:47	(PM)4.646E+06	(P)1.058E+00
5	S09T001796 200X	3/24/2009 12:18:56	(PM)4.611E+06	(P)1.054E+00
	Mean of S09T001796 200X	3/24/2009 12:18:00	(PM)4.657E+06	(P)1.068E+00
	SD of S09T001796 200X		(PM)2.965E+04	(P)n/a
	%RSD of S09T001796 200X		(PM)0.637	(P)n/a
1	S09T001808 200X	3/24/2009 12:24:17	(PM)4.724E+06	(P)1.080E+00
2	S09T001808 200X	3/24/2009 12:24:26	(PM)4.723E+06	(P)1.078E+00
3	S09T001808 200X	3/24/2009 12:24:36	(PM)4.716E+06	(P)1.072E+00
4	S09T001808 200X	3/24/2009 12:24:45	(PM)4.730E+06	(P)1.082E+00
5	S09T001808 200X	3/24/2009 12:24:54	(PM)4.671E+06	(P)1.067E+00
	Mean of S09T001808 200X	3/24/2009 12:23:58	(PM)4.713E+06	(P)1.080E+00
	SD of S09T001808 200X		(PM)2.373E+04	(P)n/a
	%RSD of S09T001808 200X		(PM)0.504	(P)n/a
1	S09T001784 100X	3/24/2009 12:29:55	(PM)3.691E+06	(P)1.126E+00
2	S09T001784 100X	3/24/2009 12:30:04	(PM)3.749E+06	(P)1.112E+00
3	S09T001784 100X	3/24/2009 12:30:13	(PM)3.955E+06	(P)1.111E+00
4	S09T001784 100X	3/24/2009 12:30:23	(PM)3.746E+06	(P)1.118E+00
5	S09T001784 100X	3/24/2009 12:30:32	(PM)4.065E+06	(P)1.119E+00
	Mean of S09T001784 100X	3/24/2009 12:29:55	(PM)3.841E+06	(P)1.126E+00
	SD of S09T001784 100X		(PM)1.606E+05	(P)n/a
	%RSD of S09T001784 100X		(PM)4.181	(P)n/a
1	S09T001796 100X	3/24/2009 12:35:33	(PM)3.794E+06	(P)1.145E+00
2	S09T001796 100X	3/24/2009 12:35:42	(PM)3.947E+06	(P)1.136E+00
3	S09T001796 100X	3/24/2009 12:35:51	(PM)3.738E+06	(P)1.137E+00
4	S09T001796 100X	3/24/2009 12:36:00	(PM)3.835E+06	(P)1.140E+00
5	S09T001796 100X	3/24/2009 12:36:10	(PM)3.760E+06	(P)1.146E+00
	Mean of S09T001796 100X	3/24/2009 12:35:33	(PM)3.815E+06	(P)1.145E+00
	SD of S09T001796 100X		(PM)8.261E+04	(P)n/a
	%RSD of S09T001796 100X		(PM)2.165	(P)n/a

		tc99090324.vge	3/24/09	
Run	Label	TimeStamp	99Tc	115In
			ppt	ppb
1	S09T001808 100X	3/24/2009 12:41:10	(PM)4.036E+06	(P)1.174E+00
2	S09T001808 100X	3/24/2009 12:41:19	(PM)4.120E+06	(P)1.164E+00
3	S09T001808 100X	3/24/2009 12:41:28	(PM)4.033E+06	(P)1.155E+00
4	S09T001808 100X	3/24/2009 12:41:38	(PM)4.086E+06	(P)1.166E+00
5	S09T001808 100X	3/24/2009 12:41:47	(PM)4.014E+06	(P)1.171E+00
	Mean of S09T001808 100X	3/24/2009 12:41:10	(PM)4.058E+06	(P)1.174E+00
	SD of S09T001808 100X		(PM)4.394E+04	(P)n/a
	%RSD of S09T001808 100X		(PM)1.083	(P)n/a
1	TC 99 CCV	3/24/2009 12:46:46	(P)1.020E+03	(P)1.039E+00
2	TC 99 CCV	3/24/2009 12:46:55	(P)1.014E+03	(P)1.022E+00
3	TC 99 CCV	3/24/2009 12:47:04	(P)1.014E+03	(P)1.006E+00
4	TC 99 CCV	3/24/2009 12:47:13	(P)1.015E+03	(P)1.002E+00
5	TC 99 CCV	3/24/2009 12:47:22	(P)1.020E+03	(P)9.990E-01
	Mean of TC 99 CCV	3/24/2009 12:46:46	(P)1.017E+03	(P)1.039E+00
	SD of TC 99 CCV		(P)3.182E+00	(P)n/a
	%RSD of TC 99 CCV		(P)0.313	(P)n/a
1	CCB	3/24/2009 12:52:21	(P)6.150E-01	(P)1.049E+00
2	CCB	3/24/2009 12:52:30	(P)7.370E-01	(P)1.040E+00
3	CCB	3/24/2009 12:52:39	(P)1.246E+00	(P)1.028E+00
4	CCB	3/24/2009 12:52:49	(P)2.475E+00	(P)1.031E+00
5	CCB	3/24/2009 12:52:58	(P)3.260E+00	(P)1.021E+00
	Mean of CCB	3/24/2009 12:52:21	(P)1.667E+00	(P)1.049E+00
	SD of CCB		(P)1.155E+00	(P)n/a
	%RSD of CCB		(P)69.320	(P)n/a
1	CCB	3/24/2009 12:57:56	(P)2.091E+00	(P)1.030E+00
2	CCB	3/24/2009 12:58:06	(P)2.724E+00	(P)1.023E+00
3	CCB	3/24/2009 12:58:15	(P)3.141E+00	(P)1.021E+00
4	CCB	3/24/2009 12:58:24	(P)4.134E+00	(P)1.012E+00
5	CCB	3/24/2009 12:58:34	(P)5.242E+00	(P)1.008E+00
	Mean of CCB	3/24/2009 12:57:56	(P)3.466E+00	(P)1.030E+00
	SD of CCB		(P)1.240E+00	(P)n/a
	%RSD of CCB		(P)35.760	(P)n/a
1	CCB	3/24/2009 13:08:33	(P)8.000E-01	(P)9.640E-01
2	CCB	3/24/2009 13:08:42	(P)7.900E-01	(P)9.630E-01
3	CCB	3/24/2009 13:08:51	(P)1.122E+00	(P)9.740E-01
4	CCB	3/24/2009 13:09:00	(P)1.358E+00	(P)9.760E-01
5	CCB	3/24/2009 13:09:09	(P)1.463E+00	(P)9.720E-01
	Mean of CCB	3/24/2009 13:08:33	(P)1.107E+00	(P)9.640E-01
	SD of CCB		(P)3.100E-01	(P)n/a
	%RSD of CCB		(P)28.050	(P)n/a
1	CCB	3/24/2009 13:14:08	(P)5.180E-01	(P)1.009E+00
2	CCB	3/24/2009 13:14:17	(P)4.740E-01	(P)9.990E-01
3	CCB	3/24/2009 13:14:26	(P)5.590E-01	(P)9.920E-01

		tc99090324.vge	3/24/09	
Run	Label	TimeStamp	99Tc	115In
			ppt	ppb
4	CCB	3/24/2009 13:14:36	(P)6.000E-01	(P)9.940E-01
5	CCB	3/24/2009 13:14:45	(P)5.810E-01	(P)9.850E-01
	Mean of CCB	3/24/2009 13:14:08	(P)5.460E-01	(P)1.009E+00
	SD of CCB		(P)5.100E-02	(P)n/a
	%RSD of CCB		(P)9.267	(P)n/a
1	S09T001784_L	3/24/2009 13:28:27	(P)5.156E+06	(P)9.440E-01
2	S09T001784_L	3/24/2009 13:28:36	(P)5.140E+06	(P)9.480E-01
3	S09T001784_L	3/24/2009 13:28:45	(P)5.077E+06	(P)9.440E-01
4	S09T001784_L	3/24/2009 13:28:54	(P)5.083E+06	(P)9.470E-01
5	S09T001784_L	3/24/2009 13:29:03	(P)5.032E+06	(P)9.470E-01
	Mean of S09T001784_L	3/24/2009 13:28:27	(P)5.097E+06	(P)9.440E-01
	SD of S09T001784_L		(P)5.041E+04	(P)n/a
	%RSD of S09T001784_L		(P)0.989	(P)n/a
1	S09T001784	3/24/2009 13:34:23	(P)5.251E+06	(P)1.030E+00
2	S09T001784	3/24/2009 13:34:33	(P)5.227E+06	(P)1.009E+00
3	S09T001784	3/24/2009 13:34:42	(P)5.204E+06	(P)9.940E-01
4	S09T001784	3/24/2009 13:34:51	(P)5.240E+06	(P)9.980E-01
5	S09T001784	3/24/2009 13:35:00	(P)5.167E+06	(P)9.890E-01
	Mean of S09T001784	3/24/2009 13:34:04	(P)5.218E+06	(P)1.030E+00
	SD of S09T001784		(P)3.328E+04	(P)n/a
	%RSD of S09T001784		(P)0.638	(P)n/a
1	S09T001784_D	3/24/2009 13:39:59	(P)5.101E+06	(P)9.920E-01
2	S09T001784_D	3/24/2009 13:40:08	(P)5.087E+06	(P)9.870E-01
3	S09T001784_D	3/24/2009 13:40:18	(P)5.066E+06	(P)9.810E-01
4	S09T001784_D	3/24/2009 13:40:27	(P)5.071E+06	(P)9.860E-01
5	S09T001784_D	3/24/2009 13:40:36	(P)5.086E+06	(P)9.800E-01
	Mean of S09T001784_D	3/24/2009 13:39:59	(P)5.082E+06	(P)9.920E-01
	SD of S09T001784_D		(P)1.408E+04	(P)n/a
	%RSD of S09T001784_D		(P)0.277	(P)n/a
1	S09T001784_A	3/24/2009 13:45:37	(P)1.073E+07	(P)1.006E+00
2	S09T001784_A	3/24/2009 13:45:46	(P)1.068E+07	(P)9.910E-01
3	S09T001784_A	3/24/2009 13:45:56	(P)1.069E+07	(P)9.890E-01
4	S09T001784_A	3/24/2009 13:46:06	(P)1.071E+07	(P)9.930E-01
5	S09T001784_A	3/24/2009 13:46:15	(P)1.063E+07	(P)9.890E-01
	Mean of S09T001784_A	3/24/2009 13:45:37	(P)1.069E+07	(P)1.006E+00
	SD of S09T001784_A		(P)3.577E+04	(P)n/a
	%RSD of S09T001784_A		(P)0.335	(P)n/a
1	S09T001784_AA	3/24/2009 13:51:14	(P)1.053E+07	(P)9.850E-01
2	S09T001784_AA	3/24/2009 13:51:23	(P)1.050E+07	(P)9.800E-01
3	S09T001784_AA	3/24/2009 13:51:33	(P)1.052E+07	(P)9.800E-01
4	S09T001784_AA	3/24/2009 13:51:42	(P)1.055E+07	(P)9.780E-01
5	S09T001784_AA	3/24/2009 13:51:52	(P)1.051E+07	(P)9.810E-01
	Mean of S09T001784_AA	3/24/2009 13:51:14	(P)1.052E+07	(P)9.850E-01

		tc99090324.vge	3/24/09	
Run	Label	TimeStamp	99Tc	115In
			ppt	ppb
	SD of S09T001784_AA		(P)1.881E+04	(P)n/a
	%RSD of S09T001784_AA		(P)0.179	(P)n/a
1	S09T001796	3/24/2009 13:56:52	(P)5.262E+06	(P)1.028E+00
2	S09T001796	3/24/2009 13:57:01	(P)5.289E+06	(P)1.025E+00
3	S09T001796	3/24/2009 13:57:11	(P)5.255E+06	(P)1.019E+00
4	S09T001796	3/24/2009 13:57:20	(P)5.209E+06	(P)1.013E+00
5	S09T001796	3/24/2009 13:57:30	(P)5.277E+06	(P)1.009E+00
	Mean of S09T001796	3/24/2009 13:56:52	(P)5.258E+06	(P)1.028E+00
	SD of S09T001796		(P)3.076E+04	(P)n/a
	%RSD of S09T001796		(P)0.585	(P)n/a
1	S09T001808	3/24/2009 14:02:31	(P)5.212E+06	(P)1.018E+00
2	S09T001808	3/24/2009 14:02:41	(P)5.191E+06	(P)1.015E+00
3	S09T001808	3/24/2009 14:02:50	(P)5.202E+06	(P)1.005E+00
4	S09T001808	3/24/2009 14:02:59	(P)5.183E+06	(P)1.004E+00
5	S09T001808	3/24/2009 14:03:09	(P)5.108E+06	(P)9.940E-01
	Mean of S09T001808	3/24/2009 14:02:31	(P)5.179E+06	(P)1.018E+00
	SD of S09T001808		(P)4.113E+04	(P)n/a
	%RSD of S09T001808		(P)0.794	(P)n/a
1	LLS 2 ppt	3/24/2009 14:08:08	(P)2.371E+00	(P)1.017E+00
2	LLS 2 ppt	3/24/2009 14:08:17	(P)2.352E+00	(P)1.010E+00
3	LLS 2 ppt	3/24/2009 14:08:26	(P)2.317E+00	(P)1.004E+00
4	LLS 2 ppt	3/24/2009 14:08:36	(P)2.158E+00	(P)1.001E+00
5	LLS 2 ppt	3/24/2009 14:08:45	(P)2.174E+00	(P)1.000E+00
	Mean of LLS 2 ppt	3/24/2009 14:08:08	(P)2.275E+00	(P)1.017E+00
	SD of LLS 2 ppt		(P)1.010E-01	(P)n/a
	%RSD of LLS 2 ppt		(P)4.436	(P)n/a
1	Tc 99 CCV	3/24/2009 14:13:44	(P)1.012E+03	(P)9.770E-01
2	Tc 99 CCV	3/24/2009 14:13:53	(P)1.004E+03	(P)9.690E-01
3	Tc 99 CCV	3/24/2009 14:14:02	(P)9.998E+02	(P)9.630E-01
4	Tc 99 CCV	3/24/2009 14:14:12	(P)1.005E+03	(P)9.560E-01
5	Tc 99 CCV	3/24/2009 14:14:21	(P)1.003E+03	(P)9.600E-01
	Mean of Tc 99 CCV	3/24/2009 14:13:44	(P)1.005E+03	(P)9.770E-01
	SD of Tc 99 CCV		(P)4.650E+00	(P)n/a
	%RSD of Tc 99 CCV		(P)0.463	(P)n/a
1	CCB	3/24/2009 14:19:21	(P)1.710E-01	(P)1.033E+00
2	CCB	3/24/2009 14:19:30	(P)7.600E-02	(P)1.029E+00
3	CCB	3/24/2009 14:19:40	(P)8.300E-02	(P)1.020E+00
4	CCB	3/24/2009 14:19:49	(P)1.200E-02	(P)1.013E+00
5	CCB	3/24/2009 14:19:59	(P)1.000E-01	(P)1.019E+00
	Mean of CCB	3/24/2009 14:19:21	(P)8.800E-02	(P)1.033E+00
	SD of CCB		(P)5.700E-02	(P)n/a
	%RSD of CCB		(P)64.340	(P)n/a

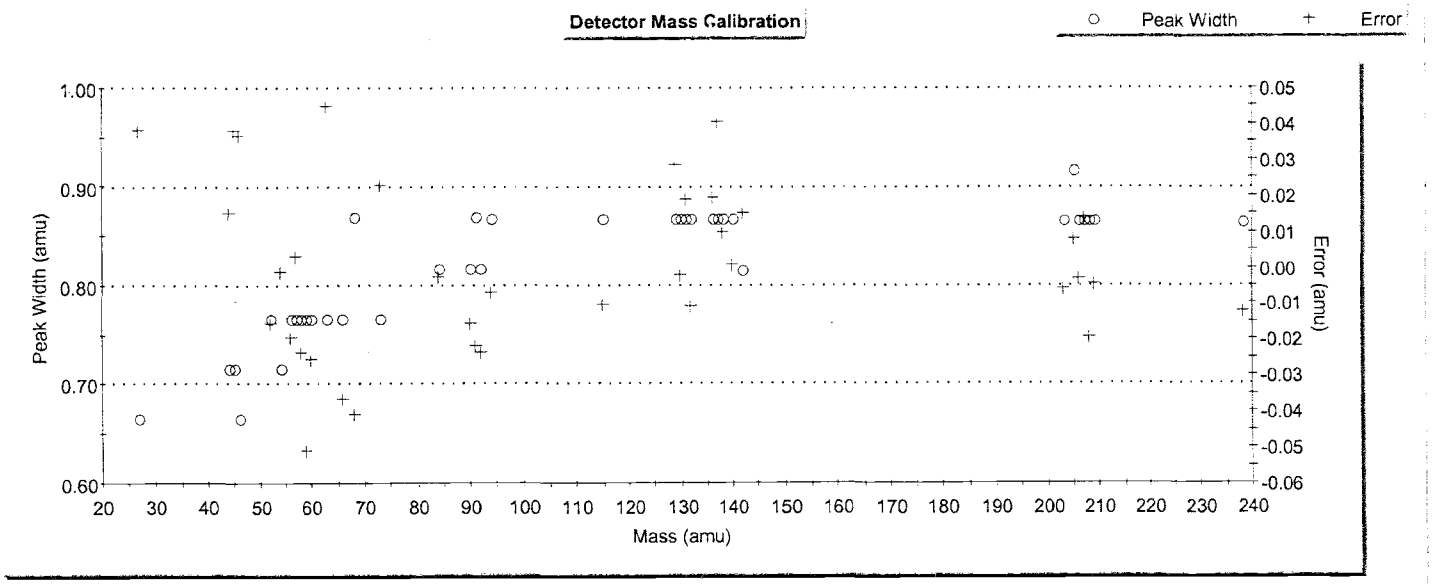
STABILITY TEST FOR 03/24/2009

stab090324a.vge **3/26/09**

Uncorrected ICPS Per Mass

Run	Label	TimeStamp	5Bkg	7Li	9Be	59Co	140Ce++	101Bkg
1	b tune (non sop	3/24/2009 10:51:34	(P)2.500E+00	(P)2.663E+04	(P)6.476E+03	(P)4.664E+04	(P)3.151E+03	(P)3.125E+01
2	1ppb tune (non s	3/24/2009 10:52:35	(P)2.250E+00	(P)2.679E+04	(P)6.519E+03	(P)4.698E+04	(P)3.119E+03	(P)3.050E+01
3	1ppb tune (non s	3/24/2009 10:53:37	(P)2.750E+00	(P)2.691E+04	(P)6.468E+03	(P)4.671E+04	(P)3.169E+03	(P)2.400E+01
4	1ppb tune (non s	3/24/2009 10:54:38	(P)7.250E+00	(P)2.681E+04	(P)6.472E+03	(P)4.704E+04	(P)3.146E+03	(P)3.125E+01
5	1ppb tune (non s	3/24/2009 10:55:39	(P)2.000E+00	(P)2.667E+04	(P)6.547E+03	(P)4.713E+04	(P)3.066E+03	(P)2.825E+01
6	1ppb tune (non s	3/24/2009 10:56:41	(P)2.250E+00	(P)2.658E+04	(P)6.586E+03	(P)4.708E+04	(P)3.120E+03	(P)2.700E+01
7	1ppb tune (non s	3/24/2009 10:57:42	(P)3.250E+00	(P)2.702E+04	(P)6.523E+03	(P)4.696E+04	(P)3.106E+03	(P)3.550E+01
8	1ppb tune (non s	3/24/2009 10:58:43	(P)3.250E+00	(P)2.681E+04	(P)6.551E+03	(P)4.710E+04	(P)3.083E+03	(P)2.725E+01
9	1ppb tune (non s	3/24/2009 10:59:44	(P)2.250E+00	(P)2.680E+04	(P)6.541E+03	(P)4.697E+04	(P)3.085E+03	(P)2.300E+01
10	1ppb tune (non s	3/24/2009 11:00:46	(P)2.750E+00	(P)2.686E+04	(P)6.552E+03	(P)4.719E+04	(P)3.089E+03	(P)2.725E+01
	Mean of 1ppb tu	3/24/2009 10:50:55	(P)3.050E+00	(P)2.679E+04	(P)6.523E+03	(P)4.698E+04	(P)3.113E+03	(P)2.853E+01
	SD of 1ppb tune (non sopt) 5		(P)1.536E+00	(P)1.317E+02	(P)3.984E+01	(P)1.781E+02	(P)3.382E+01	(P)3.713E+00
	%RSD of 1ppb tune (non sopt) 5		(P)50.350	(P)0.492	(P)0.611	(P)0.379	(P)1.086	(P)13.016

Run	Label	TimeStamp	115In	140Ce	156Ce O	209Bi	220Bkg	238U
1	b tune (non sop	3/24/2009 10:51:34	(P)7.662E+04	(P)8.546E+04	(P)1.945E+03	(P)8.818E+04	(P)1.000E+00	(P)1.174E+05
2	1ppb tune (non s	3/24/2009 10:52:35	(P)7.757E+04	(P)8.567E+04	(P)1.895E+03	(P)8.857E+04	(P)6.500E+00	(P)1.181E+05
3	1ppb tune (non s	3/24/2009 10:53:37	(P)7.738E+04	(P)8.602E+04	(P)1.972E+03	(P)8.918E+04	(P)7.500E-01	(P)1.179E+05
4	1ppb tune (non s	3/24/2009 10:54:38	(P)7.730E+04	(P)8.587E+04	(P)1.976E+03	(P)8.925E+04	(P)0.000E+00	(P)1.178E+05
5	1ppb tune (non s	3/24/2009 10:55:39	(P)7.740E+04	(P)8.613E+04	(P)1.937E+03	(P)8.932E+04	(P)2.500E-01	(P)1.182E+05
6	1ppb tune (non s	3/24/2009 10:56:41	(P)7.746E+04	(P)8.594E+04	(P)1.900E+03	(P)8.915E+04	(P)5.000E-01	(P)1.182E+05
7	1ppb tune (non s	3/24/2009 10:57:42	(P)7.777E+04	(P)8.612E+04	(P)1.937E+03	(P)8.927E+04	(P)2.500E-01	(P)1.179E+05
8	1ppb tune (non s	3/24/2009 10:58:43	(P)7.773E+04	(P)8.606E+04	(P)1.931E+03	(P)8.964E+04	(P)5.000E-01	(P)1.181E+05
9	1ppb tune (non s	3/24/2009 10:59:44	(P)7.704E+04	(P)8.575E+04	(P)1.926E+03	(P)8.929E+04	(P)2.500E-01	(P)1.178E+05
10	1ppb tune (non s	3/24/2009 11:00:46	(P)7.725E+04	(P)8.537E+04	(P)1.913E+03	(P)8.926E+04	(P)7.500E-01	(P)1.176E+05
	Mean of 1ppb tu	3/24/2009 10:50:55	(P)7.735E+04	(P)8.584E+04	(P)1.933E+03	(P)8.911E+04	(P)1.075E+00	(P)1.179E+05
	SD of 1ppb tune (non sopt) 5		(P)3.379E+02	(P)2.678E+02	(P)2.704E+01	(P)4.202E+02	(P)1.929E+00	(P)2.558E+02
	%RSD of 1ppb tune (non sopt) 5		(P)0.437	(P)0.312	(P)1.399	(P)0.472	(P)179.487	(P)0.217



Detector Mass Calibration for 3/24/09.

RRoss
3/26/09

RAW DATA tc99090324.vge 3/24/09

Uncorrected ICPS Per Mass

Run	Label	TimeStamp	45	99Tc	115In
1	rinse	3/24/2009 11:10:17	(P)4.368E+04	(P)7.733E+01	(P)7.215E+04
2	rinse	3/24/2009 11:10:26	(P)4.394E+04	(P)7.800E+01	7.22E+04
3	rinse	3/24/2009 11:10:35	(P)4.410E+04	(P)7.333E+01	7.22E+04
4	rinse	3/24/2009 11:10:45	(P)4.356E+04	(P)9.067E+01	7.19E+04
5	rinse	3/24/2009 11:10:54	(P)4.385E+04	(P)8.633E+01	7.17E+04
	Mean of rinse	3/24/2009 11:10:17	(P)4.382E+04	(P)8.113E+01	7.20E+04
	SD of rinse		(P)2.120E+02	(P)7.124E+00	2.09E+02
	%RSD of rinse		(P)0.484	(P)8.781	0.290
1	rinse	3/24/2009 11:15:52	(P)4.136E+04	(P)8.567E+01	6.84E+04
2	rinse	3/24/2009 11:16:01	(P)4.167E+04	(P)8.300E+01	6.91E+04
3	rinse	3/24/2009 11:16:10	(P)4.252E+04	(P)7.800E+01	6.99E+04
4	rinse	3/24/2009 11:16:19	(P)4.221E+04	(P)7.700E+01	6.94E+04
5	rinse	3/24/2009 11:16:28	(P)4.257E+04	(P)8.000E+01	7.00E+04
	Mean of rinse	3/24/2009 11:15:52	(P)4.206E+04	(P)8.073E+01	6.94E+04
	SD of rinse		(P)5.318E+02	(P)3.585E+00	6.47E+02
	%RSD of rinse		(P)1.264	(P)4.441	0.933
1	blank	3/24/2009 11:21:26	(P)4.103E+04	(P)8.433E+01	6.91E+04
2	blank	3/24/2009 11:21:35	(P)4.130E+04	(P)7.867E+01	7.00E+04
3	blank	3/24/2009 11:21:44	(P)4.249E+04	(P)8.367E+01	6.98E+04
4	blank	3/24/2009 11:21:53	(P)4.239E+04	(P)8.033E+01	7.04E+04
5	blank	3/24/2009 11:22:02	(P)4.226E+04	(P)8.867E+01	7.01E+04
	Mean of blank	3/24/2009 11:21:26	(P)4.189E+04	(P)8.313E+01	6.99E+04
	SD of blank		(P)6.762E+02	(P)3.877E+00	4.89E+02
	%RSD of blank		(P)1.614	(P)4.664	0.700
1	TC 99 CAL	3/24/2009 11:27:01	(PM)4.174E+04	(P)1.630E+05	7.14E+04
2	TC 99 CAL	3/24/2009 11:27:10	(P)4.246E+04	(P)1.636E+05	7.21E+04
3	TC 99 CAL	3/24/2009 11:27:19	(PM)4.271E+04	(P)1.650E+05	7.24E+04
4	TC 99 CAL	3/24/2009 11:27:28	(P)4.276E+04	(P)1.652E+05	7.31E+04
5	TC 99 CAL	3/24/2009 11:27:38	(PM)4.325E+04	(P)1.657E+05	7.29E+04
	Mean of TC 99 CAL	3/24/2009 11:27:01	(PM)4.258E+04	(P)1.645E+05	7.24E+04
	SD of TC 99 CAL		(PM)5.523E+02	(P)1.174E+03	6.57E+02
	%RSD of TC 99 CAL		(PM)1.297	(P)0.714	0.908
1	TC 99 ICV	3/24/2009 11:32:36	(P)4.090E+04	(P)8.160E+04	7.03E+04
2	TC 99 ICV	3/24/2009 11:32:45	(P)4.120E+04	(P)8.179E+04	7.06E+04
3	TC 99 ICV	3/24/2009 11:32:54	(P)4.236E+04	(P)8.212E+04	7.15E+04
4	TC 99 ICV	3/24/2009 11:33:03	(P)4.239E+04	(P)8.225E+04	7.19E+04
5	TC 99 ICV	3/24/2009 11:33:12	(P)4.274E+04	(P)8.227E+04	7.22E+04
	Mean of TC 99 ICV	3/24/2009 11:32:36	(P)4.192E+04	(P)8.201E+04	7.13E+04
	SD of TC 99 ICV		(P)8.142E+02	(P)2.983E+02	8.27E+02
	%RSD of TC 99 ICV		(P)1.942	(P)0.364	1.161
1	ICB	3/24/2009 11:38:11	(P)3.995E+04	(P)8.533E+01	6.82E+04
2	ICB	3/24/2009 11:38:20	(P)4.097E+04	(P)8.567E+01	6.85E+04
3	ICB	3/24/2009 11:38:29	(P)4.124E+04	(P)7.467E+01	6.90E+04
4	ICB	3/24/2009 11:38:38	(P)4.110E+04	(P)9.867E+01	6.91E+04

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Run	Label	TimeStamp	45	99Tc	115In
5	ICB	3/24/2009 11:38:47	(P)4.100E+04	(P)8.600E+01	6.94E+04
	Mean of ICB	3/24/2009 11:38:11	(P)4.085E+04	(P)8.607E+01	6.89E+04
	SD of ICB		(P)5.183E+02	(P)8.506E+00	4.52E+02
	%RSD of ICB		(P)1.269	(P)9.883	0.656
1	ICB	3/24/2009 11:43:45	(P)4.032E+04	(P)1.100E+02	6.76E+04
2	ICB	3/24/2009 11:43:55	(P)4.092E+04	(P)1.103E+02	6.86E+04
3	ICB	3/24/2009 11:44:04	(P)4.119E+04	(P)1.263E+02	6.87E+04
4	ICB	3/24/2009 11:44:13	(P)4.120E+04	(P)1.280E+02	6.93E+04
5	ICB	3/24/2009 11:44:22	(P)4.153E+04	(P)1.303E+02	6.95E+04
	Mean of ICB	3/24/2009 11:43:45	(P)4.103E+04	(P)1.210E+02	6.87E+04
	SD of ICB		(P)4.528E+02	(P)9.992E+00	7.24E+02
	%RSD of ICB		(P)1.103	(P)8.258	1.053
1	LLS 2 ppt	3/24/2009 11:49:20	(P)3.968E+04	(P)2.303E+02	6.65E+04
2	LLS 2 ppt	3/24/2009 11:49:30	(P)4.049E+04	(P)2.553E+02	6.73E+04
3	LLS 2 ppt	3/24/2009 11:49:39	(P)4.068E+04	(P)2.277E+02	6.81E+04
4	LLS 2 ppt	3/24/2009 11:49:48	(P)4.085E+04	(P)2.313E+02	6.85E+04
5	LLS 2 ppt	3/24/2009 11:49:57	(P)4.098E+04	(P)2.290E+02	6.86E+04
	Mean of LLS 2 ppt	3/24/2009 11:49:20	(P)4.053E+04	(P)2.347E+02	6.78E+04
	SD of LLS 2 ppt		(P)5.119E+02	(P)1.160E+01	8.93E+02
	%RSD of LLS 2 ppt		(P)1.263	(P)4.941	1.318
1	BLK	3/24/2009 11:54:55	(P)3.927E+04	(P)7.633E+01	6.70E+04
2	BLK	3/24/2009 11:55:04	(P)3.930E+04	(P)8.133E+01	6.81E+04
3	BLK	3/24/2009 11:55:13	(P)4.073E+04	(P)8.367E+01	6.80E+04
4	BLK	3/24/2009 11:55:23	(P)4.053E+04	(P)8.200E+01	6.83E+04
5	BLK	3/24/2009 11:55:32	(P)4.049E+04	(P)8.700E+01	6.80E+04
	Mean of BLK	3/24/2009 11:54:55	(P)4.006E+04	(P)8.207E+01	6.79E+04
	SD of BLK		(P)7.174E+02	(P)3.883E+00	5.03E+02
	%RSD of BLK		(P)1.791	(P)4.732	0.742
1	S09T001751	3/24/2009 12:00:30	(P)4.038E+04	(P)8.733E+01	6.82E+04
2	S09T001751	3/24/2009 12:00:40	(P)4.122E+04	(P)7.300E+01	6.86E+04
3	S09T001751	3/24/2009 12:00:49	(P)4.141E+04	(P)7.933E+01	6.95E+04
4	S09T001751	3/24/2009 12:00:58	(P)4.210E+04	(P)7.800E+01	6.94E+04
5	S09T001751	3/24/2009 12:01:07	(P)4.212E+04	(P)8.533E+01	6.96E+04
	Mean of S09T001751	3/24/2009 12:00:30	(P)4.145E+04	(P)8.060E+01	6.91E+04
	SD of S09T001751		(P)7.173E+02	(P)5.785E+00	6.35E+02
	%RSD of S09T001751		(P)1.731	(P)7.177	0.919
1	S09T001763	3/24/2009 12:06:25	(P)4.171E+04	(P)9.600E+01	6.83E+04
2	S09T001763	3/24/2009 12:06:34	(P)4.275E+04	(P)1.053E+02	7.04E+04
3	S09T001763	3/24/2009 12:06:44	(P)4.254E+04	(P)1.047E+02	6.98E+04
4	S09T001763	3/24/2009 12:06:53	(P)4.235E+04	(P)9.833E+01	7.04E+04
5	S09T001763	3/24/2009 12:07:02	(P)4.263E+04	(P)9.700E+01	7.00E+04
	Mean of S09T001763	3/24/2009 12:06:06	(P)4.240E+04	(P)1.003E+02	6.98E+04
	SD of S09T001763		(P)4.111E+02	(P)4.406E+00	8.49E+02
	%RSD of S09T001763		(P)0.970	(P)4.394	1.217

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Run	Label	TimeStamp	45	99Tc	115in
1	S09T001784 200X	3/24/2009 12:12:22	(PM)3.672E+04	(P)1.751E+06	6.55E+04
2	S09T001784 200X	3/24/2009 12:12:31	(PM)3.708E+04	(P)1.756E+06	6.56E+04
3	S09T001784 200X	3/24/2009 12:12:40	(PM)3.696E+04	(P)1.760E+06	6.60E+04
4	S09T001784 200X	3/24/2009 12:12:49	(PM)3.705E+04	(P)1.751E+06	6.54E+04
5	S09T001784 200X	3/24/2009 12:12:59	(PM)3.676E+04	(P)1.750E+06	6.55E+04
	Mean of S09T001784 200X	3/24/2009 12:12:03	(PM)3.691E+04	(P)1.753E+06	6.56E+04
	SD of S09T001784 200X		(PM)1.656E+02	(P)4.196E+03	2.20E+02
	%RSD of S09T001784 200X		(PM)0.449	(P)0.239	0.336
1	S09T001796 200X	3/24/2009 12:18:19	(PM)3.755E+04	(P)1.746E+06	6.54E+04
2	S09T001796 200X	3/24/2009 12:18:28	(PM)3.711E+04	(P)1.758E+06	6.60E+04
3	S09T001796 200X	3/24/2009 12:18:38	(PM)3.728E+04	(P)1.742E+06	6.55E+04
4	S09T001796 200X	3/24/2009 12:18:47	(PM)3.758E+04	(P)1.748E+06	6.61E+04
5	S09T001796 200X	3/24/2009 12:18:56	(PM)3.747E+04	(P)1.741E+06	6.63E+04
	Mean of S09T001796 200X	3/24/2009 12:18:00	(PM)3.740E+04	(P)1.747E+06	6.58E+04
	SD of S09T001796 200X		(PM)1.972E+02	(P)6.853E+03	3.72E+02
	%RSD of S09T001796 200X		(PM)0.527	(P)0.392	0.564
1	S09T001808 200X	3/24/2009 12:24:17	(PM)3.649E+04	(P)1.741E+06	6.47E+04
2	S09T001808 200X	3/24/2009 12:24:26	(PM)3.712E+04	(P)1.744E+06	6.48E+04
3	S09T001808 200X	3/24/2009 12:24:36	(PM)3.712E+04	(P)1.751E+06	6.52E+04
4	S09T001808 200X	3/24/2009 12:24:45	(PM)3.661E+04	(P)1.740E+06	6.46E+04
5	S09T001808 200X	3/24/2009 12:24:54	(PM)3.730E+04	(P)1.743E+06	6.55E+04
	Mean of S09T001808 200X	3/24/2009 12:23:58	(PM)3.693E+04	(P)1.744E+06	6.49E+04
	SD of S09T001808 200X		(PM)3.553E+02	(P)4.449E+03	3.81E+02
	%RSD of S09T001808 200X		(PM)0.962	(P)0.255	0.586
1	S09T001784 100X	3/24/2009 12:29:55	(PM)3.268E+04	(P)2.611E+06	6.21E+04
2	S09T001784 100X	3/24/2009 12:30:04	(PM)3.315E+04	(P)2.683E+06	6.28E+04
3	S09T001784 100X	3/24/2009 12:30:13	(PM)3.276E+04	(P)2.835E+06	6.29E+04
4	S09T001784 100X	3/24/2009 12:30:23	(PM)3.316E+04	(P)2.667E+06	6.25E+04
5	S09T001784 100X	3/24/2009 12:30:32	(PM)3.309E+04	(P)2.893E+06	6.25E+04
	Mean of S09T001784 100X	3/24/2009 12:29:55	(PM)3.297E+04	(P)2.738E+06	6.26E+04
	SD of S09T001784 100X		(PM)2.318E+02	(P)1.201E+05	3.34E+02
	%RSD of S09T001784 100X		(PM)0.703	(P)4.387	0.533
1	S09T001796 100X	3/24/2009 12:35:33	(PM)3.273E+04	(P)2.637E+06	6.10E+04
2	S09T001796 100X	3/24/2009 12:35:42	(PM)3.265E+04	(P)2.767E+06	6.15E+04
3	S09T001796 100X	3/24/2009 12:35:51	(PM)3.340E+04	(P)2.616E+06	6.14E+04
4	S09T001796 100X	3/24/2009 12:36:00	(PM)3.325E+04	(P)2.680E+06	6.13E+04
5	S09T001796 100X	3/24/2009 12:36:10	(PM)3.333E+04	(P)2.613E+06	6.10E+04
	Mean of S09T001796 100X	3/24/2009 12:35:33	(PM)3.307E+04	(P)2.663E+06	6.13E+04
	SD of S09T001796 100X		(PM)3.525E+02	(P)6.402E+04	2.45E+02
	%RSD of S09T001796 100X		(PM)1.066	(P)2.404	0.400
1	S09T001808 100X	3/24/2009 12:41:10	(PM)3.097E+04	(P)2.737E+06	5.95E+04
2	S09T001808 100X	3/24/2009 12:41:19	(PM)3.160E+04	(P)2.819E+06	6.00E+04
3	S09T001808 100X	3/24/2009 12:41:28	(PM)3.148E+04	(P)2.779E+06	6.05E+04

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Run	Label	TimeStamp	45	99Tc	115In
4	S09T001808 100X	3/24/2009 12:41:38	(PM)3.199E+04	(P)2.791E+06	5.99E+04
5	S09T001808 100X	3/24/2009 12:41:47	(PM)3.183E+04	(P)2.730E+06	5.97E+04
	Mean of S09T001808 100X	3/24/2009 12:41:10	(PM)3.157E+04	(P)2.771E+06	5.99E+04
	SD of S09T001808 100X		(PM)3.904E+02	(P)3.758E+04	3.72E+02
	%RSD of S09T001808 100X		(PM)1.236	(P)1.356	0.621
1	TC 99 CCV	3/24/2009 12:46:46	(P)3.795E+04	(P)7.830E+04	6.73E+04
2	TC 99 CCV	3/24/2009 12:46:55	(P)3.896E+04	(P)7.913E+04	6.84E+04
3	TC 99 CCV	3/24/2009 12:47:04	(P)3.934E+04	(P)8.035E+04	6.95E+04
4	TC 99 CCV	3/24/2009 12:47:13	(P)3.992E+04	(P)8.072E+04	6.97E+04
5	TC 99 CCV	3/24/2009 12:47:22	(P)4.012E+04	(P)8.135E+04	6.99E+04
	Mean of TC 99 CCV	3/24/2009 12:46:46	(P)3.926E+04	(P)7.997E+04	6.90E+04
	SD of TC 99 CCV		(P)8.648E+02	(P)1.233E+03	1.11E+03
	%RSD of TC 99 CCV		(P)2.203	(P)1.542	1.612
1	CCB	3/24/2009 12:52:21	(P)3.722E+04	(P)1.260E+02	6.66E+04
2	CCB	3/24/2009 12:52:30	(P)3.844E+04	(P)1.363E+02	6.72E+04
3	CCB	3/24/2009 12:52:39	(P)3.844E+04	(P)1.773E+02	6.80E+04
4	CCB	3/24/2009 12:52:49	(P)3.896E+04	(P)2.717E+02	6.78E+04
5	CCB	3/24/2009 12:52:58	(P)3.947E+04	(P)3.357E+02	6.84E+04
	Mean of CCB	3/24/2009 12:52:21	(P)3.850E+04	(P)2.094E+02	6.76E+04
	SD of CCB		(P)8.372E+02	(P)9.103E+01	7.01E+02
	%RSD of CCB		(P)2.174	(P)43.470	1.036
1	CCB	3/24/2009 12:57:56	(P)3.711E+04	(P)2.423E+02	6.78E+04
2	CCB	3/24/2009 12:58:06	(P)3.796E+04	(P)2.933E+02	6.83E+04
3	CCB	3/24/2009 12:58:15	(P)3.870E+04	(P)3.263E+02	6.84E+04
4	CCB	3/24/2009 12:58:24	(P)3.876E+04	(P)4.073E+02	6.90E+04
5	CCB	3/24/2009 12:58:34	(P)3.915E+04	(P)4.963E+02	6.93E+04
	Mean of CCB	3/24/2009 12:57:56	(P)3.834E+04	(P)3.531E+02	6.86E+04
	SD of CCB		(P)8.104E+02	(P)1.000E+02	5.84E+02
	%RSD of CCB		(P)2.114	(P)28.324	0.851
1	CCB	3/24/2009 13:08:33	(P)3.775E+04	(P)1.523E+02	7.25E+04
2	CCB	3/24/2009 13:08:42	(P)3.902E+04	(P)1.517E+02	7.26E+04
3	CCB	3/24/2009 13:08:51	(P)3.936E+04	(P)1.770E+02	7.17E+04
4	CCB	3/24/2009 13:09:00	(P)3.952E+04	(P)1.960E+02	7.16E+04
5	CCB	3/24/2009 13:09:09	(P)3.926E+04	(P)2.053E+02	7.19E+04
	Mean of CCB	3/24/2009 13:08:33	(P)3.898E+04	(P)1.765E+02	7.21E+04
	SD of CCB		(P)7.116E+02	(P)2.456E+01	4.53E+02
	%RSD of CCB		(P)1.826	(P)13.917	0.628
1	CCB	3/24/2009 13:14:08	(P)3.713E+04	(P)1.233E+02	6.93E+04
2	CCB	3/24/2009 13:14:17	(P)3.794E+04	(P)1.210E+02	6.99E+04
3	CCB	3/24/2009 13:14:26	(P)3.874E+04	(P)1.287E+02	7.05E+04
4	CCB	3/24/2009 13:14:36	(P)3.916E+04	(P)1.317E+02	7.03E+04
5	CCB	3/24/2009 13:14:45	(P)3.917E+04	(P)1.313E+02	7.09E+04
	Mean of CCB	3/24/2009 13:14:08	(P)3.843E+04	(P)1.272E+02	7.02E+04
	SD of CCB		(P)8.826E+02	(P)4.811E+00	6.15E+02

RAW DATA tc99090324.vge 3/24/09

Run	Label	TimeStamp	45	99Tc	115In
	%RSD of CCB		(P)2.297	(P)3.782	0.877
1	S09T001784_L	3/24/2009 13:28:27	(P)3.912E+04	(P)8.786E+03	7.40E+04
2	S09T001784_L	3/24/2009 13:28:36	(P)3.920E+04	(P)8.717E+03	7.37E+04
3	S09T001784_L	3/24/2009 13:28:45	(P)3.961E+04	(P)8.653E+03	7.40E+04
4	S09T001784_L	3/24/2009 13:28:54	(P)3.994E+04	(P)8.632E+03	7.38E+04
5	S09T001784_L	3/24/2009 13:29:03	(P)3.970E+04	(P)8.550E+03	7.38E+04
	Mean of S09T001784_L	3/24/2009 13:28:27	(P)3.951E+04	(P)8.668E+03	7.39E+04
	SD of S09T001784_L		(P)3.471E+02	(P)8.887E+01	1.61E+02
	%RSD of S09T001784_L		(P)0.878	(P)1.025	0.217
1	S09T001784	3/24/2009 13:34:23	(P)3.733E+04	(P)4.065E+04	6.78E+04
2	S09T001784	3/24/2009 13:34:33	(P)3.799E+04	(P)4.134E+04	6.93E+04
3	S09T001784	3/24/2009 13:34:42	(P)3.874E+04	(P)4.178E+04	7.03E+04
4	S09T001784	3/24/2009 13:34:51	(P)3.860E+04	(P)4.189E+04	7.00E+04
5	S09T001784	3/24/2009 13:35:00	(P)3.858E+04	(P)4.170E+04	7.07E+04
	Mean of S09T001784	3/24/2009 13:34:04	(P)3.825E+04	(P)4.147E+04	6.96E+04
	SD of S09T001784		(P)5.869E+02	(P)5.004E+02	1.13E+03
	%RSD of S09T001784		(P)1.535	(P)1.207	1.626
1	S09T001784_D	3/24/2009 13:39:59	(P)3.763E+04	(P)4.104E+04	7.05E+04
2	S09T001784_D	3/24/2009 13:40:08	(P)3.823E+04	(P)4.112E+04	7.08E+04
3	S09T001784_D	3/24/2009 13:40:18	(P)3.866E+04	(P)4.119E+04	7.12E+04
4	S09T001784_D	3/24/2009 13:40:27	(P)3.881E+04	(P)4.105E+04	7.09E+04
5	S09T001784_D	3/24/2009 13:40:36	(P)3.900E+04	(P)4.139E+04	7.13E+04
	Mean of S09T001784_D	3/24/2009 13:39:59	(P)3.846E+04	(P)4.116E+04	7.09E+04
	SD of S09T001784_D		(P)5.476E+02	(P)1.445E+02	3.32E+02
	%RSD of S09T001784_D		(P)1.424	(P)0.351	0.468
1	S09T001784_A	3/24/2009 13:45:37	(P)3.680E+04	(P)8.503E+04	6.95E+04
2	S09T001784_A	3/24/2009 13:45:46	(P)3.774E+04	(P)8.590E+04	7.05E+04
3	S09T001784_A	3/24/2009 13:45:56	(P)3.787E+04	(P)8.616E+04	7.07E+04
4	S09T001784_A	3/24/2009 13:46:06	(P)3.812E+04	(P)8.595E+04	7.04E+04
5	S09T001784_A	3/24/2009 13:46:15	(P)3.808E+04	(P)8.573E+04	7.07E+04
	Mean of S09T001784_A	3/24/2009 13:45:37	(P)3.772E+04	(P)8.575E+04	7.04E+04
	SD of S09T001784_A		(P)5.416E+02	(P)4.322E+02	4.99E+02
	%RSD of S09T001784_A		(P)1.436	(P)0.504	0.709
1	S09T001784_AA	3/24/2009 13:51:14	(P)3.722E+04	(P)8.518E+04	7.10E+04
2	S09T001784_AA	3/24/2009 13:51:23	(P)3.780E+04	(P)8.536E+04	7.13E+04
3	S09T001784_AA	3/24/2009 13:51:33	(P)3.821E+04	(P)8.552E+04	7.13E+04
4	S09T001784_AA	3/24/2009 13:51:42	(P)3.830E+04	(P)8.597E+04	7.15E+04
5	S09T001784_AA	3/24/2009 13:51:52	(P)3.808E+04	(P)8.533E+04	7.12E+04
	Mean of S09T001784_AA	3/24/2009 13:51:14	(P)3.792E+04	(P)8.547E+04	7.12E+04
	SD of S09T001784_AA		(P)4.340E+02	(P)3.020E+02	1.81E+02
	%RSD of S09T001784_AA		(P)1.144	(P)0.353	0.254
1	S09T001796	3/24/2009 13:56:52	(P)3.605E+04	(P)4.084E+04	6.80E+04
2	S09T001796	3/24/2009 13:57:01	(P)3.672E+04	(P)4.116E+04	6.82E+04

RAW DATA tc99090324.vge 3/24/09

Run	Label	TimeStamp	45	99Tc	115In
3	S09T001796	3/24/2009 13:57:11	(P)3.678E+04	(P)4.115E+04	6.86E+04
4	S09T001796	3/24/2009 13:57:20	(P)3.744E+04	(P)4.103E+04	6.90E+04
5	S09T001796	3/24/2009 13:57:30	(P)3.745E+04	(P)4.174E+04	6.93E+04
	Mean of S09T001796	3/24/2009 13:56:52	(P)3.689E+04	(P)4.118E+04	6.86E+04
	SD of S09T001796		(P)5.837E+02	(P)3.371E+02	5.50E+02
	%RSD of S09T001796		(P)1.582	(P)0.819	0.802
1	S09T001808	3/24/2009 14:02:31	(P)3.620E+04	(P)4.085E+04	6.86E+04
2	S09T001808	3/24/2009 14:02:41	(P)3.690E+04	(P)4.081E+04	6.89E+04
3	S09T001808	3/24/2009 14:02:50	(P)3.703E+04	(P)4.128E+04	6.95E+04
4	S09T001808	3/24/2009 14:02:59	(P)3.738E+04	(P)4.118E+04	6.96E+04
5	S09T001808	3/24/2009 14:03:09	(P)3.743E+04	(P)4.100E+04	7.03E+04
	Mean of S09T001808	3/24/2009 14:02:31	(P)3.699E+04	(P)4.102E+04	6.94E+04
	SD of S09T001808		(P)4.976E+02	(P)2.050E+02	6.54E+02
	%RSD of S09T001808		(P)1.345	(P)0.500	0.943
1	LLS 2 ppt	3/24/2009 14:08:08	(P)3.590E+04	(P)2.673E+02	6.87E+04
2	LLS 2 ppt	3/24/2009 14:08:17	(P)3.668E+04	(P)2.677E+02	6.92E+04
3	LLS 2 ppt	3/24/2009 14:08:26	(P)3.730E+04	(P)2.667E+02	6.96E+04
4	LLS 2 ppt	3/24/2009 14:08:36	(P)3.745E+04	(P)2.547E+02	6.98E+04
5	LLS 2 ppt	3/24/2009 14:08:45	(P)3.773E+04	(P)2.563E+02	6.99E+04
	Mean of LLS 2 ppt	3/24/2009 14:08:08	(P)3.701E+04	(P)2.625E+02	6.94E+04
	SD of LLS 2 ppt		(P)7.293E+02	(P)6.458E+00	4.97E+02
	%RSD of LLS 2 ppt		(P)1.970	(P)2.460	0.716
1	Tc 99 CCV	3/24/2009 14:13:44	(P)3.564E+04	(P)8.256E+04	7.15E+04
2	Tc 99 CCV	3/24/2009 14:13:53	(P)3.642E+04	(P)8.258E+04	7.21E+04
3	Tc 99 CCV	3/24/2009 14:14:02	(P)3.668E+04	(P)8.271E+04	7.25E+04
4	Tc 99 CCV	3/24/2009 14:14:12	(P)3.780E+04	(P)8.384E+04	7.31E+04
5	Tc 99 CCV	3/24/2009 14:14:21	(P)3.785E+04	(P)8.331E+04	7.28E+04
	Mean of Tc 99 CCV	3/24/2009 14:13:44	(P)3.688E+04	(P)8.300E+04	7.24E+04
	SD of Tc 99 CCV		(P)9.448E+02	(P)5.603E+02	6.34E+02
	%RSD of Tc 99 CCV		(P)2.562	(P)0.675	0.875
1	CCB	3/24/2009 14:19:21	(P)3.535E+04	(P)9.367E+01	6.77E+04
2	CCB	3/24/2009 14:19:30	(P)3.609E+04	(P)8.667E+01	6.79E+04
3	CCB	3/24/2009 14:19:40	(P)3.635E+04	(P)8.800E+01	6.85E+04
4	CCB	3/24/2009 14:19:49	(P)3.696E+04	(P)8.300E+01	6.90E+04
5	CCB	3/24/2009 14:19:59	(P)3.668E+04	(P)8.933E+01	6.86E+04
	Mean of CCB	3/24/2009 14:19:21	(P)3.629E+04	(P)8.813E+01	6.83E+04
	SD of CCB		(P)6.175E+02	(P)3.892E+00	5.27E+02
	%RSD of CCB		(P)1.702	(P)4.416	0.772

222-S Advanced Technologies and Laboratories **ICP-MS Data Review Checklist**

Worklist/Project Information: 00013615 / MS Act AW-106 EVAP Procedure Used: LA-506-102

Run Date: 3/31/2009 Instrument ID: PQ ExCell Prep Batches Run: no prep

Review Items	Yes	No	N/A
A. Tuning, Calibration, Instrument Run QC			
1. Was the instrument tuned according to the SOP?	X		
2. Are the mass calibration and resolution within required limits?	X		
3 Was the stability %RSD documented as <5%.	X		
4. Was the instrument calibrated per SOP and at specified levels?	X		
5. Were ICV/CCV analyzed at appropriate frequency and were recoveries within control limits? (90 -110%; If not in control, was the CCV reanalyzed to show return to control?	X		
6. Were ICB/CCB analyzed at appropriate frequency and were results < EQL (or, with client consent, <5% of lowest sample result)? N/A if all samples are ND.	X		
7. Was LLS run and was recovery 100±25% for IH or 100±30% for non-IH work?		X	
B. Sample Results			
1. Were samples with concentrations above the linear range for any analyte diluted and reanalyzed?			X
2. Are all reported results bracketed by in control QC?	X		
3. Were sample analyses done within holding time?			X
C. Preparation/Matrix QC			
1. Was a method blank done per prep batch and were results < EQL or less than 5% of lowest sample result?			X
2. Was an LCS done per prep batch and were recoveries within 80-120% ?			X
3. Was an MS run as required and were recoveries within 75-125% for all analytes for which the spike level is at least 25% of the sample result?			X
4. Was an MSD or DUP run at required frequency and was the % RPD within limits (<20%) for all analytes > EQL?	X		
5. Was a serial dilution done per prep batch and was the % difference within limits (<10%) for all analytes > 100 times the DL?	X		
6. Was a post digest spike analyzed if required and were the recoveries within 75-125% ?	X		
D. Other			
1. Are all nonconformances documented appropriately?			X
2. Is current IDL/MDL/EQL data on file?	X		
3. Were calculations checked for errors?	X		
4. Were transcriptions and data upload checked for errors? (Example: Are dilution factors that are entered into the sequence log correct?)	X		
5. Were all client/project specific requirements met?	X		
6. Was the date/time of analysis verified as correct?	X		

Comments/Samples Affected (give review item letter and number)

A6. The ICB result for U-233 was >DL but <<EQL, being just above the DL. It has no impact on the sample results, because the blank run just prior to the sample data was <DL for U-236, indicating that no carryover from the ICB could have affected the sample results.

A7. The initial LLS recovery for U-235 was >130%. The U-235 content in the samples, except for the field blanks, was sufficiently high that the high recovery of the LLS should have no influence on the sample results.

C1/C2/C3. The samples were run with only acid dilution, so the ICB serves as the method blank, the ICV as the LCS and the Post spike as the Spike.

C5. U-233 % difference is >10% but sample result is <EQL so acceptance limits do not apply for this analyte. RRoss 4/6/09

C4. U-233 % RPD is >20% but sample result is <EQL so acceptance limits do not apply for this analyte. RRoss 4/6/09

1st Level Data Reviewer Rorie R Ross Date: 4/2/09 2nd Level Data Reviewer: Date: 4/6/09

LABCORE Completed Batch Report for Batch# 00013615

Analyst: Monteith, Kenneth

Book#: See bench sheet

Instrument: ICP/MS PQ-EXCELL

Method: MS ACTINIDES, LA-506-102 Rev/Mod E-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP ICPMS

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1																
1	ICV	S0904010104		0	0	Uranium-235	LIQUID	.0000072	6.9680E-06			1.10E-08	ug/mL	96.778	% Recovery	
2	ICV	S0904010104		0	1	Neptunium-237	LIQUID	.00115	1.2120E-03			5.30E-08	ug/mL	105.39	% Recovery	
1	ICV	S0904010104		0	0	Uranium-238	LIQUID	.0009928	9.8980E-04			5.50E-07	ug/mL	99.698	% Recovery	
Sample Sequence 3																
3	ICB	S0904010105		0	0	Uranium-233	LIQUID		1.5000E-08			1.00E-08	ug/mL			
3	ICB	S0904010105		0	0	Uranium-234	LIQUID		<5.0000E-09			5.00E-09	ug/mL			
3	ICB	S0904010105		0	0	Uranium-235	LIQUID		1.1000E-08			1.10E-08	ug/mL			
3	ICB	S0904010105		0	0	Uranium-236	LIQUID		<4.0000E-09			4.00E-09	ug/mL			
3	ICB	S0904010105		0	0	Neptunium-237	LIQUID		<5.3000E-08			5.30E-08	ug/mL			
3	ICB	S0904010105		0	0	Uranium-238	LIQUID		<5.5000E-07			5.50E-07	ug/mL			
Sample Sequence 4																
4	LLS	S0904010106		0	0	Uranium-235	LIQUID	.000000036	5.2000E-08			1.10E-08	ug/mL	144.44	% Recovery	
4	LLS	S0904010106		0	0	Neptunium-237	LIQUID	.000005	5.0060E-06			5.30E-08	ug/mL	100.12	% Recovery	
4	LLS	S0904010106		0	0	Uranium-238	LIQUID	.000004964	5.1360E-06			5.50E-07	ug/mL	103.46	% Recovery	
Sample Sequence 5																
5	SAMPLE	S09T001796		0	0	Uranium-233	LIQUID	N/A	9.6760E-04			5.00E-04	ug/mL			J
5	SAMPLE	S09T001796		0	0	Uranium-234	LIQUID	N/A	1.8280E-03			2.50E-04	ug/mL			J
5	SAMPLE	S09T001796		0	0	Uranium-235	LIQUID	N/A	1.2210E-01			5.50E-04	ug/mL			
5	SAMPLE	S09T001796		0	0	Uranium-236	LIQUID	N/A	4.3460E-03			2.00E-04	ug/mL			
5	SAMPLE	S09T001796		0	0	Neptunium-237	LIQUID	N/A	1.3020E-01			2.65E-03	ug/mL			
5	SAMPLE	S09T001796		0	0	Uranium-238	LIQUID	N/A	1.8300E+01			0.0275	ug/mL			
Sample Sequence 6																
6	SAMPLE	S09T001751		0	0	Uranium-233	LIQUID	N/A	<1.0000E-07			1.00E-07	ug/mL			U
6	SAMPLE	S09T001751		0	0	Uranium-234	LIQUID	N/A	<5.0000E-08			5.00E-08	ug/mL			U
6	SAMPLE	S09T001751		0	0	Uranium-235	LIQUID	N/A	1.5300E-07			1.10E-07	ug/mL			J
6	SAMPLE	S09T001751		0	0	Uranium-236	LIQUID	N/A	<4.0000E-08			4.00E-08	ug/mL			U
6	SAMPLE	S09T001751		0	0	Neptunium-237	LIQUID	N/A	<5.3000E-07			5.30E-07	ug/mL			U
6	SAMPLE	S09T001751		0	0	Uranium-238	LIQUID	N/A	<5.5000E-06			5.50E-06	ug/mL			U
Sample Sequence 7																
7	SAMPLE	S09T001763		0	0	Uranium-233	LIQUID	N/A	<1.0000E-07			1.00E-07	ug/mL			U
7	SAMPLE	S09T001763		0	0	Uranium-234	LIQUID	N/A	<5.0000E-08			5.00E-08	ug/mL			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013615

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
7	SAMPLE	S09T001763		0 0		Uranium-235	LIQUID	N/A	9.3200E-07			1.10E-07	ug/mL			J
7	SAMPLE	S09T001763		0 0		Uranium-236	LIQUID	N/A	1.0200E-07			4.00E-08	ug/mL			J
7	SAMPLE	S09T001763		0 0		Neptunium-237	LIQUID	N/A	<5.3000E-07			5.30E-07	ug/mL			U
7	SAMPLE	S09T001763		0 0		Uranium-238	LIQUID	N/A	1.3220E-04			5.50E-06	ug/mL			
Sample Sequence 8																
8	SAMPLE	S09T001784		0 0		Uranium-233	LIQUID	N/A	1.1210E-03			5.00E-04	ug/mL			J
8	SAMPLE	S09T001784		0 0		Uranium-234	LIQUID	N/A	1.7970E-03			2.50E-04	ug/mL			J
8	SAMPLE	S09T001784		0 0		Uranium-235	LIQUID	N/A	1.2890E-01			5.50E-04	ug/mL			
8	SAMPLE	S09T001784		0 0		Uranium-236	LIQUID	N/A	3.0950E-03			2.00E-04	ug/mL			
8	SAMPLE	S09T001784		0 0		Neptunium-237	LIQUID	N/A	1.1700E-01			2.65E-03	ug/mL			
8	SAMPLE	S09T001784		0 0		Uranium-238	LIQUID	N/A	1.8170E+01			0.0275	ug/mL			
Sample Sequence 9																
9	SAMPLE	S09T001808		0 0		Uranium-233	LIQUID	N/A	5.3240E-04			5.00E-04	ug/mL			J
9	SAMPLE	S09T001808		0 0		Uranium-234	LIQUID	N/A	8.7280E-04			2.50E-04	ug/mL			J
9	SAMPLE	S09T001808		0 0		Uranium-235	LIQUID	N/A	1.3200E-01			5.50E-04	ug/mL			
9	SAMPLE	S09T001808		0 0		Uranium-236	LIQUID	N/A	3.3680E-03			2.00E-04	ug/mL			
9	SAMPLE	S09T001808		0 0		Neptunium-237	LIQUID	N/A	1.1000E-01			2.65E-03	ug/mL			
9	SAMPLE	S09T001808		0 0		Uranium-238	LIQUID	N/A	1.8110E+01			0.0275	ug/mL			
Sample Sequence 10																
10	CCV	S0904010110		0 0		Uranium-235	LIQUID	.0000072	6.9750E-06			1.10E-08	ug/mL	96.875	% Recovery	
11	CCV	S0904010110		0 1		Neptunium-237	LIQUID	.00115	1.2320E-03			5.30E-08	ug/mL	107.13	% Recovery	
10	CCV	S0904010110		0 0		Uranium-238	LIQUID	.0009928	9.8020E-04			5.50E-07	ug/mL	98.731	% Recovery	
Sample Sequence 12																
12	CCB	S0904010111		0 0		Uranium-233	LIQUID		<1.0000E-08			1.00E-08	ug/mL			
12	CCB	S0904010111		0 0		Uranium-234	LIQUID		<5.0000E-09			5.00E-09	ug/mL			
12	CCB	S0904010111		0 0		Uranium-235	LIQUID		<1.1000E-08			1.10E-08	ug/mL			
12	CCB	S0904010111		0 0		Uranium-236	LIQUID		<4.0000E-09			4.00E-09	ug/mL			
12	CCB	S0904010111		0 0		Neptunium-237	LIQUID		<5.3000E-08			5.30E-08	ug/mL			
12	CCB	S0904010111		0 0		Uranium-238	LIQUID		<5.5000E-07			5.50E-07	ug/mL			
Sample Sequence 13																
13	SERDIL	S0904010107	S09T001796	0 0		Uranium-233	LIQUID		2.5180E-03			2.50E-03	ug/mL	160.23	% Diff	
13	SERDIL	S0904010107	S09T001796	0 0		Uranium-234	LIQUID		1.9340E-03			1.25E-03	ug/mL	5.7987	% Diff	
13	SERDIL	S0904010107	S09T001796	0 0		Uranium-235	LIQUID		1.2490E-01			2.75E-03	ug/mL	2.2932	% Diff	
13	SERDIL	S0904010107	S09T001796	0 0		Uranium-236	LIQUID		6.3580E-03			1.00E-03	ug/mL	46.295	% Diff	
13	SERDIL	S0904010107	S09T001796	0 0		Neptunium-237	LIQUID		7.4710E-02			0.01325	ug/mL	42.619	% Diff	
13	SERDIL	S0904010107	S09T001796	0 0		Uranium-238	LIQUID		1.7620E+01			0.1375	ug/mL	3.7158	% Diff	
Sample Sequence 14																
14	SPK-POST	S0904010109	S09T001796	0 0		Uranium-235	LIQUID	.18	3.0960E-01			1.10E-08	ug/mL	104.17	% Recovery	
15	SPK-POST	S0904010109	S09T001796	0 1		Neptunium-237	LIQUID	4.9175	5.2440E+00			5.30E-08	ug/mL	103.99	% Recovery	
14	SPK-POST	S0904010109	S09T001796	0 0		Uranium-238	LIQUID	24.82	4.2960E+01			5.50E-07	ug/mL	99.355	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013615

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 16															
16 DUP	S0904010108	S09T001796	0 0		Uranium-233	LIQUID	9.6760E-04	1.2170E-03			5.00E-04	ug/mL	22.833	% RPD	
16 DUP	S0904010108	S09T001796	0 0		Uranium-234	LIQUID	1.8280E-03	1.6830E-03			2.50E-04	ug/mL	8.2598	% RPD	
16 DUP	S0904010108	S09T001796	0 0		Uranium-235	LIQUID	1.2210E-01	1.2590E-01			5.50E-04	ug/mL	3.0645	% RPD	
16 DUP	S0904010108	S09T001796	0 0		Uranium-236	LIQUID	4.3460E-03	4.8390E-03			2.00E-04	ug/mL	10.735	% RPD	
16 DUP	S0904010108	S09T001796	0 0		Neptunium-237	LIQUID	1.3020E-01	1.1770E-01			2.65E-03	ug/mL	10.085	% RPD	
16 DUP	S0904010108	S09T001796	0 0		Uranium-238	LIQUID	1.8300E+01	1.8320E+01			0.0275	ug/mL	0.10923	% RPD	
Sample Sequence 17															
17 LLS	S0904010114		0 0		Uranium-235	LIQUID	.000000036	3.1000E-08			1.10E-08	ug/mL	86.111	% Recovery	
17 LLS	S0904010114		0 0		Neptunium-237	LIQUID	.000005	5.0110E-06			5.30E-08	ug/mL	100.22	% Recovery	
17 LLS	S0904010114		0 0		Uranium-238	LIQUID	.000004964	5.2190E-06			5.50E-07	ug/mL	105.14	% Recovery	
Sample Sequence 18															
18 CCV	S0904010112		0 0		Uranium-235	LIQUID	.0000072	6.8900E-06			1.10E-08	ug/mL	95.694	% Recovery	
19 CCV	S0904010112		0 1		Neptunium-237	LIQUID	.00115	1.2170E-03			5.30E-08	ug/mL	105.83	% Recovery	
18 CCV	S0904010112		0 0		Uranium-238	LIQUID	.0009928	9.7670E-04			5.50E-07	ug/mL	98.378	% Recovery	
Sample Sequence 20															
20 CCB	S0904010113		0 0		Uranium-233	LIQUID		<1.0000E-08			1.00E-08	ug/mL			
20 CCB	S0904010113		0 0		Uranium-234	LIQUID		<5.0000E-09			5.00E-09	ug/mL			
20 CCB	S0904010113		0 0		Uranium-235	LIQUID		<1.1000E-08			1.10E-08	ug/mL			
20 CCB	S0904010113		0 0		Uranium-236	LIQUID		<4.0000E-09			4.00E-09	ug/mL			
20 CCB	S0904010113		0 0		Neptunium-237	LIQUID		<5.3000E-08			5.30E-08	ug/mL			
20 CCB	S0904010113		0 0		Uranium-238	LIQUID		<5.5000E-07			5.50E-07	ug/mL			

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RPP-RPT-40709 Rev. 1

Comments Section:

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013615

Roxie R. Ross 4/2/09
Reviewer Signature Date

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013615

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0904010104	ICV				
2	S0904010104	ICV				
3	S0904010105	ICB				
4	S0904010106	LLS				
5	S09T001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
6	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
7	S09T001763	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
8	S09T001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
9	S09T001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
10	S0904010110	CCV				
11	S0904010110	CCV				
12	S0904010111	CCB				
13	S0904010107	SERDIL	S09T001796			
14	S0904010109	SPK-POST	S09T001796			
15	S0904010109	SPK-POST	S09T001796			
16	S0904010108	DUP	S09T001796			
17	S0904010114	LLS				
18	S0904010112	CCV				
19	S0904010112	CCV				
20	S0904010113	CCB				

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Batch# 00013615

Analyst: Monteith, Kenneth **Standard ID / Book#:**

Instrument: ICP/MS PQ-EXCELL

Method: MS ACTINIDES, LA-506-102 Rev/Mod E-0

Prep Batch:

Batch Comment: AW106 EVAP ICPMS

S	Type	Sample	R	A	Matrix	Group#	Project
1	ICV		0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-235, Uranium-238					
3	ICB		0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					
4	LLS		0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-235, Uranium-238					
5	SAMPLE	S09T001796	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					
6	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					
7	SAMPLE	S09T001763	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					
8	SAMPLE	S09T001784	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					
9	SAMPLE	S09T001808	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					
10	CCV		0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-235, Uranium-238					
12	CCB		0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					
13	SERDIL	S09T001796	0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					
14	SPK-POST	S09T001796	0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-235, Uranium-238					
16	DUP	S09T001796	0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					
17	LLS		0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-235, Uranium-238					
18	CCV		0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-235, Uranium-238					
20	CCB		0		LIQUID		
	Analytes Requested:	Neptunium-237, Uranium-233, Uranium-234, Uranium-235, Uranium-236, Uranium-238					

Final Page for Batch# 00013615

4-1-09
Analyst Signature Date

Data Entry Signature Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

ICP-MS BENCH SHEET

PROJECT: VADOSE BATCH #: _____ FILE #: UNP090331

ANALYST: KRM STANDARD BOOK # and page: HNF-N-248 1 page 81

Pipettor #s: G0786624F,F0500319C, C30439,4038646, 446580 visual checks performed

_ok_ check pump tubing _ok check chiller water __ok check wash station _3 deg_ Peltier temp.

Calibration standards:
U 2 ppb CAL 090331-3 (HP lot0808704)
NP 2PPB CAL 090331-8 (80B64)

Verification Standards:
U ICV/CCV 090331-5 (HP0808703)
NP ICV/CCV 090331-9 (114B59A)

U SPIKE .05ML OF 090331-2 A 100 PPB DILUTION OF HP U LOT 0808704
NP SPK 0.5 ML OF 090331-9 A 1.967 PPB DILUTION OF 80B64

SAMPLE NUMBER	DF	DILUTION DETAILS
U ICV	1	
NP ICV	1	
ICB	1	
LLS	1	
S09T001796	1,000	
BLK	1	
S09T001796	50,000	0.100ML-9.9ML-0.02ML-0.03ML-9.98ML
S09T001751	10	
S09T001763	10	
S09T001784	50,000	0.100ML-9.9ML-0.02ML-0.03ML-9.98ML
S09T001808	50,000	0.100ML-9.9ML-0.02ML-0.03ML-9.98ML
U CCV	20	
NP CCV	20	
CCB	1	
CCB	1	
S09T001796_L	250,000	0.100ML-9.9ML-0.100ML-9.9ML-0.400ML-0.03ML-9.6ML
S09T001796_D	50,000	0.100ML-9.9ML-0.02ML-0.03ML-9.98ML
S09T001796_A1	50,000	0.100ML-9.9ML-0.02ML-0.03ML-0.05ML-9.93ML
S09T001796_A2	50,000	0.100ML-9.9ML-0.02ML-0.03ML-0.50ML-9.48ML
S09T001796_D	50,000	0.100ML-9.9ML-0.02ML-0.03ML-9.98ML
BLK	1	
LLS	1	
UCCV	1	
NPCCV	1	
CCB	1	

First entry is sample volume I mL (www)
Second entry is internal standard in mL. (xxx)
Third entry is post spike volume in mL. (yyy)
Fourth entry is matrix volume in mL. (zz.zzz)

Single Dilution: www-xxx-zz.zzz
0.25-0.03-0.025-9.725 = 40 df
Double Dilution: www-zz.zzz-www-xxx-yyy-zz.zzz
0.10-9.9-0.25-0.03-0.025-9.725= 4000 df

Sample List

Num	Label	Type	Weight	Volume	Dilution	Rack	Row	Column	Height
1	rinse 1	Unknown	0 kg	0 ml	1.00	1	1	4	144
2	rinse 2	Unknown	0 kg	0 ml	1.00	1	1	1	144
3	Blank	Blank	0 kg	0 ml	1.00	1	1	2	144
4	U cal	Fully Quant Standard	0 kg	0 ml	1.00	1	1	3	144
5	NP CAL	Fully Quant Standard	0 kg	0 ml	1.00	1	1	4	144
6	U ICV	Unknown	0 kg	0 ml	1.00	1	1	5	144
7	NP ICV	Unknown	0 kg	0 ml	1.00	1	1	6	144
8	ICB	Unknown	0 kg	0 ml	1.00	1	1	2	144
9	LLS	Unknown	0 kg	0 ml	1.00	1	1	7	144
10	S09T001796	Unknown	0 kg	0 ml	1,000.00	1	1	8	144
11	BLK	Unknown	0 kg	0 ml	1.00	1	1	1	144
12	S09T001796	Unknown	0 kg	0 ml	50,000.00	1	2	6	144
13	S09T001751	Unknown	0 kg	0 ml	10.00	1	1	9	144
14	S09T001763	Unknown	0 kg	0 ml	10.00	1	1	10	144
15	S09T001784	Unknown	0 kg	0 ml	50,000.00	1	1	11	144
16	S09T001808	Unknown	0 kg	0 ml	50,000.00	1	1	12	144
17	U CCV	Unknown	0 kg	0 ml	1.00	1	1	5	144
18	NP CCV	Unknown	0 kg	0 ml	1.00	1	1	6	144
19	CCB	Unknown	0 kg	0 ml	1.00	1	1	1	144
20	CCB	Unknown	0 kg	0 ml	1.00	1	1	2	144
21	S09T001796_L	Unknown	0 kg	0 ml	50,000.00	1	2	1	144
22	S09T001796_D	Unknown	0 kg	0 ml	50,000.00	1	2	2	144
23	S09T001796_A1	Unknown	0 kg	0 ml	50,000.00	1	2	3	144
24	S09T001796_A2	Unknown	0 kg	0 ml	50,000.00	1	2	4	144
25	S09T001796_D	Unknown	0 kg	0 ml	50,000.00	1	2	2	144
26	BLK	Unknown	0 kg	0 ml	1.00	1	1	2	144
27	LLS	Unknown	0 kg	0 ml	1.00	1	1	7	144
28	U CCV 1	Unknown	0 kg	0 ml	1.00	1	1	5	144
29	NP CCV 1	Unknown	0 kg	0 ml	1.00	1	1	6	144
30	CCB 1	Unknown	0 kg	0 ml	1.00	1	2	5	144

UNP090331.vge 4/1/09

Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
			ppb	ppt	ppt	ppt	ppt	ppt
1	rinse 1	3/31/2009 13:16:54	(P)9.980E-01	(P)9.800E-02	(P)6.200E-02	(P)9.280E-01	(P)3.560E-01	(PM)1.996E+03
2	rinse 1	3/31/2009 13:17:11	(P)1.002E+00	(P)3.900E-02	(P)8.700E-02	(P)1.011E+00	(P)4.470E-01	(PM)2.001E+03
3	rinse 1	3/31/2009 13:17:29	(P)1.001E+00	(P)1.370E-01	(P)1.680E-01	(P)9.910E-01	(P)3.750E-01	(PM)2.026E+03
4	rinse 1	3/31/2009 13:17:46	(P)9.920E-01	(P)1.900E-02	(P)5.600E-02	(P)8.930E-01	(P)3.720E-01	(PM)1.988E+03
5	rinse 1	3/31/2009 13:18:04	(P)9.930E-01	(P)7.800E-02	(P)9.900E-02	(P)9.060E-01	(P)2.660E-01	(PM)2.034E+03
	Mean of rinse 1	3/31/2009 13:16:54	(P)9.980E-01	(P)7.400E-02	(P)9.400E-02	(P)9.460E-01	(P)3.630E-01	(PM)2.009E+03
	SD of rinse 1		(P)n/a	(P)4.700E-02	(P)4.500E-02	(P)5.200E-02	(P)6.500E-02	(PM)2.006E+01
	%RSD of rinse 1		(P)n/a	(P)62.970	(P)47.540	(P)5.546	(P)17.840	(PM)0.998
1	rinse 2	3/31/2009 13:23:30	(P)1.008E+00	(P)2.000E-02	(P)1.900E-02	(P)6.000E-03	(P)0.000E+00	(P)2.690E-01
2	rinse 2	3/31/2009 13:23:47	(P)1.025E+00	(P)0.000E+00	(P)6.000E-03	(P)1.200E-02	(P)1.800E-02	(P)3.280E-01
3	rinse 2	3/31/2009 13:24:04	(P)1.018E+00	(P)0.000E+00	(P)1.900E-02	(P)0.000E+00	(P)1.800E-02	(P)2.180E-01
4	rinse 2	3/31/2009 13:24:21	(P)1.019E+00	(P)0.000E+00	(P)6.000E-03	(P)3.700E-02	(P)0.000E+00	(P)2.900E-01
5	rinse 2	3/31/2009 13:24:38	(P)1.008E+00	(P)0.000E+00	(P)0.000E+00	(P)4.900E-02	(P)0.000E+00	(P)3.050E-01
	Mean of rinse 2	3/31/2009 13:23:30	(P)1.008E+00	(P)4.000E-03	(P)1.000E-02	(P)2.100E-02	(P)7.000E-03	(P)2.820E-01
	SD of rinse 2		(P)n/a	(P)9.000E-03	(P)8.000E-03	(P)2.100E-02	(P)1.000E-02	(P)4.200E-02
	%RSD of rinse 2		(P)n/a	(P)223.600	(P)83.560	(P)100.700	(P)136.900	(P)14.900
1	Blank	3/31/2009 13:30:06	(P)1.005E+00	(P)-1.200E-02	(P)-2.000E-03	(P)-7.000E-03	(P)-1.800E-02	(P)-9.600E-02
2	Blank	3/31/2009 13:30:23	(P)1.001E+00	(P)-1.200E-02	(P)-9.000E-03	(P)5.000E-03	(P)3.600E-02	(P)-4.200E-02
3	Blank	3/31/2009 13:30:40	(P)1.004E+00	(P)8.000E-03	(P)4.000E-03	(P)-1.000E-03	(P)0.000E+00	(P)2.900E-02
4	Blank	3/31/2009 13:30:57	(P)1.004E+00	(P)2.800E-02	(P)-2.000E-03	(P)5.000E-03	(P)-1.800E-02	(P)8.300E-02
5	Blank	3/31/2009 13:31:14	(P)9.870E-01	(P)-1.200E-02	(P)1.000E-02	(P)-1.000E-03	(P)0.000E+00	(P)2.600E-02
	Mean of Blank	3/31/2009 13:30:06	(P)1.005E+00	(P)0.000E+00	(P)0.000E+00	(P)0.000E+00	(P)0.000E+00	(P)0.000E+00
	SD of Blank		(P)n/a	(P)1.800E-02	(P)7.000E-03	(P)5.000E-03	(P)2.200E-02	(P)7.000E-02
	%RSD of Blank		(P)n/a	(P)0.000	(P)0.000	(P)0.000	(P)0.000	(P)0.000
1	U cal	3/31/2009 13:36:43	(P)9.640E-01	(P)7.000E-03	(P)8.700E-02	(P)1.392E+01	(P)-1.800E-02	(P)-4.800E-02
2	U cal	3/31/2009 13:37:00	(P)9.500E-01	(P)-1.200E-02	(P)6.800E-02	(PM)1.480E+01	(P)-1.800E-02	(P)-3.400E-02
3	U cal	3/31/2009 13:37:17	(P)9.410E-01	(P)-1.200E-02	(P)9.700E-02	(PM)1.427E+01	(P)-1.800E-02	(P)1.500E-02
4	U cal	3/31/2009 13:37:34	(P)9.600E-01	(P)7.000E-03	(P)9.900E-02	(PM)1.423E+01	(P)-1.000E-03	(P)2.000E-03
5	U cal	3/31/2009 13:37:52	(P)9.480E-01	(P)7.000E-03	(P)1.270E-01	(P)1.377E+01	(P)-1.800E-02	(P)-6.800E-02
	Mean of U cal	3/31/2009 13:36:43	(P)9.640E-01	(P)-1.000E-03	(P)9.600E-02	(PM)1.420E+01	(P)-1.400E-02	(P)-2.700E-02
	SD of U cal		(P)n/a	(P)1.000E-02	(P)2.100E-02	(PM)3.960E-01	(P)8.000E-03	(P)3.500E-02
	%RSD of U cal		(P)n/a	(P)1893.000	(P)22.300	(PM)2.788	(P)53.250	(P)130.300
1	NP CAL	3/31/2009 13:43:21	(P)9.830E-01	(P)1.040E-01	(P)8.900E-02	(P)9.430E-01	(P)3.860E-01	(PM)1.983E+03
2	NP CAL	3/31/2009 13:43:38	(P)9.750E-01	(P)7.000E-03	(P)4.600E-02	(P)1.035E+00	(P)2.950E-01	(PM)1.971E+03
3	NP CAL	3/31/2009 13:43:55	(P)9.870E-01	(P)4.600E-02	(P)8.400E-02	(P)7.860E-01	(P)3.700E-01	(P)1.966E+03
4	NP CAL	3/31/2009 13:44:12	(P)9.660E-01	(P)2.600E-02	(P)7.600E-02	(P)8.270E-01	(P)3.270E-01	(P)1.965E+03
5	NP CAL	3/31/2009 13:44:29	(P)9.730E-01	(P)2.600E-02	(P)9.400E-02	(P)7.930E-01	(P)2.600E-01	(P)1.950E+03
	Mean of NP CAL	3/31/2009 13:43:21	(P)9.830E-01	(P)4.200E-02	(P)7.800E-02	(P)8.770E-01	(P)3.280E-01	(PM)1.967E+03
	SD of NP CAL		(P)n/a	(P)3.700E-02	(P)1.900E-02	(P)1.090E-01	(P)5.200E-02	(PM)1.214E+01
	%RSD of NP CAL		(P)n/a	(P)88.720	(P)24.560	(P)12.420	(P)15.810	(PM)0.617
1	U ICV	3/31/2009 13:49:57	(P)9.380E-01	(P)-1.200E-02	(P)2.600E-02	(P)7.043E+00	(P)-1.800E-02	(P)1.310E-01
2	U ICV	3/31/2009 13:50:14	(P)9.460E-01	(P)-1.200E-02	(P)6.200E-02	(P)7.007E+00	(P)-1.800E-02	(P)6.700E-02
3	U ICV	3/31/2009 13:50:31	(P)9.200E-01	(P)-1.200E-02	(P)5.400E-02	(P)6.804E+00	(P)3.100E-02	(P)2.400E-01

UNP090331.vge 4/1/09

Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	238U
			ppt
1	rinse 1	3/31/2009 13:16:54	(P)1.234E+00
2	rinse 1	3/31/2009 13:17:11	(P)1.312E+00
3	rinse 1	3/31/2009 13:17:29	(P)1.237E+00
4	rinse 1	3/31/2009 13:17:46	(P)1.263E+00
5	rinse 1	3/31/2009 13:18:04	(P)1.288E+00
	Mean of rinse 1	3/31/2009 13:16:54	(P)1.267E+00
	SD of rinse 1		(P)3.300E-02
	%RSD of rinse 1		(P)2.625
1	rinse 2	3/31/2009 13:23:30	(P)1.150E-01
2	rinse 2	3/31/2009 13:23:47	(P)8.000E-02
3	rinse 2	3/31/2009 13:24:04	(P)9.800E-02
4	rinse 2	3/31/2009 13:24:21	(P)1.040E-01
5	rinse 2	3/31/2009 13:24:38	(P)1.090E-01
	Mean of rinse 2	3/31/2009 13:23:30	(P)1.010E-01
	SD of rinse 2		(P)1.300E-02
	%RSD of rinse 2		(P)13.250
1	Blank	3/31/2009 13:30:06	(P)-2.100E-02
2	Blank	3/31/2009 13:30:23	(P)2.600E-02
3	Blank	3/31/2009 13:30:40	(P)-3.000E-03
4	Blank	3/31/2009 13:30:57	(P)2.100E-02
5	Blank	3/31/2009 13:31:14	(P)-2.200E-02
	Mean of Blank	3/31/2009 13:30:06	(P)0.000E+00
	SD of Blank		(P)2.300E-02
	%RSD of Blank		(P)0.000
1	U cal	3/31/2009 13:36:43	(P)1.983E+03
2	U cal	3/31/2009 13:37:00	(P)1.981E+03
3	U cal	3/31/2009 13:37:17	(PM)1.986E+03
4	U cal	3/31/2009 13:37:34	(PM)1.996E+03
5	U cal	3/31/2009 13:37:52	(P)1.979E+03
	Mean of U cal	3/31/2009 13:36:43	(PM)1.985E+03
	SD of U cal		(PM)6.871E+00
	%RSD of U cal		(PM)0.346
1	NP CAL	3/31/2009 13:43:21	(P)1.358E+00
2	NP CAL	3/31/2009 13:43:38	(P)1.282E+00
3	NP CAL	3/31/2009 13:43:55	(P)1.192E+00
4	NP CAL	3/31/2009 13:44:12	(P)1.321E+00
5	NP CAL	3/31/2009 13:44:29	(P)1.286E+00
	Mean of NP CAL	3/31/2009 13:43:21	(P)1.288E+00
	SD of NP CAL		(P)6.200E-02
	%RSD of NP CAL		(P)4.800
1	U ICV	3/31/2009 13:49:57	(P)1.000E+03
2	U ICV	3/31/2009 13:50:14	(P)1.003E+03
3	U ICV	3/31/2009 13:50:31	(P)9.807E+02

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Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
			ppb	ppt	ppt	ppt	ppt	ppt
4	U ICV	3/31/2009 13:50:48	(P)9.330E-01	(P)6.000E-03	(P)3.200E-02	(P)6.906E+00	(P)-1.800E-02	(P)1.630E-01
5	U ICV	3/31/2009 13:51:05	(P)9.220E-01	(P)6.000E-03	(P)3.200E-02	(P)7.080E+00	(P)-1.000E-03	(P)2.080E-01
	Mean of U ICV	3/31/2009 13:49:57	(P)9.380E-01	(P)-5.000E-03	(P)4.100E-02	(P)6.968E+00	(P)-5.000E-03	(P)1.620E-01
	SD of U ICV		(P)n/a	(P)1.000E-02	(P)1.600E-02	(P)1.120E-01	(P)2.100E-02	(P)6.700E-02
	%RSD of U ICV		(P)n/a	(P)219.900	(P)38.430	(P)1.609	(P)458.000	(P)41.690
1	NP ICV	3/31/2009 13:56:35	(P)9.800E-01	(P)-1.200E-02	(P)7.700E-02	(P)7.210E-01	(P)5.200E-02	(P)1.212E+03
2	NP ICV	3/31/2009 13:56:52	(P)9.750E-01	(P)7.000E-03	(P)7.000E-02	(P)7.170E-01	(P)5.200E-02	(P)1.196E+03
3	NP ICV	3/31/2009 13:57:09	(P)9.610E-01	(P)7.000E-03	(P)9.900E-02	(P)6.610E-01	(P)1.600E-02	(P)1.221E+03
4	NP ICV	3/31/2009 13:57:26	(P)9.710E-01	(P)4.500E-02	(P)4.600E-02	(P)7.370E-01	(P)1.030E-01	(P)1.216E+03
5	NP ICV	3/31/2009 13:57:45	(P)9.660E-01	(P)-1.200E-02	(P)8.800E-02	(P)7.100E-01	(P)5.100E-02	(P)1.216E+03
	Mean of NP ICV	3/31/2009 13:56:35	(P)9.800E-01	(P)7.000E-03	(P)7.600E-02	(P)7.090E-01	(P)5.500E-02	(P)1.212E+03
	SD of NP ICV		(P)n/a	(P)2.300E-02	(P)2.000E-02	(P)2.900E-02	(P)3.100E-02	(P)9.368E+00
	%RSD of NP ICV		(P)n/a	(P)323.700	(P)26.500	(P)4.089	(P)56.520	(P)0.773
1	ICB	3/31/2009 14:03:14	(P)9.930E-01	(P)-1.200E-02	(P)1.000E-02	(P)5.000E-03	(P)1.800E-02	(P)-1.150E-01
2	ICB	3/31/2009 14:03:31	(P)9.990E-01	(P)-1.200E-02	(P)-9.000E-03	(P)2.900E-02	(P)1.800E-02	(P)-7.000E-03
3	ICB	3/31/2009 14:03:48	(P)9.850E-01	(P)2.700E-02	(P)-3.000E-03	(P)-1.000E-03	(P)0.000E+00	(P)-1.500E-01
4	ICB	3/31/2009 14:04:05	(P)9.870E-01	(P)2.700E-02	(P)2.200E-02	(P)-7.000E-03	(P)0.000E+00	(P)-6.200E-02
5	ICB	3/31/2009 14:04:22	(P)9.920E-01	(P)4.700E-02	(P)-9.000E-03	(P)2.900E-02	(P)-1.800E-02	(P)-4.400E-02
	Mean of ICB	3/31/2009 14:03:14	(P)9.930E-01	(P)1.500E-02	(P)2.000E-03	(P)1.100E-02	(P)3.000E-03	(P)-7.600E-02
	SD of ICB		(P)n/a	(P)2.600E-02	(P)1.300E-02	(P)1.700E-02	(P)1.500E-02	(P)5.700E-02
	%RSD of ICB		(P)n/a	(P)169.900	(P)557.300	(P)158.100	(P)434.100	(P)75.230
1	LLS	3/31/2009 14:09:50	(P)9.810E-01	(P)7.000E-03	(P)4.000E-03	(P)2.200E-02	(P)-1.800E-02	(P)4.706E+00
2	LLS	3/31/2009 14:10:07	(P)9.790E-01	(P)-1.200E-02	(P)-3.000E-03	(P)3.400E-02	(P)-1.800E-02	(P)5.496E+00
3	LLS	3/31/2009 14:10:25	(P)9.670E-01	(P)7.000E-03	(P)-3.000E-03	(P)5.100E-02	(P)1.700E-02	(P)4.615E+00
4	LLS	3/31/2009 14:10:42	(P)9.590E-01	(P)-1.200E-02	(P)9.000E-03	(P)9.100E-02	(P)-1.800E-02	(P)5.327E+00
5	LLS	3/31/2009 14:10:59	(P)9.720E-01	(P)7.000E-03	(P)-3.000E-03	(P)6.300E-02	(P)1.700E-02	(P)4.884E+00
	Mean of LLS	3/31/2009 14:09:50	(P)9.810E-01	(P)0.000E+00	(P)1.000E-03	(P)5.200E-02	(P)-4.000E-03	(P)5.006E+00
	SD of LLS		(P)n/a	(P)1.000E-02	(P)5.000E-03	(P)2.700E-02	(P)1.900E-02	(P)3.880E-01
	%RSD of LLS		(P)n/a	(P)2924.000	(P)547.800	(P)51.000	(P)475.500	(P)7.745
1	S09T001796	3/31/2009 14:16:49	(P)9.630E-01	(P)9.139E+02	(P)1.155E+03	(PM)1.253E+05	(P)3.780E+03	(P)1.204E+05
2	S09T001796	3/31/2009 14:17:06	(P)9.620E-01	(P)4.791E+02	(P)1.166E+03	(PM)1.215E+05	(P)4.361E+03	(P)1.228E+05
3	S09T001796	3/31/2009 14:17:23	(P)9.720E-01	(P)5.983E+02	(P)1.166E+03	(PM)1.290E+05	(P)4.491E+03	(P)1.239E+05
4	S09T001796	3/31/2009 14:17:40	(P)9.670E-01	(P)4.816E+02	(P)1.082E+03	(PM)1.252E+05	(P)4.228E+03	(P)1.177E+05
5	S09T001796	3/31/2009 14:17:57	(P)9.630E-01	(P)4.792E+02	(P)1.113E+03	(PM)1.244E+05	(P)4.672E+03	(P)1.248E+05
	Mean of S09T001796	3/31/2009 14:16:28	(P)9.630E-01	(P)5.904E+02	(P)1.136E+03	(PM)1.251E+05	(P)4.306E+03	(P)1.219E+05
	SD of S09T001796		(P)n/a	(P)1.880E+02	(P)3.754E+01	(PM)2.679E+03	(P)3.369E+02	(P)2.888E+03
	%RSD of S09T001796		(P)n/a	(P)31.840	(P)3.304	(PM)2.142	(P)7.824	(P)2.369
1	BLK	3/31/2009 14:23:47	(P)1.029E+00	(P)8.000E-03	(P)-9.000E-03	(P)-1.000E-03	(P)-1.800E-02	(P)5.400E-02
2	BLK	3/31/2009 14:24:04	(P)9.990E-01	(P)-1.200E-02	(P)2.900E-02	(P)5.000E-03	(P)-1.800E-02	(P)-2.500E-02
3	BLK	3/31/2009 14:24:21	(P)9.980E-01	(P)-1.200E-02	(P)1.000E-02	(P)5.000E-03	(P)-1.800E-02	(P)-7.000E-03
4	BLK	3/31/2009 14:24:38	(P)9.990E-01	(P)-1.200E-02	(P)4.000E-03	(P)2.300E-02	(P)-1.800E-02	(P)-7.000E-03
5	BLK	3/31/2009 14:24:55	(P)9.980E-01	(P)-1.200E-02	(P)4.000E-03	(P)1.100E-02	(P)0.000E+00	(P)-2.500E-02
	Mean of BLK	3/31/2009 14:23:26	(P)1.029E+00	(P)-8.000E-03	(P)7.000E-03	(P)8.000E-03	(P)-1.400E-02	(P)-2.000E-03

Data not used - see larger dilution RLoss 4/2/09

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Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	238U
			ppt
4	U ICV	3/31/2009 13:50:48	(P)9.828E+02
5	U ICV	3/31/2009 13:51:05	(P)9.818E+02
	Mean of U ICV	3/31/2009 13:49:57	(P)9.898E+02
	SD of U ICV		(P)1.102E+01
	%RSD of U ICV		(P)1.113
1	NP ICV	3/31/2009 13:56:35	(P)9.180E+00
2	NP ICV	3/31/2009 13:56:52	(P)9.302E+00
3	NP ICV	3/31/2009 13:57:09	(P)9.064E+00
4	NP ICV	3/31/2009 13:57:26	(P)9.585E+00
5	NP ICV	3/31/2009 13:57:45	(P)9.169E+00
	Mean of NP ICV	3/31/2009 13:56:35	(P)9.260E+00
	SD of NP ICV		(P)2.000E-01
	%RSD of NP ICV		(P)2.160
1	ICB	3/31/2009 14:03:14	(P)8.000E-03
2	ICB	3/31/2009 14:03:31	(P)-4.000E-03
3	ICB	3/31/2009 14:03:48	(P)3.100E-02
4	ICB	3/31/2009 14:04:05	(P)1.300E-02
5	ICB	3/31/2009 14:04:22	(P)1.400E-02
	Mean of ICB	3/31/2009 14:03:14	(P)1.200E-02
	SD of ICB		(P)1.200E-02
	%RSD of ICB		(P)101.300
1	LLS	3/31/2009 14:09:50	(P)5.138E+00
2	LLS	3/31/2009 14:10:07	(P)5.014E+00
3	LLS	3/31/2009 14:10:25	(P)4.840E+00
4	LLS	3/31/2009 14:10:42	(P)5.249E+00
5	LLS	3/31/2009 14:10:59	(P)5.438E+00
	Mean of LLS	3/31/2009 14:09:50	(P)5.136E+00
	SD of LLS		(P)2.270E-01
	%RSD of LLS		(P)4.427
1	S09T001796	3/31/2009 14:16:49	(PM)1.785E+07
2	S09T001796	3/31/2009 14:17:06	(PM)1.773E+07
3	S09T001796	3/31/2009 14:17:23	(PM)1.770E+07
4	S09T001796	3/31/2009 14:17:40	(PM)1.748E+07
5	S09T001796	3/31/2009 14:17:57	(PM)1.756E+07
	Mean of S09T001796	3/31/2009 14:16:28	(PM)1.766E+07
	SD of S09T001796		(PM)1.457E+05
	%RSD of S09T001796		(PM)0.825
1	BLK	3/31/2009 14:23:47	(P)2.710E-01
2	BLK	3/31/2009 14:24:04	(P)2.720E-01
3	BLK	3/31/2009 14:24:21	(P)3.560E-01
4	BLK	3/31/2009 14:24:38	(P)5.000E-01
5	BLK	3/31/2009 14:24:55	(P)7.090E-01
	Mean of BLK	3/31/2009 14:23:26	(P)4.220E-01

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Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
			ppb	ppt	ppt	ppt	ppt	ppt
	SD of BLK		(P)n/a	(P)9.000E-03	(P)1.400E-02	(P)9.000E-03	(P)8.000E-03	(P)3.300E-02
	%RSD of BLK		(P)n/a	(P)116.200	(P)182.200	(P)107.500	(P)55.820	(P)1452.000
1	S09T001796	3/31/2009 14:30:43	(P)1.002E+00	(P)5.308E+03	(P)3.623E+03	(P)1.147E+05	(P)5.368E+03	(P)1.388E+05
2	S09T001796	3/31/2009 14:31:00	(P)9.790E-01	(P)-5.908E+02	(P)1.700E+03	(P)1.174E+05	(P)6.972E+03	(P)1.127E+05
3	S09T001796	3/31/2009 14:31:17	(P)9.690E-01	(P)3.600E+02	(P)1.075E+03	(P)1.311E+05	(P)1.703E+03	(P)1.339E+05
4	S09T001796	3/31/2009 14:31:35	(P)9.720E-01	(P)-5.908E+02	(P)1.382E+03	(P)1.198E+05	(P)2.579E+03	(P)1.396E+05
5	S09T001796	3/31/2009 14:31:52	(P)9.610E-01	(P)3.518E+02	(P)1.361E+03	(P)1.276E+05	(P)5.110E+03	(P)1.258E+05
	Mean of S09T001796	3/31/2009 14:30:23	(P)1.002E+00	(P)9.676E+02	(P)1.828E+03	(P)1.221E+05	(P)4.346E+03	(P)1.302E+05
	SD of S09T001796		(P)n/a	(P)2.472E+03	(P)1.027E+03	(P)6.976E+03	(P)2.158E+03	(P)1.118E+04
	%RSD of S09T001796		(P)n/a	(P)255.500	(P)56.190	(P)5.713	(P)49.650	(P)8.586
1	S09T001751	3/31/2009 14:37:43	(P)9.970E-01	(P)7.700E-02	(P)-8.700E-02	(P)1.080E-01	(P)-1.780E-01	(P)-1.851E+00
2	S09T001751	3/31/2009 14:38:00	(P)9.770E-01	(P)7.400E-02	(P)-2.600E-02	(P)-1.300E-02	(P)3.450E-01	(P)-1.854E+00
3	S09T001751	3/31/2009 14:38:17	(P)9.850E-01	(P)7.500E-02	(P)-2.600E-02	(P)2.850E-01	(P)-1.780E-01	(P)-1.502E+00
4	S09T001751	3/31/2009 14:38:34	(P)9.830E-01	(P)-1.180E-01	(P)2.190E-01	(P)2.240E-01	(P)-3.000E-03	(P)-1.504E+00
5	S09T001751	3/31/2009 14:38:52	(P)9.650E-01	(P)-1.180E-01	(P)-2.700E-02	(P)1.610E-01	(P)-6.000E-03	(P)-1.857E+00
	Mean of S09T001751	3/31/2009 14:37:22	(P)9.970E-01	(P)-2.000E-03	(P)1.100E-02	(P)1.530E-01	(P)-4.000E-03	(P)-1.714E+00
	SD of S09T001751		(P)n/a	(P)1.060E-01	(P)1.190E-01	(P)1.140E-01	(P)2.140E-01	(P)1.920E-01
	%RSD of S09T001751		(P)n/a	(P)5161.000	(P)1110.000	(P)74.720	(P)5172.000	(P)11.220
1	S09T001763	3/31/2009 14:44:42	(P)9.970E-01	(P)7.700E-02	(P)-2.500E-02	(P)1.252E+00	(P)1.780E-01	(P)-2.028E+00
2	S09T001763	3/31/2009 14:45:00	(P)9.890E-01	(P)-1.180E-01	(P)-8.700E-02	(P)7.040E-01	(P)-2.000E-03	(P)-1.852E+00
3	S09T001763	3/31/2009 14:45:17	(P)9.760E-01	(P)2.650E-01	(P)-2.600E-02	(P)1.048E+00	(P)5.180E-01	(P)-2.028E+00
4	S09T001763	3/31/2009 14:45:34	(P)9.620E-01	(P)-1.180E-01	(P)-8.700E-02	(P)7.420E-01	(P)-6.000E-03	(P)-8.290E-01
5	S09T001763	3/31/2009 14:45:51	(P)9.620E-01	(P)2.600E-01	(P)3.300E-02	(P)9.160E-01	(P)-1.780E-01	(P)-1.686E+00
	Mean of S09T001763	3/31/2009 14:44:22	(P)9.970E-01	(P)7.300E-02	(P)-3.800E-02	(P)9.320E-01	(P)1.020E-01	(P)-1.685E+00
	SD of S09T001763		(P)n/a	(P)1.900E-01	(P)5.000E-02	(P)2.260E-01	(P)2.650E-01	(P)4.990E-01
	%RSD of S09T001763		(P)n/a	(P)260.200	(P)131.300	(P)24.250	(P)259.700	(P)29.620
1	S09T001784	3/31/2009 14:51:42	(P)9.860E-01	(P)3.764E+02	(P)1.408E+03	(P)1.286E+05	(P)4.387E+03	(P)1.188E+05
2	S09T001784	3/31/2009 14:52:00	(P)9.790E-01	(P)1.329E+03	(P)2.308E+03	(P)1.256E+05	(P)1.728E+03	(P)1.022E+05
3	S09T001784	3/31/2009 14:52:17	(P)9.650E-01	(P)2.250E+03	(P)2.271E+03	(P)1.224E+05	(P)2.553E+03	(P)1.187E+05
4	S09T001784	3/31/2009 14:52:34	(P)9.690E-01	(P)1.309E+03	(P)7.721E+02	(P)1.366E+05	(P)5.158E+03	(P)1.226E+05
5	S09T001784	3/31/2009 14:52:52	(P)9.500E-01	(P)3.408E+02	(P)2.227E+03	(P)1.313E+05	(P)1.651E+03	(P)1.226E+05
	Mean of S09T001784	3/31/2009 14:51:21	(P)9.860E-01	(P)1.121E+03	(P)1.797E+03	(P)1.289E+05	(P)3.095E+03	(P)1.170E+05
	SD of S09T001784		(P)n/a	(P)7.930E+02	(P)6.843E+02	(P)5.438E+03	(P)1.595E+03	(P)8.480E+03
	%RSD of S09T001784		(P)n/a	(P)70.740	(P)38.070	(P)4.220	(P)51.520	(P)7.249
1	S09T001808	3/31/2009 14:58:44	(P)9.620E-01	(P)3.528E+02	(P)1.646E+02	(P)1.379E+05	(P)1.684E+03	(P)1.208E+05
2	S09T001808	3/31/2009 14:59:01	(P)9.700E-01	(P)-5.908E+02	(P)1.695E+02	(P)1.350E+05	(P)1.704E+03	(P)9.773E+04
3	S09T001808	3/31/2009 14:59:18	(P)9.500E-01	(P)3.414E+02	(P)4.533E+02	(P)1.228E+05	(P)4.196E+03	(P)1.235E+05
4	S09T001808	3/31/2009 14:59:35	(P)9.500E-01	(P)3.410E+02	(P)2.228E+03	(P)1.354E+05	(P)5.889E+03	(P)9.215E+04
5	S09T001808	3/31/2009 14:59:52	(P)9.540E-01	(P)2.218E+03	(P)1.349E+03	(P)1.291E+05	(P)3.366E+03	(P)1.156E+05
	Mean of S09T001808	3/31/2009 14:58:23	(P)9.620E-01	(P)5.324E+02	(P)8.728E+02	(P)1.320E+05	(P)3.368E+03	(P)1.100E+05
	SD of S09T001808		(P)n/a	(P)1.025E+03	(P)8.993E+02	(P)6.104E+03	(P)1.778E+03	(P)1.414E+04
	%RSD of S09T001808		(P)n/a	(P)192.600	(P)103.000	(P)4.624	(P)52.790	(P)12.860

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Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	238U
			ppt
	SD of BLK		(P)1.860E-01
	%RSD of BLK		(P)44.100
1	S09T001796	3/31/2009 14:30:43	(P)1.818E+07
2	S09T001796	3/31/2009 14:31:00	(P)1.824E+07
3	S09T001796	3/31/2009 14:31:17	(P)1.843E+07
4	S09T001796	3/31/2009 14:31:35	(P)1.833E+07
5	S09T001796	3/31/2009 14:31:52	(P)1.831E+07
	Mean of S09T001796	3/31/2009 14:30:23	(P)1.830E+07
	SD of S09T001796		(P)9.333E+04
	%RSD of S09T001796		(P)0.510
1	S09T001751	3/31/2009 14:37:43	(P)2.116E+00
2	S09T001751	3/31/2009 14:38:00	(P)4.579E+00
3	S09T001751	3/31/2009 14:38:17	(P)5.450E+00
4	S09T001751	3/31/2009 14:38:34	(P)4.374E+00
5	S09T001751	3/31/2009 14:38:52	(P)4.915E+00
	Mean of S09T001751	3/31/2009 14:37:22	(P)4.287E+00
	SD of S09T001751		(P)1.280E+00
	%RSD of S09T001751		(P)29.860
1	S09T001763	3/31/2009 14:44:42	(P)1.290E+02
2	S09T001763	3/31/2009 14:45:00	(P)1.320E+02
3	S09T001763	3/31/2009 14:45:17	(P)1.306E+02
4	S09T001763	3/31/2009 14:45:34	(P)1.382E+02
5	S09T001763	3/31/2009 14:45:51	(P)1.313E+02
	Mean of S09T001763	3/31/2009 14:44:22	(P)1.322E+02
	SD of S09T001763		(P)3.527E+00
	%RSD of S09T001763		(P)2.668
1	S09T001784	3/31/2009 14:51:42	(P)1.813E+07
2	S09T001784	3/31/2009 14:52:00	(P)1.830E+07
3	S09T001784	3/31/2009 14:52:17	(P)1.800E+07
4	S09T001784	3/31/2009 14:52:34	(P)1.830E+07
5	S09T001784	3/31/2009 14:52:52	(P)1.813E+07
	Mean of S09T001784	3/31/2009 14:51:21	(P)1.817E+07
	SD of S09T001784		(P)1.316E+05
	%RSD of S09T001784		(P)0.724
1	S09T001808	3/31/2009 14:58:44	(P)1.814E+07
2	S09T001808	3/31/2009 14:59:01	(P)1.841E+07
3	S09T001808	3/31/2009 14:59:18	(P)1.799E+07
4	S09T001808	3/31/2009 14:59:35	(P)1.785E+07
5	S09T001808	3/31/2009 14:59:52	(P)1.818E+07
	Mean of S09T001808	3/31/2009 14:58:23	(P)1.811E+07
	SD of S09T001808		(P)2.116E+05
	%RSD of S09T001808		(P)1.168

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Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
			ppb	ppt	ppt	ppt	ppt	ppt
1	U CCV	3/31/2009 15:05:22	(P)8.950E-01	(P)6.000E-03	(P)7.500E-02	(P)6.771E+00	(P)-1.800E-02	(P)-1.200E-02
2	U CCV	3/31/2009 15:05:39	(P)9.050E-01	(P)-1.200E-02	(P)6.500E-02	(P)6.950E+00	(P)-1.800E-02	(P)1.030E-01
3	U CCV	3/31/2009 15:05:56	(P)8.970E-01	(P)-1.200E-02	(P)5.300E-02	(P)7.147E+00	(P)-1.800E-02	(P)-2.700E-02
4	U CCV	3/31/2009 15:06:14	(P)8.950E-01	(P)-1.200E-02	(P)4.700E-02	(P)6.998E+00	(P)-2.000E-03	(P)4.000E-03
5	U CCV	3/31/2009 15:06:31	(P)8.950E-01	(P)-1.200E-02	(P)2.500E-02	(P)7.008E+00	(P)-2.000E-03	(P)-4.400E-02
	Mean of U CCV	3/31/2009 15:05:22	(P)8.950E-01	(P)-8.000E-03	(P)5.300E-02	(P)6.975E+00	(P)-1.100E-02	(P)5.000E-03
	SD of U CCV		(P)n/a	(P)8.000E-03	(P)1.900E-02	(P)1.360E-01	(P)9.000E-03	(P)5.800E-02
	%RSD of U CCV		(P)n/a	(P)94.620	(P)36.040	(P)1.945	(P)76.500	(P)1147.000
1	NP CCV	3/31/2009 15:11:59	(P)9.290E-01	(P)-1.200E-02	(P)9.600E-02	(P)6.720E-01	(P)6.500E-02	(P)1.222E+03
2	NP CCV	3/31/2009 15:12:17	(P)9.320E-01	(P)6.000E-03	(P)9.600E-02	(P)7.860E-01	(P)8.200E-02	(P)1.243E+03
3	NP CCV	3/31/2009 15:12:34	(P)9.300E-01	(P)2.500E-02	(P)6.100E-02	(P)7.740E-01	(P)3.200E-02	(P)1.230E+03
4	NP CCV	3/31/2009 15:12:51	(P)9.300E-01	(P)-1.200E-02	(P)2.600E-02	(P)7.170E-01	(P)1.500E-02	(P)1.232E+03
5	NP CCV	3/31/2009 15:13:08	(P)9.390E-01	(P)7.000E-03	(P)6.700E-02	(P)6.910E-01	(P)8.300E-02	(P)1.234E+03
	Mean of NP CCV	3/31/2009 15:11:59	(P)9.290E-01	(P)3.000E-03	(P)6.900E-02	(P)7.280E-01	(P)5.500E-02	(P)1.232E+03
	SD of NP CCV		(P)n/a	(P)1.500E-02	(P)2.900E-02	(P)5.000E-02	(P)3.000E-02	(P)7.386E+00
	%RSD of NP CCV		(P)n/a	(P)540.900	(P)41.770	(P)6.908	(P)54.870	(P)0.599
1	CCB	3/31/2009 15:18:36	(P)9.400E-01	(P)7.000E-03	(P)2.600E-02	(P)-2.000E-03	(P)-1.800E-02	(P)1.500E-02
2	CCB	3/31/2009 15:18:53	(P)9.520E-01	(P)-1.200E-02	(P)-3.000E-03	(P)1.600E-02	(P)-1.000E-03	(P)1.000E-03
3	CCB	3/31/2009 15:19:10	(P)9.390E-01	(P)-1.200E-02	(P)-9.000E-03	(P)4.000E-03	(P)-1.000E-03	(P)-5.200E-02
4	CCB	3/31/2009 15:19:27	(P)9.400E-01	(P)7.000E-03	(P)-9.000E-03	(P)-2.000E-03	(P)-1.800E-02	(P)8.200E-02
5	CCB	3/31/2009 15:19:45	(P)9.370E-01	(P)7.000E-03	(P)-3.000E-03	(P)1.500E-02	(P)-1.800E-02	(P)-8.600E-02
	Mean of CCB	3/31/2009 15:18:36	(P)9.400E-01	(P)-1.000E-03	(P)1.000E-03	(P)6.000E-03	(P)-1.100E-02	(P)-8.000E-03
	SD of CCB		(P)n/a	(P)1.000E-02	(P)1.500E-02	(P)9.000E-03	(P)9.000E-03	(P)6.500E-02
	%RSD of CCB		(P)n/a	(P)1325.000	(P)2130.000	(P)135.100	(P)83.450	(P)774.200
1	CCB	3/31/2009 15:25:12	(P)9.400E-01	(P)-1.200E-02	(P)-3.000E-03	(P)1.500E-02	(P)-1.000E-03	(P)-1.900E-02
2	CCB	3/31/2009 15:25:29	(P)9.290E-01	(P)6.000E-03	(P)-3.000E-03	(P)-7.000E-03	(P)-1.000E-03	(P)2.900E-02
3	CCB	3/31/2009 15:25:46	(P)9.260E-01	(P)-1.200E-02	(P)-9.000E-03	(P)1.000E-02	(P)-1.000E-03	(P)-2.100E-02
4	CCB	3/31/2009 15:26:03	(P)9.300E-01	(P)6.000E-03	(P)3.000E-03	(P)4.000E-03	(P)-1.800E-02	(P)6.200E-02
5	CCB	3/31/2009 15:26:21	(P)9.540E-01	(P)4.400E-02	(P)-3.000E-03	(P)-1.000E-03	(P)-1.000E-03	(P)1.800E-02
	Mean of CCB	3/31/2009 15:25:12	(P)9.400E-01	(P)7.000E-03	(P)-3.000E-03	(P)4.000E-03	(P)-4.000E-03	(P)1.400E-02
	SD of CCB		(P)n/a	(P)2.300E-02	(P)4.000E-03	(P)9.000E-03	(P)7.000E-03	(P)3.500E-02
	%RSD of CCB		(P)n/a	(P)341.600	(P)143.500	(P)220.300	(P)168.500	(P)254.700
1	S09T001796_L	3/31/2009 15:32:09	(P)9.670E-01	(P)1.786E+03	(P)5.352E+03	(P)1.150E+05	(P)4.167E+03	(P)9.982E+04
2	S09T001796_L	3/31/2009 15:32:26	(P)9.430E-01	(P)1.669E+03	(P)-7.049E+02	(P)1.434E+05	(P)-2.509E+02	(P)9.189E+04
3	S09T001796_L	3/31/2009 15:32:43	(P)9.390E-01	(P)1.651E+03	(P)2.213E+03	(P)1.343E+05	(P)1.230E+04	(P)8.716E+04
4	S09T001796_L	3/31/2009 15:33:00	(P)9.240E-01	(P)-2.954E+03	(P)2.146E+03	(P)1.127E+05	(P)3.792E+03	(P)6.035E+04
5	S09T001796_L	3/31/2009 15:33:17	(P)9.100E-01	(P)1.044E+04	(P)6.618E+02	(P)1.191E+05	(P)1.178E+04	(P)3.434E+04
	Mean of S09T001796_L	3/31/2009 15:31:49	(P)9.670E-01	(P)2.518E+03	(P)1.934E+03	(P)1.249E+05	(P)6.358E+03	(P)7.471E+04
	SD of S09T001796_L		(P)n/a	(P)4.865E+03	(P)2.258E+03	(P)1.334E+04	(P)5.473E+03	(P)2.700E+04
	%RSD of S09T001796_L		(P)n/a	(P)193.200	(P)116.800	(P)10.680	(P)86.070	(P)36.140
1	S09T001796_D	3/31/2009 15:39:07	(P)9.370E-01	(P)-5.908E+02	(P)4.405E+02	(P)1.354E+05	(P)2.451E+03	(P)1.266E+05
2	S09T001796_D	3/31/2009 15:39:24	(P)9.220E-01	(P)1.218E+03	(P)1.575E+03	(P)1.386E+05	(P)3.222E+03	(P)1.129E+05
3	S09T001796_D	3/31/2009 15:39:41	(P)9.050E-01	(P)2.967E+02	(P)9.743E+02	(P)1.303E+05	(P)2.338E+03	(P)1.114E+05

data not used - see repeat later in run. RRoss 4/2/09

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Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	238U
			ppt
1	U CCV	3/31/2009 15:05:22	(P)9.734E+02
2	U CCV	3/31/2009 15:05:39	(P)9.830E+02
3	U CCV	3/31/2009 15:05:56	(P)9.752E+02
4	U CCV	3/31/2009 15:06:14	(P)9.762E+02
5	U CCV	3/31/2009 15:06:31	(P)9.934E+02
	Mean of U CCV	3/31/2009 15:05:22	(P)9.802E+02
	SD of U CCV		(P)8.202E+00
	%RSD of U CCV		(P)0.837
1	NP CCV	3/31/2009 15:11:59	(P)8.890E+00
2	NP CCV	3/31/2009 15:12:17	(P)9.064E+00
3	NP CCV	3/31/2009 15:12:34	(P)9.583E+00
4	NP CCV	3/31/2009 15:12:51	(P)9.140E+00
5	NP CCV	3/31/2009 15:13:08	(P)9.297E+00
	Mean of NP CCV	3/31/2009 15:11:59	(P)9.195E+00
	SD of NP CCV		(P)2.620E-01
	%RSD of NP CCV		(P)2.846
1	CCB	3/31/2009 15:18:36	(P)1.160E+00
2	CCB	3/31/2009 15:18:53	(P)1.353E+00
3	CCB	3/31/2009 15:19:10	(P)1.118E+00
4	CCB	3/31/2009 15:19:27	(P)1.064E+00
5	CCB	3/31/2009 15:19:45	(P)1.061E+00
	Mean of CCB	3/31/2009 15:18:36	(P)1.151E+00
	SD of CCB		(P)1.200E-01
	%RSD of CCB		(P)10.450
1	CCB	3/31/2009 15:25:12	(P)4.800E-02
2	CCB	3/31/2009 15:25:29	(P)-4.000E-03
3	CCB	3/31/2009 15:25:46	(P)7.000E-03
4	CCB	3/31/2009 15:26:03	(P)1.900E-02
5	CCB	3/31/2009 15:26:21	(P)-1.300E-02
	Mean of CCB	3/31/2009 15:25:12	(P)1.200E-02
	SD of CCB		(P)2.400E-02
	%RSD of CCB		(P)205.300
1	S09T001796_L	3/31/2009 15:32:09	(P)1.769E+07
2	S09T001796_L	3/31/2009 15:32:26	(P)1.750E+07
3	S09T001796_L	3/31/2009 15:32:43	(P)1.762E+07
4	S09T001796_L	3/31/2009 15:33:00	(P)1.778E+07
5	S09T001796_L	3/31/2009 15:33:17	(P)1.751E+07
	Mean of S09T001796_L	3/31/2009 15:31:49	(P)1.762E+07
	SD of S09T001796_L		(P)1.187E+05
	%RSD of S09T001796_L		(P)0.674
1	S09T001796_D	3/31/2009 15:39:07	(P)1.830E+07
2	S09T001796_D	3/31/2009 15:39:24	(P)1.826E+07
3	S09T001796_D	3/31/2009 15:39:41	(P)1.821E+07

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Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
			ppb	ppt	ppt	ppt	ppt	ppt
4	S09T001796_D	3/31/2009 15:39:58	(P)9.040E-01	(P)2.956E+02	(P)1.254E+03	(P)1.285E+05	(P)2.334E+03	(P)1.145E+05
5	S09T001796_D	3/31/2009 15:40:15	(P)9.270E-01	(P)3.182E+02	(P)1.008E+03	(P)1.262E+05	(P)6.550E+03	(P)1.127E+05
	Mean of S09T001796_D	3/31/2009 15:38:46	(P)9.370E-01	(P)3.075E+02	(P)1.051E+03	(P)1.318E+05	(P)3.379E+03	(P)1.156E+05
	SD of S09T001796_D		(P)n/a	(P)6.396E+02	(P)4.173E+02	(P)5.117E+03	(P)1.811E+03	(P)6.201E+03
	%RSD of S09T001796_D		(P)n/a	(P)208.000	(P)39.720	(P)3.883	(P)53.590	(P)5.362
1	S09T001796_A1	3/31/2009 15:46:05	(P)9.010E-01	(P)-5.908E+02	(P)2.372E+03	(P)2.809E+05	(P)3.933E+03	(P)1.214E+05
2	S09T001796_A1	3/31/2009 15:46:22	(P)8.990E-01	(P)1.172E+03	(P)2.645E+03	(P)3.127E+05	(P)6.326E+03	(P)1.026E+05
3	S09T001796_A1	3/31/2009 15:46:40	(P)8.900E-01	(P)2.821E+02	(P)9.511E+02	(P)3.085E+05	(P)1.491E+03	(P)9.993E+04
4	S09T001796_A1	3/31/2009 15:46:57	(P)8.950E-01	(P)2.874E+02	(P)2.075E+03	(P)3.204E+05	(P)5.499E+03	(P)1.277E+05
5	S09T001796_A1	3/31/2009 15:47:14	(P)8.900E-01	(P)1.156E+03	(P)3.171E+03	(P)3.259E+05	(P)3.081E+03	(P)1.190E+05
	Mean of S09T001796_A1	3/31/2009 15:45:44	(P)9.010E-01	(P)4.615E+02	(P)2.243E+03	(P)3.096E+05	(P)4.066E+03	(P)1.141E+05
	SD of S09T001796_A1		(P)n/a	(P)7.345E+02	(P)8.270E+02	(P)1.745E+04	(P)1.922E+03	(P)1.219E+04
	%RSD of S09T001796_A1		(P)n/a	(P)159.200	(P)36.880	(P)5.635	(P)47.280	(P)10.680
1	S09T001796_A2	3/31/2009 15:53:04	(P)9.250E-01	(P)-5.908E+02	(P)1.294E+03	(P)1.351E+05	(P)4.061E+03	(P)5.143E+06
2	S09T001796_A2	3/31/2009 15:53:21	(P)9.140E-01	(P)3.053E+02	(P)7.035E+02	(P)1.318E+05	(P)7.259E+03	(P)5.265E+06
3	S09T001796_A2	3/31/2009 15:53:39	(P)9.080E-01	(P)2.081E+03	(P)2.111E+03	(P)1.272E+05	(P)8.020E+03	(P)5.257E+06
4	S09T001796_A2	3/31/2009 15:53:56	(P)9.000E-01	(P)1.174E+03	(P)2.087E+03	(P)1.292E+05	(P)2.319E+03	(P)5.342E+06
5	S09T001796_A2	3/31/2009 15:54:13	(P)9.020E-01	(P)-5.908E+02	(P)1.274E+02	(P)1.375E+05	(P)5.548E+03	(P)5.212E+06
	Mean of S09T001796_A2	3/31/2009 15:52:43	(P)9.250E-01	(P)4.758E+02	(P)1.264E+03	(P)1.322E+05	(P)5.441E+03	(P)5.244E+06
	SD of S09T001796_A2		(P)n/a	(P)1.159E+03	(P)8.661E+02	(P)4.219E+03	(P)2.325E+03	(P)7.331E+04
	%RSD of S09T001796_A2		(P)n/a	(P)243.500	(P)68.500	(P)3.192	(P)42.730	(P)1.398
1	S09T001796_D	3/31/2009 15:59:41	(P)9.330E-01	(P)3.070E+03	(P)1.309E+03	(P)1.236E+05	(P)3.271E+03	(P)1.152E+05
2	S09T001796_D	3/31/2009 15:59:58	(P)9.200E-01	(P)-5.908E+02	(P)1.572E+03	(P)1.256E+05	(P)5.677E+03	(P)1.086E+05
3	S09T001796_D	3/31/2009 16:00:15	(P)9.200E-01	(P)1.214E+03	(P)2.431E+03	(P)1.316E+05	(P)3.213E+03	(P)1.233E+05
4	S09T001796_D	3/31/2009 16:00:33	(P)9.100E-01	(P)1.195E+03	(P)1.266E+03	(P)1.280E+05	(P)3.169E+03	(P)1.227E+05
5	S09T001796_D	3/31/2009 16:00:51	(P)9.110E-01	(P)1.197E+03	(P)1.835E+03	(P)1.204E+05	(P)8.863E+03	(P)1.188E+05
	Mean of S09T001796_D	3/31/2009 15:59:41	(P)9.330E-01	(P)1.217E+03	(P)1.683E+03	(P)1.259E+05	(P)4.839E+03	(P)1.177E+05
	SD of S09T001796_D		(P)n/a	(P)1.294E+03	(P)4.765E+02	(P)4.253E+03	(P)2.489E+03	(P)6.050E+03
	%RSD of S09T001796_D		(P)n/a	(P)106.400	(P)28.320	(P)3.379	(P)51.450	(P)5.139
1	BLK	3/31/2009 16:06:19	(P)9.740E-01	(P)-1.200E-02	(P)-3.000E-03	(P)-1.000E-03	(P)-1.800E-02	(P)5.000E-03
2	BLK	3/31/2009 16:06:36	(P)9.620E-01	(P)-1.200E-02	(P)9.000E-03	(P)4.000E-03	(P)-1.800E-02	(P)-3.200E-02
3	BLK	3/31/2009 16:06:53	(P)9.330E-01	(P)-1.200E-02	(P)-3.000E-03	(P)1.500E-02	(P)-1.000E-03	(P)1.300E-02
4	BLK	3/31/2009 16:07:10	(P)9.480E-01	(P)4.400E-02	(P)9.000E-03	(P)-7.000E-03	(P)-1.800E-02	(P)5.000E-02
5	BLK	3/31/2009 16:07:27	(P)9.490E-01	(P)7.000E-03	(P)-3.000E-03	(P)-2.000E-03	(P)-1.800E-02	(P)-6.800E-02
	Mean of BLK	3/31/2009 16:06:19	(P)9.740E-01	(P)3.000E-03	(P)2.000E-03	(P)2.000E-03	(P)-1.400E-02	(P)-6.000E-03
	SD of BLK		(P)n/a	(P)2.400E-02	(P)7.000E-03	(P)9.000E-03	(P)7.000E-03	(P)4.500E-02
	%RSD of BLK		(P)n/a	(P)789.700	(P)325.400	(P)447.900	(P)51.340	(P)732.700
1	LLS	3/31/2009 16:12:56	(P)9.470E-01	(P)-1.200E-02	(P)-3.000E-03	(P)7.900E-02	(P)-1.800E-02	(P)5.648E+00
2	LLS	3/31/2009 16:13:13	(P)9.310E-01	(P)-1.200E-02	(P)-9.000E-03	(P)2.100E-02	(P)-1.800E-02	(P)4.455E+00
3	LLS	3/31/2009 16:13:31	(P)9.170E-01	(P)6.000E-03	(P)-3.000E-03	(P)2.600E-02	(P)-1.800E-02	(P)5.118E+00
4	LLS	3/31/2009 16:13:48	(P)9.240E-01	(P)6.000E-03	(P)-3.000E-03	(P)2.600E-02	(P)-1.800E-02	(P)4.964E+00
5	LLS	3/31/2009 16:14:05	(P)9.250E-01	(P)2.400E-02	(P)-3.000E-03	(P)4.000E-03	(P)-1.000E-03	(P)4.870E+00
	Mean of LLS	3/31/2009 16:12:56	(P)9.470E-01	(P)3.000E-03	(P)-4.000E-03	(P)3.100E-02	(P)-1.500E-02	(P)5.011E+00

Data not used RPD 5/12/09

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Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	238U
			ppt
4	S09T001796_D	3/31/2009 15:39:58	(P)1.844E+07
5	S09T001796_D	3/31/2009 15:40:15	(P)1.854E+07
	Mean of S09T001795_D	3/31/2009 15:38:46	(P)1.835E+07
	SD of S09T001796_D		(P)1.350E+05
	%RSD of S09T001796_D		(P)0.736
1	S09T001796_A1	3/31/2009 15:46:05	(P)4.262E+07
2	S09T001796_A1	3/31/2009 15:46:22	(P)4.334E+07
3	S09T001796_A1	3/31/2009 15:46:40	(P)4.211E+07
4	S09T001796_A1	3/31/2009 15:46:57	(P)4.318E+07
5	S09T001796_A1	3/31/2009 15:47:14	(P)4.352E+07
	Mean of S09T001796_A1	3/31/2009 15:45:44	(P)4.296E+07
	SD of S09T001796_A1		(P)5.776E+05
	%RSD of S09T001796_A1		(P)1.345
1	S09T001796_A2	3/31/2009 15:53:04	(P)1.800E+07
2	S09T001796_A2	3/31/2009 15:53:21	(P)1.824E+07
3	S09T001796_A2	3/31/2009 15:53:39	(P)1.807E+07
4	S09T001796_A2	3/31/2009 15:53:56	(P)1.807E+07
5	S09T001796_A2	3/31/2009 15:54:13	(P)1.810E+07
	Mean of S09T001796_A2	3/31/2009 15:52:43	(P)1.810E+07
	SD of S09T001796_A2		(P)8.962E+04
	%RSD of S09T001796_A2		(P)0.495
1	S09T001796_D	3/31/2009 15:59:41	(P)1.835E+07
2	S09T001796_D	3/31/2009 15:59:58	(P)1.845E+07
3	S09T001796_D	3/31/2009 16:00:15	(P)1.823E+07
4	S09T001796_D	3/31/2009 16:00:33	(P)1.816E+07
5	S09T001796_D	3/31/2009 16:00:51	(P)1.840E+07
	Mean of S09T001796_D	3/31/2009 15:59:41	(P)1.832E+07
	SD of S09T001796_D		(P)1.215E+05
	%RSD of S09T001796_D		(P)0.663
1	BLK	3/31/2009 16:06:19	(P)5.440E-01
2	BLK	3/31/2009 16:06:36	(P)6.060E-01
3	BLK	3/31/2009 16:06:53	(P)5.790E-01
4	BLK	3/31/2009 16:07:10	(P)6.300E-01
5	BLK	3/31/2009 16:07:27	(P)5.110E-01
	Mean of BLK	3/31/2009 16:06:19	(P)5.740E-01
	SD of BLK		(P)4.800E-02
	%RSD of BLK		(P)8.300
1	LLS	3/31/2009 16:12:56	(P)5.235E+00
2	LLS	3/31/2009 16:13:13	(P)5.151E+00
3	LLS	3/31/2009 16:13:31	(P)5.104E+00
4	LLS	3/31/2009 16:13:48	(P)5.373E+00
5	LLS	3/31/2009 16:14:05	(P)5.228E+00
	Mean of LLS	3/31/2009 16:12:56	(P)5.219E+00

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Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
			ppb	ppt	ppt	ppt	ppt	ppt
	SD of LLS		(P)n/a	(P)1.500E-02	(P)3.000E-03	(P)2.800E-02	(P)7.000E-03	(P)4.330E-01
	%RSD of LLS		(P)n/a	(P)568.300	(P)63.670	(P)90.110	(P)50.850	(P)8.634
1	U CCV 1	3/31/2009 16:19:33	(P)8.840E-01	(P)6.000E-03	(P)3.000E-02	(P)6.953E+00	(P)-1.800E-02	(P)1.750E-01
2	U CCV 1	3/31/2009 16:19:50	(P)8.710E-01	(P)2.200E-02	(P)6.700E-02	(P)7.035E+00	(P)-1.800E-02	(P)-1.100E-01
3	U CCV 1	3/31/2009 16:20:07	(P)8.780E-01	(P)5.000E-03	(P)5.700E-02	(P)6.848E+00	(P)-1.800E-02	(P)-9.300E-02
4	U CCV 1	3/31/2009 16:20:25	(P)8.620E-01	(P)2.200E-02	(P)8.300E-02	(P)6.588E+00	(P)-2.000E-03	(P)-4.900E-02
5	U CCV 1	3/31/2009 16:20:42	(P)8.670E-01	(P)-1.200E-02	(P)4.500E-02	(P)7.025E+00	(P)-1.800E-02	(P)4.400E-02
	Mean of U CCV 1	3/31/2009 16:19:33	(P)8.840E-01	(P)9.000E-03	(P)5.600E-02	(P)6.890E+00	(P)-1.500E-02	(P)-7.000E-03
	SD of U CCV 1		(P)n/a	(P)1.400E-02	(P)2.000E-02	(P)1.840E-01	(P)7.000E-03	(P)1.180E-01
	%RSD of U CCV 1		(P)n/a	(P)163.100	(P)35.800	(P)2.677	(P)46.630	(P)1744.000
1	NP CCV 1	3/31/2009 16:26:10	(P)9.210E-01	(P)-1.200E-02	(P)1.180E-01	(P)7.940E-01	(P)4.800E-02	(P)1.248E+03
2	NP CCV 1	3/31/2009 16:26:28	(P)9.010E-01	(P)6.000E-03	(P)7.000E-02	(P)7.220E-01	(P)3.000E-02	(P)1.202E+03
3	NP CCV 1	3/31/2009 16:26:45	(P)8.970E-01	(P)-1.200E-02	(P)5.800E-02	(P)7.190E-01	(P)9.400E-02	(P)1.203E+03
4	NP CCV 1	3/31/2009 16:27:02	(P)8.990E-01	(P)6.000E-03	(P)5.900E-02	(P)8.180E-01	(P)1.110E-01	(P)1.216E+03
5	NP CCV 1	3/31/2009 16:27:19	(P)9.050E-01	(P)6.000E-03	(P)1.040E-01	(P)6.980E-01	(P)3.100E-02	(P)1.218E+03
	Mean of NP CCV 1	3/31/2009 16:26:10	(P)9.210E-01	(P)-1.000E-03	(P)8.200E-02	(P)7.500E-01	(P)6.300E-02	(P)1.217E+03
	SD of NP CCV 1		(P)n/a	(P)1.000E-02	(P)2.700E-02	(P)5.300E-02	(P)3.700E-02	(P)1.846E+01
	%RSD of NP CCV 1		(P)n/a	(P)805.600	(P)33.560	(P)7.004	(P)59.480	(P)1.516
1	CCB 1	3/31/2009 16:32:49	(P)8.850E-01	(P)-1.200E-02	(P)2.000E-03	(P)9.000E-03	(P)-1.800E-02	(P)-6.100E-02
2	CCB 1	3/31/2009 16:33:06	(P)8.870E-01	(P)-1.200E-02	(P)-3.000E-03	(P)-7.000E-03	(P)3.000E-02	(P)-1.240E-01
3	CCB 1	3/31/2009 16:33:23	(P)8.790E-01	(P)-1.200E-02	(P)2.000E-03	(P)-7.000E-03	(P)-1.800E-02	(P)3.200E-02
4	CCB 1	3/31/2009 16:33:40	(P)8.910E-01	(P)-1.200E-02	(P)-3.000E-03	(P)4.000E-03	(P)-1.800E-02	(P)-1.300E-02
5	CCB 1	3/31/2009 16:33:58	(P)8.900E-01	(P)6.000E-03	(P)2.000E-03	(P)-2.000E-03	(P)-1.800E-02	(P)-1.080E-01
	Mean of CCB 1	3/31/2009 16:32:49	(P)8.850E-01	(P)-8.000E-03	(P)0.000E+00	(P)-1.000E-03	(P)-8.000E-03	(P)-5.500E-02
	SD of CCB 1		(P)n/a	(P)8.000E-03	(P)3.000E-03	(P)7.000E-03	(P)2.100E-02	(P)6.500E-02
	%RSD of CCB 1		(P)n/a	(P)93.750	(P)2203.000	(P)858.600	(P)254.800	(P)119.000

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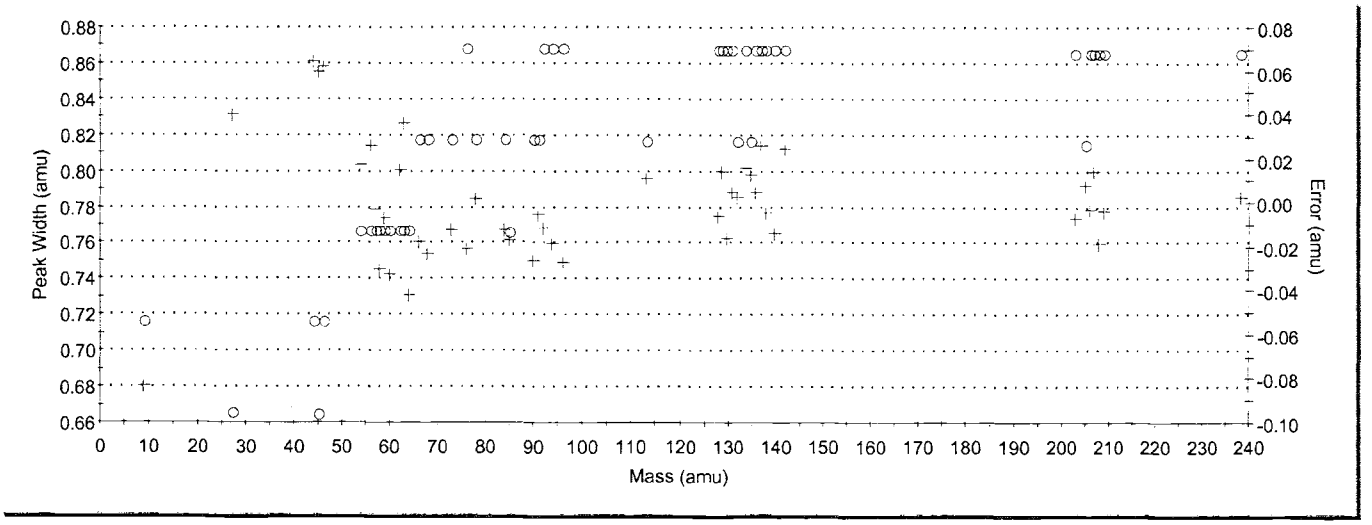
Dilution Corrected Concentration Per Analyte

Run	Label	TimeStamp	238U
			ppt
	SD of LLS		(P)1.020E-01
	%RSD of LLS		(P)1.962
1	U CCV 1	3/31/2009 16:19:33	(P)9.890E+02
2	U CCV 1	3/31/2009 16:19:50	(P)9.668E+02
3	U CCV 1	3/31/2009 16:20:07	(P)9.803E+02
4	U CCV 1	3/31/2009 16:20:25	(P)9.730E+02
5	U CCV 1	3/31/2009 16:20:42	(P)9.745E+02
	Mean of U CCV 1	3/31/2009 16:19:33	(P)9.767E+02
	SD of U CCV 1		(P)8.384E+00
	%RSD of U CCV 1		(P)0.858
1	NP CCV 1	3/31/2009 16:26:10	(P)9.634E+00
2	NP CCV 1	3/31/2009 16:26:28	(P)9.029E+00
3	NP CCV 1	3/31/2009 16:26:45	(P)9.300E+00
4	NP CCV 1	3/31/2009 16:27:02	(P)9.049E+00
5	NP CCV 1	3/31/2009 16:27:19	(P)9.064E+00
	Mean of NP CCV 1	3/31/2009 16:26:10	(P)9.215E+00
	SD of NP CCV 1		(P)2.590E-01
	%RSD of NP CCV 1		(P)2.806
1	CCB 1	3/31/2009 16:32:49	(P)-1.800E-02
2	CCB 1	3/31/2009 16:33:06	(P)-2.300E-02
3	CCB 1	3/31/2009 16:33:23	(P)-8.000E-03
4	CCB 1	3/31/2009 16:33:40	(P)2.000E-02
5	CCB 1	3/31/2009 16:33:58	(P)5.200E-02
	Mean of CCB 1	3/31/2009 16:32:49	(P)5.000E-03
	SD of CCB 1		(P)3.100E-02
	%RSD of CCB 1		(P)683.100



Mass calibration for 3/31/09.

RRoss
4/1/09

STABILITY TEST FOR 3/31/2009

stab090331.vge 4/1/09

Uncorrected ICPS Per Mass

Run	Label	TimeStamp	5Bkg	7Li	9Be	59Co	140Ce++	101Bkg
1	)b tune (non sop	3/31/2009 10:53:54	(P)5.000E-01	(P)2.337E+04	(P)5.145E+03	(P)6.408E+04	(P)3.472E+03	(P)7.125E+01
2	1ppb tune (non s	3/31/2009 10:54:55	(P)2.000E+00	(P)2.329E+04	(P)5.269E+03	(P)6.445E+04	(P)3.487E+03	(P)5.900E+01
3	1ppb tune (non s	3/31/2009 10:55:56	(P)1.500E+00	(P)2.325E+04	(P)5.205E+03	(P)6.444E+04	(P)3.399E+03	(P)6.650E+01
4	1ppb tune (non s	3/31/2009 10:56:58	(P)1.250E+00	(P)2.340E+04	(P)5.193E+03	(P)6.446E+04	(P)3.442E+03	(P)6.800E+01
5	1ppb tune (non s	3/31/2009 10:57:59	(P)2.250E+00	(P)2.327E+04	(P)5.267E+03	(P)6.456E+04	(P)3.463E+03	(P)6.300E+01
6	1ppb tune (non s	3/31/2009 10:59:00	(P)2.500E+00	(P)2.321E+04	(P)5.183E+03	(P)6.455E+04	(P)3.482E+03	(P)6.625E+01
7	1ppb tune (non s	3/31/2009 11:00:01	(P)3.000E+00	(P)2.317E+04	(P)5.224E+03	(P)6.460E+04	(P)3.413E+03	(P)6.475E+01
8	1ppb tune (non s	3/31/2009 11:01:03	(P)1.750E+00	(P)2.288E+04	(P)5.155E+03	(P)6.434E+04	(P)3.413E+03	(P)6.525E+01
9	1ppb tune (non s	3/31/2009 11:02:04	(P)2.000E+00	(P)2.310E+04	(P)5.195E+03	(P)6.449E+04	(P)3.455E+03	(P)6.625E+01
10	1ppb tune (non s	3/31/2009 11:03:05	(P)3.250E+00	(P)2.299E+04	(P)5.128E+03	(P)6.426E+04	(P)3.483E+03	(P)6.600E+01
	Mean of 1ppb tu	3/31/2009 10:53:16	(P)2.000E+00	(P)2.319E+04	(P)5.197E+03	(P)6.442E+04	(P)3.451E+03	(P)6.563E+01
	SD of 1ppb tune (non sopt) 5		(P)8.160E-01	(P)1.631E+02	(P)4.753E+01	(P)1.571E+02	(P)3.243E+01	(P)3.174E+00
	%RSD of 1ppb tune (non sopt) 5		(P)40.825	(P)0.703	(P)0.915	(P)0.244	(P)0.940	(P)4.836

Run	Label	TimeStamp	115In	140Ce	156Ce O	209Bi	220Bkg	238U
1	)b tune (non sop	3/31/2009 10:53:54	(P)1.274E+05	(P)1.407E+05	(P)2.465E+03	(P)1.595E+05	(P)2.500E-01	(P)2.091E+05
2	1ppb tune (non s	3/31/2009 10:54:55	(P)1.283E+05	(P)1.416E+05	(P)2.457E+03	(P)1.606E+05	(P)7.500E-01	(P)2.100E+05
3	1ppb tune (non s	3/31/2009 10:55:56	(P)1.279E+05	(P)1.414E+05	(P)2.479E+03	(P)1.607E+05	(P)5.000E-01	(P)2.098E+05
4	1ppb tune (non s	3/31/2009 10:56:58	(P)1.282E+05	(P)1.421E+05	(P)2.454E+03	(P)1.606E+05	(P)5.000E-01	(P)2.094E+05
5	1ppb tune (non s	3/31/2009 10:57:59	(P)1.284E+05	(P)1.416E+05	(P)2.412E+03	(P)1.603E+05	(P)5.000E-01	(P)2.100E+05
6	1ppb tune (non s	3/31/2009 10:59:00	(P)1.286E+05	(P)1.416E+05	(P)2.447E+03	(P)1.610E+05	(P)5.000E-01	(P)2.099E+05
7	1ppb tune (non s	3/31/2009 11:00:01	(P)1.280E+05	(P)1.419E+05	(P)2.509E+03	(P)1.612E+05	(P)7.500E-01	(P)2.106E+05
8	1ppb tune (non s	3/31/2009 11:01:03	(P)1.283E+05	(P)1.417E+05	(P)2.480E+03	(P)1.612E+05	(P)2.500E-01	(P)2.106E+05
9	1ppb tune (non s	3/31/2009 11:02:04	(P)1.284E+05	(P)1.418E+05	(P)2.521E+03	(P)1.607E+05	(P)5.000E-01	(P)2.103E+05
10	1ppb tune (non s	3/31/2009 11:03:05	(P)1.289E+05	(P)1.425E+05	(P)2.403E+03	(P)1.614E+05	(P)1.250E+00	(P)2.118E+05
	Mean of 1ppb tu	3/31/2009 10:53:16	(P)1.282E+05	(P)1.417E+05	(P)2.463E+03	(P)1.607E+05	(P)5.750E-01	(P)2.101E+05
	SD of 1ppb tune (non sopt) 5		(P)4.088E+02	(P)4.652E+02	(P)3.737E+01	(P)5.340E+02	(P)2.900E-01	(P)7.532E+02
	%RSD of 1ppb tune (non sopt) 5		(P)0.319	(P)0.328	(P)1.517	(P)0.332	(P)50.413	(P)0.358

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
1	rinse 1	3/31/2009 13:16:54	(P)2.618E+04	(P)5.000E+00	(P)3.333E+00	(P)5.133E+01	(P)2.000E+01	(PM)1.124E+05
2	rinse 1	3/31/2009 13:17:11	(P)2.606E+04	(P)2.000E+00	(P)4.667E+00	(P)5.567E+01	(P)2.500E+01	(PM)1.122E+05
3	rinse 1	3/31/2009 13:17:29	(P)2.610E+04	(P)7.000E+00	(P)9.000E+00	(P)5.467E+01	(P)2.100E+01	(PM)1.138E+05
4	rinse 1	3/31/2009 13:17:46	(P)2.632E+04	(P)1.000E+00	(P)3.000E+00	(P)4.967E+01	(P)2.100E+01	(PM)1.125E+05
5	rinse 1	3/31/2009 13:18:04	(P)2.630E+04	(P)4.000E+00	(P)5.333E+00	(P)5.033E+01	(P)1.500E+01	(PM)1.151E+05
	Mean of rinse 1	3/31/2009 13:16:54	(P)2.619E+04	(P)3.800E+00	(P)5.067E+00	(P)5.233E+01	(P)2.040E+01	(PM)1.132E+05
	SD of rinse 1		(P)1.160E+02	(P)2.387E+00	(P)2.397E+00	(P)2.677E+00	(P)3.578E+00	(PM)1.230E+03
	%RSD of rinse 1		(P)0.443	(P)62.828	(P)47.304	(P)5.115	(P)17.538	(PM)1.087
1	rinse 2	3/31/2009 13:23:30	(P)2.591E+04	(P)1.000E+00	(P)1.000E+00	(P)3.330E-01	(P)0.000E+00	(P)1.500E+01
2	rinse 2	3/31/2009 13:23:47	(P)2.549E+04	(P)0.000E+00	(P)3.330E-01	(P)6.670E-01	(P)1.000E+00	(P)1.800E+01
3	rinse 2	3/31/2009 13:24:04	(P)2.565E+04	(P)0.000E+00	(P)1.000E+00	(P)0.000E+00	(P)1.000E+00	(P)1.200E+01
4	rinse 2	3/31/2009 13:24:21	(P)2.564E+04	(P)0.000E+00	(P)3.330E-01	(P)2.000E+00	(P)0.000E+00	(P)1.600E+01
5	rinse 2	3/31/2009 13:24:38	(P)2.592E+04	(P)0.000E+00	(P)0.000E+00	(P)2.667E+00	(P)0.000E+00	(P)1.700E+01
	Mean of rinse 2	3/31/2009 13:23:30	(P)2.572E+04	(P)2.000E-01	(P)5.330E-01	(P)1.133E+00	(P)4.000E-01	(P)1.560E+01
	SD of rinse 2		(P)1.887E+02	(P)4.470E-01	(P)4.470E-01	(P)1.145E+00	(P)5.480E-01	(P)2.302E+00
	%RSD of rinse 2		(P)0.734	(P)223.607	(P)83.853	(P)101.033	(P)136.931	(P)14.758
1	Blank	3/31/2009 13:30:06	(P)2.600E+04	(P)0.000E+00	(P)3.330E-01	(P)0.000E+00	(P)0.000E+00	(P)6.000E+00
2	Blank	3/31/2009 13:30:23	(P)2.609E+04	(P)0.000E+00	(P)0.000E+00	(P)6.670E-01	(P)3.000E+00	(P)9.000E+00
3	Blank	3/31/2009 13:30:40	(P)2.603E+04	(P)1.000E+00	(P)6.670E-01	(P)3.330E-01	(P)1.000E+00	(P)1.300E+01
4	Blank	3/31/2009 13:30:57	(P)2.602E+04	(P)2.000E+00	(P)3.330E-01	(P)6.670E-01	(P)0.000E+00	(P)1.600E+01
5	Blank	3/31/2009 13:31:14	(P)2.647E+04	(P)0.000E+00	(P)1.000E+00	(P)3.330E-01	(P)1.000E+00	(P)1.300E+01
	Mean of Blank	3/31/2009 13:30:06	(P)2.612E+04	(P)6.000E-01	(P)4.670E-01	(P)4.000E-01	(P)1.000E+00	(P)1.140E+01
	SD of Blank		(P)1.967E+02	(P)8.940E-01	(P)3.800E-01	(P)2.790E-01	(P)1.225E+00	(P)3.912E+00
	%RSD of Blank		(P)0.753	(P)149.071	(P)81.441	(P)69.722	(P)122.474	(P)34.312
1	U cal	3/31/2009 13:36:43	(P)2.709E+04	(P)1.000E+00	(P)5.333E+00	(P)7.970E+02	(P)0.000E+00	(P)9.000E+00
2	U cal	3/31/2009 13:37:00	(P)2.750E+04	(P)0.000E+00	(P)4.333E+00	(PM)8.600E+02	(P)0.000E+00	(P)1.000E+01
3	U cal	3/31/2009 13:37:17	(P)2.776E+04	(P)0.000E+00	(P)6.000E+00	(PM)8.374E+02	(P)0.000E+00	(P)1.300E+01
4	U cal	3/31/2009 13:37:34	(P)2.720E+04	(P)1.000E+00	(P)6.000E+00	(PM)8.180E+02	(P)1.000E+00	(P)1.200E+01
5	U cal	3/31/2009 13:37:52	(P)2.755E+04	(P)1.000E+00	(P)7.667E+00	(P)8.020E+02	(P)0.000E+00	(P)8.000E+00
	Mean of U cal	3/31/2009 13:36:43	(P)2.742E+04	(P)6.000E-01	(P)5.867E+00	(PM)8.229E+02	(P)2.000E-01	(P)1.040E+01
	SD of U cal		(P)2.736E+02	(P)5.480E-01	(P)1.216E+00	(PM)2.606E+01	(P)4.470E-01	(P)2.074E+00
	%RSD of U cal		(P)0.998	(P)91.287	(P)20.721	(PM)3.167	(P)223.607	(P)19.939
1	NP CAL	3/31/2009 13:43:21	(P)2.657E+04	(P)6.000E+00	(P)5.333E+00	(P)5.333E+01	(P)2.300E+01	(PM)1.134E+05
2	NP CAL	3/31/2009 13:43:38	(P)2.679E+04	(P)1.000E+00	(P)3.000E+00	(P)5.900E+01	(P)1.800E+01	(PM)1.136E+05
3	NP CAL	3/31/2009 13:43:55	(P)2.647E+04	(P)3.000E+00	(P)5.000E+00	(P)4.433E+01	(P)2.200E+01	(P)1.119E+05
4	NP CAL	3/31/2009 13:44:12	(P)2.705E+04	(P)2.000E+00	(P)4.667E+00	(P)4.767E+01	(P)2.000E+01	(P)1.144E+05
5	NP CAL	3/31/2009 13:44:29	(P)2.683E+04	(P)2.000E+00	(P)5.667E+00	(P)4.533E+01	(P)1.600E+01	(P)1.125E+05
	Mean of NP CAL	3/31/2009 13:43:21	(P)2.674E+04	(P)2.800E+00	(P)4.733E+00	(P)4.993E+01	(P)1.980E+01	(PM)1.132E+05
	SD of NP CAL		(P)2.281E+02	(P)1.924E+00	(P)1.038E+00	(P)6.153E+00	(P)2.864E+00	(PM)9.344E+02
	%RSD of NP CAL		(P)0.853	(P)68.698	(P)21.933	(P)12.322	(P)14.462	(PM)0.826
1	U ICV	3/31/2009 13:49:57	(P)2.784E+04	(P)0.000E+00	(P)2.000E+00	(P)4.147E+02	(P)0.000E+00	(P)2.000E+01
2	U ICV	3/31/2009 13:50:14	(P)2.761E+04	(P)0.000E+00	(P)4.000E+00	(P)4.090E+02	(P)0.000E+00	(P)1.600E+01
3	U ICV	3/31/2009 13:50:31	(P)2.838E+04	(P)0.000E+00	(P)3.667E+00	(P)4.083E+02	(P)3.000E+00	(P)2.700E+01
4	U ICV	3/31/2009 13:50:48	(P)2.798E+04	(P)1.000E+00	(P)2.333E+00	(P)4.087E+02	(P)0.000E+00	(P)2.200E+01

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	238U
1	rinse 1	3/31/2009 13:16:54	(P)6.867E+01
2	rinse 1	3/31/2009 13:17:11	(P)7.267E+01
3	rinse 1	3/31/2009 13:17:29	(P)6.867E+01
4	rinse 1	3/31/2009 13:17:46	(P)7.067E+01
5	rinse 1	3/31/2009 13:18:04	(P)7.200E+01
	Mean of rinse 1	3/31/2009 13:16:54	(P)7.053E+01
	SD of rinse 1		(P)1.850E+00
	%RSD of rinse 1		(P)2.623
1	rinse 2	3/31/2009 13:23:30	(P)6.333E+00
2	rinse 2	3/31/2009 13:23:47	(P)4.333E+00
3	rinse 2	3/31/2009 13:24:04	(P)5.333E+00
4	rinse 2	3/31/2009 13:24:21	(P)5.667E+00
5	rinse 2	3/31/2009 13:24:38	(P)6.000E+00
	Mean of rinse 2	3/31/2009 13:23:30	(P)5.533E+00
	SD of rinse 2		(P)7.670E-01
	%RSD of rinse 2		(P)13.869
1	Blank	3/31/2009 13:30:06	(P)3.333E+00
2	Blank	3/31/2009 13:30:23	(P)6.000E+00
3	Blank	3/31/2009 13:30:40	(P)4.333E+00
4	Blank	3/31/2009 13:30:57	(P)5.667E+00
5	Blank	3/31/2009 13:31:14	(P)3.333E+00
	Mean of Blank	3/31/2009 13:30:06	(P)4.533E+00
	SD of Blank		(P)1.261E+00
	%RSD of Blank		(P)27.805
1	U cal	3/31/2009 13:36:43	(P)1.142E+05
2	U cal	3/31/2009 13:37:00	(P)1.158E+05
3	U cal	3/31/2009 13:37:17	(PM)1.172E+05
4	U cal	3/31/2009 13:37:34	(PM)1.154E+05
5	U cal	3/31/2009 13:37:52	(P)1.159E+05
	Mean of U cal	3/31/2009 13:36:43	(PM)1.157E+05
	SD of U cal		(PM)1.086E+03
	%RSD of U cal		(PM)0.938
1	NP CAL	3/31/2009 13:43:21	(P)8.133E+01
2	NP CAL	3/31/2009 13:43:38	(P)7.767E+01
3	NP CAL	3/31/2009 13:43:55	(P)7.167E+01
4	NP CAL	3/31/2009 13:44:12	(P)8.067E+01
5	NP CAL	3/31/2009 13:44:29	(P)7.800E+01
	Mean of NP CAL	3/31/2009 13:43:21	(P)7.787E+01
	SD of NP CAL		(P)3.820E+00
	%RSD of NP CAL		(P)4.905
1	U ICV	3/31/2009 13:49:57	(P)5.923E+04
2	U ICV	3/31/2009 13:50:14	(P)5.887E+04
3	U ICV	3/31/2009 13:50:31	(P)5.917E+04
4	U ICV	3/31/2009 13:50:48	(P)5.847E+04

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
5	U ICV	3/31/2009 13:51:05	(P)2.832E+04	(P)1.000E+00	(P)2.333E+00	(P)4.240E+02	(P)1.000E+00	(P)2.500E+01
	Mean of U ICV	3/31/2009 13:49:57	(P)2.803E+04	(P)4.000E-01	(P)2.867E+00	(P)4.129E+02	(P)8.000E-01	(P)2.200E+01
	SD of U ICV		(P)3.251E+02	(P)5.480E-01	(P)9.010E-01	(P)6.714E+00	(P)1.304E+00	(P)4.301E+00
	%RSD of U ICV		(P)1.160	(P)136.931	(P)31.417	(P)1.626	(P)162.980	(P)19.551
1	NP ICV	3/31/2009 13:56:35	(P)2.665E+04	(P)0.000E+00	(P)4.667E+00	(P)4.100E+01	(P)4.000E+00	(P)6.946E+04
2	NP ICV	3/31/2009 13:56:52	(P)2.680E+04	(P)1.000E+00	(P)4.333E+00	(P)4.100E+01	(P)4.000E+00	(P)6.898E+04
3	NP ICV	3/31/2009 13:57:09	(P)2.717E+04	(P)1.000E+00	(P)6.000E+00	(P)3.833E+01	(P)2.000E+00	(P)7.136E+04
4	NP ICV	3/31/2009 13:57:26	(P)2.691E+04	(P)3.000E+00	(P)3.000E+00	(P)4.233E+01	(P)7.000E+00	(P)7.038E+04
5	NP ICV	3/31/2009 13:57:45	(P)2.705E+04	(P)0.000E+00	(P)5.333E+00	(P)4.100E+01	(P)4.000E+00	(P)7.079E+04
	Mean of NP ICV	3/31/2009 13:56:35	(P)2.692E+04	(P)1.000E+00	(P)4.667E+00	(P)4.073E+01	(P)4.200E+00	(P)7.019E+04
	SD of NP ICV		(P)2.064E+02	(P)1.225E+00	(P)1.130E+00	(P)1.461E+00	(P)1.789E+00	(P)9.697E+02
	%RSD of NP ICV		(P)0.767	(P)122.474	(P)24.223	(P)3.586	(P)42.592	(P)1.381
1	ICB	3/31/2009 14:03:14	(P)2.632E+04	(P)0.000E+00	(P)1.000E+00	(P)6.670E-01	(P)2.000E+00	(P)5.000E+00
2	ICB	3/31/2009 14:03:31	(P)2.615E+04	(P)0.000E+00	(P)0.000E+00	(P)2.000E+00	(P)2.000E+00	(P)1.100E+01
3	ICB	3/31/2009 14:03:48	(P)2.653E+04	(P)2.000E+00	(P)3.330E-01	(P)3.330E-01	(P)1.000E+00	(P)3.000E+00
4	ICB	3/31/2009 14:04:05	(P)2.646E+04	(P)2.000E+00	(P)1.667E+00	(P)0.000E+00	(P)1.000E+00	(P)8.000E+00
5	ICB	3/31/2009 14:04:22	(P)2.632E+04	(P)3.000E+00	(P)0.000E+00	(P)2.000E+00	(P)0.000E+00	(P)9.000E+00
	Mean of ICB	3/31/2009 14:03:14	(P)2.635E+04	(P)1.400E+00	(P)6.000E-01	(P)1.000E+00	(P)1.200E+00	(P)7.200E+00
	SD of ICB		(P)1.473E+02	(P)1.342E+00	(P)7.230E-01	(P)9.430E-01	(P)8.370E-01	(P)3.194E+00
	%RSD of ICB		(P)0.559	(P)95.831	(P)120.442	(P)94.281	(P)69.722	(P)44.358
1	LLS	3/31/2009 14:09:50	(P)2.661E+04	(P)1.000E+00	(P)6.670E-01	(P)1.667E+00	(P)0.000E+00	(P)2.810E+02
2	LLS	3/31/2009 14:10:07	(P)2.668E+04	(P)0.000E+00	(P)3.330E-01	(P)2.333E+00	(P)0.000E+00	(P)3.270E+02
3	LLS	3/31/2009 14:10:25	(P)2.702E+04	(P)1.000E+00	(P)3.330E-01	(P)3.333E+00	(P)2.000E+00	(P)2.800E+02
4	LLS	3/31/2009 14:10:42	(P)2.724E+04	(P)0.000E+00	(P)1.000E+00	(P)5.667E+00	(P)0.000E+00	(P)3.240E+02
5	LLS	3/31/2009 14:10:59	(P)2.687E+04	(P)1.000E+00	(P)3.330E-01	(P)4.000E+00	(P)2.000E+00	(P)2.940E+02
	Mean of LLS	3/31/2009 14:09:50	(P)2.688E+04	(P)6.000E-01	(P)5.330E-01	(P)3.400E+00	(P)8.000E-01	(P)3.012E+02
	SD of LLS		(P)2.548E+02	(P)5.480E-01	(P)2.980E-01	(P)1.553E+00	(P)1.095E+00	(P)2.289E+01
	%RSD of LLS		(P)0.948	(P)91.287	(P)55.902	(P)45.670	(P)136.931	(P)7.598
1	S09T001796	3/31/2009 14:16:49	(P)2.712E+04	(P)4.900E+01	(P)6.467E+01	(PM)7.179E+03	(P)2.210E+02	(P)7.038E+03
2	S09T001796	3/31/2009 14:17:06	(P)2.714E+04	(P)2.600E+01	(P)6.533E+01	(PM)6.966E+03	(P)2.550E+02	(P)7.181E+03
3	S09T001796	3/31/2009 14:17:23	(P)2.688E+04	(P)3.200E+01	(P)6.467E+01	(PM)7.324E+03	(P)2.600E+02	(P)7.175E+03
4	S09T001796	3/31/2009 14:17:40	(P)2.700E+04	(P)2.600E+01	(P)6.033E+01	(PM)7.140E+03	(P)2.460E+02	(P)6.847E+03
5	S09T001796	3/31/2009 14:17:57	(P)2.713E+04	(P)2.600E+01	(P)6.233E+01	(PM)7.131E+03	(P)2.730E+02	(P)7.296E+03
	Mean of S09T001796	3/31/2009 14:16:28	(P)2.706E+04	(P)3.180E+01	(P)6.347E+01	(PM)7.148E+03	(P)2.510E+02	(P)7.107E+03
	SD of S09T001796		(P)1.147E+02	(P)9.960E+00	(P)2.090E+00	(PM)1.280E+02	(P)1.940E+01	(P)1.720E+02
	%RSD of S09T001796		(P)0.424	(P)31.321	(P)3.293	(PM)1.790	(P)7.731	(P)2.420
1	BLK	3/31/2009 14:23:47	(P)2.537E+04	(P)1.000E+00	(P)0.000E+00	(P)3.330E-01	(P)0.000E+00	(P)1.400E+01
2	BLK	3/31/2009 14:24:04	(P)2.615E+04	(P)0.000E+00	(P)2.000E+00	(P)6.670E-01	(P)0.000E+00	(P)1.000E+01
3	BLK	3/31/2009 14:24:21	(P)2.617E+04	(P)0.000E+00	(P)1.000E+00	(P)6.670E-01	(P)0.000E+00	(P)1.100E+01
4	BLK	3/31/2009 14:24:38	(P)2.615E+04	(P)0.000E+00	(P)6.670E-01	(P)1.667E+00	(P)0.000E+00	(P)1.100E+01
5	BLK	3/31/2009 14:24:55	(P)2.618E+04	(P)0.000E+00	(P)6.670E-01	(P)1.000E+00	(P)1.000E+00	(P)1.000E+01
	Mean of BLK	3/31/2009 14:23:26	(P)2.600E+04	(P)2.000E-01	(P)8.670E-01	(P)8.670E-01	(P)2.000E-01	(P)1.120E+01
	SD of BLK		(P)3.531E+02	(P)4.470E-01	(P)7.300E-01	(P)5.060E-01	(P)4.470E-01	(P)1.643E+00
	%RSD of BLK		(P)1.358	(P)223.607	(P)84.265	(P)58.330	(P)223.607	(P)14.671

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	238U
5	U ICV	3/31/2009 13:51:05	(P)5.911E+04
	Mean of U ICV	3/31/2009 13:49:57	(P)5.897E+04
	SD of U ICV		(P)3.107E+02
	%RSD of U ICV		(P)0.527
1	NP ICV	3/31/2009 13:56:35	(P)5.247E+02
2	NP ICV	3/31/2009 13:56:52	(P)5.347E+02
3	NP ICV	3/31/2009 13:57:09	(P)5.283E+02
4	NP ICV	3/31/2009 13:57:26	(P)5.530E+02
5	NP ICV	3/31/2009 13:57:45	(P)5.320E+02
	Mean of NP ICV	3/31/2009 13:56:35	(P)5.345E+02
	SD of NP ICV		(P)1.099E+01
	%RSD of NP ICV		(P)2.056
1	ICB	3/31/2009 14:03:14	(P)5.000E+00
2	ICB	3/31/2009 14:03:31	(P)4.333E+00
3	ICB	3/31/2009 14:03:48	(P)6.333E+00
4	ICB	3/31/2009 14:04:05	(P)5.333E+00
5	ICB	3/31/2009 14:04:22	(P)5.333E+00
	Mean of ICB	3/31/2009 14:03:14	(P)5.267E+00
	SD of ICB		(P)7.230E-01
	%RSD of ICB		(P)13.721
1	LLS	3/31/2009 14:09:50	(P)2.953E+02
2	LLS	3/31/2009 14:10:07	(P)2.890E+02
3	LLS	3/31/2009 14:10:25	(P)2.827E+02
4	LLS	3/31/2009 14:10:42	(P)3.087E+02
5	LLS	3/31/2009 14:10:59	(P)3.153E+02
	Mean of LLS	3/31/2009 14:09:50	(P)2.982E+02
	SD of LLS		(P)1.358E+01
	%RSD of LLS		(P)4.553
1	S09T001796	3/31/2009 14:16:49	(PM)1.029E+06
2	S09T001796	3/31/2009 14:17:06	(PM)1.023E+06
3	S09T001796	3/31/2009 14:17:23	(PM)1.011E+06
4	S09T001796	3/31/2009 14:17:40	(PM)1.004E+06
5	S09T001796	3/31/2009 14:17:57	(PM)1.013E+06
	Mean of S09T001796	3/31/2009 14:16:28	(PM)1.016E+06
	SD of S09T001796		(PM)1.014E+04
	%RSD of S09T001796		(PM)0.998
1	BLK	3/31/2009 14:23:47	(P)1.900E+01
2	BLK	3/31/2009 14:24:04	(P)1.967E+01
3	BLK	3/31/2009 14:24:21	(P)2.433E+01
4	BLK	3/31/2009 14:24:38	(P)3.233E+01
5	BLK	3/31/2009 14:24:55	(P)4.400E+01
	Mean of BLK	3/31/2009 14:23:26	(P)2.787E+01
	SD of BLK		(P)1.047E+01
	%RSD of BLK		(P)37.576

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
1	S09T001796	3/31/2009 14:30:43	(P)2.606E+04	(P)6.000E+00	(P)4.333E+00	(P)1.267E+02	(P)7.000E+00	(P)1.670E+02
2	S09T001796	3/31/2009 14:31:00	(P)2.667E+04	(P)0.000E+00	(P)2.333E+00	(P)1.327E+02	(P)9.000E+00	(P)1.410E+02
3	S09T001796	3/31/2009 14:31:17	(P)2.695E+04	(P)1.000E+00	(P)1.667E+00	(P)1.497E+02	(P)3.000E+00	(P)1.670E+02
4	S09T001796	3/31/2009 14:31:35	(P)2.686E+04	(P)0.000E+00	(P)2.000E+00	(P)1.363E+02	(P)4.000E+00	(P)1.730E+02
5	S09T001796	3/31/2009 14:31:52	(P)2.718E+04	(P)1.000E+00	(P)2.000E+00	(P)1.470E+02	(P)7.000E+00	(P)1.590E+02
	Mean of S09T001796	3/31/2009 14:30:23	(P)2.675E+04	(P)1.600E+00	(P)2.467E+00	(P)1.385E+02	(P)6.000E+00	(P)1.614E+02
	SD of S09T001796		(P)4.234E+02	(P)2.510E+00	(P)1.070E+00	(P)9.691E+00	(P)2.449E+00	(P)1.244E+01
	%RSD of S09T001796		(P)1.583	(P)156.874	(P)43.370	(P)6.999	(P)40.825	(P)7.709
1	S09T001751	3/31/2009 14:37:43	(P)2.620E+04	(P)1.000E+00	(P)0.000E+00	(P)1.000E+00	(P)0.000E+00	(P)1.000E+00
2	S09T001751	3/31/2009 14:38:00	(P)2.673E+04	(P)1.000E+00	(P)3.330E-01	(P)3.330E-01	(P)3.000E+00	(P)1.000E+00
3	S09T001751	3/31/2009 14:38:17	(P)2.652E+04	(P)1.000E+00	(P)3.330E-01	(P)2.000E+00	(P)0.000E+00	(P)3.000E+00
4	S09T001751	3/31/2009 14:38:34	(P)2.658E+04	(P)0.000E+00	(P)1.667E+00	(P)1.667E+00	(P)1.000E+00	(P)3.000E+00
5	S09T001751	3/31/2009 14:38:52	(P)2.708E+04	(P)0.000E+00	(P)3.330E-01	(P)1.333E+00	(P)1.000E+00	(P)1.000E+00
	Mean of S09T001751	3/31/2009 14:37:22	(P)2.662E+04	(P)6.000E-01	(P)5.330E-01	(P)1.267E+00	(P)1.000E+00	(P)1.800E+00
	SD of S09T001751		(P)3.228E+02	(P)5.480E-01	(P)6.500E-01	(P)6.410E-01	(P)1.225E+00	(P)1.095E+00
	%RSD of S09T001751		(P)1.213	(P)91.287	(P)121.835	(P)50.619	(P)122.474	(P)60.858
1	S09T001763	3/31/2009 14:44:42	(P)2.620E+04	(P)1.000E+00	(P)3.330E-01	(P)7.333E+00	(P)2.000E+00	(P)0.000E+00
2	S09T001763	3/31/2009 14:45:00	(P)2.641E+04	(P)0.000E+00	(P)0.000E+00	(P)4.333E+00	(P)1.000E+00	(P)1.000E+00
3	S09T001763	3/31/2009 14:45:17	(P)2.676E+04	(P)2.000E+00	(P)3.330E-01	(P)6.333E+00	(P)4.000E+00	(P)0.000E+00
4	S09T001763	3/31/2009 14:45:34	(P)2.714E+04	(P)0.000E+00	(P)0.000E+00	(P)4.667E+00	(P)1.000E+00	(P)7.000E+00
5	S09T001763	3/31/2009 14:45:51	(P)2.714E+04	(P)2.000E+00	(P)6.670E-01	(P)5.667E+00	(P)0.000E+00	(P)2.000E+00
	Mean of S09T001763	3/31/2009 14:44:22	(P)2.673E+04	(P)1.000E+00	(P)2.670E-01	(P)5.667E+00	(P)1.600E+00	(P)2.000E+00
	SD of S09T001763		(P)4.225E+02	(P)1.000E+00	(P)2.790E-01	(P)1.225E+00	(P)1.517E+00	(P)2.915E+00
	%RSD of S09T001763		(P)1.581	(P)100.000	(P)104.583	(P)21.613	(P)94.786	(P)145.774
1	S09T001784	3/31/2009 14:51:42	(P)2.649E+04	(P)1.000E+00	(P)2.000E+00	(P)1.443E+02	(P)6.000E+00	(P)1.470E+02
2	S09T001784	3/31/2009 14:52:00	(P)2.669E+04	(P)2.000E+00	(P)3.000E+00	(P)1.420E+02	(P)3.000E+00	(P)1.290E+02
3	S09T001784	3/31/2009 14:52:17	(P)2.706E+04	(P)3.000E+00	(P)3.000E+00	(P)1.403E+02	(P)4.000E+00	(P)1.500E+02
4	S09T001784	3/31/2009 14:52:34	(P)2.697E+04	(P)2.000E+00	(P)1.333E+00	(P)1.560E+02	(P)7.000E+00	(P)1.540E+02
5	S09T001784	3/31/2009 14:52:52	(P)2.750E+04	(P)1.000E+00	(P)3.000E+00	(P)1.530E+02	(P)3.000E+00	(P)1.570E+02
	Mean of S09T001784	3/31/2009 14:51:21	(P)2.694E+04	(P)1.800E+00	(P)2.467E+00	(P)1.471E+02	(P)4.600E+00	(P)1.474E+02
	SD of S09T001784		(P)3.854E+02	(P)8.370E-01	(P)7.670E-01	(P)6.955E+00	(P)1.817E+00	(P)1.097E+01
	%RSD of S09T001784		(P)1.430	(P)46.481	(P)31.110	(P)4.727	(P)39.491	(P)7.441
1	S09T001808	3/31/2009 14:58:44	(P)2.715E+04	(P)1.000E+00	(P)6.670E-01	(P)1.587E+02	(P)3.000E+00	(P)1.530E+02
2	S09T001808	3/31/2009 14:59:01	(P)2.694E+04	(P)0.000E+00	(P)6.670E-01	(P)1.540E+02	(P)3.000E+00	(P)1.250E+02
3	S09T001808	3/31/2009 14:59:18	(P)2.749E+04	(P)1.000E+00	(P)1.000E+00	(P)1.430E+02	(P)6.000E+00	(P)1.580E+02
4	S09T001808	3/31/2009 14:59:35	(P)2.750E+04	(P)1.000E+00	(P)3.000E+00	(P)1.577E+02	(P)8.000E+00	(P)1.210E+02
5	S09T001808	3/31/2009 14:59:52	(P)2.737E+04	(P)3.000E+00	(P)2.000E+00	(P)1.497E+02	(P)5.000E+00	(P)1.480E+02
	Mean of S09T001808	3/31/2009 14:58:23	(P)2.729E+04	(P)1.200E+00	(P)1.467E+00	(P)1.526E+02	(P)5.000E+00	(P)1.410E+02
	SD of S09T001808		(P)2.411E+02	(P)1.095E+00	(P)1.017E+00	(P)6.427E+00	(P)2.121E+00	(P)1.687E+01
	%RSD of S09T001808		(P)0.883	(P)91.287	(P)69.309	(P)4.211	(P)42.426	(P)11.963
1	U CCV	3/31/2009 15:05:22	(P)2.917E+04	(P)1.000E+00	(P)5.000E+00	(P)4.177E+02	(P)0.000E+00	(P)1.200E+01
2	U CCV	3/31/2009 15:05:39	(P)2.887E+04	(P)0.000E+00	(P)4.333E+00	(P)4.243E+02	(P)0.000E+00	(P)1.900E+01
3	U CCV	3/31/2009 15:05:56	(P)2.912E+04	(P)0.000E+00	(P)3.667E+00	(P)4.400E+02	(P)0.000E+00	(P)1.100E+01

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	238U
1	S09T001796	3/31/2009 14:30:43	(P)2.015E+04
2	S09T001796	3/31/2009 14:31:00	(P)2.069E+04
3	S09T001796	3/31/2009 14:31:17	(P)2.112E+04
4	S09T001796	3/31/2009 14:31:35	(P)2.094E+04
5	S09T001796	3/31/2009 14:31:52	(P)2.116E+04
	Mean of S09T001796	3/31/2009 14:30:23	(P)2.081E+04
	SD of S09T001796		(P)4.133E+02
	%RSD of S09T001796		(P)1.986
1	S09T001751	3/31/2009 14:37:43	(P)1.633E+01
2	S09T001751	3/31/2009 14:38:00	(P)3.067E+01
3	S09T001751	3/31/2009 14:38:17	(P)3.533E+01
4	S09T001751	3/31/2009 14:38:34	(P)2.933E+01
5	S09T001751	3/31/2009 14:38:52	(P)3.300E+01
	Mean of S09T001751	3/31/2009 14:37:22	(P)2.893E+01
	SD of S09T001751		(P)7.406E+00
	%RSD of S09T001751		(P)25.598
1	S09T001763	3/31/2009 14:44:42	(P)7.230E+02
2	S09T001763	3/31/2009 14:45:00	(P)7.457E+02
3	S09T001763	3/31/2009 14:45:17	(P)7.477E+02
4	S09T001763	3/31/2009 14:45:34	(P)8.020E+02
5	S09T001763	3/31/2009 14:45:51	(P)7.620E+02
	Mean of S09T001763	3/31/2009 14:44:22	(P)7.561E+02
	SD of S09T001763		(P)2.923E+01
	%RSD of S09T001763		(P)3.866
1	S09T001784	3/31/2009 14:51:42	(P)2.043E+04
2	S09T001784	3/31/2009 14:52:00	(P)2.078E+04
3	S09T001784	3/31/2009 14:52:17	(P)2.071E+04
4	S09T001784	3/31/2009 14:52:34	(P)2.099E+04
5	S09T001784	3/31/2009 14:52:52	(P)2.120E+04
	Mean of S09T001784	3/31/2009 14:51:21	(P)2.082E+04
	SD of S09T001784		(P)2.925E+02
	%RSD of S09T001784		(P)1.405
1	S09T001808	3/31/2009 14:58:44	(P)2.095E+04
2	S09T001808	3/31/2009 14:59:01	(P)2.109E+04
3	S09T001808	3/31/2009 14:59:18	(P)2.103E+04
4	S09T001808	3/31/2009 14:59:35	(P)2.087E+04
5	S09T001808	3/31/2009 14:59:52	(P)2.116E+04
	Mean of S09T001808	3/31/2009 14:58:23	(P)2.102E+04
	SD of S09T001808		(P)1.148E+02
	%RSD of S09T001808		(P)0.546
1	U CCV	3/31/2009 15:05:22	(P)6.037E+04
2	U CCV	3/31/2009 15:05:39	(P)6.034E+04
3	U CCV	3/31/2009 15:05:56	(P)6.036E+04

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
4	U CCV	3/31/2009 15:06:14	(P)2.917E+04	(P)0.000E+00	(P)3.333E+00	(P)4.317E+02	(P)1.000E+00	(P)1.300E+01
5	U CCV	3/31/2009 15:06:31	(P)2.920E+04	(P)0.000E+00	(P)2.000E+00	(P)4.327E+02	(P)1.000E+00	(P)1.000E+01
	Mean of U CCV	3/31/2009 15:05:22	(P)2.911E+04	(P)2.000E-01	(P)3.667E+00	(P)4.293E+02	(P)4.000E-01	(P)1.300E+01
	SD of U CCV		(P)1.329E+02	(P)4.470E-01	(P)1.130E+00	(P)8.536E+00	(P)5.480E-01	(P)3.536E+00
	%RSD of U CCV		(P)0.457	(P)223.607	(P)30.829	(P)1.988	(P)136.931	(P)27.196
1	NP CCV	3/31/2009 15:11:59	(P)2.810E+04	(P)0.000E+00	(P)6.000E+00	(P)4.033E+01	(P)5.000E+00	(P)7.388E+04
2	NP CCV	3/31/2009 15:12:17	(P)2.803E+04	(P)1.000E+00	(P)6.000E+00	(P)4.700E+01	(P)6.000E+00	(P)7.493E+04
3	NP CCV	3/31/2009 15:12:34	(P)2.809E+04	(P)2.000E+00	(P)4.000E+00	(P)4.633E+01	(P)3.000E+00	(P)7.433E+04
4	NP CCV	3/31/2009 15:12:51	(P)2.809E+04	(P)0.000E+00	(P)2.000E+00	(P)4.300E+01	(P)2.000E+00	(P)7.446E+04
5	NP CCV	3/31/2009 15:13:08	(P)2.781E+04	(P)1.000E+00	(P)4.333E+00	(P)4.100E+01	(P)6.000E+00	(P)7.382E+04
	Mean of NP CCV	3/31/2009 15:11:59	(P)2.802E+04	(P)8.000E-01	(P)4.467E+00	(P)4.353E+01	(P)4.400E+00	(P)7.429E+04
	SD of NP CCV		(P)1.251E+02	(P)8.370E-01	(P)1.660E+00	(P)3.033E+00	(P)1.817E+00	(P)4.578E+02
	%RSD of NP CCV		(P)0.446	(P)104.583	(P)37.164	(P)6.967	(P)41.286	(P)0.616
1	CCB	3/31/2009 15:18:36	(P)2.779E+04	(P)1.000E+00	(P)2.000E+00	(P)3.330E-01	(P)0.000E+00	(P)1.300E+01
2	CCB	3/31/2009 15:18:53	(P)2.743E+04	(P)0.000E+00	(P)3.330E-01	(P)1.333E+00	(P)1.000E+00	(P)1.200E+01
3	CCB	3/31/2009 15:19:10	(P)2.783E+04	(P)0.000E+00	(P)0.000E+00	(P)6.670E-01	(P)1.000E+00	(P)9.000E+00
4	CCB	3/31/2009 15:19:27	(P)2.780E+04	(P)1.000E+00	(P)0.000E+00	(P)3.330E-01	(P)0.000E+00	(P)1.700E+01
5	CCB	3/31/2009 15:19:45	(P)2.786E+04	(P)1.000E+00	(P)3.330E-01	(P)1.333E+00	(P)0.000E+00	(P)7.000E+00
	Mean of CCB	3/31/2009 15:18:36	(P)2.774E+04	(P)6.000E-01	(P)5.330E-01	(P)8.000E-01	(P)4.000E-01	(P)1.160E+01
	SD of CCB		(P)1.788E+02	(P)5.480E-01	(P)8.370E-01	(P)5.060E-01	(P)5.480E-01	(P)3.847E+00
	%RSD of CCB		(P)0.644	(P)91.287	(P)156.874	(P)63.191	(P)136.931	(P)33.164
1	CCB	3/31/2009 15:25:12	(P)2.778E+04	(P)0.000E+00	(P)3.330E-01	(P)1.333E+00	(P)1.000E+00	(P)1.100E+01
2	CCB	3/31/2009 15:25:29	(P)2.812E+04	(P)1.000E+00	(P)3.330E-01	(P)0.000E+00	(P)1.000E+00	(P)1.400E+01
3	CCB	3/31/2009 15:25:46	(P)2.820E+04	(P)0.000E+00	(P)0.000E+00	(P)1.000E+00	(P)1.000E+00	(P)1.100E+01
4	CCB	3/31/2009 15:26:03	(P)2.807E+04	(P)1.000E+00	(P)6.670E-01	(P)6.670E-01	(P)0.000E+00	(P)1.600E+01
5	CCB	3/31/2009 15:26:21	(P)2.738E+04	(P)3.000E+00	(P)3.330E-01	(P)3.330E-01	(P)1.000E+00	(P)1.300E+01
	Mean of CCB	3/31/2009 15:25:12	(P)2.791E+04	(P)1.000E+00	(P)3.330E-01	(P)6.670E-01	(P)8.000E-01	(P)1.300E+01
	SD of CCB		(P)3.364E+02	(P)1.225E+00	(P)2.360E-01	(P)5.270E-01	(P)4.470E-01	(P)2.121E+00
	%RSD of CCB		(P)1.205	(P)122.474	(P)70.711	(P)79.057	(P)55.902	(P)16.318
1	S09T001796_L	3/31/2009 15:32:09	(P)2.703E+04	(P)1.000E+00	(P)1.667E+00	(P)2.667E+01	(P)2.000E+00	(P)3.500E+01
2	S09T001796_L	3/31/2009 15:32:26	(P)2.771E+04	(P)1.000E+00	(P)3.330E-01	(P)3.400E+01	(P)1.000E+00	(P)3.400E+01
3	S09T001796_L	3/31/2009 15:32:43	(P)2.782E+04	(P)1.000E+00	(P)1.000E+00	(P)3.200E+01	(P)4.000E+00	(P)3.300E+01
4	S09T001796_L	3/31/2009 15:33:00	(P)2.826E+04	(P)0.000E+00	(P)1.000E+00	(P)2.733E+01	(P)2.000E+00	(P)2.700E+01
5	S09T001796_L	3/31/2009 15:33:17	(P)2.870E+04	(P)3.000E+00	(P)6.670E-01	(P)2.933E+01	(P)4.000E+00	(P)2.100E+01
	Mean of S09T001796_L	3/31/2009 15:31:49	(P)2.790E+04	(P)1.200E+00	(P)9.330E-01	(P)2.987E+01	(P)2.600E+00	(P)3.000E+01
	SD of S09T001796_L		(P)6.269E+02	(P)1.095E+00	(P)4.940E-01	(P)3.106E+00	(P)1.342E+00	(P)5.916E+00
	%RSD of S09T001796_L		(P)2.247	(P)91.287	(P)52.973	(P)10.398	(P)51.602	(P)19.720
1	S09T001796_D	3/31/2009 15:39:07	(P)2.789E+04	(P)0.000E+00	(P)1.000E+00	(P)1.600E+02	(P)4.000E+00	(P)1.640E+02
2	S09T001796_D	3/31/2009 15:39:24	(P)2.833E+04	(P)2.000E+00	(P)2.333E+00	(P)1.663E+02	(P)5.000E+00	(P)1.500E+02
3	S09T001796_D	3/31/2009 15:39:41	(P)2.887E+04	(P)1.000E+00	(P)1.667E+00	(P)1.593E+02	(P)4.000E+00	(P)1.510E+02
4	S09T001796_D	3/31/2009 15:39:58	(P)2.891E+04	(P)1.000E+00	(P)2.000E+00	(P)1.573E+02	(P)4.000E+00	(P)1.550E+02
5	S09T001796_D	3/31/2009 15:40:15	(P)2.819E+04	(P)1.000E+00	(P)1.667E+00	(P)1.507E+02	(P)9.000E+00	(P)1.490E+02
	Mean of S09T001796_D	3/31/2009 15:38:46	(P)2.844E+04	(P)1.000E+00	(P)1.733E+00	(P)1.587E+02	(P)5.200E+00	(P)1.538E+02
	SD of S09T001796_D		(P)4.421E+02	(P)7.070E-01	(P)4.940E-01	(P)5.629E+00	(P)2.168E+00	(P)6.140E+00

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	238U
4	U CCV	3/31/2009 15:06:14	(P)6.054E+04
5	U CCV	3/31/2009 15:06:31	(P)6.166E+04
	Mean of U CCV	3/31/2009 15:05:22	(P)6.066E+04
	SD of U CCV		(P)5.697E+02
	%RSD of U CCV		(P)0.939
1	NP CCV	3/31/2009 15:11:59	(P)5.360E+02
2	NP CCV	3/31/2009 15:12:17	(P)5.450E+02
3	NP CCV	3/31/2009 15:12:34	(P)5.770E+02
4	NP CCV	3/31/2009 15:12:51	(P)5.507E+02
5	NP CCV	3/31/2009 15:13:08	(P)5.543E+02
	Mean of NP CCV	3/31/2009 15:11:59	(P)5.526E+02
	SD of NP CCV		(P)1.529E+01
	%RSD of NP CCV		(P)2.767
1	CCB	3/31/2009 15:18:36	(P)7.333E+01
2	CCB	3/31/2009 15:18:53	(P)8.367E+01
3	CCB	3/31/2009 15:19:10	(P)7.100E+01
4	CCB	3/31/2009 15:19:27	(P)6.767E+01
5	CCB	3/31/2009 15:19:45	(P)6.767E+01
	Mean of CCB	3/31/2009 15:18:36	(P)7.267E+01
	SD of CCB		(P)6.600E+00
	%RSD of CCB		(P)9.082
1	CCB	3/31/2009 15:25:12	(P)7.667E+00
2	CCB	3/31/2009 15:25:29	(P)4.667E+00
3	CCB	3/31/2009 15:25:46	(P)5.333E+00
4	CCB	3/31/2009 15:26:03	(P)6.000E+00
5	CCB	3/31/2009 15:26:21	(P)4.000E+00
	Mean of CCB	3/31/2009 15:25:12	(P)5.533E+00
	SD of CCB		(P)1.406E+00
	%RSD of CCB		(P)25.416
1	S09T001796_L	3/31/2009 15:32:09	(P)4.069E+03
2	S09T001796_L	3/31/2009 15:32:26	(P)4.128E+03
3	S09T001796_L	3/31/2009 15:32:43	(P)4.173E+03
4	S09T001796_L	3/31/2009 15:33:00	(P)4.277E+03
5	S09T001796_L	3/31/2009 15:33:17	(P)4.279E+03
	Mean of S09T001796_L	3/31/2009 15:31:49	(P)4.185E+03
	SD of S09T001796_L		(P)9.231E+01
	%RSD of S09T001796_L		(P)2.206
1	S09T001796_D	3/31/2009 15:39:07	(P)2.170E+04
2	S09T001796_D	3/31/2009 15:39:24	(P)2.200E+04
3	S09T001796_D	3/31/2009 15:39:41	(P)2.236E+04
4	S09T001796_D	3/31/2009 15:39:58	(P)2.266E+04
5	S09T001796_D	3/31/2009 15:40:15	(P)2.222E+04
	Mean of S09T001796_D	3/31/2009 15:38:46	(P)2.219E+04
	SD of S09T001796_D		(P)3.643E+02

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
	%RSD of S09T001796_D		(P)1.555	(P)70.711	(P)28.524	(P)3.546	(P)41.691	(P)3.992
1	S09T001796_A1	3/31/2009 15:46:05	(P)2.898E+04	(P)0.000E+00	(P)3.333E+00	(P)3.443E+02	(P)6.000E+00	(P)1.640E+02
2	S09T001796_A1	3/31/2009 15:46:22	(P)2.906E+04	(P)2.000E+00	(P)3.667E+00	(P)3.843E+02	(P)9.000E+00	(P)1.410E+02
3	S09T001796_A1	3/31/2009 15:46:40	(P)2.936E+04	(P)1.000E+00	(P)1.667E+00	(P)3.830E+02	(P)3.000E+00	(P)1.390E+02
4	S09T001796_A1	3/31/2009 15:46:57	(P)2.918E+04	(P)1.000E+00	(P)3.000E+00	(P)3.953E+02	(P)8.000E+00	(P)1.730E+02
5	S09T001796_A1	3/31/2009 15:47:14	(P)2.933E+04	(P)2.000E+00	(P)4.333E+00	(P)4.043E+02	(P)5.000E+00	(P)1.630E+02
	Mean of S09T001796_A1	3/31/2009 15:45:44	(P)2.918E+04	(P)1.200E+00	(P)3.200E+00	(P)3.823E+02	(P)6.200E+00	(P)1.560E+02
	SD of S09T001796_A1		(P)1.640E+02	(P)8.370E-01	(P)9.890E-01	(P)2.292E+01	(P)2.387E+00	(P)1.513E+01
	%RSD of S09T001796_A1		(P)0.562	(P)69.722	(P)30.901	(P)5.996	(P)38.508	(P)9.701
1	S09T001796_A2	3/31/2009 15:53:04	(P)2.824E+04	(P)0.000E+00	(P)2.000E+00	(P)1.617E+02	(P)6.000E+00	(P)6.259E+03
2	S09T001796_A2	3/31/2009 15:53:21	(P)2.859E+04	(P)1.000E+00	(P)1.333E+00	(P)1.597E+02	(P)1.000E+01	(P)6.488E+03
3	S09T001796_A2	3/31/2009 15:53:39	(P)2.877E+04	(P)3.000E+00	(P)3.000E+00	(P)1.550E+02	(P)1.100E+01	(P)6.517E+03
4	S09T001796_A2	3/31/2009 15:53:56	(P)2.904E+04	(P)2.000E+00	(P)3.000E+00	(P)1.590E+02	(P)4.000E+00	(P)6.686E+03
5	S09T001796_A2	3/31/2009 15:54:13	(P)2.895E+04	(P)0.000E+00	(P)6.670E-01	(P)1.687E+02	(P)8.000E+00	(P)6.504E+03
	Mean of S09T001796_A2	3/31/2009 15:52:43	(P)2.872E+04	(P)1.200E+00	(P)2.000E+00	(P)1.608E+02	(P)7.800E+00	(P)6.491E+03
	SD of S09T001796_A2		(P)3.183E+02	(P)1.304E+00	(P)1.027E+00	(P)5.020E+00	(P)2.864E+00	(P)1.520E+02
	%RSD of S09T001796_A2		(P)1.108	(P)108.653	(P)51.370	(P)3.122	(P)36.712	(P)2.341
1	S09T001796_D	3/31/2009 15:59:41	(P)2.800E+04	(P)4.000E+00	(P)2.000E+00	(P)1.467E+02	(P)5.000E+00	(P)1.510E+02
2	S09T001796_D	3/31/2009 15:59:58	(P)2.839E+04	(P)0.000E+00	(P)2.333E+00	(P)1.510E+02	(P)8.000E+00	(P)1.450E+02
3	S09T001796_D	3/31/2009 16:00:15	(P)2.839E+04	(P)2.000E+00	(P)3.333E+00	(P)1.583E+02	(P)5.000E+00	(P)1.630E+02
4	S09T001796_D	3/31/2009 16:00:33	(P)2.870E+04	(P)2.000E+00	(P)2.000E+00	(P)1.557E+02	(P)5.000E+00	(P)1.640E+02
5	S09T001796_D	3/31/2009 16:00:51	(P)2.867E+04	(P)2.000E+00	(P)2.667E+00	(P)1.463E+02	(P)1.200E+01	(P)1.590E+02
	Mean of S09T001796_D	3/31/2009 15:59:41	(P)2.843E+04	(P)2.000E+00	(P)2.467E+00	(P)1.516E+02	(P)7.000E+00	(P)1.564E+02
	SD of S09T001796_D		(P)2.829E+02	(P)1.414E+00	(P)5.580E-01	(P)5.346E+00	(P)3.082E+00	(P)8.173E+00
	%RSD of S09T001796_D		(P)0.995	(P)70.711	(P)22.612	(P)3.526	(P)44.032	(P)5.226
1	BLK	3/31/2009 16:06:19	(P)2.683E+04	(P)0.000E+00	(P)3.330E-01	(P)3.330E-01	(P)0.000E+00	(P)1.200E+01
2	BLK	3/31/2009 16:06:36	(P)2.714E+04	(P)0.000E+00	(P)1.000E+00	(P)6.670E-01	(P)0.000E+00	(P)1.000E+01
3	BLK	3/31/2009 16:06:53	(P)2.801E+04	(P)0.000E+00	(P)3.330E-01	(P)1.333E+00	(P)1.000E+00	(P)1.300E+01
4	BLK	3/31/2009 16:07:10	(P)2.754E+04	(P)3.000E+00	(P)1.000E+00	(P)0.000E+00	(P)0.000E+00	(P)1.500E+01
5	BLK	3/31/2009 16:07:27	(P)2.752E+04	(P)1.000E+00	(P)3.330E-01	(P)3.330E-01	(P)0.000E+00	(P)8.000E+00
	Mean of BLK	3/31/2009 16:06:19	(P)2.741E+04	(P)8.000E-01	(P)6.000E-01	(P)5.330E-01	(P)2.000E-01	(P)1.160E+01
	SD of BLK		(P)4.478E+02	(P)1.304E+00	(P)3.650E-01	(P)5.060E-01	(P)4.470E-01	(P)2.702E+00
	%RSD of BLK		(P)1.634	(P)162.980	(P)60.858	(P)94.786	(P)223.607	(P)23.292
1	LLS	3/31/2009 16:12:56	(P)2.757E+04	(P)0.000E+00	(P)3.330E-01	(P)5.000E+00	(P)0.000E+00	(P)3.470E+02
2	LLS	3/31/2009 16:13:13	(P)2.805E+04	(P)0.000E+00	(P)0.000E+00	(P)1.667E+00	(P)0.000E+00	(P)2.810E+02
3	LLS	3/31/2009 16:13:31	(P)2.848E+04	(P)1.000E+00	(P)3.330E-01	(P)2.000E+00	(P)0.000E+00	(P)3.260E+02
4	LLS	3/31/2009 16:13:48	(P)2.826E+04	(P)1.000E+00	(P)3.330E-01	(P)2.000E+00	(P)0.000E+00	(P)3.140E+02
5	LLS	3/31/2009 16:14:05	(P)2.823E+04	(P)2.000E+00	(P)3.330E-01	(P)6.670E-01	(P)1.000E+00	(P)3.080E+02
	Mean of LLS	3/31/2009 16:12:56	(P)2.812E+04	(P)8.000E-01	(P)2.670E-01	(P)2.267E+00	(P)2.000E-01	(P)3.152E+02
	SD of LLS		(P)3.415E+02	(P)8.370E-01	(P)1.490E-01	(P)1.623E+00	(P)4.470E-01	(P)2.424E+01
	%RSD of LLS		(P)1.214	(P)104.583	(P)55.902	(P)71.592	(P)223.607	(P)7.691
1	U CCV 1	3/31/2009 16:19:33	(P)2.954E+04	(P)1.000E+00	(P)2.333E+00	(P)4.343E+02	(P)0.000E+00	(P)2.400E+01
2	U CCV 1	3/31/2009 16:19:50	(P)2.998E+04	(P)2.000E+00	(P)4.667E+00	(P)4.460E+02	(P)0.000E+00	(P)6.000E+00

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	238U
	%RSD of S09T001796_D		(P)1.642
1	S09T001796_A1	3/31/2009 15:46:05	(P)5.252E+04
2	S09T001796_A1	3/31/2009 15:46:22	(P)5.356E+04
3	S09T001796_A1	3/31/2009 15:46:40	(P)5.257E+04
4	S09T001796_A1	3/31/2009 15:46:57	(P)5.357E+04
5	S09T001796_A1	3/31/2009 15:47:14	(P)5.428E+04
	Mean of S09T001796_A1	3/31/2009 15:45:44	(P)5.330E+04
	SD of S09T001796_A1		(P)7.476E+02
	%RSD of S09T001796_A1		(P)1.403
1	S09T001796_A2	3/31/2009 15:53:04	(P)2.162E+04
2	S09T001796_A2	3/31/2009 15:53:21	(P)2.218E+04
3	S09T001796_A2	3/31/2009 15:53:39	(P)2.210E+04
4	S09T001796_A2	3/31/2009 15:53:56	(P)2.232E+04
5	S09T001796_A2	3/31/2009 15:54:13	(P)2.229E+04
	Mean of S09T001796_A2	3/31/2009 15:52:43	(P)2.210E+04
	SD of S09T001796_A2		(P)2.844E+02
	%RSD of S09T001796_A2		(P)1.287
1	S09T001796_D	3/31/2009 15:59:41	(P)2.185E+04
2	S09T001796_D	3/31/2009 15:59:58	(P)2.227E+04
3	S09T001796_D	3/31/2009 16:00:15	(P)2.201E+04
4	S09T001796_D	3/31/2009 16:00:33	(P)2.216E+04
5	S09T001796_D	3/31/2009 16:00:51	(P)2.243E+04
	Mean of S09T001796_D	3/31/2009 15:59:41	(P)2.215E+04
	SD of S09T001796_D		(P)2.257E+02
	%RSD of S09T001796_D		(P)1.019
1	BLK	3/31/2009 16:06:19	(P)3.567E+01
2	BLK	3/31/2009 16:06:36	(P)3.967E+01
3	BLK	3/31/2009 16:06:53	(P)3.933E+01
4	BLK	3/31/2009 16:07:10	(P)4.167E+01
5	BLK	3/31/2009 16:07:27	(P)3.467E+01
	Mean of BLK	3/31/2009 16:06:19	(P)3.820E+01
	SD of BLK		(P)2.931E+00
	%RSD of BLK		(P)7.672
1	LLS	3/31/2009 16:12:56	(P)3.117E+02
2	LLS	3/31/2009 16:13:13	(P)3.120E+02
3	LLS	3/31/2009 16:13:31	(P)3.140E+02
4	LLS	3/31/2009 16:13:48	(P)3.277E+02
5	LLS	3/31/2009 16:14:05	(P)3.187E+02
	Mean of LLS	3/31/2009 16:12:56	(P)3.168E+02
	SD of LLS		(P)6.686E+00
	%RSD of LLS		(P)2.110
1	U CCV 1	3/31/2009 16:19:33	(P)6.212E+04
2	U CCV 1	3/31/2009 16:19:50	(P)6.163E+04

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Uncorrected ICPS Per Mass

Run	Label	TimeStamp	193Ir	233U	234U	235U	236U	237Np
3	U CCV 1	3/31/2009 16:20:07	(P)2.974E+04	(P)1.000E+00	(P)4.000E+00	(P)4.307E+02	(P)0.000E+00	(P)7.000E+00
4	U CCV 1	3/31/2009 16:20:25	(P)3.031E+04	(P)2.000E+00	(P)5.667E+00	(P)4.223E+02	(P)1.000E+00	(P)1.000E+01
5	U CCV 1	3/31/2009 16:20:42	(P)3.014E+04	(P)0.000E+00	(P)3.333E+00	(P)4.477E+02	(P)0.000E+00	(P)1.600E+01
	Mean of U CCV 1	3/31/2009 16:19:33	(P)2.994E+04	(P)1.200E+00	(P)4.000E+00	(P)4.362E+02	(P)2.000E-01	(P)1.260E+01
	SD of U CCV 1		(P)3.068E+02	(P)8.370E-01	(P)1.269E+00	(P)1.065E+01	(P)4.470E-01	(P)7.470E+00
	%RSD of U CCV 1		(P)1.025	(P)69.722	(P)31.732	(P)2.442	(P)223.607	(P)59.285
1	NP CCV 1	3/31/2009 16:26:10	(P)2.836E+04	(P)0.000E+00	(P)7.333E+00	(P)4.800E+01	(P)4.000E+00	(P)7.611E+04
2	NP CCV 1	3/31/2009 16:26:28	(P)2.898E+04	(P)1.000E+00	(P)4.667E+00	(P)4.467E+01	(P)3.000E+00	(P)7.494E+04
3	NP CCV 1	3/31/2009 16:26:45	(P)2.912E+04	(P)0.000E+00	(P)4.000E+00	(P)4.467E+01	(P)7.000E+00	(P)7.536E+04
4	NP CCV 1	3/31/2009 16:27:02	(P)2.906E+04	(P)1.000E+00	(P)4.000E+00	(P)5.067E+01	(P)8.000E+00	(P)7.604E+04
5	NP CCV 1	3/31/2009 16:27:19	(P)2.887E+04	(P)1.000E+00	(P)6.667E+00	(P)4.300E+01	(P)3.000E+00	(P)7.563E+04
	Mean of NP CCV 1	3/31/2009 16:26:10	(P)2.888E+04	(P)6.000E-01	(P)5.333E+00	(P)4.620E+01	(P)5.000E+00	(P)7.562E+04
	SD of NP CCV 1		(P)3.047E+02	(P)5.480E-01	(P)1.563E+00	(P)3.088E+00	(P)2.345E+00	(P)4.882E+02
	%RSD of NP CCV 1		(P)1.055	(P)91.287	(P)29.315	(P)6.683	(P)46.904	(P)0.646
1	CCB 1	3/31/2009 16:32:49	(P)2.951E+04	(P)0.000E+00	(P)6.670E-01	(P)1.000E+00	(P)0.000E+00	(P)9.000E+00
2	CCB 1	3/31/2009 16:33:06	(P)2.946E+04	(P)0.000E+00	(P)3.330E-01	(P)0.000E+00	(P)3.000E+00	(P)5.000E+00
3	CCB 1	3/31/2009 16:33:23	(P)2.971E+04	(P)0.000E+00	(P)6.670E-01	(P)0.000E+00	(P)0.000E+00	(P)1.500E+01
4	CCB 1	3/31/2009 16:33:40	(P)2.931E+04	(P)0.000E+00	(P)3.330E-01	(P)6.670E-01	(P)0.000E+00	(P)1.200E+01
5	CCB 1	3/31/2009 16:33:58	(P)2.936E+04	(P)1.000E+00	(P)6.670E-01	(P)3.330E-01	(P)0.000E+00	(P)6.000E+00
	Mean of CCB 1	3/31/2009 16:32:49	(P)2.947E+04	(P)2.000E-01	(P)5.330E-01	(P)4.000E-01	(P)6.000E-01	(P)9.400E+00
	SD of CCB 1		(P)1.544E+02	(P)4.470E-01	(P)1.830E-01	(P)4.350E-01	(P)1.342E+00	(P)4.159E+00
	%RSD of CCB 1		(P)0.524	(P)223.607	(P)34.233	(P)108.653	(P)223.607	(P)44.248

UNP090331.vge 4/1/09

Uncorrected ICPS Per Mass

Run	Label	TimeStamp	238U
3	U CCV 1	3/31/2009 16:20:07	(P)6.199E+04
4	U CCV 1	3/31/2009 16:20:25	(P)6.271E+04
5	U CCV 1	3/31/2009 16:20:42	(P)6.243E+04
	Mean of U CCV 1	3/31/2009 16:19:33	(P)6.218E+04
	SD of U CCV 1		(P)4.135E+02
	%RSD of U CCV 1		(P)0.665
1	NP CCV 1	3/31/2009 16:26:10	(P)5.857E+02
2	NP CCV 1	3/31/2009 16:26:28	(P)5.613E+02
3	NP CCV 1	3/31/2009 16:26:45	(P)5.807E+02
4	NP CCV 1	3/31/2009 16:27:02	(P)5.640E+02
5	NP CCV 1	3/31/2009 16:27:19	(P)5.613E+02
	Mean of NP CCV 1	3/31/2009 16:26:10	(P)5.706E+02
	SD of NP CCV 1		(P)1.166E+01
	%RSD of NP CCV 1		(P)2.043
1	CCB 1	3/31/2009 16:32:49	(P)4.000E+00
2	CCB 1	3/31/2009 16:33:06	(P)3.667E+00
3	CCB 1	3/31/2009 16:33:23	(P)4.667E+00
4	CCB 1	3/31/2009 16:33:40	(P)6.333E+00
5	CCB 1	3/31/2009 16:33:58	(P)8.333E+00
	Mean of CCB 1	3/31/2009 16:32:49	(P)5.400E+00
	SD of CCB 1		(P)1.935E+00
	%RSD of CCB 1		(P)35.834

LABCORE Completed Batch Report for Batch# 00013387

Analyst: Purinton, Tony **Book#:** 61N12E

Instrument: Carbon by Furnace Oxidation

Method: TOT. ORGANIC CARBON by FURNACE, LA-344-105 Rev/Mod I-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: TOC for AW106 adp

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903120084		0	0	Organic Carbon Total	LIQUID	2974	3.1300E+03			55	ug/mL	105.25	% Recovery	
Sample Sequence 2															
2 BLNK	S0903120085		0	0	Organic Carbon Total	LIQUID		1.0000E+00			1	ug			
Sample Sequence 3															
3 SAMPLE	S09T001751		0	0	Organic Carbon Total	LIQUID	N/A	1.0450E+01			5.5	ug/mL			BJ
Sample Sequence 4															
4 SAMPLE	S09T001762		0	0	Organic Carbon Total	LIQUID	N/A	6.6000E+00			5.5	ug/mL			BJ
Sample Sequence 5															
5 SAMPLE	S09T001783		0	0	Organic Carbon Total	LIQUID	N/A	1.9635E+03			55	ug/mL			
Sample Sequence 6															
6 SAMPLE	S09T001795		0	0	Organic Carbon Total	LIQUID	N/A	2.0570E+03			55	ug/mL			
Sample Sequence 7															
7 SAMPLE	S09T001807		0	0	Organic Carbon Total	LIQUID	N/A	2.0020E+03			55	ug/mL			
Sample Sequence 8															
8 SAMPLE	S09T001773		0	0	Organic Carbon Total	LIQUID	N/A	1.8315E+03			55	ug/mL			
Sample Sequence 9															
9 DUP	S0903120086	S09T001773	0	0	Organic Carbon Total	LIQUID	1.8315E+03	1.8700E+03			55	ug/mL	2.0802	% RPD	
Sample Sequence 10															
10 SPK	S0903120087	S09T001773	0	0	Organic Carbon Total	LIQUID	2974	2.7495E+03			55	ug/mL	92.451	% Recovery	
Sample Sequence 11															
11 CCV	S0903120090		0	0	Organic Carbon Total	LIQUID	2974	2.9040E+03			55	ug/mL	97.646	% Recovery	
Sample Sequence 12															
12 CCB	S0903120091		0	0	Organic Carbon Total	LIQUID		2.4000E+00			1	ug			

Comments Section:

Units shown for QC (BLK/BKG) may not reflect the actual units.

RPP-RPT-40709 Rev. 1

LABCORE Completed Batch Report for Batch# 00013387

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013387

Reviewer Signature 3/16/09 Date

2nd reviewer: 03/16/09

PM : 3/16/09

QA : 3.17.09

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013387

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903120084	STD				
2	S0903120085	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001762	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001783	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
6	S09T001795	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
7	S09T001807	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
8	S09T001773	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
9	S0903120086	DUP	S09T001773			
10	S0903120087	SPK	S09T001773			
11	S0903120090	CCV				
12	S0903120091	CCB				

Units shown for QC (BLK/BKG) may not reflect the actual units.

03/12/2009 THU 22:30 [TX/RX NO 5506] 001

3/12/2009 9:50:21PM
IncompleteBatchShort Version 2.7.22
batchreports 2.7.25

LABCORE Data Entry Template for Batch# 00013387

Analyst: Purinton, Tony **Standard ID / Book#:**
Instrument: Carbon by Furnace Oxidation
Method: TOT. ORGANIC CARBON by FURNACE, LA-344-105 Rev/Mod I-0
Prep Batch:
Batch Comment: TOC for AW106 adp

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Organic Carbon Total					
2	BLNK		0		LIQUID		
	Analytes Requested:	Organic Carbon Total					
3	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Organic Carbon Total					
4	SAMPLE	S09T001762	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Organic Carbon Total					
5	SAMPLE	S09T001783	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Organic Carbon Total					
6	SAMPLE	S09T001795	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Organic Carbon Total					
7	SAMPLE	S09T001807	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Organic Carbon Total					
8	SAMPLE	S09T001773	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Organic Carbon Total					
9	DUP	S09T001773	0		LIQUID		
	Analytes Requested:	Organic Carbon Total					
10	SPK	S09T001773	0		LIQUID		
	Analytes Requested:	Organic Carbon Total					
11	SPK-DUP	S09T001773	0		LIQUID		
	Analytes Requested:	Organic Carbon Total					
12	CCV		0		LIQUID		
	Analytes Requested:	Organic Carbon Total					
13	CCB		0		LIQUID		
	Analytes Requested:	Organic Carbon Total					

NA. BMD 3-13-09 removed from batch!

Final Page for Batch# 00013387

Analyst Signature 3/12/09 Date

Data Entry Signature 3/13/09 Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:24 Pg: 1/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 002

LA-344-105, Rev. I-0 TOC and TC

BATCH 13387 ANALYST ADP DATE 3/12/09 START TIME 1730

PROJECT AW106 COMPLETION TIME _____

SYRINGES/PIPETTES 1250233, 395184 [ ] Checked

TOC Standard/Spike No.: 61NIZE Spike Volume mL : 2974	Spike Dilution from sample: Circle: (YES) / NO

Sample ID.	Sam Vol. In (mL)	(Acid) / Water Added (mL)	Coulometer Reading (µg)	Sample Description
Baseline	~~1~~	2	1.4	
Standard	.2	2 mL	53.1	
Blnk	~~.2~~	2mL	2.4	
S09T001751	2 mL	.2 mL	3.3	
S09T001762	2mL	.2mL	2.6	
S09T001772	.2	2mL	33.5	NA
S09T001772	.2	2 mL	34	DUP NA
S09T001772SK	.400+.400	0	307.4	SPK NA
S09T001783	.2	2 mL	37.1	
S09T001795	.2	2 mL	38.8	
S09T001807	.2	2 mL	37.8	
ADD ~~CCB~~ S09T001773	.2	2mL	34.7	
3/12/09 ~~CCB~~ S09T001773	.2	2mL	35.4	DUP
S09T001773	400+400		293	SPK
CCV	.2	2 mL	54.2	
CCB	1	2mL	3.8	

Addition Comments: injected vol. : 0.2mL

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:24 Pg: 2/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 003

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample Type: BASELINE Date: 03/12/2009 Time: 16:07:47

Analyst: H0050918
Dil Factor = 1 Instrument: CARBON
Readings Taken = 14

== Reading	==== Analysis Time	--- Coulometer	==== % Difference ==
1	0.50	0.10	0.00
2	1.00	0.10	0.00
3	1.50	0.20	50.00
4	2.00	0.40	50.00
5	2.50	0.50	20.00
6	3.00	0.60	16.67
7	3.50	0.70	14.29
8	4.00	0.80	12.50
9	4.50	0.90	11.11
10	5.00	1.00	10.00
11	5.50	1.10	9.09
12	6.00	1.20	8.33
13	6.50	1.40	14.29
14	7.00	1.40	0.00

Calculated Value = 1.40e+00 µg

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:24 Pg: 3/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 004

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None — Matrix: Liquid

Sample Type: STANDARD — Date: 03/12/2009 — Time: 18:12:38

Sample Size = 0.200 mL — Analyst: H0050918
Dil Factor = 11 — Instrument: CARBON
Baseline Value = 1.4 ug — # Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	=== % Difference ==
1	0.50	0.50	0.00
2	1.00	2.40	79.17
3	1.50	16.40	85.37
4	2.00	35.30	53.54
5	2.50	44.50	20.67
6	3.00	47.50	6.32
7	3.50	49.10	3.26
8	4.00	50.00	1.80
9	4.50	50.80	1.57
10	5.00	51.40	1.17
11	5.50	51.80	0.77
12	6.00	52.40	1.15
13	6.50	52.70	0.57
14	7.00	53.10	0.75

Actual value from 6INIZE inventory -

Calculated Value = 3.13e+03 µg/mL ✓ D.L. 55 µg/mL
Percent Recovery = 105.1732

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:24 Pg: 4/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 005

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample Type: BLANK Date: 03/12/2009 Time: 18:30:04

Sample Size = 2 mL Analyst: H0050918
Dil Factor = 1.1 Instrument: CARBON
Baseline Value = 1.4 ug # Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	0.10	0.00
2	1.00	0.30	66.67
3	1.50	0.50	40.00
4	2.00	0.60	16.67
5	2.50	0.80	25.00
6	3.00	1.00	20.00
7	3.50	1.20	16.67
8	4.00	1.40	14.29
9	4.50	1.60	12.50
10	5.00	1.70	5.88
11	5.50	1.90	10.53
12	6.00	2.00	5.00
13	6.50	2.20	9.09
14	7.00	2.40	8.33

Calculated Value = 1.00e+00 ug ✓ D.L. 1 µg

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:24 Pg: 5/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 006

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample No: S09T00175] Date: 03/12/2009 Time: 18:40:26

Sample Size = 2 mL Analyst: H0050918
Dil Factor = 1.1 Instrument: CARBON
Baseline Value = 1.4 ug # Readings Taken = 14

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.00	0.00
2	1.00	0.80	100.00
3	1.50	0.80	62.50
4	2.00	1.10	27.27
5	2.50	1.40	21.43
6	3.00	1.70	17.65
7	3.50	1.90	10.53
8	4.00	2.10	9.52
9	4.50	2.30	8.70
10	5.00	2.60	11.54
11	5.50	2.80	7.14
12	6.00	3.00	6.67
13	6.50	3.10	3.23
14	7.00	3.30	6.06

Calculated Value = ~~1.15e+01~~ 10.45 µg/mL ✓ D.L. 5.5 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:24 Pg: 6/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 007

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None — Matrix: Liquid

Sample No: S09T001762 — Date: 03/12/2009 — Time: 18:50:35

Sample Size = 2 mL — Analyst: H0050918
Dil Factor = 1.1 — Instrument: CARBON
Baseline Value = 1.4 ug — # Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	0.10	0.00
2	1.00	0.30	66.67
3	1.50	0.60	50.00
4	2.00	0.90	33.33
5	2.50	1.10	18.18
6	3.00	1.30	15.38
7	3.50	1.50	13.33
8	4.00	1.60	6.25
9	4.50	1.80	11.11
10	5.00	2.00	10.00
11	5.50	2.20	9.09
12	6.00	2.30	4.35
13	6.50	2.50	8.00
14	7.00	2.60	3.85

Calculated Value = ~~7.26e+00~~ 6.6 µg/mL ✓ D.L. = 5.5 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 222S 03-12-09 22:24 Pg: 7/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 013

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample No: S09T001783 Date: 03/12/2009 Time: 19:56:29

Sample Size = .2 mL Analyst: H0050918
Dil Factor = 11 Instrument: CARBON
Baseline Value = 1.4 ug # Readings Taken = 14

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.60	0.00
2	1.00	4.90	87.76
3	1.50	15.90	69.18
4	2.00	24.70	35.63
5	2.50	29.30	15.70
6	3.00	31.40	6.69
7	3.50	32.90	4.56
8	4.00	33.80	2.66
9	4.50	34.50	2.03
10	5.00	35.20	1.99
11	5.50	35.70	1.40
12	6.00	36.20	1.38
13	6.50	36.70	1.36
14	7.00	37.10	1.08

Calculated Value = ~~2.16e+04~~ 1963.5 µg/mL L D.L. 55 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 COR 8C 2225 03-12-09 22:25 Pg: 13/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 012

TOC Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None — Matrix: Liquid

Sample No: S09T001795 — Date: 03/12/2009 — Time: 19:48:13

Sample Size = .2 mL — Analyst: H0050918
Dil Factor = 11 — Instrument: CARBON
Baseline Value = 1.4 ug — # Readings Taken = 14

== Reading ====	Analysis Time ====	Coulometer ====	% Difference ==
1	0.50	0.50	0.00
2	1.00	2.90	82.76
3	1.50	17.10	83.04
4	2.00	27.10	36.90
5	2.50	31.20	13.14
6	3.00	33.30	6.31
7	3.50	34.60	3.76
8	4.00	35.70	3.08
9	4.50	36.20	1.38
10	5.00	36.90	1.90
11	5.50	37.40	1.34
12	6.00	38.00	1.58
13	6.50	38.40	1.04
14	7.00	38.80	1.03

Calculated Value = 2057 2.26e+04 µg/mL ✓ D.L. 55 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:25 Pg: 12/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 014

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None — Matrix: Liquid

Sample No: S09T001807 — Date: 03/12/2009 — Time: 20:04:55

Sample Size .2 mL — Analyst: H0050918
Dil Factor = 11 — Instrument: CARBON
Baseline Value = 1.4 ug — # Readings Taken = 14

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.70	0.00
2	1.00	4.10	82.93
3	1.50	16.80	75.60
4	2.00	26.00	35.38
5	2.50	30.10	13.62
6	3.00	32.20	6.52
7	3.50	33.60	4.17
8	4.00	34.40	2.33
9	4.50	35.20	2.27
10	5.00	35.90	1.95
11	5.50	36.30	1.10
12	6.00	36.80	1.36
13	6.50	37.30	1.34
14	7.00	37.80	1.32

Calculated Value = ~~2.20e+01~~ 2002 µg/mL ✓ D.L. 55 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 COR 8C 22ZS 03-12-09 22:25 Pg: 14/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 015

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None — Matrix: Liquid

Sample No: S07T001773 Date: 03/12/2009 Time: 20:24:51

Sample Size = .200 mL — Analyst: H0050918
Dil Factor = 11 — Instrument: CARBON
Baseline Value = 1.4 ug — # Readings Taken = 14

== Reading	=== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	0.00	0.00
2	1.00	5.50	100.00
3	1.50	16.50	66.67
4	2.00	24.10	31.54
5	2.50	27.40	12.04
6	3.00	29.40	6.80
7	3.50	30.70	4.23
8	4.00	31.70	3.15
9	4.50	32.30	1.86
10	5.00	33.00	2.12
11	5.50	33.40	1.20
12	6.00	33.90	1.47
13	6.50	34.40	1.45
14	7.00	34.70	0.86

Calculated Value - ~~3.01e+04~~ 1831.5 µg/mL ✓ D.L. 55 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:25 Pg: 15/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 016

TOC - Organic Carbon Total Analysis Report
T1CTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample: S07T001773 DUPLICATE Date: 03/12/2009 Time: 20:33:31

Sample Size = .200 mL Analyst: H0050918
Dil Factor = 11 Instrument: CARBON
Baseline Value = 1.4 ug # Readings Taken = 14

== Reading ==	Analysis Time	==== Coulometer ====	% Difference ==
1	0.50	0.10	0.00
2	1.00	4.60	97.83
3	1.50	13.90	66.91
4	2.00	22.00	36.82
5	2.50	26.40	16.67
6	3.00	28.80	8.33
7	3.50	30.40	5.26
8	4.00	31.50	3.49
9	4.50	32.50	3.08
10	5.00	33.30	2.40
11	5.50	34.00	2.06
12	6.00	34.50	1.45
13	6.50	35.10	1.71
14	7.00	35.40	0.85

1870
Calculated Value = ~~2.06e+04~~ µg/mL ✓ D.L. 55 µg/mL

BWD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:25 Pg: 16/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 017

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample: S07T001773 SPIKE Date: 03/12/2009 Time: 20:42:30

Sample Size = ~~.200 mL~~ .4 + .4 std Analyst: H0050918
Dil Factor = 11 Instrument: CARBON
Baseline Value = 1.4 ug # Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	==== % Difference =
1	0.50	0.20	0.00
2	1.00	22.70	99.12
3	1.50	105.70	78.52
4	2.00	189.30	44.16
5	2.50	228.10	17.01
6	3.00	249.00	8.39
7	3.50	262.40	5.11
8	4.00	272.10	3.56
9	4.50	278.10	2.16
10	5.00	282.80	1.66
11	5.50	286.30	1.22
12	6.00	288.90	0.90
13	6.50	291.20	0.79
14	7.00	293.00	0.61

$$\frac{(spk - baseline)\left(\frac{.8}{.4}\right) - (sam - base)}{injected\ vol.\ (.2)} = \text{calculated value}$$

Actual value from GINIZE inventory

☐ Already subtracted sample -

Calculated Value = ~~4.21e+03~~ 2749.5 pg/mL
Percent Recovery = ~~141.4761~~

DL. 55 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:25 Pg: 17/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 019

TOC - Organic Carbon Total Analysis Report
TJCTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None — Matrix: Liquid

Sample No: CCV — Date: 03/12/2009 — Time: 22:04:46

Sample Size = .2 mL — Analyst: H0050918
Dil Factor = 11 — Instrument: CARBON
Baseline Value = 1.4 ug — # Readings Taken = 14

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.00	0.00
2	1.00	10.00	100.00
3	1.50	31.10	67.85
4	2.00	44.50	30.11
5	2.50	49.20	9.55
6	3.00	51.30	4.09
7	3.50	52.00	1.35
8	4.00	52.40	0.76
9	4.50	52.70	0.57
10	5.00	53.10	0.75
11	5.50	53.40	0.56
12	6.00	53.60	0.37
13	6.50	53.90	0.56
14	7.00	54.20	0.55

Actual value from GINIZE inventory

Calculated Value = 2904 ~~3.19e-04 µg~~/mL D.L. 55 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:25 Pg: 19/21

03/12/2009 THU 22:30 [TX/RX NO 5506] 020

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
Total Organic Carbon by Furnace (LA-344-105)

Batch # None — Matrix: Liquid

Sample No: CCB — Date: 03/12/2009 — Time: 22:13:22

Sample Size = 1 mL — Analyst: H0050918
Dil Factor = 2 — Instrument: CARBON
Baseline Value = 1.4 ug — # Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	0.00	0.00
2	1.00	0.10	100.00
3	1.50	0.50	80.00
4	2.00	1.10	54.55
5	2.50	1.60	31.25
6	3.00	1.90	15.79
7	3.50	2.20	13.64
8	4.00	2.50	12.00
9	4.50	2.80	10.71
10	5.00	3.00	6.67
11	5.50	3.20	6.25
12	6.00	3.50	8.57
13	6.50	3.70	5.41
14	7.00	3.80	2.63

1.4 / 2.4 ✓

Calculated Value = 2.40e+01 µg/mL

D.L 1 µg

BM 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:25 Pg: 20/21

LABCORE Completed Batch Report for Batch# 00013381

Analyst: Purinton, Tony **Book#:** 60N12E, 61N12E

Instrument: Carbon by Persulfate Oxidation

Method: TICTOC, LA-342-100 Rev/Mod J-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: TICTOC FOR AW106 EVAP3 ADP

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903120068		0	0	Organic Carbon Total	LIQUID	2974	2.7300E+03			100	ug/mL	91.796	% Recovery	
1 STD	S0903120068		0	0	Inorganic Carbon Total	LIQUID	605	5.9500E+02			7	ug/mL	98.347	% Recovery	
Sample Sequence 2															
2 BLNK	S0903120069		0	0	Organic Carbon Total	LIQUID		<2.0000E+01			20	ug/mL			
2 BLNK	S0903120069		0	0	Inorganic Carbon Total	LIQUID		<7.0000E+00			7	ug/mL			
Sample Sequence 3															
3 SAMPLE	S09T001751		0	0	Organic Carbon Total	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
3 SAMPLE	S09T001751		0	0	Inorganic Carbon Total	LIQUID	N/A	<7.0000E+00			7	ug/mL			U
Sample Sequence 4															
4 SAMPLE	S09T001772		0	0	Organic Carbon Total	LIQUID	N/A	1.4600E+03			100	ug/mL			
4 SAMPLE	S09T001772		0	0	Inorganic Carbon Total	LIQUID	N/A	4.7900E+03			35	ug/mL			
Sample Sequence 5															
5 DUP	S0903120070	S09T001772	0	0	Organic Carbon Total	LIQUID	1.4600E+03	1.4300E+03			100	ug/mL	2.0761	% RPD	
5 DUP	S0903120070	S09T001772	0	0	Inorganic Carbon Total	LIQUID	4.7900E+03	4.8700E+03			35	ug/mL	1.6563	% RPD	
Sample Sequence 6															
6 SPK	S0903120071	S09T001772	0	0	Organic Carbon Total	LIQUID	2974	3.0200E+03			100	ug/mL	101.55	% Recovery	
6 SPK	S0903120071	S09T001772	0	0	Inorganic Carbon Total	LIQUID	605	6.7800E+02			35	ug/mL	112.07	% Recovery	
Sample Sequence 7															
7 SAMPLE	S09T001762		0	0	Organic Carbon Total	LIQUID	N/A	<2.0000E+01			20	ug/mL			U
7 SAMPLE	S09T001762		0	0	Inorganic Carbon Total	LIQUID	N/A	<7.0000E+00			7	ug/mL			U
Sample Sequence 8															
8 SAMPLE	S09T001783		0	0	Organic Carbon Total	LIQUID	N/A	1.5000E+03			100	ug/mL			
8 SAMPLE	S09T001783		0	0	Inorganic Carbon Total	LIQUID	N/A	5.1400E+03			35	ug/mL			
Sample Sequence 9															
9 SAMPLE	S09T001795		0	0	Organic Carbon Total	LIQUID	N/A	1.5100E+03			100	ug/mL			
9 SAMPLE	S09T001795		0	0	Inorganic Carbon Total	LIQUID	N/A	5.1600E+03			35	ug/mL			
Sample Sequence 10															
10 SAMPLE	S09T001807		0	0	Organic Carbon Total	LIQUID	N/A	1.5200E+03			100	ug/mL			
10 SAMPLE	S09T001807		0	0	Inorganic Carbon Total	LIQUID	N/A	5.2000E+03			35	ug/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013381

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 11															
11 CCV	S0903120074		0	0	Organic Carbon Total	LIQUID	2974	2.8700E+03			20	ug/mL	96.503	% Recovery	
11 CCV	S0903120074		0	0	Inorganic Carbon Total	LIQUID	605	6.0600E+02			7	ug/mL	100.17	% Recovery	
Sample Sequence 12															
12 CCB	S0903120075		0	0	Organic Carbon Total	LIQUID		<2.0000E+01			20	ug/mL			
12 CCB	S0903120075		0	0	Inorganic Carbon Total	LIQUID		<7.0000E+00			7	ug/mL			

Comments Section:

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013381

3/16/09
Reviewer Signature Date

2nd reviewer: 03/16/09
PM: 3/16/09
QA: 3.17.09

470

RPP-RPT-40709 Rev. 1

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013381

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903120068	STD				
2	S0903120069	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001772	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
5	S0903120070	DUP	S09T001772			
6	S0903120071	SPK	S09T001772			
7	S09T001762	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
8	S09T001783	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
9	S09T001795	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
10	S09T001807	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
11	S0903120074	CCV				
12	S0903120075	CCB				

Units shown for QC (BLK/BKG) may not reflect the actual units.

03/12/2009 THU 22:14 [TX/RX NO 5505] 001

3/12/2009 8:07:21PM
IncompleteBatchShort Version 2.7.22
batchreports 2.7.25

LABCORE Data Entry Template for Batch# 00013381

Analyst: Purinton, Tony
Instrument: Carbon by Persulfate Oxidation
Method: TICTOC, LA-342-100 Rev/Mod 3O
Prep Batch:
Batch Comment: TICTOC FOR AW106 EVAP3 ADP

Standard ID / Book#: 60N12E
61N12E

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
2	BLNK		0		LIQUID		
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
3	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
4	SAMPLE	S09T001772	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
5	DUP	S09T001772	0		LIQUID		
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
6	SPK	S09T001772	0		LIQUID		
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
7	SAMPLE	S09T001762	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
8	SAMPLE	S09T001783	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
9	SAMPLE	S09T001795	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
10	SAMPLE	S09T001807	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
11	CCV		0		LIQUID		
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					
12	CCB		0		LIQUID		
	Analytes Requested:	Inorganic Carbon Total, Organic Carbon Total					

Final Page for Batch# 00013381

Anthony Purinton 3/12/09
Analyst Signature **Date**

Anthony Purinton 3/13/09
Data Entry Signature **Date**

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:08 Pg: 1/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 002

LA-342-100 TIC/TOC and TOTC

WORKLIST 13381 ANALYST ADP DATE 3/12/09 START TIME 0900

PROJECT AW106 COMPLETION TIME

TIC Standard/Spike No.: 60N12E Spike Volume mL : .500	TOC Standard/Spike No.: 61N12E Spike Volume mL : ~~2999~~ .100

Sample ID. Sam, Dup. Spk. Trip	Volume: mL Weight: g	Coulometer Reading (µg) TIC	TOC/TOTC	Description Appearance
Baseline	1	6.4	29	
Standard	1mL .2mL	601.5	574.7	
Blnk	1 mL	11.4	18.8	
S09T001751	1mL	8.9	20.4	
S09T001762	1mL	9.8	23.5	
S09T001772	.200 mL	964.2	320.40	
S09T001772 DP	.200 mL	980.5	315.50	
S09T001772SK	.200+.500+.100mL	1303.2	621.90	
S09T001783	.200 mL	1034.70	329.	
S09T001795	.200 mL	1038.10	331.1	
S09T001807	.200 mL	1046.20	332.30	
CCV	60N12E 1mL	612.20	602.0	61N12E.200
CCB	1	13.0	22.7	

Addition Comments:

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:08 Pg: 2/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 003

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample Type: BASELINE Date: 03/12/2009 Time: 09:36:36

Dil Factor = 1 Analyst: h0050918
Instrument: Carbon
Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.40	0.00
2	1.00	0.70	42.86
3	1.50	0.90	22.22
4	2.00	1.30	30.77
5	2.50	1.60	18.75
6	3.00	1.80	11.11
7	3.50	2.10	14.29
8	4.00	2.40	12.50
9	4.50	2.70	11.11
10	5.00	3.00	10.00
11	5.50	3.30	9.09
12	6.00	3.60	8.33
13	6.50	3.90	7.69
14	7.00	4.20	7.14
15	7.50	4.40	4.55
16	8.00	4.80	8.33
17	8.50	5.00	4.00
18	9.00	5.30	5.66
19	9.50	5.60	5.36
20	10.00	5.80	3.45
21	10.50	6.20	6.45
22	11.00	6.40	3.13

Calculated Value = 6.40e+00 µg

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:08 Pg: 3/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 004

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample Type: BASELINE Date: 03/12/2009 Time: 09:49:00

Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.20	0.00
2	1.00	0.50	60.00
3	1.50	0.70	28.57
4	2.00	1.00	30.00
5	2.50	1.30	23.08
6	3.00	1.60	18.75
7	3.50	1.90	15.79
8	4.00	2.10	9.52
9	4.50	2.50	16.00
10	5.00	3.60	30.56
11	5.50	5.20	30.77
12	6.00	7.50	30.67
13	6.50	10.40	27.88
14	7.00	13.70	24.09
15	7.50	16.80	18.45
16	8.00	19.90	15.58
17	8.50	22.50	11.56
18	9.00	24.80	9.27
19	9.50	26.20	5.34
20	10.00	27.30	4.03
21	10.50	28.20	3.19
22	11.00	29.00	2.76

Calculated Value = 2.90e+01 µg

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:08 Pg: 4/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 005

TIC Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample Type: STANDARD Date: 03/12/2009 Time: 10:07:17

Sample Size = 1 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 6.4 ug # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.10	0.00
2	1.00	2.00	45.00
3	1.50	2.90	31.03
4	2.00	3.70	21.62
5	2.50	6.20	40.32
6	3.00	18.10	65.75
7	3.50	53.30	66.04
8	4.00	117.00	54.44
9	4.50	200.20	41.56
10	5.00	287.00	30.24
11	5.50	365.30	21.43
12	6.00	432.60	15.56
13	6.50	483.20	10.47
14	7.00	519.50	6.99
15	7.50	545.50	4.77
16	8.00	563.00	3.11
17	8.50	574.70	2.04
18	9.00	582.80	1.39
19	9.50	588.40	0.95
20	10.00	592.80	0.74
21	10.50	599.00	1.04
22	11.00	601.50	0.42

Actual value from 60N12E inventory -

Calculated Value = 5.95e+02 µg/mL ✓ D.L. 7 µg/mL
Percent Recovery = 98.36363

BVD 3-13-09

Fax sent by : 5093737334 COR BC 2225 03-12-09 22:08 Pg: 5/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 006

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample Type: STANDARD — Date: 03/12/2009 — Time: 10:19:19

Sample Size = .200 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 29 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.20	0.00
2	1.00	2.10	42.86
3	1.50	3.10	32.26
4	2.00	3.90	20.51
5	2.50	4.80	18.75
6	3.00	5.70	15.79
7	3.50	6.70	14.93
8	4.00	8.90	24.72
9	4.50	14.80	39.86
10	5.00	29.60	50.00
11	5.50	59.60	50.34
12	6.00	109.10	45.37
13	6.50	174.50	37.48
14	7.00	249.30	30.00
15	7.50	324.40	23.15
16	8.00	390.50	16.93
17	8.50	444.50	12.15
18	9.00	486.40	8.99
19	9.50	520.90	6.24
20	10.00	544.80	4.39
21	10.50	562.30	3.11
22	11.00	574.70	2.16

Actual value from 6/NI2E inventory

Calculated Value = 2.73e+03 µg/mL ✓ DL. 100 µg/mL
Percent Recovery = 91.74512

BVD 3-17-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:08 Pg: 6/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 007

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample Type: BLANK — Date: 03/12/2009 — Time: 10:43:00

Sample Size = 1 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 6.4 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.80	0.00
2	1.00	1.50	46.67
3	1.50	2.20	31.82
4	2.00	2.90	24.14
5	2.50	3.50	17.14
6	3.00	4.10	14.63
7	3.50	4.70	12.77
8	4.00	5.30	11.32
9	4.50	5.80	8.62
10	5.00	6.30	7.94
11	5.50	6.90	8.70
12	6.00	7.30	5.48
13	6.50	7.70	5.19
14	7.00	8.10	4.94
15	7.50	8.70	6.90
16	8.00	9.00	3.33
17	8.50	9.40	4.26
18	9.00	9.90	5.05
19	9.50	10.20	2.94
20	10.00	10.60	3.77
21	10.50	11.00	3.64
22	11.00	11.40	3.51

6.4 / 5.00

Calculated Value = < 5.00e+00 ug

D.L. 7 µg

BVD 3/13/09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:08 Pg: 7/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 008

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample Type: BLANK Date: 03/12/2009 Time: 10:57:30

Sample Size = 1 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 29 ug # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.40	0.00
2	1.00	0.60	33.33
3	1.50	1.00	40.00
4	2.00	1.30	23.08
5	2.50	1.60	18.75
6	3.00	2.00	20.00
7	3.50	2.30	13.04
8	4.00	2.70	14.81
9	4.50	3.20	15.63
10	5.00	4.20	23.81
11	5.50	5.30	20.75
12	6.00	6.90	23.19
13	6.50	8.70	20.69
14	7.00	10.10	13.86
15	7.50	11.70	13.68
16	8.00	13.20	11.36
17	8.50	14.40	8.33
18	9.00	15.60	7.69
19	9.50	16.60	6.02
20	10.00	17.40	4.60
21	10.50	18.20	4.40
22	11.00	18.80	3.19

29.
-10.2

Calculated Value = < 4.00e+01 µg

D.L. 20µg

BWD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:08 Pg: 8/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 009

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample No: S09T001751 Date: 03/12/2009 Time: 11:19:22

Sample Size = 1 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 6.4 ug # Readings Taken = 22

== Reading ====	Analysis Time ====	Coulometer ====	% Difference ==
1	0.50	0.20	0.00
2	1.00	0.60	66.67
3	1.50	0.90	33.33
4	2.00	1.10	18.18
5	2.50	1.40	21.43
6	3.00	1.80	22.22
7	3.50	2.30	21.74
8	4.00	2.90	20.69
9	4.50	3.60	19.44
10	5.00	4.10	12.20
11	5.50	4.60	10.87
12	6.00	5.20	11.54
13	6.50	5.60	7.14
14	7.00	6.10	8.20
15	7.50	6.50	6.15
16	8.00	6.90	5.80
17	8.50	7.30	5.48
18	9.00	7.60	3.95
19	9.50	7.90	3.80
20	10.00	8.30	4.82
21	10.50	8.60	3.49
22	11.00	8.90	3.37

6.4 / 2.5 L

Calculated Value = < 5.00e+00 µg/mL

DL · 7 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:08 Pg: 9/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 010

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample No: S09T001751 Date: 03/12/2009 Time: 11:34:38

Sample Size = 1 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 29 ug # Readings Taken = 22

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	0.20	0.00
2	1.00	0.40	50.00
3	1.50	0.70	42.86
4	2.00	0.90	22.22
5	2.50	1.10	18.18
6	3.00	1.30	15.38
7	3.50	1.70	23.53
8	4.00	2.30	26.09
9	4.50	3.40	32.35
10	5.00	5.10	33.33
11	5.50	7.20	29.17
12	6.00	9.30	22.58
13	6.50	11.20	16.96
14	7.00	13.00	13.85
15	7.50	14.50	10.34
16	8.00	15.70	7.64
17	8.50	16.80	6.55
18	9.00	17.60	4.55
19	9.50	18.50	4.86
20	10.00	19.20	3.65
21	10.50	19.80	3.03
22	11.00	20.40	2.94

-8.6

Calculated Value = < ~~4.00e+01 µg/mL~~ D.L. 20 µg/mL

AMD 3-13-09

03-12-09 22:08 Pg: 10/30 CORR BC 2225 Fax sent by : 5093737334

03/12/2009 THU 22:14 [TX/RX NO 5505] 013

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample No: S09T001772 Date: 03/12/2009 Time: 13:07:51

Sample Size = 0.200 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 6.4 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.40	0.00
2	1.00	0.80	50.00
3	1.50	1.20	33.33
4	2.00	11.60	89.66
5	2.50	68.80	83.14
6	3.00	182.20	62.24
7	3.50	325.40	44.01
8	4.00	468.80	30.59
9	4.50	599.90	21.85
10	5.00	703.60	14.74
11	5.50	783.60	10.21
12	6.00	841.10	6.84
13	6.50	881.20	4.55
14	7.00	907.70	2.92
15	7.50	925.70	1.94
16	8.00	937.70	1.28
17	8.50	945.70	0.85
18	9.00	951.40	0.60
19	9.50	955.70	0.45
20	10.00	959.00	0.34
21	10.50	961.80	0.29
22	11.00	964.20	0.25

Calculated Value = 4.79e+03 µg/mL ✓ D.L. 25 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 COBR BC 2225 03-12-09 22:09 Pg: 13/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 014

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample No: S09T001772 Date: 03/12/2009 Time: 13:19:57

Sample Size = 0.200 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 29 ug # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.70	0.00
2	1.00	3.20	46.88
3	1.50	4.40	27.27
4	2.00	5.90	25.42
5	2.50	10.50	43.81
6	3.00	25.40	58.66
7	3.50	54.90	53.73
8	4.00	96.40	43.05
9	4.50	142.30	32.26
10	5.00	185.60	23.33
11	5.50	222.10	16.43
12	6.00	250.20	11.23
13	6.50	270.90	7.64
14	7.00	285.60	5.15
15	7.50	295.60	3.38
16	8.00	302.70	2.35
17	8.50	307.70	1.62
18	9.00	311.50	1.22
19	9.50	314.40	0.92
20	10.00	316.70	0.73
21	10.50	318.70	0.63
22	11.00	320.40	0.53

Calculated Value = 1.46e+03 µg/mL ✓ D.L. 100 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:09 Pg: 14/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 015

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample: S09T001772 DUPLICATE Date: 03/12/2009 Time: 13:32:20

Sample Size = 0.200 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 6.4 ug # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.20	0.00
2	1.00	2.20	45.45
3	1.50	3.40	35.29
4	2.00	10.70	68.22
5	2.50	48.90	78.12
6	3.00	137.50	64.44
7	3.50	271.00	49.26
8	4.00	418.40	35.23
9	4.50	563.00	25.68
10	5.00	683.10	17.58
11	5.50	776.00	11.97
12	6.00	842.70	7.92
13	6.50	888.90	5.20
14	7.00	919.90	3.37
15	7.50	940.60	2.20
16	8.00	954.00	1.40
17	8.50	962.50	0.88
18	9.00	968.40	0.61
19	9.50	972.60	0.43
20	10.00	975.80	0.33
21	10.50	978.30	0.26
22	11.00	980.50	0.22

Calculated Value = 4.87e+03 µg/mL ✓ D.L. 35 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:09 Pg: 15/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 016

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample: S09T001772 DUPLICATE Date: 03/12/2009 Time: 13:45:08

Sample Size = 0.200 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 29 ug # Readings Taken = 22

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	1.30	0.00
2	1.00	2.40	45.83
3	1.50	3.50	31.43
4	2.00	4.90	28.57
5	2.50	10.70	54.21
6	3.00	29.20	63.36
7	3.50	64.00	54.38
8	4.00	109.50	41.55
9	4.50	157.30	30.39
10	5.00	200.80	21.66
11	5.50	234.80	14.48
12	6.00	259.80	9.62
13	6.50	277.30	6.31
14	7.00	288.50	3.88
15	7.50	296.40	2.67
16	8.00	301.90	1.82
17	8.50	305.50	1.18
18	9.00	308.40	0.94
19	9.50	310.70	0.74
20	10.00	312.60	0.61
21	10.50	314.10	0.48
22	11.00	315.50	0.44

Calculated Value = 1.43e+03 µg/mL ✓ D.L. 100 µg/mL

BWD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:09 Pg: 16/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 017

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample: S09T001772 SPIKE Date: 03/12/2009 Time: 13:58:41

Sample Size = 0.200 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 6.4 ug # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.80	0.00
2	1.00	1.60	50.00
3	1.50	2.40	33.33
4	2.00	8.10	70.37
5	2.50	52.90	84.69
6	3.00	180.70	70.72
7	3.50	392.20	53.93
8	4.00	626.00	37.35
9	4.50	830.00	24.58
10	5.00	986.10	15.83
11	5.50	1096.10	10.04
12	6.00	1168.80	6.22
13	6.50	1216.40	3.91
14	7.00	1247.80	2.52
15	7.50	1267.80	1.58
16	8.00	1280.00	0.95
17	8.50	1287.70	0.60
18	9.00	1292.70	0.39
19	9.50	1296.30	0.28
20	10.00	1299.10	0.22
21	10.50	1301.40	0.18
22	11.00	1303.20	0.14

$$\frac{(\text{Spk} - \text{baseline}) - (\text{Sam} - \text{baseline})}{\text{Std vol. } (.5)} = \text{Calculated value}$$

Actual value from GONIZE inventory

☐ Already subtracted sample.

Calculated Value = 6.78e+02 µg/mL ✓ D.L. .35 µg/mL
Percent Recovery = 112.0661

BVD 3-13-09

Fax sent by : 5093737334 COBR BC 2225 03-12-09 22:09 Pg: 17/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 018

TOC Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample: S09T001772 SPIKE — Date: 03/12/2009 — Time: 14:10:57

Sample Size = 0.200 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 29 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.60	0.00
2	1.00	2.80	42.86
3	1.50	3.80	26.32
4	2.00	5.20	26.92
5	2.50	11.20	53.57
6	3.00	32.40	65.43
7	3.50	75.70	57.20
8	4.00	144.00	47.43
9	4.50	230.30	37.47
10	5.00	323.20	28.74
11	5.50	406.70	20.53
12	6.00	473.30	14.07
13	6.50	522.10	9.35
14	7.00	556.90	6.25
15	7.50	580.20	4.02
16	8.00	595.00	2.49
17	8.50	604.30	1.54
18	9.00	610.30	0.98
19	9.50	614.40	0.67
20	10.00	617.40	0.49
21	10.50	620.00	0.42
22	11.00	621.90	0.31

$$\frac{(\text{Spk} - \text{baseline}) - (\text{sam} - \text{baseline})}{\text{std vol. } (0.1)} = \text{calculated value}$$

Actual value from 61N12E inventory

☐ Already subtracted sample -

Calculated Value = 3.02e+03 µg/mL ✓ DL . 100 µg/mL
Percent Recovery = 101.3786

3rd 3-13-09

03-12-09 22:09 CORR BC 222S Fax sent by : 5093737334 Pg: 18/38

03/12/2009 THU 22:14 [TX/RX NO 5505] 011

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample No: S09T001762 Date: 03/12/2009 Time: 12:43:40

Sample Size = 1 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 6.4 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.30	0.00
2	1.00	2.50	48.00
3	1.50	3.30	24.24
4	2.00	4.10	19.51
5	2.50	4.70	12.77
6	3.00	5.20	9.62
7	3.50	5.70	8.77
8	4.00	6.10	6.56
9	4.50	6.50	6.15
10	5.00	6.80	4.41
11	5.50	7.10	4.23
12	6.00	7.40	4.05
13	6.50	7.70	3.90
14	7.00	7.90	2.53
15	7.50	8.20	3.66
16	8.00	8.50	3.53
17	8.50	8.70	2.30
18	9.00	8.90	2.25
19	9.50	9.20	3.26
20	10.00	9.40	2.13
21	10.50	9.60	2.08
22	11.00	9.80	2.04

6.4 / 3.4 ✓

Calculated Value = < 5.00e+00 µg/mL

DL. 7 µg/mL
BVD
3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:09 Pg: 11/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 012

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample No: S09T001762 — Date: 03/12/2009 — Time: 12:55:25

Sample Size = 1 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 29 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.20	0.00
2	1.00	0.40	50.00
3	1.50	0.60	33.33
4	2.00	0.80	25.00
5	2.50	1.10	27.27
6	3.00	2.00	45.00
7	3.50	3.90	48.72
8	4.00	6.70	41.79
9	4.50	9.50	29.47
10	5.00	12.10	21.49
11	5.50	14.40	15.97
12	6.00	16.20	11.11
13	6.50	17.50	7.43
14	7.00	18.70	6.42
15	7.50	19.60	4.59
16	8.00	20.40	3.92
17	8.50	21.00	2.86
18	9.00	21.70	3.23
19	9.50	22.20	2.25
20	10.00	22.60	1.77
21	10.50	23.10	2.16
22	11.00	23.50	1.70

5.5

Calculated Value = < 4.00e+01 µg/mL DL. 20 µg/mL

BVD 3-13-09

03-12-09 22:09 CORR BC 2225 Fax sent by : 5093737334 Pg: 12/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 019

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample No: S09T001783 Date: 03/12/2009 Time: 14:23:35

Sample Size = 0.200 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 6.4 ug # Readings Taken = 22

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	1.30	0.00
2	1.00	2.40	45.83
3	1.50	3.40	29.41
4	2.00	5.20	34.62
5	2.50	21.00	75.24
6	3.00	86.50	75.72
7	3.50	222.60	61.14
8	4.00	407.80	45.41
9	4.50	587.80	30.62
10	5.00	734.60	19.98
11	5.50	839.40	12.49
12	6.00	908.90	7.65
13	6.50	955.00	4.83
14	7.00	985.60	3.10
15	7.50	1004.40	1.87
16	8.00	1015.40	1.08
17	8.50	1021.90	0.64
18	9.00	1026.10	0.41
19	9.50	1029.20	0.30
20	10.00	1031.40	0.21
21	10.50	1033.30	0.18
22	11.00	1034.70	0.14

Calculated Value = 5.14e+03 µg/mL ✓ D.L. 35 µg/mL

BVD 2-13-09

03-12-09 22:09 Pg: 19/30 CORR BC 2225 Fax sent by : 5093737334

03/12/2009 THU 22:14 [TX/RX NO 5505] 020

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample No: S09T001783 Date: 03/12/2009 Time: 14:36:16

Sample Size = 0.200 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 29 ug # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.00	0.00
2	1.00	2.00	50.00
3	1.50	2.80	28.57
4	2.00	4.40	36.36
5	2.50	12.60	65.08
6	3.00	35.50	64.51
7	3.50	74.20	52.16
8	4.00	123.00	39.67
9	4.50	172.60	28.74
10	5.00	215.80	20.02
11	5.50	250.30	13.78
12	6.00	275.40	9.11
13	6.50	292.70	5.91
14	7.00	304.20	3.78
15	7.50	311.60	2.37
16	8.00	316.50	1.55
17	8.50	320.00	1.09
18	9.00	322.70	0.84
19	9.50	324.70	0.62
20	10.00	326.30	0.49
21	10.50	327.70	0.43
22	11.00	329.00	0.40

Calculated Value = 1.50e+03 µg/mL ✓ DL. 100 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:09 Pg: 20/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 021

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample No: S09T001795 Date: 03/12/2009 Time: 14:49:17

Sample Size = 0.200 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 6.4 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.00	0.00
2	1.00	2.30	56.52
3	1.50	3.60	36.11
4	2.00	6.90	47.83
5	2.50	36.90	81.30
6	3.00	134.90	72.65
7	3.50	302.50	55.40
8	4.00	492.70	38.60
9	4.50	657.90	25.11
10	5.00	784.00	16.08
11	5.50	872.60	10.15
12	6.00	931.60	6.33
13	6.50	970.90	4.05
14	7.00	997.00	2.62
15	7.50	1012.60	1.54
16	8.00	1021.60	0.88
17	8.50	1026.90	0.52
18	9.00	1030.60	0.36
19	9.50	1033.20	0.25
20	10.00	1035.20	0.19
21	10.50	1036.70	0.14
22	11.00	1038.10	0.13

Calculated Value = 5.16e+03 µg/mL ✓ DL. 35 µg/mL

BVD 3-13-09

Fax sent by : 5093737334 CORR BC 2225 03-12-09 22:09 Pg: 21/30

03/12/2009 THU 22:14 [TX/RX NO 5505] 022

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample No: S09T001795 Date: 03/12/2009 Time: 15:01:31

Sample Size = 0.200 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 29 ug # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.10	0.00
2	1.00	2.00	45.00
3	1.50	2.90	31.03
4	2.00	3.90	25.64
5	2.50	9.00	56.67
6	3.00	26.70	66.29
7	3.50	59.60	55.20
8	4.00	103.70	42.53
9	4.50	152.50	32.00
10	5.00	198.20	23.06
11	5.50	236.00	16.02
12	6.00	265.30	11.04
13	6.50	286.60	7.43
14	7.00	300.70	4.69
15	7.50	310.30	3.09
16	8.00	316.50	1.96
17	8.50	320.90	1.37
18	9.00	323.80	0.90
19	9.50	326.20	0.74
20	10.00	328.10	0.58
21	10.50	329.70	0.49
22	11.00	331.10	0.42

Calculated Value = 1.51e+03 µg/mL ✓ DL. 100 µg/mL

BVD 3-13-09

03-12-09 22:10 Pg: 22/30
CORR BC 2225
Fax sent by : 5093737334

03/12/2009 THU 22:14 [TX/RX NO 5505] 023

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample No: S09T001807 Date: 03/12/2009 Time: 15:14:25

Sample Size = 0.200 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 6.4 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.10	0.00
2	1.00	2.30	52.17
3	1.50	3.70	37.84
4	2.00	7.60	51.32
5	2.50	42.90	82.28
6	3.00	145.20	70.45
7	3.50	307.60	52.80
8	4.00	490.30	37.26
9	4.50	656.00	25.26
10	5.00	787.80	16.73
11	5.50	879.50	10.43
12	6.00	941.30	6.57
13	6.50	981.20	4.07
14	7.00	1007.10	2.57
15	7.50	1022.60	1.52
16	8.00	1031.20	0.83
17	8.50	1036.20	0.48
18	9.00	1039.40	0.31
19	9.50	1041.80	0.23
20	10.00	1043.50	0.16
21	10.50	1044.90	0.13
22	11.00	1046.20	0.12

Calculated Value = 5.20e+03 µg/mL ✓ D.L. 35 µg/mL

BVD 3-13-09

03-12-09 22:10 Pg: 23/30 CORR BC 2225 Fax sent by : 5093737334

03/12/2009 THU 22:14 [TX/RX NO 5505] 024

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None Matrix: Liquid

Sample No: S09T001807 Date: 03/12/2009 Time: 15:26:16

Sample Size = 0.200 mL Analyst: h0050918
Dil Factor = 1 Instrument: Carbon
Baseline Value = 29 ug # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	1.10	0.00
2	1.00	2.00	45.00
3	1.50	2.80	28.57
4	2.00	4.50	37.78
5	2.50	13.70	67.15
6	3.00	39.50	65.32
7	3.50	81.20	51.35
8	4.00	132.30	38.62
9	4.50	183.80	28.02
10	5.00	227.60	19.24
11	5.50	261.80	13.06
12	6.00	285.90	8.43
13	6.50	301.80	5.27
14	7.00	311.60	3.15
15	7.50	317.80	1.95
16	8.00	322.00	1.30
17	8.50	324.80	0.86
18	9.00	326.90	0.64
19	9.50	328.70	0.55
20	10.00	330.00	0.39
21	10.50	331.20	0.36
22	11.00	332.30	0.33

Calculated Value = 1.52e+03 µg/mL ✓ D.L. 100 µg/mL

BVD 3-13-09

03-12-09 22:10 Pg: 24/30
CORR BC 2225
Fax sent by : 5093737334

03/12/2009 THU 22:14 [TX/RX NO 5505] 025

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample No: CCV 60N12E — Date: 03/12/2009 — Time: 15:41:21

Sample Size = 1 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 6.4 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	11.90	0.00
2	1.00	40.90	70.90
3	1.50	72.20	43.35
4	2.00	98.60	26.77
5	2.50	141.50	30.32
6	3.00	217.00	34.79
7	3.50	313.80	30.85
8	4.00	403.40	22.21
9	4.50	473.90	14.88
10	5.00	524.40	9.63
11	5.50	559.00	6.19
12	6.00	581.50	3.87
13	6.50	594.60	2.20
14	7.00	601.80	1.20
15	7.50	605.50	0.61
16	8.00	607.80	0.38
17	8.50	609.10	0.21
18	9.00	609.80	0.11
19	9.50	610.50	0.11
20	10.00	611.20	0.11
21	10.50	611.70	0.08
22	11.00	612.20	0.08

Actual value from 60N12E inventory

Calculated Value = 6.06e+02 µg/mL

D.L. 7 µg/mL

BVD 3-13-09

03-12-09 22:10 Pg: 25/30
CORR BC 2225
Fax sent by : 5093737334

03/12/2009 THU 22:14 [TX/RX NO 5505] 026

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample No: CCV 61N12E — Date: 03/12/2009 — Time: 15:53:49

Sample Size = 0.200 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 29 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.50	0.00
2	1.00	0.80	37.50
3	1.50	1.20	33.33
4	2.00	1.50	20.00
5	2.50	2.00	25.00
6	3.00	3.10	35.48
7	3.50	7.70	59.74
8	4.00	22.10	65.16
9	4.50	54.50	59.45
10	5.00	108.80	49.91
11	5.50	185.20	41.25
12	6.00	274.80	32.61
13	6.50	361.00	23.88
14	7.00	430.70	16.18
15	7.50	486.00	11.38
16	8.00	525.90	7.59
17	8.50	561.00	6.26
18	9.00	582.10	3.62
19	9.50	592.80	1.80
20	10.00	597.50	0.79
21	10.50	600.30	0.47
22	11.00	602.00	0.28

Actual value from 61N12E inventory

Calculated Value = 2.87e+03 µg/mL ✓ D.L. 100 µg/mL

BVD 3-13-09

03-12-09 22:10 Pg: 26/30
CORR BC 2225
Fax sent by : 5093737334

03/12/2009 THU 22:14 [TX/RX NO 5505] 027

TIC - Inorganic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample No: CCB BLANK — Date: 03/12/2009 — Time: 16:06:58

Sample Size = 1 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 6.4 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.80	0.00
2	1.00	1.50	46.67
3	1.50	2.40	37.50
4	2.00	4.20	42.86
5	2.50	5.70	26.32
6	3.00	6.70	14.93
7	3.50	7.50	10.67
8	4.00	8.20	8.54
9	4.50	8.80	6.82
10	5.00	9.30	5.38
11	5.50	9.70	4.12
12	6.00	10.10	3.96
13	6.50	10.40	2.88
14	7.00	10.70	2.80
15	7.50	11.00	2.73
16	8.00	11.30	2.65
17	8.50	11.60	2.59
18	9.00	11.90	2.52
19	9.50	12.20	2.46
20	10.00	12.40	1.61
21	10.50	12.70	2.36
22	11.00	13.00	2.31

6.4 / 6.6

Calculated Value = 6.60e+00 µg/mL

DL. 7/14

RVD 3-13-09

03-12-09 22:18 Pg: 27/30
CORR BC 2225
Fax sent by : 5093737334

03/12/2009 THU 22:14 [TX/RX NO 5505] 028

TOC - Organic Carbon Total Analysis Report
TICTOC REV 3.0
TIC/TOC Acid PerSulfate (LA-342-100)

Batch # None — Matrix: Liquid

Sample No: CCB BLANK — Date: 03/12/2009 — Time: 17:55:50

Sample Size = 1 mL — Analyst: h0050918
Dil Factor = 1 — Instrument: Carbon
Baseline Value = 29 ug — # Readings Taken = 22

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.20	0.00
2	1.00	0.40	50.00
3	1.50	0.90	55.56
4	2.00	2.10	57.14
5	2.50	3.60	41.67
6	3.00	5.70	36.84
7	3.50	8.00	28.75
8	4.00	10.40	23.08
9	4.50	12.90	19.38
10	5.00	14.80	12.84
11	5.50	16.40	9.76
12	6.00	17.70	7.34
13	6.50	18.70	5.35
14	7.00	19.40	3.61
15	7.50	20.10	3.48
16	8.00	20.50	1.95
17	8.50	21.10	2.84
18	9.00	21.40	1.40
19	9.50	21.70	1.38
20	10.00	22.10	1.81
21	10.50	22.40	1.34
22	11.00	22.70	1.32

1.3 ✓

Calculated Value = < 4.00e+01 µg/mL D.L. 20µg

BVD 3-13-09

03-12-09 22:10 Pg: 28/30 CORR BC 2225 Fax sent by : 5093737334

LABCORE Completed Batch Report for Batch# 00013389

Analyst: Purinton, Tony **Book#:** 61N12E

Instrument: Carbon by Furnace Oxidation

Method: TOT. CARBON by FURNACE, LA-344-105 Rev/Mod I-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: TOC for AW106 EVAP3 adp

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903120092		0	0	Carbon Total	LIQUID	2974	2.7400E+03			55	ug/mL	92.132	% Recovery	
Sample Sequence 2															
2 BLNK	S0903120093		0	0	Carbon Total	LIQUID		<1.0000E+00			1	ug			
Sample Sequence 3															
3 SAMPLE	S09T001751		0	0	Carbon Total	LIQUID	N/A	<5.0000E+00			5	ug/mL			U
Sample Sequence 4															
4 SAMPLE	S09T001762		0	0	Carbon Total	LIQUID	N/A	<5.0000E+00			5	ug/mL			U
Sample Sequence 5															
5 SAMPLE	S09T001773		0	0	Carbon Total	LIQUID	N/A	6.3900E+03			105	ug/mL			
Sample Sequence 6															
6 DUP	S0903120094	S09T001773	0	0	Carbon Total	LIQUID	6.3900E+03	6.5600E+03			105	ug/mL	2.6255	% RPD	
Sample Sequence 7															
7 SPK	S0903120095	S09T001773	0	0	Carbon Total	LIQUID	2974	2.5700E+03			105	ug/mL	86.416	% Recovery	
Sample Sequence 8															
8 SAMPLE	S09T001783		0	0	Carbon Total	LIQUID	N/A	7.8000E+03			105	ug/mL			
Sample Sequence 9															
9 SAMPLE	S09T001795		0	0	Carbon Total	LIQUID	N/A	7.2300E+03			105	ug/mL			
Sample Sequence 10															
10 SAMPLE	S09T001807		0	0	Carbon Total	LIQUID	N/A	6.9800E+03			105	ug/mL			
Sample Sequence 11															
11 CCV	S0903120098		0	0	Carbon Total	LIQUID	2974	2.8100E+03			55	ug/mL	94.486	% Recovery	
Sample Sequence 12															
12 CCB	S0903120099		0	0	Carbon Total	LIQUID		<1.0000E+00			1	ug			

Comments Section:

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013389

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013389

Reviewer Signature 3/16/09 Date

2nd reviewer: [illegible] 03/16/09

PM: [illegible] 3/16/09

QA: [illegible] 3.17.09

501

RPP-RPT-40709 Rev. 1

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013389

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903120092	STD				
2	S0903120093	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001762	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001773	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
6	S0903120094	DUP	S09T001773			
7	S0903120095	SPK	S09T001773			
8	S09T001783	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
9	S09T001795	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
10	S09T001807	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
11	S0903120098	CCV				
12	S0903120099	CCB				

Units shown for QC (BLK/BKG) may not reflect the actual units.

03/13/2009 FRI 12:40 [TX/RX NO 5512] 001

3/13/2009 12:10:02PM
IncompleteBatchShort Version 2.7.22
batchreports 2.7.25

LABCORE Data Entry Template for Batch# 00013389

Analyst: Purinton, Tony **Standard ID / Book#:** 6IN12E

Instrument: Carbon by Furnace Oxidation

Method: TOT. CARBON by FURNACE, LA344-105 Rev/Mod 5-0

Prep Batch:

Batch Comment: TOC for AW106 EVAP3 adp

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Carbon Total					
2	BLNK		0		LIQUID		
	Analytes Requested:	Carbon Total					
3	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Carbon Total					
4	SAMPLE	S09T001762	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Carbon Total					
5	SAMPLE	S09T001773	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Carbon Total					
6	DUP	S09T001773	0		LIQUID		
	Analytes Requested:	Carbon Total					
7	SPK	S09T001773	0		LIQUID		
	Analytes Requested:	Carbon Total					
8	SAMPLE	S09T001783	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Carbon Total					
9	SAMPLE	S09T001795	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Carbon Total					
10	SAMPLE	S09T001807	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Carbon Total					
11	CCV		0		LIQUID		
	Analytes Requested:	Carbon Total					
12	CCB		0		LIQUID		
	Analytes Requested:	Carbon Total					

Final Page for Batch# 00013389

Cathy Purinton 3/13/09
Analyst Signature Date

Cathy Purinton 3/13/09
Data Entry Signature Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

03/13/2009 FRI 12:40 [TX/RX NO 5512] 002

LA-344-105, Rev. I-0 TOC and TC

BATCH 13389 ANALYST ADP DATE 3/13/09 START TIME 0900

PROJECT AW106EVAP3 COMPLETION TIME

SYRINGES/PIPETTES 1250233, 395184 [X] Checked

TOC Standard/Spike No.: 61N12E Spike Volume mL : .400	Spike Dilution from sample: Circle YES / NO

Sample ID.	Sam Vol. In (mL)	Acid / (Water) Added (mL)	Coulometer Reading (µg)	Sample Description
Baseline		2mL	3.0	
Standard	.200	2mL	2.74e+03	52.8
Blnk		2mL	3.1	
S09T001751	.200	0	3.5	
S09T001762	.200	0	3.2	
S09T001773	.100	2mL	63.9	
S09T001773	.100	2mL	65.5	DUP
S09T001773	.400+.400	ADD 2mL 0	290.1	SPK
S09T001783	.100	2mL	77.3	77.3
S09T001795	.100	2mL	71.9	
S09T001807	.100	2mL	69.5	
CCV	.200	2mL	54.1	
CCB	—	2mL	3.3	

Addition Comments: injected vol. : 02mL

03/13/2009 FRI 12:40 [TX/RX NO 5512] 003

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample Type: BASELINE Date: 03/13/2009 Time: 09:58:28

Dil Factor 1 Analyst: h0050918
Instrument: CARBON
Readings Taken = 14

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.10	0.00
2	1.00	0.40	75.00
3	1.50	0.60	33.33
4	2.00	0.90	33.33
5	2.50	1.00	10.00
6	3.00	1.30	23.08
7	3.50	1.50	13.33
8	4.00	1.80	16.67
9	4.50	1.90	5.26
10	5.00	2.20	13.64
11	5.50	2.40	8.33
12	6.00	2.60	7.69
13	6.50	2.80	7.14
14	7.00	3.00	6.67

Calculated Value = 3.00e+00 µg

Fax sent by : 5093731334 COMM DC 2223 03-13-09 12:37 Pg: 3/13

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None

Matrix: Liquid

Sample Type: STANDARD Date: 03/13/2009 Time: 10:26:42

Sample Size = .200 mL
Dil Factor = 11
Baseline Value = 3 ug

Analyst: h0050918
Instrument: CARBON
Readings Taken = 14

== Reading ====	Analysis Time ====	Coulometer ====	% Difference ==
1	0.50	0.00	0.00
2	1.00	2.00	100.00
3	1.50	17.70	88.70
4	2.00	31.20	43.27
5	2.50	37.10	15.90
6	3.00	41.10	9.73
7	3.50	43.90	6.38
8	4.00	45.90	4.36
9	4.50	47.60	3.57
10	5.00	49.00	2.86
11	5.50	50.10	2.20
12	6.00	51.10	1.96
13	6.50	51.90	1.54
14	7.00	52.80	1.70

Actual value from 61N12E inventory

Calculated Value = 2.74e+03 µg/mL
Percent Recovery = 92.09818

D.L. 55 µg/mL

BVD 3-13-09

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample Type: BLANK Date: 03/13/2009 Time: 10:46:39

Sample Size = 1 mL Analyst: h0050918
Dil Factor - 2 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	0.20	0.00
2	1.00	0.60	66.67
3	1.50	0.80	25.00
4	2.00	1.00	20.00
5	2.50	1.30	23.08
6	3.00	1.50	13.33
7	3.50	1.70	11.76
8	4.00	1.90	10.53
9	4.50	2.10	9.52
10	5.00	2.40	12.50
11	5.50	2.70	11.11
12	6.00	2.70	0.00
13	6.50	2.90	6.90
14	7.00	3.10	6.45

0.1

Calculated Value = < 1.00e+00 µg D.L. 1µg

BVD 3-13-09

03/13/2009 FRI 12:40 ITX/RX NO 55121 006

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample No: S09T001751 Date: 03/13/2009 Time: 10:56:18

Sample Size = 1 mL Analyst: h0050918
Dil Factor = 1 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken = 14

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.20	0.00
2	1.00	0.20	0.00
3	1.50	0.40	50.00
4	2.00	0.80	50.00
5	2.50	1.10	27.27
6	3.00	1.50	26.67
7	3.50	1.80	16.67
8	4.00	2.00	10.00
9	4.50	2.30	13.04
10	5.00	2.60	11.54
11	5.50	2.80	7.14
12	6.00	3.00	6.67
13	6.50	3.30	9.09
14	7.00	3.50	5.71

2.5 µg/mL

Calculated Value = < 5.00e+00 µg/mL D.L. 5 µg/mL

BVD 3-13-09

03/13/2009 FRI 12:40 [TX/RX NO 5512] 007

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample No: S09T001762 Date: 03/13/2009 Time: 11:05:12

Sample Size = 1 mL Analyst: h0050918
Dil Factor = 1 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken = 14

= Reading	==== Analysis Time	==== Coulometer	--== % Difference --
1	0.50	0.00	0.00
2	1.00	0.00	NaN
3	1.50	0.20	100.00
4	2.00	0.60	66.67
5	2.50	0.90	33.33
6	3.00	1.40	35.71
7	3.50	1.60	12.50
8	4.00	1.80	11.11
9	4.50	2.00	10.00
10	5.00	2.30	13.04
11	5.50	2.50	8.00
12	6.00	2.80	10.71
13	6.50	3.00	6.67
14	7.00	3.20	6.25

1 ✓

Calculated Value = < 5.00e+00 µg/mL D.L. 5 µg/mL

BVP 3-13-09

03/13/2009 FRI 12:40 [TX/RX NO 5512] 008

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample No: S09T001773 Date: 03/13/2009 Time: 11:19:47

Sample Size = .100 mL Analyst: h0050918
Dil Factor = 21 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	0.40	0.00
2	1.00	0.40	0.00
3	1.50	0.90	55.56
4	2.00	16.50	94.55
5	2.50	35.20	53.13
6	3.00	47.10	25.27
7	3.50	54.00	12.78
8	4.00	57.50	6.09
9	4.50	60.10	4.33
10	5.00	61.50	2.28
11	5.50	62.30	1.28
12	6.00	63.00	1.11
13	6.50	63.50	0.79
14	7.00	63.90	0.63

Calculated Value = 6.39e+03 µg/mL ✓ D.L. 105 µg/mL

BVD 3-13-09

03/13/2009 FRI 12:40 [TX/RX NO 5512] 009

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample: S09T001773 DUPLICATE Date: 03/13/2009 Time: 11:27:32

Sample Size = .100 mL Analyst: h0050918
Dil Factor = 21 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken = 14

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.80	0.00
2	1.00	0.80	0.00
3	1.50	1.20	33.33
4	2.00	15.60	92.31
5	2.50	34.90	55.30
6	3.00	46.40	24.78
7	3.50	53.70	13.59
8	4.00	58.00	7.41
9	4.50	60.80	4.61
10	5.00	62.30	2.41
11	5.50	63.30	1.58
12	6.00	64.10	1.25
13	6.50	64.80	1.08
14	7.00	65.50	1.07

Calculated Value = 6.56e+03 µg/mL ✓ D.L. 105 µg/mL

BWD 3-13-09

03/13/2009 FRI 12:40 [TX/RX NO 5512] 010

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample: S09T001773 SPIKE Date: 03/13/2009 Time: 11:35:43

Sample Size = ~~.100 mL~~ 0.4 + 0.4 ctd Analyst: h0050918
Dil Factor = 21 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken 14

== Reading	==== Analysis Time	==== Coulometer	==== % Difference
1	0.50	0.00	0.00
2	1.00	0.00	NaN
3	1.50	1.80	100.00
4	2.00	33.80	94.67
5	2.50	108.30	68.79
6	3.00	169.20	35.99
7	3.50	210.10	19.47
8	4.00	237.90	11.69
9	4.50	255.70	6.96
10	5.00	268.30	4.70
11	5.50	276.40	2.93
12	6.00	282.50	2.16
13	6.50	286.80	1.50
14	7.00	290.10	1.14

$$\frac{\frac{0.8}{0.4}(\text{spk} - \text{baseline}) - (\text{sam} - \text{baseline})}{\text{inject vol. } (.2)} = \text{Calculated value}$$

Actual value from 61N12E inventory -

II Already subtracted sample -

Calculated Value 2.57e+03 µg/mL ✓
Percent Recovery = 86.29791

D.L. 105 µg/mL

BVD 3-13-09

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None

Matrix: Liquid

Sample No: S09T001783 Date: 03/13/2009 Time: 11:46:49

Sample Size = .100 mL
Dil Factor = 21
Baseline Value = 3 ug

Analyst: h0050918
Instrument: CARBON
Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	1.70	0.00
2	1.00	1.90	10.53
3	1.50	3.40	44.12
4	2.00	20.10	83.08
5	2.50	39.10	48.59
6	3.00	52.50	25.52
7	3.50	61.10	14.08
8	4.00	66.20	7.70
9	4.50	69.80	5.16
10	5.00	71.70	2.65
11	5.50	73.60	2.58
12	6.00	74.80	1.60
13	6.50	76.10	1.71
14	7.00	77.30	1.55

Calculated Value = 7.80e+03 µg/mL ✓ D.L. 105 µg/mL

BVD 3-13-09

03/13/2009 FRI 12:40 [TX/RX NO 5512] 012

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample No: S09T001795 Date: 03/13/2009 Time: 11:55:34

Sample Size = .100 mL Analyst: h0050918
Dil Factor = 21 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken = 14

Reading	Analysis Time	Coulometer	% Difference
1	0.50	0.80	0.00
2	1.00	1.90	57.89
3	1.50	23.60	91.95
4	2.00	44.00	46.36
5	2.50	54.80	19.71
6	3.00	60.80	9.87
7	3.50	63.90	4.85
8	4.00	66.20	3.47
9	4.50	67.80	2.36
10	5.00	68.80	1.45
11	5.50	69.70	1.29
12	6.00	70.50	1.13
13	6.50	71.30	1.12
14	7.00	71.90	0.83

Calculated Value = 7.23e+03 µg/mL ✓ DL 105 µg/mL ✓

BVD 3-13-09

03/13/2009 FRI 12:40 [TX/RX NO 5512] 013

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample No: S09T001807 Date: 03/13/2009 Time: 12:03:40

Sample Size = .100 mL Analyst: h0050918
Dil Factor = 21 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken = 14

== Reading ====	Analysis Time ==--	Coulometer ----	% Difference ==
1	0.50	0.30	0.00
2	1.00	1.10	72.73
3	1.50	23.20	95.26
4	2.00	43.20	46.30
5	2.50	53.20	18.80
6	3.00	58.70	9.37
7	3.50	61.80	5.02
8	4.00	63.80	3.13
9	4.50	65.30	2.30
10	5.00	66.50	1.80
11	5.50	67.50	1.48
12	6.00	68.10	0.88
13	6.50	68.80	1.02
14	7.00	69.50	1.01

Calculated Value = 6.98e+03 µg/mL ✓ D.L. 105 µg/mL

BVD 3-13-09

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample No: CCV 61N12E Date: 03/13/2009 Time: 12:12:05

Sample Size = .200 mL Analyst: h0050918
Dil Factor - 11 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.50	0.00	0.00
2	1.00	0.80	100.00
3	1.50	8.00	90.00
4	2.00	21.10	62.09
5	2.50	30.90	31.72
6	3.00	37.70	18.04
7	3.50	42.10	10.45
8	4.00	44.90	6.24
9	4.50	48.20	6.85
10	5.00	50.10	3.79
11	5.50	51.70	3.09
12	6.00	52.70	1.90
13	6.50	53.40	1.31
14	7.00	54.10	1.29

Actual value from 61N12E inventory -

Calculated Value = 2.81e+03 µg/mL ✓ D.L. 55 µg/mL

BVD 3-13-09

03/13/2009 FRI 12:40 [TX/RX NO 5512] 015

TOTC - Carbon Total Analysis Report
TICTOC REV 3.0
Total Carbon by Furnace (LA-344-105)

Batch # None Matrix: Liquid

Sample No: CCB BLANK Date: 03/13/2009 Time: 12:28:49

Sample Size = .2 mL Analyst: h0050918
Dil Factor = 1 Instrument: CARBON
Baseline Value = 3 ug # Readings Taken = 14

== Reading	==== Analysis Time	==== Coulometer	=== % Difference ==
1	0.50	0.20	0.00
2	1.00	0.50	60.00
3	1.50	0.70	28.57
4	2.00	1.00	30.00
5	2.50	1.20	16.67
6	3.00	1.50	20.00
7	3.50	1.80	16.67
8	4.00	1.90	5.26
9	4.50	2.20	13.64
10	5.00	2.40	8.33
11	5.50	2.60	7.69
12	6.00	2.80	7.14
13	6.50	3.10	9.68
14	7.00	3.30	6.06

+0.3

Calculated Value = 5.00e+00 µg/mL

D.L. 1 µg

BVD
3-13-09

RADIOCHEMISTRY RAW DATA

Data Review Check List

Procedure LA-508-101 Alpha, Beta, Alpha & Beta

Batch # 13342

Review Item	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments and Samples Affected
Batch Items					
1. Was an LCS and blank run the batch?	x			√	
2. Was a duplicate and spike run with the batch?	x			√	
3. Was the book # of the standard (and spike) on the traveler?	x			√	
4. Was the batch traveler completed (sample #, dilution, aliquot size)?	x			√	
5. Were any line outs initialed and dated?			x	√	
6. Was balance check completed on the day of use (if used)?			x	√	
Result Items					
7. Was sample, traveler and counting data correct on ACE form?	x			√	
8. If No, was ACE form corrected?			x	√	
9. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?		x		√	
10. If No, was LABCORE corrected?	x			√	
11. Are result units correct?	x			√	
12. If No, were units corrected?			x	√	
13. Was data flagged?	x			√	
14. Are all flags present and correct?	x			√	
15. Are LCS results within limits (Lab's or customer's)?	x			√	
16. Are Spike results within limits (Lab's or customer's)?				√	
17. Is blank <MDC, or <5% isotope concentration, or <5% decision level?	x			√	
18. Are duplicate RPDs <20% (or RSD) within customer limits?	x			√	
19. Are the correct procedure number and Rev/Mod on the report?	x			√	
Procedure Speciffic Items					
20. Were replicate results within limits (10% if counting uncertainty <3.3% or 3 times counting uncertainty if >3.3%)?	x			√	
21. Were the customer required detection or quantification limits met?	x			√	
22. Were any results at or above customer notification limits?		x		√	
23. If yes, was the PC notified?			x	√	

1st Level Reviewer: Matthew Becom **Date:** 3/17/09

2nd Level Reviewer: M Cutter **Date:** 3/17/09

LABCORE Completed Batch Report for Batch# 00013342

Analyst: LaPlant, Gary **Book#:** 65B64

Instrument: A/B Detector 23 B-1A

Method: ALPHA/BETA, LA-508-101 Rev/Mod L-2

Specification: AW106 EVAP3

Prep Batch: N/A

Batch Comment:

AW106 EVAP3 for AT/TB. gll

Seq	Type	Sample#	Assoc. Sample	RepR	A	*	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1																	
1	STD	S0903110019		0 0			Alpha Total	LIQUID	.00018928	1.8300E-04		3.25	2.76E-07	uCi/mL	96.682	% Recovery	
1	STD	S0903110019		0 0			Beta Total	LIQUID	.0018674	1.9900E-03		.8	7.87E-07	uCi/mL	106.57	% Recovery	
Sample Sequence 2																	
2	BLNK	S0903110020		0 0			Alpha Total	LIQUID		<4.7700E-07			4.77E-07	uCi/mL			
2	BLNK	S0903110020		0 0			Beta Total	LIQUID		<7.8700E-07			7.87E-07	uCi/mL			
Sample Sequence 3																	
3	SAMPLE	S09T001751		0 0			Alpha Total	LIQUID	N/A	<4.7700E-07			4.77E-07	uCi/mL			U
3	SAMPLE	S09T001751		0 0			Beta Total	LIQUID	N/A	2.9600E-05		7.0	7.87E-07	uCi/mL			
Sample Sequence 4																	
4	SAMPLE	S09T001763		0 0			Alpha Total	LIQUID	N/A	<5.9700E-07			5.97E-07	uCi/mL			U
4	SAMPLE	S09T001763		0 0			Beta Total	LIQUID	N/A	3.1300E-05		6.7	7.87E-07	uCi/mL			
Sample Sequence 5																	
5	SAMPLE	S09T001784		0 0			Alpha Total	LIQUID	N/A	5.1200E-03		130.9	3.07E-03	uCi/mL			J
5	SAMPLE	S09T001784		0 0			Beta Total	LIQUID	N/A	2.2400E+02		.4	0.0124	uCi/mL			
Sample Sequence 6																	
6	SAMPLE	S09T001796		0 0			Alpha Total	LIQUID	N/A	6.2200E-03		104.8	3.07E-03	uCi/mL			J
6	SAMPLE	S09T001796		0 0			Beta Total	LIQUID	N/A	2.1900E+02		.4	0.0124	uCi/mL			
Sample Sequence 7																	
7	DUP	S0903110021	S09T001796	0 0			Alpha Total	LIQUID	6.2200E-03	<6.6300E-03			6.63E-03	uCi/mL			
7	DUP	S0903110021	S09T001796	0 0			Beta Total	LIQUID	2.1900E+02	2.2000E+02		.4	0.0124	uCi/mL	0.45558	% RPD	
Sample Sequence 8																	
8	SPK	S0903110022	S09T001796	0 0			Alpha Total	LIQUID	.0356	3.6100E-02			3.07E-03	uCi/mL	101.4	% Recovery	
8	SPK	S0903110022	S09T001796	0 0			Beta Total	LIQUID	.10972	1.2400E-01			0.0124	uCi/mL	113.01	% Recovery	
Sample Sequence 9																	
9	SPK-DUP	S0903110023	S09T001796	0 0			Alpha Total	LIQUID	.0356	3.5600E-02			3.07E-03	uCi/mL	100	% Recovery	
															1.3903	% RPD	
9	SPK-DUP	S0903110023	S09T001796	0 0			Beta Total	LIQUID	.10972	1.1100E-01			0.0124	uCi/mL	101.17	% Recovery	
															11.056	% RPD	
Sample Sequence 10																	
10	SAMPLE	S09T001808		0 0			Alpha Total	LIQUID	N/A	2.0300E-02		82.6	3.07E-03	uCi/mL			J
10	SAMPLE	S09T001808		0 0			Beta Total	LIQUID	N/A	2.2000E+02		.4	0.0124	uCi/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

* = Rejected Analyte
N, A = Non-reported Analyte

LABCORE Completed Batch Report for Batch# 00013342

Comments Section:

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013342

Reviewer Signature 22 Aug 11 Date

LABCORE Completed Batch Report for Batch# 00013342

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903110019	STD				
2	S0903110020	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001763	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
6	S09T001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
7	S0903110021	DUP	S09T001796			
8	S0903110022	SPK	S09T001796			
9	S0903110023	SPK-DUP	S09T001796			
10	S09T001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

LABCORE Data Entry Template for Batch# 00013342

Analyst: h0074758 **Standard ID / Book#:** 65864

Instrument:

Method: ALPHA/BETA, LA-508-101 Rev/Mod L.2

Prep Batch:

Batch Comment: AW106 EVAP3 for AT/TB. gll

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Alpha Total, Beta Total					
2	BLNK		0		LIQUID		
	Analytes Requested:	Alpha Total, Beta Total					
3	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Alpha Total, Beta Total					
4	SAMPLE	S09T001763	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Alpha Total, Beta Total					
5	SAMPLE	S09T001784	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Alpha Total, Beta Total					
6	SAMPLE	S09T001796	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Alpha Total, Beta Total					
7	DUP	S09T001796	0		LIQUID		
	Analytes Requested:	Alpha Total, Beta Total					
8	SPK	S09T001796	0		LIQUID		
	Analytes Requested:	Alpha Total, Beta Total					
9	SPK-DUP	S09T001796	0		LIQUID		
	Analytes Requested:	Alpha Total, Beta Total					
10	SAMPLE	S09T001808	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Alpha Total, Beta Total					

Final Page for Batch# 00013342

3-12-09
Analyst Signature **Date**

3/16/9
Data Entry Signature **Date**
Raymond 3-16-09

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Total Alpha and Beta Worklist Traveler

Sample Mounting Data

Worklist# 13342

Analyst: gll

Date/Time: 3/12/09 / 15:10

Counting Room Data

Det# 23 TB Bkg 4.40 AT Bkg .19 Dish Sz. 2

TB Spike# 64B64

TB Spike Vol. 100 λ

AT Spk# 84B59

AT Spike Vol. 100 λ

STD # 65B64

Balance ID # N/A

Checked ✓

Pipette #	Checked
1219413	✓
4171674	✓

Tray #	Sample # or Type	Sample Vol (mL)	Sample Dilution		TB Sam Counts	TB Rep Counts	AT Sam Counts	AT Rep Counts	Cnt Time in Min.
1-2	Standard	1 mL	1		68264	67815	3761	3646	30
3-4	BLNK	1 mL	1		157	132	6	9	30
5 6	S09T001751	1 mL	1		1146	1136	12	9	30
7 8	S09T001763	1 mL	1		1189	1205	8	11	30
9 10	S09T001784	0.100	0.100-10-1.0-10	*	230180	226737	12	18	30
11 12	S09T001796	0.100	0.100-10-1.0-10	*	224686	222815	14	20	30
13 14	S09T001796Dup	0.100	0.100-10-1.0-10	*	225650	224153	11	8	30
15 16	S09T001796SPK	0.100	0.100-10-1.0-10	*	361270	368239	71883	73957	30
17 18	S09T001796SPKDUP	0.100	0.100-10-1.0-10	*	360996	338283	72115	71768	30
19 20	S09T001808	0.100	0.100-10-1.0-10	*	226092	223547	68	17	30
				1					~~3~~

Comment: AW106 EVAP3

* 10 min Beta Count, 30 min Alpha Count

* USE CARE IN HANDLING - LITTLE ON THE HOT SIDE.

GL

AT		STD	REPLICATE
Type	DETECTOR NUMBER	23	23
STD	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	3761	3646
00013342	COUNT TIME in MINUTES	30	30
Test Code	BACKGROUND in cpm	0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	1.000	1.000
LIQUID	DILUTION FACTOR	1	1
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	STANDARD BOOK NUMBER	65B64	65B64
Sample Prep	EFFICIENCY FACTOR	0.3031	0.3031
	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	125.177	121.343
Sample #	Standard Value in uCi/mL	1.89E-04	0.00018928
S0903110019	Concentration in uCi/mL	1.86E-04	12/23/2008
Instrument Code	Replicate Concentration in uCi/mL	1.80E-04	
WC79141	**AVERAGE CONCENTRATION in uCi/mL**	1.8318E-04	

Data Entry By	
MCB	
Analyst	
GLL	
Date Completed	
3/16/2009	
Analysis Date	
3/12/2009	
Analysis Time	
3:10 PM	
Specification	
AW106 EVAP3	
Units	
uCi/mL	

Procedure using this form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

		DETECTION LEVELS in uCi/mL
ALPHA TOTAL CONCENTRATION IN uCi/mL	1.83E-04	
% STANDARD RECOVERY	96.81%	
RELATIVE COUNTING UNCERTAINTY	3.25%	2.76E-07

Alpha Std Template 1.0

TB

		STD	REPLICATE
Type	DETECTOR NUMBER	23	23
STD	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	68264	67815
00013342	COUNT TIME in MINUTES	30	30
Test Code	BACKGROUND in cpm	4.400	4.400
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	1.000	1.000
LIQUID	DILUTION FACTOR	1	1
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	STANDARD BOOK NUMBER	65B64	65B64
Sample Prep	EFFICIENCY FACTOR	0.5112	0.5112
	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	2271.067	2256.100
Sample #	Standard Value in uCi/mL	1.86E-03	0.0018674
S0903110019	Concentration in uCi/mL	2.00E-03	12/23/2008
Instrument Code	Replicate Concentration in uCi/mL	1.99E-03	
WC79141	**AVERAGE CONCENTRATION IN uCi/mL**	1.9946E-03	

Data Entry By	
MCB	
Analyst	
GLL	
Date Completed	
3/16/2009	
Analysis Date	
3/12/2009	
Analysis Time	
3:10 PM	
Specification	
AW106 EVAP3	
Units	
uCi/mL	

Procedure using this form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

		DETECTION LEVELS in uCi/mL
TOTAL BETA CONCENTRATION IN uCi/mL	1.99E-03	
% STANDARD RECOVERY	107.34%	
RELATIVE COUNTING UNCERTAINTY	0.8%	7.87E-07

Beta Std Template 1.0

AT			BLNK	REPLICATE
Type	DETECTOR NUMBER		23	23
BLNK	DISH SIZE (1, 2, OR 5)		2	2
Work List	GROSS COUNTS		6	9
00013342	COUNT TIME in MINUTES		30	30
Test Code	BACKGROUND in cpm		0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES		30	30
Matrix	SAMPLE SIZE in mL		1.000	1.000
LIQUID	DILUTION FACTOR		1	1
Rerun	DIGEST DILUTION FACTOR		1.000	1.000
0	EFFICIENCY FACTOR		0.3031	0.3031
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)		0.198	0.321
Sample #	**Sample Concentration in uCi/mL**	<	2.94E-07	
S0903110020	**Replicate Concentration in uCi/mL**	<	4.77E-07	
Instrument Code	**Maximum Concentration in uCi/mL**	<	4.7686E-07	
WC79141				
Data Entry By				
MCB	**Procedure using this Form*:**		**LA-508-101 L-2**	
Analyst				
GLL				
Date Completed				
3/16/2009				
Analysis Date	* The specific formulae used in the calculations for this spreadsheet can be found			
3/12/2009	in the applicable procedure, as identified on the worklist.			
Analysis Time				
3:10 PM	**Maximum Concentration in uCi/mL**	<	4.77E-07	**DETECTION LEVELS in uCi/mL**
Specification				
AW106 EVAP3				
Units				4.77 E-07 MAN
uCi/mL	**RELATIVE COUNTING UNCERTAINTY**			~~2.04E-07~~ 3/17/09

Alpha Sample Template 1 0

TB

			BLNK	REPLICATE
Type	DETECTOR NUMBER		23	23
BLNK	DISH SIZE (1, 2, OR 5)		2	2
Work List	GROSS COUNTS		157	132
00013342	COUNT TIME in MINUTES		30	30
Test Code	BACKGROUND in cpm		4.400	4.400
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES		30	30
Matrix	SAMPLE SIZE in mL		1.000	1.000
LIQUID	DILUTION FACTOR		1	1
Rerun	DIGEST DILUTION FACTOR		1.000	1.000
0	EFFICIENCY FACTOR		0.5112	0.5112
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)		0.894	0.894
Sample #	**Sample Concentration in uCi/mL**	<	7.87E-07	
S0903110020	**Replicate Concentration in uCi/mL**	<	7.87E-07	
Instrument Code	**Maximum Concentration in uCi/mL**	<	7.8745E-07	
WC79141				
Data Entry By				
MCB				
Analyst				
GLL				
Date Completed				
3/16/2009				
Analysis Date				
3/12/2009				
Analysis Time				
3:10 PM				
Specification				
AW106 EVAP3				
Units				
uCi/mL				

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Maximum Concentration in uCi/mL	<	7.87E-07	
RELATIVE COUNTING UNCERTAINTY			~~1.56E-06~~

Beta Sample Template 1.0

Printed at: 6:02:44 AM 3/16/2009 Version: 1.05

AT			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		23	23
SAMPLE	DISH SIZE (1, 2, OR 5)		2	2
Work List	GROSS COUNTS		12	9
00013342	COUNT TIME in MINUTES		30	30
Test Code	BACKGROUND in cpm		0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES		30	30
Matrix	SAMPLE SIZE in mL		1.000	1.000
LIQUID	DILUTION FACTOR		1	1
Rerun	DIGEST DILUTION FACTOR		1.000	1.000
0	EFFICIENCY FACTOR		0.3031	0.3031
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)		0.210	0.321
Sample #	**Sample Concentration in uCi/mL**		3.12E-07	
S09T001751	**Replicate Concentration in uCi/mL**	<	4.77E-07	
Instrument Code	**Maximum Concentration in uCi/mL**	<	4.7686E-07	
WC79141				
Data Entry By				
MCB				
Analyst				
GLL				
Date Completed				
3/16/2009				
Analysis Date				
3/12/2009				
Analysis Time				
3:10 PM				
Specification				
AW106 EVAP3				
Units				
uCi/mL				

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Maximum Concentration in uCi/mL	<	4.77E-07	
			4.77 E-07
RELATIVE COUNTING UNCERTAINTY			~~2.76E-07~~

Alpha Sample Template 1.0

TB

		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	23	23
SAMPLE	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	1146	1136
00013342	COUNT TIME in MINUTES	30	30
Test Code	BACKGROUND in cpm	4.400	4.400
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	1.000	1.000
LIQUID	DILUTION FACTOR	1	1
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	EFFICIENCY FACTOR	0.5112	0.5112
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	33.800	33.467
Sample #	**Sample Concentration in uCi/mL**	2.98E-05	
S09T001751	**Replicate Concentration in uCi/mL**	2.95E-05	
Instrument Code	**Average Concentration in uCi/mL**	2.9636E-05	
WC79141			
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Average Concentration in uCi/mL	2.96E-05	**DETECTION LEVELS in uCi/mL**
RELATIVE COUNTING UNCERTAINTY	7.0%	7.87E-07

Beta Sample Template 1.0

AT			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		23	23
SAMPLE	DISH SIZE (1, 2, OR 5)		2	2
Work List	GROSS COUNTS		8	11
00013342	COUNT TIME in MINUTES		30	30
Test Code	BACKGROUND in cpm		0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES		30	30
Matrix	SAMPLE SIZE in mL		1.000	1.000
LIQUID	DILUTION FACTOR		1	1
Rerun	DIGEST DILUTION FACTOR		1.000	1.000
0	EFFICIENCY FACTOR		0.3031	0.3031
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)		0.280	0.401
Sample #	**Sample Concentration in uCi/mL**	<	4.16E-07	
S09T001763	**Replicate Concentration in uCi/mL**	<	5.97E-07	
Instrument Code	**Maximum Concentration in uCi/mL**	<	5.9658E-07	
WC79141				
Data Entry By				
MCB				
Analyst				
GLL				
Date Completed				
3/16/2009				
Analysis Date				
3/12/2009				
Analysis Time				
3:10 PM				
Specification				
AW106 EVAP3				
Units				
uCi/mL				

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Maximum Concentration in uCi/mL	<	5.97E-07	**DETECTION LEVELS in uCi/mL**
			5.97E-07
RELATIVE COUNTING UNCERTAINTY			~~4.16E-07~~

MMB 3/17/09

Alpha Sample Template 1.0

TB		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	23	23
SAMPLE	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	1189	1205
00013342	COUNT TIME in MINUTES	30	30
Test Code	BACKGROUND in cpm	4.400	4.400
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	1.000	1.000
LIQUID	DILUTION FACTOR	1	1
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	EFFICIENCY FACTOR	0.5112	0.5112
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	35.233	35.767
Sample #	**Sample Concentration in uCi/mL**	3.10E-05	
S09T001763	**Replicate Concentration in uCi/mL**	3.15E-05	
Instrument Code	**Average Concentration in uCi/mL**	3.1281E-05	
WC79141			
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Average Concentration in uCi/mL	3.13E-05	**DETECTION LEVELS in uCi/mL**
RELATIVE COUNTING UNCERTAINTY	6.7%	7.87E-07

Beta Sample Template 1.0

AT		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	23	23
SAMPLE	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	12	18
00013342	COUNT TIME in MINUTES	30	30
Test Code	BACKGROUND in cpm	0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	0.100	0.100
LIQUID	DILUTION FACTOR	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	EFFICIENCY FACTOR	0.3031	0.3031
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	0.210	0.410
Sample #	**Sample Concentration in uCi/mL**	3.47E-03	
S09T001784	**Replicate Concentration in uCi/mL**	6.77E-03	
Instrument Code	**Average Concentration in uCi/mL**	5.1184E-03	
WC79141			
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

		DETECTION LEVELS in uCi/mL
Average Concentration in uCi/mL	5.12E-03	
RELATIVE COUNTING UNCERTAINTY	130.9%	3.07E-03

Alpha Sample Template 1.0

Printed at: 6:06:02 AM 3/16/2009 Version: 1.05

TB		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	23	23
SAMPLE	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	230180	226737
00013342	COUNT TIME in MINUTES	10	10
Test Code	BACKGROUND in cpm	4.400	4.400
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	0.100	0.100
LIQUID	DILUTION FACTOR	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	EFFICIENCY FACTOR	0.5112	0.5112
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	23013.600	22669.300
Sample #	**Sample Concentration in uCi/mL**	2.25E+02	
S09T001784	**Replicate Concentration in uCi/mL**	2.22E+02	
Instrument Code	**Average Concentration in uCi/mL**	2.2361E+02	
WC79141			
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

		DETECTION LEVELS in uCi/mL
Average Concentration in uCi/mL	2.24E+02	
RELATIVE COUNTING UNCERTAINTY	0.4%	1.24E-02

Beta Sample Template 1.0

AT			SAMPLE	REPLICATE
Type	DETECTOR NUMBER		23	23
SAMPLE	DISH SIZE (1, 2, OR 5)		2	2
Work List	GROSS COUNTS		14	20
00013342	COUNT TIME in MINUTES		30	30
Test Code	BACKGROUND in cpm		0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES		30	30
Matrix	SAMPLE SIZE in mL		0.100	0.100
LIQUID	DILUTION FACTOR		1111	1111
Rerun	DIGEST DILUTION FACTOR		1.000	1.000
0	EFFICIENCY FACTOR		0.3031	0.3031
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)		0.277	0.477
Sample #	**Sample Concentration in uCi/mL**		4.57E-03	
S09T001796	**Replicate Concentration in uCi/mL**		7.87E-03	
Instrument Code	**Average Concentration in uCi/mL**		6.2192E-03	
WC79141				
Data Entry By				
MCB				
Analyst				
GLL				
Date Completed				
3/16/2009				
Analysis Date				
3/12/2009				
Analysis Time				
3:10 PM	**Average Concentration in uCi/mL**	6.22E-03		**DETECTION LEVELS in uCi/mL**
Specification				
AW106 EVAP3				
Units				
uCi/mL	**RELATIVE COUNTING UNCERTAINTY**	104.8%		3.07E-03

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Alpha Sample Template 1.0

TB		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	23	23
SAMPLE	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	224686	222815
00013342	COUNT TIME in MINUTES	10	10
Test Code	BACKGROUND in cpm	4.400	4.400
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	0.100	0.100
LIQUID	DILUTION FACTOR	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	EFFICIENCY FACTOR	0.5112	0.5112
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	22464.200	22277.100
Sample #	**Sample Concentration in uCi/mL**	2.20E+02	
S09T001796	**Replicate Concentration in uCi/mL**	2.18E+02	
Instrument Code	**Average Concentration in uCi/mL**	2.1900E+02	
WC79141			
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Average Concentration in uCi/mL	2.19E+02	**DETECTION LEVELS in uCi/mL**
RELATIVE COUNTING UNCERTAINTY	0.4%	1.24E-02

Beta Sample Template 1.0

Printed at: 6:07:36 AM 3/16/2009 Version: 1.05

AT			DUP	REPLICATE
Type	DETECTOR NUMBER		23	23
DUP	DISH SIZE (1, 2, OR 5)		2	2
Work List	GROSS COUNTS		11	8
00013342	COUNT TIME in MINUTES		30	30
Test Code	BACKGROUND in cpm		0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES		30	30
Matrix	SAMPLE SIZE in mL		0.100	0.100
LIQUID	DILUTION FACTOR		1111	1111
Rerun	DIGEST DILUTION FACTOR		1.000	1.000
0	EFFICIENCY FACTOR		0.3031	0.3031
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)		0.401	0.280
Sample #	**Sample Concentration in uCi/mL**	<	6.63E-03	Associated Sample Number
S0903110021	**Replicate Concentration in uCi/mL**	<	4.63E-03	S09T001796
Instrument Code	**Maximum Concentration in uCi/mL**	<	6.6280E-03	
WC79141				
Data Entry By				
MCB				
Analyst				
GLL				
Date Completed				
3/16/2009				
Analysis Date				
3/12/2009				
Analysis Time				
3:10 PM				
Specification				
AW106 EVAP3				
Units				
uCi/mL				

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Maximum Concentration in uCi/mL	<	6.63E-03	
RELATIVE COUNTING UNCERTAINTY			6.63E-03

Alpha Sample Template 1.0

TB		DUP	REPLICATE
Type	DETECTOR NUMBER	23	23
DUP	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	225650	224153
00013342	COUNT TIME in MINUTES	10	10
Test Code	BACKGROUND in cpm	4.400	4.400
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	0.100	0.100
LIQUID	DILUTION FACTOR	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	EFFICIENCY FACTOR	0.5112	0.5112
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	22560.600	22410.900
Sample #	**Sample Concentration in uCi/mL**	2.21E+02	Associated Sample Number
S0903110021	**Replicate Concentration in uCi/mL**	2.19E+02	S09T001796
Instrument Code	**Average Concentration in uCi/mL**	2.2013E+02	
WC79141			
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

		DETECTION LEVELS in uCi/mL
Average Concentration in uCi/mL	2.20E+02	
RELATIVE COUNTING UNCERTAINTY	0.4%	1.24E-02

Beta Sample Template 1.0

Printed at: 6:08:37 AM 3/16/2009 Version: 1.05

AT

		SPK	REPLICATE
Type	DETECTOR NUMBER	23	23
SPK	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	71883	73957
00013342	COUNT TIME in MINUTES	30	30
Test Code	BACKGROUND in cpm	0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE VOLUME in mL (Spiked Vial)	0.100	0.100
LIQUID	SAMPLE DILUTION FACTOR (Spiked Vial)	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	SPIKE VOLUME in mL	0.100	0.100
Sample Prep	SPIKE DILUTION FACTOR	1	1
	SPIKE BOOK NUMBER	84B59	84B59
Sample #	SPIKE VALUE IN uCi/mL	3.5617E-02	3.5617E-02
S0903110022	INSTRUMENT EFFICIENCY FACTOR	0.3031	0.3031
Instrument Code	SAMPLE + SPIKE uCi/mL	3.96E+01	4.07E+01
WC79141	**AVERAGE or MAXIMUM uCi/mL IN SAMPLE**	6.2192E-03	S09T001796
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: LA-508-101 L-2

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

QC ACTUAL	=	3.56E-02
QCFOUND	=	3.61E-02
AV. PERCENT SPIKE RECOVERY	=	101.4%

TB

		SPK	REPLICATE
Type	DETECTOR NUMBER	23	23
SPK	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	361270	368239
00013342	COUNT TIME in MINUTES	10	10
Test Code	BACKGROUND in cpm	4.400	4.4
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE VOLUME in mL (Spiked Vial)	0.100	0.100
LIQUID	SAMPLE DILUTION FACTOR (Spiked Vial)	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	SPIKE VOLUME in mL	0.100	0.100
Sample Prep	SPIKE DILUTION FACTOR	1.0	1
	SPIKE BOOK NUMBER	64B64	64B64
Sample #	SPIKE VALUE IN uCi/mL	1.0972E-01	1.0972E-01
S0903110022	INSTRUMENT EFFICIENCY FACTOR	0.5112	0.5112
Instrument Code	SAMPLE + SPIKE uCi/mL	3.54E+02	3.60E+02
WC79141	**AVERAGE or MAXIMUM uCi/mL IN SAMPLE**	2.1900E+02	S09T001796
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: LA-508-101 L-2

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

QC ACTUAL	=	1.10E-01
QCFOUND	=	1.24E-01
AV. PERCENT SPIKE RECOVERY	=	113.2%

AT

		SPK-DUP	REPLICATE
Type	DETECTOR NUMBER	23	23
SPK-DUP	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	72115	71768
00013342	COUNT TIME in MINUTES	30	30
Test Code	BACKGROUND in cpm	0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE VOLUME in mL (Spiked Vial)	0.100	0.100
LIQUID	SAMPLE DILUTION FACTOR (Spiked Vial)	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	SPIKE VOLUME in mL	0.100	0.100
Sample Prep	SPIKE DILUTION FACTOR	1	1
	SPIKE BOOK NUMBER	84B59	84B59
Sample #	SPIKE VALUE IN uCi/mL	3.5617E-02	3.5617E-02
S0903110023	INSTRUMENT EFFICIENCY FACTOR	0.3031	0.3031
Instrument Code	SAMPLE + SPIKE uCi/mL	3.97E+01	3.95E+01
WC79141	**AVERAGE or MAXIMUM uCi/mL IN SAMPLE**	6.2192E-03	S09T001796
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: LA-508-101 L-2

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

QC ACTUAL	=	3.56E-02
QCFOUND	=	3.56E-02
AV. PERCENT SPIKE RECOVERY	=	100.0%

TB

		SPK-DUP	REPLICATE
Type	DETECTOR NUMBER	23	23
SPK-DUP	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	360996	338283
00013342	COUNT TIME in MINUTES	10	10
Test Code	BACKGROUND in cpm	4.400	4.4
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE VOLUME in mL (Spiked Vial)	0.100	0.100
LIQUID	SAMPLE DILUTION FACTOR (Spiked Vial)	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	SPIKE VOLUME in mL	0.100	0.100
Sample Prep	SPIKE DILUTION FACTOR	1.0	1
	SPIKE BOOK NUMBER	64B64	64B64
Sample #	SPIKE VALUE IN uCi/mL	1.0972E-01	1.0972E-01
S0903110023	INSTRUMENT EFFICIENCY FACTOR	0.5112	0.5112
Instrument Code	SAMPLE + SPIKE uCi/mL	3.53E+02	3.31E+02
WC79141	**AVERAGE or MAXIMUM uCi/mL IN SAMPLE**	2.1900E+02	S09T001796
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: LA-508-101 L-2

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

QC ACTUAL	=	1.10E-01
QCFOUND	=	1.11E-01
AV. PERCENT SPIKE RECOVERY	=	101.1%

Printed at: 6:11:07 AM 3/16/2009 Version: 1.05

AT		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	23	23
SAMPLE	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	68	17
00013342	COUNT TIME in MINUTES	30	30
Test Code	BACKGROUND in cpm	0.190	0.190
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	0.100	0.100
LIQUID	DILUTION FACTOR	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	EFFICIENCY FACTOR	0.3031	0.3031
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	2.077	0.377
Sample #	**Sample Concentration in uCi/mL**	3.43E-02	
S09T001808	**Replicate Concentration in uCi/mL**	6.22E-03	
Instrument Code	**Average Concentration in uCi/mL**	2.0254E-02	
WC79141			
Data Entry By			
MCB	**Procedure using this Form*:**	**LA-508-101 L-2**	
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date	* The specific formulae used in the calculations for this spreadsheet can be found		
3/12/2009	in the applicable procedure, as identified on the worklist.		
Analysis Time			
3:10 PM	**Average Concentration in uCi/mL**	2.03E-02	**DETECTION LEVELS in uCi/mL**
Specification			
AW106 EVAP3			
Units			
uCi/mL	**RELATIVE COUNTING UNCERTAINTY**	82.6%	3.07E-03

Alpha Sample Template 1.0

TB

		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	23	23
SAMPLE	DISH SIZE (1, 2, OR 5)	2	2
Work List	GROSS COUNTS	226092	223547
00013342	COUNT TIME in MINUTES	10	10
Test Code	BACKGROUND in cpm	4.400	4.400
ALPHA/BETA	BACKGROUND COUNT TIME in MINUTES	30	30
Matrix	SAMPLE SIZE in mL	0.100	0.100
LIQUID	DILUTION FACTOR	1111	1111
Rerun	DIGEST DILUTION FACTOR	1.000	1.000
0	EFFICIENCY FACTOR	0.5112	0.5112
Sample Prep	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE)	22604.800	22350.300
Sample #	**Sample Concentration in uCi/mL**	2.21E+02	
S09T001808	**Replicate Concentration in uCi/mL**	2.19E+02	
Instrument Code	**Average Concentration in uCi/mL**	2.2005E+02	
WC79141			
Data Entry By			
MCB			
Analyst			
GLL			
Date Completed			
3/16/2009			
Analysis Date			
3/12/2009			
Analysis Time			
3:10 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: **LA-508-101 L-2**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Average Concentration in uCi/mL	2.20E+02	**DETECTION LEVELS in uCi/mL**
RELATIVE COUNTING UNCERTAINTY	0.4%	1.24E-02

Beta Sample Template 1.0

Data Review Check List

Procedure LA-548-121 GEA

Batch # 13340

Review Item	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments and Samples Affected
Batch Items					
1. Was an LCS and blank run the batch?	X			√	
2. Was a duplicate run with the batch?	X			√	
3. Was the book # of the standard (and spike) on the traveler?	X			√	
4. Was the batch traveler completed (sample #, dilution, aliquot size)?	X			√	
5. Were any line outs initialed and dated?	X			√	
6. Was balance check completed on the day of use (if used)?			X	√	
Result Items					
7. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?	X			√	
8. If No, was LABCORE corrected?			X	√	
9. Are result units correct?	X			√	
10. If No, were units corrected?			X	√	
11. Was data flagged?	X			√	
12. Are all flags present and correct?	X			√	
13. Are LCS results within limits (Lab's or customer's)?	X			√	
14. Is blank <MDC, or <5% isotope concentration, or <5% decision level?	X			√	
15. Are duplicate RPDs <20% (or RSD) or within customer limits?	X			√	
16. Are the correct procedure number and Rev/Mod on the report?	X			√	
Procedure Speciffic Items					
27. Were the customer required detection or quantification limits met?	X			√	

1st Level Reviewer: M A Catlow **Date:** 17/Mar/09

2nd Level Reviewer: Winston Bacon **Date:** 3/17/2009

LABCORE Completed Batch Report for Batch# 00013340

Analyst: LaPlant, Gary **Book#:** 31B64

Instrument: GEA03 B-1A

Method: GEA, LA-548-121 Rev/Mod I-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP3 for GEA. gll

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1																
1	STD	S0903110005		0	0	Cobalt-60	LIQUID	.00444	4.5160E-03		3.00	5.06E-05	uCi/mL	101.71	% Recovery	
1	STD	S0903110005		0	0	Niobium-94	LIQUID		<5.9800E-05			5.98E-05	uCi/mL	N/A		
1	STD	S0903110005		0	0	Ruthenium/Rhodium-106	LIQUID		<3.3800E-03			3.38E-03	uCi/mL	N/A		
1	STD	S0903110005		0	0	Antimony-125	LIQUID		<2.4600E-04			2.46E-04	uCi/mL	N/A		
1	STD	S0903110005		0	0	Cesium-134	LIQUID		<8.8300E-05			8.83E-05	uCi/mL	N/A		
1	STD	S0903110005		0	0	Cesium-137	LIQUID	.00483	4.9580E-03		4.63	5.87E-05	uCi/mL	102.65	% Recovery	
1	STD	S0903110005		0	0	Cerium-144	LIQUID		<9.9800E-04			9.98E-04	uCi/mL	N/A		
1	STD	S0903110005		0	0	Europium-152	LIQUID		<1.4200E-04			1.42E-04	uCi/mL	N/A		
1	STD	S0903110005		0	0	Europium-154	LIQUID		<1.2000E-04			1.20E-04	uCi/mL	N/A		
1	STD	S0903110005		0	0	Europium-155	LIQUID		<9.5700E-05			9.57E-05	uCi/mL	N/A		
1	STD	S0903110005		0	0	Radium-226	LIQUID		<7.3600E-04			7.36E-04	uCi/mL	N/A		
1	STD	S0903110005		0	0	Americium-241	LIQUID	.0000755	4.4330E-05		45.84	3.22E-05	uCi/mL	58.715	% Recovery	
Sample Sequence 2																
2	BLNK	S0903110006		0	0	Cobalt-60	LIQUID		<2.6200E-05			2.62E-05	uCi/mL			
2	BLNK	S0903110006		0	0	Niobium-94	LIQUID		<2.4800E-05			2.48E-05	uCi/mL			
2	BLNK	S0903110006		0	0	Ruthenium/Rhodium-106	LIQUID		<3.9400E-04			3.94E-04	uCi/mL			
2	BLNK	S0903110006		0	0	Antimony-125	LIQUID		<6.1000E-05			6.10E-05	uCi/mL			
2	BLNK	S0903110006		0	0	Cesium-134	LIQUID		<2.4900E-05			2.49E-05	uCi/mL			
2	BLNK	S0903110006		0	0	Cesium-137	LIQUID		<3.1600E-05			3.16E-05	uCi/mL			
2	BLNK	S0903110006		0	0	Cerium-144	LIQUID		<8.6700E-05			8.67E-05	uCi/mL			
2	BLNK	S0903110006		0	0	Europium-152	LIQUID		<1.1900E-04			1.19E-04	uCi/mL			
2	BLNK	S0903110006		0	0	Europium-154	LIQUID		<7.6200E-05			7.62E-05	uCi/mL			
2	BLNK	S0903110006		0	0	Europium-155	LIQUID		<3.6700E-05			3.67E-05	uCi/mL			
2	BLNK	S0903110006		0	0	Radium-226	LIQUID		<3.8100E-04			3.81E-04	uCi/mL			
2	BLNK	S0903110006		0	0	Americium-241	LIQUID		<2.2700E-05			2.27E-05	uCi/mL			
Sample Sequence 3																
3	SAMPLE	S09T001751		0	0	Cobalt-60	LIQUID	N/A	<2.4300E-05			2.43E-05	uCi/mL			U
3	SAMPLE	S09T001751		0	0	Niobium-94	LIQUID	N/A	<2.3000E-05			2.30E-05	uCi/mL			U
3	SAMPLE	S09T001751		0	0	Ruthenium/Rhodium-106	LIQUID	N/A	<4.0700E-04			4.07E-04	uCi/mL			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013340

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
3	SAMPLE	S09T001751		0 0		Antimony-125	LIQUID	N/A	<5.9300E-05			5.93E-05	uCi/mL			U
3	SAMPLE	S09T001751		0 0		Cesium-134	LIQUID	N/A	<2.5400E-05			2.54E-05	uCi/mL			U
3	SAMPLE	S09T001751		0 0		Cesium-137	LIQUID	N/A	<2.9600E-05			2.96E-05	uCi/mL			U
3	SAMPLE	S09T001751		0 0		Cerium-144	LIQUID	N/A	<8.5000E-05			8.50E-05	uCi/mL			U
3	SAMPLE	S09T001751		0 0		Europium-152	LIQUID	N/A	<1.2200E-04			1.22E-04	uCi/mL			U
3	SAMPLE	S09T001751		0 0		Europium-154	LIQUID	N/A	<6.9800E-05			6.98E-05	uCi/mL			U
3	SAMPLE	S09T001751		0 0		Europium-155	LIQUID	N/A	<3.9200E-05			3.92E-05	uCi/mL			U
3	SAMPLE	S09T001751		0 0		Radium-226	LIQUID	N/A	<4.1100E-04			4.11E-04	uCi/mL			U
3	SAMPLE	S09T001751		0 0		Americium-241	LIQUID	N/A	<2.2300E-05			2.23E-05	uCi/mL			U
Sample Sequence 4																
4	SAMPLE	S09T001763		0 0		Cobalt-60	LIQUID	N/A	<2.4200E-05			2.42E-05	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Niobium-94	LIQUID	N/A	<2.3700E-05			2.37E-05	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Ruthenium/Rhodium-106	LIQUID	N/A	<4.1900E-04			4.19E-04	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Antimony-125	LIQUID	N/A	<6.1600E-05			6.16E-05	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Cesium-134	LIQUID	N/A	<2.4100E-05			2.41E-05	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Cesium-137	LIQUID	N/A	<2.7300E-05			2.73E-05	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Cerium-144	LIQUID	N/A	<8.8100E-05			8.81E-05	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Europium-152	LIQUID	N/A	<1.1000E-04			1.10E-04	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Europium-154	LIQUID	N/A	<7.3700E-05			7.37E-05	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Europium-155	LIQUID	N/A	<3.8200E-05			3.82E-05	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Radium-226	LIQUID	N/A	<3.7200E-04			3.72E-04	uCi/mL			U
4	SAMPLE	S09T001763		0 0		Americium-241	LIQUID	N/A	<2.1700E-05			2.17E-05	uCi/mL			U
Sample Sequence 5																
5	SAMPLE	S09T001771		0 0		Cobalt-60	LIQUID	N/A	<1.0300E-02			0.0103	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Niobium-94	LIQUID	N/A	<1.1100E-02			0.0111	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Ruthenium/Rhodium-106	LIQUID	N/A	<1.4000E+00			1.4	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Antimony-125	LIQUID	N/A	<4.5500E-01			0.455	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Cesium-134	LIQUID	N/A	<7.0600E-02			0.0706	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Cesium-137	LIQUID	N/A	2.0800E+02		4.23	0.113	uCi/mL			
5	SAMPLE	S09T001771		0 0		Cerium-144	LIQUID	N/A	<4.1300E-01			0.413	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Europium-152	LIQUID	N/A	<5.1500E-02			0.0515	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Europium-154	LIQUID	N/A	<3.2200E-02			0.0322	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Europium-155	LIQUID	N/A	<1.8000E-01			0.18	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Radium-226	LIQUID	N/A	<2.0500E+00			2.05	uCi/mL			U
5	SAMPLE	S09T001771		0 0		Americium-241	LIQUID	N/A	<9.5700E-02			0.0957	uCi/mL			U
Sample Sequence 6																
6	SAMPLE	S09T001784		0 0		Cobalt-60	LIQUID	N/A	<1.0500E-02			0.0105	uCi/mL			U
6	SAMPLE	S09T001784		0 0		Niobium-94	LIQUID	N/A	<1.1000E-02			0.011	uCi/mL			U
6	SAMPLE	S09T001784		0 0		Ruthenium/Rhodium-106	LIQUID	N/A	<1.4400E+00			1.44	uCi/mL			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013340

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
6	SAMPLE	S09T001784		0 0		Antimony-125	LIQUID	N/A	<4.7000E-01			0.47	uCi/mL			U
6	SAMPLE	S09T001784		0 0		Cesium-134	LIQUID	N/A	<7.3300E-02			0.0733	uCi/mL			U
6	SAMPLE	S09T001784		0 0		Cesium-137	LIQUID	N/A	2.2100E+02		4.23	0.118	uCi/mL			
6	SAMPLE	S09T001784		0 0		Cerium-144	LIQUID	N/A	<4.2600E-01			0.426	uCi/mL			U
6	SAMPLE	S09T001784		0 0		Europium-152	LIQUID	N/A	<5.2700E-02			0.0527	uCi/mL			U
6	SAMPLE	S09T001784		0 0		Europium-154	LIQUID	N/A	<3.2500E-02			0.0325	uCi/mL			U
6	SAMPLE	S09T001784		0 0		Europium-155	LIQUID	N/A	<1.8500E-01			0.185	uCi/mL			U
6	SAMPLE	S09T001784		0 0		Radium-226	LIQUID	N/A	<2.1100E+00			2.11	uCi/mL			U
6	SAMPLE	S09T001784		0 0		Americium-241	LIQUID	N/A	<9.8700E-02			0.0987	uCi/mL			U
Sample Sequence 7																
7	SAMPLE	S09T001796		0 0		Cobalt-60	LIQUID	N/A	<1.0900E-02			0.0109	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Niobium-94	LIQUID	N/A	<1.1400E-02			0.0114	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Ruthenium/Rhodium-106	LIQUID	N/A	<1.4200E+00			1.42	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Antimony-125	LIQUID	N/A	<4.6200E-01			0.462	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Cesium-134	LIQUID	N/A	<7.2100E-02			0.0721	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Cesium-137	LIQUID	N/A	2.1640E+02		4.23	0.116	uCi/mL			
7	SAMPLE	S09T001796		0 0		Cerium-144	LIQUID	N/A	<4.2100E-01			0.421	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Europium-152	LIQUID	N/A	<5.2700E-02			0.0527	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Europium-154	LIQUID	N/A	<2.9600E-02			0.0296	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Europium-155	LIQUID	N/A	<1.8300E-01			0.183	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Radium-226	LIQUID	N/A	<2.0900E+00			2.09	uCi/mL			U
7	SAMPLE	S09T001796		0 0		Americium-241	LIQUID	N/A	<9.7900E-02			0.0979	uCi/mL			U
Sample Sequence 8																
8	SAMPLE	S09T001808		0 0		Cobalt-60	LIQUID	N/A	<1.0500E-02			0.0105	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Niobium-94	LIQUID	N/A	<1.1300E-02			0.0113	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Ruthenium/Rhodium-106	LIQUID	N/A	<1.4100E+00			1.41	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Antimony-125	LIQUID	N/A	<4.6100E-01			0.461	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Cesium-134	LIQUID	N/A	<7.1500E-02			0.0715	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Cesium-137	LIQUID	N/A	2.1480E+02		4.23	0.108	uCi/mL			
8	SAMPLE	S09T001808		0 0		Cerium-144	LIQUID	N/A	<4.1900E-01			0.419	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Europium-152	LIQUID	N/A	<5.2400E-02			0.0524	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Europium-154	LIQUID	N/A	<3.0000E-02			0.03	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Europium-155	LIQUID	N/A	<1.8300E-01			0.183	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Radium-226	LIQUID	N/A	<2.0900E+00			2.09	uCi/mL			U
8	SAMPLE	S09T001808		0 0		Americium-241	LIQUID	N/A	<9.7100E-02			0.0971	uCi/mL			U
Sample Sequence 9																
9	DUP	S0903110007	S09T001808	0 0		Cobalt-60	LIQUID	<1.0500E-02	<1.1200E-02			0.0112	uCi/mL			
9	DUP	S0903110007	S09T001808	0 0		Niobium-94	LIQUID	<1.1300E-02	<1.0700E-02			0.0107	uCi/mL			
9	DUP	S0903110007	S09T001808	0 0		Ruthenium/Rhodium-106	LIQUID	<1.4100E+00	<1.4200E+00			1.42	uCi/mL			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013340

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
9	DUP	S0903110007	S09T001808	0 0		Antimony-125	LIQUID	<4.6100E-01	<4.6600E-01			0.466	uCi/mL			
9	DUP	S0903110007	S09T001808	0 0		Cesium-134	LIQUID	<7.1500E-02	<7.2900E-02			0.0729	uCi/mL			
9	DUP	S0903110007	S09T001808	0 0		Cesium-137	LIQUID	2.1480E+02	2.1880E+02		4.23	0.116	uCi/mL	1.8450	% RPD	
9	DUP	S0903110007	S09T001808	0 0		Cerium-144	LIQUID	<4.1900E-01	<4.2300E-01			0.423	uCi/mL			
9	DUP	S0903110007	S09T001808	0 0		Europium-152	LIQUID	<5.2400E-02	<5.1100E-02			0.0511	uCi/mL			
9	DUP	S0903110007	S09T001808	0 0		Europium-154	LIQUID	<3.0000E-02	<3.2700E-02			0.0327	uCi/mL			
9	DUP	S0903110007	S09T001808	0 0		Europium-155	LIQUID	<1.8300E-01	<1.8400E-01			0.184	uCi/mL			
9	DUP	S0903110007	S09T001808	0 0		Radium-226	LIQUID	<2.0900E+00	<2.1100E+00			2.11	uCi/mL			
9	DUP	S0903110007	S09T001808	0 0		Americium-241	LIQUID	<9.7100E-02	<9.8200E-02			0.0982	uCi/mL			

Comments Section:

Data Flagger Status:
Flagging Completed

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17 Mar 09

Reviewer Signature Date

RPP-RPT-40709 Rev. 1

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013340

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903110005	STD				
2	S0903110006	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001763	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001771	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
6	S09T001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
7	S09T001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
8	S09T001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
9	S0903110007	DUP	S09T001808			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Batch# 00013340

Analyst: h0074758 **Standard ID / Book#:** 31B64

Instrument:

Method: GEA, LA-548-121 Rev/Mod I-0

Prep Batch:

Batch Comment: AW106 EVAP3 for GEA. gll

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Niobium-94, Radium-226, Ruthenium/Rhodium-106					
2	BLNK		0		LIQUID		
	Analytes Requested:	Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Niobium-94, Radium-226, Ruthenium/Rhodium-106					
3	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Niobium-94, Radium-226, Ruthenium/Rhodium-106					
4	SAMPLE	S09T001763	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Niobium-94, Radium-226, Ruthenium/Rhodium-106					
5	SAMPLE	S09T001771	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Niobium-94, Radium-226, Ruthenium/Rhodium-106					
6	SAMPLE	S09T001784	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Niobium-94, Radium-226, Ruthenium/Rhodium-106					
7	SAMPLE	S09T001796	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Niobium-94, Radium-226, Ruthenium/Rhodium-106					
8	SAMPLE	S09T001808	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Niobium-94, Radium-226, Ruthenium/Rhodium-106					
9	DUP	S09T001808	0		LIQUID		
	Analytes Requested:	Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Niobium-94, Radium-226, Ruthenium/Rhodium-106					

Final Page for Batch# 00013340

Analyst Signature 3/12/09 Date

Data Entry Signature 3/17/9 Date

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Data Review Check List

Procedure LQ-508-105 Calibration of the Genie 2000 Gamma Energy Analysis System

Batch: 13340 Instrument: GEA 3		— Level 1 —			Level 2	Comments & Samples Affected
	Review Item	**Yes**	**No**	**N/A**		
	Standard Reference Material					
1	Was the certificate from standards lab checked for accuracy?	✓			✓	
2	Were the standard activities verified on an appropriate detector?	✓			✓	
3	Were the results sent to standards lab for standard approval?	✓			✓	
4	Is the Standards Laboratory Certificate data correctly entered as a certificate file?	✓			✓	
	Spectrum Collection					
5	Was the Instrument Check Standard counted and within limits before obtaining the calibration spectrum?	✓			✓	
6	Did the file name correspond to the convention specified by the calibration procedure?	✓			✓	
7	Was the CALIB library selected for peak and nuclide ID?	✓			✓	
8	Was the correct decay date entered?	✓			✓	
	Energy Calibration					
9	Are there a minimum of 5 peaks evenly spread over the energy region of interest?	✓			✓	
10	For an initial calibration was a full energy and shape calibration performed?	✓			✓	
11	Did all the peaks fit the energy vs channel graph?	✓			✓	
12	Was a graphical report printed for energy vs channel for the log book?	✓			✓	
13	If this was a full energy and peak shape calibration, was a graphical report printed of the full width half max and low tail shape fitting?	✓			✓	
	Efficiency Calibration					
14	Do the error bars for all isotopes encompass the calibration curve?	✓			✓	
15	Was a graphical report printed for energy vs efficiency for the log book?	✓			✓	
	Calibration Check	✓			✓	
16	Was the average radionuclide recovery for the recalculated calibration spectrum within 5% (1.96 Standard Deviations) of the mean standard value?	✓			✓	
17	Are all graphical reports posted in the detector log book and signed by the chemist?	✓			✓	
	Data Review					
18	Instrument check standards in limits before and after	✓			✓	
19	Background counts before and after are satisfactory	✓			✓	
20	Batch standard within limits	✓			✓	
21	Dead time below limits	✓			✓	
22	Decay correction applied where necessary	✓			✓	
23	Falsely identified radionuclides lined out and initialled	✓			✓	

1st Level Reviewer: John Relyea **Date:** 16 Mar 09

2nd Level Reviewer: K Jones **Date:** 16 Mar 09

GEA Data Collection Sheet

Worklist	Test Code	Matrix	Analyst	Date	Time
13340	GEA	Liquid	gel	3/12/09	0915

Det.#
3

Pipet ID #	Checked
3555735	☑
4171674	☑
	☐

Balance ID # N/A

Balance Check ☐

Type of Mounts	Std Book # Sample #	Sam Size G or Ml	Sample Dilution	GENIE File #
Standard	31B64	1.000	1.000	3G3239
Blank		1.0	1	3G3240
Sample	S09T001751	1.0	1	3G3241
Sample	S09T001763	1.0	1	3G3244
Sample	S09T001771	0.250	0.100-10	3g3245
Sample	S09T001784	0.250	0.100-10	3g3246
Sample	S09T001796	0.250	0.100-10	3g3247
Sample	S09T001808	0.250	0.100-10	3g3249
Duplicate	S09T001808	0.250	0.100-10	3g3250

Wrk. St. #4.C:\TRVLRS_EXCEL\GEA.xls

Comment: AW106 EVAP3

```
*************************************************************************
* 222-S Laboratory Counting Room  03/12/2009 15:34:02                   *
*************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13340
Sample ID:              31B64 STD
Sample Size:            1.000E+000 mL
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA3
File Number:            C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3239.CNF
Sample Geometry:        C2
Count Time:                 9000.0 seconds
Real Time:                  9003.8 seconds
Dead Time:                    0.04 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      03/12/2009  13:04:00
Decayed to:             02/27/2007  12:00:00
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\super.NLB
Analyst:                EMB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D03B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     09/17/2003 13:49:16
 Date of last efficiency calibration: 11/16/2004 08:48:54

*************************************************************************
*****          P E A K   W I T H   N I D   R E P O R T            *****
*************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\super.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error     Nuclide

    1    41-   54    45.57   1.55    22.83  1.57E+002      81.76     .....
M   2    55-   82    64.39   1.40    32.24  3.38E+003       3.91     TE-125m
                                                                     I-129
m   3    55-   82    73.14   1.41    36.62  7.45E+002      10.34     TE-125m
    4   116-  123   119.52   1.11    59.81  2.17E+002      45.54     AM-241
    5  1313- 1329  1323.62   1.71   661.90  1.27E+004       1.91     CS-137
    6  2333- 2355  2346.49   2.12  1173.37  6.50E+003       2.76     CO-60
    7  2655- 2673  2664.98   2.18  1332.63  5.94E+003       2.67     CO-60

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : 31B64 STD Acquisition Date: 03/12/2009 13:04:00

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
CO-60	5.27Y	1.31	3.454E-003	4.516E-003	1.36E-004	3.00
CS-137	30.17Y	1.05	4.731E-003	4.958E-003	2.30E-004	4.63
AM-241	432.19Y	1.00	4.418E-005	4.433E-005	2.03E-005	45.84

Minimum Detectable Activity Report Page 3
Sample ID : 31B64 STD Acquisition Date 03/12/2009 13:04:00

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BE-7	1696.00	477.59	6.83E+000
	NA-22	161.00	1274.54	6.01E-005
@	NA-24	0.00	1368.53	1.00E+015
@	AL-28	0.00	1778.00	1.00E+015
@	CL-38	0.00	1642.71	1.00E+015
	K-40	467.00	1460.81	6.17E-004
@	AR-41	0.00	1293.64	1.00E+015
	SC-46	998.00	1120.51	3.22E-002
	CR-51	1693.00	320.08	3.96E+004
	MN-54	872.00	834.83	2.84E-004
	CO-56	927.00	846.76	4.58E-002
@	MN-56	0.00	846.75	1.00E+015
	CO-57	2009.00	122.06	1.33E-004
	CO-58	834.00	810.76	7.63E-002
	FE-59	183.00	1099.22	1.36E+001
+	CO-60	0.00	1332.49*	5.06E-005
@	CU-64	0.00	1345.80	1.00E+015
	ZN-65	899.00	1115.52	1.16E-003
@	CU-66	0.00	1039.20	1.00E+015
	SE-75	2078.00	264.65	3.79E-003
@	SE-79m	0.00	95.73	1.00E+015
	KR-85	1624.00	513.99	1.27E-002
	SR-85	1624.00	513.99	1.38E-001
	Y-88	48.00	1836.01	3.45E-003
	Y-91	325.00	1204.67	1.05E+002
	NB-94	770.00	871.10	5.98E-005
	ZRNB-95	859.00	765.79	3.17E-001
	RU-103	1353.00	497.08	2.35E+001
	RURH-106	879.00	621.84	3.38E-003
	AG-108m	1858.00	722.94	5.12E-005
	CD-109	1970.00	88.03	1.22E-003
	AG-110m	1038.00	657.75	1.43E-003
	SN-113	1639.00	391.69	5.13E-003
	TE-123m	2191.00	159.00	1.84E-003
	SB-124	907.00	602.71	2.23E-001
	SB-125	1855.00	427.89	2.46E-004
	TE-125m	2474.00	27.30	5.59E-001
	Sb-126	702.00	695.00	4.17E-005
	SN-126	2009.00	87.50	3.29E-005
	I-129	5473.00	39.58	2.95E-004
@	I-131	0.00	364.48	1.00E+015
	XE-131m	2160.00	163.93	8.89E+015

Minimum Detectable Activity Report Page 4
Sample ID : 31B64 STD Acquisition Date 03/12/2009 13:04:00

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BA-133	1972.00	356.01	6.72E-005
	CS-134	986.00	604.70	8.83E-005
	CS-136	876.00	818.50	5.66E+012
+	CS-137	112.24	661.65*	5.87E-005
@	CS-138	0.00	1435.86	1.00E+015
	CE-139	2144.00	165.85	1.11E-003
	BA-140	1211.00	537.32	5.65E+013
	LA-140	47.00	1596.49	8.16E+012
	CE-141	1978.00	145.44	3.00E+002
	CE-144	2057.00	133.54	9.98E-004
	CEPR-144	2057.00	133.54	1.99E-003
	EU-152	1992.00	1407.95	1.42E-004
	EU-154	2025.00	1274.51	1.20E-004
	EU-155	2015.00	105.31	9.57E-005
	HF-181	2085.00	482.18	1.04E+001
	TA-182	1666.00	1121.30	1.76E-002
@	AU-198	0.00	411.80	1.00E+015
	HG-203	1992.00	279.19	2.55E+000
	BI-207	960.00	1063.66	9.09E-005
	TL-208	976.00	583.19	1.04E-004
	PB-210	1754.00	46.54	4.37E-004
	BI-212	824.00	727.17	3.98E-004
	PB-212	2620.00	238.63	6.91E-005
	BI-214	1000.00	609.31	9.52E-005
	PB-214	1654.00	351.92	9.25E-005
@	RA-224	0.00	240.99	1.00E+015
	RA-226	2367.00	186.21	7.36E-004
	AC-228	1132.00	911.60	2.42E-004
	TH-228	2014.00	84.37	2.48E-003
	TH-229	1974.00	100.00	1.35E-004
	U-232	2018.00	57.78	7.99E-003
	PA-233	1807.00	312.17	1.69E+004
	UTH-233	1974.00	245.34	2.77E-002
	PA-234m	884.00	1001.03	9.93E-003
	TH-234	2049.00	63.29	3.88E-004
	U-235	2373.00	185.71	4.46E-005
	NP-237	2015.00	86.48	1.22E-004
@	U-237	0.00	101.07	1.00E+015
@	NP-238	0.00	984.45	1.00E+015
@	NP-239	0.00	106.12	1.00E+015
	PU-239	1904.00	129.30	2.86E-001
+	AM-241	36.67	59.54*	3.22E-005
	AM-243	2111.00	74.67	2.54E-005

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Nuclide Identification Report 03/12/2009 15:34:02 Page 5

****
***** N U C L I D E I D E N T I F I C A T I O N R E P O R T *****
****

Sample Title: 31B64 STD
Nuclide Library Used: C:\GENIE2K\CAMFILES\super.NLB
File Number: C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3239.CNF
Detector ID: GEA3
Sample Geometry: C2

..... IDENTIFIED NUCLIDES .....

Nuclide Name	Energy (keV)	Yield (%)	Activity (uCi/mL)	Uncertainty %
CO-60	1173.22*	100.00	4.468E-003	4.24
	1332.49*	100.00	4.565E-003	4.25
CS-137	661.65*	85.12	4.958E-003	4.63
AM-241	59.54*	35.90	4.433E-005	45.84

* = Energy line found in the spectrum.
Energy Tolerance : 1.500 keV
Nuclide confidence index threshold = 0.30
Errors quoted at 2.000 sigma

```
**************************************************************************
* 222-S Laboratory Counting Room  03/12/2009 18:31:46                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13340
Sample ID:              13340-BLANK
Sample Size:            1.000E+000 mL
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA3
File Number:            C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3240.CNF
Sample Geometry:        C2
Count Time:                 9000.0 seconds
Real Time:                  9000.9 seconds
Dead Time:                    0.01 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      03/12/2009  16:01:46
Decayed to:             03/12/2009  16:01:46
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\super.NLB
Analyst:                EMB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D03B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     09/17/2003 13:49:16
 Date of last efficiency calibration: 11/16/2004 08:48:54

No peak analysis results available for reporting purposes
```

Summary of Nuclide Activity Page 2
Sample ID : 13340-BLANK Acquisition Date: 03/12/2009 16:01:46

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error

Minimum Detectable Activity Report Page 3
Sample ID : 13340-BLANK Acquisition Date 03/12/2009 16:01:46

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
BE-7	287.00	477.59	1.85E-004
NA-22	88.00	1274.54	2.62E-005
NA-24	52.00	1368.53	2.31E-005
AL-28	24.00	1778.00	8.68E-004
CL-38	24.00	1642.71	1.68E-004
K-40	463.00	1460.81	6.14E-004
AR-41	77.00	1293.64	3.89E-005
SC-46	144.00	1120.51	2.85E-005
CR-51	403.00	320.08	1.61E-004
MN-54	135.00	834.83	2.21E-005
CO-56	145.00	846.76	2.32E-005
MN-56	145.00	846.75	3.22E-005
CO-57	552.00	122.06	1.05E-005
CO-58	154.00	810.76	2.31E-005
FE-59	126.00	1099.22	4.83E-005
CO-60	81.00	1332.49	2.62E-005
CU-64	63.00	1345.80	5.35E-003
ZN-65	136.00	1115.52	5.65E-005
CU-66	104.00	1039.20	5.22E-003
SE-75	574.00	264.65	2.46E-005
SE-79m	597.00	95.73	2.35E-003
KR-85	515.00	513.99	6.35E-003
SR-85	515.00	513.99	2.75E-005
Y-88	24.00	1836.01	2.00E-005
Y-91	120.00	1204.67	9.64E-003
NB-94	177.00	871.10	2.48E-005
ZRNB-95	174.00	765.79	4.64E-005
RU-103	239.00	497.08	2.05E-005
RURH-106	181.00	621.84	3.94E-004
AG-108m	310.00	722.94	2.55E-005
CD-109	639.00	88.03	2.31E-004
AG-110m	315.00	657.75	2.84E-005
SN-113	322.00	391.69	2.62E-005
TE-123m	615.00	159.00	1.32E-005
SB-124	219.00	602.71	2.13E-005
SB-125	304.00	427.89	6.10E-005
TE-125m	542.00	27.30	2.13E-005
Sb-126	268.00	695.00	2.17E-005
SN-126	645.00	87.50	1.88E-005
I-129	581.00	39.58	1.40E-004
I-131	335.00	364.48	2.01E-005
XE-131m	589.00	163.93	5.68E-004

Minimum Detectable Activity Report
Sample ID : 13340-BLANK Acquisition Date 03/12/2009 16:01:46

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
BA-133	601.00	356.01	3.04E-005
CS-134	300.00	604.70	2.49E-005
CS-136	158.00	818.50	2.36E-005
CS-137	312.00	661.65	3.16E-005
CS-138	49.00	1435.86	9.76E-005
CE-139	607.00	165.85	1.41E-005
BA-140	231.00	537.32	7.73E-005
LA-140	49.00	1596.49	2.55E-005
CE-141	552.00	145.44	2.06E-005
CE-144	572.00	133.54	8.67E-005
CEPR-144	572.00	133.54	1.73E-004
EU-152	547.00	1407.95	1.19E-004
EU-154	551.00	1274.51	7.62E-005
EU-155	650.00	105.31	3.67E-005
HF-181	559.00	482.18	2.35E-005
TA-182	543.00	1121.30	8.17E-005
AU-198	276.00	411.80	1.75E-005
HG-203	488.00	279.19	2.00E-005
BI-207	221.00	1063.66	3.43E-005
TL-208	243.00	583.19	2.52E-005
PB-210	505.00	46.54	2.23E-004
BI-212	193.00	727.17	1.97E-004
PB-212	654.00	238.63	3.49E-005
BI-214	315.00	609.31	5.41E-005
PB-214	455.00	351.92	4.91E-005
RA-224	642.00	240.99	3.96E-004
RA-226	623.00	186.21	3.81E-004
AC-228	163.00	911.60	9.45E-005
TH-228	657.00	84.37	6.82E-004
TH-229	625.00	100.00	6.85E-005
U-232	534.00	57.78	4.07E-003
PA-233	399.00	312.17	4.00E-005
UTH-233	625.00	245.34	1.38E-002
PA-234m	112.00	1001.03	3.66E-003
TH-234	610.00	63.29	2.18E-004
U-235	625.00	185.71	2.31E-005
NP-237	650.00	86.48	6.97E-005
U-237	510.00	101.07	3.17E-005
NP-238	104.00	984.45	8.27E-005
NP-239	491.00	106.12	3.65E-005
PU-239	487.00	129.30	1.45E-001
AM-241	546.00	59.54	2.27E-005
AM-243	770.00	74.67	1.55E-005

\+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

```
**************************************************************************
* 222-S Laboratory Counting Room  03/12/2009 22:46:08                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13340
Sample ID:              S09T001751
Sample Size:            1.000E+000 mL
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA3
File Number:            C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3241.CNF
Sample Geometry:        C2
Count Time:                9000.0 seconds
Real Time:                 9000.9 seconds
Dead Time:                   0.01 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      03/12/2009  20:16:09
Decayed to:             03/12/2009  20:16:09
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\super.NLB
Analyst:                VAR
Background Subtract:    C:\PCNT2K\BKGFILES\G00D03B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     09/17/2003 13:49:16
 Date of last efficiency calibration: 11/16/2004 08:48:54

**************************************************************************
*****          P E A K    W I T H   N I D    R E P O R T             *****
**************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\super.NLB
     Peak Match Tolerance :     1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error     Nuclide

    1  1317- 1329  1323.79   1.72   661.99  4.01E+001     120.65     CS-137

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001751 Acquisition Date: 03/12/2009 20:16:09

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
CS-137	30.17Y	1.00	1.493E-005	1.493E-005	1.80E-005	120.73

Minimum Detectable Activity Report Page 3
Sample ID : S09T001751 Acquisition Date 03/12/2009 20:16:09

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
BE-7	274.00	477.59	1.81E-004
NA-22	73.00	1274.54	2.40E-005
NA-24	66.00	1368.53	2.58E-005
AL-28	16.00	1778.00	7.26E-004
CL-38	33.00	1642.71	1.94E-004
K-40	486.00	1460.81	6.29E-004
AR-41	74.00	1293.64	3.82E-005
SC-46	133.00	1120.51	2.98E-005
CR-51	406.00	320.08	1.62E-004
MN-54	156.00	834.83	2.37E-005
CO-56	117.00	846.76	2.10E-005
MN-56	117.00	846.75	2.91E-005
CO-57	529.00	122.06	1.03E-005
CO-58	147.00	810.76	2.26E-005
FE-59	99.00	1099.22	4.31E-005
CO-60	69.00	1332.49	2.43E-005
CU-64	67.00	1345.80	5.51E-003
ZN-65	144.00	1115.52	5.81E-005
CU-66	112.00	1039.20	5.41E-003
SE-75	564.00	264.65	2.54E-005
SE-79m	627.00	95.73	2.40E-003
KR-85	535.00	513.99	6.47E-003
SR-85	535.00	513.99	2.80E-005
Y-88	19.00	1836.01	1.80E-005
Y-91	126.00	1204.67	9.86E-003
NB-94	193.00	871.10	2.30E-005
ZRNB-95	180.00	765.79	4.71E-005
RU-103	231.00	497.08	2.02E-005
RURH-106	194.00	621.84	4.07E-004
AG-108m	298.00	722.94	2.54E-005
CD-109	666.00	88.03	2.36E-004
AG-110m	362.00	657.75	3.04E-005
SN-113	318.00	391.69	2.60E-005
TE-123m	649.00	159.00	1.36E-005
SB-124	211.00	602.71	2.09E-005
SB-125	287.00	427.89	5.93E-005
TE-125m	588.00	27.30	2.22E-005
Sb-126	273.00	695.00	2.11E-005
SN-126	677.00	87.50	1.93E-005
I-129	596.00	39.58	1.44E-004
I-131	332.00	364.48	2.00E-005
XE-131m	628.00	163.93	5.86E-004

Minimum Detectable Activity Report
Sample ID : S09T001751 Acquisition Date 03/12/2009 20:16:09

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BA-133	598.00	356.01	3.13E-005
	CS-134	313.00	604.70	2.54E-005
	CS-136	149.00	818.50	2.29E-005
+	CS-137	112.24	661.65*	2.96E-005
	CS-138	52.00	1435.86	1.00E-004
	CE-139	582.00	165.85	1.39E-005
	BA-140	218.00	537.32	7.51E-005
	LA-140	53.00	1596.49	2.64E-005
	CE-141	550.00	145.44	2.05E-005
	CE-144	549.00	133.54	8.50E-005
	CEPR-144	549.00	133.54	1.70E-004
	EU-152	528.00	1407.95	1.22E-004
	EU-154	530.00	1274.51	6.98E-005
	EU-155	682.00	105.31	3.92E-005
	HF-181	554.00	482.18	2.43E-005
	TA-182	523.00	1121.30	8.59E-005
	AU-198	288.00	411.80	1.79E-005
	HG-203	491.00	279.19	2.00E-005
	BI-207	202.00	1063.66	3.43E-005
	TL-208	275.00	583.19	2.67E-005
	PB-210	525.00	46.54	2.27E-004
	BI-212	182.00	727.17	1.91E-004
	PB-212	642.00	238.63	3.46E-005
	BI-214	313.00	609.31	5.40E-005
	PB-214	462.00	351.92	4.95E-005
	RA-224	628.00	240.99	3.92E-004
	RA-226	727.00	186.21	4.11E-004
	AC-228	168.00	911.60	9.58E-005
	TH-228	685.00	84.37	6.96E-004
	TH-229	683.00	100.00	7.40E-005
	U-232	493.00	57.78	3.92E-003
	PA-233	457.00	312.17	4.27E-005
	UTH-233	683.00	245.34	1.35E-002
	PA-234m	120.00	1001.03	3.78E-003
	TH-234	673.00	63.29	2.23E-004
	U-235	735.00	185.71	2.51E-005
	NP-237	682.00	86.48	7.14E-005
	U-237	593.00	101.07	3.41E-005
	NP-238	106.00	984.45	8.35E-005
	NP-239	560.00	106.12	3.78E-005
	PU-239	548.00	129.30	1.49E-001
	AM-241	528.00	59.54	2.23E-005
	AM-243	749.00	74.67	1.52E-005

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

```
**********************************************************************
* 222-S Laboratory Counting Room  03/13/2009 04:29:51                *
**********************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13340
Sample ID:              S09T001763
Sample Size:            1.000E+000 mL
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA3
File Number:            C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3244.CNF
Sample Geometry:        C2
Count Time:                9000.0 seconds
Real Time:                 9000.9 seconds
Dead Time:                   0.01 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      03/13/2009  01:59:52
Decayed to:             03/13/2009  01:59:52
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\super.NLB
Analyst:                VAR
Background Subtract:    C:\PCNT2K\BKGFILES\G00D03B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     09/17/2003 13:49:16
 Date of last efficiency calibration: 11/16/2004 08:48:54

**********************************************************************
*****           P E A K   W I T H   N I D   R E P O R T          *****
**********************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\super.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error     Nuclide

    1  1014- 1033  1022.66   2.11   511.41  6.76E+001     110.14     TL-208
    2  1317- 1328  1323.74   1.25   661.96  4.98E+001      91.02     CS-137

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001763 Acquisition Date: 03/13/2009 01:59:52

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
CS-137	30.17Y	1.00	1.851E-005	1.851E-005	1.69E-005	91.12

Minimum Detectable Activity Report
Sample ID : S09T001763 Acquisition Date 03/13/2009 01:59:52

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
BE-7	274.00	477.59	1.81E-004
NA-22	82.00	1274.54	2.54E-005
NA-24	72.00	1368.53	2.69E-005
AL-28	32.00	1778.00	9.88E-004
CL-38	32.00	1642.71	1.91E-004
K-40	485.00	1460.81	6.28E-004
AR-41	84.00	1293.64	4.06E-005
SC-46	137.00	1120.51	3.26E-005
CR-51	437.00	320.08	1.68E-004
MN-54	144.00	834.83	2.28E-005
CO-56	140.00	846.76	2.28E-005
MN-56	140.00	846.75	3.16E-005
CO-57	575.00	122.06	1.07E-005
CO-58	145.00	810.76	2.24E-005
FE-59	117.00	1099.22	4.67E-005
CO-60	68.00	1332.49	2.42E-005
CU-64	56.00	1345.80	5.07E-003
ZN-65	174.00	1115.52	6.36E-005
CU-66	111.00	1039.20	5.38E-003
SE-75	569.00	264.65	2.59E-005
SE-79m	640.00	95.73	2.43E-003
KR-85	549.00	513.99	6.55E-003
SR-85	549.00	513.99	2.84E-005
Y-88	24.00	1836.01	2.00E-005
Y-91	117.00	1204.67	9.52E-003
NB-94	167.00	871.10	2.37E-005
ZRNB-95	161.00	765.79	4.47E-005
RU-103	236.00	497.08	2.04E-005
RURH-106	206.00	621.84	4.19E-004
AG-108m	282.00	722.94	2.49E-005
CD-109	710.00	88.03	2.44E-004
AG-110m	355.00	657.75	3.01E-005
SN-113	305.00	391.69	2.55E-005
TE-123m	655.00	159.00	1.36E-005
SB-124	202.00	602.71	2.05E-005
SB-125	310.00	427.89	6.16E-005
TE-125m	599.00	27.30	2.24E-005
Sb-126	156.00	695.00	2.01E-005
SN-126	693.00	87.50	1.95E-005
I-129	606.00	39.58	1.39E-004
I-131	337.00	364.48	2.01E-005
XE-131m	619.00	163.93	5.82E-004

Minimum Detectable Activity Report
Sample ID : S09T001763 Acquisition Date 03/13/2009 01:59:52

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BA-133	675.00	356.01	3.15E-005
	CS-134	281.00	604.70	2.41E-005
	CS-136	146.00	818.50	2.27E-005
+	CS-137	112.24	661.65*	2.73E-005
	CS-138	42.00	1435.86	9.09E-005
	CE-139	635.00	165.85	1.45E-005
	BA-140	241.00	537.32	7.89E-005
	LA-140	47.00	1596.49	2.50E-005
	CE-141	568.00	145.44	2.09E-005
	CE-144	590.00	133.54	8.81E-005
	CEPR-144	590.00	133.54	1.76E-004
	EU-152	584.00	1407.95	1.10E-004
	EU-154	572.00	1274.51	7.37E-005
	EU-155	720.00	105.31	3.82E-005
	HF-181	598.00	482.18	2.28E-005
	TA-182	510.00	1121.30	9.29E-005
	AU-198	334.00	411.80	1.92E-005
	HG-203	523.00	279.19	2.06E-005
	BI-207	205.00	1063.66	3.57E-005
	TL-208	252.00	583.19	2.56E-005
	PB-210	534.00	46.54	2.29E-004
	BI-212	181.00	727.17	1.91E-004
	PB-212	674.00	238.63	3.54E-005
	BI-214	289.00	609.31	5.19E-005
	PB-214	492.00	351.92	5.10E-005
	RA-224	662.00	240.99	4.02E-004
	RA-226	591.00	186.21	3.72E-004
	AC-228	185.00	911.60	1.00E-004
	TH-228	718.00	84.37	7.12E-004
	TH-229	687.00	100.00	7.15E-005
	U-232	513.00	57.78	3.99E-003
	PA-233	432.00	312.17	4.15E-005
	UTH-233	687.00	245.34	1.35E-002
	PA-234m	112.00	1001.03	3.66E-003
	TH-234	667.00	63.29	2.13E-004
	U-235	596.00	185.71	2.26E-005
	NP-237	720.00	86.48	7.33E-005
	U-237	498.00	101.07	3.13E-005
	NP-238	102.00	984.45	8.20E-005
	NP-239	537.00	106.12	3.70E-005
	PU-239	533.00	129.30	1.49E-001
	AM-241	497.00	59.54	2.17E-005
	AM-243	833.00	74.67	1.61E-005

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

```
**************************************************************************
* 222-S Laboratory Counting Room  03/13/2009 08:13:14                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13340
Sample ID:              S09T0001771
Sample Size:            2.500E-001 mL
Dilution Factor:        1.010E+002

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA3
File Number:            C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3245.CNF
Sample Geometry:        C2
Count Time:                9000.0 seconds
Real Time:                 9111.6 seconds
Dead Time:                   1.23 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      03/13/2009  05:41:24
Decayed to:             03/13/2009  05:41:24
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\super.NLB
Analyst:                MB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D03B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     09/17/2003 13:49:16
 Date of last efficiency calibration: 11/16/2004 08:48:54

**************************************************************************
*****          P E A K   W I T H   N I D   R E P O R T            *****
**************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\super.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error     Nuclide

 M  1    36-   79    46.75   1.64    23.42  2.42E+004      1.45      .....
 m  2    36-   79    58.23   1.66    29.17  7.61E+004      0.81      I-129
 m  3    36-   79    64.11   1.67    32.10  4.03E+005      0.32      TE-125m
                                                                    I-129
 m  4    36-   79    72.98   1.68    36.54  1.02E+005      0.71      TE-125m
    5   934-  961   948.09   6.98   474.13  1.55E+004     10.62      CS-134
    6  1296- 1306  1302.85   1.70   651.51  3.04E+002     90.21      .....
    7  1309- 1337  1323.45   1.75   661.82  1.38E+006      0.17      CS-137
    8  2235- 2245  2240.63   1.62  1120.44  3.96E+001     79.29      SC-46
                                                                    BI-214
                                                                    TA-182

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T0001771 Acquisition Date: 03/13/2009 05:41:24

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	8.959E+000	8.959E+000	9.60E-001	10.71
CS-137	30.17Y	1.00	2.080E+002	2.080E+002	8.79E+000	4.23

Minimum Detectable Activity Report Page 3
Sample ID : S09T0001771 Acquisition Date 03/13/2009 05:41:24

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BE-7	107561.0	477.59	1.40E+000
	NA-22	97.00	1274.54	1.11E-002
	NA-24	73.00	1368.53	1.09E-002
	AL-28	29.00	1778.00	3.87E-001
	CL-38	21.00	1642.71	6.46E-002
	K-40	482.00	1460.81	2.53E-001
	AR-41	97.00	1293.64	1.76E-002
	SC-46	158.00	1120.51	1.52E-002
	CR-51	80176.00	320.08	8.95E-001
	MN-54	206.00	834.83	1.09E-002
	CO-56	194.00	846.76	1.08E-002
	MN-56	194.00	846.75	1.50E-002
	CO-57	83186.00	122.06	5.11E-002
	CO-58	174.00	810.76	9.89E-003
	FE-59	157.00	1099.22	2.17E-002
	CO-60	77.00	1332.49	1.03E-002
	CU-64	84.00	1345.80	2.48E+000
	ZN-65	237.00	1115.52	2.98E-002
	CU-66	144.00	1039.20	2.49E+000
	SE-75	82689.00	264.65	1.34E-001
	SE-79m	76295.00	95.73	1.06E+001
	KR-85	57165.00	513.99	2.64E+001
	SR-85	57165.00	513.99	1.14E-001
	Y-88	26.00	1836.01	8.36E-003
	Y-91	145.00	1204.67	4.26E+000
	NB-94	263.00	871.10	1.11E-002
	ZRNB-95	216.00	765.79	2.08E-002
	RU-103	63450.00	497.08	1.30E-001
	RURH-106	15052.00	621.84	1.40E+000
	AG-108m	252.00	722.94	1.17E-002
	CD-109	76946.00	88.03	1.00E+000
	AG-110m	180.00	657.75	7.37E-001
	SN-113	85961.00	391.69	1.68E-001
	TE-123m	89487.00	159.00	6.31E-002
	SB-124	34.00	602.71	7.03E-002
	SB-125	15796.00	427.89	4.55E-001
	TE-125m	151974.0	27.30	1.41E-001
	Sb-126	484.00	695.00	1.40E-002
	SN-126	484.00	87.50	8.12E-002
+	I-129	0.00	39.58	8.86E-001
	I-131	81101.00	364.48	1.23E-001
	XE-131m	88867.00	163.93	2.76E+000

Minimum Detectable Activity Report
Sample ID : S09T0001771 Acquisition Date 03/13/2009 05:41:24

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BA-133	75706.00	356.01	1.61E-001
	CS-134	283.00	604.70	7.06E-002
	CS-136	166.00	818.50	9.75E-003
+	CS-137	112.24	661.65*	1.13E-001
	CS-138	65.00	1435.86	4.54E-002
	CE-139	88658.00	165.85	6.76E-002
	BA-140	39085.00	537.32	3.92E-001
	LA-140	45.00	1596.49	9.91E-003
	CE-141	81169.00	145.44	9.86E-002
	CE-144	83186.00	133.54	4.13E-001
	CEPR-144	83186.00	133.54	8.26E-001
	EU-152	74.00	1407.95	5.15E-002
	EU-154	97.00	1274.51	3.22E-002
	EU-155	76797.00	105.31	1.80E-001
	HF-181	83170.00	482.18	1.64E-001
	TA-182	230.00	1121.30	4.29E-002
	AU-198	92144.00	411.80	1.25E-001
	HG-203	87419.00	279.19	1.05E-001
	BI-207	141.00	1063.66	1.53E-002
	TL-208	18013.00	583.19	8.47E-002
	PB-210	63532.00	46.54	9.86E-001
	BI-212	255.00	727.17	9.08E-002
	PB-212	105409.0	238.63	1.75E-001
	BI-214	68.00	609.31	1.49E-001
	PB-214	80485.00	351.92	2.57E-001
	RA-224	104088.0	240.99	1.99E+000
	RA-226	115716.0	186.21	2.05E+000
	AC-228	218.00	911.60	4.39E-002
	TH-228	76641.00	84.37	2.91E+000
	TH-229	76959.00	100.00	3.40E-001
	U-232	62726.00	57.78	1.74E+001
	PA-233	76205.00	312.17	2.24E-001
	UTH-233	76959.00	245.34	7.14E+001
	PA-234m	158.00	1001.03	1.74E+000
	TH-234	76404.00	63.29	8.92E-001
	U-235	113813.0	185.71	1.24E-001
	NP-237	76797.00	86.48	3.00E-001
	U-237	75906.00	101.07	1.52E-001
	NP-238	140.00	984.45	3.85E-002
	NP-239	76765.00	106.12	1.75E-001
	PU-239	76062.00	129.30	7.23E+002
	AM-241	62243.00	59.54	9.57E-002
	AM-243	76624.00	74.67	6.11E-002

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

```
**********************************************************************
* 222-S Laboratory Counting Room  03/13/2009 11:14:15                *
**********************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13340
Sample ID:              S09T001784
Sample Size:            2.500E-001 mL
Dilution Factor:        1.010E+002

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA3
File Number:            C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3246.CNF
Sample Geometry:        C2
Count Time:                9000.0 seconds
Real Time:                 9118.8 seconds
Dead Time:                   1.30 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      03/13/2009  08:42:18
Decayed to:             03/13/2009  08:42:18
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\super.NLB
Analyst:                MB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D03B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     09/17/2003 13:49:16
 Date of last efficiency calibration: 11/16/2004 08:48:54

**********************************************************************
*****           P E A K   W I T H   N I D   R E P O R T          *****
**********************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\super.NLB
     Peak Match Tolerance :     1.50 keV
```

	Peak No.	ROI Start	ROI End	Peak Centroid	FWHM (keV)	Energy (keV)	Net Peak Area	2.00-Sigma % Error	Tentative Nuclide
M	1	36-	81	46.96	1.65	23.53	2.64E+004	1.38	.....
m	2	36-	81	58.23	1.68	29.16	8.22E+004	0.77	I-129
m	3	36-	81	64.10	1.68	32.10	4.29E+005	0.31	TE-125m
m	4	36-	81	72.98	1.70	36.54	1.10E+005	0.67	TE-125m
	5	1298-	1307	1303.06	1.96	651.62	6.53E+002	40.46	.....
	6	1309-	1337	1323.43	1.75	661.81	1.47E+006	0.17	CS-137
	7	1588-	1597	1590.90	0.81	795.55	2.50E+001	126.49	CS-134 AC-228
	8	3522-	3535	3528.10	2.09	1764.22	2.93E+001	69.23	BI-214

```
M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001784 Acquisition Date: 03/13/2009 08:42:18

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	9.076E+000	9.076E+000	1.04E+000	11.44
CS-137	30.17Y	1.00	2.210E+002	2.210E+002	9.34E+000	4.23

Minimum Detectable Activity Report
Sample ID : S09T001784 Acquisition Date 03/13/2009 08:42:18

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BE-7	114414.0	477.59	1.44E+000
	NA-22	99.00	1274.54	1.12E-002
	NA-24	70.00	1368.53	1.07E-002
	AL-28	23.00	1778.00	3.49E-001
	CL-38	35.00	1642.71	8.13E-002
	K-40	484.00	1460.81	2.53E-001
	AR-41	94.00	1293.64	1.74E-002
	SC-46	171.00	1120.51	1.39E-002
	CR-51	85213.00	320.08	9.22E-001
	MN-54	203.00	834.83	1.09E-002
	CO-56	214.00	846.76	1.13E-002
	MN-56	214.00	846.75	1.57E-002
	CO-57	88705.00	122.06	5.28E-002
	CO-58	168.00	810.76	9.73E-003
	FE-59	162.00	1099.22	2.20E-002
	CO-60	79.00	1332.49	1.05E-002
	CU-64	64.00	1345.80	2.18E+000
	ZN-65	191.00	1115.52	2.69E-002
	CU-66	137.00	1039.20	2.43E+000
	SE-75	87755.00	264.65	1.38E-001
	SE-79m	81341.00	95.73	1.10E+001
	KR-85	59566.00	513.99	2.70E+001
	SR-85	59566.00	513.99	1.17E-001
	Y-88	34.00	1836.01	9.44E-003
	Y-91	141.00	1204.67	4.20E+000
	NB-94	262.00	871.10	1.10E-002
	ZRNB-95	225.00	765.79	2.12E-002
	RU-103	67144.00	497.08	1.34E-001
	RURH-106	16006.00	621.84	1.44E+000
	AG-108m	270.00	722.94	1.21E-002
	CD-109	81894.00	88.03	1.04E+000
	AG-110m	146.00	657.75	7.60E-001
	SN-113	91194.00	391.69	1.73E-001
	TE-123m	94549.00	159.00	6.49E-002
	SB-124	29.00	602.71	7.28E-002
	SB-125	16900.00	427.89	4.70E-001
	TE-125m	161613.0	27.30	1.45E-001
	Sb-126	481.00	695.00	1.40E-002
	SN-126	481.00	87.50	8.39E-002
+	I-129	0.00	39.58	9.11E-001
	I-131	86093.00	364.48	1.26E-001
	XE-131m	93989.00	163.93	2.84E+000

Minimum Detectable Activity Report
Sample ID : S09T001784 Acquisition Date 03/13/2009 08:42:18

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BA-133	80198.00	356.01	1.66E-001
	CS-134	268.00	604.70	7.33E-002
	CS-136	189.00	818.50	1.04E-002
+	CS-137	112.24	661.65*	1.18E-001
	CS-138	50.00	1435.86	4.02E-002
	CE-139	93597.00	165.85	6.94E-002
	BA-140	41451.00	537.32	4.04E-001
	LA-140	51.00	1596.49	1.05E-002
	CE-141	86279.00	145.44	1.02E-001
	CE-144	88424.00	133.54	4.26E-001
	CEPR-144	88424.00	133.54	8.52E-001
	EU-152	78.00	1407.95	5.27E-002
	EU-154	99.00	1274.51	3.25E-002
	EU-155	81979.00	105.31	1.85E-001
	HF-181	88441.00	482.18	1.69E-001
	TA-182	195.00	1121.30	3.96E-002
	AU-198	98270.00	411.80	1.29E-001
	HG-203	92605.00	279.19	1.08E-001
	BI-207	139.00	1063.66	1.52E-002
	TL-208	189.00	583.19	8.73E-002
	PB-210	67923.00	46.54	1.02E+000
	BI-212	254.00	727.17	9.06E-002
	PB-212	112691.0	238.63	1.81E-001
	BI-214	81.00	609.31	1.56E-001
	PB-214	84635.00	351.92	2.64E-001
	RA-224	111187.0	240.99	2.06E+000
	RA-226	122555.0	186.21	2.11E+000
	AC-228	231.00	911.60	4.51E-002
	TH-228	81671.00	84.37	3.01E+000
	TH-229	82014.00	100.00	3.50E-001
	U-232	66473.00	57.78	1.80E+001
	PA-233	81021.00	312.17	2.31E-001
	UTH-233	82014.00	245.34	7.39E+001
	PA-234m	150.00	1001.03	1.70E+000
	TH-234	81556.00	63.29	9.16E-001
	U-235	120754.0	185.71	1.27E-001
	NP-237	81979.00	86.48	3.10E-001
	U-237	80844.00	101.07	1.57E-001
	NP-238	146.00	984.45	3.93E-002
	NP-239	81485.00	106.12	1.80E-001
	PU-239	80957.00	129.30	7.44E+002
	AM-241	66139.00	59.54	9.87E-002
	AM-243	79991.00	74.67	6.25E-002

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

```
**********************************************************************
* 222-S Laboratory Counting Room  03/13/2009 13:48:24                *
**********************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13340
Sample ID:              S09T001796
Sample Size:            2.500E-001 mL
Dilution Factor:        1.010E+002

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA3
File Number:            C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3247.CNF
Sample Geometry:        C2
Count Time:                 9000.0 seconds
Real Time:                  9115.9 seconds
Dead Time:                    1.27 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      03/13/2009  11:16:30
Decayed to:             03/13/2009  11:16:30
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\super.NLB
Analyst:                MB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D03B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     09/17/2003 13:49:16
 Date of last efficiency calibration: 11/16/2004 08:48:54

**********************************************************************
*****           P E A K   W I T H   N I D   R E P O R T          *****
**********************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\super.NLB
     Peak Match Tolerance :     1.50 keV
```

	Peak No.	ROI Start	ROI End	Peak Centroid	FWHM (keV)	Energy (keV)	Net Peak Area	2.00-Sigma % Error	Tentative Nuclide
M	1	36-	81	46.81	1.66	23.45	2.59E+004	1.39	.....
m	2	36-	81	58.17	1.68	29.13	8.00E+004	0.78	I-129
m	3	36-	81	64.09	1.69	32.09	4.20E+005	0.31	TE-125m
m	4	36-	81	72.96	1.70	36.53	1.08E+005	0.68	TE-125m
	5	141-	154	150.83	0.78	75.47	8.96E+002	99.54	PB-212 PB-214 AM-243
	6	1309-	1337	1323.44	1.75	661.81	1.44E+006	0.17	CS-137
	7	1585-	1596	1591.40	1.47	795.80	5.30E+001	70.90	CS-134 AC-228
	8	2231-	2249	2240.46	1.27	1120.35	4.16E+001	96.46	BI-214 SC-46 TA-182

```
M = First peak in a multiplet region
m = Other peak in a multiplet region
  = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001796 Acquisition Date: 03/13/2009 11:16:30

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	8.850E+000	8.850E+000	1.02E+000	11.47
CS-137	30.17Y	1.00	2.164E+002	2.164E+002	9.14E+000	4.23
AM-243	7379.80Y	1.00	4.245E-002	4.245E-002	4.24E-002	99.96

JH 16 March 09

JH 16 March 09

Minimum Detectable Activity Report Page 3
Sample ID : S09T001796 Acquisition Date 03/13/2009 11:16:30

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BE-7	112254.0	477.59	1.43E+000
	NA-22	81.00	1274.54	1.02E-002
	NA-24	84.00	1368.53	1.17E-002
	AL-28	30.00	1778.00	3.93E-001
	CL-38	39.00	1642.71	8.54E-002
	K-40	475.00	1460.81	2.51E-001
	AR-41	97.00	1293.64	1.76E-002
	SC-46	168.00	1120.51	1.41E-002
	CR-51	82941.00	320.08	9.10E-001
	MN-54	201.00	834.83	1.08E-002
	CO-56	205.00	846.76	1.11E-002
	MN-56	205.00	846.75	1.54E-002
	CO-57	85990.00	122.06	5.20E-002
	CO-58	199.00	810.76	1.05E-002
	FE-59	167.00	1099.22	2.23E-002
	CO-60	86.00	1332.49	1.09E-002
	CU-64	83.00	1345.80	2.46E+000
	ZN-65	211.00	1115.52	2.82E-002
	CU-66	140.00	1039.20	2.46E+000
	SE-75	85424.00	264.65	1.36E-001
	SE-79m	78861.00	95.73	1.08E+001
	KR-85	58367.00	513.99	2.67E+001
	SR-85	58367.00	513.99	1.16E-001
	Y-88	30.00	1836.01	8.92E-003
	Y-91	149.00	1204.67	4.32E+000
	NB-94	209.00	871.10	1.14E-002
	ZRNB-95	239.00	765.79	2.18E-002
	RU-103	65963.00	497.08	1.33E-001
	RURH-106	15490.00	621.84	1.42E+000
	AG-108m	275.00	722.94	1.22E-002
	CD-109	80180.00	88.03	1.03E+000
	AG-110m	169.00	657.75	7.52E-001
	SN-113	88734.00	391.69	1.70E-001
	TE-123m	91694.00	159.00	6.39E-002
	SB-124	27.00	602.71	7.18E-002
	SB-125	16627.00	427.89	4.62E-001
	TE-125m	157553.0	27.30	1.44E-001
	Sb-126	488.00	695.00	1.41E-002
	SN-126	488.00	87.50	8.29E-002
+	I-129	0.00	39.58	8.99E-001
	I-131	83410.00	364.48	1.24E-001
	XE-131m	91527.00	163.93	2.80E+000

Minimum Detectable Activity Report
Sample ID : S09T001796 Acquisition Date 03/13/2009 11:16:30

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BA-133	78202.00	356.01	1.64E-001
	CS-134	290.00	604.70	7.21E-002
	CS-136	196.00	818.50	1.06E-002
+	CS-137	112.24	661.65*	1.16E-001
	CS-138	69.00	1435.86	4.67E-002
	CE-139	91279.00	165.85	6.86E-002
	BA-140	40224.00	537.32	3.98E-001
	LA-140	56.00	1596.49	1.10E-002
	CE-141	83184.00	145.44	9.98E-002
	CE-144	86114.00	133.54	4.21E-001
	CEPR-144	86114.00	133.54	8.40E-001
	EU-152	78.00	1407.95	5.27E-002
	EU-154	81.00	1274.51	2.96E-002
	EU-155	80017.00	105.31	1.83E-001
	HF-181	86173.00	482.18	1.68E-001
	TA-182	198.00	1121.30	3.99E-002
	AU-198	95208.00	411.80	1.27E-001
	HG-203	90415.00	279.19	1.07E-001
	BI-207	137.00	1063.66	1.50E-002
	TL-208	18981.00	583.19	8.69E-002
	PB-210	65475.00	46.54	1.00E+000
	BI-212	279.00	727.17	9.49E-002
	PB-212	109468.0	238.63	1.79E-001
	BI-214	52.00	609.31	1.53E-001
	PB-214	82955.00	351.92	2.61E-001
	RA-224	107951.0	240.99	2.03E+000
	RA-226	119466.0	186.21	2.09E+000
	AC-228	216.00	911.60	4.37E-002
	TH-228	79728.00	84.37	2.97E+000
	TH-229	80227.00	100.00	3.45E-001
	U-232	65280.00	57.78	1.78E+001
	PA-233	78505.00	312.17	2.27E-001
	UTH-233	80227.00	245.34	7.27E+001
	PA-234m	165.00	1001.03	1.78E+000
	TH-234	79340.00	63.29	9.07E-001
	U-235	117650.0	185.71	1.26E-001
	NP-237	80017.00	86.48	3.06E-001
	U-237	78371.00	101.07	1.55E-001
	NP-238	136.00	984.45	3.80E-002
	NP-239	79280.00	106.12	1.78E-001
	PU-239	78352.00	129.30	7.34E+002
	AM-241	65183.00	59.54	9.79E-002
+	AM-243	146.61	74.67*	6.95E-002

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

```
*************************************************************************
* 222-S Laboratory Counting Room  03/13/2009 17:15:38                   *
*************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13340
Sample ID:              S09T001808-SAM
Sample Size:            2.500E-001 mL
Dilution Factor:        1.010E+002

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA3
File Number:            C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3249.CNF
Sample Geometry:        C2
Count Time:                9000.0 seconds
Real Time:                 9115.2 seconds
Dead Time:                   1.26 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      03/13/2009  14:43:44
Decayed to:             03/13/2009  14:43:44
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\super.NLB
Analyst:                AKH
Background Subtract:    C:\PCNT2K\BKGFILES\G00D03B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     09/17/2003 13:49:16
 Date of last efficiency calibration: 11/16/2004 08:48:54

*************************************************************************
*****           P E A K   W I T H   N I D   R E P O R T           *****
*************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\super.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error    Nuclide

 M  1    49-   78    58.80   1.49    29.45  6.00E+004       1.04     I-129
 m  2    49-   78    64.13   1.50    32.11  3.95E+005       0.33     TE-125m
                                                                     I-129
 m  3    49-   78    72.99   1.52    36.54  9.49E+004       0.76     TE-125m
    4  1311- 1337  1323.43   1.75   661.81  1.43E+006       0.17     CS-137

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001808-SAM Acquisition Date: 03/13/2009 14:43:44

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
~~I-129~~	~~1.6E+007Y~~	~~1.00~~	~~6.837E+000~~	~~6.837E+000~~	~~7.31E-001~~	~~10.69~~ JR 16Mar09
CS-137	30.17Y	1.00	2.148E+002	2.148E+002	9.08E+000	4.23

Minimum Detectable Activity Report Page 3
Sample ID : S09T001808-SAM Acquisition Date 03/13/2009 14:43:44

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BE-7	111453.0	477.59	1.42E+000
	NA-22	83.00	1274.54	1.03E-002
	NA-24	68.00	1368.53	1.06E-002
	AL-28	35.00	1778.00	4.21E-001
	CL-38	35.00	1642.71	8.13E-002
	K-40	468.00	1460.81	2.49E-001
	AR-41	95.00	1293.64	1.75E-002
	SC-46	187.00	1120.51	1.41E-002
	CR-51	82591.00	320.08	9.08E-001
	MN-54	210.00	834.83	1.10E-002
	CO-56	181.00	846.76	1.04E-002
	MN-56	181.00	846.75	1.45E-002
	CO-57	85734.00	122.06	5.19E-002
	CO-58	207.00	810.76	1.08E-002
	FE-59	165.00	1099.22	2.22E-002
	CO-60	80.00	1332.49	1.05E-002
	CU-64	70.00	1345.80	2.27E+000
	ZN-65	203.00	1115.52	2.76E-002
	CU-66	135.00	1039.20	2.42E+000
	SE-75	85328.00	264.65	1.36E-001
	SE-79m	78540.00	95.73	1.08E+001
	KR-85	57864.00	513.99	2.66E+001
	SR-85	57864.00	513.99	1.15E-001
	Y-88	33.00	1836.01	9.31E-003
	Y-91	138.00	1204.67	4.16E+000
	NB-94	245.00	871.10	1.13E-002
	ZRNB-95	208.00	765.79	2.04E-002
	RU-103	64976.00	497.08	1.32E-001
	RURH-106	15279.00	621.84	1.41E+000
	AG-108m	236.00	722.94	1.13E-002
	CD-109	79715.00	88.03	1.02E+000
	AG-110m	184.00	657.75	7.50E-001
	SN-113	88318.00	391.69	1.70E-001
	TE-123m	91648.00	159.00	6.39E-002
	SB-124	33.00	602.71	7.09E-002
	SB-125	16231.00	427.89	4.61E-001
	TE-125m	157868.0	27.30	1.44E-001
	Sb-126	468.00	695.00	1.38E-002
	SN-126	468.00	87.50	8.27E-002
+	I-129	0.00	39.58	8.96E-001
	I-131	83011.00	364.48	1.24E-001
	XE-131m	90935.00	163.93	2.79E+000

Minimum Detectable Activity Report
Sample ID : S09T001808-SAM Acquisition Date 03/13/2009 14:43:44

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BA-133	78228.00	356.01	1.63E-001
	CS-134	273.00	604.70	7.15E-002
	CS-136	206.00	818.50	1.08E-002
+	CS-137	112.24	661.65*	1.08E-001
	CS-138	42.00	1435.86	3.71E-002
	CE-139	91158.00	165.85	6.85E-002
	BA-140	40230.00	537.32	3.98E-001
	LA-140	46.00	1596.49	1.00E-002
	CE-141	83155.00	145.44	9.97E-002
	CE-144	85401.00	133.54	4.19E-001
	CEPR-144	85401.00	133.54	8.37E-001
	EU-152	77.00	1407.95	5.24E-002
	EU-154	83.00	1274.51	3.00E-002
	EU-155	79480.00	105.31	1.83E-001
	HF-181	85410.00	482.18	1.67E-001
	TA-182	195.00	1121.30	3.96E-002
	AU-198	95040.00	411.80	1.27E-001
	HG-203	90007.00	279.19	1.07E-001
	BI-207	143.00	1063.66	1.54E-002
	TL-208	18875.00	583.19	8.67E-002
	PB-210	65309.00	46.54	9.99E-001
	BI-212	232.00	727.17	8.68E-002
	PB-212	109315.0	238.63	1.79E-001
	BI-214	70.00	609.31	1.52E-001
	PB-214	82226.00	351.92	2.60E-001
	RA-224	108115.0	240.99	2.03E+000
	RA-226	119846.0	186.21	2.09E+000
	AC-228	234.00	911.60	4.54E-002
	TH-228	79326.00	84.37	2.97E+000
	TH-229	79649.00	100.00	3.46E-001
	U-232	64082.00	57.78	1.76E+001
	PA-233	78620.00	312.17	2.27E-001
	UTH-233	79649.00	245.34	7.27E+001
	PA-234m	163.00	1001.03	1.77E+000
	TH-234	78745.00	63.29	9.06E-001
	U-235	117724.0	185.71	1.26E-001
	NP-237	79480.00	86.48	3.05E-001
	U-237	78887.00	101.07	1.55E-001
	NP-238	150.00	984.45	3.98E-002
	NP-239	79487.00	106.12	1.78E-001
	PU-239	78469.00	129.30	7.31E+002
	AM-241	64078.00	59.54	9.71E-002
	AM-243	77777.00	74.67	6.16E-002

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

```
**********************************************************************
* 222-S Laboratory Counting Room  03/13/2009 19:51:23                *
**********************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13340
Sample ID:              S09T001808-DUP
Sample Size:            2.500E-001 mL
Dilution Factor:        1.010E+002

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA3
File Number:            C:\PCNT2K\CAMFILES\60MLRBLIQ\3G3250.CNF
Sample Geometry:        C2
Count Time:                9000.0 seconds
Real Time:                 9117.2 seconds
Dead Time:                   1.29 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      03/13/2009  17:19:27
Decayed to:             03/13/2009  17:19:27
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\super.NLB
Analyst:                AKH
Background Subtract:    C:\PCNT2K\BKGFILES\G00D03B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     09/17/2003 13:49:16
 Date of last efficiency calibration: 11/16/2004 08:48:54

**********************************************************************
*****           P E A K   W I T H   N I D   R E P O R T          *****
**********************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\super.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error     Nuclide

 M  1    36-   81    46.76   1.65    23.43  2.61E+004       1.39     .....
 m  2    36-   81    58.18   1.67    29.14  8.06E+004       0.78     I-129
 m  3    36-   81    64.10   1.68    32.10  4.22E+005       0.31     TE-125m
 m  4    36-   81    72.96   1.70    36.53  1.09E+005       0.68     TE-125m
    5  1309- 1337  1323.42   1.74   661.80  1.46E+006       0.17     CS-137
    6  3523- 3534  3528.45   1.11  1764.39  1.56E+001     117.61     BI-214

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001808-DUP Acquisition Date: 03/13/2009 17:19:27

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	8.921E+000	8.921E+000	1.02E+000	11.46
CS-137	30.17Y	1.00	2.188E+002	2.188E+002	9.25E+000	4.23

Minimum Detectable Activity Report Page 3
Sample ID : S09T001808-DUP Acquisition Date 03/13/2009 17:19:27

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BE-7	113442.0	477.59	1.44E+000
	NA-22	100.00	1274.54	1.13E-002
	NA-24	70.00	1368.53	1.07E-002
	AL-28	20.00	1778.00	3.28E-001
	CL-38	37.00	1642.71	8.34E-002
	K-40	474.00	1460.81	2.51E-001
	AR-41	99.00	1293.64	1.78E-002
	SC-46	188.00	1120.51	1.38E-002
	CR-51	84161.00	320.08	9.17E-001
	MN-54	204.00	834.83	1.09E-002
	CO-56	178.00	846.76	1.03E-002
	MN-56	178.00	846.75	1.44E-002
	CO-57	87198.00	122.06	5.23E-002
	CO-58	206.00	810.76	1.07E-002
	FE-59	148.00	1099.22	2.11E-002
	CO-60	91.00	1332.49	1.12E-002
	CU-64	71.00	1345.80	2.29E+000
	ZN-65	205.00	1115.52	2.78E-002
	CU-66	125.00	1039.20	2.33E+000
	SE-75	86598.00	264.65	1.36E-001
	SE-79m	79759.00	95.73	1.09E+001
	KR-85	59486.00	513.99	2.69E+001
	SR-85	59486.00	513.99	1.17E-001
	Y-88	19.00	1836.01	7.27E-003
	Y-91	131.00	1204.67	4.06E+000
	NB-94	181.00	871.10	1.07E-002
	ZRNB-95	205.00	765.79	2.03E-002
	RU-103	66411.00	497.08	1.33E-001
	RURH-106	15602.00	621.84	1.42E+000
	AG-108m	271.00	722.94	1.21E-002
	CD-109	80629.00	88.03	1.03E+000
	AG-110m	179.00	657.75	7.56E-001
	SN-113	89863.00	391.69	1.72E-001
	TE-123m	93169.00	159.00	6.44E-002
	SB-124	23.00	602.71	7.26E-002
	SB-125	16752.00	427.89	4.66E-001
	TE-125m	159904.0	27.30	1.45E-001
	Sb-126	454.00	695.00	1.36E-002
	SN-126	454.00	87.50	8.32E-002
+	I-129	0.00	39.58	9.07E-001
	I-131	84565.00	364.48	1.25E-001
	XE-131m	92109.00	163.93	2.81E+000

Minimum Detectable Activity Report
Sample ID : S09T001808-DUP Acquisition Date 03/13/2009 17:19:27

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
	BA-133	79227.00	356.01	1.65E-001
	CS-134	275.00	604.70	7.29E-002
	CS-136	198.00	818.50	1.06E-002
+	CS-137	112.24	661.65*	1.16E-001
	CS-138	66.00	1435.86	4.58E-002
	CE-139	92295.00	165.85	6.90E-002
	BA-140	40586.00	537.32	4.00E-001
	LA-140	50.00	1596.49	1.04E-002
	CE-141	84637.00	145.44	1.01E-001
	CE-144	87270.00	133.54	4.23E-001
	CEPR-144	87270.00	133.54	8.46E-001
	EU-152	73.00	1407.95	5.11E-002
	EU-154	100.00	1274.51	3.27E-002
	EU-155	80375.00	105.31	1.84E-001
	HF-181	87325.00	482.18	1.68E-001
	TA-182	193.00	1121.30	3.94E-002
	AU-198	96856.00	411.80	1.28E-001
	HG-203	91168.00	279.19	1.08E-001
	BI-207	131.00	1063.66	1.47E-002
	TL-208	182.00	583.19	8.67E-002
	PB-210	66487.00	46.54	1.01E+000
	BI-212	237.00	727.17	8.77E-002
	PB-212	110576.0	238.63	1.80E-001
	BI-214	72.00	609.31	1.54E-001
	PB-214	83889.00	351.92	2.63E-001
	RA-224	109254.0	240.99	2.04E+000
	RA-226	121742.0	186.21	2.11E+000
	AC-228	217.00	911.60	4.38E-002
	TH-228	80063.00	84.37	2.98E+000
	TH-229	80725.00	100.00	3.47E-001
	U-232	65580.00	57.78	1.78E+001
	PA-233	79321.00	312.17	2.29E-001
	UTH-233	80725.00	245.34	7.32E+001
	PA-234m	157.00	1001.03	1.73E+000
	TH-234	80328.00	63.29	9.16E-001
	U-235	119734.0	185.71	1.27E-001
	NP-237	80375.00	86.48	3.07E-001
	U-237	79502.00	101.07	1.56E-001
	NP-238	136.00	984.45	3.80E-002
	NP-239	80410.00	106.12	1.79E-001
	PU-239	79396.00	129.30	7.39E+002
	AM-241	65581.00	59.54	9.82E-002
	AM-243	79756.00	74.67	6.24E-002

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Data Review Check List

Procedure LA-220-101, 103, 105 Sr-90

Batch # 13339

Review Item	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments and Samples Affected
Batch Items					
1. Was an LCS and blank run the batch?	X			X	
2. Was a duplicate run with the batch?	X			X	
2a. Was a spike run with the batch?				X	Not requested.
3. Was the book # of the standard (and spike) on the traveler?	X			X	
4. Was the batch traveler completed (sample #, dilution, aliquot size)?	X			X	
5. Were any line outs initialed and dated?			X	X	
6. Was balance check completed on the day of use (if used)?	X			X	
Result Items					
7. Was sample, traveler and counting data correct on ACE form?	X			X	
8. If No, was ACE form corrected?			X	X	
9. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?	X			X	
10. If No, was LABCORE corrected?			X	X	
11. Are result units correct?	X			X	
12. If No, were units corrected?			X	X	
13. Was data flagged?	X			X	
14. Are all flags present and correct?	X			X	
15. Are LCS results within limits (Lab's or customer's)?	X			X	
16. Are Spike results within limits (Lab's or customer's)?			X	X	
17. Is blank <MDC, or <5% isotope concentration, or <5% decision level?	X			X	
18. Are duplicate RPDs <20% (or RSD) within customer limits?	X			X	
19. Are the correct procedure number and Rev/Mod on the report?	X			X	
Procedure Speciffic Items					
20. Were carrier recoveries between 45% and 110%?	X			X	
21. Were the customer required detection or quantification limits met?		X		X	Met for blanks, not for samples, too hot.
22. Were any results at or above customer notification limits?			X	X	
23. If yes, was the PC notified?			X	X	

1st Level Reviewer: SA Cutler **Date:** 17-Mar-09

2nd Level Reviewer: [illegible] **Date:** 3/18/09

LABCORE Completed Batch Report for Batch# 00013339

Analyst: Lai, Sue **Book#:** 31B64

Instrument: A/B Detector 23 B-1A

Method: STRONTIUM-90, LA-220-101 Rev/Mod I-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP 3 for Sr90. gll

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903110001		0	0	Strontium-89/90	LIQUID	.00079783	7.6984E-04		2.06	1.06E-06	uCi/mL	96.492	% Recovery	
1 STD	S0903110001		0	0	Strontium-C	LIQUID		85.999				% Recovery	N/A		
Sample Sequence 2															
2 BLNK	S0903110002		0	0	Strontium-89/90	LIQUID		1.4084E-06		118.14	1.05E-06	uCi/mL			
2 BLNK	S0903110002		0	0	Strontium-C	LIQUID		86.9				% Recovery			
Sample Sequence 3															
3 SAMPLE	S09T001751		0	0	Strontium-89/90	LIQUID	N/A	2.8524E-06		63.67	1.06E-06	uCi/mL			J
3 SAMPLE	S09T001751		0	0	Strontium-C	LIQUID		85.7				% Recovery			
Sample Sequence 4															
4 SAMPLE	S09T001763		0	0	Strontium-89/90	LIQUID	N/A	2.7520E-06		65.33	1.05E-06	uCi/mL			J
4 SAMPLE	S09T001763		0	0	Strontium-C	LIQUID		86.1				% Recovery			
Sample Sequence 5															
5 SAMPLE	S09T001771		0	0	Strontium-89/90	LIQUID	N/A	1.1492E+00		0.53	1.06E-04	uCi/mL			
5 SAMPLE	S09T001771		0	0	Strontium-C	LIQUID		86.499				% Recovery			
Sample Sequence 6															
6 SAMPLE	S09T001784		0	0	Strontium-89/90	LIQUID	N/A	1.2035E+00		0.51	1.04E-04	uCi/mL			
6 SAMPLE	S09T001784		0	0	Strontium-C	LIQUID		87.699				% Recovery			
Sample Sequence 7															
7 SAMPLE	S09T001796		0	0	Strontium-89/90	LIQUID	N/A	1.1928E+00		0.52	1.06E-04	uCi/mL			
7 SAMPLE	S09T001796		0	0	Strontium-C	LIQUID		86.6				% Recovery			
Sample Sequence 8															
8 SAMPLE	S09T001808		0	0	Strontium-89/90	LIQUID	N/A	1.1861E+00		0.52	1.04E-04	uCi/mL			
8 SAMPLE	S09T001808		0	0	Strontium-C	LIQUID		87.399				% Recovery			
Sample Sequence 9															
9 DUP	S0903110003	S09T001808	0	0	Strontium-89/90	LIQUID	1.1861E+00	1.1899E+00		0.52	1.05E-04	uCi/mL	0.31987	% RPD	

Comments Section:

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013339

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903110001	STD				
2	S0903110002	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001763	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001771	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
6	S09T001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
7	S09T001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
8	S09T001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3
9	S0903110003	DUP	S09T001808			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013339

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013339

Reviewer Signature — Date: 3/18/09

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Batch# 00013339

Analyst: H003944 **Standard ID / Book#:** 31B64

Instrument:

Method: STRONTIUM-90, LA-220-101 Rev/Mod I-0

Prep Batch:

Batch Comment: AW106 EVAP 3 for Sr90. gll

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Strontium-89/90, Strontium-C					
2	BLNK		0		LIQUID		
	Analytes Requested:	Strontium-89/90, Strontium-C					
3	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Strontium-89/90, Strontium-C					
4	SAMPLE	S09T001763	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Strontium-89/90, Strontium-C					
5	SAMPLE	S09T001771	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Strontium-89/90, Strontium-C					
6	SAMPLE	S09T001784	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Strontium-89/90, Strontium-C					
7	SAMPLE	S09T001796	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Strontium-89/90, Strontium-C					
8	SAMPLE	S09T001808	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Strontium-89/90, Strontium-C					
9	DUP	S09T001808	0		LIQUID		
	Analytes Requested:	Strontium-89/90					

Final Page for Batch# 00013339

Sue (Chu-hui) Lai 3-17-09
Analyst Signature **Date**

Em Bourke 3.17.09
Data Entry Signature **Date**

M G Brown 3/17/9

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Sr-90 Worklist Traveler

Sample Mounting Data

Wrklst # 13339 Matrix: Liquid Analyst S.L

Sep. Date 3-16-09 Date/Time @ elevator 3-17-09 / 1100

Std # 31B64 Spk # N/A Spk. Vol. N/A

Pipet ID # Checked

1219413 ☑

4564795 ☑

☐

Counting Room Data

Carrier Book # 86N19B

Carrier Vol (ml) 1

Balance ID # LE-BAL-078

Balance check ☑

Det # 23

Bkg 4.40

Date of Count (1st dish) 3/17/9

Sample Type	Sample Number	Sample Vol. (mL)	Sample Dilution	Sep. Time	Gross Weight	Tare Weight	Total Counts	Cnt. Time (Min.)	Time of Count
Standard	31B64	1	1	14:30	7.9472	7.8612	9227	10	11:53
BLNK		1	1	14:30	7.9451	7.8582	61	10	12:04
Sample	S09T001751	1	1	14:30	7.9738	7.8881	78	10	12:14
Sample	S09T001763	1	1	14:30	7.9900	7.9039	77	10	12:24
Sample	S09T001771	1	0.1-10	14:36	7.9857	7.8992	137189	10	12:34
Sample	S09T001784	1	0.1-10	14:36	7.9592	7.8715	145852	10	12:44
Sample	S09T001796	1	0.1-10	14:36	7.9724	7.8858	142930	10	12:54
Sample	S09T001808	1	0.1-10	14:36	7.9689	7.8815	143624	10	13:04
Duplicate	S09T001808	1	0.1-10	14:42	7.9271	7.8400	143684	10	13:15

Comments: AW106 EVAP3

596

RPP-RPT-40709 Rev. 1

Sr-89/90

Type	DETECTOR NUMBER	23
STD	TOTAL COUNTS	9227
Work List	COUNT TIME in MINUTES	10
00013339	BACKGROUND in cpm	4.40
Test Code	BACKGROUND COUNT TIME in MINUTES	30
STRONTIUM-90	SAMPLE VOLUME in mL	1.000
Matrix	DILUTION FACTOR	1.0
LIQUID	DIGEST DILUTION FACTOR	1.000
Rerun	SAMPLE COUNT RATE	918.30
0	CRITICAL LEVEL	1.26
Sample Prep	TIME OF SEPARATION	14:30
	DATE OF SEPARATION	3/16/2009
Sample #	TIME OF COUNT	11:53
S0903110001	DATE OF COUNT	3/17/2009
Instrument Code	STANDARD BOOK #	31B64
WC79141	STANDARD VALUE in uCi/mL	7.9783E-04

		STD
CARRIER BOOK NUMBER		86N19B
CARRIER VALUE		1.0000E-01
CARRIER ADDED in mL		1.000
GROSS WEIGHT		7.9472
TARE WEIGHT		7.8612
NET WEIGHT		0.0860
DELTA TIME (HOURS)		21.38
SR-90 EFFICIENCY FACTOR		0.5054
Y-90 EFFICIENCY FACTOR		0.5791
Rmax		N/A
DETECTION LIMIT		2.62

0.000837
3/13/2007

Data Entry By	
EMB	
Analyst	
SCL	
Date Completed	
3/17/2009	
Analysis Date	
3/17/2009	
Analysis Time	
11:00 AM	
Specification	
AW106 EVAP3	
Units	
uCi/mL	

Procedure using this form*: **LA-220-101** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Sr-89/90 CONCENTRATION	7.70E-04	**uCi/mL**		**DETECTION**
Relative Counting Error	2.1%			**LEVEL**
Sr-89/90 Standard Recovery	96.49%			**In µCi/mL**
PERCENT CARRIER RECOVERY	86.0%			1.06E-06

Strontium Std Template 1.0

Sr-89/90

Type	DETECTOR NUMBER	23
BLNK	TOTAL COUNTS	61
Work List	COUNT TIME in MINUTES	10
00013339	BACKGROUND in cpm	4.40
Test Code	BACKGROUND COUNT TIME in MINUTES	30
STRONTIUM-90	SAMPLE VOLUME in mL	1.000
Matrix	DILUTION FACTOR	1.0
LIQUID	DIGEST DILUTION FACTOR	1.000
Rerun	SAMPLE COUNT RATE	1.70
0	CRITICAL LEVEL	1.26
Sample Prep	TIME OF SEPARATION	14:30
	DATE OF SEPARATION	3/16/2009
Sample #	TIME OF COUNT	12:04
S0903110002	DATE OF COUNT	3/17/2009
Instrument Code		
WC79141		
Data Entry By		
EMB		
Analyst		
SCL		
Date Completed		
3/17/2009		
Analysis Date		
3/17/2009		
Analysis Time		
11:00 AM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

		BLNK
CARRIER BOOK NUMBER		**86N19B**
CARRIER VALUE		**1.0000E-01**
CARRIER ADDED in mL		1.000
GROSS WEIGHT		7.9451
TARE WEIGHT		7.8582
NET WEIGHT		0.0869
DELTA TIME (HOURS)		21.57
SR-90 EFFICIENCY FACTOR		0.5054
Y-90 EFFICIENCY FACTOR		0.5791
Rmax		N/A
DETECTION LIMIT		2.62

Procedure using this form*: LA-220-101 I-0

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVEL in µCi/mL
Sr-89/90 CONCENTRATION	1.41E-06	**uCi/mL**	
Relative Counting Error	118.1%		
PERCENT CARRIER RECOVERY	86.9%		1.05E-06

Strontium Sample Template 1.0

Sr-89/90

Type		
SAMPLE	DETECTOR NUMBER	23
	TOTAL COUNTS	78
Work List	COUNT TIME in MINUTES	10
00013339	BACKGROUND in cpm	4.40
Test Code	BACKGROUND COUNT TIME in MINUTES	30
STRONTIUM-90	SAMPLE VOLUME in mL	1.000
Matrix	DILUTION FACTOR	1.0
LIQUID	DIGEST DILUTION FACTOR	1.000
Rerun	SAMPLE COUNT RATE	3.40
0	CRITICAL LEVEL	1.26
Sample Prep	TIME OF SEPARATION	14:30
	DATE OF SEPARATION	3/16/2009
Sample #	TIME OF COUNT	12:14
S09T001751	DATE OF COUNT	3/17/2009

		SAMPLE
CARRIER BOOK NUMBER		**86N19B**
CARRIER VALUE		**1.0000E-01**
CARRIER ADDED in mL		1.000
GROSS WEIGHT		7.9738
TARE WEIGHT		7.8881
NET WEIGHT		0.0857
DELTA TIME (HOURS)		21.73
SR-90 EFFICIENCY FACTOR		0.5054
Y-90 EFFICIENCY FACTOR		0.5791
Rmax		N/A
DETECTION LIMIT		2.62

Instrument Code
WC79141
Data Entry By
EMB
Analyst
SCL
Date Completed
3/17/2009
Analysis Date
3/17/2009
Analysis Time
11:00 AM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this form*: **LA-220-101** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVEL in µCi/mL
Sr-89/90 CONCENTRATION	2.85E-06	**uCi/mL**	
Relative Counting Error	63.7%		
PERCENT CARRIER RECOVERY	85.7%		1.06E-06

Strontium Sample Template 1.0

Sr-89/90

Type	DETECTOR NUMBER	23
SAMPLE	TOTAL COUNTS	77
Work List	COUNT TIME in MINUTES	10
00013339	BACKGROUND in cpm	4.40
Test Code	BACKGROUND COUNT TIME in MINUTES	30
STRONTIUM-90	SAMPLE VOLUME in mL	1.000
Matrix	DILUTION FACTOR	1.0
LIQUID	DIGEST DILUTION FACTOR	1.000
Rerun	SAMPLE COUNT RATE	3.30
0	CRITICAL LEVEL	1.26
Sample Prep	TIME OF SEPARATION	14:30
	DATE OF SEPARATION	3/16/2009
Sample #	TIME OF COUNT	12:24
S09T001763	DATE OF COUNT	3/17/2009

		SAMPLE
CARRIER BOOK NUMBER		**86N19B**
CARRIER VALUE		**1.0000E-01**
CARRIER ADDED in mL		1.000
GROSS WEIGHT		7.9900
TARE WEIGHT		7.9039
NET WEIGHT		0.0861
DELTA TIME (HOURS)		21.90
SR-90 EFFICIENCY FACTOR		0.5054
Y-90 EFFICIENCY FACTOR		0.5791
Rmax		N/A
DETECTION LIMIT		2.62

Instrument Code
WC79141
Data Entry By
EMB
Analyst
SCL
Date Completed
3/17/2009
Analysis Date
3/17/2009
Analysis Time
11:00 AM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this form*: **LA-220-101** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVEL in µCi/mL
Sr-89/90 CONCENTRATION	2.75E-06	**uCi/mL**	
Relative Counting Error	65.3%		
PERCENT CARRIER RECOVERY	86.1%		1.05E-06

Strontium Sample Template 1.0

Sr-89/90

Type	DETECTOR NUMBER	23
SAMPLE	TOTAL COUNTS	137189
Work List	COUNT TIME in MINUTES	10
00013339	BACKGROUND in cpm	4.40
Test Code	BACKGROUND COUNT TIME in MINUTES	30
STRONTIUM-90	SAMPLE VOLUME in mL	1.000
Matrix	DILUTION FACTOR	101.0
LIQUID	DIGEST DILUTION FACTOR	1.000
Rerun	SAMPLE COUNT RATE	13714.50
0	CRITICAL LEVEL	1.26
Sample Prep	TIME OF SEPARATION	14:36
	DATE OF SEPARATION	3/16/2009
Sample #	TIME OF COUNT	12:34
S09T001771	DATE OF COUNT	3/17/2009

		SAMPLE
CARRIER BOOK NUMBER		**86N19B**
CARRIER VALUE		**1.0000E-01**
CARRIER ADDED in mL		1.000
GROSS WEIGHT		7.9857
TARE WEIGHT		7.8992
NET WEIGHT		0.0865
DELTA TIME (HOURS)		21.97
SR-90 EFFICIENCY FACTOR		0.5054
Y-90 EFFICIENCY FACTOR		0.5791
Rmax		N/A
DETECTION LIMIT		2.62

Instrument Code
WC79141
Data Entry By
EMB
Analyst
SCL
Date Completed
3/17/2009
Analysis Date
3/17/2009
Analysis Time
11:00 AM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this form*: **LA-220-101** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Sr-89/90 CONCENTRATION	1.15E+00	**uCi/mL**		**DETECTION LEVEL in µCi/mL**
Relative Counting Error	0.5%			
PERCENT CARRIER RECOVERY	86.5%			1.06E-04

Strontium Sample Template 1.0

Sr-89/90

Type	DETECTOR NUMBER	23
SAMPLE	TOTAL COUNTS	145852
Work List	COUNT TIME in MINUTES	10
00013339	BACKGROUND in cpm	4.40
Test Code	BACKGROUND COUNT TIME in MINUTES	30
STRONTIUM-90	SAMPLE VOLUME in mL	1.000
Matrix	DILUTION FACTOR	101.0
LIQUID	DIGEST DILUTION FACTOR	1.000
Rerun	SAMPLE COUNT RATE	14580.80
0	CRITICAL LEVEL	1.26
Sample Prep	TIME OF SEPARATION	14:36
	DATE OF SEPARATION	3/16/2009
Sample #	TIME OF COUNT	12:44
S09T001784	DATE OF COUNT	3/17/2009
Instrument Code		
WC79141		
Data Entry By		
EMB		
Analyst		
SCL		
Date Completed		
3/17/2009		
Analysis Date		
3/17/2009		
Analysis Time		
11:00 AM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

		SAMPLE
CARRIER BOOK NUMBER		86N19B
CARRIER VALUE		1.0000E-01
CARRIER ADDED in mL		1.000
GROSS WEIGHT		7.9592
TARE WEIGHT		7.8715
NET WEIGHT		0.0877
DELTA TIME (HOURS)		22.13
SR-90 EFFICIENCY FACTOR		0.5054
Y-90 EFFICIENCY FACTOR		0.5791
Rmax		N/A
DETECTION LIMIT		2.62

Procedure using this form*: **LA-220-101** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVEL in µCi/mL
Sr-89/90 CONCENTRATION	1.20E+00	**uCi/mL**	
Relative Counting Error	0.5%		
PERCENT CARRIER RECOVERY	87.7%		1.04E-04

Strontium Sample Template 1.0

Sr-89/90

Type	DETECTOR NUMBER	23
SAMPLE	TOTAL COUNTS	142930
Work List	COUNT TIME in MINUTES	10
00013339	BACKGROUND in cpm	4.40
Test Code	BACKGROUND COUNT TIME in MINUTES	30
STRONTIUM-90	SAMPLE VOLUME in mL	1.000
Matrix	DILUTION FACTOR	101.0
LIQUID	DIGEST DILUTION FACTOR	1.000
Rerun	SAMPLE COUNT RATE	14288.60
0	CRITICAL LEVEL	1.26
Sample Prep	TIME OF SEPARATION	14:36
	DATE OF SEPARATION	3/16/2009
Sample #	TIME OF COUNT	12:54
S09T001796	DATE OF COUNT	3/17/2009
Instrument Code		
WC79141		
Data Entry By		
EMB		
Analyst		
SCL		
Date Completed		
3/17/2009		
Analysis Date		
3/17/2009		
Analysis Time		
11:00 AM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

		SAMPLE
CARRIER BOOK NUMBER		**86N19B**
CARRIER VALUE		**1.0000E-01**
CARRIER ADDED in mL		1.000
GROSS WEIGHT		7.9724
TARE WEIGHT		7.8858
NET WEIGHT		0.0866
DELTA TIME (HOURS)		22.30
SR-90 EFFICIENCY FACTOR		0.5054
Y-90 EFFICIENCY FACTOR		0.5791
Rmax		N/A
DETECTION LIMIT		2.62

Procedure using this form*: **LA-220-101** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVEL in µCi/mL
Sr-89/90 CONCENTRATION	1.19E+00	**uCi/mL**	
Relative Counting Error	0.5%		
PERCENT CARRIER RECOVERY	86.6%		1.06E-04

Strontium Sample Template 1.0

Sr-89/90

Type	DETECTOR NUMBER	23
SAMPLE	TOTAL COUNTS	143624
Work List	COUNT TIME in MINUTES	10
00013339	BACKGROUND in cpm	4.40
Test Code	BACKGROUND COUNT TIME in MINUTES	30
STRONTIUM-90	SAMPLE VOLUME in mL	1.000
Matrix	DILUTION FACTOR	101.0
LIQUID	DIGEST DILUTION FACTOR	1.000
Rerun	SAMPLE COUNT RATE	14358.00
0	CRITICAL LEVEL	1.26
Sample Prep	TIME OF SEPARATION	14:36
	DATE OF SEPARATION	3/16/2009
Sample #	TIME OF COUNT	13:04
S09T001808	DATE OF COUNT	3/17/2009
Instrument Code		
WC79141		
Data Entry By		
EMB		
Analyst		
SCL		
Date Completed		
3/17/2009		
Analysis Date		
3/17/2009		
Analysis Time		
11:00 AM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

		SAMPLE
CARRIER BOOK NUMBER		86N19B
CARRIER VALUE		1.0000E-01
CARRIER ADDED in mL		1.000
GROSS WEIGHT		7.9689
TARE WEIGHT		7.8815
NET WEIGHT		0.0874
DELTA TIME (HOURS)		22.47
SR-90 EFFICIENCY FACTOR		0.5054
Y-90 EFFICIENCY FACTOR		0.5791
Rmax		N/A
DETECTION LIMIT		2.62

Procedure using this form*: **LA-220-101** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVEL in µCi/mL
Sr-89/90 CONCENTRATION	1.19E+00	**uCi/mL**	
Relative Counting Error	0.5%		
PERCENT CARRIER RECOVERY	87.4%		1.04E-04

Strontium Sample Template 1.0

Sr-89/90

Type	DETECTOR NUMBER	23
DUP	TOTAL COUNTS	143684
Work List	COUNT TIME in MINUTES	10
00013339	BACKGROUND in cpm	4.40
Test Code	BACKGROUND COUNT TIME in MINUTES	30
STRONTIUM-90	SAMPLE VOLUME in mL	1.000
Matrix	DILUTION FACTOR	101.0
LIQUID	DIGEST DILUTION FACTOR	1.000
Rerun	SAMPLE COUNT RATE	14364.00
0	CRITICAL LEVEL	1.26
Sample Prep	TIME OF SEPARATION	14:42
	DATE OF SEPARATION	3/16/2009
Sample #	TIME OF COUNT	13:15
S0903110003	DATE OF COUNT	3/17/2009

		DUP
CARRIER BOOK NUMBER		**86N19B**
CARRIER VALUE		**1.0000E-01**
CARRIER ADDED in mL		1.000
GROSS WEIGHT		7.9271
TARE WEIGHT		7.8400
NET WEIGHT		0.0871
DELTA TIME (HOURS)		22.55
SR-90 EFFICIENCY FACTOR		0.5054
Y-90 EFFICIENCY FACTOR		0.5791
Rmax		N/A
DETECTION LIMIT		2.62

Instrument Code	Associated Sample Number
WC79141	S09T001808
Data Entry By	
EMB	
Analyst	
SCL	
Date Completed	
3/17/2009	
Analysis Date	
3/17/2009	
Analysis Time	
11:00 AM	
Specification	
AW106 EVAP3	
Units	
uCi/mL	

Procedure using this form*: **LA-220-101** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVEL in µCi/mL
Sr-89/90 CONCENTRATION	1.19E+00	**uCi/mL**	
Relative Counting Error	0.5%		
PERCENT CARRIER RECOVERY	87.1%		1.05E-04

Strontium Sample Template 1.0

Data Review Check List

Procedure LA-348-104 C-14

	13502				
Review Item	**Level 1**			**Level 2**	**Comments and Samples Affected**
	Yes	**No**	**N/A**		
Batch Items					
1. Was an LCS and blank run the batch?	X			X	
2. Was a duplicate and spike run with the batch?	X			X	
3. Was the book # of the standard (and spike) on the traveler?	X			X	
4. Was the batch traveler completed (sample #, dilution, aliquot size)?	X			X	
5. Were any line outs initialed and dated?			X	X	
6. Was balance check completed on the day of use (if used)?			X	X	
Result Items					
7. Was sample, traveler and counting data correct on ACE form?	X			X	
8. If No, was ACE form corrected?			X	X	
9. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?	X			X	
10. If No, was LABCORE corrected?			X	X	
11. Are result units correct?	X			X	
12. If No, were units corrected?			X	X	
13. Was data flagged?	X			X	
14. Are all flags present and correct?	X			X	
15. Are LCS results within limits (Lab's or customer's)?	X			X	
16. Are Spike results within limits (Lab's or customer's)?	X			X	
17. Is blank <MDC, or <5% isotope concentration, or <5% decision level?	X			X	
18. Are duplicate RPDs <20% (or RSD) within customer limits?	X			X	
19. Are the correct procedure number and Rev/Mod on the report?	X			X	
Procedure Speciffic Items					
20. Was the correct LSC program used for counting?	X			X	
21. Were the customer required detection or quantification limits met?			X	X	

1st Level Reviewer: S A Carlton **Date:** 3/30/09

2nd Level Reviewer: Matthew Becerra **Date:** 3/30/09

LABCORE Completed Batch Report for Batch# 00013502

Analyst: Lai, Sue **Book#:** 15B64

Instrument: LSC3 LS6500 B-1A

Method: CARBON-14, LA-348-104 Rev/Mod H-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP3 for C-14 scl

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903240012		0	0	Carbon-14	LIQUID	.001334	1.2620E-03		0.6	1.00E-06	uCi/mL	94.599	% Recovery	
Sample Sequence 2															
2 BLNK	S0903240013		0	0	Carbon-14	LIQUID		<9.8508E-07			9.85E-07	uCi/mL			
Sample Sequence 3															
3 SAMPLE	S09T001751		0	1	Carbon-14	LIQUID	N/A	<1.5059E-06			1.51E-06	uCi/mL			U
Sample Sequence 4															
4 SAMPLE	S09T001761		0	1	Carbon-14	LIQUID	N/A	<8.8852E-07			8.89E-07	uCi/mL			U
Sample Sequence 5															
5 SAMPLE	S09T001782		0	1	Carbon-14	LIQUID	N/A	1.0561E-03		0.7	1.02E-06	uCi/mL			
Sample Sequence 6															
6 DUP	S0903240014	S09T001782	0	0	Carbon-14	LIQUID	1.0561E-03	1.3349E-03		0.6	1.01E-06	uCi/mL	23.321	% RPD	
Sample Sequence 7															
7 SPK	S0903240015	S09T001782	0	0	Carbon-14	LIQUID	.001334	1.1755E-03			1.02E-06	uCi/mL	88.116	% Recovery	
Sample Sequence 8															
8 SAMPLE	S09T001794		0	1	Carbon-14	LIQUID	N/A	1.2607E-03		0.6	1.01E-06	uCi/mL			
Sample Sequence 9															
9 SAMPLE	S09T001806		0	1	Carbon-14	LIQUID	N/A	1.3555E-03		0.6	1.01E-06	uCi/mL			

Comments Section:

Data Flagger Status:
Flagging Completed

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013502

Final Page for Batch# 00013502

Matthew Bream 3/30/09

Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013502

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903240012	STD				
2	S0903240013	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001761	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001782	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
6	S0903240014	DUP	S09T001782			
7	S0903240015	SPK	S09T001782			
8	S09T001794	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
9	S09T001806	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Review Checklist

CALIBRATION OF LIQUID SCINTILLATION COUNTERS

INSTRUMENT # LSC WC 51586

BATCH # 13502

PROCEDURES LA-508-121 LQ-150-115

Review Items	--- Level 1 --- Yes	No	N/A	Level 2	Comments & Samples Affected
Efficiency Calibration					
1. Instrument calibration stds ^{3}H & ^{14}C run prior to quench curve calibration	✓			✓	
2. Unquenched bkg vial run before quench curve calibration	✓			✓	
3. Calibration performed per procedure LA-508-121	✓			✓	
4. Quench curve calibration had > 7 data points	✓			✓	
5. Quench range of calibration matches expected range of samples	✓			✓	
6. Quench calibration performed in mode where bkg is subtracted from each analysis	✓			✓	
7. Calibration had a second, independent check	✓			✓	
8. Any non-conformances are documented in maintnance notebook	✓			✓	
9. Calibration reports are pasted and signed in maintenance notebook	✓			✓	
Calibration Verification					
1. Instrument Control Std within limits before and after batch counted	✓			✓	
2. Bkg check within limits before and after batch counted	✓			✓	

1st Level Reviewer: [signature] Date: 26 Mar 09

2nd Level Reviewer: [signature] Date: 26 Mar 09

H:\DATA REVIEW CHECKLISTS\LSC ICAL.XLS

3/24/2009 1:26:49PM
IncompleteBatchShort Version 2.7.22
batchreports 2.7.25

LABCORE Data Entry Template for Batch# 00013502

Analyst: H0003944 **Standard ID / Book#:** 15B64

Instrument:

Method: CARBON-14, LA-348-104 Rev/Mod ~~G~~ H-0

Prep Batch: NK

Batch Comment: AW106 EVAP3 for C-14 scl

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Carbon-14					
2	BLNK		0		LIQUID		
	Analytes Requested:	Carbon-14					
3	SAMPLE	S09T001751	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Carbon-14					
4	SAMPLE	S09T001761	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Carbon-14					
5	SAMPLE	S09T001782	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Carbon-14					
6	DUP	S09T001782	0		LIQUID		
	Analytes Requested:	Carbon-14					
7	SPK	S09T001782	0		LIQUID		
	Analytes Requested:	Carbon-14					
8	SAMPLE	S09T001794	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Carbon-14					
9	SAMPLE	S09T001806	1		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Carbon-14					

Final Page for Batch# 00013502

Sue (chu-huei) Lai 3-25-09
Analyst Signature **Date**

[signature] 3/26/09
Data Entry Signature **Date**

Em Barcke 3.26.09

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

C-14 Worklist Traveler

Worklist # 13502 Matrix: Liquid

STD/SPK Book#: 15B64 Analyst: S.L

SPK Vol. 1.0 Ml

Pipet ID #	Checked
31852	☑
	☐
	☐

Date/Time @ Elevator: 3-25-09 / 14:35

Cntng Pos.	Sam/Dup Type	Sample Number	Sample Vol(mL)	Dilution Factor
3	Standard	15B64	1	1
4	BLNK		1	1
5	Sample	S09T001751	1	1
6	Sample	S09T001761	1	1
7	Sample	S09T001782	1	1
8	Duplicate	S09T001782	1	1
9	Spike	S09T001782	1	1
10	Sample	S09T001794	1	1
11	Sample	S09T001806	1	1

Wrk. St. #4:C:\TRVLRS_EXCEL\C_14.xls

Comments: AW106 EVAP3

PAGE: 1

ID: C-14 25 MAR 2009 13:52

USER: 2 COMMENT:LS 6500 WC51586

PRESET TIME :	50.00							
DATA CALC :	SL DPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	YES	IC#	: NO	REPLICATES :	1	RS232	: OFF
TWO PHASE :	YES	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:			none		

ISOTOPE 1: C-14 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

BACKGROUND QUENCH CURVE: Off COLOR QUENCH CORRECTION: Off

Quench Limits Low:14.883 High:326.05

SAM NO	POS	TIME MIN	H#	C-14 CPM	C-14 %ERROR	C-14 DPM	C-14 EFF-1	LUMEX %	ELAPSED 2P TIME
B1	**-1	50.00	263.0	48.26	4.32	62.82	76.82	9.29	52.35
		Blank Average DPM for C-14 :				62.82	COEF. OF VAR:		0.000
1	**-3	50.00	238.5	2317.48	0.59	**2801.54**	80.91	0.16	104.62
2	**-4	50.00	215.3	47.48	4.32	**-6.41**	84.17	4.50	156.74
3	**-5	50.00	249.0	51.46	4.01	**2.12**	79.24	2.76	208.74
4	**-6	50.00	246.9	50.30	4.06	**0.39**	79.58	2.92	260.73
5	**-7	50.00	252.2	1894.62	0.65	**2344.49**	78.70	0.09	312.74
6	**-8	50.00	247.1	2407.38	0.58	**2963.44**	79.55	0.07	364.72
7	**-9	50.00	248.0	3983.20	0.45	**4954.03**	79.40	0.04	416.77
8	**-10	50.00	247.4	2275.04	0.59	**2798.86**	79.50	0.07	468.76
9	**-11	50.00	247.1	2443.60	0.57	**3009.30**	79.54	0.06	520.75

Carbon-14

		STD
Type	Disintegrations per minute from Counter	2801.54
STD	Sample Volume in mL	1
Work List	Dilution Factor	1
00013502	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	2317.48
CARBON-14	Instrument Fractional Efficiency	0.8091
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	48.26
Rerun	Background Efficiency	0.7682
0	Relative Percent Counting Uncertainty	0.59
Sample Prep	Detection Limit	5.58
	Critical Level Lc	2.23
Sample #	Carbon-14 Concentration in uCi/mL	1.26E-03
S0903240012	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	2266.65
Instrument Code	Standard Book No.	15B64
WC5186	Standard Value in uCi/mL	1.3340E-03
Data Entry By		
RWK	**Procedure using this form*:**	**LA-348-104 H-0**
Analyst		
SCL		
Date Completed		
3/26/2009		
Analysis Date	* The specific formulae used in the calculations for this spreadsheet can be found	
3/25/2009	in the applicable procedure, as identified on the worklist.	
Analysis Time		
2:35 PM	**Carbon-14 Concentration in uCi/mL**	1.26E-03
Specification	**% Recovery**	94.60%
AW106 EVAP3		
Units	**Detection Limit in uCi/mL**	1.00E-06
uCi/mL	**Relative Percent Counting Uncertainty**	0.59

Carbon-14 Std Template 1.0

Printed at: 2:09:50 AM 3/26/2009 Version: 1.01

Carbon-14

			BLNK
Type	Disintegrations per minute from Counter		-6.41
BLNK	Sample Volume in mL		1.00
Work List	Dilution Factor		1
00013502	Digest Dilution Factor		1.000
Test Code	Sample Count Rate in cpm		47.48
CARBON-14	Instrument Fractional Efficiency		0.8417
Matrix	Count Time in Minutes		50
LIQUID	Background Count Rate in cpm		48.26
Rerun	Background Efficiency		0.7682
0	Relative Percent Counting Uncertainty		
Sample Prep	Detection Limit		5.26
	Critical Level Lc		2.19
Sample #	Carbon-14 Concentration in uCi/mL	<	9.85E-07
S0903240013	Lc, Rmax, or Rs, (Sample Rate) as appropriate)		2.19

Instrument Code
WC5186
Data Entry By
RWK
Analyst
SCL
Date Completed
3/26/2009
Analysis Date
3/25/2009
Analysis Time
2:35 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-348-104 H-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Carbon-14 Concentration in uCi/mL	< 9.85E-07
Detection Limit in uCi/mL	9.85E-07
Relative Percent Counting Uncertainty	

Carbon-14 Sample Template 1.0

Printed at: 2:10:39 AM 3/26/2009 Version: 1.01

Carbon-14

			SAMPLE
Type	Disintegrations per minute from Counter		2.12
SAMPLE	Sample Volume in mL		1.00
Work List	Dilution Factor		1
00013502	Digest Dilution Factor		1.000
Test Code	Sample Count Rate in cpm		51.46
CARBON-14	Instrument Fractional Efficiency		0.7924
Matrix	Count Time in Minutes		50
LIQUID	Background Count Rate in cpm		48.26
Rerun	Background Efficiency		0.7682
1	Relative Percent Counting Uncertainty		
Sample Prep	Detection Limit		5.76
	Critical Level Lc		2.25
Sample #	Carbon-14 Concentration in uCi/mL	<	1.51E-06
S09T001751	Lc, Rmax, or Rs, (Sample Rate) as appropriate)		3.34
Instrument Code			
WC5186			
Data Entry By			
RWK			
Analyst			
SCL			
Date Completed			
3/26/2009			
Analysis Date			
3/25/2009			
Analysis Time			
2:35 PM			
Specification			
AW106 EVAP3	**Carbon-14 Concentration in uCi/mL**	<	1.51E-06
Units	**Detection Limit in uCi/mL**		1.51E-06
uCi/mL	**Relative Percent Counting Uncertainty**		

Procedure using this Form*: **LA-348-104 H-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Carbon-14 Sample Template 1.0

Printed at: 2:11:24 AM 3/26/2009 Version: 1.01

Carbon-14

			SAMPLE
Type	Disintegrations per minute from Counter		0.39
SAMPLE	Sample Volume in mL		1.00
Work List	Dilution Factor		1
00013502	Digest Dilution Factor		1.000
Test Code	Sample Count Rate in cpm		50.30
CARBON-14	Instrument Fractional Efficiency		0.7958
Matrix	Count Time in Minutes		50
LIQUID	Background Count Rate in cpm		48.26
Rerun	Background Efficiency		0.7682
1	Relative Percent Counting Uncertainty		
Sample Prep	Detection Limit		5.72
	Critical Level Lc		2.25
Sample #	Carbon-14 Concentration in uCi/mL	<	8.89E-07
S09T001761	Lc, Rmax, or Rs, (Sample Rate) as appropriate)		1.97
Instrument Code			
WC5186			
Data Entry By			
RWK			
Analyst			
SCL			
Date Completed			
3/26/2009			
Analysis Date			
3/25/2009			
Analysis Time			
2:35 PM			
Specification			
AW106 EVAP3	**Carbon-14 Concentration in uCi/mL**		< 8.89E-07
Units	**Detection Limit in uCi/mL**		8.89E-07
uCi/mL	**Relative Percent Counting Uncertainty**		

Procedure using this Form*: **LA-348-104 H-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Carbon-14 Sample Template 1.0

Printed at: 2:12:31 AM 3/26/2009 Version: 1.01

Carbon-14

		SAMPLE
Type	Disintegrations per minute from Counter	2344.49
SAMPLE	Sample Volume in mL	1.00
Work List	Dilution Factor	1
00013502	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	1894.62
CARBON-14	Instrument Fractional Efficiency	0.7870
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	48.26
Rerun	Background Efficiency	0.7682
1	Relative Percent Counting Uncertainty	0.66
Sample Prep	Detection Limit	5.82
	Critical Level Lc	2.26
Sample #	Carbon-14 Concentration in uCi/mL	1.06E-03
S09T001782	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	1845.18
Instrument Code		
WC5186		
Data Entry By		
RWK		
Analyst		
SCL		
Date Completed		
3/26/2009		
Analysis Date		
3/25/2009		
Analysis Time		
2:35 PM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

Procedure using this Form*: **LA-348-104 H-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Carbon-14 Concentration in uCi/mL	1.06E-03
Detection Limit in uCi/mL	1.02E-06
Relative Percent Counting Uncertainty	0.66

Carbon-14 Sample Template 1.0

Printed at: 2:13:35 AM 3/26/2009 Version: 1.01

Carbon-14

		DUP	
Type	Disintegrations per minute from Counter	2963.44	Associated Sample Number
DUP	Sample Volume in mL	1.00	S09T001782
Work List	Dilution Factor	1	
00013502	Digest Dilution Factor	1.000	
Test Code	Sample Count Rate in cpm	2407.38	
CARBON-14	Instrument Fractional Efficiency	0.7955	
Matrix	Count Time in Minutes	50	
LIQUID	Background Count Rate in cpm	48.26	
Rerun	Background Efficiency	0.7682	
0	Relative Percent Counting Uncertainty	0.58	
Sample Prep	Detection Limit	5.72	
	Critical Level Lc	2.25	
Sample #	Carbon-14 Concentration in uCi/mL	1.33E-03	
S0903240014	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	2357.40	
Instrument Code			
WC5186			
Data Entry By			
RWK			
Analyst			
SCL			
Date Completed			
3/26/2009			
Analysis Date			
3/25/2009			
Analysis Time			
2:35 PM			
Specification			
AW106 EVAP3			
Units			
uCi/mL			

Procedure using this Form*: **LA-348-104 H-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Carbon-14 Concentration in uCi/mL	1.33E-03
Detection Limit in uCi/mL	1.01E-06
Relative Percent Counting Uncertainty	0.58

Carbon-14 Sample Template 1.0

Carbon-14

		SPK	
Type	dpm of Sample + Spike from Counter	4954.03	Associated Sample Number
SPK	Volume of Sample in Sample + Spike Vial in mL	1.00	S09T001782
Work List	Background in cpm	48.26	
00013502	Count Time in Minutes	50	
Test Code	Background Efficiency	0.7682	
CARBON-14	Volume of Spike in mL	1.00	
Matrix	Sample Dilution Factor	1.00	
LIQUID	Spike Dilution Factor	1.0000	
Rerun	Spike Book No.	15B64	
0	Spike Value in uCi/mL	1.3340E-03	
Sample Prep	Sample Count Rate in cpm	3983.20	
	Instrument Fractional Efficiency	0.7940	
Sample #	Detection Limit	5.83	
S0903240015	Critical Level Lc	2.25	
Instrument Code	Carbon-14 uCi/mL in Sample	1.06E-03	
WC5186	Carbon-14 uCi/mL in Sample + Spike Vial	2.23E-03	
Data Entry By			
RWK			
Analyst			
SCL			
Date Completed			
3/26/2009			
Analysis Date			
3/25/2009			
Analysis Time			
2:35 PM			
Specification			
AW106 EVAP3	**QC ACTUAL**	=	1.33E-03
Units	**QCFOUND**	=	1.18E-03
uCi/mL	**PERCENT SPIKE RECOVERY**	=	88.1%

Procedure using this Form*: LA-348-104 H-0

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Carbon-14 Spike Template 1.0

Printed at: 2:17:30 AM 3/26/2009 Version: 1.01

Carbon-14

		SAMPLE
Type	Disintegrations per minute from Counter	2798.86
SAMPLE	Sample Volume in mL	1.00
Work List	Dilution Factor	1
00013502	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	2275.04
CARBON-14	Instrument Fractional Efficiency	0.7950
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	48.26
Rerun	Background Efficiency	0.7682
1	Relative Percent Counting Uncertainty	0.60
Sample Prep	Detection Limit	5.73
	Critical Level Lc	2.25
Sample #	Carbon-14 Concentration in uCi/mL	1.26E-03
S09T001794	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	2225.10
Instrument Code		
WC5186		
Data Entry By		
RWK		
Analyst		
SCL		
Date Completed		
3/26/2009		
Analysis Date		
3/25/2009		
Analysis Time		
2:35 PM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

Procedure using this Form*: **LA-348-104 H-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Carbon-14 Concentration in uCi/mL	1.26E-03
Detection Limit in uCi/mL	1.01E-06
Relative Percent Counting Uncertainty	0.60

Carbon-14 Sample Template 1.0

Printed at: 2:18:15 AM 3/26/2009 Version: 1.01

Carbon-14

		SAMPLE
Type	Disintegrations per minute from Counter	3009.30
SAMPLE	Sample Volume in mL	1.00
Work List	Dilution Factor	1
00013502	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	2443.60
CARBON-14	Instrument Fractional Efficiency	0.7954
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	48.26
Rerun	Background Efficiency	0.7682
1	Relative Percent Counting Uncertainty	0.58
Sample Prep	Detection Limit	5.72
	Critical Level Lc	2.25
Sample #	Carbon-14 Concentration in uCi/mL	1.36E-03
S09T001806	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	2393.63
Instrument Code		
WC5186		
Data Entry By		
RWK		
Analyst		
SCL		
Date Completed		
3/26/2009		
Analysis Date		
3/25/2009		
Analysis Time		
2:35 PM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

Procedure using this Form*: **LA-348-104 H-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Carbon-14 Concentration in uCi/mL	1.36E-03
Detection Limit in uCi/mL	1.01E-06
Relative Percent Counting Uncertainty	0.58

Carbon-14 Sample Template 1.0

Printed at: 2:18:49 AM 3/26/2009 Version: 1.01

Data Review Check List

Procedure LA-378-103, 104 I-129

13587

Review Item	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments and Samples Affected
Batch Items					
1. Was an LCS and blank run the batch?	X			X	
2. Was a duplicate run with the batch?		X		X	Not Requested.
2a. Was a spike run with the batch?	X			X	
3. Was the book # of the standard (and spike) on the traveler?	X			X	
4. Was the batch traveler completed (sample #, dilution, aliquot size)?	X			X	
5. Were any line outs initialed and dated?			X	X	
6. Was balance check completed on the day of use (if used)?	X			X	
Result Items					
7. Was sample, traveler and counting data correct on ACE form?	X			X	
8. If No, was ACE form corrected?			X	X	
9. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?	X			X	
10. If No, was LABCORE corrected?			X	X	
11. Are result units correct?	X			X	
12. If No, were units corrected?			X	X	
13. Was data flagged?	X			X	
14. Are all flags present and correct?	X			X	
15. Are LCS results within limits (Lab's or customer's)?	X			X	
16. Are Spike results within limits (Lab's or customer's)?	X			X	
17. Is blank <MDC, or <5% isotope concentration, or <5% decision level?	X			X	
18. Are duplicate RPDs <20% (or RSD) within customer limits?	X			X	
19. Are the correct procedure number and Rev/Mod on the report?	X			X	
Procedure Speciffic Items					
20. Were carrier recoveries between 30% and 110%?	X			X	
21. Were the customer required detection or quantification limits met?			X	X	
22. Were any results at or above customer notification limits?			X	X	
23. If yes, was the PC notified?			X	X	

1st Level Reviewer: [signature] **Date:** 2Apr09

2nd Level Reviewer: [signature] **Date:** 4/11/09

LABCORE Completed Batch Report for Batch# 00013587

Analyst: LaPlant, Gary **Book#:** 145B57A

Instrument: GEA06 B-1F

Method: IODINE-129, LA-378-103 Rev/Mod K-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP3 for 1129. gll

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903310019		0	0	Iodine-129	LIQUID	.02142	2.3484E-02		3.5	7.71E-05	uCi/mL	109.64	% Recovery	
1 STD	S0903310019		0	0	Iodine-C	LIQUID		60.721				% Recovery	N/A		
Sample Sequence 2															
2 BLNK	S0903310020		0	0	Iodine-129	LIQUID		<2.1595E-06			2.16E-06	uCi/mL			
2 BLNK	S0903310020		0	0	Iodine-C	LIQUID		59.736				% Recovery			
Sample Sequence 3															
3 SAMPLE	S09T001751		0	1	Iodine-129	LIQUID	N/A	<4.4260E-05			4.43E-05	uCi/mL			U
3 SAMPLE	S09T001751		0	1	Iodine-C	LIQUID		48.577				% Recovery			
Sample Sequence 4															
4 SAMPLE	S09T001763		0	1	Iodine-129	LIQUID	N/A	<1.2454E-05			1.25E-05	uCi/mL			U
4 SAMPLE	S09T001763		0	1	Iodine-C	LIQUID		63.675				% Recovery			
Sample Sequence 5															
5 SAMPLE	S09T001784		0	1	Iodine-129	LIQUID	N/A	8.3172E-05		4.4	2.42E-06	uCi/mL			
5 SAMPLE	S09T001784		0	1	Iodine-C	LIQUID		76.147				% Recovery			
Sample Sequence 6															
6 SAMPLE	S09T001796		0	1	Iodine-129	LIQUID	N/A	9.2303E-05		4.5	2.96E-06	uCi/mL			
6 SAMPLE	S09T001796		0	1	Iodine-C	LIQUID		69.911				% Recovery			
Sample Sequence 7															
7 SPK	S0903310022	S09T001796	0	0	Iodine-129	LIQUID	.02142	2.3439E-02		3.5	7.16E-05	uCi/mL	109.43	% Recovery	
7 SPK	S0903310022	S09T001796	0	0	Iodine-C	LIQUID		71.224				% Recovery	N/A		
Sample Sequence 8															
8 SPK-DUP	S0903110038	S09T001796	0	1	Iodine-129	LIQUID	.02142	2.2884E-02		3.5	7.04E-05	uCi/mL	106.83	% Recovery	
													2.4045	% RPD	
8 SPK-DUP	S0903110038	S09T001796	0	1	Iodine-C	LIQUID		71.552				% Recovery	N/A		
Sample Sequence 9															
9 SAMPLE	S09T001808		0	1	Iodine-129	LIQUID	N/A	8.0641E-05		4.5	2.11E-06	uCi/mL			
9 SAMPLE	S09T001808		0	1	Iodine-C	LIQUID		72.209				% Recovery			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013587

Comments Section:

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013587

4/7/09

Reviewer Signature Date

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013587

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903310019	STD				
2	S0903310020	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001763	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
6	S09T001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
7	S0903310022	SPK	S09T001796			
8	S0903110038	SPK-DUP	S09T001796			
9	S09T001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Review Check List

Procedure LQ-508-105 Calibration of the Genie 2000 Gamma Energy Analysis System

Batch: 13587 Instrument: GEA G Review Item	— Level 1 — Yes	No	N/A	Level 2	Comments & Samples Affected
Standard Reference Material					
1 Was the certificate from standards lab checked for accuracy?	✓			✓	
2 Were the standard activities verified on an appropriate detector?	✓			✓	
3 Were the results sent to standards lab for standard approval?	✓			✓	
4 Is the Standards Laboratory Certificate data correctly entered as a certificate file?	✓			✓	
Spectrum Collection					
5 Was the Instrument Check Standard counted and within limits before obtaining the calibration spectrum?	✓			✓	
6 Did the file name correspond to the convention specified by the calibration procedure?	✓			✓	
7 Was the CALIB library selected for peak and nuclide ID?	✓			✓	
8 Was the correct decay date entered?	✓			✓	
Energy Calibration					
9 Are there a minimum of 5 peaks evenly spread over the energy region of interest?	✓			✓	
10 For an initial calibration was a full energy and shape calibration performed?	✓			✓	
11 Did all the peaks fit the energy vs channel graph?	✓			✓	
12 Was a graphical report printed for energy vs channel for the log book?	✓			✓	
13 If this was a full energy and peak shape calibration, was a graphical report printed of the full width half max and low tail shape fitting?	✓			✓	
Efficiency Calibration					
14 Do the error bars for all isotopes encompass the calibration curve?	✓			✓	
15 Was a graphical report printed for energy vs efficiency for the log book?	✓			✓	
Calibration Check					
16 Was the average radionuclide recovery for the recalcuclated calibration spectrum within 5% (1.96 Standard Deviations) of the mean standard value?	✓			✓	
17 Are all graphical reports posted in the detector log book and signed by the chemist?	✓			✓	
Data Review					
18 Instrument check standards in limits before and after	✓			✓	
19 Background counts before and after are satisfactory	✓			✓	
20 Dead time below limits	✓			✓	
21 Decay correction applied where necessary	✓			✓	
22 Falsely identified radionuclides lined out and initialled	✓			✓	

1st Level Reviewer: [signature] **Date:** 6 Apr 09

2nd Level Reviewer: [signature] **Date:** 6 Apr 09

LABCORE Data Entry Template for Batch# 00013587

Analyst: h0074758 **Standard ID / Book#:** 145B57A
Instrument:
Method: IODINE-129, LA - 378-103 Rev/Mod K-0
Prep Batch:
Batch Comment: AW106 EVAP3 for I129. gll

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Iodine-129, Iodine-C					
2	BLNK		0		LIQUID		
	Analytes Requested:	Iodine-129, Iodine-C					
3	SAMPLE	S09T001751	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Iodine-129, Iodine-C					
4	SAMPLE	S09T001763	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Iodine-129, Iodine-C					
5	SAMPLE	S09T001784	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Iodine-129, Iodine-C					
6	SAMPLE	S09T001796	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Iodine-129, Iodine-C					
7	SPK	S09T001796	0		LIQUID		
	Analytes Requested:	Iodine-129, Iodine-C					
8	SPK-DUP	S09T001796	1		LIQUID		
	Analytes Requested:	Iodine-129, Iodine-C					
9	SAMPLE	S09T001808	1		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Iodine-129, Iodine-C					

Final Page for Batch# 00013587

[signature] 3-31-09
Analyst Signature **Date**

[signature] 4.6.09
Data Entry Signature **Date**

[signature] 4/6/9

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

I-129 Worklist Traveler

Worklist# 13587 Std Book# 145B57A Matrix Liquid

Analyst GLL Date/Time 3/31/2009 15:55

Pipet ID # Checked Det # 6

60878 ☑ Balance ID# LE-BAL-078

4586925 ☑ Balance Check ☑ Carrier # 38N25B

☐ Carrier Vol. 1 mL

Spike Book # 145B57A Spike Vol. 0.1

Std/Blnk Sam/Dup	Sam/Dup Number	Sample Vol (mL)	Sample Dilution	Gross Weight	Tare Weight	Spectrum Number
Standard	145B57A	0.1	1	2.7224	2.7039	6G6076
Blank		1	1	2.7250	2.7068	6G6077
Sample	S09T001751	1	1	2.7196	2.7048	6G6078
Sample	S09T001763	1	1	2.7188	2.6994	6G6079
Sample	S09T001784	1	1	2.7376	2.7144	6G6080
Sample	S09T001796	1	1	2.7305	2.7092	6G6081
Spike	S09T001796	1	1	2.7357	2.7140	6G6082
Spike Dup	S09T001796	1	1	2.7329	2.7111	6G6083
Sample	S09T001808	1	1	2.7239	2.7019	6G6084

Comments: AW106 EVAP3

Iodine 129 : LIQUID

			STD
Type	GROSS WEIGHT in grams	W_2	2.7224
STD	TARE WEIGHT in grams	W_1	2.7039
Work List	MASS PRECIPITATE in grams		0.0185
00013587	Iodine 129 µCi / Sample from GEA	I(GEA)	1.426E-03
Test Code	SAMPLE VOLUME in mL	V_{sam}	0.100
IODINE-129	DILUTION FACTOR	DF	1.000
Matrix	DIGEST DILUTION FACTOR	DDF	1.00000
LIQUID	DETECTION LIMIT µCi / Sample		4.680E-06
Rerun	CARRIER BOOK NUMBER		38N25B
0	CARRIER VALUE in gm Pd I2 / mL		0.028083
Sample Prep	VOLUME CARRIER ADDED in mL		1.000
	CARRIER FRACTIONAL RECOVERY	REC	0.6072
Sample #	COUNT TIME IN MINUTES		150.0
S0903310019	COUNTING UNCERTAINTY		3.460
Instrument Code	STANDARD BOOK NUMBER		145B57A
WC71980	STANDARD VALUE in uCi/mL		0.021420

<< Prefix with "<" for "Less Than" results

Data Entry By
EMB
Analyst
GLL
Date Completed
4/6/2009
Analysis Date
3/31/2009
Analysis Time
3:55 PM
Sample Point
AW106 EVAP3
Units
uCi/mL

Procedure using this form*: **LA-378-103 K-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Iodine 129 in uCi/mL	=	**2.35E-02**	**DETECTION LEVEL**
Carrier Per Cent Recovery	=	**60.7%**	**in uCi/mL**
Counting Uncertainty	=	**3.5%**	**7.707E-05**
Standard Recovery	=	**109.6%**	

```
**************************************************************************
* 222-S Laboratory Counting Room  04/01/2009 03:43:21                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13587
Sample ID:              B13587-STD
Sample Size:            1.000E+000 Each
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA6
File Number:            C:\PCNT2K\CAMFILES\I129CT\6G6076.CNF
Sample Geometry:        01
Count Time:                 9000.0 seconds
Real Time:                  9004.9 seconds
Dead Time:                    0.05 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      04/01/2009  01:13:17
Decayed to:             04/01/2009  01:13:17
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\I-129.NLb
Analyst:                MB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D06B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     12/15/2004 09:51:58
 Date of last efficiency calibration: 12/22/2004 08:29:18

**************************************************************************
*****           P E A K   W I T H   N I D   R E P O R T            *****
**************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\I-129.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error    Nuclide

 M  1    29-   73    40.38   1.68    20.11  5.16E+003      3.04     .....
 m  2    29-   73    48.25   1.69    24.06  4.49E+002     24.01     .....
 m  3    29-   73    59.04   1.71    29.46  1.39E+005      0.51     I-129
 m  4    29-   73    67.13   1.72    33.52  2.88E+004      1.22     I-129
    5    74-   86    78.90   1.57    39.41  1.60E+004      2.16     I-129
    6  1302- 1314  1308.56   1.91   655.65  1.14E+002     25.61     .....

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : B13587-STD Acquisition Date: 04/01/2009 01:13:17

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/Each	Wtd Mean Decay Corr uCi/Each	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	1.426E-003	1.426E-003	4.93E-005	3.46

Minimum Detectable Activity Report Page 3
Sample ID : B13587-STD Acquisition Date 04/01/2009 01:13:17

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/Each)
+	I-129	59.79	29.67*	4.68E-006
	Am-241	393.00	59.54	9.68E-006

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Iodine 129 : LIQUID

			BLNK	
Type	GROSS WEIGHT in grams	W_2	2.7250	
BLNK	TARE WEIGHT in grams	W_1	2.7068	
Work List	MASS PRECIPITATE in grams		0.0182	
00013587	Iodine 129 µCi / SAMPLE from GEA	I(GEA)	<1.29E-6	<< Prefix with "<" for "Less Than" results
Test Code	SAMPLE VOLUME in mL	V_{sam}	1.000	
IODINE-129	DILUTION FACTOR	DF	1.000	
Matrix	DIGEST DILUTION FACTOR	DDF	1.00000	
LIQUID	DETECTION LIMIT µCi / Sample		1.290E-06	
Rerun	CARRIER BOOK NUMBER		38N25B	
0	CARRIER VALUE in gm Pd I2 / mL		2.8083E-02	
Sample Prep	VOLUME CARRIER ADDED in mL		1.000	
	CARRIER FRACTIONAL RECOVERY	REC	0.5974	
Sample #	COUNT TIME IN MINUTES		150.0	
S0903310020	COUNTING UNCERTAINTY		N/A	<< N/A (please enter N/A)

Instrument Code
WC71980
Data Entry By
EMB
Analyst
GLL
Date Completed
4/6/2009
Analysis Date
3/31/2009
Analysis Time
3:55 PM
Sample Point
AW106 EVAP3
Units
uCi/mL

Procedure using this form*: **LA-378-103 K-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Iodine 129 in uCi/mL	**<**	**2.16E-06**	**DETECTION LEVEL in uCi/mL**
Carrier Per Cent Recovery	**=**	**59.7%**	
Counting Uncertainty	**=**		**2.159E-06**

Iodine Sample Liquid Template 1.0

Printed at: 10:15:01 AM 4/6/2009 Version: 1.04

```
**********************************************************************
* 222-S Laboratory Counting Room  04/01/2009 06:38:20                *
**********************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13587
Sample ID:              B13587-BLNK
Sample Size:            1.000E+000 Each
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA6
File Number:            C:\PCNT2K\CAMFILES\I129CT\6G6077.CNF
Sample Geometry:        01
Count Time:                 9000.0 seconds
Real Time:                  9002.4 seconds
Dead Time:                    0.03 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      04/01/2009  04:08:19
Decayed to:             04/01/2009  04:08:19
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\I-129.NLb
Analyst:                MB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D06B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     12/15/2004 09:51:58
 Date of last efficiency calibration: 12/22/2004 08:29:18

**********************************************************************
*****          P E A K   W I T H   N I D   R E P O R T          *****
**********************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\I-129.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error    Nuclide

    1    56-   70    58.82   1.38    29.35  8.82E+001      88.16     I-129
    2  1303- 1315  1308.32   1.81   655.53  1.11E+002      27.81     .....

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : B13587-BLNK Acquisition Date: 04/01/2009 04:08:19

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/Each	Wtd Mean Decay Corr uCi/Each	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	8.960E-007	8.960E-007	7.91E-007	88.29

Minimum Detectable Activity Report Page 3
Sample ID : B13587-BLNK Acquisition Date 04/01/2009 04:08:19

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/Each)
+	I-129	59.79	29.67*	1.29E-006
	Am-241	369.00	59.54	9.39E-006

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Iodine 129 : LIQUID

			SAMPLE	
Type	GROSS WEIGHT in grams	W_2	2.7196	
SAMPLE	TARE WEIGHT in grams	W_1	2.7048	
Work List	MASS PRECIPITATE in grams		0.0148	
00013587	Iodine 129 µCi / SAMPLE from GEA	I(GEA)	<2.15E-005	<< Prefix with "<" for "Less Than" results
Test Code	SAMPLE VOLUME in mL	V_{sam}	1.000	
IODINE-129	DILUTION FACTOR	DF	1.000	
Matrix	DIGEST DILUTION FACTOR	DDF	1.00000	
LIQUID	DETECTION LIMIT µCi / Sample		2.150E-05	
Rerun	CARRIER BOOK NUMBER		38N25B	
1	CARRIER VALUE in gm Pd I2 / mL		2.8083E-02	
Sample Prep	VOLUME CARRIER ADDED in mL		1.000	
	CARRIER FRACTIONAL RECOVERY	REC	0.4858	
Sample #	COUNT TIME IN MINUTES		150.0	
S09T001751	COUNTING UNCERTAINTY		N/A	<< N/A (please enter N/A)
Instrument Code				
WC71980				
Data Entry By				
EMB				
Analyst				
GLL				
Date Completed				
4/6/2009				
Analysis Date				
3/31/2009				
Analysis Time				
3:55 PM				
Sample Point				
AW106 EVAP3				
Units				
uCi/mL				

Procedure using this form*: **LA-378-103 K-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Iodine 129 in uCi/mL	<	**4.43E-05**	**DETECTION LEVEL**
Carrier Per Cent Recovery	=	**48.6%**	**in uCi/mL**
Counting Uncertainty	=		**4.426E-05**

Iodine Sample Liquid Template 1.0

```
**************************************************************************
* 222-S Laboratory Counting Room  04/01/2009 09:11:11                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13587
Sample ID:              S09T001751-SAM
Sample Size:            1.000E+000 Each
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA6
File Number:            C:\PCNT2K\CAMFILES\I129CT\6G6078.CNF
Sample Geometry:        01
Count Time:                 9000.0 seconds
Real Time:                  9037.1 seconds
Dead Time:                    0.41 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      04/01/2009  06:40:23
Decayed to:             04/01/2009  06:40:23
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\I-129.NLb
Analyst:                MB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D06B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     12/15/2004 09:51:58
 Date of last efficiency calibration: 12/22/2004 08:29:18

**************************************************************************
*****          P E A K   W I T H   N I D   R E P O R T           *****
**************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\I-129.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error     Nuclide

    1    32-   49    43.44   2.31    21.64  5.17E+003      14.07     .....
 M  2    52-   83    63.76   1.77    31.83  1.58E+005       0.49     .....
 m  3    52-   83    72.63   1.78    36.27  3.75E+004       1.11     .....
    4  1292- 1324  1308.27   1.96   655.50  4.70E+005       0.30     .....

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001751-SAM Acquisition Date: 04/01/2009 06:40:23

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/Each	Wtd Mean Decay Corr uCi/Each	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error

Minimum Detectable Activity Report Page 3
Sample ID : S09T001751-SAM Acquisition Date 04/01/2009 06:40:23

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/Each)
I-129	205473.0	29.67	2.15E-005
Am-241	32119.00	59.54	8.53E-005

\+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Iodine 129 : LIQUID

			SAMPLE	
Type	GROSS WEIGHT in grams	W_2	2.7188	
SAMPLE	TARE WEIGHT in grams	W_1	2.6994	
Work List	MASS PRECIPITATE in grams		0.0194	
00013587	Iodine 129 µCi / SAMPLE from GEA	I(GEA)	<7.93E-006	<< Prefix with "<" for "Less Than" results
Test Code	SAMPLE VOLUME in mL	V_{sam}	1.000	
IODINE-129	DILUTION FACTOR	DF	1.000	
Matrix	DIGEST DILUTION FACTOR	DDF	1.00000	
LIQUID	DETECTION LIMIT µCi / Sample		7.930E-06	
Rerun	CARRIER BOOK NUMBER		38N25B	
1	CARRIER VALUE in gm Pd I2 / mL		2.8083E-02	
Sample Prep	VOLUME CARRIER ADDED in mL		1.000	
	CARRIER FRACTIONAL RECOVERY	REC	0.6367	
Sample #	COUNT TIME IN MINUTES		150.0	
S09T001763	COUNTING UNCERTAINTY		N/A	<< N/A (please enter N/A)
Instrument Code				
WC71980				
Data Entry By				
EMB				
Analyst				
GLL				
Date Completed				
4/6/2009				
Analysis Date				
3/31/2009				
Analysis Time				
3:55 PM				
Sample Point				
AW106 EVAP3				
Units				
uCi/mL				

Procedure using this form*: **LA-378-103 K-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Iodine 129 in uCi/mL	**<**	**1.25E-05**	**DETECTION LEVEL**
Carrier Per Cent Recovery	**=**	**63.7%**	**in uCi/mL**
Counting Uncertainty	**=**		**1.245E-05**

Iodine Sample Liquid Template 1.0

```
**************************************************************************
* 222-S Laboratory Counting Room  04/01/2009 11:58:32                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13587
Sample ID:              S09T001763-SAM
Sample Size:            1.000E+000 Each
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA6
File Number:            C:\PCNT2K\CAMFILES\I129CT\6G6079.CNF
Sample Geometry:        01
Count Time:                 9000.0 seconds
Real Time:                  9007.1 seconds
Dead Time:                    0.08 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      04/01/2009  09:28:26
Decayed to:             04/01/2009  09:28:26
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\I-129.NLb
Analyst:                EMB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D06B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     12/15/2004 09:51:58
 Date of last efficiency calibration: 12/22/2004 08:29:18

**************************************************************************
*****          P E A K   W I T H   N I D   R E P O R T             *****
**************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\I-129.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error    Nuclide

    1    36-   49    43.22   2.09    21.53  7.58E+002      30.45     .....
M   2    52-   84    63.83   1.76    31.86  2.10E+004       1.35     .....
m   3    52-   84    72.70   1.77    36.31  5.10E+003       3.04     .....
    4  1294- 1317  1308.35   1.95   655.54  6.40E+004       0.80     .....

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001763-SAM Acquisition Date: 04/01/2009 09:28:26

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/Each	Wtd Mean Decay Corr uCi/Each	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error

Minimum Detectable Activity Report Page 3
Sample ID : S09T001763-SAM Acquisition Date 04/01/2009 09:28:26

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/Each)
I-129	27928.00	29.67	7.93E-006
Am-241	4732.00	59.54	3.29E-005

\+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Iodine 129 : LIQUID

			SAMPLE	
Type	GROSS WEIGHT in grams	W_2	2.7376	
SAMPLE	TARE WEIGHT in grams	W_1	2.7144	
Work List	MASS PRECIPITATE in grams		0.0262	
00013587	Iodine 129 µCi / SAMPLE from GEA	I(GEA)	7.152E-05	<< Prefix with "<" for "Less Than" results
Test Code	SAMPLE VOLUME in mL	V_{sam}	1.000	
IODINE-129	DILUTION FACTOR	DF	1.000	
Matrix	DIGEST DILUTION FACTOR	DDF	1.00000	
LIQUID	DETECTION LIMIT µCi / Sample		2.080E-06	
Rerun	CARRIER BOOK NUMBER		38N25B	
1	CARRIER VALUE in gm Pd I2 / mL		2.8083E-02	
Sample Prep	VOLUME CARRIER ADDED in mL		1.000	
	CARRIER FRACTIONAL RECOVERY	REC	0.8599	
Sample #	COUNT TIME IN MINUTES		150.0	
S09T001784	COUNTING UNCERTAINTY		4.38	

Instrument Code
WC71980
Data Entry By
EMB
Analyst
GLL
Date Completed
4/6/2009
Analysis Date
3/31/2009
Analysis Time
3:55 PM
Sample Point
AW106 EVAP3
Units
uCi/mL

Procedure using this form*: **LA-378-103 K-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Iodine 129 in uCi/mL	=	**8.32E-05**	**DETECTION LEVEL**
Carrier Per Cent Recovery	=	**86.0%**	**in uCi/mL**
Counting Uncertainty	=	**4.4%**	**2.419E-06**

Iodine Sample Liquid Template 1.0

```
**************************************************************************
* 222-S Laboratory Counting Room  04/01/2009 14:32:16                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13587
Sample ID:              S09T001784-SAM
Sample Size:            1.000E+000 Each
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA6
File Number:            C:\PCNT2K\CAMFILES\I129CT\6G6080.CNF
Sample Geometry:        01
Count Time:                 9000.0 seconds
Real Time:                  9003.0 seconds
Dead Time:                    0.03 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      04/01/2009  12:02:14
Decayed to:             04/01/2009  12:02:14
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\I-129.NLb
Analyst:                EMB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D06B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     12/15/2004 09:51:58
 Date of last efficiency calibration: 12/22/2004 08:29:18

**************************************************************************
*****          P E A K   W I T H   N I D   R E P O R T             *****
**************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\I-129.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak     FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error     Nuclide

 M  1    49-   74    59.17   1.85    29.53  6.21E+003       2.67     I-129
 m  2    49-   74    65.06   1.86    32.48  2.25E+003       4.72     I-129
    3    76-   85    78.93   1.31    39.43  4.40E+002      22.49     I-129
    4  1007- 1016  1011.09   0.82   506.58  4.60E+001      86.38     .....
    5  1297- 1315  1308.39   1.94   655.56  6.18E+003       2.61     .....

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001784-SAM Acquisition Date: 04/01/2009 12:02:14

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/Each	Wtd Mean Decay Corr uCi/Each	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	7.152E-005	7.152E-005	3.13E-006	4.38

Minimum Detectable Activity Report Page 3
Sample ID : S09T001784-SAM Acquisition Date 04/01/2009 12:02:14

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/Each)
+	I-129	59.79	29.67*	2.08E-006
	Am-241	795.00	59.54	1.37E-005

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Iodine 129 : LIQUID

			SAMPLE	
Type	GROSS WEIGHT in grams	W_2	2.7305	
SAMPLE	TARE WEIGHT in grams	W_1	2.7092	
Work List	MASS PRECIPITATE in grams		0.0213	
00013587	Iodine 129 µCi / SAMPLE from GEA	I(GEA)	6.453E-05	<< Prefix with "<" for "Less Than" results
Test Code	SAMPLE VOLUME in mL	V_{sam}	1.000	
IODINE-129	DILUTION FACTOR	DF	1.000	
Matrix	DIGEST DILUTION FACTOR	DDF	1.00000	
LIQUID	DETECTION LIMIT µCi / Sample		2.070E-06	
Rerun	CARRIER BOOK NUMBER		38N25B	
1	CARRIER VALUE in gm Pd I2 / mL		2.8083E-02	
Sample Prep	VOLUME CARRIER ADDED in mL		1.000	
	CARRIER FRACTIONAL RECOVERY	REC	0.6991	
Sample #	COUNT TIME IN MINUTES		150.0	
S09T001796	COUNTING UNCERTAINTY		4.49	
Instrument Code				
WC71980				
Data Entry By				
EMB				
Analyst				
GLL				
Date Completed				
4/6/2009				
Analysis Date				
3/31/2009				
Analysis Time				
3:55 PM				
Sample Point				
AW106 EVAP3				
Units				
uCi/mL				

Procedure using this form*: **LA-378-103 K-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVEL
Iodine 129 in uCi/mL	=	**9.23E-05**	
Carrier Per Cent Recovery	=	**69.9%**	**in uCi/mL**
Counting Uncertainty	=	**4.5%**	**2.961E-06**

Iodine Sample Liquid Template 1.0

```
**************************************************************************
* 222-S Laboratory Counting Room  04/01/2009 17:13:23                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13587
Sample ID:              S09T001796-SAM
Sample Size:            1.000E+000 Each
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA6
File Number:            C:\PCNT2K\CAMFILES\I129CT\6G6081.CNF
Sample Geometry:        01
Count Time:                 9000.0 seconds
Real Time:                  9002.9 seconds
Dead Time:                    0.03 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      04/01/2009  14:43:21
Decayed to:             04/01/2009  14:43:21
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\I-129.NLb
Analyst:                EMB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D06B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     12/15/2004 09:51:58
 Date of last efficiency calibration: 12/22/2004 08:29:18

**************************************************************************
*****           P E A K   W I T H   N I D   R E P O R T            *****
**************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\I-129.NLB
     Peak Match Tolerance :    1.50 keV
```

	Peak No.	ROI Start	ROI End	Peak Centroid	FWHM (keV)	Energy (keV)	Net Peak Area	2.00-Sigma % Error	Tentative Nuclide
M	1	50-	75	59.13	1.79	29.51	5.70E+003	2.81	I-129
m	2	50-	75	64.82	1.80	32.36	1.90E+003	5.37	I-129
	3	76-	89	78.98	1.13	39.45	1.59E+002	76.52	I-129
	4	1300-	1317	1308.38	1.94	655.56	5.36E+003	2.80	.....

```
M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001796-SAM Acquisition Date: 04/01/2009 14:43:21

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/Each	Wtd Mean Decay Corr uCi/Each	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	6.453E-005	6.453E-005	2.90E-006	4.49

Minimum Detectable Activity Report Page 3
Sample ID : S09T001796-SAM Acquisition Date 04/01/2009 14:43:21

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/Each)
+	I-129	59.79	29.67*	2.07E-006
	Am-241	750.00	59.54	1.33E-005

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Iodine 129 : LIQUID

			SPK		
Type	GROSS WEIGHT	W_2	2.7357	Associated Sample Number	S09T001796
SPK	TARE WEIGHT	W_1	2.7140	Associated Sample Value	9.230E-05
Work List	MASS PRECIPITATE		0.0217		
00013587	SAMPLE + SPIKE Iodine 129 µCi /Sampe from GEA	I(GEA)	1.676E-03	<< Prefix with "<" for "Less Than" results	
Test Code	SPIKE VOLUME in mL		0.1000		
IODINE-129	DILUTION FACTOR	DF	1.000		
Matrix	DIGEST DILUTION FACTOR	DDF	1.00000		
LIQUID	DETECTION LIMIT in µCi / Sample		5.100E-06		
Rerun	CARRIER BOOK NUMBER		38N25B		
0	CARRIER VALUE in gm Pd I2 / mL		0.028083		
Sample Prep	VOLUME CARRIER ADDED in mL		1.000		
	CARRIER FRACTIONAL RECOVERY	REC	0.7122		
Sample #	SPIKE BOOK NUMBER		145B57A		
S0903310022	ACTIVITY OF SPIKE in µCi / mL		0.021420		
Instrument Code	COUNTING UNCERTAINTY		3.450		
WC71980	SAMPLE VOLUME USED IN SPIKE TEST in mL		1.000		
Data Entry By	SAMPLE Iodine 129 µCI / Sample from GEA	=	6.453E-05		
EMB	COUNT TIME IN MINUTES		150.0		
Analyst					
GLL					
Date Completed					
4/6/2009					
Analysis Date					
3/31/2009					
Analysis Time					
3:55 PM					
Sample Point					
AW106 EVAP3					

Procedure using this form*: **LA-378-103 K-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Units				
uCi/mL	**QC ACTUAL in uCi/mL**	=	**2.14E-02**	**DETECTION LEVEL**
	QC FOUND in uCi/mL	=	**2.34E-02**	**in uCi/mL**
	PERCENT SPIKE RECOVERY	=	**109.4%**	**7.161E-05**

Iodine Spike Liquid Template 1.0

Printed at: 10:33:57 AM 4/6/2009 Version: 1.04

```
*************************************************************************
* 222-S Laboratory Counting Room  04/06/2009 10:48:35                   *
*************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13587
Sample ID:              S09T001796-SPK
Sample Size:            1.000E+000 Each
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA6
File Number:            C:\PCNT2K\CAMFILES\I129CT\6G6082.CNF
Sample Geometry:        01
Count Time:                 9000.0 seconds
Real Time:                  9005.6 seconds
Dead Time:                    0.06 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      04/01/2009  17:39:02
Decayed to:             04/01/2009  17:39:02
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\I-129.NLB
Analyst:                EMB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D06B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     12/15/2004 09:51:58
 Date of last efficiency calibration: 12/22/2004 08:29:18

*************************************************************************
*****           P E A K   W I T H   N I D   R E P O R T           *****
*************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\I-129.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error    Nuclide

 M  1    29-   73    40.31   1.70    20.08  5.92E+003      2.85     .....
 m  2    29-   73    47.64   1.71    23.75  6.10E+002     19.41     .....
 m  3    29-   73    59.03   1.72    29.46  1.64E+005      0.47     I-129
 m  4    29-   73    67.08   1.73    33.49  3.38E+004      1.12     I-129
    5    74-   86    78.92   1.57    39.42  1.85E+004      2.04     I-129
    6  1299- 1315  1308.35   1.93   655.54  3.35E+003      3.56     .....
    7  2883- 2895  2888.12   1.35  1447.23  3.49E+001     42.99     .....

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001796-SPK Acquisition Date: 04/01/2009 17:39:02

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/Each	Wtd Mean Decay Corr uCi/Each	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	1.676E-003	1.676E-003	5.78E-005	3.45

Minimum Detectable Activity Report Page 3
Sample ID : S09T001796-SPK Acquisition Date 04/01/2009 17:39:02

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/Each)
+	I-129	59.79	29.67*	5.10E-006
	Am-241	654.00	59.54	1.24E-005

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Iodine 129 : LIQUID

			SPK-DUP		
Type	GROSS WEIGHT	W_2	2.7329	Associated Sample Number	S09T001796
SPK-DUP	TARE WEIGHT	W_1	2.7111	Associated Sample Value	9.230E-05
Work List	MASS PRECIPITATE		0.0218		
00013587	SAMPLE + SPIKE Iodine 129 µCi /Sampe from GEA	I(GEA)	1.644E-03	<< Prefix with "<" for "Less Than" results	
Test Code	SPIKE VOLUME in mL		0.1000		
IODINE-129	DILUTION FACTOR	DF	1.000		
Matrix	DIGEST DILUTION FACTOR	DDF	1.00000		
LIQUID	DETECTION LIMIT in µCi / Sample		5.040E-06		
Rerun	CARRIER BOOK NUMBER		38N25B		
1	CARRIER VALUE in gm Pd I2 / mL		0.028083		
Sample Prep	VOLUME CARRIER ADDED in mL		1.000		
	CARRIER FRACTIONAL RECOVERY	REC	0.7155		
Sample #	SPIKE BOOK NUMBER		145B57A		
S0903110038	ACTIVITY OF SPIKE in µCi / mL		0.021420		
Instrument Code	COUNTING UNCERTAINTY		3.450		
WC71980	SAMPLE VOLUME USED IN SPIKE TEST in mL		1.000		
Data Entry By	SAMPLE Iodine 129 µCi / Sample from GEA	=	6.453E-05		
EMB	COUNT TIME IN MINUTES		150.0		
Analyst					
GLL					
Date Completed					
4/6/2009					
Analysis Date					
3/31/2009					
Analysis Time					
3:55 PM					
Sample Point					
AW106 EVAP3					

Procedure using this form*: **LA-378-103 K-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Units				
uCi/mL	**QC ACTUAL in uCi/mL**	=	**2.14E-02**	DETECTION LEVEL
	QC FOUND in uCi/mL	=	**2.29E-02**	in uCi/mL
	PERCENT SPIKE RECOVERY	=	**106.8%**	7.044E-05

Iodine Spike Liquid Template 1.0

```
**************************************************************************
* 222-S Laboratory Counting Room  04/06/2009 10:50:04                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13587
Sample ID:              S09T001796 SPK-D
Sample Size:            1.000E+000 Each
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA6
File Number:            C:\PCNT2K\CAMFILES\I129CT\6G6083.CNF
Sample Geometry:        01
Count Time:                9000.0 seconds
Real Time:                 9005.5 seconds
Dead Time:                   0.06 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      04/01/2009  20:12:45
Decayed to:             04/01/2009  20:12:45
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\I-129.NLB
Analyst:                EMB
Background Subtract:    C:\PCNT2K\BKGFILES\G00D06B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     12/15/2004 09:51:58
 Date of last efficiency calibration: 12/22/2004 08:29:18

**************************************************************************
*****           P E A K   W I T H   N I D   R E P O R T            *****
**************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\I-129.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error    Nuclide

 M  1    29-   73    40.32   1.69    20.08  5.81E+003      2.89     .....
 m  2    29-   73    48.28   1.70    24.07  5.15E+002     22.71     .....
 m  3    29-   73    59.03   1.72    29.46  1.59E+005      0.48     I-129
 m  4    29-   73    67.09   1.73    33.50  3.34E+004      1.13     I-129
    5    74-   88    78.92   1.53    39.43  1.73E+004      2.26     I-129
    6  1300- 1319  1308.30   1.97   655.52  2.95E+003      3.81     .....

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001796 SPK-D Acquisition Date: 04/01/2009 20:12:45

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/Each	Wtd Mean Decay Corr uCi/Each	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	1.644E-003	1.644E-003	5.67E-005	3.45

Minimum Detectable Activity Report Page 3
Sample ID : S09T001796 SPK-D Acquisition Date 04/01/2009 20:12:45

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/Each)
+	I-129	59.79	29.67*	5.04E-006
	Am-241	671.00	59.54	1.26E-005

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Iodine 129 : LIQUID

			SAMPLE	
Type	GROSS WEIGHT in grams	W_2	2.7239	
SAMPLE	TARE WEIGHT in grams	W_1	2.7019	
Work List	MASS PRECIPITATE in grams		0.0220	
00013587	Iodine 129 µCi / SAMPLE from GEA	I(GEA)	5.823E-05	<< Prefix with "<" for "Less Than" results
Test Code	SAMPLE VOLUME in mL	V_{sam}	1.000	
IODINE-129	DILUTION FACTOR	DF	1.000	
Matrix	DIGEST DILUTION FACTOR	DDF	1.00000	
LIQUID	DETECTION LIMIT µCi / Sample		1.520E-06	
Rerun	CARRIER BOOK NUMBER		38N25B	
1	CARRIER VALUE in gm Pd I2 / mL		2.8083E-02	
Sample Prep	VOLUME CARRIER ADDED in mL		1.000	
	CARRIER FRACTIONAL RECOVERY	REC	0.7221	
Sample #	COUNT TIME IN MINUTES		150.0	
S09T001808	COUNTING UNCERTAINTY		4.50	

Instrument Code
WC71980
Data Entry By
EMB
Analyst
GLL
Date Completed
4/6/2009
Analysis Date
3/31/2009
Analysis Time
3:55 PM
Sample Point
AW106 EVAP3
Units
uCi/mL

Procedure using this form*: **LA-378-103 K-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVEL
Iodine 129 in uCi/mL	=	**8.06E-05**	**in uCi/mL**
Carrier Per Cent Recovery	=	**72.2%**	**2.105E-06**
Counting Uncertainty	=	**4.5%**	

Iodine Sample Liquid Template 1.0

Printed at: 11:05:33 AM 4/6/2009 Version: 1.04

```
**************************************************************************
* 222-S Laboratory Counting Room  04/02/2009 01:13:54                    *
**************************************************************************
      >>>>>>>>>> SAMPLE INFORMATION <<<<<<<<<<
Worklist #:             13587
Sample ID:              S09T001808-SAM
Sample Size:            1.000E+000 mL
Dilution Factor:        1.000E+000

      >>>>>>>>>> COUNT INFORMATION <<<<<<<<<<
Detector ID:            GEA6
File Number:            C:\PCNT2K\CAMFILES\I129CT\6G6084.CNF
Sample Geometry:        01
Count Time:                9000.0 seconds
Real Time:                 9002.6 seconds
Dead Time:                   0.03 %

      >>>>>>>>>> ANALYSIS INFORMATION <<<<<<<<<<
Sample Count Time:      04/01/2009  22:43:53
Decayed to:             04/01/2009  22:43:53
Standard Deviations:    2.00
Analysis Library:       C:\GENIE2K\CAMFILES\I-129.NLb
Analyst:                GLL
Background Subtract:    C:\PCNT2K\BKGFILES\G00D06B.CNF

      >>>>>>>>>> CALIBRATION INFORMATION <<<<<<<<<<
 Date of last energy calibration:     12/15/2004 09:51:58
 Date of last efficiency calibration: 12/22/2004 08:29:18

**************************************************************************
*****          P E A K   W I T H   N I D   R E P O R T           *****
**************************************************************************
     Tentative NID Library:   C:\GENIE2K\CAMFILES\I-129.NLB
     Peak Match Tolerance :    1.50 keV

   Peak  ROI  ROI    Peak    FWHM   Energy   Net Peak   2.00-Sigma  Tentative
    No. Start End  Centroid  (keV)   (keV)    Area       % Error    Nuclide

    1    32-   45    39.40   1.64    19.62  2.44E+002      35.89     .....
M   2    51-   73    59.08   1.77    29.48  5.63E+003       2.69     I-129
m   3    51-   73    67.06   1.78    33.48  1.21E+003       6.20     I-129
    4    74-   84    78.85   1.56    39.39  7.12E+002      11.74     I-129
    5  1300- 1314  1308.30   1.97   655.52  5.38E+002       9.29     .....

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet

Errors quoted at  2.000 sigma
```

Summary of Nuclide Activity Page 2
Sample ID : S09T001808-SAM Acquisition Date: 04/01/2009 22:43:53

Nuclide Type :

Nuclide	Hlife	Decay	Wtd Mean Uncorrected uCi/mL	Wtd Mean Decay Corr uCi/mL	Error Decay Corr 2.00-Sigma	2.00-Sigma %Error
I-129	1.6E+007Y	1.00	5.823E-005	5.823E-005	2.62E-006	4.50

Minimum Detectable Activity Report Page 3
Sample ID : S09T001808-SAM Acquisition Date 04/01/2009 22:43:53

	Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/mL)
+	I-129	59.79	29.67*	1.52E-006
	Am-241	404.00	59.54	9.81E-006

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Data Review Check List

Procedure LA-218-114 Tritium

Batch # 13414

Review Item	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments and Samples Affected
Batch Items					
1. Was an LCS and blank run the batch?	X			✓	
2. Was a duplicate and spike run with the batch?	X			✓	No duplicate requested
3. Was the book # of the standard (and spike) on the traveler?	X			✓	
4. Was the batch traveler completed (sample #, dilution, aliquot size)?	X			✓	
5. Were any line outs initialed and dated?			X	✓	
6. Was balance check completed on the day of use (if used)?			X	✓	
Result Items					
7. Was sample, traveler and counting data correct on ACE form?	X			✓	
8. If No, was ACE form corrected?			X	✓	
9. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?	X			✓	
10. If No, was LABCORE corrected?			X	✓	
11. Are result units correct?	X			✓	
12. If No, were units corrected?			X	✓	
13. Was data flagged?	X			✓	
14. Are all flags present and correct?	X			✓	
15. Are LCS results within limits (Lab's or customer's)?	X			✓	
16. Are Spike results within limits (Lab's or customer's)?	X			✓	
17. Is blank <MDC, or <5% isotope concentration, or <5% decision level?	X	X		✓	Blank was not below the field blanks
18. Are duplicate RPDs <20% (or RSD) within customer limits?	X			✓	
19. Are the correct procedure number and Rev/Mod on the report?	X			✓	
Procedure Speciffic Items					
20. Was the correct LSC program used for counting?	X			✓	
21. Were the customer required detection or quantification limits met?			X	✓	

1st Level Reviewer: S A Cattle **Date:** 23 Mar 09

2nd Level Reviewer: John Polyan **Date:** 24 Mar 09

LABCORE Completed Batch Report for Batch# 00013414

Analyst: LaPlant, Gary **Book#:** 66B64

Instrument: LSC2 LS6000 B-1A

Method: TRITIUM, LA-218-114 Rev/Mod F-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP3 for Tritium. gll

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903160001		0	0	Tritium	LIQUID	.0023721	2.1816E-03		0.6	7.20E-07	uCi/mL	91.969	% Recovery	
Sample Sequence 2															
2 BLNK	S0903160002		0	0	Tritium	LIQUID		3.1261E-06		53.6	6.82E-07	uCi/mL			
Sample Sequence 3															
3 SAMPLE	S09T001751		0	0	Tritium	LIQUID	N/A	<6.9179E-07			6.92E-07	uCi/mL			U
Sample Sequence 4															
4 SAMPLE	S09T001761		0	0	Tritium	LIQUID	N/A	<6.9294E-07			6.93E-07	uCi/mL			U
Sample Sequence 5															
5 SAMPLE	S09T001782		0	0	Tritium	LIQUID	N/A	3.1634E-04		1.9	7.36E-07	uCi/mL			
Sample Sequence 6															
6 SPK	S0903160004	S09T001782	0	0	Tritium	LIQUID	.0023721	2.2612E-03			7.36E-07	uCi/mL	95.325	% Recovery	
Sample Sequence 7															
7 SPK-DUP	S0903160005	S09T001782	0	0	Tritium	LIQUID	.0023721	2.1931E-03			7.36E-07	uCi/mL	92.453	% Recovery	
													3.0589	% RPD	
Sample Sequence 8															
8 SAMPLE	S09T001794		0	0	Tritium	LIQUID	N/A	3.1855E-04		1.8	7.31E-07	uCi/mL			
Sample Sequence 9															
9 SAMPLE	S09T001806		0	0	Tritium	LIQUID	N/A	3.1776E-04		1.8	7.26E-07	uCi/mL			

Comments Section:

Data Flagger Status:
Flagging Completed

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013414

Final Page for Batch# 00013414

Reviewer Signature — Date: 5/6/2009

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Review Checklist

CALIBRATION OF LIQUID SCINTILLATION COUNTERS

INSTRUMENT # LS 6000 WC 16085 PROCEDURES LA-508-121 LQ-150-115

BATCH # 13414

Review Items	--- Level 1 --- Yes	No	N/A	Level 2	Comments & Samples Affected
Efficiency Calibration					
1 Instrument calibration stds ^{3}H & ^{14}C run prior to quench curve calibration	✓			✓	
2 Unquenched bkg vial run before quench curve calibration	✓			✓	
3 Calibration performed per procedure LA-508-121	✓			✓	
4 Quench curve calibration had > 7 data points	✓			✓	
5 Quench range of calibration matches expected range of samples	✓			✓	
6 Quench calibration performed in mode where bkg is subtracted from each analysis	✓			✓	
7 Calibration had a second, independent check	✓			✓	
8 Any non-conformances are documented in maintnance notebook	✓			✓	
9 Calibration reports are pasted and signed in maintenance notebook	✓			✓	
Calibration Verification					
1 instrument Control Std within limits before and after batch counted	✓			✓	
2 Bkg check within limits before and after batch counted	✓			✓	

1st Level Reviewer: John Rohyans Date: 6 May 09

2nd Level Reviewer: R H Jones Date: 6 May 09

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RPP-RPT-40709 Rev. 1

LABCORE Completed Batch Report for Batch# 00013414

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903160001	STD				
2	S0903160002	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001761	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001782	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
6	S0903160004	SPK	S09T001782			
7	S0903160005	SPK-DUP	S09T001782			
8	S09T001794	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
9	S09T001806	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

Units shown for QC (BLK/BKG) may not reflect the actual units.

3/16/2009 8:52:12AM
IncompleteBatchShort Version 2.7.22
batchreports 2.7.25

LABCORE Data Entry Template for Batch# 00013414

Analyst: h0074758 **Standard ID / Book#:** 66864
Instrument:
Method: TRITIUM, LA-218-114 Rev/Mod F-0
Prep Batch:
Batch Comment: AW106 EVAP3 for Tritium. gll

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Tritium					
2	BLNK		0		LIQUID		
	Analytes Requested:	Tritium					
3	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Tritium					
4	SAMPLE	S09T001761	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Tritium					
5	SAMPLE	S09T001782	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Tritium					
6	SPK	S09T001782	0		LIQUID		
	Analytes Requested:	Tritium					
7	SPK-DUP	S09T001782	0		LIQUID		
	Analytes Requested:	Tritium					
8	SAMPLE	S09T001794	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Tritium					
9	SAMPLE	S09T001806	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Tritium					

Final Page for Batch# 00013414

3-19-09
Analyst Signature Date

3/20/09
Data Entry Signature Date

3/20/9

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Tritium Data Collection Sheet

Worklist # 13414 Matrix Liquid

Analyst gll Date/Time: 3/19/09 / 1105 For Spikes

Pipet# 125033 Checked ✓ STD # 66B64 Spk Bk# 66B64

Counter Position	Sample Type	Sample Number	Sample Volume	Dilution Factor	Volume of Sample	Volume of Spike
	Standard	66B64	1mL	1		
	BLNK		↓	↓		
	Sample	S09T001751				
	Sample	S09T001761				
	Sample	S09T001782				
	Spike	S09T001782			1.5	1.5
	Spike Dup	S09T001782			1.5	1.5
	Sample	S09T001794				
	Sample	S09T001806	↓	↓		

Wrk. St. #4:C:\TRVLRS_EXCEL\H3.xls

Comments: AW106 EVAP3 for Tritium

PAGE: 1

ID : H-3 TRITIUM 19 MAR 2009 13:50
USER: 9 COMMENT:LS 6000 WC:6085
PRESET TIME : 50.00
DATA CALC : SL DPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD
COUNT BLANK : YES IC# : NO REPLICATES : 1 REDO: : OFF
TWO PHASE : YES AQC : NO CYCLE REPEATS : 1
SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

ISOTOPE 1: H-3 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 500.0 - 1300.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

BACKGROUND QUENCH CURVE: Off COLOR QUENCH CORRECTION: Off

Quench Limits Low:-6.069 High:308.76

SAM NO	POS	TIME MIN	H#	H-3 CPM	H-3 %ERROR	WIND1 CPM	WIND1 %ERROR	H-3 DPM	H-3 EFF-1	LUMEX %	ELAPSED TIME	2P
91	**-1	50.00	87.3	21.64	6.08	39.68	4.48	51.35	42.14	0.00	51.50	
		Blank Average DPM for H-3 : 51.35 COEF. OF VAR: 0.000										
1	**-3	50.00	100.5	1998.12	0.65	38.72	4.55	4843.16	38.75	0.01	103.14	
2	**-4	50.00	82.1	25.18	5.64	37.56	4.62	6.94	43.19	0.09	154.71	
3	**-5	50.00	87.9	19.78	6.37	37.70	4.61	-4.24	41.99	0.13	206.32	
4	**-6	50.00	88.5	20.42	6.26	39.08	4.52	-2.54	41.84	0.10	257.86	
5	**-7	50.00	127.2	273.65	1.70	42.34	4.32	702.27	37.11	0.65	309.92	2P
6	**-8	50.00	96.6	1158.70	0.83	41.76	4.38	2861.08	39.79	0.39	362.29	
7	**-9	50.00	93.8	1148.34	0.84	47.84	4.09	2785.45	40.48	0.39	414.64	
8	**-10	50.00	105.4	284.92	1.69	36.72	4.67	707.17	37.56	0.98	466.93	2P
9	**-11	50.00	102.3	288.18	1.68	38.84	4.54	705.43	38.08	1.10	519.07	2P

Tritium

		STD
Type	Disintegrations per minute from Counter	4843.16
STD	Sample Volume in mL	1
Work List	Dilution Factor	1
00013414	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	1898.12
TRITIUM	Instrument Fractional Efficiency	0.3878
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	21.64
Rerun	Background Efficiency	0.4214
0	Relative Percent Counting Uncertainty	0.65
Sample Prep	Detection Limit	8.38
	Critical Level Lc	1.60
Sample #	Tritium Concentration in uCi/mL	2.18E-03
S0903160001	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	1878.21
Instrument Code	Standard Book No.	66B64
WC16085	Standard Value in uCi/mL	2.3721E-03

Data Entry By
RWK
Analyst
GLL
Date Completed
3/20/2009
Analysis Date
3/19/2009
Analysis Time
11:05 AM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this form*: **LA-218-114 F-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Tritium Concentration in uCi/mL	2.18E-03
% Recovery	91.97%
Detection Limit in uCi/mL	7.20E-07
Relative Percent Counting Uncertainty	0.65

Tritium Std Template 1.0

Printed at: 10:42:19 PM 3/20/2009 Version: 1.01

Workbook Page BLANK 2

Tritium

		BLNK
Type	Disintegrations per minute from Counter	6.94
BLNK	Sample Volume in mL	1
Work List	Dilution Factor	1
00013414	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	25.18
TRITIUM	Instrument Fractional Efficiency	0.4319
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	21.64
Rerun	Background Efficiency	0.4214
0	Relative Percent Counting Uncertainty	53.58
Sample Prep	Detection Limit	7.14
	Critical Level Lc	1.51
Sample #	Tritium Concentration in uCi/mL	3.13E-06
S0903160002	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	3.00
Instrument Code		
WC16085		
Data Entry By		
RWK		
Analyst		
GLL		
Date Completed		
3/20/2009		
Analysis Date		
3/19/2009		
Analysis Time		
11:05 AM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

Procedure using this Form*: **LA-218-114 F-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Tritium Concentration in uCi/mL	3.13E-06
Detection Limit in uCi/mL	6.82E-07
Relative Percent Counting Uncertainty	53.58

Tritium Sample Template 1.0

Printed at: 10:42:35 PM 3/20/2009 Version: 1.01

Tritium

		SAMPLE
Type	Disintegrations per minute from Counter	-4.24
SAMPLE	Sample Volume in mL	1
Work List	Dilution Factor	1
00013414	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	19.78
TRITIUM	Instrument Fractional Efficiency	0.4198
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	21.64
Rerun	Background Efficiency	0.4214
0	Relative Percent Counting Uncertainty	
Sample Prep	Detection Limit	7.45
	Critical Level Lc	1.54
Sample #	Tritium Concentration in uCi/mL <	6.92E-07
S09T001751	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	1.54
Instrument Code		
WC16085		
Data Entry By		
RWK		
Analyst		
GLL		
Date Completed		
3/20/2009		
Analysis Date		
3/19/2009		
Analysis Time		
11:05 AM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

Procedure using this Form*: LA-218-114 F-0

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Tritium Concentration in uCi/mL	< 6.92E-07
Detection Limit in uCi/mL	6.92E-07
Relative Percent Counting Uncertainty	

Tritium Sample Template 1.0

Printed at: 10:42:47 PM 3/20/2009 Version: 1.01

Tritium

			SAMPLE
Type	Disintegrations per minute from Counter		-2.54
SAMPLE	Sample Volume in mL		1
Work List	Dilution Factor		1
00013414	Digest Dilution Factor		1.000
Test Code	Sample Count Rate in cpm		20.42
TRITIUM	Instrument Fractional Efficiency		0.4184
Matrix	Count Time in Minutes		50
LIQUID	Background Count Rate in cpm		21.64
Rerun	Background Efficiency		0.4214
0	Relative Percent Counting Uncertainty		
Sample Prep	Detection Limit		7.48
	Critical Level Lc		1.54
Sample #	Tritium Concentration in uCi/mL	<	6.93E-07
S09T001761	Lc, Rmax, or Rs, (Sample Rate) as appropriate)		1.54

Instrument Code
WC16085
Data Entry By
RWK
Analyst
GLL
Date Completed
3/20/2009
Analysis Date
3/19/2009
Analysis Time
11:05 AM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-218-114 F-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Tritium Concentration in uCi/mL	< 6.93E-07
Detection Limit in uCi/mL	6.93E-07
Relative Percent Counting Uncertainty	

Tritium Sample Template 1.0

Printed at: 10:43:00 PM 3/20/2009 Version: 1.01

Workbook Page SAMPLE 5

Tritium

		SAMPLE
Type	Disintegrations per minute from Counter	702.27
SAMPLE	Sample Volume in mL	1
Work List	Dilution Factor	1
00013414	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	279.68
TRITIUM	Instrument Fractional Efficiency	0.3711
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	21.64
Rerun	Background Efficiency	0.4214
0	Relative Percent Counting Uncertainty	1.86
Sample Prep	Detection Limit	8.95
	Critical Level Lc	1.63
Sample #	Tritium Concentration in uCi/mL	3.16E-04
S09T001782	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	260.62
Instrument Code		
WC16085		
Data Entry By		
RWK		
Analyst		
GLL		
Date Completed		
3/20/2009		
Analysis Date		
3/19/2009		
Analysis Time		
11:05 AM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

Procedure using this Form*: **LA-218-114 F-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Tritium Concentration in uCi/mL	3.16E-04
Detection Limit in uCi/mL	7.36E-07
Relative Percent Counting Uncertainty	1.86

Tritium Sample Template 1.0

Printed at: 10:43:17 PM 3/20/2009 Version: 1.01

Tritium

		SPK	
Type	dpm of Sample from Counter	702.27	Associated Sample Number
SPK	dpm of Sample + Spike from Counter	2861.08	S09T001782
Work List	Volume of Sample in Distillation Vial in mL	1.5	
00013414	Volume of Spike in Distillation Vial in mL	1.5	
Test Code	Volume Transferred to Scintillation Vial in mL	1.0	
TRITIUM	Spike Book No.	66B64	
Matrix	Spike Value in uCi/mL	2.3721E-03	
LIQUID	Sample Count Rate in cpm	1158.70	
Rerun	Instrument Fractional Efficiency	0.3979	
0	Count Time in Minutes	50	
Sample Prep	Background in cpm	21.64	
	Background Efficiency	0.4214	
Sample #	Detection Limit	7.84	
S0903160004	Critical Level Lc	1.58	
Instrument Code	H3 uCi/mL in Sample Vial	3.16E-04	
WC16085	H3 uCi/mL in Sample + Spike Vial	1.29E-03	
Data Entry By	Vol. Ratio Sample Vol. to Total Vol.	**5.00E-01**	
RWK	Vol. Ratio Spike Vol. to Total Vol.	**5.00E-01**	
Analyst			
GLL	**Procedure using this Form*:**	LA-218-114	F-0
Date Completed			
3/20/2009			
Analysis Date	* The specific formulae used in the calculations for this spreadsheet can be found		
3/19/2009	in the applicable procedure, as identified on the worklist.		
Analysis Time			
11:05 AM	**QC ACTUAL**	=	2.37E-03
Specification	**QCFOUND**	=	2.26E-03
AW106 EVAP3	**PERCENT SPIKE RECOVERY**	=	95.3%
Units			
uCi/mL			

Tritium Spike Template 1.0

Printed at: 10:43:28 PM 3/20/2009 Version: 1.01

Tritium

		SPK-DUP	
Type	dpm of Sample from Counter	702.27	Associated Sample Number
SPK-DUP	dpm of Sample + Spike from Counter	2785.45	S09T001782
Work List	Volume of Sample in Distillation Vial in mL	1.5	
00013414	Volume of Spike in Distillation Vial in mL	1.5	
Test Code	Volume Transferred to Scintillation Vial in mL	1.0	
TRITIUM	Spike Book No.	66B64	
Matrix	Spike Value in uCi/mL	2.3721E-03	
LIQUID	Sample Count Rate in cpm	1148.34	
Rerun	Instrument Fractional Efficiency	0.4048	
0	Count Time in Minutes	50	
Sample Prep	Background in cpm	21.64	
	Background Efficiency	0.4214	
Sample #	Detection Limit	7.71	
S0903160005	Critical Level Lc	1.56	
Instrument Code	H3 uCi/mL in Sample Vial	3.16E-04	
WC16085	H3 uCi/mL in Sample + Spike Vial	1.25E-03	
Data Entry By	Vol. Ratio Sample Vol. to Total Vol.	**5.00E-01**	
RWK	Vol. Ratio Spike Vol. to Total Vol.	**5.00E-01**	

Analyst			
GLL			
Date Completed			
3/20/2009			
Analysis Date			
3/19/2009			
Analysis Time			
11:05 AM	**QC ACTUAL**	=	2.37E-03
Specification	**QCFOUND**	=	2.19E-03
AW106 EVAP3	**PERCENT SPIKE RECOVERY**	=	92.5%
Units			
uCi/mL			

Procedure using this Form*: LA-218-114 F-0

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Tritium Spike Template 1.0

Printed at: 10:43:39 PM 3/20/2009 Version: 1.01

Tritium

		SAMPLE
Type	Disintegrations per minute from Counter	707.17
SAMPLE	Sample Volume in mL	1
Work List	Dilution Factor	1
00013414	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	284.90
TRITIUM	Instrument Fractional Efficiency	0.3756
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	21.64
Rerun	Background Efficiency	0.4214
0	Relative Percent Counting Uncertainty	1.84
Sample Prep	Detection Limit	8.79
	Critical Level Lc	1.62
Sample #	Tritium Concentration in uCi/mL	3.19E-04
S09T001794	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	265.61

Instrument Code
WC16085
Data Entry By
RWK
Analyst
GLL
Date Completed
3/20/2009
Analysis Date
3/19/2009
Analysis Time
11:05 AM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-218-114 F-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Tritium Concentration in uCi/mL	3.19E-04
Detection Limit in uCi/mL	7.31E-07
Relative Percent Counting Uncertainty	1.84

Tritium Sample Template 1.0

Printed at: 10:43:50 PM 3/20/2009 Version: 1.01

Tritium		SAMPLE
Type	Disintegrations per minute from Counter	705.43
SAMPLE	Sample Volume in mL	1
Work List	Dilution Factor	1
00013414	Digest Dilution Factor	1.000
Test Code	Sample Count Rate in cpm	288.18
TRITIUM	Instrument Fractional Efficiency	0.3808
Matrix	Count Time in Minutes	50
LIQUID	Background Count Rate in cpm	21.64
Rerun	Background Efficiency	0.4214
0	Relative Percent Counting Uncertainty	1.83
Sample Prep	Detection Limit	8.61
	Critical Level Lc	1.61
Sample #	Tritium Concentration in uCi/mL	3.18E-04
S09T001806	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	268.62
Instrument Code		
WC16085		
Data Entry By		
RWK		
Analyst		
GLL		
Date Completed		
3/20/2009		
Analysis Date		
3/19/2009		
Analysis Time		
11:05 AM		
Specification		
AW106 EVAP3		
Units		
uCi/mL		

Procedure using this Form*: **LA-218-114 F-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Tritium Concentration in uCi/mL	3.18E-04
Detection Limit in uCi/mL	7.26E-07
Relative Percent Counting Uncertainty	1.83

Tritium Sample Template 1.0

Printed at: 10:44:05 PM 3/20/2009 Version: 1.01

Data Review Check List

Procedure LA-365-132 Se-79

13590

Review Item	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments and Samples Affected
Batch Items					
1. Was a blank run the batch?	X			X	
2. Was a duplicate run with the batch?	X			X	
3. Was the batch (worklist) completed (sample #, dilution, aliquot size)?	X			X	
4. Were any line outs initialed and dated?			X	X	
5. Was balance check completed on the day of use (if used)?	X			X	
Result Items					
6. Was sample, traveler and counting data correct on ACE form?	X			X	
7. If No, was ACE form corrected?			X	X	
8. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?	X			X	
9. If No, was LABCORE corrected?			X	X	
10. Are result units correct?	X			X	
11. If No, were units corrected?			X	X	
12. Was data flagged?	X			X	
13. Are all flags present and correct?	X			X	
14. Is blank <MDC, or <5% isotope concentration, or <5% decision level?		X		X	Blnks have high Ctn Uncert, accepted.
15. Are duplicate RPDs <20% (or RSD) within customer limits?	X			X	
16. Are the correct procedure number and Rev/Mod on the report?	X			X	
Procedure Speciffic Items					
17. Was correct LSC program used for counting?	X			X	
18. Were carrier recoveries between 30% and 110%?	X			X	
19. Were the customer required detection or quantification limits met?			X	X	

1st Level Reviewer: S A Carter **Date:** 29 Apr 09

2nd Level Reviewer: [signature] **Date:** 4/7/09

Data Review Checklist

CALIBRATION OF LIQUID SCINTILLATION COUNTERS

INSTRUMENT # LS6500 WC51586 PROCEDURES LA-508-121 LQ-150-115

BATCH # 13590

Review Items	--- Level 1 --- Yes	No	N/A	Level 2	Comments & Samples Affected
Efficiency Calibration					
1. Instrument calibration stds ^{3}H & ^{14}C run prior to quench curve calibration	✓			✓	
2. Unquenched bkg vial run before quench curve calibration	✓			✓	
3. Calibration performed per procedure LA-508-121	✓			✓	
4. Quench curve calibration had > 7 data points	✓			✓	
5. Quench range of calibration matches expected range of samples	✓			✓	
6. Quench calibration performed in mode where bkg is subtracted from each analysis	✓			✓	
7. Calibration had a second, independent check.	✓			✓	
8. Any non-conformances are documented in maintnance notebook	✓			✓	
9. Calibration reports are pasted and signed in maintenance notebook	✓			✓	
Calibration Verification					
1. Instrument Control Std within limits before and after batch counted	✓			✓	
2. Bkg check within limits before and after batch counted	✓			✓	

1st Level Reviewer: RA Jones Date: 6 Apr. 09

2nd Level Reviewer: John Relyea Date: 6 Apr 09

LABCORE Completed Batch Report for Batch# 00013590

Analyst: LaPlant, Gary **Book#:** N/A

Instrument: LSC3 LS6500 B-1A

Method: SELENIUM-79, LA-365-132 Rev/Mod 1-0

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP3. gll

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1																
1	BLNK	S0903310051		0	0	Selenium-79	LIQUID		8.0421E-06		99.15	1.83E-06	uCi/mL			
1	BLNK	S0903310051		0	0	Selenium-C	LIQUID		59.204				% Recovery			
Sample Sequence 2																
2	SAMPLE	S09T001751		0	1	Selenium-79	LIQUID	N/A	6.0996E-06		111.17	2.22E-06	uCi/mL			J
2	SAMPLE	S09T001751		0	1	Selenium-C	LIQUID		47.264				% Recovery			
Sample Sequence 3																
3	SAMPLE	S09T001761		0	1	Selenium-79	LIQUID	N/A	4.6816E-06		139.45	1.72E-06	uCi/mL			J
3	SAMPLE	S09T001761		0	1	Selenium-C	LIQUID		61.194				% Recovery			
Sample Sequence 4																
4	SAMPLE	S09T001782		0	1	Selenium-79	LIQUID	N/A	1.8128E-04		2.14	1.58E-06	uCi/mL			
4	SAMPLE	S09T001782		0	1	Selenium-C	LIQUID		64.677				% Recovery			
Sample Sequence 5																
5	DUP	S0903310052	S09T001782	0	0	Selenium-79	LIQUID	1.8128E-04	1.9073E-04		2.1	1.54E-06	uCi/mL	5.0805	% RPD	
Sample Sequence 6																
6	SAMPLE	S09T001794		0	1	Selenium-79	LIQUID	N/A	1.7717E-04		2.27	1.69E-06	uCi/mL			
6	SAMPLE	S09T001794		0	1	Selenium-C	LIQUID		60.199				% Recovery			
Sample Sequence 7																
7	SAMPLE	S09T001806		0	1	Selenium-79	LIQUID	N/A	1.6461E-04		2.37	1.60E-06	uCi/mL			
7	SAMPLE	S09T001806		0	1	Selenium-C	LIQUID		66.169				% Recovery			

Comments Section:

Data Flagger Status:
Flagging Completed

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013590

Final Page for Batch# 00013590

Reviewer Signature Date

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013590

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903310051	BLNK				
2	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
3	S09T001761	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
4	S09T001782	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
5	S0903310052	DUP	S09T001782			
6	S09T001794	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
7	S09T001806	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

Units shown for QC (BLK/BKG) may not reflect the actual units.

'31/2009 3:35:16PM
ıcompleteBatchShort Version 2.7.22
atchreports 2.7.25

LABCORE Data Entry Template for Batch# 00013590

Analyst: h0074758 **Standard ID / Book#:** N/A
Instrument:
Method: SELENIUM-79, LA-365-132 Rev/Mod I-0
Prep Batch:
Batch Comment: AW106 EVAP3. gll

S	Type	Sample	R	A	Matrix	Group#	Project
1	BLNK		0		LIQUID		
	Analytes Requested:	Selenium-79, Selenium-C					
2	SAMPLE	S09T001751	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Selenium-79, Selenium-C					
3	SAMPLE	S09T001761	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Selenium-79, Selenium-C					
4	SAMPLE	S09T001782	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Selenium-79, Selenium-C					
5	DUP	S09T001782	0		LIQUID		
	Analytes Requested:	Selenium-79					
6	SAMPLE	S09T001794	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Selenium-79, Selenium-C					
7	SAMPLE	S09T001806	1		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Selenium-79, Selenium-C					

Final Page for Batch# 00013590

[signature] 4/2/09
Analyst Signature **Date**

[signature] 4-6-09
Data Entry Signature **Date**

[signature] 4/6/9

Data Entry Comments:

Se-79 Traveler

Work List # 13590

Analyst gel

Pipet ID # | Checked

4034986 ☑

2347423 ☑

436223 ☑

Matrix Liquid

Date/Time delivered @ Elev 4/2/09 / 1445

Balanced ID # LE-BAL-046

Balanced Checked ☑

Detector ID

Carrier # 113514

Sample Type	Sample Number	Sample Size	Dilution Factor	Gross Weight	Tare weight	Position Number
BLNK		1 ml	1	0.8138	0.8019	1
Sample	S09T001751	1 ml		0.7971	0.7876	2
Sample	S09T001761	1 ml		0.8023	0.7900	3
Sample	S09T001782	1 ml		0.8000	0.7870	4
Duplicate	S09T001782	1 ml		0.7993	0.7855	5
Sample	S09T001794	1 ml		0.8015	0.7894	6
Sample	S09T001806	1 ml	↓	0.7886	0.7753	7

Wrk. St. #4C:\TRVLRS_EXCEL\Se79.xls

Comments: AW106 EVAP3

PAGE: 1

ID:SET-79 3 APR 2006 01:01
USER: 3 COMMENT:LS 6500 WCS1586
PRESET TIME : 50.00
DATA CALC : BL DPM HN :YES SAMPLE REPEATS: 1 PRINTER : STD
COUNT BLANK : YES IC# : NO REPLICATES : 1 RS232 : OFF
TWO PHASE : YES AQC : NO CYCLE REPEATS : 1 DISK : OFF
SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

ISOTOPE 1: C-14 %ERROR: 0.00 FACTOR: 1.200000 BKS. SUB: 0

BACKGROUND QUENCH CURVE: Off COLOR QUENCH CORRECTION: Off

Quench Limits Low:14.883 High:326.05

SAM NO	POS	TIME MIN	H#	C-14 CPM	C-14 %ERROR	C-14 DPM	C-14 EFF-1	LUMEX %	ELAPSED TIME	2P
B1	**-1	50.00	150.6	46.66	4.10	50.82	91.81	1.20	51.75	2P
	Blank Average DPM for C-14 : 50.82 COEF. OF VAR: 0.000									
1	**-3	50.00	241.3	49.40	4.04	10.57	60.48	0.68	103.47	2P
2	**-4	50.00	201.9	49.10	4.07	6.40	85.81	1.19	135.28	2P
3	**-5	50.00	200.3	48.60	4.07	6.36	84.99	0.70	207.01	2P
4	**-6	50.00	149.2	281.72	1.69	260.28	90.56	0.81	258.76	2P
5	**-7	50.00	212.9	289.52	1.67	290.70	84.48	2.17	310.52	2P
6	**-8	50.00	146.4	360.96	1.75	236.77	90.75	0.27	362.32	2P
7	**-9	50.00	313.1	247.14	1.80	241.81	84.46	0.12	414.01	2P

Se-79		BLNK	
Type	Sample Volume in mL	1.000	
BLNK	Dilution Factor	1.0	
Work List	Digest Dilution Factor	1.00000	
00013590	dpm of Sample from Liquid Scintillation Counter	10.57	
Test Code	Instrument Fractional Efficiency	0.8048	Result:
SELENIUM-79	Sample Count Rate in cpm	49.4	8.04E-06
Matrix	Count Time in Minutes	50	
LIQUID	Background Count Rate in cpm	46.66	
Rerun	Background Efficiency	0.9181	
0	Relative Percent Counting Uncertainty	99.15	
Sample Prep	Gross Weight	0.8138	
	Tare Weight	0.8019	
Sample #	Carrier Book Number	113S1A	
S0903310051	Carrier Value	0.020	
Instrument Code	Volume Carrier Added in mL	1.000	
WC51586	Carrier Recovery Factor	0.5920	
Data Entry By	Detection Limit	6.04	
EMB	Critical Level Lc	2.40	
Analyst	Se-79 Concentration in uCi/mL	8.04E-06	
GLL	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	8.50E+00	
Date Completed			
4/6/2009			
Analysis Date			
4/2/2009			
Analysis Time			
2:45 PM			

Procedure using this Form*: **LA-365-132** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Specification		
AW106 EVAP3	**Se-79 Concentration in uCi/mL**	8.04E-06
	Relative Percent Counting Uncertainty	99.15
Units	**% Carrier Recovery**	59.2%
uCi/mL	**Detection Level in uCi/mL**	1.83E-06

Selenium-79 Sample Template 1.0

Printed at: 8:34:28 AM 4/6/2009 Version: 1.02

Se-79		SAMPLE	
Type	Sample Volume in mL	1.000	
SAMPLE	Dilution Factor	1.0	
Work List	Digest Dilution Factor	1.00000	
00013590	dpm of Sample from Liquid Scintillation Counter	6.40	
Test Code	Instrument Fractional Efficiency	0.8581	Result:
SELENIUM-79	Sample Count Rate in cpm	49.1	6.10E-06
Matrix	Count Time in Minutes	50	
LIQUID	Background Count Rate in cpm	46.66	
Rerun	Background Efficiency	0.9181	
1	Relative Percent Counting Uncertainty	111.17	
Sample Prep	Gross Weight	0.7971	
	Tare Weight	0.7876	
Sample #	Carrier Book Number	113S1A	
S09T001751	Carrier Value	0.020	
Instrument Code	Volume Carrier Added in mL	1.000	
WC51586	Carrier Recovery Factor	0.4726	
Data Entry By	Detection Limit	5.49	
EMB	Critical Level Lc	2.33	
Analyst	Se-79 Concentration in uCi/mL	6.10E-06	
GLL	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	5.49E+00	
Date Completed			
4/6/2009	**Procedure using this Form*:**	**LA-365-132**	**I-0**
Analysis Date			
4/2/2009	* The specific formulae used in the calculations for this spreadsheet can be found		
Analysis Time	in the applicable procedure, as identified on the worklist.		
2:45 PM			

Specification		
AW106 EVAP3	**Se-79 Concentration in uCi/mL**	6.10E-06
Units	**Relative Percent Counting Uncertainty**	111.17
uCi/mL	**% Carrier Recovery**	47.3%
	Detection Level in uCi/mL	2.22E-06

Selenium-79 Sample Template 1.0

Printed at: 8:38:14 AM 4/6/2009 Version: 1.02

Se-79		SAMPLE	
Type	Sample Volume in mL	1.000	
SAMPLE	Dilution Factor	1.0	
Work List	Digest Dilution Factor	1.00000	
00013590	dpm of Sample from Liquid Scintillation Counter	6.36	
Test Code	Instrument Fractional Efficiency	0.8499	Result:
SELENIUM-79	Sample Count Rate in cpm	48.6	4.68E-06
Matrix	Count Time in Minutes	50	
LIQUID	Background Count Rate in cpm	46.66	
Rerun	Background Efficiency	0.9181	
1	Relative Percent Counting Uncertainty	139.45	
Sample Prep	Gross Weight	0.8023	
	Tare Weight	0.79	
Sample #	Carrier Book Number	113S1A	
S09T001761	Carrier Value	0.020	
Instrument Code	Volume Carrier Added in mL	1.000	
WC51586	Carrier Recovery Factor	0.6119	
Data Entry By	Detection Limit	5.57	
EMB	Critical Level Lc	2.34	
Analyst	Se-79 Concentration in uCi/mL	4.68E-06	
GLL	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	5.41E+00	

Date Completed
4/6/2009
Analysis Date
4/2/2009
Analysis Time
2:45 PM

Procedure using this Form*: **LA-365-132** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Specification		
AW106 EVAP3	**Se-79 Concentration in uCi/mL**	4.68E-06
	Relative Percent Counting Uncertainty	139.45
Units	**% Carrier Recovery**	61.2%
uCi/mL	**Detection Level in uCi/mL**	1.72E-06

Selenium-79 Sample Template 1.0

Printed at: 8:42:08 AM 4/6/2009 Version: 1.02

Se-79		SAMPLE	
Type	Sample Volume in mL	1.000	
SAMPLE	Dilution Factor	1.0	
Work List	Digest Dilution Factor	1.00000	
00013590	dpm of Sample from Liquid Scintillation Counter	260.28	
Test Code	Instrument Fractional Efficiency	0.9056	Result:
SELENIUM-79	Sample Count Rate in cpm	281.72	1.81E-04
Matrix	Count Time in Minutes	50	
LIQUID	Background Count Rate in cpm	46.66	
Rerun	Background Efficiency	0.9181	
1	Relative Percent Counting Uncertainty	2.14	
Sample Prep	Gross Weight	0.8	
	Tare Weight	0.787	
Sample #	Carrier Book Number	113S1A	
S09T001782	Carrier Value	0.020	
Instrument Code	Volume Carrier Added in mL	1.000	
WC51586	Carrier Recovery Factor	0.6468	
Data Entry By	Detection Limit	5.06	
EMB	Critical Level Lc	2.27	
Analyst	Se-79 Concentration in uCi/mL	1.81E-04	
GLL	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	2.36E+02	

Date Completed
4/6/2009
Analysis Date
4/2/2009
Analysis Time
2:45 PM

Procedure using this Form*: **LA-365-132** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Specification		
AW106 EVAP3	**Se-79 Concentration in uCi/mL**	1.81E-04
	Relative Percent Counting Uncertainty	2.14
Units	**% Carrier Recovery**	64.7%
uCi/mL	**Detection Level in uCi/mL**	1.58E-06

Selenium-79 Sample Template 1.0

Printed at: 8:48:07 AM 4/6/2009 Version: 1.02

Se-79

		DUP	
Type	Sample Volume in mL	1.000	Associated Sample Number
DUP	Dilution Factor	1.0	S09T001782
Work List	Digest Dilution Factor	1.00000	
00013590	dpm of Sample from Liquid Scintillation Counter	290.70	
Test Code	Instrument Fractional Efficiency	0.8448	Result:
SELENIUM-79	Sample Count Rate in cpm	288.52	1.91E-04
Matrix	Count Time in Minutes	50	
LIQUID	Background Count Rate in cpm	46.66	
Rerun	Background Efficiency	0.9181	
0	Relative Percent Counting Uncertainty	2.10	
Sample Prep	Gross Weight	0.7993	
	Tare Weight	0.7855	
Sample #	Carrier Book Number	113S1A	
S0903310052	Carrier Value	0.020	
Instrument Code	Volume Carrier Added in mL	1.000	
WC51586	Carrier Recovery Factor	0.6866	
Data Entry By	Detection Limit	5.62	
EMB	Critical Level Lc	2.35	
Analyst	Se-79 Concentration in uCi/mL	1.91E-04	
GLL	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	2.46E+02	

Date Completed	**Procedure using this Form*:**	**LA-365-132** **I-0**
4/6/2009		
Analysis Date		
4/2/2009	* The specific formulae used in the calculations for this spreadsheet can be found	
Analysis Time	in the applicable procedure, as identified on the worklist.	
2:45 PM		

Specification	**Se-79 Concentration in uCi/mL**	1.91E-04
AW106 EVAP3	**Relative Percent Counting Uncertainty**	2.10
Units	**% Carrier Recovery**	68.7%
uCi/mL	**Detection Level in uCi/mL**	1.54E-06

Selenium-79 Sample Template 1.0

Printed at: 8:51:59 AM 4/6/2009 Version: 1.02

Se-79

		SAMPLE	
Type	Sample Volume in mL	1.000	
SAMPLE	Dilution Factor	1.0	
Work List	Digest Dilution Factor	1.00000	
00013590	dpm of Sample from Liquid Scintillation Counter	236.77	
Test Code	Instrument Fractional Efficiency	0.9075	Result:
SELENIUM-79	Sample Count Rate in cpm	260.98	1.77E-04
Matrix	Count Time in Minutes	50	
LIQUID	Background Count Rate in cpm	46.66	
Rerun	Background Efficiency	0.9181	
1	Relative Percent Counting Uncertainty	2.27	
Sample Prep	Gross Weight	0.8015	
	Tare Weight	0.7894	
Sample #	Carrier Book Number	113S1A	
S09T001794	Carrier Value	0.020	
Instrument Code	Volume Carrier Added in mL	1.000	
WC51586	Carrier Recovery Factor	0.6020	
Data Entry By	Detection Limit	5.05	
EMB	Critical Level Lc	2.26	
Analyst	Se-79 Concentration in uCi/mL	1.77E-04	
GLL	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	2.15E+02	

Date Completed
4/6/2009
Analysis Date
4/2/2009
Analysis Time
2:45 PM

Procedure using this Form*: **LA-365-132** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Specification	**Se-79 Concentration in uCi/mL**	1.77E-04
AW106 EVAP3	**Relative Percent Counting Uncertainty**	2.27
Units	**% Carrier Recovery**	60.2%
uCi/mL	**Detection Level in uCi/mL**	1.69E-06

Selenium-79 Sample Template 1.0

Printed at: 8:53:58 AM 4/6/2009 Version: 1.02

Se-79		SAMPLE	
Type	Sample Volume in mL	1.000	
SAMPLE	Dilution Factor	1.0	
Work List	Digest Dilution Factor	1.00000	
00013590	dpm of Sample from Liquid Scintillation Counter	241.81	
Test Code	Instrument Fractional Efficiency	0.8446	Result:
SELENIUM-79	Sample Count Rate in cpm	247.14	1.65E-04
Matrix	Count Time in Minutes	50	
LIQUID	Background Count Rate in cpm	46.66	
Rerun	Background Efficiency	0.9181	
1	Relative Percent Counting Uncertainty	2.37	
Sample Prep	Gross Weight	0.7886	
	Tare Weight	0.7753	
Sample #	Carrier Book Number	113S1A	
S09T001806	Carrier Value	0.020	
Instrument Code	Volume Carrier Added in mL	1.000	
WC51586	Carrier Recovery Factor	0.6617	
Data Entry By	Detection Limit	5.62	
EMB	Critical Level Lc	2.35	
Analyst	Se-79 Concentration in uCi/mL	1.65E-04	
GLL	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	2.04E+02	

Date Completed
4/6/2009
Analysis Date
4/2/2009
Analysis Time
2:45 PM

Procedure using this Form*: **LA-365-132** **I-0**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Specification		
AW106 EVAP3	**Se-79 Concentration in uCi/mL**	1.65E-04
	Relative Percent Counting Uncertainty	2.37
Units	**% Carrier Recovery**	66.2%
uCi/mL	**Detection Level in uCi/mL**	1.60E-06

Selenium-79 Sample Template 1.0

Printed at: 8:56:05 AM 4/6/2009 Version: 1.02

Data Review Check List

Procedure LA-933-141 Np-237

Batch # 13344

Review Item	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments and Samples Affected
Batch Items					
1. Was an LCS and blank run the batch?	x			X	
2. Was a duplicate and spike run with the batch?	x			X	
3. Was the book # of the standard (and spike) on the traveler?	x			X	
4. Was the batch (worklist) completed (sample #, dilution, aliquot size)?	x			X	
5. Were any line outs initialed and dated?	x			X	
6. Was balance check completed on the day of use (if used)?			x	X	
Result Items					
7. Was sample, traveler and counting data correct on ACE form?	x			X	
8. If No, was ACE form corrected?			x	X	
9. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?	x			X	
10. If No, was LABCORE corrected?			x	X	
11. Are result units correct?	x			X	
12. If No, were units corrected?			x	X	
13. Was data flagged?	x			X	
14. Are all flags present and correct?	x			X	
15. Are LCS results within limits (Lab's or customer's)?	x			X	
16. Are Spike results within limits (Lab's or customer's)?	x			X	
17. Is blank <MDC, or <5% isotope concentration, or <5% decision level?		x		X	CTR was 123.6 %
18. Are duplicate RPDs <20% (or RSD) within customer limits?	x			X	
19. Are the correct procedure number and Rev/Mod on the report?	x			X	
Procedure Speciffic Items					
20. Were the customer required detection or quantification limits met?	x			X	

1st Level Reviewer: [signature] **Date:** 3/30/09

2nd Level Reviewer: [signature] **Date:** 30 Mar 09

LABCORE Completed Batch Report for Batch# 00013344

Analyst: LaPlant, Gary **Book#:** 127B54

Instrument: APC-2 B-1F

Method: NP-237, LA-933-141 Rev/Mod K-1

Specification: AW106 EVAP3

Prep Batch: NA

Batch Comment:

AW106 EVAP3 for Np237. gll

Seq	Type	Sample#	Assoc. Sample	RepR	A	*	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1																	
1	STD	S0903110028		0 0			Neptunium-237	LIQUID	.01148	1.1581E-02		2.5	3.58E-05	uCi/mL	100.88	% Recovery	
Sample Sequence 2																	
2	BLNK	S0903110029		0 0			Neptunium-237	LIQUID		1.4703E-05		123.6	1.43E-05	uCi/mL			
Sample Sequence 3																	
3	SAMPLE	S09T001751		0 0			Neptunium-237	LIQUID	N/A	1.9027E-05		97.3	1.43E-05	uCi/mL			BJ
Sample Sequence 4																	
4	SAMPLE	S09T001763		0 0			Neptunium-237	LIQUID	N/A	2.2631E-05		83	1.43E-05	uCi/mL			BJ
Sample Sequence 5																	
5	SAMPLE	S09T001784		0 0			Neptunium-237	LIQUID	N/A	9.1820E-05		25.4	1.43E-05	uCi/mL			B
Sample Sequence 6																	
6	SPK	S0903110031	S09T001784	0 0			Neptunium-237	LIQUID	.01148	9.5568E-03			1.43E-05	uCi/mL	83.247	% Recovery	
Sample Sequence 7																	
7	SPK-DUP	S0903110032	S09T001784	0 0			Neptunium-237	LIQUID	.01148	1.1571E-02			1.43E-05	uCi/mL	100.79	% Recovery	
															19.065	% RPD	
Sample Sequence 8																	
8	SAMPLE	S09T001796		0 0			Neptunium-237	LIQUID	N/A	9.8306E-05		24.1	1.43E-05	uCi/mL			B
Sample Sequence 9																	
9	SAMPLE	S09T001808		0 0			Neptunium-237	LIQUID	N/A	7.6685E-05		29.2	1.43E-05	uCi/mL			B

Comments Section:

Data Flagger Status:
Flagging Completed

LABCORE Completed Batch Report for Batch# 00013344

Final Page for Batch# 00013344

Reviewer Signature

18 Aug 11
Date

LABCORE Completed Batch Report for Batch# 00013344

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903110028	STD				
2	S0903110029	BLNK				
3	S091001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S091001763	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S091001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
6	S0903110031	SPK	S091001784			
7	S0903110032	SPK-DUP	S091001784			
8	S091001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
9	S091001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

Neptunium Data Collection Sheet

Worklist # 13344 Analysis Date 5-27-09

Analyst gll (Printed Initials) Analysis Time 1325

Matrix: Liquid

Pipets	Checked
2081031	✓
3200193	✓
4652585	✓

APC Number	# 2
Count Time, Minutes	30
Background cpm	2.42
Spike#	127354
Spike Vol.	0.100

Sample Type	Sample Number	Dilution	Sample Volume Analyzed, ml	Alpha Counts
Standard	127354		0.100	6500
Blank			0.250ml	93
Sample	S09T001751		0.250ml	99
Sample	S09T001763			104
Sample	S09T001784			200
Spike	S09T001784			5504
Spike Dup	S09T001784			6622
Sample	S09T001796			209
Sample	S09T001808			179

Comments: AW106 EVAP3

LABCORE Data Entry Template for Batch# 00013344

Analyst: h0074758 **Standard ID / Book#:** 127B54

Instrument:

Method: NP-237, LA-933-141 Rev/Mod K-1

Prep Batch:

Batch Comment: AW106 EVAP3 for Np237. gll

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Neptunium-237					
2	BLNK		0		LIQUID		
	Analytes Requested:	Neptunium-237					
3	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Neptunium-237					
4	SAMPLE	S09T001763	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Neptunium-237					
5	SAMPLE	S09T001784	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Neptunium-237					
6	SPK	S09T001784	0		LIQUID		
	Analytes Requested:	Neptunium-237					
7	SPK-DUP	S09T001784	0		LIQUID		
	Analytes Requested:	Neptunium-237					
8	SAMPLE	S09T001796	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Neptunium-237					
9	SAMPLE	S09T001808	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Neptunium-237					

Final Page for Batch# 00013344

Analyst Signature — Date: 3-27-09

Data Entry Signature — Date: 3.30.09

M G Brein 3/30/9

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Data Review Checklist

CALIBRATION OF GAS FLOW PROPORTIONAL COUNTER

INSTRUMENT # APC 2

BATCH # 133441

PROCEDURES LQ-508-102 LQ-150-115

Review Items	--- Level 1 --- Yes	No	N/A	Level 2	Comments & Samples Affected
Initial Calibration (Plateau generation) and Cross Talk					
1 The PP-10 gas flow rate was 0.1 +/- 0.05 SCFH	✓			✓	
2 Plateau generated before initial calibration or after major maintenance activity	✓			✓	
3 Final plateau has step voltages < 25 V within +/- 50 V of operating value	✓			✓	
4 There were > 5000 counts collected per point near the knee of each plateau	✓			✓	
5 The required raw data is in maintenance notebook	✓			✓	
6 Any non-conformances are documented in maintnance notebook	✓			✓	
7 At least 125,000 counts collected for the cross talk determinations	✓			✓	
8 Crosstalk of alpha into beta is < 10 %	✓			✓	
9 Crosstalk of beta into alpha is < 1 %	✓			✓	
Efficiency Calibration					
1 Calibration sources are NIST traceable & verified with 2nd source	✓			✓	
2 The PP-10 gas flow rate was 0.1 +/- 0.05 SCFH	✓			✓	
3 Plateau V checked/adjusted before calibration	✓			✓	
4 The required raw data is in maintenance notebook	✓			✓	
5 The alpha and beta efficiencies were calculated per procedure LQ-508-002	✓			✓	
6 Calibration had a second, independent check	✓			✓	
7 Non-conformances are documented	✓			✓	
8 Calibrations are verified by second technical staff member	✓			✓	
9 Calibrations signed off by Counting Room Manager	✓			✓	
10 Efficiency tables for automated calculation were updated				✓	
Calibration Verification					
1 Instrument Control Std within limits before and after batch counted	✓			✓	
2 Bkg check within limits before and after batch counted	✓			✓	

1st Level Reviewer John Rebyan Date 30 Mar 09

2nd Level Reviewer A Alaa Date 3/30/09

Np-237

		STD
Type	Sample Volume in mL	0.100
STD	Dilution Factor	1
Work List	Mount Factor (1/Mount Volume in mL)	2
00013344	Digest Dilution Factor	1.00000
Test Code	Gross Counts	6500
NP-237	Count Time in Minutes	30
Matrix	Background Count Rate in cpm	2.42
LIQUID		
Rerun	Standard Book No.	127B54
0	Standard Value in uCi/mL	1.148E-02
Sample Prep	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	214.25
	Sample in uCi/mL	1.1581E-02
Sample # S0903110028		
Instrument Code AL10540		
Data Entry By EMB		
Analyst GLL		
Date Completed 3/30/2009		
Analysis Date 3/27/2009		
Analysis Time 1:25 PM		
Specification AW106 EVAP3		
Units uCi/mL		

Procedure using this form*: **LA-933-141 K-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Np-237 in uCi/mL	1.16E-02
% Recovery	100.88%
Detection Limit in uCi/mL	3.58E-05
Relative Percent Counting Uncertainty	2.5%

Neptunium-237 Std Template 1.0

Np-237		BLNK
Type	Sample Volume in mL	0.250
BLNK	Dilution Factor	1
Work List	Mount Factor (1/Mount Volume in mL)	2
00013344	Digest Dilution Factor	1.00000
Test Code	Gross Counts	93
NP-237	Count Time in Minutes	30
Matrix	Background Count Rate in cpm	2.42
LIQUID		
Rerun	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	0.68
0	Sample in uCi/mL	1.4703E-05
Sample Prep		
Sample #		
S0903110029		
Instrument Code		
AL10540		
Data Entry By		
EMB		
Analyst		
GLL		
Date Completed		
3/30/2009		
Analysis Date		
3/27/2009		
Analysis Time		
1:25 PM		
Specification	**Np-237 in uCi/mL**	1.47E-05
AW106 EVAP3		
Units	**Detection Limit in uCi/mL**	1.43E-05
uCi/mL	**Relative Percent Counting Uncertainty**	123.6%

Procedure using this form*: **LA-933-141 K-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Neptunium-237 Sample Template 1.0

Printed at: 8:42:38 AM 3/30/2009 Version: 1.01

Np-237		SAMPLE
Type	Sample Volume in mL	0.250
SAMPLE	Dilution Factor	1
Work List	Mount Factor (1/Mount Volume in mL)	2
00013344	Digest Dilution Factor	1.00000
Test Code	Gross Counts	99
NP-237	Count Time in Minutes	30
Matrix	Background Count Rate in cpm	2.42
LIQUID		
Rerun	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	0.88
0	Sample in uCi/mL	1.9027E-05
Sample Prep		
Sample #		
S09T001751		
Instrument Code		
AL10540		
Data Entry By		
EMB		
Analyst		
GLL		
Date Completed		
3/30/2009		
Analysis Date		
3/27/2009		
Analysis Time		
1:25 PM		
Specification	**Np-237 in uCi/mL**	1.90E-05
AW106 EVAP3		
Units	**Detection Limit in uCi/mL**	1.43E-05
uCi/mL	**Relative Percent Counting Uncertainty**	97.3%

Procedure using this form*: **LA-933-141 K-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Neptunium-237 Sample Template 1.0

Printed at: 8:43:46 AM 3/30/2009 Version: 1.01

Np-237		SAMPLE
Type	Sample Volume in mL	0.250
SAMPLE	Dilution Factor	1
Work List	Mount Factor (1/Mount Volume in mL)	2
00013344	Digest Dilution Factor	1.00000
Test Code	Gross Counts	104
NP-237	Count Time in Minutes	30
Matrix	Background Count Rate in cpm	2.42
LIQUID		
Rerun	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	1.05
0	Sample in uCi/mL	2.2631E-05
Sample Prep		
Sample #		
S09T001763		
Instrument Code		
AL10540		
Data Entry By		
EMB		
Analyst		
GLL		
Date Completed		
3/30/2009		
Analysis Date		
3/27/2009		
Analysis Time		
1:25 PM		
Specification	**Np-237 in uCi/mL**	2.26E-05
AW106 EVAP3		
Units	**Detection Limit in uCi/mL**	1.43E-05
uCi/mL	**Relative Percent Counting Uncertainty**	83.0%

Procedure using this form*: **LA-933-141 K-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Neptunium-237 Sample Template 1.0

Printed at: 8:44:40 AM 3/30/2009 Version: 1.01

Np-237		SAMPLE
Type	Sample Volume in mL	0.250
SAMPLE	Dilution Factor	1
Work List	Mount Factor (1/Mount Volume in mL)	2
00013344	Digest Dilution Factor	1.00000
Test Code	Gross Counts	200
NP-237	Count Time in Minutes	30
Matrix	Background Count Rate in cpm	2.42
LIQUID		
Rerun	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	4.25
0	Sample in uCi/mL	9.1820E-05
Sample Prep		
Sample #		
S09T001784		
Instrument Code		
AL10540		
Data Entry By		
EMB		
Analyst		
GLL		
Date Completed		
3/30/2009		
Analysis Date		
3/27/2009		
Analysis Time		
1:25 PM		
Specification	**Np-237 in uCi/mL**	9.18E-05
AW106 EVAP3		
Units	**Detection Limit in uCi/mL**	1.43E-05
uCi/mL	**Relative Percent Counting Uncertainty**	25.4%

Procedure using this form*: **LA-933-141 K-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Neptunium-237 Sample Template 1.0

Printed at: 8:46:27 AM 3/30/2009 Version: 1.01

Np-237

		SPK	
Type	Sample Volume in mL	0.250	
SPK	Dilution Factor	1	
Work List	Mount Factor (1/Mount Volume in mL)	2	
00013344	Digest Dilution Factor	1.00000	
Test Code	Gross Counts	5504	
NP-237	Count Time in Minutes	30	
Matrix	Background Count Rate in cpm	2.42	
LIQUID			
Rerun	Spike Volume in mL	0.100	
0	Spike Dilution Factor	1.000	
Sample Prep	Spike Book No.	127B54	
	Spike Value in uCi/mL	1.148E-02	Associated Sample Number
Sample #	Sample Value	9.18E-05	S09T001784
S0903110031	Sample + Spike in uCi/mL	3.915E-03	
Instrument Code	Sample Digest Dilution Factor	1.00000	
AL10540			
Data Entry By			
EMB			
Analyst			
GLL			
Date Completed			
3/30/2009			
Analysis Date			
3/27/2009			
Analysis Time			
1:25 PM			
Specification			
AW106 EVAP3	**QC ACTUAL IN uCi/mL**	=	1.15E-02
Units	**QC FOUND IN uCi/mL**	=	9.56E-03
uCi/mL	**PERCENT SPIKE RECOVERY**	=	83.2%

Procedure using this form*: **LA-933-141 K-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Neptunium-237 Spike Template 1.0

Np-237

			SPK-DUP	
Type	Sample Volume in mL		0.250	
SPK-DUP	Dilution Factor		1	
Work List	Mount Factor (1/Mount Volume in mL)		2	
00013344	Digest Dilution Factor		1.00000	
Test Code	Gross Counts		6622	
NP-237	Count Time in Minutes		30	
Matrix	Background Count Rate in cpm		2.42	
LIQUID				
Rerun	Spike Volume in mL		0.100	
0	Spike Dilution Factor		1.000	
Sample Prep	Spike Book No.		127B54	
	Spike Value in uCi/mL		1.148E-02	Associated Sample Number
Sample #	Sample Value		9.18E-05	S09T001784
S0903110032	Sample + Spike in uCi/mL		4.720E-03	
Instrument Code	Sample Digest Dilution Factor		1.00000	
AL10540				
Data Entry By				
EMB				
Analyst				
GLL				
Date Completed				
3/30/2009				
Analysis Date				
3/27/2009				
Analysis Time				
1:25 PM				
Specification				
AW106 EVAP3	**QC ACTUAL IN uCi/mL**	=	1.15E-02	
Units	**QC FOUND IN uCi/mL**	=	1.16E-02	
uCi/mL	**PERCENT SPIKE RECOVERY**	=	100.8%	

Procedure using this form*: **LA-933-141 K-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Neptunium-237 Spike Template 1.0

Printed at: 8:56:32 AM 3/30/2009 Version: 1.01

Np-237		SAMPLE
Type	Sample Volume in mL	0.250
SAMPLE	Dilution Factor	1
Work List	Mount Factor (1/Mount Volume in mL)	2
00013344	Digest Dilution Factor	1.00000
Test Code	Gross Counts	209
NP-237	Count Time in Minutes	30
Matrix	Background Count Rate in cpm	2.42
LIQUID		
Rerun	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	4.55
0	Sample in uCi/mL	9.8306E-05
Sample Prep		
Sample #		
S09T001796		
Instrument Code		
AL10540		
Data Entry By		
EMB		
Analyst		
GLL		
Date Completed		
3/30/2009		
Analysis Date		
3/27/2009		
Analysis Time		
1:25 PM		
Specification	**Np-237 in uCi/mL**	9.83E-05
AW106 EVAP3		
Units	**Detection Limit in uCi/mL**	1.43E-05
uCi/mL	**Relative Percent Counting Uncertainty**	24.1%

Procedure using this form*: **LA-933-141 K-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Neptunium-237 Sample Template 1.0

Np-237

		SAMPLE
Type	Sample Volume in mL	0.250
SAMPLE	Dilution Factor	1
Work List	Mount Factor (1/Mount Volume in mL)	2
00013344	Digest Dilution Factor	1.00000
Test Code	Gross Counts	179
NP-237	Count Time in Minutes	30
Matrix	Background Count Rate in cpm	2.42
LIQUID		
Rerun	Lc, Rmax, or Rs, (Sample Rate) as appropriate)	3.55
0	Sample in uCi/mL	7.6685E-05
Sample Prep		
Sample #		
S09T001808		
Instrument Code		
AL10540		
Data Entry By		
EMB		
Analyst		
GLL		
Date Completed		
3/30/2009		
Analysis Date		
3/27/2009		
Analysis Time		
1:25 PM		
Specification	**Np-237 in uCi/mL**	7.67E-05
AW106 EVAP3		
Units	**Detection Limit in uCi/mL**	1.43E-05
uCi/mL	**Relative Percent Counting Uncertainty**	29.2%

Procedure using this form*: **LA-933-141 K-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Neptunium-237 Sample Template 1.0

Printed at: 8:58:48 AM 3/30/2009 Version: 1.01

Data Review Check List

Procedure LA-953-104 Pu/Am

Batch # 13347

Review Item	Yes	No	N/A	Level 2	Comments and Samples Affected
Batch Items					
1. Was an LCS and blank run the batch?	X			✓	
2. Was a duplicate run with the batch?	X			✓	
2.a Was a spike run with the batch?	X			✓	
3. Was the book # of the standard and tracer (and spike) on the traveler?	X			✓	
4. Was the batch traveler completed (sample #, dilution, aliquot size)?	X			✓	
5. Were any line outs initialed and dated?	X			✓	
6. Was balance check completed on the day of use (if used)?			X	✓	
Result Items					
7. Was sample, traveler and counting data correct on ACE form?	X			✓	
8. If No, was ACE form corrected?			X		
9. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?		X		✓	Spk & Spk-Dup does not upload correctly
10. If No, was LABCORE corrected?	X			✓	
11. Are result units correct?	X			✓	
12. If No, were units corrected?			X	✓	
13. Was data flagged?	X			✓	
14. Are all flags present and correct?	X			✓	
15. Are LCS results within limits (Lab's or customer's)?	X			✓	
16. Are Spike results within limits (Lab's or customer's)?	X			✓	
17. Is blank <MDC, or <5% isotope concentration, or <5% decision level?	X			✓	
18. Are duplicate RPDs <20% (or RSD) within customer limits?	X			✓	
19. Are the correct procedure number and Rev/Mod on the report?	X			✓	
Procedure Specific Items					
20. Were tracer recoveries between 30% and 120%?	X			✓	
21. Were the customer required detection or quantification limits met?	X			✓	

1st Level Reviewer: S A Carlow **Date:** 23 Mar 09

2nd Level Reviewer: John Relyea **Date:** 24 Mar 09

LABCORE Completed Batch Report for Batch# 00013347

Analyst: LaPlant, Gary **Book#:** 31B64

Instrument: A/B Detector 23 B-1A

Method: PLUTONIUM, LA-953-104 Rev/Mod H-1

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: Aw 106 EVAP3 for PU scl

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1															
1 STD	S0903110043		0	0	Pu-239/240	LIQUID	.0000972	9.7596E-05		2.64	7.42E-06	uCi/mL	100.41	% Recovery	
1 STD	S0903110043		0	0	Plutonium-236T	LIQUID		82.695				% Recovery	N/A		
Sample Sequence 2															
2 BLNK	S0903110044		0	0	Pu-239/240	LIQUID		<1.9791E-06			1.98E-06	uCi/mL			
2 BLNK	S0903110044		0	0	Plutonium-236T	LIQUID		79.199				% Recovery			
2 BLNK	S0903110044		0	0	Plutonium-238	LIQUID		<1.9791E-06			1.98E-06	uCi/mL			
Sample Sequence 3															
3 SAMPLE	S09T001751		0	0	Pu-239/240	LIQUID	N/A	<2.0564E-06			2.06E-06	uCi/mL			U
3 SAMPLE	S09T001751		0	0	Plutonium-236T	LIQUID		77.815				% Recovery			
3 SAMPLE	S09T001751		0	0	Plutonium-238	LIQUID	N/A	<2.0564E-06			2.06E-06	uCi/mL			U
Sample Sequence 4															
4 SAMPLE	S09T001763		0	0	Pu-239/240	LIQUID	N/A	<1.7966E-06			1.80E-06	uCi/mL			U
4 SAMPLE	S09T001763		0	0	Plutonium-236T	LIQUID		87.329				% Recovery			
4 SAMPLE	S09T001763		0	0	Plutonium-238	LIQUID	N/A	<1.7966E-06			1.80E-06	uCi/mL			U
Sample Sequence 5															
5 SAMPLE	S09T001771		0	0	Pu-239/240	LIQUID	N/A	1.1290E-03		2.08	6.06E-05	uCi/mL			
5 SAMPLE	S09T001771		0	0	Plutonium-236T	LIQUID		90.873				% Recovery			
5 SAMPLE	S09T001771		0	0	Plutonium-238	LIQUID	N/A	1.3769E-04		3.78	6.06E-05	uCi/mL			
Sample Sequence 6															
6 SAMPLE	S09T001784		0	0	Pu-239/240	LIQUID	N/A	1.1621E-03		2.09	6.20E-05	uCi/mL			
6 SAMPLE	S09T001784		0	0	Plutonium-236T	LIQUID		90.735				% Recovery			
6 SAMPLE	S09T001784		0	0	Plutonium-238	LIQUID	N/A	1.4432E-04		3.77	6.20E-05	uCi/mL			
Sample Sequence 7															
7 DUP	S0903110045	S09T001784	0	0	Pu-239/240	LIQUID	1.1621E-03	1.1801E-03		1.96	6.60E-05	uCi/mL	1.5370	% RPD	
7 DUP	S0903110045	S09T001784	0	0	Plutonium-236T	LIQUID	90.735	86.051				% Recovery			
7 DUP	S0903110045	S09T001784	0	0	Plutonium-238	LIQUID	1.4432E-04	1.4585E-04		3.51	6.60E-05	uCi/mL	1.0546	% RPD	
Sample Sequence 8															
8 SPK	S0903110046	S09T001784	0	0	Pu-239/240	LIQUID	.0000972	1.0379E-04			1.00E-06	uCi/mL	106.78	% Recovery	
Sample Sequence 9															
9 SPK-DUP	S0903110047	S09T001784	0	0	Pu-239/240	LIQUID	.0000972	1.0818E-04			1.00E-06	uCi/mL	111.29	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013347

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
													4.1363	% RPD	
Sample Sequence 10															
10 SAMPLE	S09T001796		0	0	Pu-239/240	LIQUID	N/A	1.1481E-03		2.16	7.35E-05	uCi/mL			
10 SAMPLE	S09T001796		0	0	Plutonium-236T	LIQUID		79.603				% Recovery			
10 SAMPLE	S09T001796		0	0	Plutonium-238	LIQUID	N/A	1.4230E-04		3.88	7.35E-05	uCi/mL			
Sample Sequence 11															
11 SAMPLE	S09T001808		0	0	Pu-239/240	LIQUID	N/A	1.1448E-03		2.13	7.05E-05	uCi/mL			
11 SAMPLE	S09T001808		0	0	Plutonium-236T	LIQUID		83.546				% Recovery			
11 SAMPLE	S09T001808		0	0	Plutonium-238	LIQUID	N/A	1.4727E-04		3.79	7.05E-05	uCi/mL			

Comments Section:

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013347

Reviewer Signature 13 May 09 Date

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013347

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903110043	STD				
2	S0903110044	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001763	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001771	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
6	S09T001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
7	S0903110045	DUP	S09T001784			
8	S0903110046	SPK	S09T001784			
9	S0903110047	SPK-DUP	S09T001784			
10	S09T001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
11	S09T001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Collection Sheet for Plutonium

Worklist # 13347 Analysis Date 3-17-09 Matrix **Liquid**

Analyst gll Analysis Time 1515 Tracer Book # 58B64

Pipette #	Checked
408058	✓
3554305	✓

Standard Book # **31B64** Detector # 23

Spike Book # **31B64** Bkg CPM .19

Spike Volume **0.5** Count Time in minutes

Sample Type	Sample Number	Dilution	Sample Volume Analyzed, ml	Tracer Volume, ml	Sample Tray #	Alpha Counts	AEA Spectra #
STANDARD	~~31B65~~ 31B64 3/16 SZ	1	0.5	0.500	1	2016	15A 1507
BLANK			1 mL	0.500	2	989	16A 1670
SAMPLE	S09T001751		1 mL	0.500	3	992	17A 1795
SAMPLE	S09T001763		1 mL	0.500	4	1091	18A 1833
SAMPLE	S09T001771		0.100	0.500	5	3970	19A 1983
SAMPLE	S09T001784		0.100	0.500	6	4047	21A 2198
Duplicate	S09T001784		0.100	0.500	7	3879	22A 2221
Spike	S09T001784		0.100	1.000	8	5900	23A 2341
Spike Dup	S09T001784		0.100	1.000	9	5915	25A 2526
SAMPLE	S09T001796		0.100	0.500	10	3693	26A 2669
SAMPLE	S09T001808		0.100	0.500	11	3904	27A 2740

Comments: AW106 EVAP3

LABCORE Data Entry Template for Batch# 00013347

Analyst: h0074758 **Standard ID / Book#:** 31B64

Instrument:

Method: PLUTONIUM, LA-953-104 Rev/Mod H-1

Prep Batch:

Batch Comment: Aw 106 EVAP3 for PU scl

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Plutonium-236T, Pu-239/240					
2	BLNK		0		LIQUID		
	Analytes Requested:	Plutonium-236T, Plutonium-238, Pu-239/240					
3	SAMPLE	S09T001751	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Plutonium-236T, Plutonium-238, Pu-239/240					
4	SAMPLE	S09T001763	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Plutonium-236T, Plutonium-238, Pu-239/240					
5	SAMPLE	S09T001771	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Plutonium-236T, Plutonium-238, Pu-239/240					
6	SAMPLE	S09T001784	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Plutonium-236T, Plutonium-238, Pu-239/240					
7	DUP	S09T001784	0		LIQUID		
	Analytes Requested:	Plutonium-236T, Plutonium-238, Pu-239/240					
8	SPK	S09T001784	0		LIQUID		
	Analytes Requested:	Plutonium-236T, Pu-239/240					
9	SPK-DUP	S09T001784	0		LIQUID		
	Analytes Requested:	Plutonium-236T, Pu-239/240					
10	SAMPLE	S09T001796	0		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Plutonium-236T, Plutonium-238, Pu-239/240					
11	SAMPLE	S09T001808	0		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Plutonium-236T, Plutonium-238, Pu-239/240					

Final Page for Batch# 00013347

Analyst Signature 3-17-09 Date

Data Entry Signature 3/19/9 Date

Raymond 3.19.09

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Data Review Checklist

CALIBRATION OF GAS FLOW PROPORTIONAL COUNTER

INSTRUMENT # AB23

PROCEDURES LQ-508-102 LQ-150-115

BATCH # 13347

Review Items	--- Level 1 --- Yes	No	N/A	Level 2	Comments & Samples Affected
Initial Calibration (Plateau generation) and Cross Talk					
1 The PP-10 gas flow rate was 0.1 +/- 0.05 SCFH	✓			✓	
2 Plateau generated before initial calibration or after major maintenance activity	✓			✓	
3 Final plateau has step voltages < 25 V within +/- 50 V of operating value	✓			✓	
4 There were > 5000 counts collected per point near the knee of each plateau	✓			✓	
5 The required raw data is in maintenance notebook	✓			✓	
6 Any non-conformances are documented in maintnance notebook	✓			✓	
7 At least 125,000 counts collected for the cross talk determinations	✓			✓	
8 Crosstalk of alpha into beta is < 10 %	✓			✓	
9 Crosstalk of beta into alpha is < 1 %	✓			✓	
Efficiency Calibration					
1 Calibration sources are NIST traceable & verified with 2nd source	✓			✓	
2 The PP-10 gas flow rate was 0.1 +/- 0.05 SCFH	✓			✓	
3 Plateau V checked/adjusted before calibration	✓			✓	
4 The required raw data is in maintenance notebook	✓			✓	
5 The alpha and beta efficiencies were calculated per procedure LQ-508-002	✓			✓	
6 Calibration had a second, independent check	✓			✓	
7 Non-conformances are documented	✓			✓	
8 Calibrations are verified by second technical staff member	✓			✓	
9 Calibrations signed off by Counting Room Manager	✓			✓	
10 Efficiency tables for automated calculation were updated				✓	
Calibration Verification					
1 Instrument Control Std within limits before and after batch counted	✓			✓	
2 Bkg check within limits before and after batch counted	✓			✓	

1st Level Reviewer: John Redyen Date: 19 Mar 09

2nd Level Reviewer: R A Jones Date: 19 Mar 09

Data Review Checklist

ENERGY CALIBRATION OF ALPHA SPECTROMETERS

INSTRUMENT # AEA 15-to 27

PROCEDURES LA-508-161 LQ-150-115

BATCH # 13347

Review Items	--- Level 1 --- Yes	No	N/A	Level 2	Comments & Samples Affected
Energy Calibration					
1. Alpha Spectrometer was energy calibrated with a std having > two peaks	✓		✓		
2. Energy Calibration spectrum had clearly resolvable peaks	✓		✓		
3. Energy range of peaks in calibration std encompasses alpha energies expected in samples	✓		✓		
Calibration Verification					
1. Instrument Control Std within limits for all peaks before batch counted	✓		✓		
2. Bkg check within limits and performed < one week ago	✓		✓		

1st Level Reviewer: John Relgen Date: 19 Mar 09

2nd Level Reviewer: RAJones Date: 19 Mar 09

H:\DATA REVIEW CHECKLISTS\AEA ICAL.XLS

Pu 238 and 239/240 :LIQUID

					STD
Type	DATE COUNTED	3/18/2009	PU 236 AEA FRAC		0.524
STD	STANDARD VOLUME in mL	0.500	PU 238 AEA FRAC		0.000
Work List	STANDARD DILUTION FACTOR	1.000	PU 239 AEA FRAC		0.477
00013347	TRACER VOLUME IN mL	0.500	TOTAL AT COUNTS		2016
Test Code	DIGEST DILUTION FACTOR	1.000	AT COUNT TIME in MINUTES		30
PLUTONIUM	TRACER BOOK NO	58B64	BACKGROUND in cpm		0.190
Matrix	DETECTOR NUMBER	23	PU 236 cpm		24.060
LIQUID	EFFICIENCY FACTOR	0.357	PU 238 cpm		0.000
Rerun	TRACER PREPARATION DATE	7/1/2008	PU 239 cpm		21.910
0	TRACER PREPARATION VALUE (dmp/mL)	283.00	AEA COUNT TIME in MINUTES		480
Sample Prep	PU-236 DECAY CORR'D VALUE (dpm/mL)	238.01			
	PU-238 TRACER VALUE (dpm/mL)	0.00			
Sample #	STANDARD BOOK NO	31B64			
S0903110043	STANDARD VALUE in uCi/mL	9.720E-05			

Instrument Code
WC79141
Data Entry By
MCB
Analyst
GLL
Date Completed
3/19/2009
Analysis Date
3/17/2009
Analysis Time
3:15 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Pu 239/240 uCi/mL	9.76E-05	**DETECTION LEVELS in µCi/mL**
Relative Counting Error	= 2.6%	
Pu 239/240 Standard Recovery	100.41%	**Pu 239/240**
		7.42E-06
Pu 236 Tracer Recovery	= 82.7%	

Pu Std Liquid Template 1.0

Printed at: 8:24:40 AM 3/19/2009 Version: 1.01

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
WL13347-STD-PU
File ID: 15a1507.CNF

Counted on: 3/18/ 9 @ 3:48
Detector: AEA15
Geometry number: 1
Count time: 28801. Sec

PEAK ANALYSIS

Peak	Peak height		Peak center		FWHM		Tau	
ID	Initial	Final	Initial	Final	Initial	Final	Initial	Final
1	817.5	817.5	361.288	361.288	12.000	3.462	6.000	1.394
2	879.2	879.2	230.280	230.280	10.000	3.526	5.000	1.957

PEAK RESULTS
Peak Error Limit: 30%

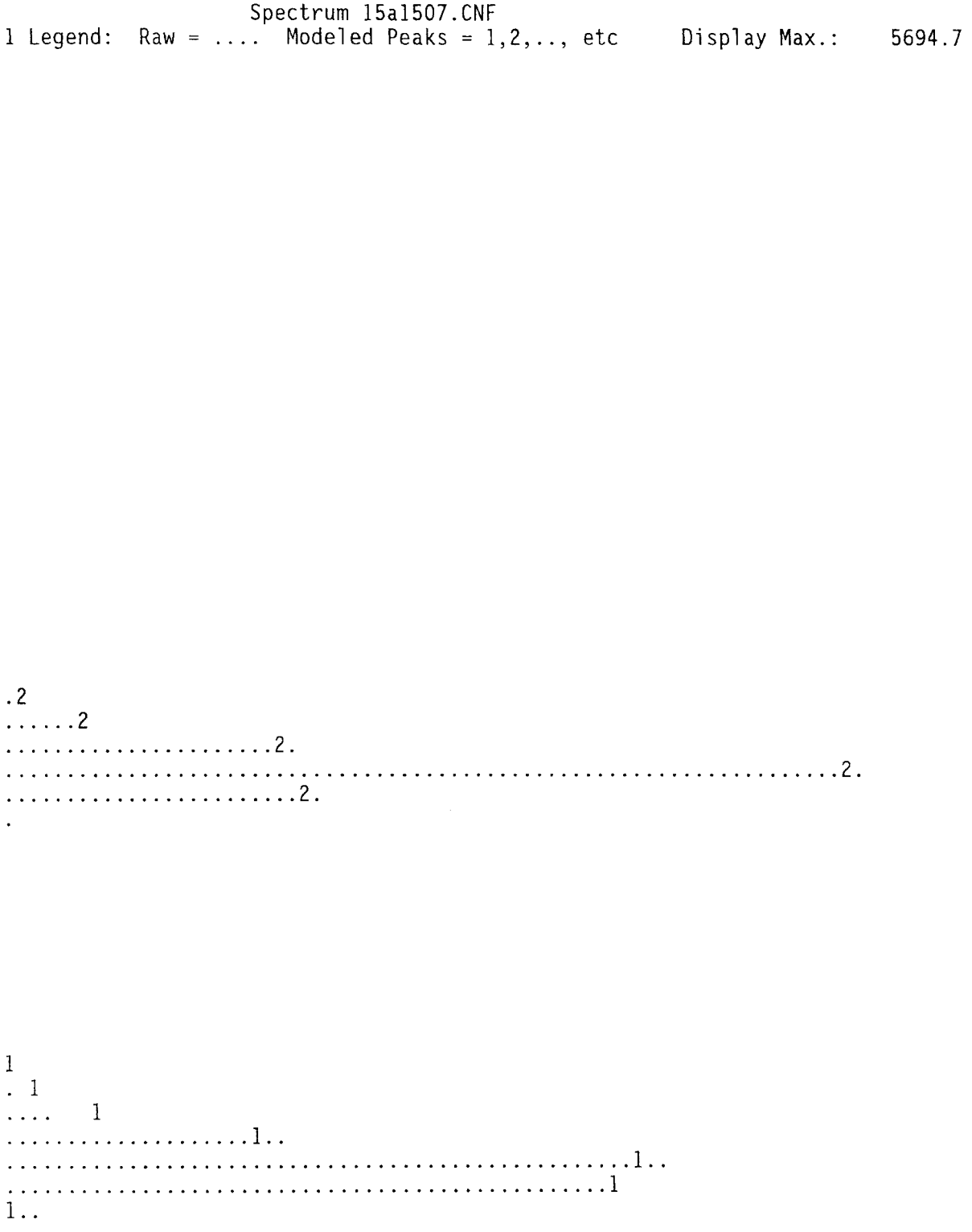
Peak		AEA	Peak Centroid				Count	%err		Activity
ID	Isotope	Frac	Exp.	Obs.	Diff.	FWHM	Rate c/m	@95	d/m	uCi/ea
1	Pu236	0.524	5.755	5.756	-.0010	.02	24.06	1.8	102.9	0.464E-04
2	Pu239	0.477	5.147	5.141	0.006	0.02	21.91	1.9	91.9	0.414E-04
	Pu240		5.144	5.141	0.003				91.9	0.414E-04
Totals:		1.002	<--valid peaks only-->				45.97			

DETECTOR CALIBRATION
Energy(MEV) = 4.058 + (0.0047)*Channel
Energy range (MeV): 4.058 TO 6.465
Efficiency = 0.2385 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	22033.0	100.000
Smoothed	22033.0	100.000
Composite fit	22066.1	100.150
Residuals	-33.1	-0.150

Started by: AKH


Spectrum 15a1507.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 5694.7
.2
.....2
.....2.
.....2.
.....2.
1
. 1
.... 1
.....1..
.....1..
.....1
1..

Raw Data Dump for AEA Spectrum: 15a1507.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
71	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.
81	2.	0.	0.	1.	0.	1.	1.	0.	0.	1.
91	0.	0.	1.	0.	1.	0.	0.	0.	2.	1.
101	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.
111	0.	0.	0.	0.	0.	1.	0.	0.	2.	1.
121	0.	1.	0.	2.	0.	0.	0.	0.	0.	0.
131	1.	5.	0.	2.	1.	0.	0.	0.	1.	0.
141	2.	1.	0.	1.	0.	1.	2.	1.	0.	0.
151	1.	1.	3.	2.	0.	1.	1.	1.	1.	0.
161	2.	0.	0.	0.	2.	1.	0.	1.	1.	1.
171	1.	1.	0.	0.	1.	1.	0.	0.	0.	1.
181	0.	3.	3.	6.	0.	0.	1.	4.	1.	0.
191	3.	0.	4.	5.	4.	6.	11.	5.	7.	11.
201	5.	6.	10.	18.	21.	20.	17.	36.	19.	45.
211	46.	57.	68.	102.	94.	122.	153.	172.	199.	256.
221	282.	323.	355.	419.	472.	562.	684.	809.	958.	1011.
231	1083.	897.	635.	375.	152.	40.	9.	1.	1.	1.
241	2.	1.	0.	1.	0.	0.	2.	1.	2.	0.
251	2.	1.	2.	2.	6.	3.	2.	2.	4.	3.
261	0.	0.	2.	0.	3.	2.	2.	0.	2.	3.
271	2.	2.	2.	0.	1.	1.	0.	2.	0.	2.
281	1.	1.	3.	1.	2.	2.	3.	3.	1.	0.
291	4.	4.	2.	2.	2.	1.	4.	2.	6.	4.
301	3.	6.	6.	5.	2.	4.	1.	3.	3.	0.
311	3.	4.	4.	1.	2.	3.	3.	2.	3.	3.
321	2.	4.	5.	3.	2.	5.	3.	8.	3.	8.
331	16.	13.	8.	14.	16.	23.	21.	25.	35.	38.
341	42.	65.	69.	91.	106.	154.	183.	207.	275.	344.
351	375.	480.	504.	480.	477.	505.	507.	618.	707.	874.
361	962.	929.	918.	575.	304.	137.	37.	3.	2.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	1.	2.	0.	0.	0.	0.	1.	0.
481	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 238 and 239/240 :LIQUID

						BLNK
Type	DATE COUNTED		3/18/2009	PU 236 AEA FRAC		1.026
BLNK	SAMPLE VOLUME in mL		1.000	PU 238 AEA FRAC		0.000
Work List	SAMPLE DILUTION FACTOR		1.000	PU 239 AEA FRAC		0.000
00013347	TRACER VOLUME IN mL		0.500	TOTAL AT COUNTS		989
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	AT COUNT TIME in MINUTES		30
PLUTONIUM	TRACER BOOK NO		58B64	BACKGROUND in cpm		0.190
Matrix	DETECTOR NUMBER		23	PU 236 cpm		24.260
LIQUID	EFFICIENCY FACTOR		0.3568	PU 238 cpm		0.000
Rerun	TRACER PREPARATION DATE		7/1/2008	PU 239 cpm		0.000
0	TRACER PREPARATION VALUE (dmp/mL)		283.00	AEA COUNT TIME in MINUTES		480
Sample Prep	PU-236 DECAY CORR'D VALUE (dpm/mL)		238.01			
	PU-238 TRACER VALUE (dpm/mL)		0.00			

Sample #
S0903110044
Instrument Code
WC79141
Data Entry By
MCB
Analyst
GLL
Date Completed
3/19/2009
Analysis Date
3/17/2009
Analysis Time
3:15 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Pu 239/240 uCi/mL		< 1.98E-06	**DETECTION LEVELS in uCi/mL**
Relative Counting Error	=		
Note: Pu 238 Result is a LESS THAN Value			**Pu 239/240**
Pu 238 uCi/mL		< 1.98E-06	**1.98E-06**
Relative Counting Error	=		**Pu 238**
Pu 236 Tracer Recovery	=	79.2%	**1.98E-06**

Pu Sample Liquid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
WL13347-BLK-PU
File ID: 16a1670.CNF

Counted on: 3/18/ 9 @ 3:49
Detector: AEA16
Geometry number: 1
Count time: 28800. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Final	Peak center Initial	Final	FWHM Initial	Final	Tau Initial	Final
1	866.3	866.3	357.683	357.683	10.000	2.997	5.000	1.249

PEAK RESULTS
Peak Error Limit: 30%

Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1	Pu236	1.026	5.755	5.747	0.008	0.01	24.26	1.8	109.7	0.494E-04
Totals:		1.026	<--valid peaks only-->				24.26			

DETECTOR CALIBRATION
Energy(MEV) = 4.066 + (0.0047)*Channel
Energy range (MeV): 4.066 TO 6.473
Efficiency = 0.2256 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	11355.0	100.000
Smoothed	11355.0	100.000
Composite fit	11646.4	102.566
Residuals	-291.4	-2.566

Started by: AKH

Spectrum 16a1670.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 5662.2

Raw Data Dump for AEA Spectrum: 16a1670.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
81	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
91	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
101	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.
111	0.	1.	1.	0.	1.	1.	0.	0.	0.	1.
121	0.	1.	0.	0.	0.	2.	0.	0.	0.	0.
131	0.	1.	0.	0.	0.	0.	0.	0.	1.	1.
141	0.	0.	2.	0.	0.	0.	0.	0.	0.	0.
151	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.
161	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
171	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
181	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.
191	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
201	0.	0.	0.	1.	0.	0.	0.	0.	1.	0.
211	0.	0.	0.	0.	0.	0.	3.	1.	1.	2.
221	2.	1.	0.	0.	1.	1.	3.	4.	2.	2.
231	2.	1.	0.	1.	2.	0.	0.	2.	0.	0.
241	0.	2.	1.	0.	1.	0.	3.	1.	0.	3.
251	3.	1.	4.	3.	5.	1.	0.	1.	0.	1.
261	0.	3.	1.	1.	2.	1.	1.	1.	0.	0.
271	0.	0.	1.	0.	0.	2.	0.	1.	0.	2.
281	2.	2.	0.	0.	0.	1.	1.	1.	1.	1.
291	7.	2.	3.	2.	2.	1.	2.	1.	0.	1.
301	5.	0.	2.	1.	1.	2.	2.	0.	3.	2.
311	1.	0.	2.	2.	2.	2.	1.	2.	4.	2.
321	1.	5.	5.	7.	1.	8.	5.	8.	5.	8.
331	15.	18.	21.	27.	42.	42.	38.	57.	75.	68.
341	108.	113.	155.	194.	237.	334.	367.	495.	492.	489.
351	432.	447.	496.	592.	700.	799.	962.	1056.	991.	732.
361	366.	143.	21.	3.	0.	0.	0.	0.	0.	0.
371	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.
431	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.
461	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.
471	1.	1.	0.	1.	1.	0.	1.	0.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 238 and 239/240 :LIQUID

						SAMPLE
Type	DATE COUNTED		3/18/2009	PU 236 AEA FRAC		1.005
SAMPLE	SAMPLE VOLUME in mL		1.000	PU 238 AEA FRAC		0.000
Work List	SAMPLE DILUTION FACTOR		1.000	PU 239 AEA FRAC		0.000
00013347	TRACER VOLUME IN mL		0.500	TOTAL AT COUNTS		992
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	AT COUNT TIME in MINUTES		30
PLUTONIUM	TRACER BOOK NO		58B64	BACKGROUND in cpm		0.190
Matrix	DETECTOR NUMBER		23	PU 236 cpm		23.370
LIQUID	EFFICIENCY FACTOR		0.3568	PU 238 cpm		0.000
Rerun	TRACER PREPARATION DATE		7/1/2008	PU 239 cpm		0.000
0	TRACER PREPARATION VALUE (dmp/mL)		283.00	AEA COUNT TIME in MINUTES		480
Sample Prep	PU-236 DECAY CORR'D VALUE (dpm/mL)		238.01			
	PU-238 TRACER VALUE (dpm/mL)		0.00			

Sample #
S09T001751
Instrument Code
WC79141
Data Entry By
MCB
Analyst
GLL
Date Completed
3/19/2009
Analysis Date
3/17/2009
Analysis Time
3:15 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Pu 239/240 uCi/mL		< 2.06E-06	**DETECTION LEVELS in uCi/mL**
Relative Counting Error		=	
Note: Pu 238 Result is a LESS THAN Value			**Pu 239/240**
Pu 238 uCi/mL		< 2.06E-06	**2.06E-06**
Relative Counting Error		=	**Pu 238**
Pu 236 Tracer Recovery	=	77.8%	**2.06E-06**

Pu Sample Liquid Template 1.0

Printed at: 8:26:01 AM 3/19/2009 Version: 1.01

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1751-SAM-PU
File ID: 17a1795.CNF

Counted on: 3/18/ 9 @ 3:49
Detector: AEA17
Geometry number: 1
Count time: 28801. Sec

PEAK ANALYSIS

Peak	Peak height		Peak center		FWHM		Tau	
ID	Initial	Final	Initial	Final	Initial	Final	Initial	Final
1	879.7	879.7	360.491	360.491	10.000	3.272	5.000	1.545

PEAK RESULTS
Peak Error Limit: 30%

Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1	Pu236	1.005	5.755	5.771	-.016	0.02	23.37	1.9	103.5	0.466E-04
	Cm243		5.779	5.771	0.008				118.0	0.531E-04
Totals:		1.005	<--valid peaks only-->				23.37			

DETECTOR CALIBRATION
Energy(MEV) = 4.077 + (0.0047)*Channel
Energy range (MeV): 4.077 TO 6.483
Efficiency = 0.2303 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	11165.0	100.000
Smoothed	11165.0	100.000
Composite fit	11217.0	100.466
Residuals	-52.0	-0.466

Started by: AKH

Spectrum 17a1795.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 4674.7

Raw Data Dump for AEA Spectrum: 17a1795.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
81	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
91	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.
101	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
111	0.	1.	0.	1.	0.	0.	0.	0.	0.	0.
121	0.	1.	0.	1.	0.	0.	0.	0.	1.	0.
131	0.	1.	0.	0.	2.	0.	0.	1.	0.	0.
141	1.	0.	1.	0.	1.	0.	1.	1.	1.	0.
151	1.	0.	1.	0.	2.	0.	0.	0.	1.	1.
161	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
171	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
181	0.	1.	0.	0.	0.	0.	0.	2.	1.	0.
191	1.	0.	1.	1.	1.	2.	0.	0.	0.	0.
201	0.	1.	0.	0.	0.	0.	1.	0.	0.	1.
211	0.	0.	1.	1.	0.	1.	0.	0.	1.	0.
221	0.	0.	1.	1.	1.	1.	2.	1.	2.	2.
231	2.	3.	0.	2.	1.	2.	0.	0.	0.	0.
241	1.	0.	0.	0.	0.	0.	1.	1.	1.	3.
251	3.	3.	1.	3.	3.	4.	1.	3.	0.	2.
261	2.	1.	1.	2.	4.	0.	1.	1.	3.	3.
271	0.	0.	0.	2.	0.	0.	1.	2.	1.	0.
281	1.	0.	1.	2.	1.	1.	3.	3.	3.	1.
291	2.	3.	2.	3.	3.	4.	2.	2.	1.	3.
301	1.	1.	2.	3.	4.	2.	0.	2.	0.	0.
311	1.	3.	3.	2.	1.	2.	1.	4.	0.	3.
321	2.	2.	4.	2.	5.	4.	6.	7.	4.	9.
331	8.	11.	8.	7.	14.	19.	25.	21.	24.	27.
341	30.	53.	61.	76.	102.	129.	184.	250.	291.	335.
351	459.	456.	418.	430.	406.	501.	584.	724.	932.	1044.
361	1044.	995.	680.	354.	161.	45.	10.	2.	0.	0.
371	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	1.	0.	0.	0.	0.	0.	0.	2.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 238 and 239/240 :LIQUID

						SAMPLE
Type	DATE COUNTED		3/18/2009	PU 236 AEA FRAC		1.025
SAMPLE	SAMPLE VOLUME in mL		1.000	PU 238 AEA FRAC		0.000
Work List	SAMPLE DILUTION FACTOR		1.000	PU 239 AEA FRAC		0.000
00013347	TRACER VOLUME IN mL		0.500	TOTAL AT COUNTS		1091
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	AT COUNT TIME in MINUTES		30
PLUTONIUM	TRACER BOOK NO		58B64	BACKGROUND in cpm		0.190
Matrix	DETECTOR NUMBER		23	PU 236 cpm		26.540
LIQUID	EFFICIENCY FACTOR		0.3568	PU 238 cpm		0.000
Rerun	TRACER PREPARATION DATE		7/1/2008	PU 239 cpm		0.000
0	TRACER PREPARATION VALUE (dmp/mL)		283.00	AEA COUNT TIME in MINUTES		480
Sample Prep	PU-236 DECAY CORR'D VALUE (dpm/mL)		238.01			
	PU-238 TRACER VALUE (dpm/mL)		0.00			

Sample #
S09T001763
Instrument Code
WC79141
Data Entry By
MCB
Analyst
GLL
Date Completed
3/19/2009
Analysis Date
3/17/2009
Analysis Time
3:15 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Pu 239/240 uCi/mL		< 1.80E-06	
Relative Counting Error	=		
Note: Pu 238 Result is a LESS THAN Value			**Pu 239/240**
Pu 238 uCi/mL		< 1.80E-06	**1.80E-06**
Relative Counting Error	=		**Pu 238**
Pu 236 Tracer Recovery	=	87.3%	**1.80E-06**

Pu Sample Liquid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1763-SAM-PU
File ID: 18a1833.CNF

Counted on: 3/18/ 9 @ 3:50
Detector: AEA18
Geometry number: 1
Count time: 28803. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Final	Peak center Initial	Final	FWHM Initial	Final	Tau Initial	Final
1	890.8	890.8	357.555	357.555	10.000	3.587	5.000	1.431

PEAK RESULTS
Peak Error Limit: 30%

Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	Activity d/m	Activity uCi/ea
1	Pu236	1.025	5.755	5.767	-.012	0.02	26.54	1.7	122.2	0.550E-04
	Cm243		5.779	5.767	0.012				139.2	0.627E-04
Totals:		1.025	<--valid peaks only-->				26.54			

DETECTOR CALIBRATION
Energy(MEV) = 4.087 + (0.0047)*Channel
Energy range (MeV): 4.087 TO 6.493
Efficiency = 0.2217 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	12435.0	100.000
Smoothed	12435.0	100.000
Composite fit	12741.1	102.462
Residuals	-306.1	-2.462

Started by: AKH

Spectrum 18a1833.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 6006.1

Raw Data Dump for AEA Spectrum: 18a1833.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.
81	0.	0.	0.	0.	0.	1.	0.	1.	0.	0.
91	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	0.	0.	0.	1.	0.	1.	0.	0.	1.	1.
111	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.
121	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.
131	2.	0.	0.	1.	2.	1.	1.	1.	1.	1.
141	1.	1.	0.	0.	0.	0.	1.	0.	1.	0.
151	0.	0.	0.	1.	1.	1.	0.	0.	1.	0.
161	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
171	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.
181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
191	0.	1.	0.	0.	0.	0.	0.	1.	0.	0.
201	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
211	1.	2.	1.	0.	1.	0.	1.	1.	2.	2.
221	2.	2.	1.	3.	3.	2.	4.	2.	3.	0.
231	0.	0.	0.	0.	2.	0.	0.	0.	1.	1.
241	2.	1.	0.	1.	0.	3.	8.	1.	2.	2.
251	4.	5.	3.	4.	1.	1.	1.	1.	1.	0.
261	0.	3.	2.	2.	0.	0.	1.	0.	0.	2.
271	2.	0.	0.	0.	0.	1.	0.	2.	0.	1.
281	2.	1.	0.	2.	2.	0.	1.	0.	1.	1.
291	1.	3.	1.	4.	4.	3.	1.	4.	2.	5.
301	1.	0.	1.	4.	0.	3.	1.	1.	1.	2.
311	3.	0.	3.	2.	5.	5.	3.	4.	8.	9.
321	3.	7.	5.	10.	15.	14.	14.	13.	10.	12.
331	16.	27.	23.	40.	45.	40.	38.	71.	91.	92.
341	121.	170.	180.	223.	270.	345.	426.	451.	491.	561.
351	461.	516.	567.	652.	790.	867.	982.	1068.	975.	732.
361	455.	210.	84.	18.	3.	1.	1.	0.	0.	0.
371	0.	1.	0.	1.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	1.	1.	0.	1.	0.	0.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 238 and 239/240 :LIQUID

							SAMPLE
Type	DATE COUNTED		3/18/2009	PU 236 AEA FRAC			0.292
SAMPLE	SAMPLE VOLUME in mL		0.100	PU 238 AEA FRAC			0.075
Work List	SAMPLE DILUTION FACTOR		1.000	PU 239 AEA FRAC			0.615
00013347	TRACER VOLUME IN mL		0.500	TOTAL AT COUNTS			3970
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	AT COUNT TIME in MINUTES			30
PLUTONIUM	TRACER BOOK NO		58B64	BACKGROUND in cpm			0.190
Matrix	DETECTOR NUMBER		23	PU 236 cpm			27.300
LIQUID	EFFICIENCY FACTOR		0.3568	PU 238 cpm			7.040
Rerun	TRACER PREPARATION DATE		7/1/2008	PU 239 cpm			57.370
0	TRACER PREPARATION VALUE (dmp/mL)		283.00	AEA COUNT TIME in MINUTES			480
Sample Prep	PU-236 DECAY CORR'D VALUE (dpm/mL)		238.01				
	PU-238 TRACER VALUE (dpm/mL)		0.00				

Sample #
S09T001771
Instrument Code
WC79141
Data Entry By
MCB
Analyst
GLL
Date Completed
3/19/2009
Analysis Date
3/17/2009
Analysis Time
3:15 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Pu 239/240 uCi/mL		1.13E-03	**Pu 239/240**
Relative Counting Error	=	2.1%	**6.06E-05**
Pu 238 uCi/mL		1.38E-04	**Pu 238**
Relative Counting Error	=	3.78%	**6.06E-05**
Pu 236 Tracer Recovery	=	90.9%	

Pu Sample Liquid Template 1.0

222-S Analytical Laboraratory
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Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1771-SAM-PU
File ID: 19a1983.CNF

Counted on: 3/18/ 9 @ 3:51
Detector: AEA19
Geometry number: 1
Count time: 28802. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Final	Peak center Initial	Final	FWHM Initial	Final	Tau Initial	Final
1	989.2	989.2	360.095	360.095	10.000	3.034	5.000	1.301
2	262.4	262.4	302.182	302.175	10.000	3.071	5.000	1.388
3	2251.8	2251.8	228.354	228.354	12.000	4.091	6.000	2.369
4	59.8	59.8	149.004	149.004	18.000	11.139	9.000	6.261

PEAK RESULTS
Peak Error Limit: 30%

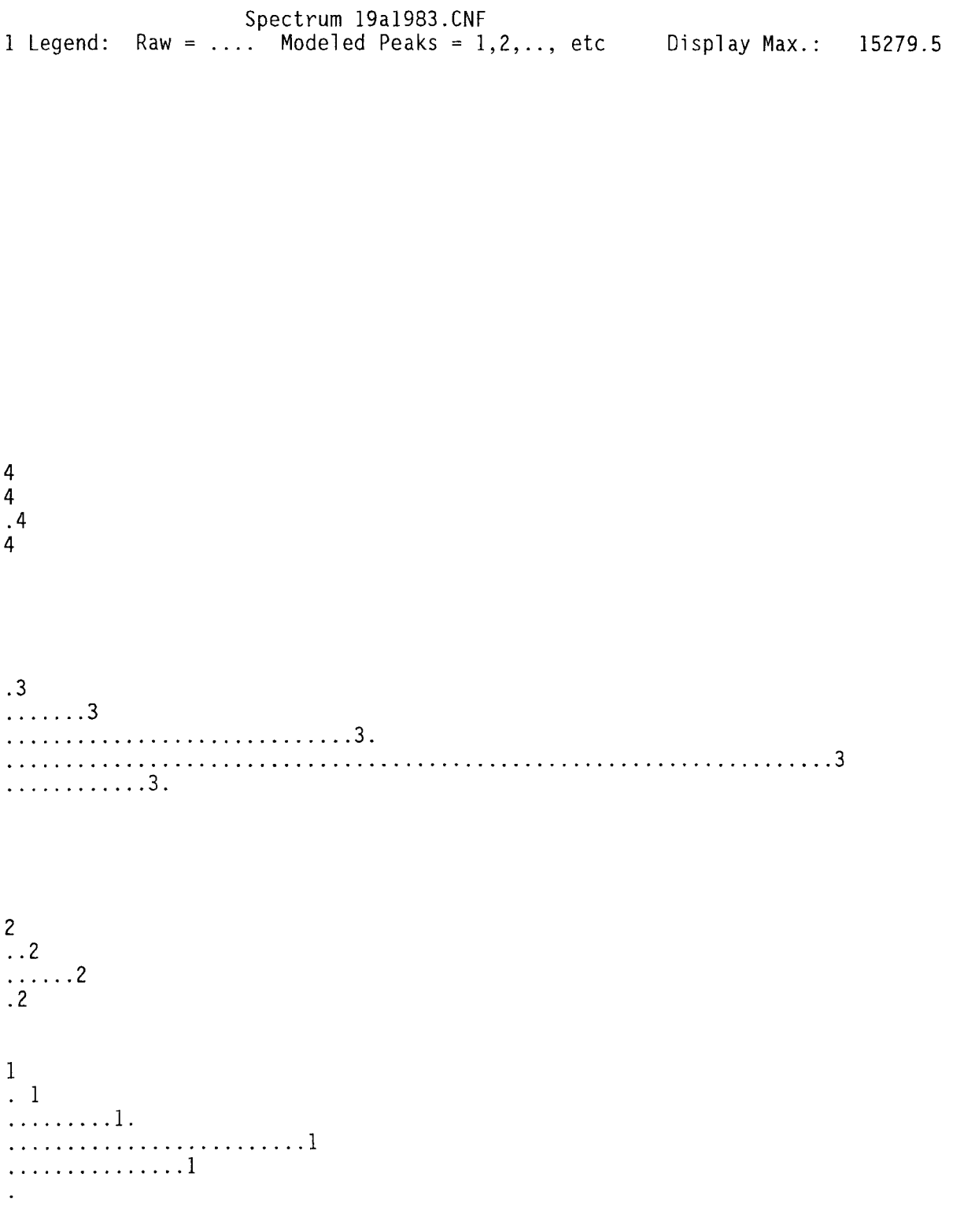
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1	~~Cm244~~ Pu	0.292	5.795	5.777	0.0180	.01	27.30	1.7	119.8	0.540E-04
	~~Cm243~~		5.779	5.777	0.002				139.3	0.628E-04
2	Pu238	0.075	5.487	5.505	-.0180	.01	7.04	3.4	42.9	0.193E-04
	Am241		5.479	5.505	-.026				32.9	0.148E-04
3	Pu239	0.615	5.147	5.158	-.0110	.02	57.37	1.2	251.9	0.113E-03
	Pu240		5.144	5.158	-.014				251.9	0.113E-03
4	Np237	0.023	4.769	4.785	-.0160	.05	2.16	6.1	10.9	0.490E-05
Totals:		1.005	<--valid peaks only-->				93.87			

DETECTOR CALIBRATION
Energy(MEV) = 4.085 + (0.0047)*Channel
Energy range (MeV): 4.085 TO 6.491
Efficiency = 0.2278 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	44819.0	100.000
Smoothed	44819.0	100.000
Composite fit	45060.1	100.538
Residuals	-241.1	-0.538

Started by: AKH


Spectrum 19a1983.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 15279.5
4
4
.4
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.3
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.....3.
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2
..2
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.....1
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Raw Data Dump for AEA Spectrum: 19a1983.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	0.	0.	0.	1.	2.	1.	1.
81	1.	1.	0.	2.	1.	0.	0.	0.	1.	3.
91	0.	0.	1.	1.	1.	1.	1.	0.	2.	0.
101	2.	1.	1.	3.	1.	2.	5.	5.	1.	2.
111	4.	3.	2.	5.	4.	4.	5.	6.	16.	10.
121	5.	6.	5.	13.	6.	8.	5.	4.	7.	4.
131	3.	5.	6.	13.	14.	9.	10.	23.	12.	11.
141	32.	29.	33.	52.	49.	65.	62.	63.	64.	66.
151	62.	42.	40.	27.	20.	33.	24.	24.	17.	13.
161	15.	9.	9.	5.	7.	9.	11.	10.	3.	3.
171	3.	2.	3.	4.	4.	1.	2.	3.	3.	1.
181	3.	5.	1.	1.	3.	6.	4.	6.	4.	3.
191	9.	5.	7.	8.	12.	9.	10.	19.	14.	25.
201	17.	31.	23.	33.	36.	49.	66.	84.	96.	120.
211	138.	177.	220.	298.	300.	422.	499.	649.	732.	840.
221	919.	1064.	1257.	1516.	1733.	2119.	2399.	2669.	2639.	2302.
231	1795.	1153.	643.	266.	107.	29.	5.	2.	1.	0.
241	1.	1.	1.	1.	1.	0.	1.	0.	3.	1.
251	3.	2.	4.	6.	3.	4.	3.	2.	3.	0.
261	1.	3.	2.	3.	4.	4.	1.	1.	4.	5.
271	4.	3.	0.	3.	0.	4.	1.	7.	3.	13.
281	4.	14.	15.	19.	16.	38.	31.	47.	50.	72.
291	89.	105.	146.	123.	153.	148.	143.	170.	190.	234.
301	266.	310.	336.	247.	180.	75.	29.	3.	2.	1.
311	2.	0.	1.	0.	1.	0.	2.	1.	1.	2.
321	3.	4.	1.	4.	6.	7.	13.	6.	10.	14.
331	9.	9.	13.	13.	10.	22.	26.	35.	35.	53.
341	52.	81.	78.	109.	146.	179.	247.	319.	409.	486.
351	513.	543.	502.	509.	568.	649.	789.	858.	1074.	1156.
361	1186.	1000.	605.	219.	61.	12.	1.	0.	0.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
471	0.	0.	2.	0.	0.	1.	0.	0.	0.	0.
481	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 238 and 239/240 :LIQUID

Type	DATE COUNTED		3/18/2009	PU 236 AEA FRAC		0.286
SAMPLE	SAMPLE VOLUME in mL		0.100	PU 238 AEA FRAC		0.077
Work List	SAMPLE DILUTION FACTOR		1.000	PU 239 AEA FRAC		0.620
00013347	TRACER VOLUME IN mL		0.500	TOTAL AT COUNTS		4047
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	AT COUNT TIME in MINUTES		30
PLUTONIUM	TRACER BOOK NO		58B64	BACKGROUND in cpm		0.190
Matrix	DETECTOR NUMBER		23	PU 236 cpm		26.670
LIQUID	EFFICIENCY FACTOR		0.3568	PU 238 cpm		7.140
Rerun	TRACER PREPARATION DATE		7/1/2008	PU 239 cpm		57.770
0	TRACER PREPARATION VALUE (dmp/mL)		283.00	AEA COUNT TIME in MINUTES		480
Sample Prep	PU-236 DECAY CORR'D VALUE (dpm/mL)		238.01			
	PU-238 TRACER VALUE (dpm/mL)		0.00			

Sample #
S09T001784
Instrument Code
WC79141
Data Entry By
MCB
Analyst
GLL
Date Completed
3/19/2009
Analysis Date
3/17/2009
Analysis Time
3:15 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Pu 239/240 uCi/mL		1.16E-03	**Pu 239/240**
Relative Counting Error	=	2.1%	**6.20E-05**
			Pu 238
Pu 238 uCi/mL		1.44E-04	**6.20E-05**
Relative Counting Error	=	3.77%	
Pu 236 Tracer Recovery	=	90.7%	

Pu Sample Liquid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1784-SAM-PU
File ID: 21a2198.CNF

Counted on: 3/18/ 9 @ 3:52
Detector: AEA21
Geometry number: 1
Count time: 28802. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1	969.5	969.5	357.078	357.078	10.000	3.267	5.000	1.446
2	257.0	257.0	299.734	299.727	10.000	3.261	5.000	1.417
3	2292.5	2292.5	226.513	226.513	10.000	3.990	5.000	2.331
4	50.7	50.7	147.320	147.318	20.000	12.347	10.000	7.327

PEAK RESULTS
Peak Error Limit: 30%

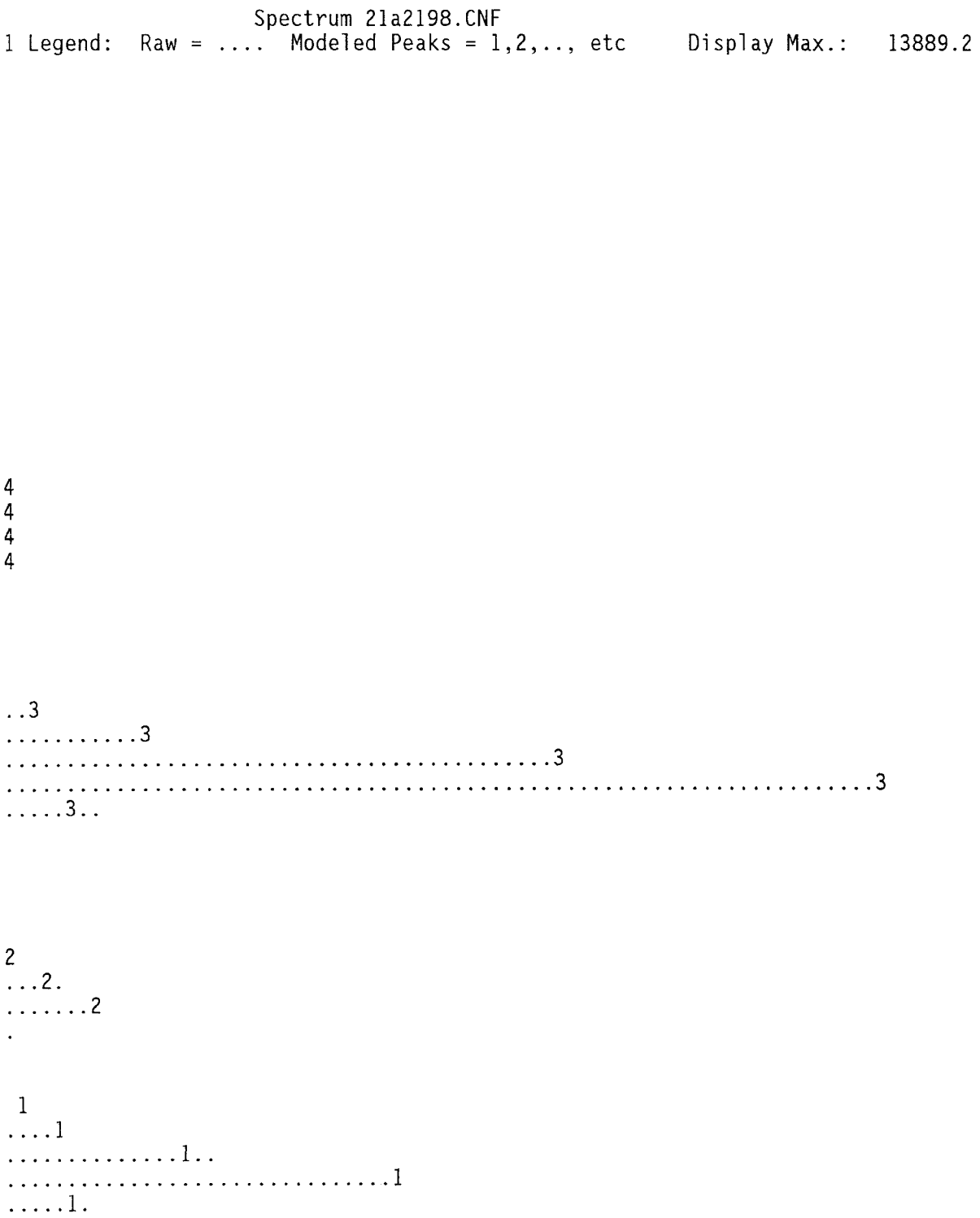
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Peak Centroid Obs.	Diff.	FWHM	Count Rate c/m	%err @95	Activity d/m	Activity uCi/ea
1	Pu236	0.286	5.755	5.752	0.0030	0.02	26.67	1.7	115.6	0.521E-04
2	Pu238	0.077	5.487	5.483	0.0040	0.02	7.14	3.4	42.2	0.190E-04
	Am241		5.479	5.483	-.004				32.3	0.145E-04
3	Pu239	0.620	5.147	5.139	0.0080	0.02	57.77	1.2	245.4	0.111E-03
	Pu240		5.144	5.139	0.005				245.4	0.111E-03
4	Np237	0.020	4.769	4.766	0.0030	0.06	1.88	6.5	9.2	0.414E-05
Totals:		1.004	<--valid peaks only-->				93.47			

DETECTOR CALIBRATION
Energy(MEV) = 4.074 + (0.0047)*Channel
Energy range (MeV): 4.074 TO 6.480
Efficiency = 0.2354 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	44701.0	100.000
Smoothed	44701.0	100.000
Composite fit	44870.1	100.378
Residuals	-169.1	-0.378

Started by: AKH


Spectrum 21a2198.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 13889.2
4
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.....3..
2
...2.
.....2
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1
....1
.....1..
.....1
.....1.

Raw Data Dump for AEA Spectrum: 21a2198.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	0.	0.	2.	0.	2.	3.	1.
81	2.	3.	0.	3.	0.	0.	2.	2.	3.	1.
91	1.	3.	0.	0.	1.	0.	1.	1.	1.	2.
101	2.	2.	1.	3.	3.	0.	7.	0.	1.	3.
111	1.	4.	2.	7.	9.	6.	2.	7.	5.	7.
121	7.	9.	7.	6.	6.	6.	3.	3.	7.	10.
131	7.	3.	7.	5.	12.	14.	7.	14.	15.	20.
141	26.	38.	39.	49.	68.	48.	56.	54.	48.	52.
151	44.	24.	30.	22.	21.	18.	21.	14.	16.	19.
161	4.	15.	8.	8.	10.	10.	10.	5.	4.	2.
171	3.	2.	5.	5.	2.	0.	5.	5.	4.	6.
181	4.	5.	6.	5.	9.	8.	8.	7.	10.	8.
191	9.	8.	16.	11.	9.	23.	19.	28.	17.	31.
201	25.	33.	47.	60.	61.	54.	84.	111.	119.	165.
211	231.	273.	319.	419.	543.	593.	717.	831.	897.	1044.
221	1152.	1476.	1737.	2003.	2379.	2686.	2779.	2396.	1869.	1195.
231	730.	340.	130.	43.	13.	3.	2.	0.	2.	2.
241	0.	1.	0.	4.	2.	1.	2.	2.	1.	3.
251	4.	4.	7.	1.	3.	2.	1.	1.	5.	2.
261	0.	3.	5.	1.	3.	3.	2.	3.	2.	3.
271	3.	3.	5.	5.	8.	7.	5.	5.	9.	14.
281	15.	29.	26.	28.	44.	36.	58.	88.	92.	139.
291	134.	153.	146.	147.	171.	168.	220.	259.	274.	302.
301	293.	241.	132.	48.	15.	5.	3.	1.	0.	0.
311	0.	0.	2.	3.	3.	1.	3.	1.	4.	6.
321	2.	10.	4.	13.	7.	11.	10.	11.	16.	10.
331	18.	13.	20.	19.	33.	31.	38.	45.	75.	76.
341	113.	139.	174.	232.	289.	401.	431.	492.	535.	526.
351	498.	550.	606.	708.	894.	1036.	1167.	1130.	948.	621.
361	271.	120.	24.	3.	0.	0.	0.	0.	0.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
461	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.
471	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 238 and 239/240 :LIQUID

					DUP
Type	DATE COUNTED	3/18/2009	PU 236 AEA FRAC		0.283
DUP	SAMPLE VOLUME in mL	0.100	PU 238 AEA FRAC		0.077
Work List	SAMPLE DILUTION FACTOR	1.000	PU 239 AEA FRAC		0.623
00013347	TRACER VOLUME IN mL	0.500	TOTAL AT COUNTS		3879
Test Code	DIGEST DILUTION FACTOR DDF	1.0000	AT COUNT TIME in MINUTES		30
PLUTONIUM	TRACER BOOK NO	58B64	BACKGROUND in cpm		0.190
Matrix	DETECTOR NUMBER	23	PU 236 cpm		30.220
LIQUID	EFFICIENCY FACTOR	0.3568	PU 238 cpm		8.270
Rerun	TRACER PREPARATION DATE	7/1/2008	PU 239 cpm		66.570
0	TRACER PREPARATION VALUE (dmp/mL)	283.00	AEA COUNT TIME in MINUTES		480
Sample Prep	PU-236 DECAY CORR'D VALUE (dpm/mL)	238.01			
	PU-238 TRACER VALUE (dpm/mL)	0.00			

Sample #	Associated Sample Number
S0903110045	S09T001784

Instrument Code
WC79141

Data Entry By
MCB

Analyst
GLL

Date Completed
3/19/2009

Analysis Date
3/17/2009

Analysis Time
3:15 PM

Specification
AW106 EVAP3

Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Pu 239/240 uCi/mL		1.18E-03	
Relative Counting Error	=	2.0%	
			Pu 239/240
Pu 238 uCi/mL		1.46E-04	**6.60E-05**
Relative Counting Error	=	3.51%	**Pu 238**
Pu 236 Tracer Recovery	=	86.1%	**6.60E-05**

Pu Sample Liquid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1784-DUP-PU
File ID: 22a2221.CNF

Counted on: 3/18/ 9 @ 3:52
Detector: AEA22
Geometry number: 1
Count time: 28803. Sec

PEAK ANALYSIS

Peak	Peak height		Peak center		FWHM		Tau	
ID	Initial	Final	Initial	Final	Initial	Final	Initial	Final
1	1081.3	1081.3	356.651	356.651	10.000	3.190	5.000	1.362
2	299.3	299.3	299.105	299.098	10.000	3.247	5.000	1.422
3	2555.0	2555.0	225.740	225.740	12.000	4.022	6.000	2.188
4	53.9	53.9	145.824	145.822	22.000	14.729	11.000	7.152

PEAK RESULTS
Peak Error Limit: 30%

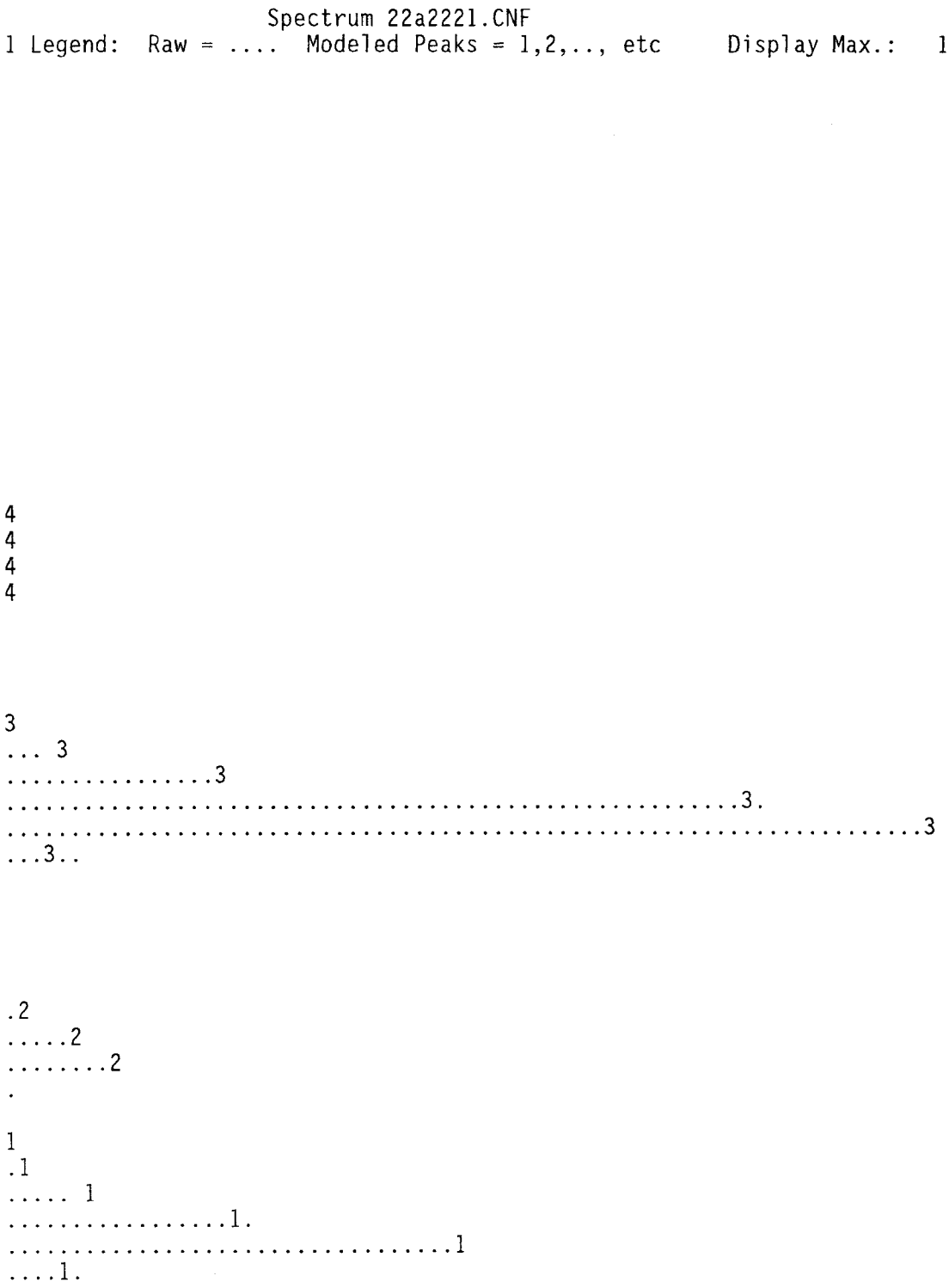
Peak		AEA	Peak Centroid			Count	%err		Activity
ID	Isotope	Frac	Exp.	Obs.	Diff.	FWHM Rate c/m	@95	d/m	uCi/ea
1	Pu236	0.283	5.755	5.758	-.003	0.01 30.22	1.6	126.2	0.569E-04
2	Pu238	0.077	5.487	5.487	0.000	0.02 8.27	3.1	47.0	0.212E-04
	Am241		5.479	5.487	-.008			36.0	0.162E-04
3	Pu239	0.623	5.147	5.143	0.004	0.02 66.57	1.1	272.5	0.123E-03
	Pu240		5.144	5.143	0.001			272.5	0.123E-03
4	Np237	0.021	4.640	4.767	-.127	0.07 2.24	6.0	152.6	0.688E-04
	Np237		4.769	4.767	0.002			10.5	0.474E-05
		-----				---------			
Totals:		1.004	<--valid peaks only-->			107.31			

DETECTOR CALIBRATION
Energy(MEV) = 4.082 + (0.0047)*Channel
Energy range (MeV): 4.082 TO 6.488
Efficiency = 0.2443 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	51286.0	100.000
Smoothed	51286.0	100.000
Composite fit	51513.8	100.444
Residuals	-227.8	-0.444

Started by: AKH


Spectrum 22a2221.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 14208.3
4
4
4
4
3
... 3
.....3
.....3.
.....3
...3..
.2
.....2
.....2
.
1
.1
..... 1
.....1.
.....1
....1.

Raw Data Dump for AEA Spectrum: 22a2221.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	0.	0.	1.	0.	0.	1.	2.
81	1.	0.	2.	2.	0.	1.	1.	1.	3.	1.
91	0.	0.	1.	0.	4.	0.	1.	0.	2.	2.
101	4.	1.	2.	1.	1.	1.	4.	1.	1.	2.
111	4.	4.	6.	2.	6.	16.	10.	10.	10.	7.
121	7.	6.	7.	6.	8.	6.	6.	8.	15.	8.
131	5.	11.	13.	15.	13.	16.	18.	20.	29.	34.
141	41.	44.	45.	68.	63.	62.	41.	60.	56.	39.
151	33.	47.	26.	24.	15.	14.	19.	22.	18.	10.
161	11.	6.	16.	7.	5.	3.	9.	1.	3.	5.
171	4.	5.	7.	3.	3.	2.	5.	5.	3.	8.
181	8.	3.	9.	5.	11.	15.	6.	9.	8.	12.
191	10.	19.	17.	21.	36.	18.	40.	30.	39.	40.
201	61.	49.	72.	90.	116.	133.	157.	163.	217.	263.
211	339.	387.	467.	588.	716.	874.	894.	1017.	1160.	1438.
221	1701.	1891.	2208.	2587.	2895.	2956.	2884.	2281.	1512.	929.
231	413.	171.	47.	8.	1.	0.	3.	2.	0.	0.
241	1.	1.	0.	2.	2.	1.	3.	4.	3.	2.
251	4.	4.	6.	3.	2.	1.	0.	1.	2.	2.
261	1.	3.	3.	5.	6.	4.	2.	6.	7.	7.
271	7.	5.	7.	7.	8.	10.	11.	19.	17.	16.
281	25.	32.	42.	53.	47.	60.	70.	113.	117.	143.
291	167.	179.	184.	190.	188.	226.	286.	298.	362.	351.
301	289.	209.	96.	25.	8.	3.	2.	3.	1.	4.
311	2.	1.	2.	1.	3.	4.	7.	3.	3.	9.
321	4.	7.	7.	9.	14.	6.	15.	15.	14.	22.
331	20.	19.	29.	40.	33.	71.	60.	53.	81.	121.
341	130.	191.	247.	318.	392.	484.	501.	590.	617.	577.
351	613.	622.	722.	899.	1064.	1203.	1315.	1163.	985.	501.
361	180.	35.	10.	0.	1.	0.	0.	0.	0.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.
471	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.
481	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 239/240 :LIQUID

			SPK	
Type	DATE COUNTED		3/18/2009	
SPK	SAMPLE VOLUME in mL		0.100	
Work List	SAMPLE DILUTION FACTOR		1.000	
00013347	TRACER VOLUME IN mL		1.000	
Test Code	DIGEST DILUTION FACTOR		1.0000	
PLUTONIUM	TRACER BOOK NO		58B64	
Matrix	TRACER PREPARATION DATE		7/1/2008	
LIQUID	Pu-236 PREPARATION VALUE in uCi/mL		283.000	
Rerun	Pu-236 DECAY CORR'D VALUE in uCi/mL		238.011	
0	SPIKE VOLUME in mL		0.500	
Sample Prep	SPIKE DILUTION FACTOR		1.000	
	SPIKE BOOK NUMBER		31B64	
Sample #	SPIKE VALUE IN µCi/mL		9.720E-05	
S0903110046	PU 236 AEA FRAC		0.368	
Instrument Code	PU 239 AEA FRAC		0.577	
	Pu 239/240 FROM SAMPLE FORM in uCi/mL		1.16E-03	S09T001784
Data Entry By	Pu 239/240 FROM SPIKED SAMPLE in uCi/mL		1.6810E-03	
MCB	COUNT TIME in MINUTES		480.000	
Analyst				
GLL				
Date Completed				
3/19/2009				
Analysis Date				
3/17/2009				
Analysis Time				
3:15 PM				
Specification				
AW106 EVAP3				
Units				
uCi/mL				

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

QC ACTUAL uCi/mL	= 9.72E-05
QC FOUND uCi/mL	= 1.04E-04
PERCENT SPIKE RECOVERY	= 106.78%

Pu Spike Liquid Template 1.0

Printed at: 8:32:29 AM 3/19/2009 Version: 1.01

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1784-SPK-PU
File ID: 23a2341.CNF

Counted on: 3/18/ 9 @ 3:53
Detector: AEA23
Geometry number: 1
Count time: 28800. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1	1602.5	1602.5	364.342	364.342	12.000	4.802	6.000	1.811
2	240.4	240.4	307.024	306.992	12.000	3.874	6.000	1.450
3	2812.2	2812.2	233.378	233.378	14.000	5.225	7.000	2.569
4	40.7	40.7	154.292	154.281	20.000	15.904	10.000	7.344

PEAK RESULTS
Peak Error Limit: 30%

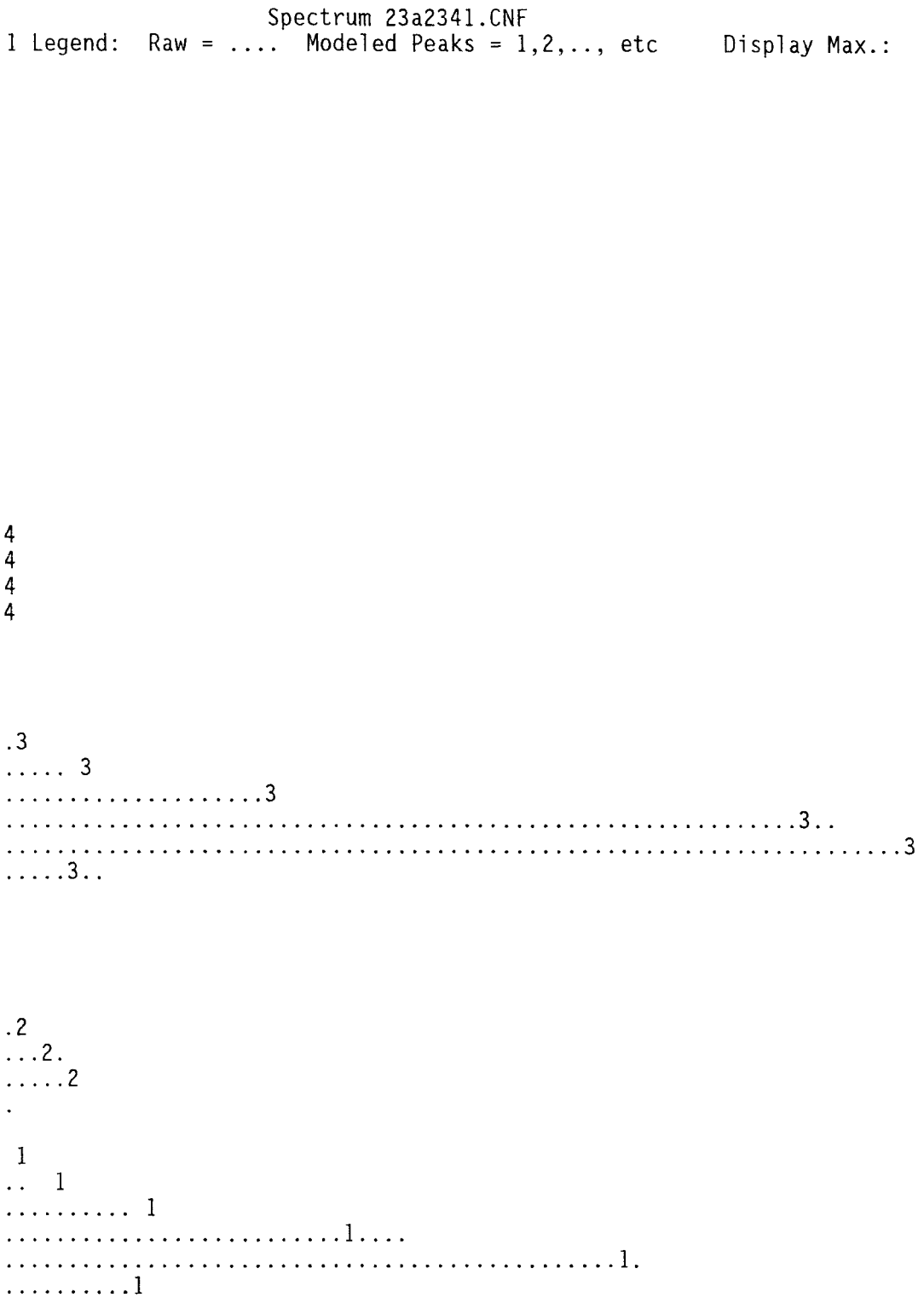
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1	Pu236	0.368	5.755	5.763	-.008	0.02	52.51	1.2	227.4	0.102E-03
	Cm243		5.779	5.763	0.016				259.2	0.117E-03
2	Pu238	0.053	5.487	5.494	-.007	0.02	7.56	3.3	44.6	0.201E-04
	Am241		5.479	5.494	-.015				34.1	0.154E-04
3	Pu239	0.577	5.147	5.148	-.001	0.02	82.44	1.0	349.9	0.158E-03
	Pu240		5.144	5.148	-.004				349.9	0.158E-03
4	Np237	0.012	4.640	4.776	-.136	0.07	1.76	6.8	124.5	0.561E-04
	Np237		4.769	4.776	-.007				8.6	0.387E-05
Totals:		1.010	<--valid peaks only-->				144.26			

DETECTOR CALIBRATION
Energy(MEV) = 4.051 + (0.0047)*Channel
Energy range (MeV): 4.051 TO 6.457
Efficiency = 0.2356 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	68553.0	100.000
Smoothed	68553.0	100.000
Composite fit	69246.9	101.012
Residuals	-693.9	-1.012

Started by: AKH


Spectrum 23a2341.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 16057.8

Raw Data Dump for AEA Spectrum: 23a2341.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	1.	1.	0.	1.	0.	1.	0.
81	0.	0.	1.	0.	2.	2.	3.	2.	1.	2.
91	0.	1.	1.	1.	1.	2.	2.	1.	1.	0.
101	0.	0.	1.	0.	1.	1.	1.	2.	0.	0.
111	0.	1.	2.	0.	0.	2.	3.	0.	3.	3.
121	1.	0.	6.	6.	8.	6.	7.	2.	2.	6.
131	3.	5.	4.	5.	4.	6.	7.	11.	10.	13.
141	10.	14.	12.	14.	11.	21.	20.	21.	28.	32.
151	27.	47.	48.	35.	51.	37.	35.	31.	34.	27.
161	19.	20.	22.	13.	9.	19.	13.	16.	11.	10.
171	10.	8.	9.	3.	4.	6.	2.	5.	8.	3.
181	1.	4.	2.	7.	6.	4.	6.	7.	12.	6.
191	16.	17.	12.	17.	12.	18.	13.	27.	17.	29.
201	33.	29.	31.	54.	50.	49.	68.	73.	74.	104.
211	133.	160.	148.	184.	265.	272.	271.	406.	481.	598.
221	677.	849.	963.	1074.	1257.	1416.	1604.	1808.	2102.	2408.
231	2693.	3004.	3260.	3067.	2994.	2335.	1803.	1210.	665.	344.
241	163.	67.	21.	8.	2.	2.	1.	1.	4.	1.
251	2.	3.	3.	4.	3.	3.	6.	5.	3.	10.
261	4.	4.	6.	1.	5.	2.	4.	2.	8.	5.
271	6.	4.	4.	4.	9.	6.	6.	7.	8.	3.
281	7.	7.	11.	11.	26.	17.	26.	23.	23.	37.
291	46.	48.	58.	81.	93.	110.	117.	147.	139.	148.
301	167.	180.	190.	217.	211.	239.	288.	286.	224.	159.
311	102.	63.	41.	9.	8.	6.	5.	6.	1.	5.
321	5.	8.	7.	14.	13.	10.	12.	18.	25.	19.
331	15.	15.	16.	21.	37.	29.	42.	50.	49.	42.
341	86.	78.	88.	123.	166.	162.	201.	254.	322.	391.
351	495.	564.	730.	791.	918.	947.	1036.	1055.	1107.	1217.
361	1400.	1519.	1672.	1743.	1821.	1670.	1358.	1002.	547.	297.
371	119.	39.	11.	1.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
421	1.	0.	0.	0.	0.	1.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	1.	0.	1.	1.	0.	0.	0.	0.
471	0.	0.	0.	0.	1.	0.	0.	3.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 239/240 :LIQUID

			SPK-DUP	
Type	DATE COUNTED		3/18/2009	
SPK-DUP	SAMPLE VOLUME in mL		0.100	
Work List	SAMPLE DILUTION FACTOR		1.000	
00013347	TRACER VOLUME IN mL		1.000	
Test Code	DIGEST DILUTION FACTOR		1.0000	
PLUTONIUM	TRACER BOOK NO		58B64	
Matrix	TRACER PREPARATION DATE		7/1/2008	
LIQUID	Pu-236 PREPARATION VALUE in uCi/mL		283.000	
Rerun	Pu-236 DECAY CORR'D VALUE in uCi/mL		238.011	
0	SPIKE VOLUME in mL		0.500	
Sample Prep	SPIKE DILUTION FACTOR		1.000	
	SPIKE BOOK NUMBER		31B64	
Sample #	SPIKE VALUE IN µCi/mL		9.720E-05	
S0903110047	PU 236 AEA FRAC		0.345	
Instrument Code	PU 239 AEA FRAC		0.548	
	Pu 239/240 FROM SAMPLE FORM in uCi/mL		1.16E-03	S09T001784
Data Entry By	Pu 239/240 FROM SPIKED SAMPLE in uCi/mL		1.7030E-03	
MCB	COUNT TIME in MINUTES		480.000	
Analyst				
GLL				
Date Completed				
3/19/2009				
Analysis Date				
3/17/2009				
Analysis Time				
3:15 PM				
Specification				
AW106 EVAP3				
Units				
uCi/mL				

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

QC ACTUAL uCi/mL	= 9.72E-05
QC FOUND uCi/mL	= 1.08E-04
PERCENT SPIKE RECOVERY	= 111.29%

Pu Spike Liquid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1784-SPKDP
File ID: 25a2526.CNF

Counted on: 3/18/ 9 @ 8:34
Detector: AEA25
Geometry number: 1
Count time: 28804. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1	3617.4	3617.4	155.112	155.112	8.000	1.760	4.000	2.507
2	537.2	537.2	134.772	134.759	8.000	1.613	4.000	1.962
3	6346.2	6346.2	108.935	108.935	8.000	1.477	4.000	2.428
4	119.5	119.5	81.504	81.502	12.000	3.136	6.000	3.299

PEAK RESULTS
Peak Error Limit: 30%

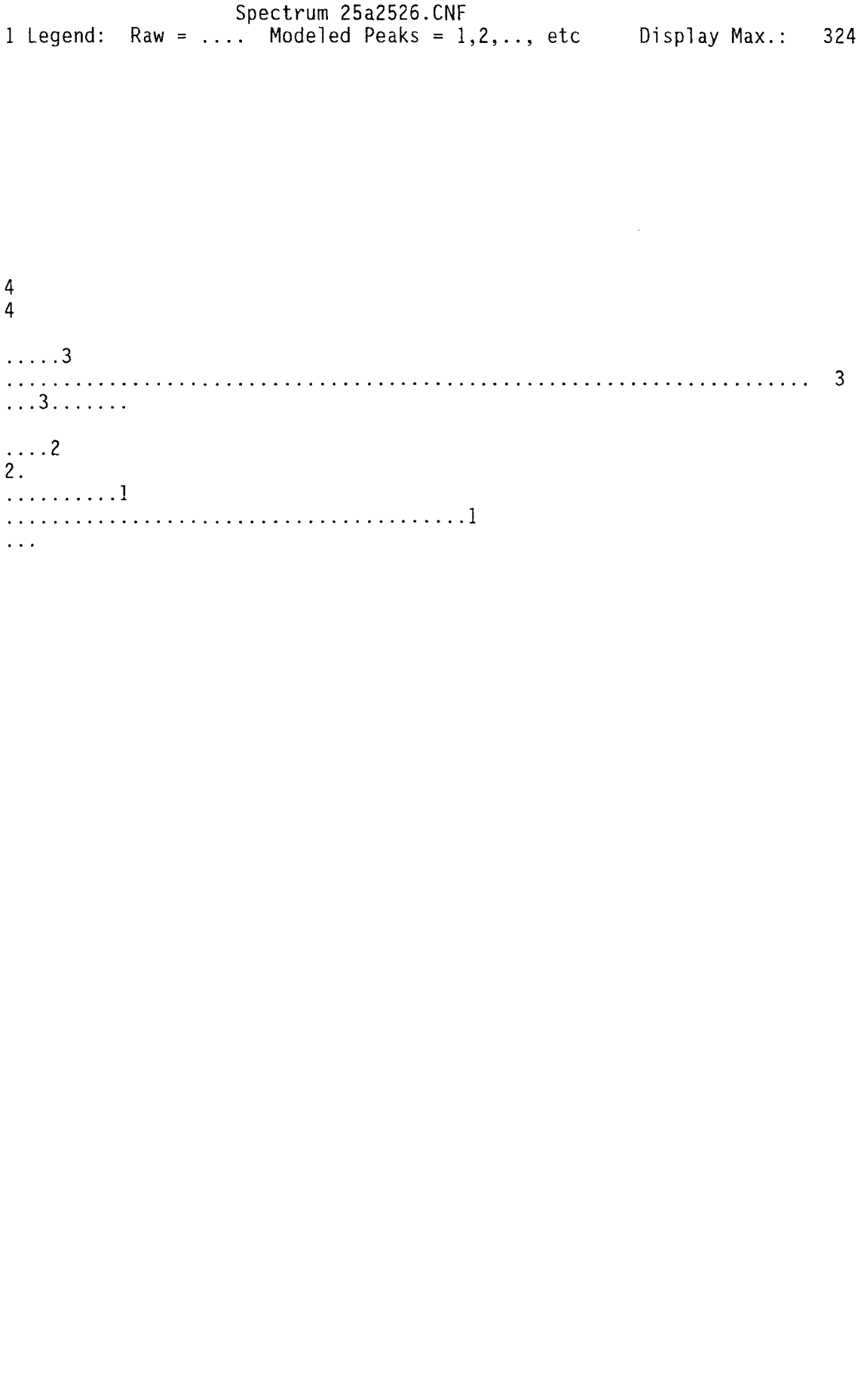
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	Activity d/m	Activity uCi/ea
1	Pu236	0.345	5.755	5.754	0.001	0.02	51.75	1.2	218.1	0.983E-04
2	Pu238	0.052	5.487	5.483	0.004	0.02	7.76	3.3	44.5	0.201E-04
	Am241		5.479	5.483	-.004				34.1	0.154E-04
3	Pu239	0.548	5.147	5.140	0.007	0.02	82.17	1.0	339.4	0.153E-03
	Pu240		5.144	5.140	0.004				339.4	0.153E-03
4	Np237	0.015	4.769	4.775	-.006	0.04	2.29	5.9	10.9	0.490E-05
Totals:		0.961	<--valid peaks only-->				143.98			

DETECTOR CALIBRATION
Energy(MEV) = 3.691 + (0.0133)*Channel
Energy range (MeV): 3.691 TO 10.500
Efficiency = 0.2421 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	71929.0	100.000
Smoothed	71929.0	100.000
Composite fit	69120.9	96.096
Residuals	2808.1	3.904

Started by: MB


Spectrum 25a2526.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 32421.5
4
4
.....3
3
...3.....
....2
2.
.....1
.....1
...

Raw Data Dump for AEA Spectrum: 25a2526.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.
11	2.	3.	3.	2.	4.	1.	0.	1.	0.	3.
21	2.	1.	1.	0.	2.	2.	5.	5.	2.	3.
31	0.	1.	2.	3.	1.	1.	3.	1.	3.	3.
41	1.	0.	1.	2.	2.	2.	4.	2.	1.	3.
51	5.	2.	4.	5.	6.	2.	6.	7.	2.	3.
61	8.	8.	4.	4.	6.	8.	7.	16.	18.	18.
71	21.	24.	21.	16.	22.	24.	35.	38.	69.	110.
81	182.	166.	95.	64.	52.	45.	22.	31.	24.	10.
91	16.	14.	19.	23.	29.	39.	43.	77.	112.	194.
101	262.	413.	694.	1178.	1991.	3152.	4259.	6480.	9458.	9432.
111	3074.	294.	5.	3.	6.	6.	10.	8.	13.	8.
121	7.	11.	10.	18.	12.	22.	32.	51.	75.	129.
131	209.	369.	465.	548.	717.	861.	204.	20.	12.	9.
141	19.	24.	32.	46.	81.	98.	166.	235.	401.	751.
151	1363.	2347.	3075.	3314.	4514.	5977.	2952.	138.	1.	0.
161	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
171	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
191	0.	0.	0.	1.	0.	1.	4.	0.	0.	0.
201	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
211	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
221	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
231	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
251	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
261	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
271	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
281	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
291	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
301	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
311	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
331	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
341	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
351	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
361	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	1.	0.	1.	0.	0.	0.	0.	0.	0.
391	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 238 and 239/240 :LIQUID

						SAMPLE
Type	DATE COUNTED		3/18/2009	PU 236 AEA FRAC		0.275
SAMPLE	SAMPLE VOLUME in mL		0.100	PU 238 AEA FRAC		0.073
Work List	SAMPLE DILUTION FACTOR		1.000	PU 239 AEA FRAC		0.589
00013347	TRACER VOLUME IN mL		0.500	TOTAL AT COUNTS		3693
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	AT COUNT TIME in MINUTES		30
PLUTONIUM	TRACER BOOK NO		58B64	BACKGROUND in cpm		0.190
Matrix	DETECTOR NUMBER		23	PU 236 cpm		25.240
LIQUID	EFFICIENCY FACTOR		0.3568	PU 238 cpm		6.720
Rerun	TRACER PREPARATION DATE		7/1/2008	PU 239 cpm		54.140
0	TRACER PREPARATION VALUE (dmp/mL)		283.00	AEA COUNT TIME in MINUTES		480
Sample Prep	PU-236 DECAY CORR'D VALUE (dpm/mL)		238.01			
	PU-238 TRACER VALUE (dpm/mL)		0.00			

Sample #
S09T001796
Instrument Code
WC79141
Data Entry By
MCB
Analyst
GLL
Date Completed
3/19/2009
Analysis Date
3/17/2009
Analysis Time
3:15 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Pu 239/240 uCi/mL		1.15E-03	
Relative Counting Error	=	2.2%	
			Pu 239/240
Pu 238 uCi/mL		1.42E-04	**7.35E-05**
Relative Counting Error	=	3.88%	**Pu 238**
Pu 236 Tracer Recovery	=	79.6%	**7.35E-05**

Pu Sample Liquid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1796-SAM PU
File ID: 26a2669.CNF

Counted on: 3/18/ 9 @ 8:35
Detector: AEA26
Geometry number: 1
Count time: 28803. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1	1807.5	1807.5	154.458	154.458	6.000	1.658	3.000	2.373
2	487.0	487.0	133.649	133.644	8.000	1.620	4.000	2.352
3	4065.8	4065.8	107.353	107.353	8.000	1.614	4.000	2.776
4	93.7	93.7	79.272	79.271	12.000	3.292	6.000	3.718

PEAK RESULTS
Peak Error Limit: 30%

Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	Activity d/m	Activity uCi/ea
1	Pu236	0.275	5.755	5.750	0.005	0.02	25.24	1.8	115.9	0.522E-04
2	Pu238	0.073	5.487	5.479	0.008	0.02	6.72	3.5	42.0	0.189E-04
	Am241		5.479	5.479	0.000				32.2	0.145E-04
3	Pu239	0.589	5.147	5.138	0.009	0.02	54.14	1.2	243.5	0.110E-03
	Pu240		5.144	5.138	0.006				243.5	0.110E-03
4	Np237	0.020	4.769	4.773	-.004	0.04	1.80	6.7	9.3	0.420E-05
Totals:		0.956	<--valid peaks only-->				87.90			

DETECTOR CALIBRATION
Energy(MEV) = 3.742 + (0.0130)*Channel
Energy range (MeV): 3.742 TO 10.398
Efficiency = 0.2223 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	44130.0	100.000
Smoothed	44130.0	100.000
Composite fit	42198.6	95.623
Residuals	1931.4	4.377

Started by: MB

Spectrum 26a2669.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 20968.8
4
4
.....3
.....3
3.....
.....2
2.
.....1
.....1
..

Raw Data Dump for AEA Spectrum: 26a2669.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
11	4.	2.	1.	0.	1.	1.	0.	0.	2.	0.
21	1.	0.	0.	0.	1.	0.	1.	1.	3.	0.
31	1.	0.	1.	0.	0.	0.	3.	2.	1.	1.
41	3.	4.	1.	2.	3.	1.	0.	0.	1.	1.
51	2.	0.	5.	1.	3.	5.	4.	5.	3.	2.
61	2.	2.	4.	7.	6.	7.	9.	15.	20.	17.
71	14.	11.	14.	24.	25.	42.	68.	107.	134.	123.
81	71.	48.	46.	21.	23.	18.	16.	9.	18.	10.
91	16.	16.	19.	24.	28.	52.	61.	90.	146.	242.
101	358.	620.	991.	1609.	2521.	3713.	5644.	6555.	3767.	803.
111	70.	4.	1.	2.	6.	7.	6.	7.	3.	4.
121	7.	5.	6.	11.	11.	24.	30.	84.	105.	178.
131	330.	416.	518.	745.	616.	188.	10.	6.	7.	6.
141	14.	12.	21.	32.	38.	61.	92.	173.	291.	527.
151	992.	1326.	1486.	2065.	2824.	2128.	334.	8.	1.	0.
161	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.
171	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
191	0.	0.	0.	1.	1.	2.	1.	3.	0.	0.
201	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
211	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
221	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
231	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.
241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
251	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
261	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
271	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
281	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
291	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
301	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
311	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
331	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
341	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
351	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
361	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Pu 238 and 239/240 :LIQUID

						SAMPLE
Type	DATE COUNTED		3/18/2009	PU 236 AEA FRAC		0.273
SAMPLE	SAMPLE VOLUME in mL		0.100	PU 238 AEA FRAC		0.075
Work List	SAMPLE DILUTION FACTOR		1.000	PU 239 AEA FRAC		0.583
00013347	TRACER VOLUME IN mL		0.500	TOTAL AT COUNTS		3904
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	AT COUNT TIME in MINUTES		30
PLUTONIUM	TRACER BOOK NO		58B64	BACKGROUND in cpm		0.190
Matrix	DETECTOR NUMBER		23	PU 236 cpm		25.860
LIQUID	EFFICIENCY FACTOR		0.3568	PU 238 cpm		7.120
Rerun	TRACER PREPARATION DATE		7/1/2008	PU 239 cpm		55.250
0	TRACER PREPARATION VALUE (dmp/mL)		283.00	AEA COUNT TIME in MINUTES		480
Sample Prep	PU-236 DECAY CORR'D VALUE (dpm/mL)		238.01			
	PU-238 TRACER VALUE (dpm/mL)		0.00			

Sample #
S09T001808
Instrument Code
WC79141
Data Entry By
MCB
Analyst
GLL
Date Completed
3/19/2009
Analysis Date
3/17/2009
Analysis Time
3:15 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Pu 239/240 uCi/mL		1.14E-03	
Relative Counting Error	=	2.1%	
			Pu 239/240
Pu 238 uCi/mL		1.47E-04	**7.05E-05**
Relative Counting Error	=	3.79%	**Pu 238**
Pu 236 Tracer Recovery	=	83.5%	**7.05E-05**

Pu Sample Liquid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1808-SAM PU
File ID: 27a2740.CNF

Counted on: 3/18/ 9 @ 8:35
Detector: AEA27
Geometry number: 1
Count time: 28800. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1	1939.8	1939.8	154.761	154.761	8.000	1.556	4.000	2.459
2	531.1	531.1	134.425	134.422	6.000	1.539	3.000	2.318
3	4408.8	4408.8	108.544	108.544	6.000	1.465	3.000	2.859
4	121.5	121.5	80.980	80.980	12.000	2.917	6.000	3.315

PEAK RESULTS
Peak Error Limit: 30%

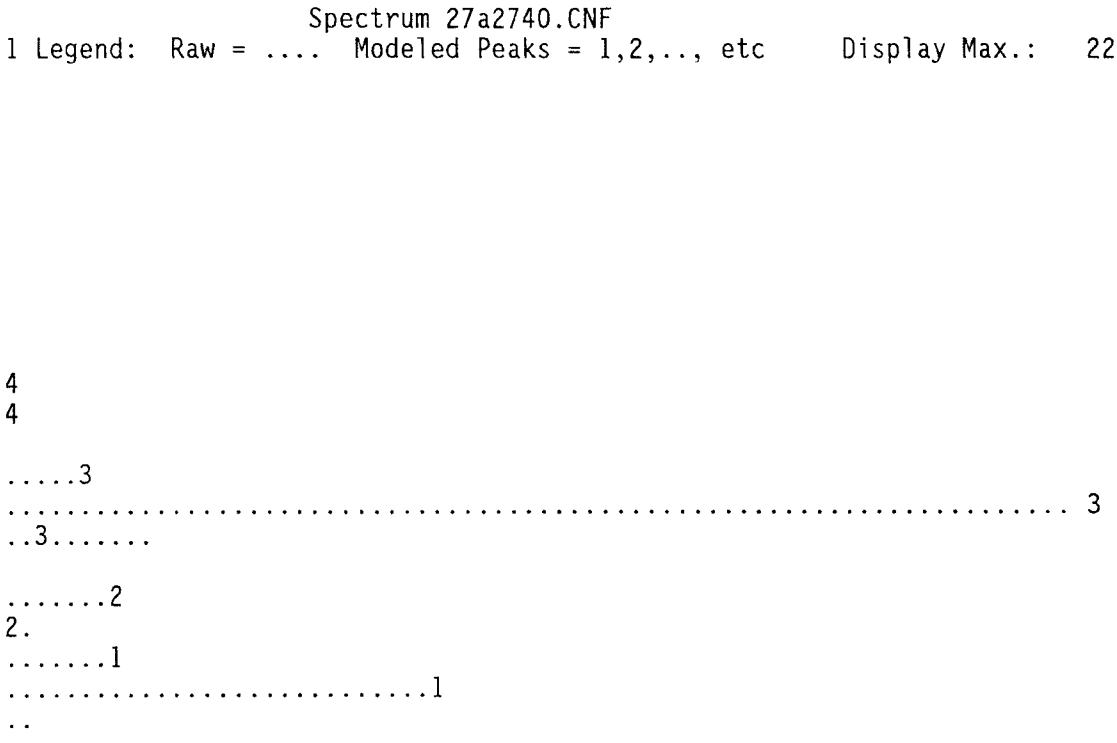
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	Activity d/m	Activity uCi/ea
1	Pu236	0.273	5.755	5.751	0.004	0.02	25.86	1.8	114.3	0.515E-04
2	Pu238	0.075	5.487	5.481	0.006	0.02	7.12	3.4	42.9	0.193E-04
	Am241		5.479	5.481	-.002				32.8	0.148E-04
3	Pu239	0.583	5.147	5.137	0.010	0.02	55.25	1.2	239.3	0.108E-03
	Pu240		5.144	5.137	0.007				239.3	0.108E-03
4	Np237	0.023	4.769	4.770	-.001	0.04	2.22	6.0	11.1	0.499E-05
Totals:		0.954	<--valid peaks only-->				90.45			

DETECTOR CALIBRATION
Energy(MEV) = 3.693 + (0.0133)*Channel
Energy range (MeV): 3.693 TO 10.502
Efficiency = 0.2309 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	45490.0	100.000
Smoothed	45490.0	100.000
Composite fit	43417.2	95.443
Residuals	2072.8	4.557

Started by: MB


Spectrum 27a2740.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 22542.0
4
4
.....3
3
..3.....
.....2
2.
.....1
.....1
..

Raw Data Dump for AEA Spectrum: 27a2740.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.
11	1.	2.	1.	2.	1.	0.	4.	1.	5.	1.
21	2.	2.	0.	6.	0.	2.	2.	2.	1.	0.
31	1.	1.	2.	1.	0.	0.	0.	4.	2.	3.
41	3.	2.	1.	2.	1.	1.	2.	1.	1.	1.
51	1.	3.	3.	4.	2.	3.	3.	3.	3.	2.
61	4.	1.	3.	2.	2.	5.	6.	9.	16.	26.
71	21.	29.	25.	11.	16.	23.	43.	54.	102.	146.
81	184.	133.	87.	52.	49.	33.	13.	22.	4.	4.
91	8.	5.	10.	16.	16.	23.	25.	40.	44.	89.
101	138.	215.	399.	844.	1466.	2214.	3512.	5732.	7396.	4603.
111	1098.	84.	6.	7.	7.	3.	4.	9.	5.	2.
121	6.	2.	7.	12.	8.	14.	26.	37.	65.	127.
131	240.	373.	448.	623.	881.	560.	83.	2.	3.	2.
141	5.	9.	12.	24.	25.	35.	56.	97.	196.	380.
151	858.	1266.	1437.	1921.	2969.	2635.	761.	36.	0.	0.
161	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
171	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
191	0.	0.	0.	0.	1.	0.	0.	0.	1.	0.
201	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
211	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
221	0.	0.	0.	0.	0.	1.	0.	0.	1.	0.
231	0.	1.	2.	0.	0.	0.	0.	0.	0.	0.
241	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.
251	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
261	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
271	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
281	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
291	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
301	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
311	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
331	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
341	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
351	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
361	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	2.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Data Review Check List

Procedure LA-953-104 Pu/Am

Batch # 13503

Review Item	Yes	No	N/A	Level 2	Comments and Samples Affected
Batch Items					
1. Was an LCS and blank run the batch?	X				
2. Was a duplicate run with the batch?	X				
2.a Was a spike run with the batch?	X				
3. Was the book # of the standard and tracer (and spike) on the traveler?	X				
4. Was the batch traveler completed (sample #, dilution, aliquot size)?	X				
5. Were any line outs initialed and dated?	X				
6. Was balance check completed on the day of use (if used)?			X		
Result Items					
7. Was sample, traveler and counting data correct on ACE form?	X				
8. If No, was ACE form corrected?			X		
9. Did results etc. correctly up-load to LABCORE (OMNILims or MULTILims)?	X				
10. If No, was LABCORE corrected?			X		
11. Are result units correct?	X				
12. If No, were units corrected?			X		
13. Was data flagged?	X				
14. Are all flags present and correct?	X				
15. Are LCS results within limits (Lab's or customer's)?	X				
16. Are Spike results within limits (Lab's or customer's)?	X				
17. Is blank <MDC, or <5% isotope concentration, or <5% decision level?	X				
18. Are duplicate RPDs <20% (or RSD) within customer limits?	X				
19. Are the correct procedure number and Rev/Mod on the report?	X				
Procedure Speciffic Items					
20. Were tracer recoveries between 30% and 120%?	X				
21. Were the customer required detection or quantification limits met?	X				

1st Level Reviewer: M R Carlos **Date:** 30 Mar 09

2nd Level Reviewer: Matthew Reeves **Date:** 3/31/09

LABCORE Completed Batch Report for Batch# 00013503

Analyst: Lai, Sue **Book#:** 31B64

Instrument: A/B Detector 23 B-1A

Method: AMERICIUM, LA-953-104 Rev/Mod H-1

Specification: AW106 EVAP3

Prep Batch:

Batch Comment: AW106 EVAP3 for AM scl

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1																
1	STD	S0903240016		0	0	Americium-241	LIQUID	.0000755	7.5079E-05		2.87	9.65E-06	uCi/mL	99.442	% Recovery	
1	STD	S0903240016		0	0	Americium-243T	LIQUID		86.479				% Recovery	N/A		
Sample Sequence 2																
2	BLNK	S0903240017		0	0	Curium-243/244	LIQUID		<1.1018E-06			1.10E-06	uCi/mL			
2	BLNK	S0903240017		0	0	Americium-241	LIQUID		<2.7545E-06			2.75E-06	uCi/mL			
2	BLNK	S0903240017		0	0	Americium-243T	LIQUID		80.783				% Recovery			
2	BLNK	S0903240017		0	0	Curium-242	LIQUID		<1.1018E-06			1.10E-06	uCi/mL			
Sample Sequence 3																
3	SAMPLE	S09T001751		0	1	Curium-243/244	LIQUID	N/A	<1.1418E-06			1.14E-06	uCi/mL			U
3	SAMPLE	S09T001751		0	1	Americium-241	LIQUID	N/A	<2.8545E-06			2.85E-06	uCi/mL			U
3	SAMPLE	S09T001751		0	1	Americium-243T	LIQUID		76.71				% Recovery			
3	SAMPLE	S09T001751		0	1	Curium-242	LIQUID	N/A	<1.1418E-06			1.14E-06	uCi/mL			U
Sample Sequence 4																
4	SAMPLE	S09T001763		0	1	Curium-243/244	LIQUID	N/A	<1.0412E-06			1.04E-06	uCi/mL			U
4	SAMPLE	S09T001763		0	1	Americium-241	LIQUID	N/A	<2.6029E-06			2.60E-06	uCi/mL			U
4	SAMPLE	S09T001763		0	1	Americium-243T	LIQUID		81.778				% Recovery			
4	SAMPLE	S09T001763		0	1	Curium-242	LIQUID	N/A	<1.0412E-06			1.04E-06	uCi/mL			U
Sample Sequence 5																
5	SAMPLE	S09T001771		0	1	Curium-243/244	LIQUID	N/A	<7.1352E-06			7.14E-06	uCi/mL			U
5	SAMPLE	S09T001771		0	1	Americium-241	LIQUID	N/A	1.4642E-04		2.81	1.78E-05	uCi/mL			
5	SAMPLE	S09T001771		0	1	Americium-243T	LIQUID		84.624				% Recovery			
5	SAMPLE	S09T001771		0	1	Curium-242	LIQUID	N/A	<7.1352E-06			7.14E-06	uCi/mL			U
Sample Sequence 6																
6	SAMPLE	S09T001781		0	1	Curium-243/244	LIQUID	N/A	<7.2154E-06			7.22E-06	uCi/mL			U
6	SAMPLE	S09T001784		0	1	Americium-241	LIQUID	N/A	1.5263E-04		2.54	1.80E-05	uCi/mL			
6	SAMPLE	S09T001784		0	1	Americium-243T	LIQUID		84.613				% Recovery			
6	SAMPLE	S09T001784		0	1	Curium-242	LIQUID	N/A	<7.2154E-06			7.22E-06	uCi/mL			U
Sample Sequence 7																
7	DUP	S0903240018	S09T001784	0	0	Curium-243/244	LIQUID	<7.2154E-06	<6.6037E-06			6.60E-06	uCi/mL			
7	DUP	S0903240018	S09T001784	0	0	Americium-241	LIQUID	1.5263E-04	1.5101E-04		2.72	1.65E-05	uCi/mL	1.0667	% RPD	
7	DUP	S0903240018	S09T001784	0	0	Americium-243T	LIQUID	84.613	91.838				% Recovery			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013503

Seq Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
7 DUP	S0903240018	S09T001784	0 0		Curium-242	LIQUID	<7.2154E-06	<6.6037E-06			6.60E-06	uCi/mL			
Sample Sequence 8															
8 SPK	S0903240019	S09T001784	0 0		Americium-241	LIQUID	.0000755	7.9237E-05			1.78E-05	uCi/mL	104.95	% Recovery	
Sample Sequence 9															
9 SPK-DUP	S0903240020	S09T001784	0 0		Americium-241	LIQUID	.0000755	7.8910E-05			1.78E-04	uCi/mL	104.52	% Recovery	
													0.41056	% RPD	
Sample Sequence 10															
10 SAMPLE	S09T001796		0 1		Curium-243/244	LIQUID	N/A	<6.8166E-06			6.82E-06	uCi/mL			U
10 SAMPLE	S09T001796		0 1		Americium-241	LIQUID	N/A	1.5192E-04		2.74	1.70E-05	uCi/mL			
10 SAMPLE	S09T001796		0 1		Americium-243T	LIQUID		88.97				% Recovery			
10 SAMPLE	S09T001796		0 1		Curium-242	LIQUID	N/A	<6.8166E-06			6.82E-06	uCi/mL			U
Sample Sequence 11															
11 SAMPLE	S09T001808		0 1		Curium-243/244	LIQUID	N/A	<7.1839E-06			7.18E-06	uCi/mL			U
11 SAMPLE	S09T001808		0 1		Americium-241	LIQUID	N/A	1.5304E-04		2.77	1.80E-05	uCi/mL			
11 SAMPLE	S09T001808		0 1		Americium-243T	LIQUID		85.555				% Recovery			
11 SAMPLE	S09T001808		0 1		Curium-242	LIQUID	N/A	<7.1839E-06			7.18E-06	uCi/mL			U

768

Comments Section:

Data Flagger Status:
Flagging Completed

Final Page for Batch# 00013503

Reviewer Signature — Date 3/31/09

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013503

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903240016	STD				
2	S0903240017	BLNK				
3	S09T001751	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001763	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
5	S09T001771	SAMPLE		20090162	6AW-08-01	AW106 EVAP3
6	S09T001784	SAMPLE		20090162	6AW-08-02B	AW106 EVAP3
7	S0903240018	DUP	S09T001784			
8	S0903240019	SPK	S09T001784			
9	S0903240020	SPK-DUP	S09T001784			
10	S09T001796	SAMPLE		20090162	6AW-08-03B	AW106 EVAP3
11	S09T001808	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Review Checklist

ENERGY CALIBRATION OF ALPHA SPECTROMETERS

INSTRUMENT # AEA 1 to 11

PROCEDURES LA-508-161 LQ-150-115

BATCH # 13503

Review Items	--- Level 1 --- Yes	No	N/A	Level 2	Comments & Samples Affected
Energy Calibration					
1. Alpha Spectrometer was energy calibrated with a std having > two peaks	✓			✓	
2. Energy Calibration spectrum had clearly resolvable peaks	✓			✓	
3. Energy range of peaks in calibration std encompasses alpha energies expected in samples	✓			✓	
Calibration Verification					
1. Instrument Control Std within limits for all peaks before batch counted	✓			✓	
2. Bkg check within limits and performed < one week ago	✓			✓	

1st Level Reviewer: John Relyea Date: 30 Mar 09

2nd Level Reviewer: [signature] Date: 3/30/09

Data Review Checklist

CALIBRATION OF GAS FLOW PROPORTIONAL COUNTER

INSTRUMENT # Det 23

BATCH # 13503

PROCEDURES LQ-508-102 LQ-150-115

Review Items	--- Level 1 --- Yes	No	N/A	Level 2	Comments & Samples Affected
Initial Calibration (Plateau generation) and Cross Talk					
1. The PP-10 gas flow rate was 0.1 +/- 0.05 SCFH	✓			✓	
2. Plateau generated before initial calibration or after major maintenance activity	✓			✓	
3. Final plateau has step voltages < 25 V within +/- 50 V of operating value	✓			✓	
4. There were > 5000 counts collected per point near the knee of each plateau	✓			✓	
5. The required raw data is in maintenance notebook	✓			✓	
6. Any non-conformances are documented in maintnance notebook	✓			✓	
7. At least 125,000 counts collected for the cross talk determinations	✓			✓	
8. Crosstalk of alpha into beta is < 10 %	✓			✓	
9. Crosstalk of beta into alpha is < 1 %	✓			✓	
Efficiency Calibration					
1. Calibration sources are NIST traceable & verified with 2nd source	✓			✓	
2. The PP-10 gas flow rate was 0.1 +/- 0.05 SCFH	✓			✓	
3. Plateau V checked/adjusted before calibration	✓			✓	
4. The required raw data is in maintenance notebook	✓			✓	
5. The alpha and beta efficiencies were calculated per procedure LQ-508-002	✓			✓	
6. Calibration had a second, independent check	✓			✓	
7. Non-conformances are documented	✓			✓	
8. Calibrations are verified by second technical staff member	✓			✓	
9. Calibrations signed off by Counting Room Manager	✓			✓	
10. Efficiency tables for automated calculation were updated.	✓			✓	
Calibration Verification					
1. Instrument Control Std within limits before and after batch counted	✓			✓	
2. Bkg check within limits before and after batch counted	✓			✓	

1st Level Reviewer: John Relyea Date: 30 Mar 09

2nd Level Reviewer: J A Carter Date: 3/30/09

LABCORE Data Entry Template for Batch# 00013503

Analyst: H000 3944 **Standard ID / Book#:** 31864

Instrument:

Method: AMERICIUM, LA-953-104 Rev/Mod H-1

Prep Batch:

Batch Comment: AW106 EVAP3 for AM scl

S	Type	Sample	R	A	Matrix	Group#	Project
1	STD		0		LIQUID		
	Analytes Requested:	Americium-241, Americium-243T					
2	BLNK		0		LIQUID		
	Analytes Requested:	Americium-241, Americium-243T, Curium-242, Curium-243/244					
3	SAMPLE	S09T001751	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Americium-243T, Curium-242, Curium-243/244					
4	SAMPLE	S09T001763	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Americium-243T, Curium-242, Curium-243/244					
5	SAMPLE	S09T001771	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Americium-243T, Curium-242, Curium-243/244					
6	SAMPLE	S09T001784	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Americium-243T, Curium-242, Curium-243/244					
7	DUP	S09T001784	0		LIQUID		
	Analytes Requested:	Americium-241, Americium-243T, Curium-242, Curium-243/244					
8	SPK	S09T001784	0		LIQUID		
	Analytes Requested:	Americium-241, Americium-243T					
9	SPK-DUP	S09T001784	0		LIQUID		
	Analytes Requested:	Americium-241, Americium-243T					
10	SAMPLE	S09T001796	1		LIQUID	20090162	AW106 EVAP3
	Analytes Requested:	Americium-241, Americium-243T, Curium-242, Curium-243/244					
11	SAMPLE	S09T001808	1		LIQUID	20090163	AW106 EVAP3
	Analytes Requested:	Americium-241, Americium-243T, Curium-242, Curium-243/244					

Final Page for Batch# 00013503

Sue (Chu-Hui) Lai 3-27-09
Analyst Signature **Date**

MC Brown 3/30/9
Data Entry Signature **Date**

Erin Bowker 3.30.09

Data Entry Comments:

S = Batch Slot Number, R = Retest Number, A = Aliquot Code.

Data Collection Sheet for Americium

Worklist # 13503 Analysis Date 3-27-09 Matrix **Liquid**

Analyst S.L. Analysis Time 14:00 Tracer Book # **112B59**

Pipette #	Checked
40 8058	✓
49 [illegible]5	✓

Standard Book # **31B64** Detector # 23

Spike Book # **31B64** Bkg CPM .19

Spike Volume **0.5** Count Time in minutes 30

Sample Type	Sample Number	Dilution	Sample Volume Analyzed, ml	Tracer Volume, ml	Sample Tray #	Alpha Counts	AEA Spectra #
STANDARD	31B64		0.5	0.500	1	1720	7a 7388
BLANK			1	0.500	2	860	8a 8304
SAMPLE	S09T001751		1	0.500	3	804	10a 1012
SAMPLE	S09T001763		1	0.500	4	833	11a 1104
SAMPLE	S09T001771		0.3	0.500	5	1827	12a 1277
SAMPLE	S09T001784		0.3	0.500	6	1847	13a 1341
Duplicate	S09T001784		0.3	0.500	7	1991	15 14a 1513
Spike	S09T001784		0.3	1.000	8	3555	16 15a 1676
Spike Dup	S09T001784		0.3	1.000	9	3693	17 16a 1751
SAMPLE	S09T001796		0.3	0.500	10	1929	18 17a 1839
SAMPLE	S09T001808		0.3	0.500	11	1880	19 18a 1989

Comments: AW106 EVAP3

Am 241 : LIQUID

					STD
Type	DATE COUNTED	3/28/2009	Am-241 AEA FRAC		0.450
STD	STANDARD VOLUME in mL	0.500	Am-243 AEA FRAC		0.494
Work List	STANDARD DILUTION FACTOR	1.000	Cm-243/244 AEA FRAC		0.000
00013503	TRACER VOLUME IN mL	0.500	TOTAL AT COUNTS		1720
Test Code	DIGEST DILUTION FACTOR	1.000	AT COUNT TIME (MIN)		30
AMERICIUM	DETECTOR NUMBER	23	BACKGROUND in cpm		0.190
Matrix	EFFICIENCY FACTOR	0.3568	Am-241 cpm		18.570
LIQUID	TRACER BOOK NO	112B59	Am-243 cpm		20.370
Rerun	TRACER PREPARATION DATE	8/14/2007	Cm-243/244 cpm		0.000
0	TRACER PREPARATION VALUE (dmp/mL)	183.000	AEA COUNT TIME		480
Sample Prep	Am-243 DECAY CORR'D VALUE (dpm/mL)	182.972			
Sample #	STANDARD BOOK NO	31B64			
S0903240016	STANDARD VALUE in uCi/mL	7.5500E-05			
Instrument Code					
WC79141					
Data Entry By					
MCB					
Analyst					
SCL					
Date Completed					
3/30/2009					
Analysis Date					
3/27/2009					
Analysis Time					
2:00 PM					
Specification					
AW106 EVAP3					
Units					
uCi/mL					

Procedure using this form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

			DETECTION LEVELS in uCi/mL
Am 241 uCi/mL	=	7.5079E-05	
Relative Counting Error	=	2.9%	
Am 241 Standard Recovery		99.44%	**AM 241**
			9.6463E-06
Am 243 Tracer Recovery	=	86.5%	

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
B13503-STD_AM
File ID: 7a7388.CNF

Counted on: 3/28/ 9 @11: 6
Detector: AEA7
Geometry number: 1
Count time: 28801. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1	774.8	774.8	301.687	301.687	10.000	4.480	5.000	3.324
2	918.9	918.9	256.025	256.024	10.000	3.413	5.000	2.446

PEAK RESULTS
Peak Error Limit: 30%

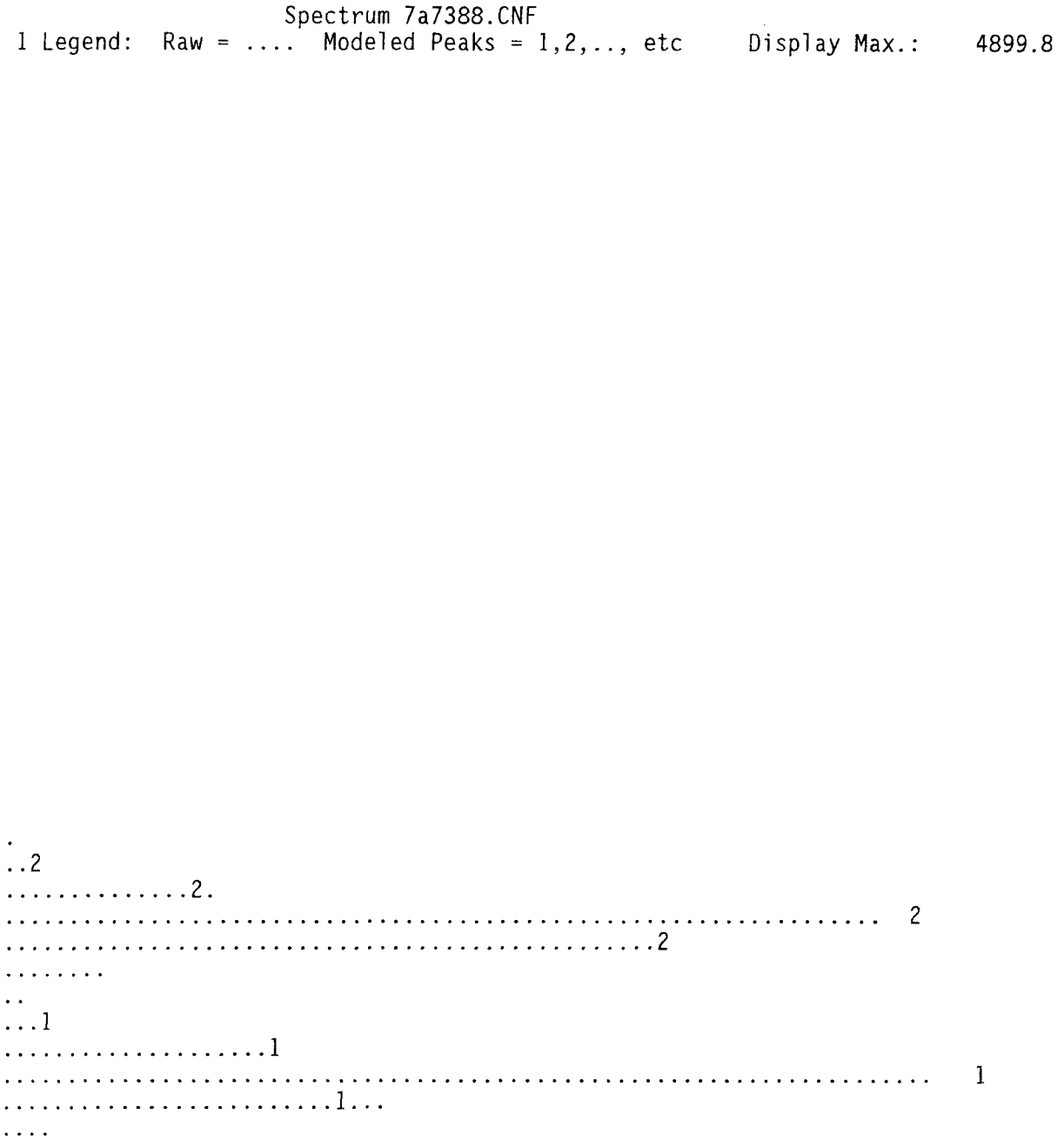
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	Activity d/m	Activity uCi/ea
1	Pu238	0.450	5.487	5.469	0.018	0.02	18.57	2.1	113.2	0.510E-04
	Am241		5.479	5.469	0.010				86.7	0.390E-04
2	Am243	0.494	5.266	5.259	0.007	0.02	20.37	2.0	90.3	0.407E-04
Totals:		0.944	<--valid peaks only-->				38.94			

DETECTOR CALIBRATION
Energy(MEV) = 4.082 + (0.0046)*Channel
Energy range (MeV): 4.082 TO 6.437
Efficiency = 0.2279 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	19797.0	100.000
Smoothed	19797.0	100.000
Composite fit	18690.6	94.411
Residuals	1106.4	5.589

Started by: MB


Spectrum 7a7388.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 4899.8
2
1

Raw Data Dump for AEA Spectrum: 7a7388.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	1.	0.	0.	0.	2.	1.	1.	0.	0.	1.
51	2.	0.	1.	0.	1.	1.	1.	0.	1.	0.
61	0.	0.	2.	1.	0.	0.	0.	0.	1.	0.
71	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.
81	0.	1.	0.	2.	2.	1.	0.	0.	1.	0.
91	0.	1.	0.	0.	0.	0.	2.	2.	0.	0.
101	1.	0.	0.	0.	0.	0.	0.	1.	1.	0.
111	0.	1.	0.	0.	1.	1.	0.	0.	0.	0.
121	1.	0.	0.	0.	0.	1.	1.	1.	0.	1.
131	1.	0.	1.	1.	0.	0.	2.	0.	0.	0.
141	1.	0.	0.	1.	1.	0.	0.	0.	2.	0.
151	1.	1.	0.	1.	0.	0.	2.	1.	2.	3.
161	1.	0.	2.	1.	2.	0.	1.	1.	1.	1.
171	2.	0.	2.	1.	1.	0.	0.	0.	0.	3.
181	0.	1.	0.	2.	2.	1.	1.	0.	3.	0.
191	1.	1.	1.	0.	1.	0.	0.	2.	1.	0.
201	0.	3.	4.	1.	0.	1.	0.	7.	1.	2.
211	4.	3.	3.	7.	3.	3.	2.	5.	2.	3.
221	5.	5.	5.	4.	6.	4.	9.	10.	8.	19.
231	17.	17.	19.	32.	21.	43.	32.	33.	46.	47.
241	69.	70.	112.	126.	145.	208.	243.	279.	315.	366.
251	419.	518.	686.	853.	985.	1178.	1070.	837.	489.	255.
261	114.	86.	85.	69.	46.	39.	51.	53.	45.	63.
271	31.	30.	26.	16.	10.	15.	18.	11.	22.	23.
281	36.	31.	31.	38.	36.	40.	69.	86.	99.	125.
291	160.	184.	210.	250.	277.	317.	394.	479.	637.	759.
301	909.	998.	825.	613.	388.	232.	192.	135.	119.	140.
311	102.	89.	77.	39.	38.	13.	5.	1.	0.	0.
321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
331	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
341	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.
351	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
361	1.	0.	1.	0.	1.	0.	0.	0.	1.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.
421	0.	0.	1.	0.	0.	0.	0.	1.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	2.	1.	1.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

						BLNK
Type	DATE COUNTED		3/28/2009	Am 241 AEA FRAC		0.000
BLNK	SAMPLE VOLUME in mL		1.000	Am 243 AEA FRAC		0.926
Work List	SAMPLE DILUTION FACTOR		1.000	Cm 242 AEA FRAC		0.000
00013503	TRACER VOLUME IN mL		0.500	Cm 243/244 AEA FRAC		0.000
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	TOTAL AT COUNTS		860
AMERICIUM	DETECTOR NUMBER		23	AT COUNT TIME (min)		30
Matrix	EFFICIENCY FACTOR		0.3568	BACKGROUND in cpm		0.190
LIQUID	TRACER BOOK NO		112B59	Am 241 cpm		0.000
Rerun	TRACER PREPARATION DATE		8/14/2007	Am 243 cpm		19.040
0	TRACER PREPARATION VALUE (dmp/mL)		183.000	Cm 242 cpm		0.000
Sample Prep	Am-243 DECAY CORR'D VALUE (dpm/mL)		182.972	Cm 243/244 cpm		0.000
				AEA COUNT TIME (min)		480

Sample #
S0903240017
Instrument Code
WC79141
Data Entry By
MCB
Analyst
SCL
Date Completed
3/30/2009
Analysis Date
3/27/2009
Analysis Time
2:00 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Am 241 uCi/mL	<	2.7545E-06	**DETECTION LEVELS in uCi/mL**
Relative Counting Error	=		
Cm 242 uCi/mL	<	1.1018E-06	**Am 241**
Relative Counting Error	=		**2.7545E-06**
Cm 243/244 uCi/mL	<	1.1018E-06	**Cm 242**
Relative Counting Error	=		**1.1018E-06**
Am 243 Tracer Recovery	=	80.8%	**Cm 243/244**
			1.1018E-06

Americium Sample Liquid/Solid Template 1.0

Printed at: 8:14:51 AM 3/30/2009 Version: 1.01

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
B13503-BLNK_AM
File ID: 8a8304.CNF

Counted on: 3/28/ 9 @11: 7
Detector: AEA8
Geometry number: 1
Count time: 28803. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1	931.3	931.3	258.256	258.256	10.000	3.173	5.000	2.678

PEAK RESULTS
Peak Error Limit: 30%

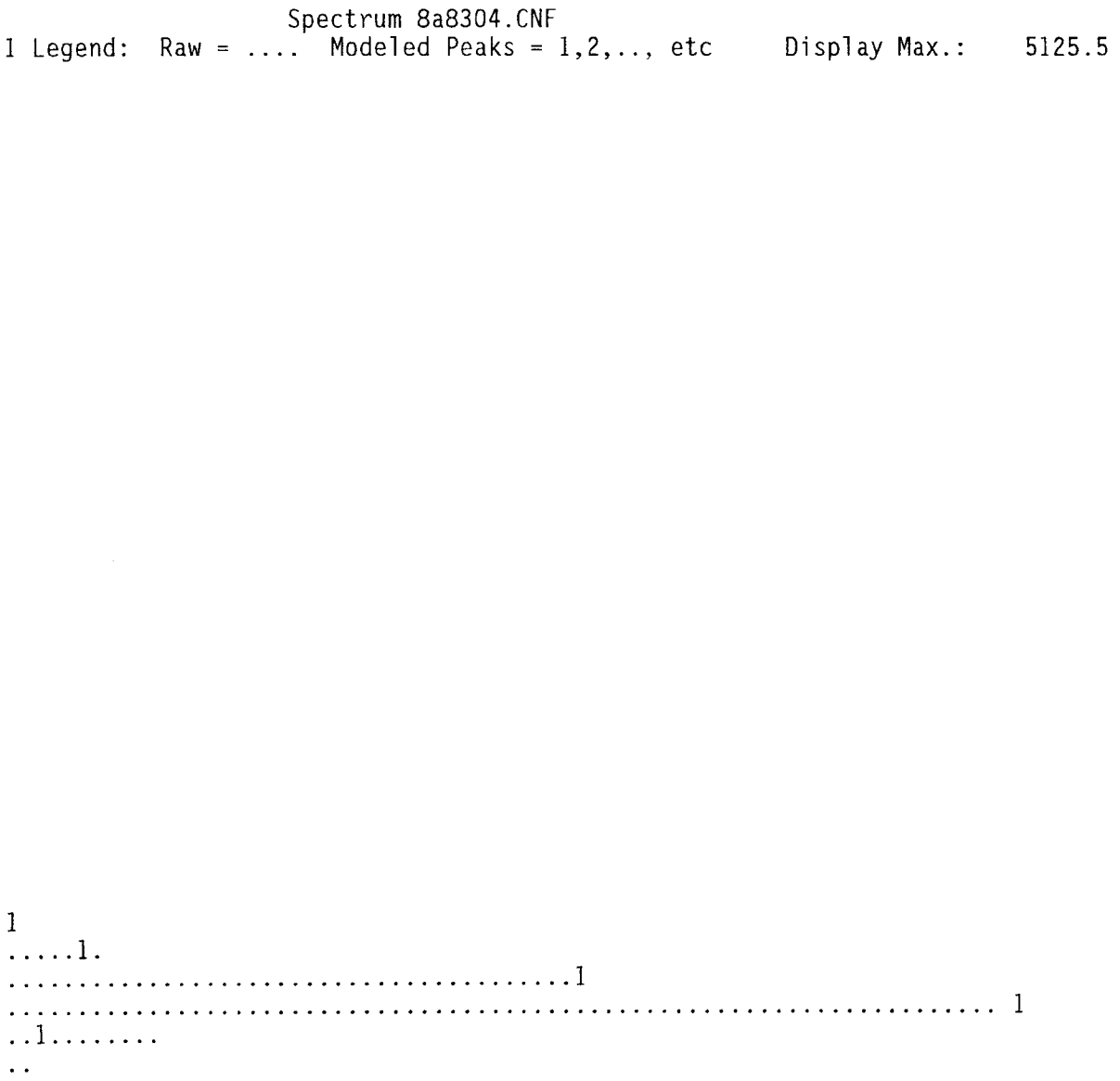
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	Activity d/m	Activity uCi/ea
1	Am243	0.926	5.266	5.261	0.005	0.01	19.04	2.1	167.8	0.756E-04
Totals:		0.926	<--valid peaks only-->				19.04			

DETECTOR CALIBRATION
Energy(MEV) = 4.048 + (0.0047)*Channel
Energy range (MeV): 4.048 TO 6.454
Efficiency = 0.1146 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	9871.0	100.000
Smoothed	9871.0	100.000
Composite fit	9140.9	92.604
Residuals	730.1	7.396

Started by: MB


Spectrum 8a8304.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 5125.5

Raw Data Dump for AEA Spectrum: 8a8304.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	1.	0.	0.	0.	0.	0.	0.	1.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.
71	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
81	0.	0.	0.	0.	0.	2.	0.	0.	0.	0.
91	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.
101	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.
111	0.	0.	1.	0.	0.	0.	0.	1.	0.	1.
121	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
131	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
141	0.	1.	0.	0.	0.	0.	1.	1.	0.	0.
151	1.	0.	0.	0.	0.	0.	0.	0.	3.	1.
161	0.	0.	2.	0.	0.	0.	1.	0.	3.	0.
171	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.
181	0.	1.	0.	0.	0.	1.	0.	0.	1.	0.
191	0.	0.	0.	1.	0.	0.	0.	0.	0.	1.
201	0.	1.	0.	1.	0.	0.	1.	0.	2.	0.
211	2.	0.	2.	1.	1.	2.	0.	0.	1.	2.
221	2.	2.	1.	3.	1.	0.	3.	2.	4.	4.
231	2.	8.	10.	14.	9.	12.	26.	20.	26.	19.
241	25.	34.	43.	42.	65.	86.	117.	157.	221.	220.
251	263.	280.	350.	452.	608.	805.	1021.	1170.	1189.	925.
261	522.	266.	128.	74.	65.	58.	60.	76.	49.	59.
271	39.	42.	30.	24.	17.	8.	6.	2.	2.	0.
281	0.	1.	0.	1.	0.	1.	0.	1.	0.	0.
291	0.	1.	1.	2.	2.	3.	1.	0.	1.	3.
301	1.	2.	5.	3.	0.	2.	1.	1.	1.	0.
311	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.
321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
331	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.
341	0.	0.	0.	0.	0.	0.	1.	0.	1.	2.
351	0.	2.	0.	1.	1.	1.	1.	0.	0.	1.
361	0.	0.	1.	1.	0.	0.	0.	0.	1.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	1.	0.	1.	1.	1.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

						SAMPLE
Type	DATE COUNTED		3/28/2009	Am 241 AEA FRAC		0.000
SAMPLE	SAMPLE VOLUME in mL		1.000	Am 243 AEA FRAC		0.941
Work List	SAMPLE DILUTION FACTOR		1.000	Cm 242 AEA FRAC		0.000
00013503	TRACER VOLUME IN mL		0.500	Cm 243/244 AEA FRAC		0.000
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	TOTAL AT COUNTS		804
AMERICIUM	DETECTOR NUMBER		23	AT COUNT TIME (min)		30
Matrix	EFFICIENCY FACTOR		0.3568	BACKGROUND in cpm		0.190
LIQUID	TRACER BOOK NO		112B59	Am 241 cpm		0.000
Rerun	TRACER PREPARATION DATE		8/14/2007	Am 243 cpm		18.650
1	TRACER PREPARATION VALUE (dmp/mL)		183.000	Cm 242 cpm		0.000
Sample Prep	Am-243 DECAY CORR'D VALUE (dpm/mL)		182.972	Cm 243/244 cpm		0.000
				AEA COUNT TIME (min)		480

Sample #
S09T001751
Instrument Code
WC79141
Data Entry By
MCB
Analyst
SCL
Date Completed
3/30/2009
Analysis Date
3/27/2009
Analysis Time
2:00 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Am 241 uCi/mL	<	2.8545E-06	**DETECTION LEVELS in uCi/mL**
Relative Counting Error	=		
Cm 242 uCi/mL	<	1.1418E-06	**Am 241 2.8545E-06**
Relative Counting Error	=		
Cm 243/244 uCi/mL	<	1.1418E-06	**Cm 242 1.1418E-06**
Relative Counting Error	=		
Am 243 Tracer Recovery	=	76.7%	**Cm 243/244 1.1418E-06**

Americium Sample Liquid/Solid Template 1 0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1751-SAM AM
File ID: 10a1012.CNF

Counted on: 3/28/ 9 @11: 8
Detector: AEA10
Geometry number: 1
Count time: 28801. Sec

PEAK ANALYSIS

Peak	Peak height		Peak center		FWHM		Tau	
ID	Initial	Final	Initial	Final	Initial	Final	Initial	Final
1	847.5	847.5	255.774	255.774	10.000	3.739	5.000	2.992

PEAK RESULTS
Peak Error Limit: 30%

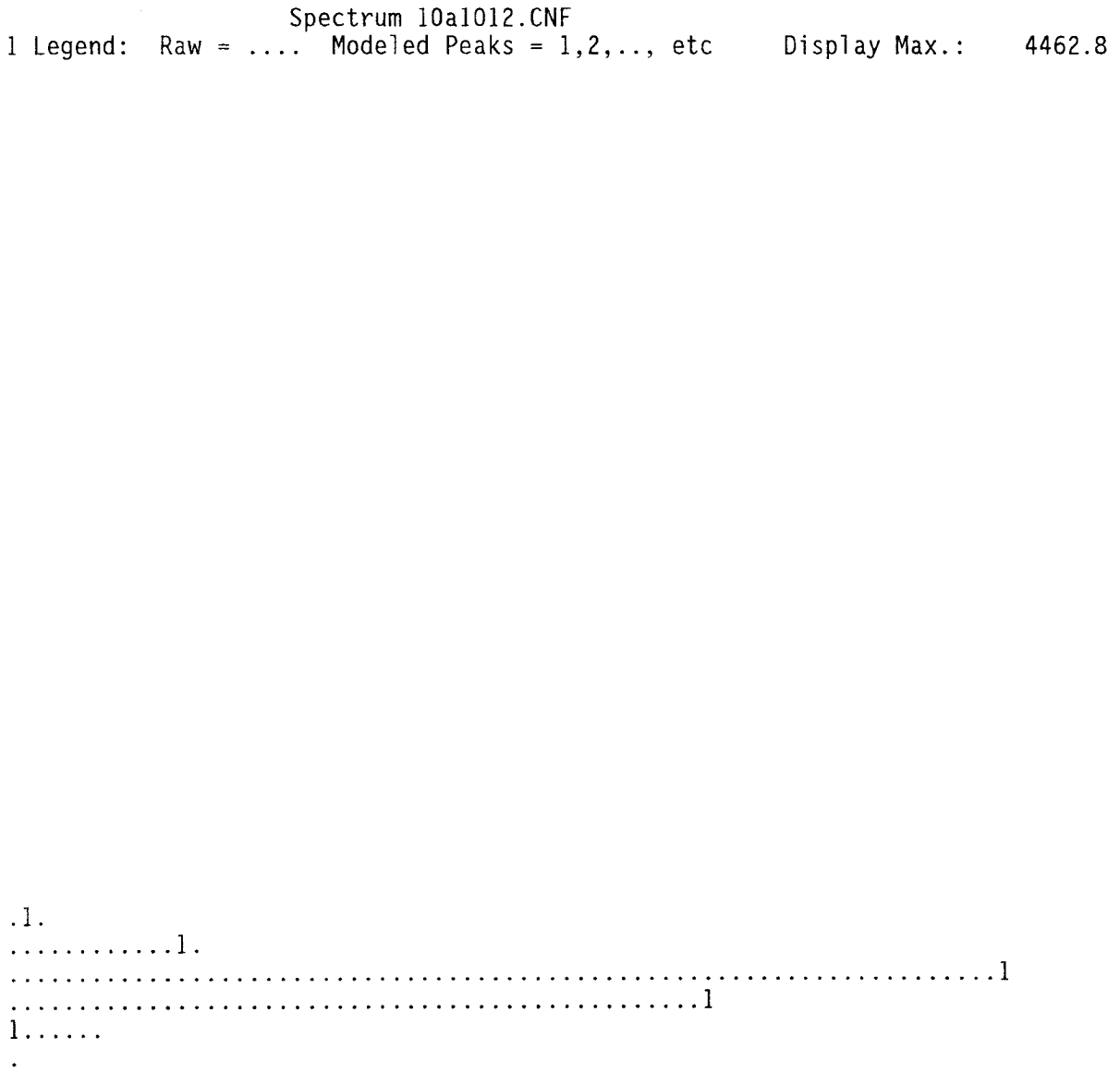
Peak		AEA	Peak Centroid				Count	%err		Activity
ID	Isotope	Frac	Exp.	Obs.	Diff.	FWHM	Rate c/m	@95	d/m	uCi/ea
1	Am243	0.941	5.266	5.260	0.006	0.02	18.65	2.1	8.6	0.387E-05
Totals:		0.941	<--valid peaks only-->				18.65			

DETECTOR CALIBRATION
Energy(MEV) = 4.083 + (0.0046)*Channel
Energy range (MeV): 4.083 TO 6.438
Efficiency = 2.1898 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	9511.0	100.000
Smoothed	9511.0	100.000
Composite fit	8950.6	94.108
Residuals	560.4	5.892

Started by: MB


Spectrum 10a1012.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 4462.8

Raw Data Dump for AEA Spectrum: 10a1012.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	0.	1.	0.	0.	0.	0.	1.
81	0.	1.	0.	1.	0.	0.	0.	0.	0.	0.
91	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	1.	0.	0.	0.	1.	0.	0.	0.	0.	0.
111	1.	0.	1.	0.	0.	0.	0.	0.	0.	0.
121	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.
131	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.
141	0.	0.	0.	0.	2.	0.	0.	0.	0.	0.
151	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.
161	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.
171	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
181	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.
191	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.
201	1.	0.	0.	2.	1.	1.	1.	1.	0.	0.
211	0.	2.	0.	1.	0.	3.	2.	2.	4.	2.
221	4.	2.	3.	2.	6.	3.	5.	3.	4.	6.
231	14.	11.	19.	17.	30.	22.	27.	32.	26.	46.
241	50.	53.	73.	92.	143.	157.	223.	241.	268.	329.
251	406.	522.	711.	848.	990.	1063.	929.	724.	450.	247.
261	127.	81.	40.	52.	50.	49.	35.	54.	38.	33.
271	28.	21.	12.	8.	2.	2.	1.	0.	0.	0.
281	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.
291	1.	0.	1.	0.	1.	1.	1.	2.	1.	3.
301	3.	2.	0.	0.	0.	1.	0.	0.	1.	0.
311	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.
321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
331	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
341	0.	0.	1.	0.	0.	0.	0.	2.	1.	0.
351	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.
361	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
371	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
431	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	1.	0.	0.	1.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

					SAMPLE
Type	DATE COUNTED	3/28/2009	Am 241 AEA FRAC		0.000
SAMPLE	SAMPLE VOLUME in mL	1.000	Am 243 AEA FRAC		0.968
Work List	SAMPLE DILUTION FACTOR	1.000	Cm 242 AEA FRAC		0.000
00013503	TRACER VOLUME IN mL	0.500	Cm 243/244 AEA FRAC		0.000
Test Code	DIGEST DILUTION FACTOR DDF	1.0000	TOTAL AT COUNTS		833
AMERICIUM	DETECTOR NUMBER	23	AT COUNT TIME (min)		30
Matrix	EFFICIENCY FACTOR	0.3568	BACKGROUND in cpm		0.190
LIQUID	TRACER BOOK NO	112B59	Am 241 cpm		0.000
Rerun	TRACER PREPARATION DATE	8/14/2007	Am 243 cpm		19.730
1	TRACER PREPARATION VALUE (dmp/mL)	183.000	Cm 242 cpm		0.000
Sample Prep	Am-243 DECAY CORR'D VALUE (dpm/mL)	182.972	Cm 243/244 cpm		0.000
			AEA COUNT TIME (min)		480

Sample #
S09T001763
Instrument Code
WC79141
Data Entry By
MCB
Analyst
SCL
Date Completed
3/30/2009
Analysis Date
3/27/2009
Analysis Time
2:00 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Am 241 uCi/mL	<	2.6029E-06	**DETECTION LEVELS in uCi/mL**
Relative Counting Error	=		
Cm 242 uCi/mL	<	1.0412E-06	**Am 241**
Relative Counting Error	=		**2.6029E-06**
Cm 243/244 uCi/mL	<	1.0412E-06	**Cm 242**
Relative Counting Error	=		**1.0412E-06**
Am 243 Tracer Recovery	=	81.8%	**Cm 243/244**
			1.0412E-06

Americium Sample Liquid/Solid Template 1.0

Printed at: 8:16:23 AM 3/30/2009 Version: 1.01

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1763-SAM AM
File ID: 11a1104.CNF

Counted on: 3/28/ 9 @11: 8
Detector: AEA11
Geometry number: 1
Count time: 28802. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1	669.4	669.4	254.656	254.656	14.000	7.759	7.000	5.768

PEAK RESULTS
Peak Error Limit: 30%

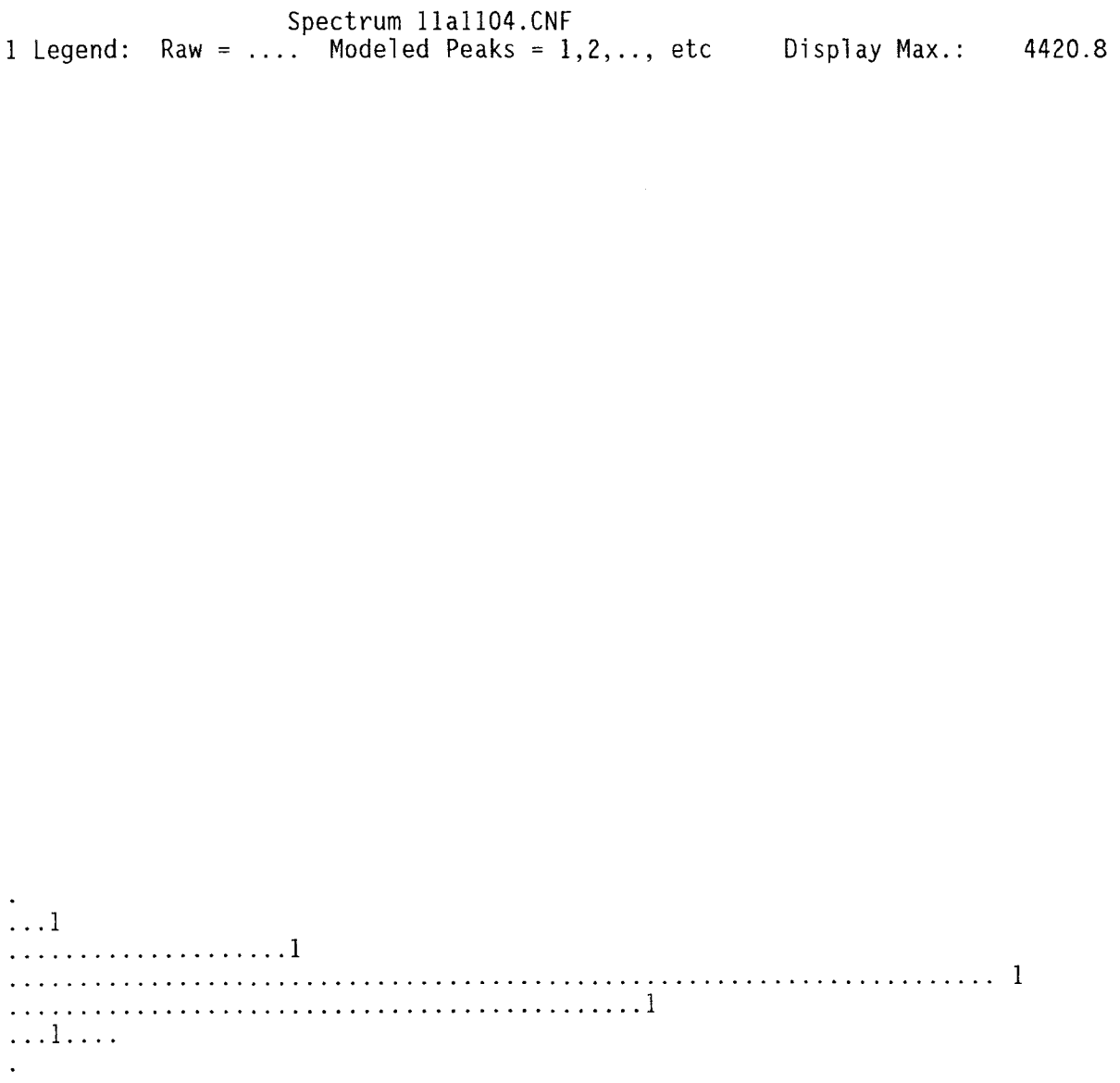
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1	Am243	0.968	5.266	5.274	-.008	0.04	19.73	2.0	704.2	0.317E-03
Totals:		0.968	<--valid peaks only-->				19.73			

DETECTOR CALIBRATION
Energy(MEV) = 4.078 + (0.0047)*Channel
Energy range (MeV): 4.078 TO 6.484
Efficiency = 0.0283 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	9782.0	100.000
Smoothed	9782.0	100.000
Composite fit	9471.0	96.821
Residuals	311.0	3.179

Started by: MB


Spectrum 11a1104.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 4420.8

Raw Data Dump for AEA Spectrum: 11a1104.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
81	0.	0.	0.	1.	0.	1.	0.	0.	0.	0.
91	0.	0.	0.	1.	0.	0.	0.	2.	0.	1.
101	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
111	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.
121	0.	2.	0.	0.	3.	0.	0.	0.	0.	0.
131	1.	0.	0.	1.	0.	0.	0.	1.	1.	0.
141	0.	0.	0.	1.	0.	0.	0.	1.	0.	0.
151	1.	1.	0.	0.	1.	0.	0.	0.	0.	2.
161	0.	0.	1.	0.	0.	0.	0.	0.	1.	0.
171	0.	0.	1.	0.	0.	2.	0.	0.	1.	0.
181	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.
191	1.	0.	0.	0.	1.	2.	0.	0.	1.	2.
201	2.	1.	1.	0.	0.	0.	2.	0.	0.	0.
211	3.	1.	1.	1.	5.	2.	1.	1.	2.	1.
221	3.	6.	3.	5.	3.	5.	7.	9.	2.	12.
231	14.	20.	13.	30.	33.	30.	34.	55.	47.	75.
241	101.	93.	130.	137.	192.	200.	246.	314.	389.	476.
251	543.	628.	739.	758.	768.	697.	589.	488.	456.	325.
261	226.	185.	140.	102.	68.	57.	45.	40.	40.	30.
271	21.	12.	18.	12.	4.	5.	2.	3.	0.	1.
281	0.	1.	0.	1.	0.	0.	0.	3.	0.	0.
291	1.	0.	0.	1.	1.	1.	1.	0.	0.	0.
301	3.	2.	1.	1.	2.	0.	1.	1.	0.	0.
311	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.
321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
331	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
341	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
351	2.	1.	0.	0.	1.	1.	0.	0.	1.	0.
361	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
431	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.
481	0.	1.	0.	0.	1.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

						SAMPLE
Type	DATE COUNTED		3/28/2009	Am 241 AEA FRAC		0.485
SAMPLE	SAMPLE VOLUME in mL		0.300	Am 243 AEA FRAC		0.455
Work List	SAMPLE DILUTION FACTOR		1.000	Cm 242 AEA FRAC		0.000
00013503	TRACER VOLUME IN mL		0.500	Cm 243/244 AEA FRAC		0.011
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	TOTAL AT COUNTS		1827
AMERICIUM	DETECTOR NUMBER		23	AT COUNT TIME (min)		30
Matrix	EFFICIENCY FACTOR		0.3568	BACKGROUND in cpm		0.190
LIQUID	TRACER BOOK NO		112B59	Am 241 cpm		20.910
Rerun	TRACER PREPARATION DATE		8/14/2007	Am 243 cpm		19.600
1	TRACER PREPARATION VALUE (dmp/mL)		183.000	Cm 242 cpm		0.000
Sample Prep	Am-243 DECAY CORR'D VALUE (dpm/mL)		182.972	Cm 243/244 cpm		0.470
				AEA COUNT TIME (min)		480

Sample #
S09T001771
Instrument Code
WC79141
Data Entry By
MCB
Analyst
SCL
Date Completed
3/30/2009
Analysis Date
3/27/2009
Analysis Time
2:00 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Am 241 uCi/mL	=	1.4642E-04	
Relative Counting Error	=	2.8%	
Cm 242 uCi/mL	<	7.1352E-06	
Relative Counting Error	=		
Cm 243/244 uCi/mL	<	7.1352E-06	
Relative Counting Error	=		
Am 243 Tracer Recovery	=	84.6%	

DETECTION LEVELS in uCi/mL
Am 241
1.7838E-05
Cm 242
7.1352E-06
Cm 243/244
7.1352E-06

Americium Sample Liquid/Solid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1771-SAM_AM
File ID: 12a1277.CNF

Counted on: 3/28/ 9 @11: 9
Detector: AEA12
Geometry number: 1
Count time: 28805. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Final	Peak center Initial	Final	FWHM Initial	Final	Tau Initial	Final
1	21.8	21.8	368.437	368.437	8.000	2.667	4.000	1.725
2	846.0	846.0	300.835	300.835	12.000	4.910	6.000	3.663
3	887.6	887.6	255.593	255.593	10.000	3.577	5.000	2.699

PEAK RESULTS
Peak Error Limit: 30%

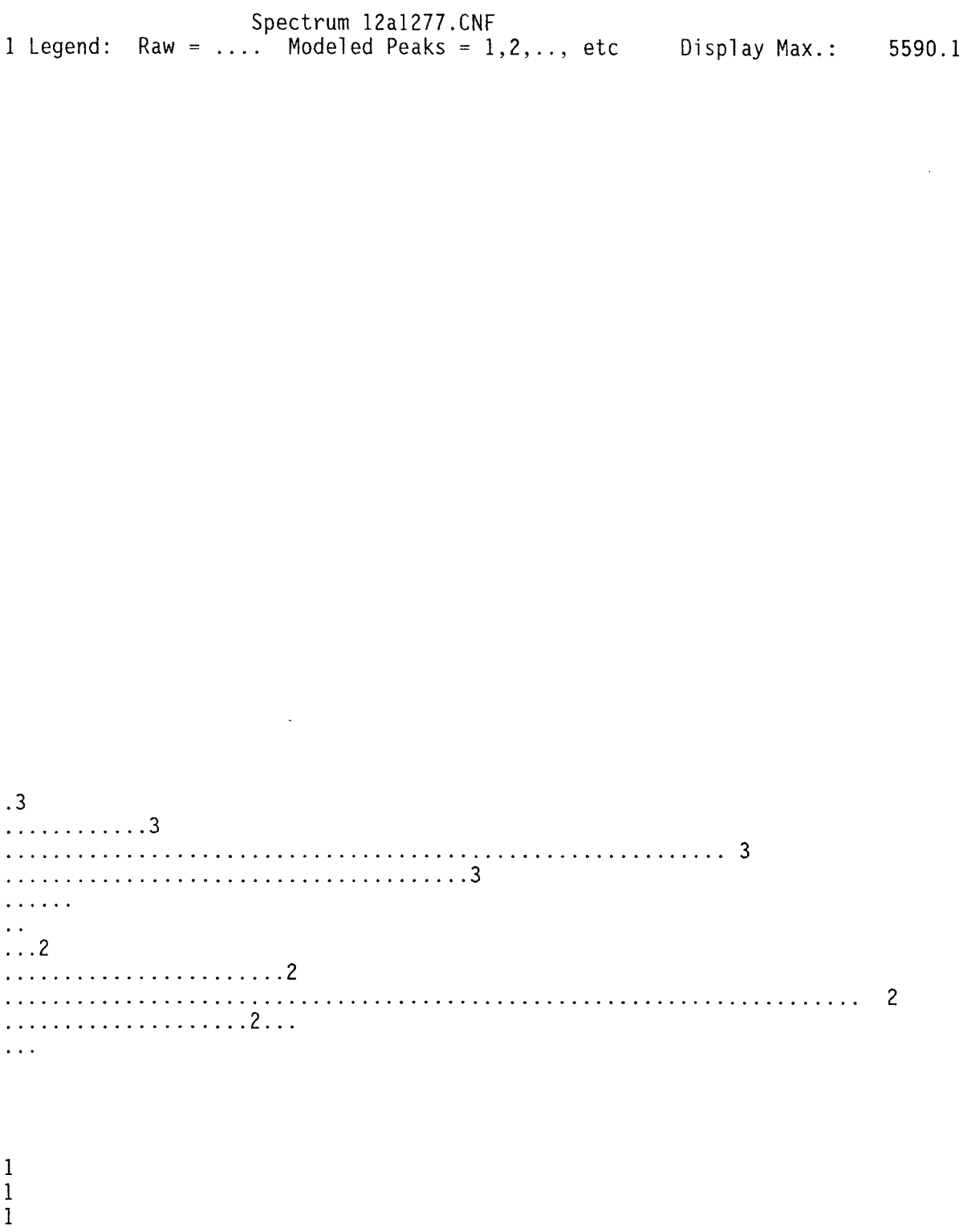
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1	~~Cm243~~	0.011	5.779	5.795	-.016	0.01	0.47	13.1	2.4	0.110E-05
	~~Cm244~~		5.795	5.795	0.000				2.1	0.947E-06
2	Pu238	0.485	5.487	5.478	0.009	0.02	20.91	2.0	130.2	0.587E-04
	Am241		5.479	5.478	0.001				99.8	0.449E-04
3	Am243	0.455	5.266	5.265	0.001	0.02	19.60	2.0	88.8	0.400E-04
Totals:		0.951	<--valid peaks only-->				40.99			

DETECTOR CALIBRATION
Energy(MEV) = 4.064 + (0.0047)*Channel
Energy range (MeV): 4.064 TO 6.470
Efficiency = 0.2230 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	20697.0	100.000
Smoothed	20697.0	100.000
Composite fit	19676.2	95.068
Residuals	1020.8	4.932

Started by: MB


Spectrum 12a1277.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 5590.1
.3
.....3
..... 3
.....3
.....
..
...2
.....2
..... 2
.....2...
...
1
1
1

Raw Data Dump for AEA Spectrum: 12a1277.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	1.	0.	1.	1.	0.	2.	1.	1.	0.	0.
81	0.	2.	0.	0.	1.	1.	0.	0.	0.	1.
91	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.
101	0.	1.	3.	2.	2.	2.	0.	1.	1.	1.
111	1.	0.	1.	0.	1.	2.	3.	0.	2.	0.
121	0.	1.	0.	0.	0.	1.	0.	1.	0.	2.
131	0.	2.	0.	4.	2.	0.	0.	1.	0.	0.
141	1.	3.	0.	4.	0.	3.	1.	1.	6.	2.
151	2.	0.	1.	2.	1.	2.	4.	1.	0.	3.
161	1.	0.	2.	0.	2.	2.	1.	0.	1.	1.
171	1.	2.	2.	1.	3.	3.	2.	2.	0.	1.
181	6.	0.	1.	2.	1.	1.	2.	4.	0.	0.
191	0.	1.	3.	1.	1.	3.	1.	3.	1.	1.
201	3.	0.	2.	3.	0.	2.	4.	2.	4.	5.
211	2.	3.	3.	5.	4.	4.	4.	5.	5.	4.
221	6.	1.	3.	3.	6.	8.	5.	10.	8.	11.
231	14.	19.	19.	15.	29.	27.	40.	37.	46.	40.
241	68.	64.	87.	144.	166.	197.	253.	276.	279.	361.
251	452.	546.	717.	947.	1032.	1113.	999.	649.	400.	207.
261	107.	77.	68.	52.	53.	44.	48.	43.	41.	37.
271	26.	30.	14.	9.	17.	11.	15.	15.	20.	31.
281	26.	32.	26.	47.	49.	58.	94.	82.	122.	151.
291	206.	242.	274.	303.	394.	444.	533.	656.	890.	962.
301	1040.	932.	756.	497.	292.	236.	182.	147.	121.	117.
311	90.	72.	43.	28.	16.	7.	1.	0.	0.	0.
321	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
331	0.	1.	0.	0.	0.	0.	2.	1.	0.	0.
341	0.	1.	1.	1.	0.	0.	0.	1.	0.	2.
351	0.	0.	1.	4.	2.	2.	8.	4.	7.	5.
361	8.	8.	14.	6.	14.	15.	22.	25.	31.	22.
371	12.	6.	3.	2.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	2.	0.	0.	1.	0.	1.	0.	1.	1.	1.
431	1.	3.	0.	1.	4.	4.	1.	1.	1.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

						SAMPLE
Type	DATE COUNTED		3/28/2009	Am 241 AEA FRAC		0.500
SAMPLE	SAMPLE VOLUME in mL		0.300	Am 243 AEA FRAC		0.450
Work List	SAMPLE DILUTION FACTOR		1.000	Cm 242 AEA FRAC		0.000
00013503	TRACER VOLUME IN mL		0.500	Cm 243/244 AEA FRAC		0.011
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	TOTAL AT COUNTS		1847
AMERICIUM	DETECTOR NUMBER		23	AT COUNT TIME (min)		30
Matrix	EFFICIENCY FACTOR		0.3568	BACKGROUND in cpm		0.190
LIQUID	TRACER BOOK NO		112B59	Am 241 cpm		23.520
Rerun	TRACER PREPARATION DATE		8/14/2007	Am 243 cpm		26.140
1	TRACER PREPARATION VALUE (dmp/mL)		183.000	Cm 242 cpm		0.000
Sample Prep	Am-243 DECAY CORR'D VALUE (dpm/mL)		182.972	Cm 243/244 cpm		0.600
				AEA COUNT TIME (min)		480

Sample #
S09T001784
Instrument Code
WC79141
Data Entry By
MCB
Analyst
SCL
Date Completed
3/30/2009
Analysis Date
3/27/2009
Analysis Time
2:00 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Am 241 uCi/mL	=	1.5263E-04	
Relative Counting Error	=	2.5%	
Cm 242 uCi/mL	<	7.2154E-06	
Relative Counting Error	=		
Cm 243/244 uCi/mL	<	7.2154E-06	
Relative Counting Error	=		
Am 243 Tracer Recovery	=	84.6%	

DETECTION LEVELS in uCi/mL
Am 241
1.8039E-05
Cm 242
7.2154E-06
Cm 243/244
7.2154E-06

Americium Sample Liquid/Solid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1784-SAM AM
File ID: 13a134I.CNF

Counted on: 3/28/ 9 @11:10
Detector: AEA13
Geometry number: 1
Count time: 28801. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Final	Peak center Initial	Final	FWHM Initial	Final	Tau Initial	Final
1	25.6	25.6	367.650	367.650	10.000	3.240	5.000	1.953
2	975.2	975.2	299.716	299.716	12.000	5.456	6.000	3.514
3	971.7	971.7	254.037	254.036	12.000	3.949	6.000	2.528

PEAK RESULTS
Peak Error Limit: 30%

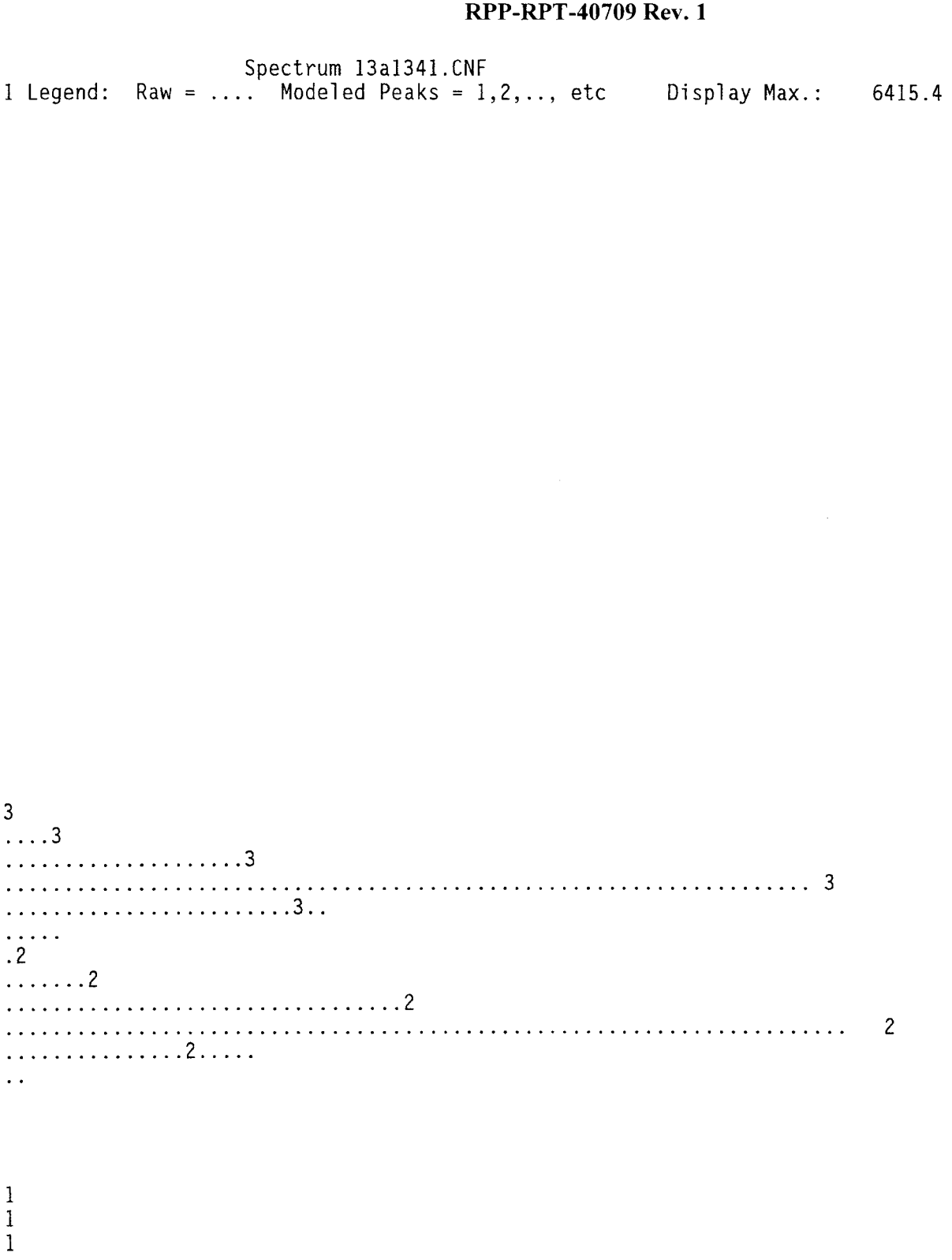
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	Activity d/m	Activity uCi/ea
1	~~Cm243~~	0.011	5.779	5.815	-.036	0.02	0.60	11.5	2.6	0.119E-05
	~~Cm244~~		5.795	5.815	-.02				2.3	0.102E-05
2	Pu238	0.500	5.487	5.496	-.009	0.03	26.14	1.7	137.0	0.617E-04
	Am241		5.479	5.496	-.017				105.0	0.473E-04
3	Am243	0.450	5.266	5.281	-.015	0.02	23.52	1.8	89.7	0.404E-04
Totals:		0.961	<--valid peaks only-->				50.26			

DETECTOR CALIBRATION
Energy(MEV) = 4.087 + (0.0047)*Channel
Energy range (MeV): 4.087 TO 6.494
Efficiency = 0.2650 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	25095.0	100.000
Smoothed	25095.0	100.000
Composite fit	24127.6	96.145
Residuals	967.4	3.855

Started by: MB


Spectrum 13a1341.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 6415.4
3
....3
.....3
3
.....3..
.....
.2
.....2
.....2
2
.....2.....
..
1
1
1

Raw Data Dump for AEA Spectrum: 13a1341.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	1.	0.	1.	0.	0.	0.	1.	0.	0.
81	1.	0.	0.	1.	0.	0.	1.	0.	0.	0.
91	1.	0.	0.	1.	0.	0.	2.	0.	0.	0.
101	0.	0.	1.	1.	0.	0.	0.	1.	0.	1.
111	1.	0.	0.	2.	0.	0.	0.	0.	0.	1.
121	0.	1.	1.	1.	1.	1.	0.	3.	1.	1.
131	0.	0.	0.	1.	1.	1.	0.	3.	2.	0.
141	0.	2.	0.	3.	4.	5.	3.	1.	3.	2.
151	3.	2.	2.	1.	1.	1.	3.	0.	2.	0.
161	1.	0.	2.	2.	0.	1.	1.	1.	0.	1.
171	0.	1.	0.	0.	1.	3.	0.	3.	2.	0.
181	3.	1.	2.	4.	0.	2.	0.	1.	0.	2.
191	0.	2.	1.	2.	5.	2.	0.	3.	3.	1.
201	2.	2.	3.	2.	3.	2.	2.	1.	3.	1.
211	5.	2.	3.	2.	3.	1.	5.	2.	5.	11.
221	10.	10.	6.	4.	11.	15.	17.	11.	17.	22.
231	25.	37.	32.	50.	54.	62.	63.	87.	86.	110.
241	134.	169.	196.	230.	291.	333.	377.	417.	529.	586.
251	763.	949.	1035.	1184.	1161.	868.	640.	304.	170.	105.
261	107.	84.	69.	62.	67.	64.	60.	47.	46.	40.
271	33.	15.	14.	11.	27.	23.	31.	44.	41.	50.
281	46.	52.	60.	77.	114.	137.	160.	174.	216.	287.
291	328.	352.	457.	490.	599.	677.	858.	943.	1106.	1183.
301	1095.	777.	577.	358.	290.	221.	188.	161.	153.	105.
311	81.	65.	46.	26.	8.	2.	1.	0.	0.	0.
321	0.	0.	1.	0.	0.	0.	0.	2.	1.	0.
331	0.	0.	1.	0.	1.	1.	1.	1.	0.	0.
341	0.	0.	1.	0.	0.	2.	0.	2.	0.	2.
351	2.	1.	1.	2.	5.	3.	4.	5.	11.	12.
361	10.	14.	19.	17.	22.	26.	26.	30.	32.	21.
371	8.	5.	3.	1.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	1.	0.	0.	1.	0.	0.
391	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	0.	0.	2.	1.	0.	3.	0.	1.	2.	1.
431	2.	2.	4.	2.	4.	1.	1.	1.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	0.	2.	2.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

						DUP
Type	DATE COUNTED		3/28/2009	Am 241 AEA FRAC		0.498
DUP	SAMPLE VOLUME in mL		0.300	Am 243 AEA FRAC		0.453
Work List	SAMPLE DILUTION FACTOR		1.000	Cm 242 AEA FRAC		0.000
00013503	TRACER VOLUME IN mL		0.500	Cm 243/244 AEA FRAC		0.011
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	TOTAL AT COUNTS		1991
AMERICIUM	DETECTOR NUMBER		23	AT COUNT TIME (min)		30
Matrix	EFFICIENCY FACTOR		0.3568	BACKGROUND in cpm		0.190
LIQUID	TRACER BOOK NO		112B59	Am 241 cpm		22.640
Rerun	TRACER PREPARATION DATE		8/14/2007	Am 243 cpm		20.610
0	TRACER PREPARATION VALUE (dmp/mL)		183.000	Cm 242 cpm		0.000
Sample Prep	Am-243 DECAY CORR'D VALUE (dpm/mL)		182.972	Cm 243/244 cpm		0.490
				AEA COUNT TIME (min)		480

Sample #	Associated Sample Number
S0903240018	S09T001784
Instrument Code	
WC79141	
Data Entry By	
MCB	
Analyst	
SCL	
Date Completed	
3/30/2009	
Analysis Date	
3/27/2009	
Analysis Time	
2:00 PM	
Specification	
AW106 EVAP3	
Units	
uCi/mL	

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Am 241 uCi/mL	=	1.5101E-04	**DETECTION LEVELS in uCi/mL**
Relative Counting Error	=	2.7%	
Cm 242 uCi/mL	<	6.6037E-06	**Am 241 1.6509E-05**
Relative Counting Error	=		
Cm 243/244 uCi/mL	<	6.6037E-06	**Cm 242 6.6037E-06**
Relative Counting Error	=		
Am 243 Tracer Recovery	=	91.8%	**Cm 243/244 6.6037E-06**

Americium Sample Liquid/Solid Template 1.0

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1784-DUP AM
File ID: 15a1513.CNF

Counted on: 3/28/ 9 @11:11
Detector: AEA15
Geometry number: 1
Count time: 28801. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Final	Peak center Initial	Final	FWHM Initial	Final	Tau Initial	Final
1	21.4	21.4	370.499	370.499	8.000	2.613	4.000	1.452
2	843.7	843.7	302.572	302.572	12.000	5.566	6.000	3.654
3	840.9	840.9	257.383	257.382	10.000	4.118	5.000	2.640

PEAK RESULTS
Peak Error Limit: 30%

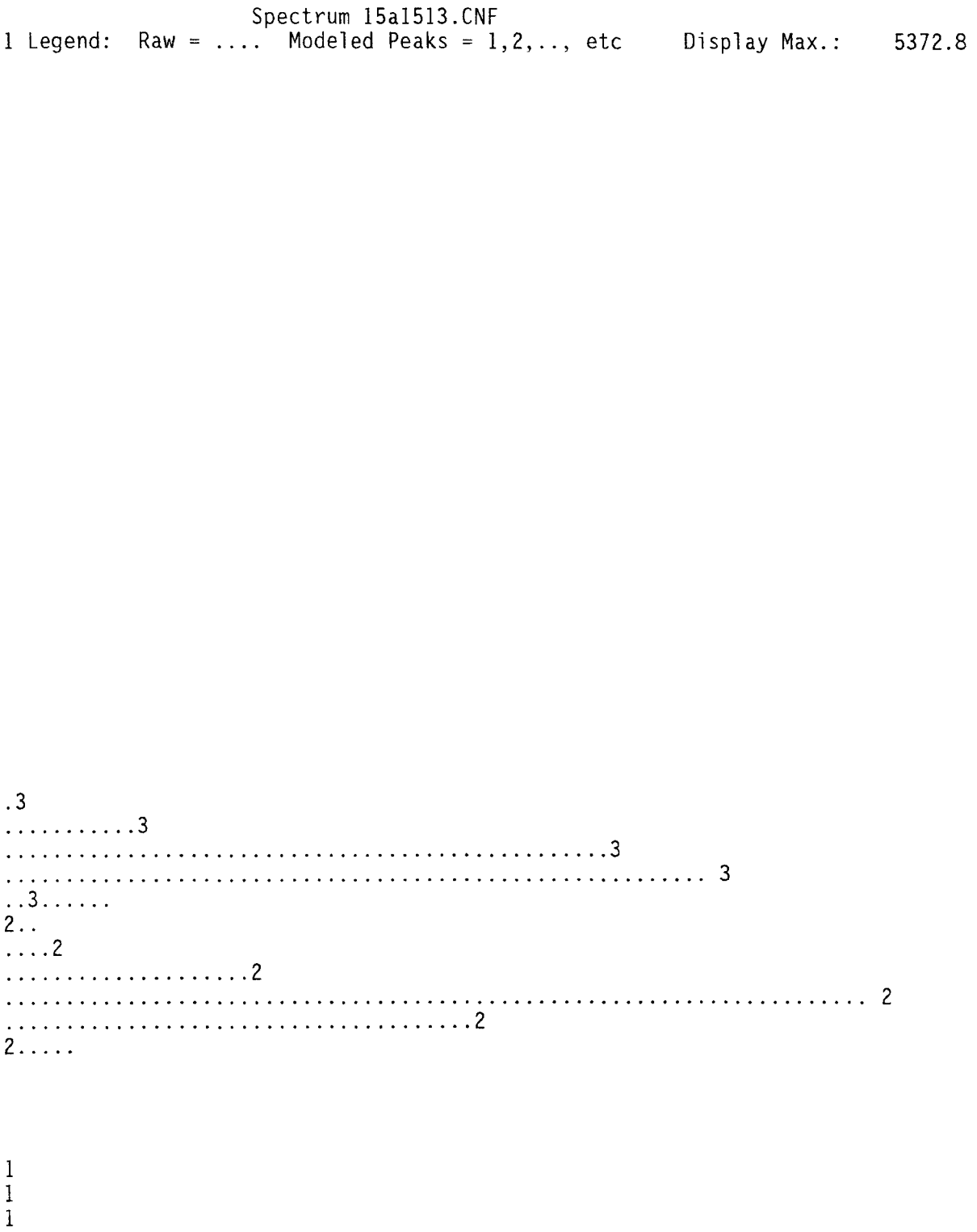
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1	Cm243	0.011	5.779	5.796	-.017	0.01	0.49	12.7	1.6	0.740E-06
	Cm244		5.795	5.796	-.001				1.4	0.637E-06
2	Pu238	0.498	5.487	5.477	0.010	0.03	22.64	1.9	90.1	0.406E-04
	Am241		5.479	5.477	0.002				69.0	0.311E-04
3	Am243	0.453	5.266	5.265	0.001	0.02	20.61	2.0	59.6	0.269E-04
Totals:		0.962	<--valid peaks only-->				43.74			

DETECTOR CALIBRATION
Energy(MEV) = 4.055 + (0.0047)*Channel
Energy range (MeV): 4.055 TO 6.461
Efficiency = 0.3491 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	21821.0	100.000
Smoothed	21821.0	100.000
Composite fit	20994.7	96.213
Residuals	826.3	3.787

Started by: MB


Spectrum 15a1513.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 5372.8
.3
.....3
.....3
..... 3
..3.....
2..
....2
.....2
..... 2
.....2
2.....
1
1
1

Raw Data Dump for AEA Spectrum: 15a1513.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	1.	0.	1.	2.	1.	0.	0.
81	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.
91	0.	0.	0.	0.	0.	0.	1.	0.	2.	0.
101	0.	0.	1.	1.	0.	0.	0.	0.	1.	0.
111	0.	1.	0.	0.	0.	1.	0.	0.	1.	0.
121	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.
131	2.	2.	2.	0.	0.	0.	0.	1.	1.	0.
141	1.	0.	1.	1.	1.	1.	2.	1.	3.	4.
151	4.	2.	5.	3.	2.	3.	3.	5.	1.	0.
161	0.	0.	1.	0.	1.	0.	1.	0.	0.	1.
171	1.	0.	1.	6.	0.	2.	0.	1.	0.	2.
181	0.	1.	2.	0.	2.	1.	2.	3.	0.	0.
191	2.	1.	1.	0.	3.	0.	0.	0.	0.	1.
201	2.	2.	1.	3.	1.	6.	2.	0.	2.	0.
211	0.	3.	0.	2.	2.	2.	2.	6.	1.	6.
221	8.	7.	6.	8.	10.	10.	10.	8.	6.	12.
231	7.	11.	12.	16.	19.	31.	27.	30.	38.	59.
241	56.	71.	88.	86.	113.	160.	185.	261.	292.	321.
251	376.	430.	504.	634.	747.	915.	989.	1027.	877.	635.
261	376.	190.	108.	84.	60.	65.	70.	49.	55.	53.
271	47.	32.	40.	23.	24.	23.	20.	15.	19.	25.
281	27.	39.	35.	35.	42.	55.	66.	85.	117.	120.
291	172.	218.	232.	306.	324.	393.	417.	486.	651.	722.
301	914.	996.	988.	926.	685.	481.	332.	213.	183.	178.
311	130.	116.	81.	54.	50.	27.	18.	4.	3.	2.
321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
331	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.
341	0.	0.	1.	0.	0.	2.	2.	3.	2.	2.
351	1.	3.	1.	0.	3.	3.	3.	5.	8.	6.
361	4.	5.	10.	11.	12.	9.	11.	16.	29.	17.
371	26.	29.	12.	7.	1.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	1.	0.	0.	0.	0.	1.	0.
421	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.
431	1.	0.	1.	1.	3.	3.	3.	2.	2.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

			SPK	
Type	DATE COUNTED		3/28/2009	
SPK	SAMPLE VOLUME in mL		0.300	
Work List	SAMPLE DILUTION FACTOR		1.000	
00013503	TRACER VOLUME IN mL		1.000	
Test Code	DIGEST DILUTION FACTOR		1.0000	
AMERICIUM	TRACER BOOK NO		112B59	
Matrix	TRACER PREPARATION DATE		8/14/2007	
LIQUID	TRACER PREPARATION VALUE in uCi/mL		183.000	
Rerun	AM-243 DECAY CORR'D VALUE in uCi/mL		182.972	
0	SPIKE VOLUME in mL		0.500	
Sample Prep	SPIKE DILUTION FACTOR		1.000	
	SPIKE BOOK NUMBER		31B64	
Sample #	SPIKE VALUE IN µCi/mL		7.5500E-05	
S0903240019	Am 241 AEA FRAC		0.486	
Instrument Code	Am 243 AEA FRAC		0.469	
WC79141	Am 241 FROM SAMPLE FORM in uCi/mL		1.5263E-04	S09T001784
Data Entry By	Am 241 FROM SPIKED SAMPLE in uCi/mL		2.8469E-04	
MCB	COUNT TIME (MIN)		480.000	

Analyst			
SCL	**Procedure using this Form*:**		**LA-953-104 H-1**
Date Completed			
3/30/2009			
Analysis Date	* The specific formulae used in the calculations for this spreadsheet can be found		
3/27/2009	in the applicable procedure, as identified on the worklist.		
Analysis Time			
2:00 PM	**QC ACTUAL uCi/mL**	=	7.5500E-05
Specification	**QC FOUND uCi/mL**	=	7.9237E-05
AW106 EVAP3	**PERCENT SPIKE RECOVERY**	=	104.95%
Units			
uCi/mL			

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1784-SPK AM
File ID: 16a1676.CNF

Counted on: 3/28/ 9 @11:11
Detector: AEA16
Geometry number: 1
Count time: 28803. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1?	19.7	19.7	365.819	365.819	10.000	2.527	5.000	1.326
2	1633.0	1633.0	298.467	298.467	10.000	5.004	5.000	3.437
3	1722.2	1722.2	253.502	253.502	10.000	3.634	5.000	2.404

PEAK RESULTS
Peak Error Limit: 30%

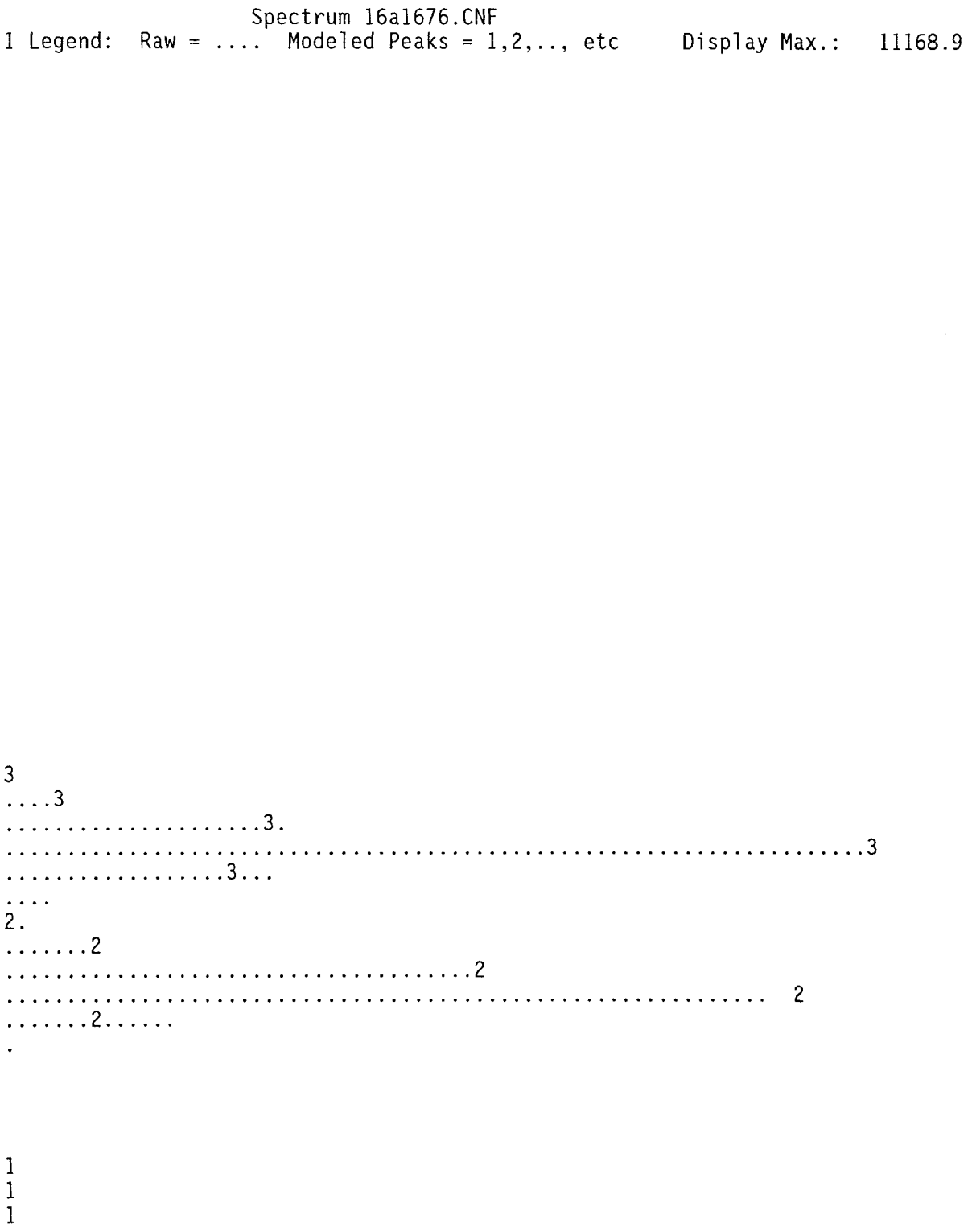
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1		????	5.793				0.47	13.1		
2	Pu238	0.486	5.487	5.476	0.011	0.02	41.65	1.4	25.0	0.112E-04
	Am241		5.479	5.476	0.003				19.1	0.862E-05
3	Am243	0.469	5.266	5.265	0.001	0.02	40.12	1.4	17.5	0.788E-05
Totals:		0.955	<--valid peaks only-->				81.77			

DETECTOR CALIBRATION
Energy(MEV) = 4.074 + (0.0047)*Channel
Energy range (MeV): 4.074 TO 6.480
Efficiency = 2.3166 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	41101.0	100.000
Smoothed	41101.0	100.000
Composite fit	39477.1	96.049
Residuals	1623.9	3.951

Started by: MB


Spectrum 16a1676.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 11168.9
3
....3
.....3.
.....3
.....3...
....
2.
.....2
.....2
..... 2
.....2.....
.
1
1
1

Raw Data Dump for AEA Spectrum: 16a1676.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	1.	1.	1.	0.	0.	0.	0.	1.	0.	0.
81	1.	2.	0.	0.	3.	0.	0.	1.	0.	0.
91	1.	2.	0.	2.	1.	1.	1.	1.	1.	0.
101	0.	0.	0.	0.	0.	0.	0.	2.	1.	2.
111	0.	0.	0.	1.	0.	0.	0.	1.	2.	0.
121	1.	3.	0.	0.	1.	1.	0.	0.	2.	0.
131	0.	0.	1.	0.	0.	0.	0.	0.	1.	0.
141	2.	1.	1.	1.	1.	1.	3.	2.	1.	2.
151	2.	0.	1.	1.	0.	0.	0.	1.	0.	0.
161	1.	0.	1.	2.	1.	1.	1.	0.	0.	0.
171	0.	2.	2.	5.	2.	1.	2.	0.	0.	3.
181	2.	4.	2.	0.	1.	1.	3.	1.	2.	1.
191	1.	0.	2.	0.	0.	2.	3.	2.	1.	1.
201	2.	0.	3.	4.	2.	4.	1.	4.	2.	5.
211	3.	3.	3.	5.	8.	7.	4.	4.	10.	6.
221	10.	11.	11.	14.	10.	25.	26.	23.	23.	39.
231	24.	64.	48.	69.	90.	96.	85.	122.	140.	165.
241	241.	309.	397.	442.	520.	597.	741.	784.	1001.	1230.
251	1457.	1738.	2055.	2122.	1903.	1275.	689.	307.	199.	159.
261	118.	110.	103.	102.	103.	96.	98.	66.	61.	60.
271	33.	31.	26.	28.	36.	26.	44.	49.	61.	68.
281	86.	105.	117.	170.	168.	210.	298.	363.	461.	509.
291	609.	733.	816.	1015.	1212.	1490.	1711.	1917.	1964.	1758.
301	1262.	777.	500.	378.	322.	261.	227.	213.	147.	89.
311	82.	55.	22.	11.	2.	0.	0.	0.	0.	0.
321	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.
331	1.	0.	0.	0.	0.	0.	0.	1.	1.	0.
341	0.	1.	0.	4.	2.	0.	3.	2.	0.	1.
351	3.	6.	2.	2.	4.	12.	9.	6.	6.	10.
361	13.	12.	15.	12.	25.	26.	22.	17.	5.	3.
371	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	1.	0.	0.	0.	0.	0.	1.
401	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.
411	0.	0.	0.	0.	0.	0.	0.	2.	0.	1.
421	0.	2.	2.	2.	1.	3.	2.	3.	2.	0.
431	0.	1.	5.	2.	0.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	1.	0.	0.	0.	1.	0.	0.	2.
471	0.	0.	1.	1.	1.	0.	1.	0.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

			SPK-DUP	
Type	DATE COUNTED		3/28/2009	
SPK-DUP	SAMPLE VOLUME in mL		0.300	
Work List	SAMPLE DILUTION FACTOR		1.000	
00013503	TRACER VOLUME IN mL		1.000	
Test Code	DIGEST DILUTION FACTOR		1.0000	
AMERICIUM	TRACER BOOK NO		112B59	
Matrix	TRACER PREPARATION DATE		8/14/2007	
LIQUID	TRACER PREPARATION VALUE in uCi/mL		183.000	
Rerun	AM-243 DECAY CORR'D VALUE in uCi/mL		182.972	
0	SPIKE VOLUME in mL		0.500	
Sample Prep	SPIKE DILUTION FACTOR		1.000	
	SPIKE BOOK NUMBER		31B64	
Sample #	SPIKE VALUE IN µCi/mL		7.5500E-05	
S0903240020	Am 241 AEA FRAC		0.483	
Instrument Code	Am 243 AEA FRAC		0.467	
WC79141	Am 241 FROM SAMPLE FORM in uCi/mL		1.5263E-04	S09T001784
Data Entry By	Am 241 FROM SPIKED SAMPLE in uCi/mL		2.8415E-04	
MCB	COUNT TIME (MIN)		480.000	

Analyst			
SCL	**Procedure using this Form*:**		**LA-953-104 H-1**
Date Completed			
3/30/2009			
Analysis Date	* The specific formulae used in the calculations for this spreadsheet can be found		
3/27/2009	in the applicable procedure, as identified on the worklist.		
Analysis Time			
2:00 PM	**QC ACTUAL uCi/mL**	=	7.5500E-05
Specification	**QC FOUND uCi/mL**	=	7.8910E-05
AW106 EVAP3	**PERCENT SPIKE RECOVERY**	=	104.52%
Units			
uCi/mL			

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1784-SPKDUP
File ID: 17a1751.CNF

Counted on: 3/28/ 9 @11:12
Detector: AEA17
Geometry number: 1
Count time: 28802. Sec

PEAK ANALYSIS

Peak	Peak height		Peak center		FWHM		Tau	
ID	Initial	Final	Initial	Final	Initial	Final	Initial	Final
1?	22.2	22.2	368.285	368.285	8.000	2.734	4.000	1.283
2	1648.2	1648.2	300.345	300.345	14.000	5.584	7.000	3.714
3	1756.3	1756.3	254.917	254.916	12.000	4.194	6.000	2.798

PEAK RESULTS
Peak Error Limit: 30%

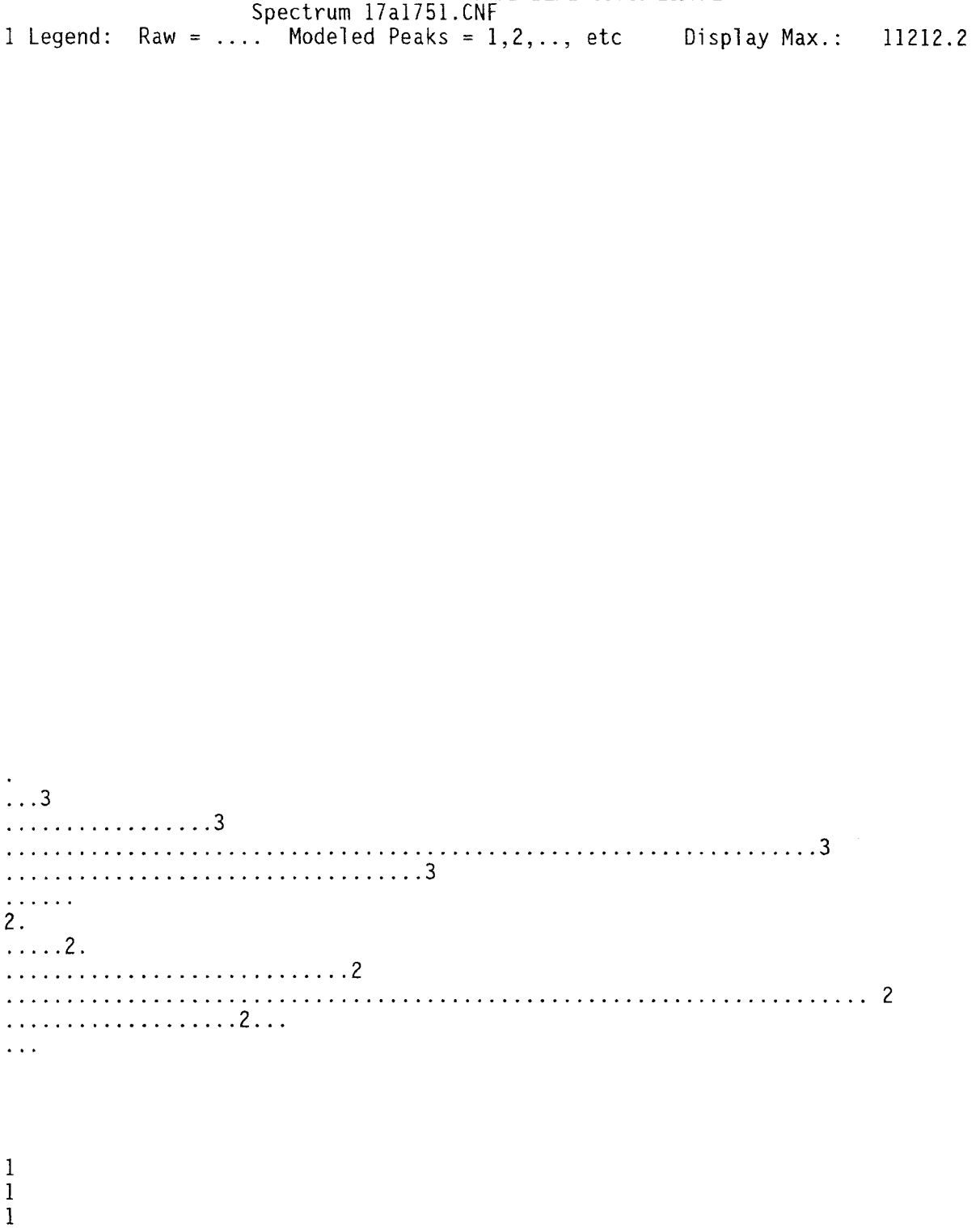
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1		????		5.804			0.57	11.9		
2	Pu238	0.483	5.487	5.485	0.0020	.03	44.10	1.3	2104.8	0.948E-03
	Am241		5.479	5.485	-.006				1612.2	0.726E-03
3	Am243	0.467	5.266	5.271	-.0050	.02	42.66	1.4	1480.7	0.667E-03
Totals:		0.951	<--valid peaks only-->				86.76			

DETECTOR CALIBRATION
Energy(MEV) = 4.073 + (0.0047)*Channel
Energy range (MeV): 4.073 TO 6.480
Efficiency = 0.0291 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	43804.0	100.000
Smoothed	43804.0	100.000
Composite fit	41919.6	95.698
Residuals	1884.4	4.302

Started by: MB


Spectrum 17a1751.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 11212.2
.
...3
.....3
.....3
.....3
.....
2.
.....2.
.....2
..... 2
.....2...
...
1
1
1

Raw Data Dump for AEA Spectrum: 17a1751.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	1.	0.	1.	1.	0.	0.	0.
81	1.	1.	1.	2.	2.	0.	0.	1.	1.	0.
91	1.	0.	1.	1.	0.	0.	0.	0.	0.	1.
101	0.	0.	0.	0.	1.	2.	0.	1.	0.	1.
111	1.	2.	2.	0.	1.	1.	1.	1.	0.	0.
121	0.	1.	0.	0.	2.	1.	1.	3.	3.	1.
131	0.	0.	0.	1.	3.	0.	0.	1.	2.	1.
141	3.	2.	1.	1.	1.	4.	1.	2.	3.	1.
151	3.	2.	1.	0.	1.	2.	1.	4.	0.	2.
161	2.	0.	0.	4.	3.	0.	0.	1.	2.	1.
171	1.	0.	1.	1.	5.	2.	1.	2.	1.	3.
181	3.	3.	2.	0.	2.	1.	1.	2.	3.	2.
191	4.	4.	3.	5.	8.	3.	2.	3.	2.	5.
201	3.	2.	5.	3.	5.	1.	5.	6.	4.	8.
211	8.	2.	7.	7.	14.	6.	10.	10.	7.	7.
221	15.	21.	11.	15.	24.	18.	25.	31.	30.	38.
231	51.	53.	57.	79.	86.	89.	101.	103.	128.	165.
241	211.	243.	269.	316.	423.	518.	580.	695.	775.	891.
251	1180.	1459.	1703.	2080.	2075.	2025.	1620.	1067.	593.	326.
261	218.	154.	151.	125.	138.	125.	136.	104.	85.	79.
271	69.	45.	49.	42.	32.	46.	42.	64.	57.	59.
281	77.	91.	110.	145.	131.	186.	210.	286.	337.	422.
291	480.	573.	635.	697.	821.	1073.	1264.	1568.	1796.	1962.
301	1943.	1667.	1267.	876.	618.	403.	363.	290.	236.	204.
311	164.	128.	85.	54.	23.	15.	2.	2.	0.	0.
321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
331	0.	0.	0.	1.	0.	0.	0.	0.	0.	1.
341	1.	0.	0.	0.	2.	2.	0.	2.	3.	1.
351	0.	2.	2.	3.	5.	6.	8.	6.	7.	11.
361	13.	12.	16.	13.	13.	17.	23.	22.	32.	21.
371	13.	4.	4.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	1.	0.	0.	1.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	1.	0.	0.	0.	0.	0.	0.	1.	0.	0.
421	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
431	2.	1.	7.	2.	3.	2.	1.	4.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.
481	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

						SAMPLE
Type	DATE COUNTED		3/28/2009	Am 241 AEA FRAC		0.501
SAMPLE	SAMPLE VOLUME in mL		0.300	Am 243 AEA FRAC		0.453
Work List	SAMPLE DILUTION FACTOR		1.000	Cm 242 AEA FRAC		0.000
00013503	TRACER VOLUME IN mL		0.500	Cm 243/244 AEA FRAC		0.012
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	TOTAL AT COUNTS		1929
AMERICIUM	DETECTOR NUMBER		23	AT COUNT TIME (min)		30
Matrix	EFFICIENCY FACTOR		0.3568	BACKGROUND in cpm		0.190
LIQUID	TRACER BOOK NO		112B59	Am 241 cpm		22.500
Rerun	TRACER PREPARATION DATE		8/14/2007	Am 243 cpm		20.310
1	TRACER PREPARATION VALUE (dmp/mL)		183.000	Cm 242 cpm		0.000
Sample Prep	Am-243 DECAY CORR'D VALUE (dpm/mL)		182.972	Cm 243/244 cpm		0.550
				AEA COUNT TIME (min)		480

Sample #
S09T001796
Instrument Code
WC79141
Data Entry By
MCB
Analyst
SCL
Date Completed
3/30/2009
Analysis Date
3/27/2009
Analysis Time
2:00 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Am 241 uCi/mL	=	1.5192E-04	
Relative Counting Error	=	2.7%	
Cm 242 uCi/mL	<	6.8166E-06	
Relative Counting Error	=		
Cm 243/244 uCi/mL	<	6.8166E-06	
Relative Counting Error	=		
Am 243 Tracer Recovery	=	89.0%	

DETECTION LEVELS in uCi/mL
Am 241
1.7042E-05
Cm 242
6.8166E-06
Cm 243/244
6.8166E-06

Americium Sample Liquid/Solid Template 1.0

Printed at: 8:31:07 AM 3/30/2009 Version: 1.01

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1796-SAM AM
File ID: 18a1839.CNF

Counted on: 3/28/ 9 @11:12
Detector: AEA18
Geometry number: 1
Count time: 28803. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Final	Peak center Initial	Final	FWHM Initial	Final	Tau Initial	Final
1	21.9	21.9	365.278	365.278	12.000	3.770	6.000	2.140
2	851.8	851.8	297.199	297.199	12.000	5.383	6.000	3.579
3	809.2	809.2	251.612	251.611	10.000	4.233	5.000	2.606

PEAK RESULTS
Peak Error Limit: 30%

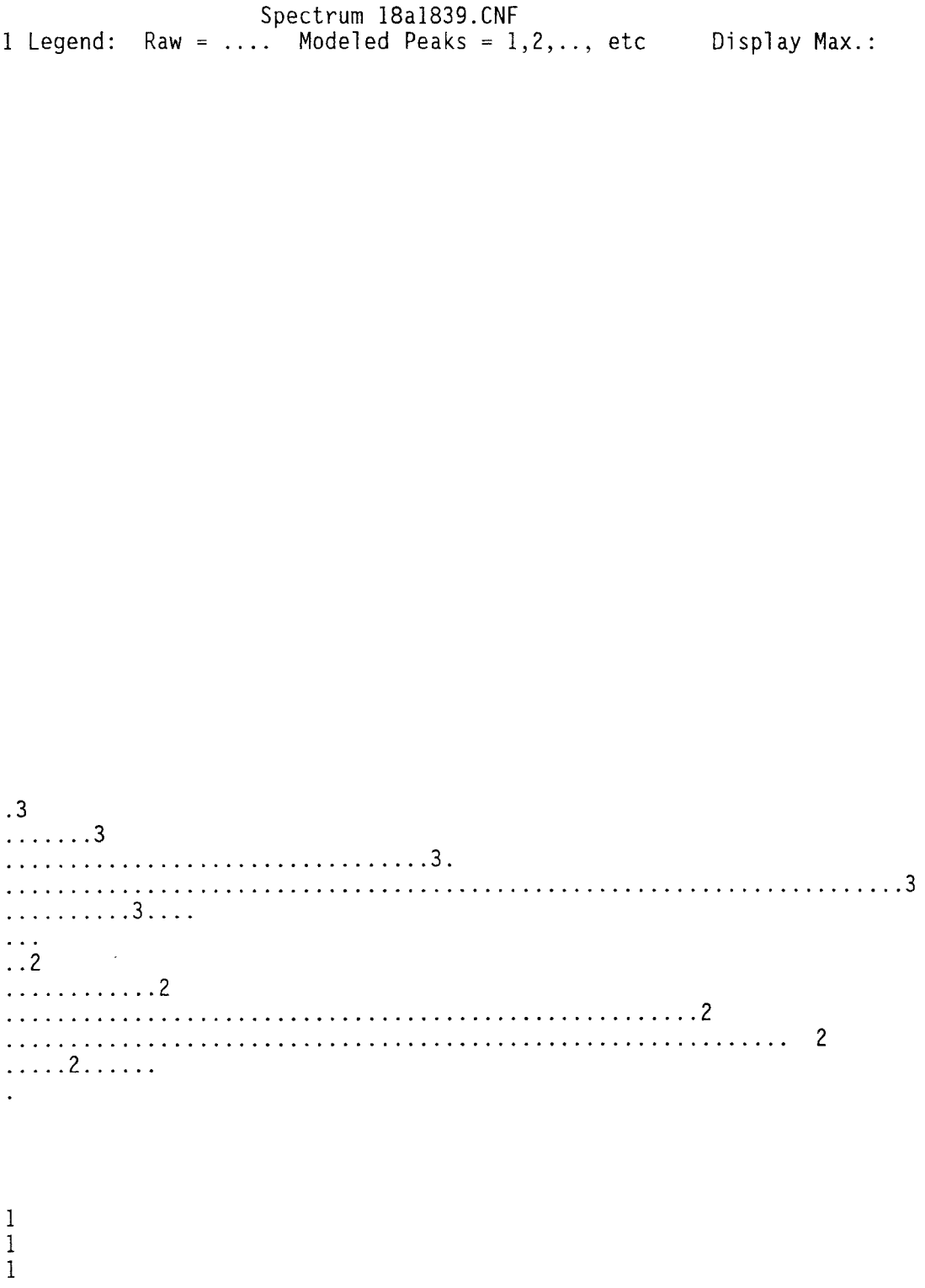
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1	Cm243	0.012	5.779	5.807	-.028	0.02	0.55	12.1	2.8	0.126E-05
	Cm244		5.795	5.807	-.012				2.4	0.109E-05
2	Pu238	0.501	5.487	5.487	0.000	0.03	22.50	1.9	136.9	0.617E-04
	Am241		5.479	5.487	-.008				104.9	0.472E-04
3	Am243	0.453	5.266	5.273	-.007	0.02	20.31	2.0	89.9	0.405E-04
Totals:		0.966	<--valid peaks only-->				43.37			

DETECTOR CALIBRATION
Energy(MEV) = 4.090 + (0.0047)*Channel
Energy range (MeV): 4.090 TO 6.496
Efficiency = 0.2283 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	21546.0	100.000
Smoothed	21546.0	100.000
Composite fit	20817.9	96.621
Residuals	728.1	3.379

Started by: MB


Spectrum 18a1839.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 5268.6
.3
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.....3....
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1
1
1

Raw Data Dump for AEA Spectrum: 18a1839.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	0.	0.	0.	2.	0.	0.	0.
81	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.
91	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.
101	1.	0.	0.	1.	0.	1.	0.	0.	0.	0.
111	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
121	0.	1.	0.	1.	0.	0.	1.	2.	1.	0.
131	0.	0.	0.	0.	0.	1.	0.	0.	0.	1.
141	0.	0.	5.	3.	1.	3.	1.	3.	2.	2.
151	2.	0.	1.	3.	2.	0.	0.	2.	0.	0.
161	1.	0.	0.	2.	0.	1.	2.	0.	1.	1.
171	0.	0.	1.	1.	0.	0.	0.	0.	0.	1.
181	0.	2.	0.	0.	1.	0.	0.	0.	1.	3.
191	0.	0.	2.	0.	3.	2.	2.	2.	1.	0.
201	3.	2.	0.	1.	0.	0.	1.	3.	2.	1.
211	3.	2.	3.	0.	3.	1.	5.	5.	7.	3.
221	6.	7.	12.	4.	17.	9.	22.	15.	18.	25.
231	38.	28.	37.	41.	59.	57.	74.	101.	115.	155.
241	175.	248.	273.	328.	371.	411.	540.	545.	733.	821.
251	946.	940.	927.	668.	425.	199.	141.	92.	70.	50.
261	59.	47.	54.	57.	48.	36.	36.	13.	19.	19.
271	13.	13.	16.	22.	19.	31.	32.	40.	63.	51.
281	76.	76.	95.	108.	153.	153.	191.	253.	316.	339.
291	387.	468.	555.	724.	788.	975.	1011.	958.	865.	618.
301	417.	270.	194.	162.	131.	100.	97.	77.	61.	37.
311	24.	11.	6.	4.	0.	0.	0.	0.	0.	0.
321	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.
331	2.	0.	0.	0.	0.	0.	0.	1.	1.	0.
341	1.	0.	0.	0.	0.	0.	2.	1.	1.	3.
351	2.	5.	4.	3.	9.	8.	9.	7.	12.	16.
361	14.	7.	23.	26.	28.	22.	23.	19.	12.	4.
371	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
401	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
411	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.
421	1.	2.	2.	2.	0.	2.	0.	3.	1.	3.
431	3.	1.	1.	0.	1.	0.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	2.	0.	0.	0.	0.	0.	0.	0.
481	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

Am 241 : LIQUID

						SAMPLE
Type	DATE COUNTED		3/28/2009	Am 241 AEA FRAC		0.498
SAMPLE	SAMPLE VOLUME in mL		0.300	Am 243 AEA FRAC		0.447
Work List	SAMPLE DILUTION FACTOR		1.000	Cm 242 AEA FRAC		0.000
00013503	TRACER VOLUME IN mL		0.500	Cm 243/244 AEA FRAC		0.012
Test Code	DIGEST DILUTION FACTOR	DDF	1.0000	TOTAL AT COUNTS		1880
AMERICIUM	DETECTOR NUMBER		23	AT COUNT TIME (min)		30
Matrix	EFFICIENCY FACTOR		0.3568	BACKGROUND in cpm		0.190
LIQUID	TRACER BOOK NO		112B59	Am 241 cpm		22.010
Rerun	TRACER PREPARATION DATE		8/14/2007	Am 243 cpm		19.790
1	TRACER PREPARATION VALUE (dmp/mL)		183.000	Cm 242 cpm		0.000
Sample Prep	Am-243 DECAY CORR'D VALUE (dpm/mL)		182.972	Cm 243/244 cpm		0.530
				AEA COUNT TIME (min)		480

Sample #
S09T001808
Instrument Code
WC79141
Data Entry By
MCB
Analyst
SCL
Date Completed
3/30/2009
Analysis Date
3/27/2009
Analysis Time
2:00 PM
Specification
AW106 EVAP3
Units
uCi/mL

Procedure using this Form*: **LA-953-104 H-1**

* The specific formulae used in the calculations for this spreadsheet can be found in the applicable procedure, as identified on the worklist.

Am 241 uCi/mL	=	1.5304E-04	**DETECTION LEVELS in uCi/mL**
Relative Counting Error	=	2.8%	
Cm 242 uCi/mL	<	7.1839E-06	**Am 241**
Relative Counting Error	=		**1.7960E-05**
Cm 243/244 uCi/mL	<	7.1839E-06	**Cm 242**
Relative Counting Error	=		**7.1839E-06**
Am 243 Tracer Recovery	=	85.6%	**Cm 243/244**
			7.1839E-06

Americium Sample Liquid/Solid Template 1.0

Printed at: 8:32:01 AM 3/30/2009 Version: 1.01

222-S Analytical Laboraratory
G E N E R A L A L P H A E N E R G Y A N A L Y S I S
Rev. 2.12

DATA REDUCTION REPORT

SAMPLE
S09T1808-SAM AM
File ID: 19a1989.CNF

Counted on: 3/28/ 9 @11:13
Detector: AEA19
Geometry number: 1
Count time: 28803. Sec

PEAK ANALYSIS

Peak ID	Peak height Initial	Peak height Final	Peak center Initial	Peak center Final	FWHM Initial	FWHM Final	Tau Initial	Tau Final
1	23.0	23.0	368.084	368.084	10.000	2.536	5.000	1.382
2	880.0	880.0	299.760	299.760	12.000	4.753	6.000	3.282
3	853.8	853.8	254.277	254.276	12.000	3.597	6.000	2.393

PEAK RESULTS
Peak Error Limit: 30%

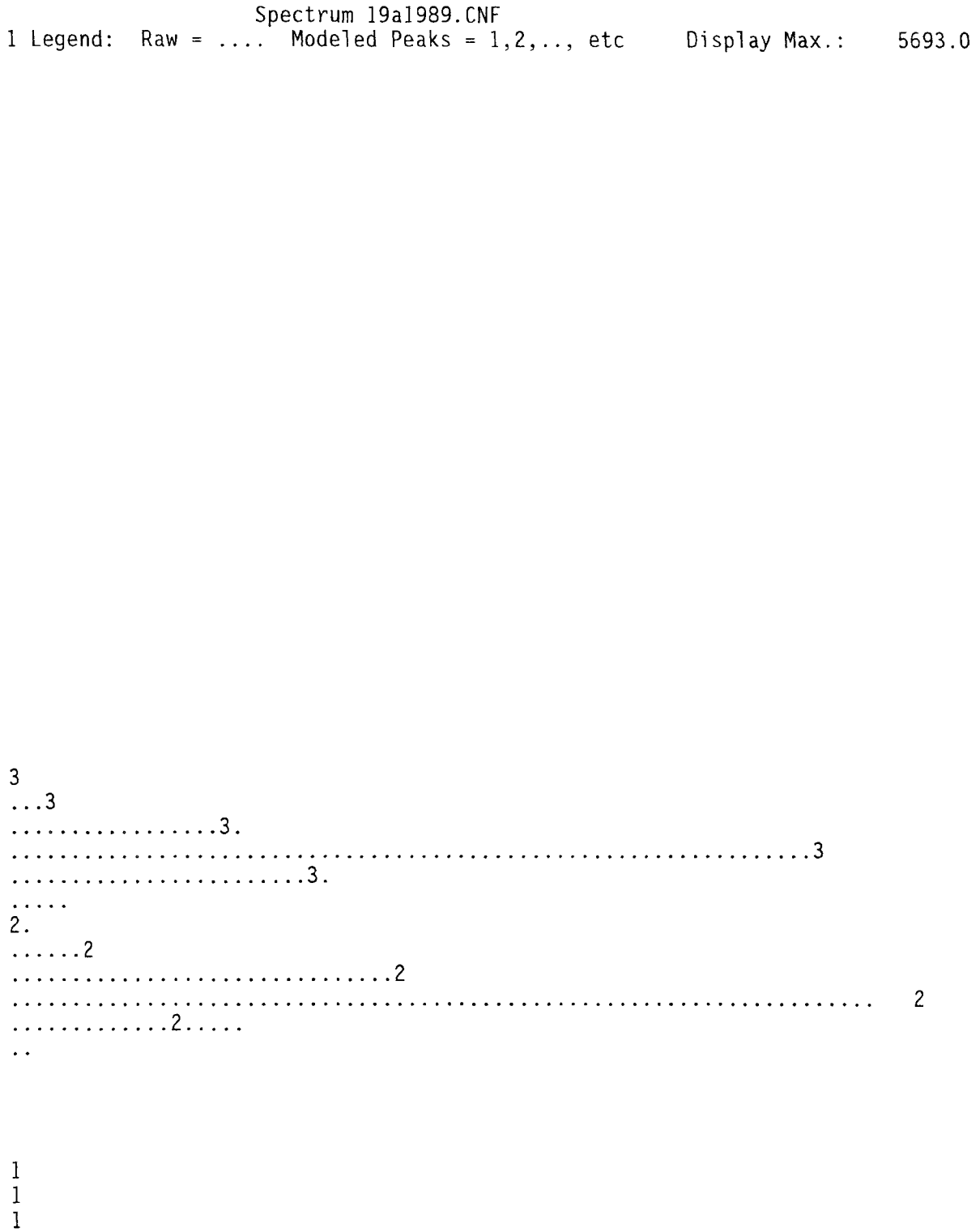
Peak ID	Isotope	AEA Frac	Peak Centroid Exp.	Peak Centroid Obs.	Diff.	FWHM	Count Rate c/m	%err @95	d/m	Activity uCi/ea
1	Cm243	0.012	5.779	5.815	-.036	0.01	0.53	12.2	2.7	0.124E-05
	Cm244		5.795	5.815	-.02				2.4	0.106E-05
2	Pu238	0.498	5.487	5.494	-.007	0.02	22.01	1.9	135.4	0.610E-04
	Am241		5.479	5.494	-.015				103.7	0.467E-04
3	Am243	0.447	5.266	5.280	-.014	0.02	19.79	2.0	88.5	0.399E-04
Totals:		0.957	<--valid peaks only-->				42.33			

DETECTOR CALIBRATION
Energy(MEV) = 4.085 + (0.0047)*Channel
Energy range (MeV): 4.085 TO 6.492
Efficiency = 0.2259 CPM/DPM
(Data reduction compression factor: 1.)

TOTAL COUNT DATA:

Item	Total	% Recovery
Raw spectrum	21226.0	100.000
Smoothed	21226.0	100.000
Composite fit	20322.8	95.745
Residuals	903.2	4.255

Started by: MB


Spectrum 19a1989.CNF
1 Legend: Raw = ... Modeled Peaks = 1,2,.., etc Display Max.: 5693.0
3
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.....3.
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2.
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. 2
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1
1
1

Raw Data Dump for AEA Spectrum: 19a1989.CNF

1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	0.	0.	0.	0.	2.	0.	0.	0.	0.	0.
81	0.	0.	1.	1.	1.	1.	0.	1.	1.	0.
91	0.	0.	0.	0.	1.	0.	0.	1.	0.	1.
101	0.	0.	0.	0.	2.	1.	0.	0.	2.	0.
111	0.	0.	1.	0.	1.	1.	0.	0.	0.	1.
121	0.	1.	2.	0.	0.	1.	1.	1.	1.	0.
131	0.	0.	1.	0.	1.	1.	1.	0.	0.	2.
141	3.	1.	0.	2.	4.	0.	3.	2.	4.	3.
151	3.	1.	3.	2.	1.	0.	2.	3.	1.	0.
161	2.	1.	0.	1.	0.	3.	0.	0.	0.	0.
171	2.	0.	2.	1.	0.	1.	0.	0.	1.	0.
181	2.	2.	2.	1.	1.	1.	1.	2.	2.	4.
191	1.	0.	0.	1.	1.	0.	1.	3.	0.	1.
201	1.	0.	1.	2.	2.	1.	1.	1.	3.	2.
211	0.	0.	1.	1.	3.	2.	2.	5.	6.	2.
221	3.	2.	7.	4.	5.	8.	12.	14.	9.	16.
231	17.	13.	29.	30.	37.	39.	56.	67.	63.	64.
241	107.	128.	155.	205.	205.	281.	302.	335.	413.	508.
251	650.	746.	911.	1028.	1070.	857.	565.	293.	127.	84.
261	63.	63.	56.	51.	40.	60.	60.	39.	34.	34.
271	27.	17.	15.	13.	12.	15.	27.	27.	32.	28.
281	42.	45.	57.	61.	65.	90.	120.	142.	180.	221.
291	254.	316.	370.	387.	534.	565.	723.	853.	989.	1104.
301	978.	704.	491.	321.	225.	147.	146.	120.	99.	92.
311	64.	46.	39.	22.	3.	2.	0.	0.	0.	0.
321	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.
331	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.
341	0.	0.	0.	0.	0.	2.	1.	1.	2.	1.
351	1.	1.	4.	2.	5.	4.	5.	4.	7.	12.
361	17.	8.	9.	12.	23.	17.	21.	31.	26.	22.
371	10.	3.	2.	0.	0.	0.	0.	0.	0.	0.
381	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
391	0.	0.	1.	0.	0.	0.	1.	0.	1.	0.
401	0.	0.	0.	1.	0.	0.	0.	0.	0.	1.
411	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
421	1.	1.	0.	0.	0.	0.	2.	2.	1.	2.
431	0.	3.	1.	1.	3.	2.	0.	0.	0.	0.
441	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
451	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
461	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
471	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.
481	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.
491	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
511	0.	0.								

ORGANIC RAW DATA

LABCORE Completed Batch Report for Batch# 00013311

Analyst: Massie, Valerie **Book#:** See Benchsheet

Instrument: GCMSD2 (NELIX) for VOA

Method: VOA EVAPORATOR, LA-523-118 Rev/Mod G-0

Specification: AW106 EVAP3

Prep Batch: N/A

Batch Comment: AW106 EVAP3 for VOA Analysis Group#20090162

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
Sample Sequence 1																
1	BLNK	S0903090013		0	0	1,1-Dichloroethene	LIQUID		<1.7000E-01			0.17	ug/L			U
1	BLNK	S0903090013		0	0	1-Butanol	LIQUID		<7.7700E+00			7.77	ug/L			U
1	BLNK	S0903090013		0	0	Acetone	LIQUID		<2.1900E+00			2.19	ug/L			U
1	BLNK	S0903090013		0	0	Benzene	LIQUID		<1.6000E-01			0.16	ug/L			U
1	BLNK	S0903090013		0	0	Chlorobenzene	LIQUID		<1.1000E-01			0.11	ug/L			U
1	BLNK	S0903090013		0	0	2-Butanone	LIQUID		<1.3300E+00			1.33	ug/L			U
1	BLNK	S0903090013		0	0	Toluene	LIQUID		<1.2000E-01			0.12	ug/L			U
1	BLNK	S0903090013		0	0	Trichloroethene	LIQUID		<1.5000E-01			0.15	ug/L			U
1	BLNK	S0903090013		0	0	4-Bromofluorobenzene	LIQUID	10	1.0502E+01			0.12	ug/L	105	% Recovery	
1	BLNK	S0903090013		0	0	Dibromofluoromethane	LIQUID	10	1.0896E+01			0.12	ug/L	109	% Recovery	
1	BLNK	S0903090013		0	0	1,2-Dichloroethane-d4	LIQUID	10	1.0320E+01			0.2	ug/L	103	% Recovery	
1	BLNK	S0903090013		0	0	Toluene-d8	LIQUID	10	1.0422E+01			0.13	ug/L	104	% Recovery	
1	BLNK	S0903090013		0	0	Methylene Chloride	LIQUID		1.83			0.17	ug/L			
Sample Sequence 2																
2	LCS	S0903090014		0	0	1,1-Dichloroethene	LIQUID	10	9.6160E+00			0.17	ug/L	96.16	% Recovery	
2	LCS	S0903090014		0	0	1-Butanol	LIQUID	100	8.7444E+01			7.77	ug/L	87.444	% Recovery	
2	LCS	S0903090014		0	0	Acetone	LIQUID	50	4.4979E+01			2.19	ug/L	89.958	% Recovery	
2	LCS	S0903090014		0	0	Benzene	LIQUID	10	9.6170E+00			0.16	ug/L	96.17	% Recovery	
2	LCS	S0903090014		0	0	Chlorobenzene	LIQUID	10	9.9870E+00			0.11	ug/L	99.87	% Recovery	
2	LCS	S0903090014		0	0	2-Butanone	LIQUID	50	4.7837E+01			1.33	ug/L	95.674	% Recovery	
2	LCS	S0903090014		0	0	Toluene	LIQUID	10	9.6690E+00			0.12	ug/L	96.69	% Recovery	
2	LCS	S0903090014		0	0	Trichloroethene	LIQUID	10	9.6180E+00			0.15	ug/L	96.18	% Recovery	
2	LCS	S0903090014		0	0	4-Bromofluorobenzene	LIQUID	10	9.7500E+00			0.12	ug/L	97.5	% Recovery	
2	LCS	S0903090014		0	0	Dibromofluoromethane	LIQUID	10	9.9040E+00			0.12	ug/L	99	% Recovery	
2	LCS	S0903090014		0	0	1,2-Dichloroethane-d4	LIQUID	10	9.8820E+00			0.2	ug/L	98.8	% Recovery	
2	LCS	S0903090014		0	0	Toluene-d8	LIQUID	10	9.4200E+00			0.13	ug/L	94.2	% Recovery	
2	LCS	S0903090014		0	0	Methylene Chloride	LIQUID		1.564			0.17	ug/L	N/A		BJ
Sample Sequence 3																
3	SAMPLE	S09T001752		0	0	1,1-Dichloroethene	LIQUID	N/A	<1.8889E-01			0.18889	ug/L			U
3	SAMPLE	S09T001752		0	0	1-Butanol	LIQUID	N/A	<8.6333E+00			8.6333	ug/L			U
3	SAMPLE	S09T001752		0	0	Acetone	LIQUID	N/A	<2.4333E+00			2.4333	ug/L			U

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013311

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
3	SAMPLE	S09T001752		0 0		Benzene	LIQUID	N/A	<1.7778E-01			0.17778	ug/L			U
3	SAMPLE	S09T001752		0 0		Chlorobenzene	LIQUID	N/A	<1.2222E-01			0.12222	ug/L			U
3	SAMPLE	S09T001752		0 0		2-Butanone	LIQUID	N/A	<1.4778E+00			1.4778	ug/L			U
3	SAMPLE	S09T001752		0 0		Toluene	LIQUID	N/A	<1.3333E-01			0.13333	ug/L			U
3	SAMPLE	S09T001752		0 0		Trichloroethene	LIQUID	N/A	<1.6667E-01			0.16667	ug/L			U
3	SAMPLE	S09T001752		0 0		4-Bromofluorobenzene	LIQUID	11.11111	1.2401E+01			0.13333	ug/L	112	% Recovery	
3	SAMPLE	S09T001752		0 0		Dibromofluoromethane	LIQUID	11.11111	1.2565E+01			0.13333	ug/L	113	% Recovery	
3	SAMPLE	S09T001752		0 0		1,2-Dichloroethane-d4	LIQUID	11.11111	1.3054E+01			0.22222	ug/L	117	% Recovery	
3	SAMPLE	S09T001752		0 0		Toluene-d8	LIQUID	11.11111	1.1635E+01			0.14444	ug/L	105	% Recovery	
3	SAMPLE	S09T001752		0 0		Methylene Chloride	LIQUID	N/A	1.592			0.18889	ug/L			BJ
Sample Sequence 4																
4	SAMPLE	S09T001768		0 0		1,1-Dichloroethene	LIQUID	N/A	<1.8889E-01			0.18889	ug/L			U
4	SAMPLE	S09T001768		0 0		1-Butanol	LIQUID	N/A	<8.6333E+00			8.6333	ug/L			U
4	SAMPLE	S09T001768		0 0		Acetone	LIQUID	N/A	<2.4333E+00			2.4333	ug/L			U
4	SAMPLE	S09T001768		0 0		Benzene	LIQUID	N/A	<1.7778E-01			0.17778	ug/L			U
4	SAMPLE	S09T001768		0 0		Chlorobenzene	LIQUID	N/A	<1.2222E-01			0.12222	ug/L			U
4	SAMPLE	S09T001768		0 0		2-Butanone	LIQUID	N/A	<1.4778E+00			1.4778	ug/L			U
4	SAMPLE	S09T001768		0 0		Toluene	LIQUID	N/A	<1.3333E-01			0.13333	ug/L			U
4	SAMPLE	S09T001768		0 0		Trichloroethene	LIQUID	N/A	<1.6667E-01			0.16667	ug/L			U
4	SAMPLE	S09T001768		0 0		4-Bromofluorobenzene	LIQUID	11.11111	1.2895E+01			0.13333	ug/L	116	% Recovery	
4	SAMPLE	S09T001768		0 0		Dibromofluoromethane	LIQUID	11.11111	1.2631E+01			0.13333	ug/L	114	% Recovery	
4	SAMPLE	S09T001768		0 0		1,2-Dichloroethane-d4	LIQUID	11.11111	1.2742E+01			0.22222	ug/L	115	% Recovery	
4	SAMPLE	S09T001768		0 0		Toluene-d8	LIQUID	11.11111	1.2075E+01			0.14444	ug/L	109	% Recovery	
4	SAMPLE	S09T001768		0 0		Methylene Chloride	LIQUID	N/A	2.639			0.18889	ug/L			B
Sample Sequence 5																
5	SAMPLE	S09T001757		0 0		1,1-Dichloroethene	LIQUID	N/A	<6.8000E+00			6.8	ug/L			U
5	SAMPLE	S09T001757		0 0		1-Butanol	LIQUID	N/A	<3.1080E+02			310.8	ug/L			U
5	SAMPLE	S09T001757		0 0		Acetone	LIQUID	N/A	<8.7600E+01			87.6	ug/L			U
5	SAMPLE	S09T001757		0 0		Benzene	LIQUID	N/A	<6.4000E+00			6.4	ug/L			U
5	SAMPLE	S09T001757		0 0		Chlorobenzene	LIQUID	N/A	<4.4000E+00			4.4	ug/L			U
5	SAMPLE	S09T001757		0 0		2-Butanone	LIQUID	N/A	<5.3200E+01			53.2	ug/L			U
5	SAMPLE	S09T001757		0 0		Toluene	LIQUID	N/A	<4.8000E+00			4.8	ug/L			U
5	SAMPLE	S09T001757		0 0		Trichloroethene	LIQUID	N/A	<6.0000E+00			6	ug/L			U
5	SAMPLE	S09T001757		0 0		4-Bromofluorobenzene	LIQUID	400	4.2065E+02			4.8	ug/L	105	% Recovery	
5	SAMPLE	S09T001757		0 0		Dibromofluoromethane	LIQUID	400	4.1867E+02			4.8	ug/L	105	% Recovery	
5	SAMPLE	S09T001757		0 0		1,2-Dichloroethane-d4	LIQUID	400	4.0981E+02			8	ug/L	102	% Recovery	
5	SAMPLE	S09T001757		0 0		Toluene-d8	LIQUID	400	4.2255E+02			5.2	ug/L	106	% Recovery	
5	SAMPLE	S09T001757		0 0		Methylene Chloride	LIQUID	N/A	62.645			6.8	ug/L			BJ
Sample Sequence 6																
6	SAMPLE	S09T001777		0 0		1,1-Dichloroethene	LIQUID	N/A	<6.8000E+00			6.8	ug/L			U
6	SAMPLE	S09T001777		0 0		1-Butanol	LIQUID	N/A	7.5585E+03			310.8	ug/L			

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013311

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
6	SAMPLE	S09T001777		0 0		Acetone	LIQUID	N/A	6.9843E+02			87.6	ug/L			J
6	SAMPLE	S09T001777		0 0		Benzene	LIQUID	N/A	<6.4000E+00			6.4	ug/L			U
6	SAMPLE	S09T001777		0 0		Chlorobenzene	LIQUID	N/A	<4.4000E+00			4.4	ug/L			U
6	SAMPLE	S09T001777		0 0		2-Butanone	LIQUID	N/A	<5.3200E+01			53.2	ug/L			U
6	SAMPLE	S09T001777		0 0		Toluene	LIQUID	N/A	<4.8000E+00			4.8	ug/L			U
6	SAMPLE	S09T001777		0 0		Trichloroethene	LIQUID	N/A	<6.0000E+00			6	ug/L			U
6	SAMPLE	S09T001777		0 0		4-Bromofluorobenzene	LIQUID	400	4.0393E+02			4.8	ug/L	101	% Recovery	
6	SAMPLE	S09T001777		0 0		Dibromofluoromethane	LIQUID	400	3.1396E+01			4.8	ug/L	7.85	% Recovery	J
6	SAMPLE	S09T001777		0 0		1,2-Dichloroethane-d4	LIQUID	400	4.1509E+02			8	ug/L	104	% Recovery	
6	SAMPLE	S09T001777		0 0		Toluene-d8	LIQUID	400	3.9718E+02			5.2	ug/L	99.3	% Recovery	
6	SAMPLE	S09T001777		0 0		Methylene Chloride	LIQUID	N/A	61.677			6.8	ug/L			BJ
6	SAMPLE	S09T001777		0 0		Tetrahydrofuran	LIQUID	N/A	90.477			23.6	ug/L			J
Sample Sequence 7																
7	MS	S0903090016	S09T001777	0 0		1,1-Dichloroethene	LIQUID	400	4.5434E+02			6.8	ug/L	113.58	% Recovery	
7	MS	S0903090016	S09T001777	0 0		1-Butanol	LIQUID	4000	1.2109E+04			310.8	ug/L	113.76	% Recovery	E
7	MS	S0903090016	S09T001777	0 0		Acetone	LIQUID	2000	2.7545E+03			87.6	ug/L	102.8	% Recovery	
7	MS	S0903090016	S09T001777	0 0		Benzene	LIQUID	400	4.1672E+02			6.4	ug/L	104.18	% Recovery	
7	MS	S0903090016	S09T001777	0 0		Chlorobenzene	LIQUID	400	4.0947E+02			4.4	ug/L	102.37	% Recovery	
7	MS	S0903090016	S09T001777	0 0		2-Butanone	LIQUID	2000	2.2029E+03			53.2	ug/L	110.14	% Recovery	
7	MS	S0903090016	S09T001777	0 0		Toluene	LIQUID	400	4.0211E+02			4.8	ug/L	100.53	% Recovery	
7	MS	S0903090016	S09T001777	0 0		Trichloroethene	LIQUID	400	4.1180E+02			6	ug/L	102.95	% Recovery	
7	MS	S0903090016	S09T001777	0 0		4-Bromofluorobenzene	LIQUID	400	4.2166E+02			4.8	ug/L	105	% Recovery	
7	MS	S0903090016	S09T001777	0 0		Dibromofluoromethane	LIQUID	400	1.8653E+01			4.8	ug/L	4.66	% Recovery	J
7	MS	S0903090016	S09T001777	0 0		1,2-Dichloroethane-d4	LIQUID	400	4.3212E+02			8	ug/L	108	% Recovery	
7	MS	S0903090016	S09T001777	0 0		Toluene-d8	LIQUID	400	3.9777E+02			5.2	ug/L	99.4	% Recovery	
7	MS	S0903090016	S09T001777	0 0		Methylene Chloride	LIQUID		70.654			6.8	ug/L	N/A		B
7	MS	S0903090016	S09T001777	0 0		Tetrahydrofuran	LIQUID		89.885			23.6	ug/L	N/A		J
Sample Sequence 8																
8	MSD	S0903090017	S09T001777	0 0		1,1-Dichloroethene	LIQUID	400	4.5184E+02			6.8	ug/L	112.96	% Recovery	
														0.54736	% RPD	
8	MSD	S0903090017	S09T001777	0 0		1-Butanol	LIQUID	4000	1.2598E+04			310.8	ug/L	125.99	% Recovery	E
														10.202	% RPD	
8	MSD	S0903090017	S09T001777	0 0		Acetone	LIQUID	2000	2.8671E+03			87.6	ug/L	108.43	% Recovery	
														5.3307	% RPD	
8	MSD	S0903090017	S09T001777	0 0		Benzene	LIQUID	400	4.2904E+02			6.4	ug/L	107.26	% Recovery	
														2.9134	% RPD	
8	MSD	S0903090017	S09T001777	0 0		Chlorobenzene	LIQUID	400	4.2395E+02			4.4	ug/L	105.99	% Recovery	
														3.4748	% RPD	
8	MSD	S0903090017	S09T001777	0 0		2-Butanone	LIQUID	2000	2.3487E+03			53.2	ug/L	117.44	% Recovery	
														6.4153	% RPD	
8	MSD	S0903090017	S09T001777	0 0		Toluene	LIQUID	400	4.2387E+02			4.8	ug/L	105.97	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013311

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
														5.2688	% RPD	
8	MSD	S0903090017	S09T001777	0	0	Trichloroethene	LIQUID	400	4.2297E+02			6	ug/L	105.74	% Recovery	
														2.6738	% RPD	
8	MSD	S0903090017	S09T001777	0	0	4-Bromofluorobenzene	LIQUID	400	4.2166E+02			4.8	ug/L	105	% Recovery	
														0	% RPD	
8	MSD	S0903090017	S09T001777	0	0	Dibromofluoromethane	LIQUID	400	1.2896E+01			4.8	ug/L	3.22	% Recovery	J
														36.5	% RPD	
8	MSD	S0903090017	S09T001777	0	0	1,2-Dichloroethane-d4	LIQUID	400	4.4824E+02			8	ug/L	112	% Recovery	
														3.64	% RPD	
8	MSD	S0903090017	S09T001777	0	0	Toluene-d8	LIQUID	400	4.1509E+02			5.2	ug/L	104	% Recovery	
														4.52	% RPD	
8	MSD	S0903090017	S09T001777	0	0	Methylene Chloride	LIQUID		63.705			6.8	ug/L	N/A		BJ
8	MSD	S0903090017	S09T001777	0	0	Tetrahydrofuran	LIQUID		83.85			23.6	ug/L	N/A		J
Sample Sequence 9																
9	SAMPLE	S09T001789		0	0	1,1-Dichloroethene	LIQUID	N/A	<6.8000E+00			6.8	ug/L			U
9	SAMPLE	S09T001789		0	0	1-Butanol	LIQUID	N/A	6.7762E+03			310.8	ug/L			
9	SAMPLE	S09T001789		0	0	Acetone	LIQUID	N/A	6.6783E+02			87.6	ug/L			J
9	SAMPLE	S09T001789		0	0	Benzene	LIQUID	N/A	<6.4000E+00			6.4	ug/L			U
9	SAMPLE	S09T001789		0	0	Chlorobenzene	LIQUID	N/A	<4.4000E+00			4.4	ug/L			U
9	SAMPLE	S09T001789		0	0	2-Butanone	LIQUID	N/A	<5.3200E+01			53.2	ug/L			U
9	SAMPLE	S09T001789		0	0	Toluene	LIQUID	N/A	<4.8000E+00			4.8	ug/L			U
9	SAMPLE	S09T001789		0	0	Trichloroethene	LIQUID	N/A	<6.0000E+00			6	ug/L			U
9	SAMPLE	S09T001789		0	0	4-Bromofluorobenzene	LIQUID	400	4.3249E+02			4.8	ug/L	108	% Recovery	
9	SAMPLE	S09T001789		0	0	Dibromofluoromethane	LIQUID	400	1.4986E+01			4.8	ug/L	3.75	% Recovery	J
9	SAMPLE	S09T001789		0	0	1,2-Dichloroethane-d4	LIQUID	400	4.3920E+02			8	ug/L	110	% Recovery	
9	SAMPLE	S09T001789		0	0	Toluene-d8	LIQUID	400	4.2316E+02			5.2	ug/L	106	% Recovery	
9	SAMPLE	S09T001789		0	0	Methylene Chloride	LIQUID	N/A	68.041			6.8	ug/L			B
9	SAMPLE	S09T001789		0	0	Tetrahydrofuran	LIQUID	N/A	76.022			23.6	ug/L			J
Sample Sequence 10																
10	BLNK	S0904070072		0	0	1,1-Dichloroethene	LIQUID		<1.7000E-01			0.17	ug/L			U
10	BLNK	S0904070072		0	0	1-Butanol	LIQUID		<7.7700E+00			7.77	ug/L			U
10	BLNK	S0904070072		0	0	Acetone	LIQUID		<2.1900E+00			2.19	ug/L			U
10	BLNK	S0904070072		0	0	Benzene	LIQUID		<1.6000E-01			0.16	ug/L			U
10	BLNK	S0904070072		0	0	Chlorobenzene	LIQUID		<1.1000E-01			0.11	ug/L			U
10	BLNK	S0904070072		0	0	2-Butanone	LIQUID		<1.3300E+00			1.33	ug/L			U
10	BLNK	S0904070072		0	0	Toluene	LIQUID		<1.2000E-01			0.12	ug/L			U
10	BLNK	S0904070072		0	0	Trichloroethene	LIQUID		<1.5000E-01			0.15	ug/L			U
10	BLNK	S0904070072		0	0	4-Bromofluorobenzene	LIQUID	10	1.0775E+01			0.12	ug/L	108	% Recovery	
10	BLNK	S0904070072		0	0	Dibromofluoromethane	LIQUID	10	1.0759E+01			0.12	ug/L	108	% Recovery	
10	BLNK	S0904070072		0	0	1,2-Dichloroethane-d4	LIQUID	10	1.0529E+01			0.2	ug/L	105	% Recovery	
10	BLNK	S0904070072		0	0	Toluene-d8	LIQUID	10	1.0380E+01			0.13	ug/L	104	% Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013311

Seq	Type	Sample#	Assoc. Sample	RepR	A	Test	Matrix	Actual	Found	Blank	CTR	Limit (DL/RL/UL)	Unit	Yield	Yield Unit	Flags
10	BLNK	S0904070072		0 0		Methylene Chloride	LIQUID		0.6822			0.17	ug/L			J
Sample Sequence 11																
11	LCS	S0904070073		0 0		1,1-Dichloroethene	LIQUID	10	1.1406E+01			0.17	ug/L	114.06	% Recovery	
11	LCS	S0904070073		0 0		1-Butanol	LIQUID	100	1.0031E+02			7.77	ug/L	100.31	% Recovery	
11	LCS	S0904070073		0 0		Acetone	LIQUID	50	4.8769E+01			2.19	ug/L	97.538	% Recovery	
11	LCS	S0904070073		0 0		Benzene	LIQUID	10	1.0536E+01			0.16	ug/L	105.36	% Recovery	
11	LCS	S0904070073		0 0		Chlorobenzene	LIQUID	10	1.0564E+01			0.11	ug/L	105.64	% Recovery	
11	LCS	S0904070073		0 0		2-Butanone	LIQUID	50	5.1254E+01			1.33	ug/L	102.51	% Recovery	
11	LCS	S0904070073		0 0		Toluene	LIQUID	10	1.0407E+01			0.12	ug/L	104.07	% Recovery	
11	LCS	S0904070073		0 0		Trichloroethene	LIQUID	10	1.0843E+01			0.15	ug/L	108.43	% Recovery	
11	LCS	S0904070073		0 0		4-Bromofluorobenzene	LIQUID	10	1.0379E+01			0.12	ug/L	104	% Recovery	
11	LCS	S0904070073		0 0		Dibromofluoromethane	LIQUID	10	1.0645E+01			0.12	ug/L	106	% Recovery	
11	LCS	S0904070073		0 0		1,2-Dichloroethane-d4	LIQUID	10	1.0262E+01			0.2	ug/L	103	% Recovery	
11	LCS	S0904070073		0 0		Toluene-d8	LIQUID	10	1.0145E+01			0.13	ug/L	101	% Recovery	
11	LCS	S0904070073		0 0		Methylene Chloride	LIQUID		0.4418			0.17	ug/L	N/A		BJ
Sample Sequence 12																
12	SAMPLE	S09T001801		0 0		1,1-Dichloroethene	LIQUID	N/A	<6.8000E+00			6.8	ug/L			U
12	SAMPLE	S09T001801		0 0		1-Butanol	LIQUID	N/A	6.3731E+03			310.8	ug/L			
12	SAMPLE	S09T001801		0 0		Acetone	LIQUID	N/A	6.6569E+02			87.6	ug/L			J
12	SAMPLE	S09T001801		0 0		Benzene	LIQUID	N/A	<6.4000E+00			6.4	ug/L			U
12	SAMPLE	S09T001801		0 0		Chlorobenzene	LIQUID	N/A	<4.4000E+00			4.4	ug/L			U
12	SAMPLE	S09T001801		0 0		2-Butanone	LIQUID	N/A	<5.3200E+01			53.2	ug/L			U
12	SAMPLE	S09T001801		0 0		Toluene	LIQUID	N/A	<4.8000E+00			4.8	ug/L			U
12	SAMPLE	S09T001801		0 0		Trichloroethene	LIQUID	N/A	<6.0000E+00			6	ug/L			U
12	SAMPLE	S09T001801		0 0		4-Bromofluorobenzene	LIQUID	400	4.4574E+02			4.8	ug/L	111	% Recovery	
12	SAMPLE	S09T001801		0 0		Dibromofluoromethane	LIQUID	400	1.9206E+02			4.8	ug/L	48	% Recovery	
12	SAMPLE	S09T001801		0 0		1,2-Dichloroethane-d4	LIQUID	400	4.4075E+02			8	ug/L	110	% Recovery	
12	SAMPLE	S09T001801		0 0		Toluene-d8	LIQUID	400	4.3469E+02			5.2	ug/L	109	% Recovery	
12	SAMPLE	S09T001801		0 0		Methylene Chloride	LIQUID	N/A	14.769			6.8	ug/L			BJ
12	SAMPLE	S09T001801		0 0		System Artifact #1	LIQUID		174.27805				ug/L			JTY
12	SAMPLE	S09T001801		0 0		System Artifact #2	LIQUID		149.90978				ug/L			JTY
12	SAMPLE	S09T001801		0 0		Tetrahydrofuran	LIQUID	N/A	72.203			23.6	ug/L			J

Comments Section:

Data Flagger Status:
Flagging Completed

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013311

Final Page for Batch# 00013311

Valerie Mason 4/8/09
Analyst Signature Date

Data Entry Signature 4/8/09
Date

Reviewer Signature 4/8/09
Date

824

RPP-RPT-40709 Rev. 1

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Batch Report for Batch# 00013311

Seq	Sample#	QC Type	Assoc. Sample	Sample Group	Customer Id	Specification
1	S0903090013	BLNK				
2	S0903090014	LCS				
3	S09T001752	SAMPLE		20090162	6AW-08-01FB1	AW106 EVAP3
4	S09T001768	SAMPLE		20090162	6AW-08-01TB	AW106 EVAP3
5	S09T001757	SAMPLE		20090162	6AW-08-01FB2	AW106 EVAP3
6	S09T001777	SAMPLE		20090162	6AW-08-02A	AW106 EVAP3
7	S0903090016	MS	S09T001777			
8	S0903090017	MSD	S09T001777			
9	S09T001789	SAMPLE		20090162	6AW-08-03A	AW106 EVAP3
10	S0904070072	BLNK				
11	S0904070073	LCS				
12	S09T001801	SAMPLE		20090163	6AW-08-04B	AW106 EVAP3

Units shown for QC (BLK/BKG) may not reflect the actual units.

UNKNOWNS at 14.949 and 16.630 minutes

Sample S09T001801 was re-batched and re-analyzed twice due to QC failures. The first failure was due to the inadvertent omission of internal standard to the sample. The second rerun (03/12/09) was due to failure of the Calibration verification Standard (CCV). On the final rerun analyses, two unknowns were detected at 14.949 minutes and 16.630 minutes (File 09031306_01.d analyzed on 3/13/09). These unknowns were not detected in either of the first two attempted analyses. These unknowns were also not identified above reporting criteria on any of the other AW106 samples, or QC - including the analytical system blank that was analyzed immediately after the final S09T001801 subsample was analyzed. Normally, only unknowns that are also identified in associated QC are considered as "system artifacts", however since this the two previous analyses of this sample did not produce these unknown peaks, it was determined that the most likely source of the unknowns were siloxane by-products from small bits of silicone dropped into the sample after repeated puncturing of the container septum during sub-sampling. Since the container is considered as part of the "system", they have been identified as "system artifacts", and flagged with a "Y" flag.

These two compounds could not be matched to specific compounds in the mass spectral library.

Recovery of the Dibromofluoromethane (DBFM) surrogate in sample S09T001801 was higher in the final analysis than it was in the previous two analyses of this sample attempted on 03/10 and 03/12. N-butanol results for all three were consistent - indicating that the DBFM difference was not the result of using incorrect or inconsistent sample volumes. Although the reason for the difference between the rerun analyses has not been fully explained, it is believed that the loss of DBFM is due to basic-hydrolysis of DMFM. This mechanism results in the formation of a trihalomethyl anion - which decomposes under basic conditions to carbon monoxide and formate ion.

PEER REVIEWED by DR Hansen

Project: AW-106 EVAP 3 VOA batch 00133119

Item	Review Comment	Resolution
1	Appeared to have an "extra" form 6 - removed.	Verify
2.	Can't verify MDL for TNF on the Shave area with the Hank.	MDL was taken from MDL Study performed under the following "VIT" directory:
	\\Hanford\Data\Sitedata\22Nov9\organic\MDLs\VOCs\Neelix\VIT	
	they were performed (established) in 2006.	

Mark Duchsherer — Resolved by: Name — Signature — 4-9-09 Date

Dan Hansen — Peer Reviewer Concurrence: Name — Signature — 4-9-09 Date

Page 1 of 1

VOC GC/MS Technical Data Review Checklist

Project Code: AW-106 EVAP 3

Method: LA-523-118 Rev./Mod.: G0

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments & Samples Affected
Tune					
1. Did BFB meet tune criteria?	✓			✓	
2. Were all samples injected within 12 hours of the tune?	✓			✓	
Initial Calibration					
1. Is completed ICAL checklist attached?		✓			Will copy and insert upon completion of Review.
Continuing Calibration					
1. Do the target compounds %D meet method criteria?	✓			✓	except dichlorodifluoromethane. NOT A target or req'd CC
2. Was elution order checked for isomeric pairs?	✓			✓	
3. Traceability of standards properly documented?	✓			✓	
4. Manual integrations/ratio failures checked?	✓			✓	
5. Do the Internal Stds meet criteria against the ICAL?	✓			✓	
Client Samples & QC Sample Results					
1. Is the automated formula shown on the printout correct?	✓			✓	
2. MDL values checked for correctness?	✓			✓	
3. Were spectra for positive results evaluated?	✓			✓	
4. Are positive results within calibration range?	✓			✓	except MS/MSD for butanol - due to sample contribution - See exception report
5. Dilutions due to target cpds? ____ Dilutions due to non-targets? ____			✓		
6. Data checked for detector saturation?	✓			✓	
7. Do internal standards (IS) meet criteria?	✓			✓	Except for noted sample that was rerun
8. Are target constituents in LCS within control limits?	✓			✓	
9. All target cpds in MB < method criteria?	✓			✓	
10. Are surrogate recoveries for MB and LCS within control limits?	✓			✓	
11. Are MS/MSD recoveries and RPDs within control limits?	✓			✓	
12. Are surrogate recoveries for samples within control limits?	✓			✓	except DBFM - MATRIX Affect for rinse Samples and previously documented for this MATRIX
13. Manual integrations checked?	✓			✓	
14. TIC's/Unknowns evaluated?	✓			✓	
15. Internal Stds used to quantitate TICs free from coelution?	✓			✓	
16. Chromatogram TIC/Unknown/I.S. peaks integrated properly?	✓			✓	
17. Is appropriate raw data included?	✓			✓	
18. Are all manually entered data verified?	✓			✓	
19. Are all flags present (B,J etc.)?	✓			✓	
20. Is the order of the analysis correct (Tune/CCV/Blank, etc.)?	✓			✓	
21. Is the data package complete – all required bench sheets, forms, etc.?	✓			✓	

1st Level Data Reduction: [signature] Date: 3/23/09

2nd Level Data Reviewer: [signature] Date: 4-09-09

VOC GC/MS Initial Calibration Review Checklist

Instrument ID and Date: Neelix 03/04/09

Analysis Method Used: LA-523-118 Rev./Mod.: G-0

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Initial Calibration					List all exceptions below (cpd & RSD)
1. BFB meets criteria?	✓			✓	
2. ICAL date and instrument ID verified?	✓			✓	
3. Sufficient number of calibration points used?	✓			✓	
4. Reasons for removal of points documented?			✓	✓	
5. %RSD or correlation coefficient within method limits?	✓			✓	
6. Isomeric pairs checked for correct peak assignment?	✓			✓	
7. Data checked for detector saturation?	✓			✓	(1),(2),(3)
8. Standards traceability properly documented?	✓			✓	
9. Internal Std. Area responses within method criteria?	✓			✓	
10. Manual integrations checked?	✓			✓	
11. 2nd source ICV recovery within method criteria?		✓		✓	I.S. Failure - ICV Rerun 3/5/09 - PASS

(1) 1,1,2-trichlorotrifluoroethane Quant Signal on Cal-Level 6 is close to saturation but curve looks good.

(2) m/p Xylene Qual Signal on Cal-Level 6 is slightly saturated but passed ratio Requirement.

(3) Isopropylbenzene Quant Signal on Cal-Level 6 is close to saturation but curve looks good.

1st Level Data Reduction: Mark Duckstein Date: 3/19/09

2nd Level Data Reviewer: KK Date: 03/23/09

Date 3/10/09 Project AW106 EVAP3 Procedure LA-523-118 G-0 Initials VLM

1 of 2

VOA BENCH SHEET

Concentration of compounds in secondary				Source "A"						Source "B"	
Internal Std	(µg/mL)	10.0									
Surrogate	(µg/mL)		10.0	1.0	3.0	10.0	30.0	50.0	75.0	10.0	10.0
Megmix	(µg/mL)			1.0	3.0	10.0	30.0	50.0	75.0	10.0	
Hexane	(µg/mL)			1.0	3.0	10.0	30.0	50.0	75.0	10.0	
THF	(µg/mL)			3.0	9.0	30.0	90.0	150.0	225.0	20.0	
Ketones	(µg/mL)			10.0	20.0	50.0	100.0	125.0	150.0	50.0	50.0
2-Pentanone	(µg/mL)			10.0	20.0	50.0	100.0	125.0	150.0	50.0	
n-butanol	(µg/mL)			20.0	40.0	100.0	200.0	250.0	300.0	100.0	100.0
Gases	(µg/mL)			1.0	3.0	10.0	30.0	50.0	75.0	10.0	
MS/LCS Mix	(µg/mL)										10.0

NEELIX		Internal Standard HNF-N-362-3-141.1 Expires: 03/24/09	Surrogate HNF-N-362-3-141.2 Expires: 03/24/09	CAL 1 Secondary (Includes Surrogate) Expires:	CAL 2 Secondary (Includes Surrogate) Expires:	CAL 3 Secondary (Includes Surrogate) HNF-N-362-3-143.1 Expires: 3/10/09	CAL 4 Secondary (Includes Surrogate) Expires:	CAL 4b Secondary (Includes Surrogate) Expires:	CAL 5 Secondary (Includes Surrogate) Expires:	ICVS Secondary (Includes Surrogate) Expires:	LCS/MS Secondary (Includes Surrogate) HNF-N-362-3-141.3 Expires: 03/24/09	BFB HNF-N-362-3-138.2 Expires: 03/24/09	H_2O	Sand	S09T001752	S09T001738	S09T001757	S09T001777	S09T001777 MS	S09T001777 MSD
Data File ID	TYPE	(uL)	(uL)	(uL)	(uL)	(uL)	(uL)	(uL)	(uL)	(uL)	(uL)	(uL)	(mL)	(g)	(mL)	(mL)	(uL)	(uL)	(uL)	(uL)
9031001 .d	PRERUN																			
9031002 .d	BFB											2.0	10.0							
9031003 .d	CCV	10.0				10.0							10.0							
9031004 .d	CCB	10.0	10.0										10.0							
9031005 .d	LCS	10.0									10.0		10.0							
9031006 .d		10.0	10.0										1.0		9					
9031007 .d		10.0	10.0										1.0			9				
9031008 .d		10.0	10.0										10.0				250			
9031009 .d		10.0	10.0										10.0					250		
9031010 .d		10.0									10.0		10.0						250	
9031011 .d		10.0									10.0		10.0							250
															pH:					

NOTES Balance ID

Date 3/10/09 Project AW106 EVAP3 Procedure LA-523-118 G-0 Initials VLM

VOA BENCH SHEET

(Non-Tank Closure Compounds)

Concentration of compounds in secondary				Source "A"						Source "B"	
Internal Std	(µg/mL)	10.0									
Surrogate	(µg/mL)		10.0	1.0	3.0	10.0	30.0	75.0	n/a	10.0	10.0
Megmix	(µg/mL)			1.0	3.0	10.0	30.0	75.0	n/a	10.0	
Hexane	(µg/mL)			1.0	3.0	10.0	30.0	75.0	n/a	11.1	
THF	(µg/mL)			3.0	9.0	30.0	90.0	225.0	n/a	30.0	
Ketones	(µg/mL)			10.0	20.0	50.0	100.0	150.0	n/a	50.0	50.0
2-Pentanone	(µg/mL)			10.0	20.0	50.0	100.0	150.0	n/a	50.0	
n-butanol	(µg/mL)			20.0	40.0	100.0	200.0	300.0	n/a	100.0	100.0
Gases	(µg/mL)			1.0	3.0	10.0	30.0	75.0	n/a	10.0	
MS/LCS Mix	(µg/mL)										10.0

Data File ID	TYPE	Internal Standard HNF-N-362-3-141.1 Expires: 03/24/09 (uL)	Surrogate HNF-N-362-3-141.2 Expires: 03-24-09 (uL)	CAL 1 Secondary (Includes Surrogate) Expires: (uL)	CAL 2 Secondary (Includes Surrogate) Expires: (uL)	CAL 3 Secondary (Includes Surrogate) Expires: (uL)	CAL 4 Secondary (Includes Surrogate) Expires: (uL)	CAL 5 Secondary (Includes Surrogate) Expires: (uL)	CAL 6 Secondary (Includes Surrogate) Expires: (uL)	ICVS Secondary (Includes Surrogate) Expires: (uL)	LCS/MS Secondary (Includes Surrogate) Expires: (uL)	BFB Expires (uL)	H_2O (mL)	Sand (g)	S09T001789 (uL)	S09T001801 (uL)	Sample (mL)	Sample (mL)	Sample (mL)	Sample (mL)
9031012 .d		10.0	10.0										10.0		250				
9031013 .d		10.0	10.0										10.0			250			
															pH:				

NOTES Balance ID

EDMS Set by : [illegible]

AW-106 EVAP3

Volatile Organic Analysis Summary & Raw Data

Analyzed:
03/10/09

Group: 20090162a

Sample S09T001752
Sample S09T001757
Sample S09T001768
Sample S09T001777
Sample S09T001777MS
Sample S09T001777MSD
Sample S09T001789

Report Date: 23-Mar-2009 07:27 Page 1

EXCEPTION REPORT

Files Reported	Injected Date
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031001PRE.D	10-MAR-2009 08:58
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031002BFB.D	10-MAR-2009 09:29
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031003CCV.D	10-MAR-2009 09:59
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031004CCB.D	10-MAR-2009 10:29
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031005LCS.D	10-MAR-2009 10:59
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031006_52.D	10-MAR-2009 14:08
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031007_68.D	10-MAR-2009 14:39
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031008_57.D	10-MAR-2009 15:09
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031009_77.D	10-MAR-2009 15:39
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031010MS.D	10-MAR-2009 16:10
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031011MSD.D	10-MAR-2009 16:40
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031012_89.D	10-MAR-2009 17:10
\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b 09031013_01.D	10-MAR-2009 17:40

SAMPLE LIST:

Sample Id	Sample Type	Sample Info	Status
09031001PRE.D			Passed
09031002BFB.D	BFB	BFB	Passed
09031003CCV.D	CCALIB_3	CCV	Passed
09031004CCB.D	BLANK	CCB	Passed
09031005LCS.D	LCS	LCS	Passed
09031006_52.D	SAMPLE	S09T001752	Passed
09031007_68.D	SAMPLE	S09T001768	Passed
09031008_57.D	SAMPLE	S09T001757	Passed

Report Date: 23-Mar-2009 07:27 Page 2

SAMPLE LIST:

Sample Id	Sample Type	Sample Info	Status
09031009_77.D	SAMPLE	S09T001777	Failed
09031010MS.D	MS	S09T001777	Failed
09031011MSD.D	MSD	S09T001777 MSD	Failed
09031012_89.D	SAMPLE	S09T001789	Failed
09031013_01.D	SAMPLE	S09T001801	Failed

* The above status is determined only by the Sample Summary Report, not the Sample Detail Report.

SAMPLE SUMMARY REPORT

INTERNAL STANDARD SUMMARY:

Sample Id	IS1	IS2	IS3	Status
09031003CCV.D	-3.74	-6.91	-7.24	Passed
09031004CCB.D	-11.18	-10.92	-14.27	Passed
09031005LCS.D	-4.50	-5.26	-8.08	Passed
09031006_52.D	-18.82	-17.90	-24.09	Passed
09031007_68.D	-17.03	-18.26	-27.27	Passed
09031008_57.D	-7.87	-12.17	-19.14	Passed
09031009_77.D	-6.33	-7.42	-13.83	Passed
09031010MS.D	-13.41	-13.24	-19.75	Passed
09031011MSD.D	-7.88	-10.80	-14.61	Passed
09031012_89.D	-9.68	-12.47	-19.44	Passed
09031013_01.D	*-98.92 *	*-98.87 *	*-98.59 *	Failed

IS1 = Fluorobenzene
IS2 = Chlorobenzene-d5
IS3 = 1,4-Dichlorobenzene-d4

Report Date: 23-Mar-2009 07:27 Page 3

SURROGATE SUMMARY:

Sample Id	SS1	SS2	SS3	SS4	Status
09031004CCB.D	108.00	103.00	104.00	105.00	Passed
09031005LCS.D	99.00	98.00	94.00	97.00	Passed
09031006_52.D	113.00	117.00	104.00	111.00	Passed
09031007_68.D	113.00	114.00	108.00	116.00	Passed
09031008_57.D	104.00	102.00	105.00	105.00	Passed
09031009_77.D	*7.00 *	103.00	99.00	100.00	Failed
09031010MS.D	*4.00 *	108.00	99.00	105.00	Failed
09031011MSD.D	*3.00 *	112.00	103.00	105.00	Failed
09031012_89.D	*3.00 *	109.00	105.00	108.00	Failed
09031013_01.D	*194.00 *	*8261.00 *	*7203.00 *	*5717.00 *	Failed

SS1 = Dibromofluoromethane
SS2 = 1,2-Dichloroethane-d4
SS3 = Toluene-d8
SS4 = Bromofluorobenzene

COMMENT: The failure of SS1 (dibromofluoromethane) in Hanford Tank samples has been previously documented and is a matrix affect. This surrogate passed in all QC samples.

COMMENT: The failure of SS1-SS4 for file 09031013_01.d (sample S09T001801)was due to recovery failure of the internal standard. This sample was reanalyzed and will not be reported with this batch.

COMPOUNDS DETECTED ABOVE CALIBRATION RANGE:

Sample Id	Compound	Max Amt	On Col	Final ug/L
09031010MS.D	n-Butanol	750	3027.264	12109.05
09031011MSD.D	n-Butanol	750	3149.493	12597.97
09031013_01.D	Methylene Chloride	750	1707.707	6830.828
09031013_01.D	Acetone	750	12823.28	51293.10
09031013_01.D	1,2-Dichloroethane-d4	750	8261.608	33046.43
09031013_01.D	n-Butanol	750	129503.4	518013.7
09031013_01.D	Toluene-d8	750	7203.266	28813.06
09031013_01.D	Bromofluorobenzene	750	5717.867	22871.47

OVERDILUTIONS:

None

RUNS OUTSIDE TUNE TIME:

None

SAMPLE DETAIL REPORT

09031002BFB.D BFB BFB

09031003CCV.D CCALIB_3 CCV

09031004CCB.D BLANK CCB
Above the Limits of Quantitation:
Methylene Chloride, Concentration: 1.830, LOQ: 1.700

COMMENT: As a special requirement in the ATL QAPP (ATL-MP-1011), the concentration of the methylene chloride shall be less than five times the EQL. (PASS)

09031005LCS.D LCS LCS

09031006_52.D SAMPLE S09T001752

09031007_68.D SAMPLE S09T001768

09031008_57.D SAMPLE S09T001757

09031009_77.D SAMPLE S09T001777
Surrogate Failure:
Dibromofluoromethane, Recovery: 0
Limits Range: 70 - 130

COMMENT: See Surrogate Summary table Comment for DBFM failure.

09031010MS.D MS S09T001777
Surrogate Failure:
Dibromofluoromethane, Recovery: 0
Limits Range: 70 - 130
Below the Limits of Quantitation:
Tetrahydrofuran, Concentration: 89.885, LOQ: 236.00
Dibromofluoromethane, Concentration: 18.653, LOQ: 48.000
Spike Compounds Out of Recovery Limits:
n-Butanol, Recovery: 302.73
Range: 70.00-130.00
Exceeding Maximum Amount Limit:
n-Butanol, On Column: 3027.26
Final: 12109.05 ug/L

COMMENT: See Surrogate Summary table Comment for DBFM failure. Butanol Cal. range exceeded due to sample contribution.

09031011MSD.D MSD S09T001777 MSD
Surrogate Failure:
Dibromofluoromethane, Recovery: 0
Limits Range: 70 - 130
Below the Limits of Quantitation:
Methylene Chloride, Concentration: 63.705, LOQ: 68.000
Tetrahydrofuran, Concentration: 83.850, LOQ: 236.00
Dibromofluoromethane, Concentration: 12.896, LOQ: 48.000
Spike Compounds Out of Recovery Limits:
n-Butanol, Recovery: 314.95
Range: 70.00-130.00
Exceeding Maximum Amount Limit:
n-Butanol, On Column: 3149.49
Final: 12597.97 ug/L

COMMENT: See Matrix Spike comment.

09031012_89.D SAMPLE S09T001789
Surrogate Failure:
Dibromofluoromethane, Recovery: 0
Limits Range: 70 - 130

COMMENT: See Surrogate Summary table Comment for DBFM failure.

09031013_01.D SAMPLE S09T001801
ISTD Failure:
Fluorobenzene, Recovery: -369832331%
Limits Range: -50% - +100%
Chlorobenzene-d5, Recovery: -1762404699%
Limits Range: -50% - +100%
1,4-Dichlorobenzene-d4, Recovery: 153637133%
Limits Range: -50% - +100%
Surrogate Failure:
Dibromofluoromethane, Recovery: 0
Limits Range: 70 - 130
1,2-Dichloroethane-d4, Recovery: 0
Limits Range: 70 - 130
Toluene-d8, Recovery: 0
Limits Range: 70 - 130
Bromofluorobenzene, Recovery: 0
Limits Range: 70 - 130
Exceeding Maximum Amount Limit:
Methylene Chloride, On Column: 1707.71
Final: 6830.83 ug/L
Acetone, On Column: 12823.28
Final: 51293.10 ug/L
1,2-Dichloroethane-d4, On Column: 8261.61
Final: 33046.43 ug/L
n-Butanol, On Column: 129503.42
Final: 518013.68 ug/L
Toluene-d8, On Column: 7203.27
Final: 28813.06 ug/L
Bromofluorobenzene, On Column: 5717.87
Final: 22871.47 ug/L

COMMENT: Sample reran in separate batch due to internal standard failure. Surrogate failures due to failure of internal standard)

Macro: upload2lims.mac, Revision: 0.2
Report Date: 04/07/2009

Data File: //apwscf02/slab/chem/neelix.i/Data/V090310AW106a.b/09031004CCB
Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304

LIMS Upload Report

Lab Sample ID: CCB
Client Sample ID: CCB
SDG: 20090162a
Lab Prep Batch: 00013311
Protocol: @222VOA
Sample Fraction: VOA
Sample Type: BLANK
Matrix: WATER

Actual Sample Size: 10
Actual Units: mL

Instrument ID: neelix.i
Analyst: vlm
Analysis Date: 10-MAR-2009 10:29
ALS Bottle: 4
Replicate: 0
Dilution Factor: 1
Final Concentration Units: ug/L
Matrix Type: LIQUID

Expected Sample Size: 10
Expected Units: mL

For a VOA, LOW Conc., LIQUID sample,
the Method formula used was: Conc. = Amount * DF * Uf * 1/Vo.

The Macro formula used was: Conc. = Amount * DF * Uf * 1/Vo,
where DF = 1 UF = 1, and Vo = 10.

-	CAS Number	Compound Name	RT	Spike	Adj. MDL	LOQ	Final Conc	Flag	Pct. Rec.
M	540-59-0	Total 1,2-Dichloroethe			0.3	3	ND	U	
M	1330-20-7	Total Xylenes			0.309999	3.1	ND	U	
M	THM	Total Trihalomethanes			0.459999	4.6	ND	U	
	74-87-3	Chloromethane			0.309999	3.1	ND	U	
	75-01-4	Vinyl Chloride			0.320000	3.2	ND	U	
	74-83-9	Bromomethane			0.490000	4.9	ND	U	
	75-00-3	Chloroethane			0.8	8	ND	U	
	75-35-4	1,1-Dichloroethene			0.170000	1.7	ND	U	
	67-64-1	Acetone			2.189999	21.9	ND	U	
	75-15-0	Carbon Disulfide			0.15	1.5	ND	U	
	75-09-2	Methylene Chloride	8.05265		0.170000	1.7	1.83		
	75-34-3	1,1-Dichloroethane			0.139999	1.4	ND	U	
	78-93-3	2-Butanone			1.330000	13.3	ND	U	
	67-66-3	Chloroform			0.089999	0.9	ND	U	
	56-23-5	Carbon Tetrachloride			0.15	1.5	ND	U	
	109-99-9	Tetrahydrofuran			0.590000	5.9	ND	U	
	71-55-6	1,1,1-Trichloroethane			0.1	1	ND	U	
	71-36-3	n-Butanol			7.769999	77.7	ND	U	
	71-43-2	Benzene			0.160000	1.6	ND	U	
	107-06-2	1,2-Dichloroethane			0.089999	0.9	ND	U	
	79-01-6	Trichloroethene			0.15	1.5	ND	U	
	107-87-9	2-Pentanone			1.510000	15.1	ND	U	
	78-87-5	1,2-Dichloropropane			0.2	2	ND	U	
	75-27-4	Bromodichloromethane			0.069999	0.7	ND	U	
	108-10-1	Methyl Isobutyl Ketone			0.880000	8.8	ND	U	
	10061-01-5	cis-1,3-dichloropropen			0.120000	1.2	ND	U	
	108-88-3	Toluene			0.120000	1.2	ND	U	
	591-78-6	2-Hexanone			0.860000	8.6	ND	U	
	10061-02-6	trans-1,3-Dichloroprop			0.069999	0.7	ND	U	
	127-18-4	Tetrachloroethene			0.2	2	ND	U	
	79-00-5	1,1,2-Trichloroethane			0.189999	1.9	ND	U	
	124-48-1	Dibromochloromethane			0.129999	1.3	ND	U	
	100-41-4	Ethylbenzene			0.120000	1.2	ND	U	
	108-90-7	Chlorobenzene			0.110000	1.1	ND	U	
	100-42-5	Styrene			0.1	1	ND	U	
	75-25-2	Bromoform			0.179999	1.8	ND	U	

	79-34-5	1,1,2,2-Tetrachloroeth			0.25	2.5	ND	U	
	541-73-1	1,3-Dichlorobenzene			0.160000	1.6	ND	U	
	106-46-7	1,4-Dichlorobenzene			0.170000	1.7	ND	U	
	95-50-1	1,2-Dichlorobenzene			0.2	2	ND	U	
	110-54-3	Hexane			0.270000	2.7	ND	U	
	141-78-6	Ethyl Acetate			0.290000	2.9	ND	U	
	67-72-1	Hexachloroethane			0.530000	5.3	ND	U	
	75-71-8	Dichlorodifluoromethan			0.3	3	ND	U	
	75-69-4	Trichlorofluoromethane			0.969999	9.7	ND	U	
	60-29-7	Diethyl ether			0.390000	3.9	ND	U	
	76-13-1	Freon 113			0.25	2.5	ND	U	
	79-20-9	Methyl Acetate			0.179999	1.8	ND	U	
	1634-04-4	tert-Butyl-Methyl Ethe			0.15	1.5	ND	U	
	156-60-5	trans-1,2-Dichloroethe			0.179999	1.8	ND	U	
	110-82-7	Cyclohexane			0.15	1.5	ND	U	
	156-59-2	cis-1,2-Dichloroethene			0.129999	1.3	ND	U	
	108-87-2	Methylcyclohexane			0.110000	1.1	ND	U	
	79-46-9	2-Nitropropane			1.030000	10.3	ND	U	
	106-93-4	1,2-Dibromoethane			0.129999	1.3	ND	U	
	108-38-3	m,p-Xylene			0.209999	2.1	ND	U	
	98-82-8	Isopropylbenzene			0.1	1	ND	U	
	96-12-8	1,2-Dibromo-3-Chloropr			0.279999	2.8	ND	U	
	120-82-1	1,2,4-Trichlorobenzene			0.170000	1.7	ND	U	
	95-47-6	o-Xylene			0.1	1	ND	U	
$	1868-53-7	Dibromofluoromethane	10.21966	10	0.120000	1.2	10.896		108.9562
$	17060-07-0	1,2-Dichlorcethane-d4	10.84748	10	0.2	2	10.32		103.2050
$	2037-26-5	Toluene-d8	12.7411	10	0.129999	1.3	10.422		104.2224
$	460-00-4	Bromofluorobenzene	15.33341	10	0.120000	1.2	10.502		105.0246

Key: $ = Surrogate, T = TIC, K = Spike, and M = Summary

Macro: upload2lims.mac, Revision: 0.2 Data File: //apwscf02/slab/chem/neelix.i/Data/V090310AW106a.b/09031005LCS
Report Date: 04/07/2009 Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304

LIMS Upload Report

Lab Sample ID:	LCS	Instrument ID:	neelix.i
Client Sample ID:	LCS	Analyst:	vlm
SDG:	20090162a	Analysis Date:	10-MAR-2009 10:59
Lab Prep Batch:	00013311	ALS Bottle:	5
Protocol:	@222VOA	Replicate:	0
Sample Fraction:	VOA	Dilution Factor:	1
Sample Type:	LCS	Final Concentration Units:	ug/L
Matrix:	WATER	Matrix Type:	LIQUID
Actual Sample Size:	10	Expected Sample Size:	10
Actual Units:	mL	Expected Units:	mL

For a VOA, LOW Conc., LIQUID sample,
the Method formula used was: Conc. = Amount * DF * Uf * 1/Vo.

The Macro formula used was: Conc. = Amount * DF * Uf * 1/Vo,
where DF = 1 UF = 1, and Vo = 10.

-	CAS Number	Compound Name	RT	Spike	Adj. MDL	LOQ	Final Conc	Flag	Pct. Rec.
M	540-59-0	Total 1,2-Dichloroethe			0.3	3	ND	U	
M	1330-20-7	Total Xylenes			0.309999	3.1	ND	U	
M	THM	Total Trihalomethanes			0.459999	4.6	ND	U	
	74-87-3	Chloromethane			0.309999	3.1	ND	U	
	75-01-4	Vinyl Chloride			0.320000	3.2	ND	U	
	74-83-9	Bromomethane			0.490000	4.9	ND	U	
	75-00-3	Chloroethane			0.8	8	ND	U	
K	75-35-4	1,1-Dichloroethene	7.20195	10	0.170000	1.7	9.616		96.16001
K	67-64-1	Acetone	8.103183	50	2.189999	21.9	44.979		89.95807
	75-15-0	Carbon Disulfide			0.15	1.5	ND	U	
	75-09-2	Methylene Chloride	8.062683		0.170000	1.7	1.564	BJ	
	75-34-3	1,1-Dichloroethane			0.139999	1.4	ND	U	
K	78-93-3	2-Butanone	10.34108	50	1.330000	13.3	47.837		95.67337
	67-66-3	Chloroform			0.089999	0.9	ND	U	
	56-23-5	Carbon Tetrachloride			0.15	1.5	ND	U	
	109-99-9	Tetrahydrofuran			0.590000	5.9	ND	U	
	71-55-6	1,1,1-Trichloroethane			0.1	1	ND	U	
K	71-36-3	n-Butanol	11.48535	100	7.769999	77.7	87.444		87.44447
K	71-43-2	Benzene	10.70563	10	0.160000	1.6	9.617		96.17123
	107-06-2	1,2-Dichloroethane			0.089999	0.9	ND	U	
K	79-01-6	Trichloroethene	11.30308	10	0.15	1.5	9.618		96.17981
	107-87-9	2-Pentanone			1.510000	15.1	ND	U	
	78-87-5	1,2-Dichloropropane			0.2	2	ND	U	
	75-27-4	Bromodichloromethane			0.069999	0.7	ND	U	
K	108-10-1	Methyl Isobutyl Ketone	13.11568	50	0.880000	8.8	48.561		97.12239
	10061-01-5	cis-1,3-dichloropropen			0.120000	1.2	ND	U	
K	108-88-3	Toluene	12.80176	10	0.120000	1.2	9.669		96.68722
K	591-78-6	2-Hexanone	13.8954	50	0.860000	8.6	49.031		98.06283
	10061-02-6	trans-1,3-Dichloroprop			0.069999	0.7	ND	U	
	127-18-4	Tetrachloroethene			0.2	2	ND	U	
	79-00-5	1,1,2-Trichloroethane			0.189999	1.9	ND	U	
	124-48-1	Dibromochloromethane			0.129999	1.3	ND	U	
	100-41-4	Ethylbenzene			0.120000	1.2	ND	U	
K	108-90-7	Chlorobenzene	14.2802	10	0.110000	1.1	9.987		99.86807
	100-42-5	Styrene			0.1	1	ND	U	
	75-25-2	Bromoform			0.179999	1.8	ND	U	

	79-34-5	1,1,2,2-Tetrachloroeth			0.25	2.5	ND	U	
	541-73-1	1,3-Dichlorobenzene			0.160000	1.6	ND	U	
	106-46-7	1,4-Dichlorobenzene			0.170000	1.7	ND	U	
	95-50-1	1,2-Dichlorobenzene			0.2	2	ND	U	
	110-54-3	Hexane			0.270000	2.7	ND	U	
	141-78-6	Ethyl Acetate			0.290000	2.9	ND	U	
	67-72-1	Hexachloroethane			0.530000	5.3	ND	U	
	75-71-8	Dichlorodifluoromethan			0.3	3	ND	U	
	75-69-4	Trichlorofluoromethane			0.969999	9.7	ND	U	
	60-29-7	Diethyl ether			0.390000	3.9	ND	U	
	76-13-1	Freon 113			0.25	2.5	ND	U	
	79-20-9	Methyl Acetate			0.179999	1.8	ND	U	
	1634-04-4	tert-Butyl-Methyl Ethe			0.15	1.5	ND	U	
	156-60-5	trans-1,2-Dichloroethe			0.179999	1.8	ND	U	
	110-82-7	Cyclohexane			0.15	1.5	ND	U	
	156-59-2	cis-1,2-Dichloroethene			0.129999	1.3	ND	U	
	108-87-2	Methylcyclohexane			0.110000	1.1	ND	U	
	79-46-9	2-Nitropropane			1.030000	10.3	ND	U	
	106-93-4	1,2-Dibromoethane			0.129999	1.3	ND	U	
	108-38-3	m,p-Xylene			0.209999	2.1	ND	U	
	98-82-8	Isopropylbenzene			0.1	1	ND	U	
	96-12-8	1,2-Dibromo-3-Chloropr			0.279999	2.8	ND	U	
	120-82-1	1,2,4-Trichlorobenzene			0.170000	1.7	ND	U	
	95-47-6	o-Xylene			0.1	1	ND	U	
$	1868-53-7	Dibromofluoromethane	10.21956	10	0.120000	1.2	9.904		99.03869
$	17060-07-0	1,2-Dichloroethane-d4	10.8474	10	0.2	2	9.882		98.81972
$	2037-26-5	Toluene-d8	12.74101	10	0.129999	1.3	9.42		94.20249
$	460-00-4	Bromofluorobenzene	15.33333	10	0.120000	1.2	9.75		97.49936

Key: $ = Surrogate, T = TIC, K = Spike, and M = Summary

Macro: upload2lims.mac, Revision: 0.2 Data File: //apwscf02/slab/chem/neelix.i/Data/V090310AW106a.b/09031006_52
Report Date: 04/07/2009 Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304

LIMS Upload Report

Lab Sample ID:	S09T001752	Instrument ID:	neelix.i
Client Sample ID:	S09T001752	Analyst:	vlm
SDG:	20090162a	Analysis Date:	10-MAR-2009 14:08
Lab Prep Batch:	00013311	ALS Bottle:	6
Protocol:	@222VOA	Replicate:	0
Sample Fraction:	VOA	Dilution Factor:	1
Sample Type:	SAMPLE	Final Concentration Units:	ug/L
Matrix:	WATER	Matrix Type:	LIQUID
Actual Sample Size:	9	Expected Sample Size:	10
Actual Units:	mL	Expected Units:	mL

For a VOA, LOW Conc., LIQUID sample,
the Method formula used was: Conc. = Amount * DF * Uf * 1/Vo.

The Macro formula used was: Conc. = Amount * DF * Uf * 1/Vo,
where DF = 1 Uf = 1, and Vo = 9.

-	CAS Number	Compound Name	RT	Spike	Adj. MDL	LOQ	Final Conc	Flag	Pct. Rec.
M	540-59-0	Total 1,2-Dichloroethe			0.333333	3.333333	ND	U	
M	1330-20-7	Total Xylenes			0.344444	3.444444	ND	U	
M	THM	Total Trihalomethanes			0.511111	5.111111	ND	U	
	74-87-3	Chloromethane			0.344444	3.444444	ND	U	
	75-01-4	Vinyl Chloride			0.355555	3.555555	ND	U	
	74-83-9	Bromomethane			0.544444	5.444444	ND	U	
	75-00-3	Chloroethane			0.888888	8.888888	ND	U	
	75-35-4	1,1-Dichloroethene			0.188888	1.888888	ND	U	
	67-64-1	Acetone			2.433333	24.33333	ND	U	
	75-15-0	Carbon Disulfide			0.166666	1.666666	ND	U	
	75-09-2	Methylene Chloride	8.05265		0.188888	1.888888	1.592	BJ	
	75-34-3	1,1-Dichloroethane			0.155555	1.555555	ND	U	
	78-93-3	2-Butanone			1.477777	14.77777	ND	U	
	67-66-3	Chloroform			0.099999	1	ND	U	
	56-23-5	Carbon Tetrachloride			0.166666	1.666666	ND	U	
	109-99-9	Tetrahydrofuran			0.655555	6.555555	ND	U	
	71-55-6	1,1,1-Trichloroethane			0.111111	1.111111	ND	U	
	71-36-3	n-Butanol			8.633332	86.33333	ND	U	
	71-43-2	Benzene			0.177777	1.777777	ND	U	
	107-06-2	1,2-Dichloroethane			0.099999	1	ND	U	
	79-01-6	Trichloroethene			0.166666	1.666666	ND	U	
	107-87-9	2-Pentanone			1.677777	16.77777	ND	U	
	78-87-5	1,2-Dichloropropane			0.222222	2.222222	ND	U	
	75-27-4	Bromodichloromethane			0.077777	0.777777	ND	U	
	108-10-1	Methyl Isobutyl Ketone			0.977777	9.777777	ND	U	
	10061-01-5	cis-1,3-dichloropropen			0.133333	1.333333	ND	U	
	108-88-3	Toluene			0.133333	1.333333	ND	U	
	591-78-6	2-Hexanone			0.955555	9.555555	ND	U	
	10061-02-6	trans-1,3-Dichloroprop			0.077777	0.777777	ND	U	
	127-18-4	Tetrachloroethene			0.222222	2.222222	ND	U	
	79-00-5	1,1,2-Trichloroethane			0.211111	2.111111	ND	U	
	124-48-1	Dibromochloromethane			0.144444	1.444444	ND	U	
	100-41-4	Ethylbenzene			0.133333	1.333333	ND	U	
	108-90-7	Chlorobenzene			0.122222	1.222222	ND	U	
	100-42-5	Styrene			0.111111	1.111111	ND	U	
	75-25-2	Bromoform			0.199999	2	ND	U	

	79-34-5	1,1,2,2-Tetrachloroeth			0.277777	2.777777	ND	U	
	541-73-1	1,3-Dichlorobenzene			0.177777	1.777777	ND	U	
	106-46-7	1,4-Dichlorobenzene			0.188888	1.888888	ND	U	
	95-50-1	1,2-Dichlorobenzene			0.222222	2.222222	ND	U	
	110-54-3	Hexane			0.300000	3	ND	U	
	141-78-6	Ethyl Acetate			0.322222	3.222222	ND	U	
	67-72-1	Hexachloroethane			0.588888	5.888888	ND	U	
	75-71-8	Dichlorodifluoromethan			0.333333	3.333333	ND	U	
	75-69-4	Trichlorofluoromethane			1.077777	10.77777	ND	U	
	60-29-7	Diethyl ether			0.433333	4.333333	ND	U	
	76-13-1	Freon 113			0.277777	2.777777	ND	U	
	79-20-9	Methyl Acetate			0.199999	2	ND	U	
	1634-04-4	tert-Butyl-Methyl Ethe			0.166666	1.666666	ND	U	
	156-60-5	trans-1,2-Dichloroethe			0.199999	2	ND	U	
	110-82-7	Cyclohexane			0.166666	1.666666	ND	U	
	156-59-2	cis-1,2-Dichloroethene			0.144444	1.444444	ND	U	
	108-87-2	Methylcyclohexane			0.122222	1.222222	ND	U	
	79-46-9	2-Nitropropane			1.144444	11.44444	ND	U	
	106-93-4	1,2-Dibromoethane			0.144444	1.444444	ND	U	
	108-38-3	m,p-Xylene			0.233333	2.333333	ND	U	
	98-82-8	Isopropylbenzene			0.111111	1.111111	ND	U	
	96-12-8	1,2-Dibromo-3-Chloropr			0.311111	3.111111	ND	U	
	120-82-1	1,2,4-Trichlorobenzene			0.188888	1.888888	ND	U	
	95-47-6	o-Xylene			0.111111	1.111111	ND	U	
$	1868-53-7	Dibromofluoromethane	10.22978	11.11111	0.133333	1.333333	12.565		113.0816
$	17060-07-0	1,2-Dichloroethane-d4	10.8475	11.11111	0.222222	2.222222	13.054		117.4855
$	2037-26-5	Toluene-d8	12.75123	11.11111	0.144444	1.444444	11.635		104.7131
$	460-00-4	Bromofluorobenzene	15.33341	11.11111	0.133333	1.333333	12.401		111.6119

Key: $ = Surrogate, T = TIC, K = Spike, and M = Summary

Macro: upload2lims.mac, Revision: 0.2
Report Date: 04/07/2009

Data File: //apwscf02/slab/chem/neelix.i/Data/V090310AW106a.b/09031007_68
Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304

LIMS Upload Report

Lab Sample ID:	S09T001768	Instrument ID:	neelix.i
Client Sample ID:	S09T001768	Analyst:	vlm
SDG:	20090162a	Analysis Date:	10-MAR-2009 14:39
Lab Prep Batch:	00013311	ALS Bottle:	7
Protocol:	@222VOA	Replicate:	0
Sample Fraction:	VOA	Dilution Factor:	1
Sample Type:	SAMPLE	Final Concentration Units:	ug/L
Matrix:	WATER	Matrix Type:	LIQUID
Actual Sample Size:	9	Expected Sample Size:	10
Actual Units:	mL	Expected Units:	mL

For a VOA, LOW Conc., LIQUID sample,
the Method formula used was: Conc. = Amount * DF * Uf * 1/Vo.

The Macro formula used was: Conc. = Amount * DF * Uf * 1/Vo,
where DF = 1 Uf = 1, and Vo = 9.

-	CAS Number	Compound Name	RT	Spike	Adj. MDL	LOQ	Final Conc	Flag	Pct. Rec.
M	540-59-0	Total 1,2-Dichloroethe			0.333333	3.333333	ND	U	
M	1330-20-7	Total Xylenes			0.344444	3.444444	ND	U	
M	THM	Total Trihalomethanes			0.511111	5.111111	ND	U	
	74-87-3	Chloromethane			0.344444	3.444444	ND	U	
	75-01-4	Vinyl Chloride			0.355555	3.555555	ND	U	
	74-83-9	Bromomethane			0.544444	5.444444	ND	U	
	75-00-3	Chloroethane			0.888888	8.888888	ND	U	
	75-35-4	1,1-Dichloroethene			0.188888	1.888888	ND	U	
	67-64-1	Acetone			2.433333	24.33333	ND	U	
	75-15-0	Carbon Disulfide			0.166666	1.666666	ND	U	
	75-09-2	Methylene Chloride	8.0628		0.188888	1.888888	2.639	B	
	75-34-3	1,1-Dichloroethane			0.155555	1.555555	ND	U	
	78-93-3	2-Butanone			1.477777	14.77777	ND	U	
	67-66-3	Chloroform			0.099999	1	ND	U	
	56-23-5	Carbon Tetrachloride			0.166666	1.666666	ND	U	
	109-99-9	Tetrahydrofuran			0.655555	6.555555	ND	U	
	71-55-6	1,1,1-Trichloroethane			0.111111	1.111111	ND	U	
	71-36-3	n-Butanol			8.633332	86.33333	ND	U	
	71-43-2	Benzene			0.177777	1.777777	ND	U	
	107-06-2	1,2-Dichloroethane			0.099999	1	ND	U	
	79-01-6	Trichloroethene			0.166666	1.666666	ND	U	
	107-87-9	2-Pentanone			1.677777	16.77777	ND	U	
	78-87-5	1,2-Dichloropropane			0.222222	2.222222	ND	U	
	75-27-4	Bromodichloromethane			0.077777	0.777777	ND	U	
	108-10-1	Methyl Isobutyl Ketone			0.977777	9.777777	ND	U	
	10061-01-5	cis-1,3-dichloropropen			0.133333	1.333333	ND	U	
	108-88-3	Toluene			0.133333	1.333333	ND	U	
	591-78-6	2-Hexanone			0.955555	9.555555	ND	U	
	10061-02-6	trans-1,3-Dichloroprop			0.077777	0.777777	ND	U	
	127-18-4	Tetrachloroethene			0.222222	2.222222	ND	U	
	79-00-5	1,1,2-Trichloroethane			0.211111	2.111111	ND	U	
	124-48-1	Dibromochloromethane			0.144444	1.444444	ND	U	
	100-41-4	Ethylbenzene			0.133333	1.333333	ND	U	
	108-90-7	Chlorobenzene			0.122222	1.222222	ND	U	
	100-42-5	Styrene			0.111111	1.111111	ND	U	
	75-25-2	Bromoform			0.199999	2	ND	U	

	79-34-5	1,1,2,2-Tetrachloroeth			0.277777	2.777777	ND	U	
	541-73-1	1,3-Dichlorobenzene			0.177777	1.777777	ND	U	
	106-46-7	1,4-Dichlorobenzene			0.188888	1.888888	ND	U	
	95-50-1	1,2-Dichlorobenzene			0.222222	2.222222	ND	U	
	110-54-3	Hexane			0.300000	3	ND	U	
	141-78-6	Ethyl Acetate			0.322222	3.222222	ND	U	
	67-72-1	Hexachloroethane			0.588888	5.888888	ND	U	
	75-71-8	Dichlorodifluoromethan			0.333333	3.333333	ND	U	
	75-69-4	Trichlorofluoromethane			1.077777	10.77777	ND	U	
	60-29-7	Diethyl ether			0.433333	4.333333	ND	U	
	76-13-1	Freon 113			0.277777	2.777777	ND	U	
	79-20-9	Methyl Acetate			0.199999	2	ND	U	
	1634-04-4	tert-Butyl-Methyl Ethe			0.166666	1.666666	ND	U	
	156-60-5	trans-1,2-Dichloroethe			0.199999	2	ND	U	
	110-82-7	Cyclohexane			0.166666	1.666666	ND	U	
	156-59-2	cis-1,2-Dichloroethene			0.144444	1.444444	ND	U	
	108-87-2	Methylcyclohexane			0.122222	1.222222	ND	U	
	79-46-9	2-Nitropropane			1.144444	11.44444	ND	U	
	106-93-4	1,2-Dibromoethane			0.144444	1.444444	ND	U	
	108-38-3	m,p-Xylene			0.233333	2.333333	ND	U	
	98-82-8	Isopropylbenzene			0.111111	1.111111	ND	U	
	96-12-8	1,2-Dibromo-3-Chloropr			0.311111	3.111111	ND	U	
	120-82-1	1,2,4-Trichlorobenzene			0.188888	1.888888	ND	U	
	95-47-6	o-Xylene			0.111111	1.111111	ND	U	
$	1868-53-7	Dibromofluoromethane	10.21968	11.11111	0.133333	1.333333	12.631		113.6830
$	17060-07-0	1,2-Dichloroethane-d4	10.84751	11.11111	0.222222	2.222222	12.742		114.6823
$	2037-26-5	Toluene-d8	12.74111	11.11111	0.144444	1.444444	12.075		108.6757
$	460-00-4	Bromofluorobenzene	15.33343	11.11111	0.133333	1.333333	12.895		116.0579

Key: $ = Surrogate, T = TIC, K = Spike, and M = Summary

Macro: upload2lims.mac, Revision: 0.2 Data File: //apwscf02/slab/chem/neelix.i/Data/V090310AW106a.b/09031008_57
Report Date: 04/07/2009 Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304

LIMS Upload Report

Lab Sample ID:	S09T001757	Instrument ID:	neelix.i
Client Sample ID:	S09T001757	Analyst:	vlm
SDG:	20090162a	Analysis Date:	10-MAR-2009 15:09
Lab Prep Batch:	00013311	ALS Bottle:	8
Protocol:	@222VOA	Replicate:	0
Sample Fraction:	VOA	Dilution Factor:	1
Sample Type:	SAMPLE	Final Concentration Units:	ug/L
Matrix:	WATER	Matrix Type:	LIQUID
Actual Sample Size:	0.25	Expected Sample Size:	10
Actual Units:	mL	Expected Units:	mL

For a VOA, LOW Conc., LIQUID sample,
the Method formula used was: Conc. = Amount * DF * Uf * 1/Vo.

The Macro formula used was: Conc. = Amount * DF * Uf * 1/Vo,
where DF = 1 UF = 1, and Vo = 0.25.

-	CAS Number	Compound Name	RT	Spike	Adj. MDL	LOQ	Final Conc	Flag	Pct. Rec.
M	540-59-0	Total 1,2-Dichloroethe			12	120	ND	U	
M	1330-20-7	Total Xylenes			12.39999	124	ND	U	
M	THM	Total Trihalomethanes			18.39999	184	ND	U	
	74-87-3	Chloromethane			12.39999	124	ND	U	
	75-01-4	Vinyl Chloride			12.80000	128	ND	U	
	74-83-9	Bromomethane			19.60000	196	ND	U	
	75-00-3	Chloroethane			32	320	ND	U	
	75-35-4	1,1-Dichloroethene			6.800000	68	ND	U	
	67-64-1	Acetone			87.59999	876	ND	U	
	75-15-0	Carbon Disulfide			6	60	ND	U	
	75-09-2	Methylene Chloride	8.0528		6.800000	68	62.645	BJ	
	75-34-3	1,1-Dichloroethane			5.599999	56	ND	U	
	78-93-3	2-Butanone			53.20000	532	ND	U	
	67-66-3	Chloroform			3.599999	36	ND	U	
	56-23-5	Carbon Tetrachloride			6	60	ND	U	
	109-99-9	Tetrahydrofuran			23.60000	236	ND	U	
	71-55-6	1,1,1-Trichloroethane			4	40	ND	U	
	71-36-3	n-Butanol			310.7999	3108	ND	U	
	71-43-2	Benzene			6.400000	64	ND	U	
	107-06-2	1,2-Dichloroethane			3.599999	36	ND	U	
	79-01-6	Trichloroethene			6	60	ND	U	
	107-87-9	2-Pentanone			60.40000	604	ND	U	
	78-87-5	1,2-Dichloropropane			8	80	ND	U	
	75-27-4	Bromodichloromethane			2.799999	28	ND	U	
	108-10-1	Methyl Isobutyl Ketone			35.20000	352	ND	U	
	10061-01-5	cis-1,3-dichloropropen			4.800000	48	ND	U	
	108-88-3	Toluene			4.800000	48	ND	U	
	591-78-6	2-Hexanone			34.40000	344	ND	U	
	10061-02-6	trans-1,3-Dichloroprop			2.799999	28	ND	U	
	127-18-4	Tetrachloroethene			8	80	ND	U	
	79-00-5	1,1,2-Trichloroethane			7.599999	76	ND	U	
	124-48-1	Dibromochloromethane			5.199999	52	ND	U	
	100-41-4	Ethylbenzene			4.800000	48	ND	U	
	108-90-7	Chlorobenzene			4.400000	44	ND	U	
	100-42-5	Styrene			4	40	ND	U	
	75-25-2	Bromoform			7.199999	72	ND	U	

	79-34-5	1,1,2,2-Tetrachloroeth			10	100	ND	U	
	541-73-1	1,3-Dichlorobenzene			6.400000	64	ND	U	
	106-46-7	1,4-Dichlorobenzene			6.800000	68	ND	U	
	95-50-1	1,2-Dichlorobenzene			8	80	ND	U	
	110-54-3	Hexane			10.80000	108	ND	U	
	141-78-6	Ethyl Acetate			11.60000	116	ND	U	
	67-72-1	Hexachloroethane			21.20000	212	ND	U	
	75-71-8	Dichlorodifluromethan			12	120	ND	U	
	75-69-4	Trichlorofluoromethane			38.79999	388	ND	U	
	60-29-7	Diethyl ether			15.60000	156	ND	U	
	76-13-1	Freon 113			10	100	ND	U	
	79-20-9	Methyl Acetate			7.199999	72	ND	U	
	1634-04-4	tert-Butyl-Methyl Ethe			6	60	ND	U	
	156-60-5	trans-1,2-Dichloroethe			7.199999	72	ND	U	
	110-82-7	Cyclohexane			6	60	ND	U	
	156-59-2	cis-1,2-Dichloroethene			5.199999	52	ND	U	
	108-87-2	Methylcyclohexane			4.400000	44	ND	U	
	79-46-9	2-Nitropropane			41.20000	412	ND	U	
	106-93-4	1,2-Dibromoethane			5.199999	52	ND	U	
	108-38-3	m,p-Xylene			8.399999	84	ND	U	
	98-82-8	Isopropylbenzene			4	40	ND	U	
	96-12-8	1,2-Dibromo-3-Chloropr			11.19999	112	ND	U	
	120-82-1	1,2,4-Trichlorobenzene			6.800000	68	ND	U	
	95-47-6	o-Xylene			4	40	ND	U	
$	1868-53-7	Dibromofluoromethane	10.21981	400	4.800000	48	418.67		104.6681
$	17060-07-0	1,2-Dichloroethane-d4	10.84763	400	8	80	409.81		102.4535
$	2037-26-5	Toluene-d8	12.74125	400	5.199999	52	422.55		105.6378
$	460-00-4	Bromofluorobenzene	15.33356	400	4.800000	48	420.65		105.1631

Key: $ = Surrogate, T = TIC, K = Spike, and M = Summary

Macro: upload2lims.mac, Revision: 0.2 Data File: //apwscf02/slab/chem/neelix.i/Data/V090310AW106a.b/09031009_77
Report Date: 04/07/2009 Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304

LIMS Upload Report

Lab Sample ID:	S09T001777	Instrument ID:	neelix.i
Client Sample ID:	S09T001777	Analyst:	vlm
SDG:	20090162a	Analysis Date:	10-MAR-2009 15:39
Lab Prep Batch:	00013311	ALS Bottle:	9
Protocol:	@222VOA	Replicate:	0
Sample Fraction:	VOA	Dilution Factor:	1
Sample Type:	SAMPLE	Final Concentration Units:	ug/L
Matrix:	WATER	Matrix Type:	LIQUID
Actual Sample Size:	0.25	Expected Sample Size:	10
Actual Units:	mL	Expected Units:	mL

For a VOA, LOW Conc., LIQUID sample,
the Method formula used was: Conc. = Amount * DF * Uf * 1/Vo.

The Macro formula used was: Conc. = Amount * DF * Uf * 1/Vo,
where DF = 1 UF = 1, and Vo = 0.25.

-	CAS Number	Compound Name	RT	Spike	Adj. MDL	LOQ	Final Conc	Flag	Pct. Rec.
M	540-59-0	Total 1,2-Dichloroethe			12	120	ND	U	
M	1330-20-7	Total Xylenes			12.39999	124	ND	U	
M	THM	Total Trihalomethanes			18.39999	184	ND	U	
	74-87-3	Chloromethane			12.39999	124	ND	U	
	75-01-4	Vinyl Chloride			12.80000	128	ND	U	
	74-83-9	Bromomethane			19.60000	196	ND	U	
	75-00-3	Chloroethane			32	320	ND	U	
	75-35-4	1,1-Dichloroethene			6.800000	68	ND	U	
	67-64-1	Acetone	8.1034		87.59999	876	698.43	J	
	75-15-0	Carbon Disulfide			6	60	ND	U	
	75-09-2	Methylene Chloride	8.052766		6.800000	68	61.677	BJ	
	75-34-3	1,1-Dichloroethane			5.599999	56	ND	U	
	78-93-3	2-Butanone			53.20000	532	ND	U	
	67-66-3	Chloroform			3.599999	36	ND	U	
	56-23-5	Carbon Tetrachloride			6	60	ND	U	
	109-99-9	Tetrahydrofuran	10.21978		23.60000	236	90.477	J	
	71-55-6	1,1,1-Trichloroethane			4	40	ND	U	
	71-36-3	n-Butanol	11.48556		310.7999	3108	7558.5		
	71-43-2	Benzene			6.400000	64	ND	U	
	107-06-2	1,2-Dichloroethane			3.599999	36	ND	U	
	79-01-6	Trichloroethene			6	60	ND	U	
	107-87-9	2-Pentanone			60.40000	604	ND	U	
	78-87-5	1,2-Dichloropropane			8	80	ND	U	
	75-27-4	Bromodichloromethane			2.799999	28	ND	U	
	108-10-1	Methyl Isobutyl Ketone			35.20000	352	ND	U	
	10061-01-5	cis-1,3-dichloropropen			4.800000	48	ND	U	
	108-88-3	Toluene			4.800000	48	ND	U	
	591-78-6	2-Hexanone			34.40000	344	ND	U	
	10061-02-6	trans-1,3-Dichloroprop			2.799999	28	ND	U	
	127-18-4	Tetrachloroethene			8	80	ND	U	
	79-00-5	1,1,2-Trichloroethane			7.599999	76	ND	U	
	124-48-1	Dibromochloromethane			5.199999	52	ND	U	
	100-41-4	Ethylbenzene			4.800000	48	ND	U	
	108-90-7	Chlorobenzene			4.400000	44	ND	U	
	100-42-5	Styrene			4	40	ND	U	
	75-25-2	Bromoform			7.199999	72	ND	U	

	79-34-5	1,1,2,2-Tetrachloroeth			10	100	ND	U	
	541-73-1	1,3-Dichlorobenzene			6.400000	64	ND	U	
	106-46-7	1,4-Dichlorobenzene			6.800000	68	ND	U	
	95-50-1	1,2-Dichlorobenzene			8	80	ND	U	
	110-54-3	Hexane			10.80000	108	ND	U	
	141-78-6	Ethyl Acetate			11.60000	116	ND	U	
	67-72-1	Hexachloroethane			21.20000	212	ND	U	
	75 71-8	Dichlorodifluoromethan			12	120	ND	U	
	75-69-4	Trichlorofluoromethane			38.79999	388	ND	U	
	60-29-7	Diethyl ether			15.60000	156	ND	U	
	76-13-1	Freon 113			10	100	ND	U	
	79-20-9	Methyl Acetate			7.199999	72	ND	U	
	1634-04-4	tert-Butyl-Methyl Ethe			6	60	ND	U	
	156-60-5	trans-1,2-Dichloroethe			7.199999	72	ND	U	
	110-82-7	Cyclohexane			6	60	ND	U	
	156-59-2	cis-1,2-Dichloroethene			5.199999	52	ND	U	
	108-87-2	Methylcyclohexane			4.400000	44	ND	U	
	79-46-9	2-Nitropropane			41.20000	412	ND	U	
	106-93-4	1,2-Dibromoethane			5.199999	52	ND	U	
	108-38-3	m,p-Xylene			8.399999	84	ND	U	
	98-82-8	Isopropylbenzene			4	40	ND	U	
	96-12-8	1,2-Dibromo-3-Chloropr			11.19999	112	ND	U	
	120-82-1	1,2,4-Trichlorobenzene			6.800000	68	ND	U	
	95-47-6	o-Xylene			4	40	ND	U	
$	1868-53-7	Dibromofluoromethane	10.21978	400	4.800000	48	31.396	J	7.848975
$	17060-07-0	1,2-Dichloroethane-d4	10.8476	400	8	80	415.09		103.7731
$	2037-26-5	Toluene-d8	12.74121	400	5.199999	52	397.18		99.29379
$	460-00-4	Bromofluorobenzene	15.33353	400	4.800000	48	403.93		100.9830

Key: $ = Surrogate, T = TIC, K = Spike, and M = Summary

Macro: upload2lims.mac, Revision: 0.2
Report Date: 04/07/2009

Data File: //apwscf02/slab/chem/neelix.i/Data/V090310AW106a.b/09031010MS.
Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304

LIMS Upload Report

Lab Sample ID:	S09T001777MS	Instrument ID:	neelix.i
Client Sample ID:	S09T001777MS	Analyst:	vlm
SDG:	20090162a	Analysis Date:	10-MAR-2009 16:10
Lab Prep Batch:	00013311	ALS Bottle:	10
Protocol:	@222VCA	Replicate:	0
Sample Fraction:	VOA	Dilution Factor:	1
Sample Type:	MS	Final Concentration Units:	ug/L
Matrix:	WATER	Matrix Type:	LIQUID
Actual Sample Size:	0.25	Expected Sample Size:	10
Actual Units:	mL	Expected Units:	mL

For a VOA, LOW Conc., LIQUID sample,
the Method formula used was: Conc. = Amount * DF * Uf * 1/Vo.

The Macro formula used was: Conc. = Amount * DF * Uf * 1/Vo,
where DF = 1 UF = 1, and Vo = 0.25.

-	CAS Number	Compound Name	RT	Spike	Adj. MDL	LOQ	Final Conc	Flag	Pct. Rec.
M	540-59-0	Total 1,2-Dichloroethe			12	120	ND	U	
M	1330-20-7	Total Xylenes			12.39999	124	ND	U	
M	THM	Total Trihalomethanes			18.39999	184	ND	U	
	74-87-3	Chloromethane			12.39999	124	ND	U	
	75-01-4	Vinyl Chloride			12.80000	128	ND	U	
	74-83-9	Bromomethane			19.60000	196	ND	U	
	75-00-3	Chloroethane			32	320	ND	U	
K	75-35-4	1,1-Dichloroethene	7.202033	400	6.800000	68	454.34		113.5846
K	67-64-1	Acetone	8.103266	2000	87.59999	876	2754.5		137.7232
	75-15-0	Carbon Disulfide			6	60	ND	U	
	75-09-2	Methylene Chloride	8.052633		6.800000	68	70.654	B	
	75-34-3	1,1-Dichloroethane			5.599999	56	ND	U	
K	78-93-3	2-Butanone	10.34116	2000	53.20000	532	2202.9		110.1435
	67-66-3	Chloroform			3.599999	36	ND	U	
	56-23-5	Carbon Tetrachloride			6	60	ND	U	
	109-99-9	Tetrahydrofuran	10.21965		23.60000	236	89.885	J	
	71-55-6	1,1,1-Trichloroethane			4	40	ND	U	
K	71-36-3	n-Butanol	11.48543	4000	310.7999	3108	12109	E	302.7263
K	71-43-2	Benzene	10.7057	400	6.400000	64	416.72		104.1811
	107-06-2	1,2-Dichloroethane			3.599999	36	ND	U	
K	79-01-6	Trichloroethene	11.30315	400	6	60	411.8		102.9506
	107-87-9	2-Pentanone			60.40000	604	ND	U	
	78-87-5	1,2-Dichloropropane			8	80	ND	U	
	75-27-4	Bromodichloromethane			2.799999	28	ND	U	
K	108-10-1	Methyl Isobutyl Ketone	13.11575	2000	35.20000	352	2235.8		111.7914
	10061-01-5	cis-1,3-dichloropropen			4.800000	48	ND	U	
K	108-88-3	Toluene	12.80183	400	4.800000	48	402.11		100.5280
K	591-78-6	2-Hexanone	13.89546	2000	34.40000	344	2323.7		116.1845
	10061-02-6	trans-1,3-Dichloroprop			2.799999	28	ND	U	
	127-18-4	Tetrachloroethene			8	80	ND	U	
	79-00-5	1,1,2-Trichloroethane			7.599999	76	ND	U	
	124-48-1	Dibromochloromethane			5.199999	52	ND	U	
	100-41-4	Ethylbenzene			4.800000	48	ND	U	
K	108-90-7	Chlorobenzene	14.28026	400	4.400000	44	409.47		102.3681
	100-42-5	Styrene			4	40	ND	U	
	75-25-2	Bromoform			7.199999	72	ND	U	

	79-34-5	1,1,2,2-Tetrachloroeth			10	100	ND	U	
	541-73-1	1,3-Dichlorobenzene			6.400000	64	ND	U	
	106-46-7	1,4-Dichlorobenzene			6.800000	68	ND	U	
	95-50-1	1,2-Dichlorobenzene			8	80	ND	U	
	110-54-3	Hexane			10.80000	108	ND	U	
	141-78-6	Ethyl Acetate			11.60000	116	ND	U	
	67-72-1	Hexachloroethane			21.20000	212	ND	U	
	75-71-8	Dichlorodifluoromethan			12	120	ND	U	
	75-69-4	Trichlorofluoromethane			38.79999	388	ND	U	
	60-29-7	Diethyl ether			15.60000	156	ND	U	
	76-13-1	Freon 113			10	100	ND	U	
	79-20-9	Methyl Acetate			7.199999	72	ND	U	
	1634-04-4	tert-Butyl-Methyl Ethe			6	60	ND	U	
	156-60-5	trans-1,2-Dichloroethe			7.199999	72	ND	U	
	110-82-7	Cyclohexane			6	60	ND	U	
	156-59-2	cis-1,2-Dichloroethene			5.199999	52	ND	U	
	108-87-2	Methylcyclohexane			4.400000	44	ND	U	
	79-46-9	2-Nitropropane			41.20000	412	ND	U	
	106-93-4	1,2-Dibromoethane			5.199999	52	ND	U	
	108-38-3	m,p-Xylene			8.399999	84	ND	U	
	98-82-8	Isopropylbenzene			4	40	ND	U	
	96-12-8	1,2-Dibromo-3-Chloropr			11.19999	112	ND	U	
	120-82-1	1,2,4-Trichlorobenzene			6.800000	68	ND	U	
	95-47-6	o-Xylene			4	40	ND	U	
$	1868-53-7	Dibromofluoromethane	10.22976	400	4.800000	48	18.653	J	4.663372
$	17060-07-0	1,2-Dichloroethane-d4	10.84748	400	8	80	432.12		108.0289
$	2037-26-5	Toluene-d8	12.74108	400	5.199999	52	397.77		99.44175
$	460 00-4	Bromofluorobenzene	15.3334	400	4.800000	48	421.66		105.4162

Key: $ = Surrogate, T = TIC, K = Spike, and M = Summary

Macro: upload2lims.mac, Revision: 0.2
Report Date: 04/07/2009

Data File: //apwscf02/slab/chem/neelix.i/Data/V090310AW106a.b/09031011MSD
Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304

LIMS Upload Report

Lab Sample ID:	S09T001777MSD	Instrument ID:	neelix.i
Client Sample ID:	S09T001777MSD	Analyst:	vlm
SDG:	20090162a	Analysis Date:	10-MAR-2009 16:40
Lab Prep Batch:	00013311	ALS Bottle:	11
Protocol:	@222VOA	Replicate:	0
Sample Fraction:	VOA	Dilution Factor:	1
Sample Type:	MSD	Final Concentration Units:	ug/L
Matrix:	WATER	Matrix Type:	LIQUID
Actual Sample Size:	0.25	Expected Sample Size:	10
Actual Units:	mL	Expected Units:	mL

For a VOA, LOW Conc., LIQUID sample,
the Method formula used was: Conc. = Amount * DF * Uf * 1/Vo.

The Macro formula used was: Conc. = Amount * DF * Uf * 1/Vo,
where DF = 1 UF = 1, and Vo = 0.25.

-	CAS Number	Compound Name	RT	Spike	Adj. MDL	LOQ	Final Conc	Flag	Pct. Rec.
M	540-59-0	Total 1,2-Dichloroethe			12	120	ND	U	
M	1330-20-7	Total Xylenes			12.39999	124	ND	U	
M	THM	Total Trihalomethanes			18.39999	184	ND	U	
	74-87-3	Chloromethane			12.39999	124	ND	U	
	75-01-4	Vinyl Chloride			12.80000	128	ND	U	
	74-83-9	Bromomethane			19.60000	196	ND	U	
	75-00-3	Chloroethane			32	320	ND	U	
K	75-35-4	1,1-Dichloroethene	7.201983	400	6.800000	68	451.84		112.9602
K	67-64-1	Acetone	8.103216	2000	87.59999	876	2867.1		143.3532
	75-15-0	Carbon Disulfide			6	60	ND	U	
	75-09-2	Methylene Chloride	8.052583		6.800000	68	63.705	BJ	
	75-34-3	1,1-Dichloroethane			5.599999	56	ND	U	
K	78-93-3	2-Butanone	10.34111	2000	53.20000	532	2348.7		117.4338
	67-66-3	Chloroform			3.599999	36	ND	U	
	56-23-5	Carbon Tetrachloride			6	60	ND	U	
	109-99-9	Tetrahydrofuran	10.2196		23.60000	236	83.85	J	
	71-55-6	1,1,1-Trichloroethane			4	40	ND	U	
K	71-36-3	n-Butanol	11.48538	4000	310.7999	3108	12598	E	314.9492
K	71-43-2	Benzene	10.70566	400	6.400000	64	429.04		107.2607
	107-06-2	1,2-Dichloroethane			3.599999	36	ND	U	
K	79-01-6	Trichloroethene	11.30311	400	6	60	422.97		105.7433
	107-87-9	2-Pentanone			60.40000	604	ND	U	
	78-87-5	1,2-Dichloropropane			8	80	ND	U	
	75-27-4	Bromodichloromethane			2.799999	28	ND	U	
K	108-10-1	Methyl Isobutyl Ketone	13.11571	2000	35.20000	352	2492		124.6024
	10061-01-5	cis-1,3-dichloropropen			4.800000	48	ND	U	
K	108-88-3	Toluene	12.8018	400	4.800000	48	423.87		105.9666
K	591-78-6	2-Hexanone	13.89543	2000	34.40000	344	2573.2		128.6618
	10061-02-6	trans-1,3-Dichloroprop			2.799999	28	ND	U	
	127-18-4	Tetrachloroethene			8	80	ND	U	
	79-00-5	1,1,2-Trichloroethane			7.599999	76	ND	U	
	124-48-1	Dibromochloromethane			5.199999	52	ND	U	
	100-41-4	Ethylbenzene			4.800000	48	ND	U	
K	108-90-7	Chlorobenzene	14.28023	400	4.400000	44	423.95		105.9883
	100-42-5	Styrene			4	40	ND	U	
	75-25-2	Bromoform			7.199999	72	ND	U	

	79-34-5	1,1,2,2-Tetrachloroeth			10	100	ND	U	
	541-73-1	1,3-Dichlorobenzene			6.400000	64	ND	U	
	106-46-7	1,4-Dichlorobenzene			6.800000	68	ND	U	
	95-50-1	1,2-Dichlorobenzene			8	80	ND	U	
	110-54-3	Hexane			10.80000	108	ND	U	
	141-78-6	Ethyl Acetate			11.60000	116	ND	U	
	67-72-1	Hexachloroethane			21.20000	212	ND	U	
	75-71-8	Dichlorodifluoromethan			12	120	ND	U	
	75-69-4	Trichlorofluoromethane			38.79999	388	ND	U	
	60-29-7	Diethyl ether			15.60000	156	ND	U	
	76-13-1	Freon 113			10	100	ND	U	
	79-20-9	Methyl Acetate			7.199999	72	ND	U	
	1634-04-4	tert-Butyl-Methyl Ethe			6	60	ND	U	
	156-60-5	trans-1,2-Dichloroethe			7.199999	72	ND	U	
	110-82-7	Cyclohexane			6	60	ND	U	
	156-59-2	cis-1,2-Dichloroethene			5.199999	52	ND	U	
	108-87-2	Methylcyclohexane			4.400000	44	ND	U	
	79-46-9	2-Nitropropane			41.20000	412	ND	U	
	106-93-4	1,2-Dibromoethane			5.199999	52	ND	U	
	108-38-3	m,p-Xylene			8.399999	84	ND	U	
	98-82-8	Isopropylbenzene			4	40	ND	U	
	96-12-8	1,2-Dibromo-3-Chloropr			11.19999	112	ND	U	
	120-82-1	1,2,4-Trichlorobenzene			6.800000	68	ND	U	
	95-47-6	o-Xylene			4	40	ND	U	
$	1868-53-7	Dibromofluoromethane	10.2196	400	4.800000	48	12.896	J	3.224082
$	17060-07-0	1,2-Dichloroethane-d4	10.84743	400	8	80	448.24		112.0602
$	2037-26-5	Toluene-d8	12.74103	400	5.199999	52	415.09		103.7734
$	460-00-4	Bromofluorobenzene	15.33335	400	4.800000	48	421.66		105.4141

Key: $ = Surrogate, T = TIC, K = Spike, and M = Summary

Macro: upload2lims.mac, Revision: 0.2
Report Date: 04/07/2009

Data File: //apwscf02/slab/chem/neelix.i/Data/V090310AW106a.b/09031012_89
Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304

LIMS Upload Report

Lab Sample ID:	S09T001789	Instrument ID:	neelix.i
Client Sample ID:	S09T001789	Analyst:	vlm
SDG:	20090162a	Analysis Date:	10-MAR-2009 17:10
Lab Prep Batch:	00013311	ALS Bottle:	12
Protocol:	@222VOA	Replicate:	0
Sample Fraction:	VOA	Dilution Factor:	1
Sample Type:	SAMPLE	Final Concentration Units:	ug/L
Matrix:	WATER	Matrix Type:	LIQUID
Actual Sample Size:	0.25	Expected Sample Size:	10
Actual Units:	mL	Expected Units:	mL

For a VOA, LOW Conc., LIQUID sample,
the Method formula used was: Conc. = Amount * DF * Uf * 1/Vo.

The Macro formula used was: Conc. = Amount * DF * Uf * 1/Vo,
where DF = 1 UF = 1, and Vo = 0.25.

-	CAS Number	Compound Name	RT	Spike	Adj. MDL	LOQ	Final Conc	Flag	Pct. Rec.
M	540-59-0	Total 1,2-Dichloroethe			12	120	ND	U	
M	1330-20-7	Total Xylenes			12.39999	124	ND	U	
M	THM	Total Trihalomethanes			18.39999	184	ND	U	
	74-87-3	Chloromethane			12.39999	124	ND	U	
	75-01-4	Vinyl Chloride			12.80000	128	ND	U	
	74-83-9	Bromomethane			19.60000	196	ND	U	
	75-00-3	Chloroethane			32	320	ND	U	
	75-35-4	1,1-Dichloroethene			6.800000	68	ND	U	
	67-64-1	Acetone	8.103283		87.59999	876	667.83	J	
	75-15-0	Carbon Disulfide			6	60	ND	U	
	75-09-2	Methylene Chloride	8.05265		6.800000	68	68.041	B	
	75-34-3	1,1-Dichloroethane			5.599999	56	ND	U	
	78-93-3	2-Butanone			53.20000	532	ND	U	
	67-66-3	Chloroform			3.599999	36	ND	U	
	56-23-5	Carbon Tetrachloride			6	60	ND	U	
	109-99-9	Tetrahydrofuran	10.21966		23.60000	236	76.022	J	
	71-55-6	1,1,1-Trichloroethane			4	40	ND	U	
	71-36-3	n-Butanol	11.48545		310.7999	3108	6776.2		
	71-43-2	Benzene			6.400000	64	ND	U	
	107-06-2	1,2-Dichloroethane			3.599999	36	ND	U	
	79-01-6	Trichloroethene			6	60	ND	U	
	107-87-9	2-Pentanone			60.40000	604	ND	U	
	78-87-5	1,2-Dichloropropane			8	80	ND	U	
	75-27-4	Bromodichloromethane			2.799999	28	ND	U	
	108-10-1	Methyl Isobutyl Ketone			35.20000	352	ND	U	
	10061-01-5	cis-1,3-dichloropropen			4.800000	48	ND	U	
	108-88-3	Toluene			4.800000	48	ND	U	
	591-78-6	2-Hexanone			34.40000	344	ND	U	
	10061-02-6	trans-1,3-Dichloroprop			2.799999	28	ND	U	
	127-18-4	Tetrachloroethene			8	80	ND	U	
	79-00-5	1,1,2-Trichloroethane			7.599999	76	ND	U	
	124-48-1	Dibromochloromethane			5.199999	52	ND	U	
	100-41-4	Ethylbenzene			4.800000	48	ND	U	
	108-90-7	Chlorobenzene			4.400000	44	ND	U	
	100-42-5	Styrene			4	40	ND	U	
	75-25-2	Bromoform			7.199999	72	ND	U	

	79-34-5	1,1,2,2-Tetrachloroeth			10	100	ND	U	
	541-73-1	1,3-Dichlorobenzene			6.400000	64	ND	U	
	106-46-7	1,4-Dichlorobenzene			6.800000	68	ND	U	
	95-50-1	1,2-Dichlorobenzene			8	80	ND	U	
	110-54-3	Hexane			10.80000	108	ND	U	
	141-78-6	Ethyl Acetate			11.60000	116	ND	U	
	67-72-1	Hexachloroethane			21.20000	212	ND	U	
	75-71-8	Dichlorodifluoromethan			12	120	ND	U	
	75-69-4	Trichlorofluoromethane			38.79999	388	ND	U	
	60-29-7	Diethyl ether			15.60000	156	ND	U	
	76-13-1	Freon 113			10	100	ND	U	
	79-20-9	Methyl Acetate			7.199999	72	ND	U	
	1634-04-4	tert-Butyl Methyl Ethe			6	60	ND	U	
	156-60-5	trans-1,2-Dichloroethe			7.199999	72	ND	U	
	110-82-7	Cyclohexane			6	60	ND	U	
	156-59-2	cis-1,2-Dichloroethene			5.199999	52	ND	U	
	108-87-2	Methylcyclohexane			4.400000	44	ND	U	
	79-46-9	2-Nitropropane			41.20000	412	ND	U	
	106-93-4	1,2-Dibromoethane			5.199999	52	ND	U	
	108-38-3	m,p-Xylene			8.399999	84	ND	U	
	98-82-8	Isopropylbenzene			4	40	ND	U	
	96-12-8	1,2-Dibromo-3-Chloropr			11.19999	112	ND	U	
	120-82-1	1,2,4-Trichlorobenzene			6.800000	68	ND	U	
	95-47-6	o-Xylene			4	40	ND	U	
$	1868-53-7	Dibromofluoromethane	10.21966	400	4.800000	48	14.986	J	3.746645
$	17060-07-0	1,2-Dichloroethane-d4	10.8475	400	8	80	439.2		109.8012
$	2037-26-5	Toluene-d8	12.75123	400	5.199999	52	423.16		105.7892
$	460-00-4	Bromofluorobenzene	15.33341	400	4.800000	48	432.49		108.1235

Key: $ = Surrogate, T = TIC, K = Spike, and M = Summary

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 20090162A

	EPA SAMPLE NO.	SMC1 #	SMC2 (DCE) #	SMC3 (TOL) #	OTHER (BFB) #	TOT OUT
01	CCB	109	103	104	105	0
02	LCS	99	99	94	97	0
03	S09T001752	113	117	105	112	0
04	S09T001768	114	115	109	116	0
05	S09T001757	105	102	106	105	0
06	S09T001777	8*	104	99	101	1
07	S09T001777MS	5*	108	99	105	1
08	S09T001777MS	3*	112	104	105	1
09	S09T001789	4*	110	106	108	1
10	S09T001801	195*	8262*	7203*	5718*	4
11						
12						
13						
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27						
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29						
30						

		QC LIMITS
SMC1	= Dibromofluoromethane	(70-130)
SMC2 (DCE)	= 1,2-Dichloroethane-d4	(70-130)
SMC3 (TOL)	= Toluene-d8	(70-130)
OTHER(BFB)	= Bromofluorobenzene	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

Sample S09T001801 NOT Reported From this batch due to QC Failure. Rerun performed 03/13/09. MJD 03/14/09

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 20090162A

Matrix Spike - EPA Sample No.: S09T001777

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	400.00	0.0000	454.34	114	70-130
Acetone	2000.0	698.43	2754.5	103	70-130
2-Butanone	2000.0	0.0000	2202.9	110	70-130
n-Butanol	4000.0	7558.5	12109	114	70-130
Benzene	400.00	0.0000	416.72	104	70-130
Trichloroethene	400.00	0.0000	411.80	103	70-130
Methyl Isobutyl Ketone	2000.0	0.0000	2235.8	112	70-130
Toluene	400.00	0.0000	402.11	100	70-130
2-Hexanone	2000.0	0.0000	2323.7	116	70-130
Chlorobenzene	400.00	0.0000	409.47	102	70-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	400.00	451.84	113	1	30	70-130
Acetone	2000.0	2867.1	108	5	30	70-130
2-Butanone	2000.0	2348.7	117	6	30	70-130
n-Butanol	4000.0	12598	126	10	30	70-130
Benzene	400.00	429.04	107	3	30	70-130
Trichloroethene	400.00	422.97	106	3	30	70-130
Methyl Isobutyl Ketone	2000.0	2492.0	125	11	30	70-130
Toluene	400.00	423.87	106	6	30	70-130
2-Hexanone	2000.0	2573.2	129	11	30	70-130
Chlorobenzene	400.00	423.95	106	4	30	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 10 outside limits
Spike Recovery: 0 out of 20 outside limits

COMMENTS: _____

FORM III VOA-1 OLM03.0

Data File: 09031005LCS.D Page 3
Report Date: 19-Mar-2009 13:40

WSCF/222-S

RECOVERY REPORT

Client Name: Client SDG: 20090162a
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: vlm
Data Type: MS DATA SampleType: LCS
SpikeList File: 2008NTC.spk Quant Type: ISTD
Sublist File: 2008TC_NTC.sub
Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Misc Info: VOA

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
14 1,1-Dichloroethene	10.000	9.616	96.16	70-130
19 Acetone	50.000	44.979	89.96	70-130
38 2-Butanone	50.000	47.837	95.67	70-130
41 Benzene	10.000	9.617	96.17	70-130
47 Trichloroethene	10.000	9.618	96.18	70-130
49 n-Butanol	100.00	87.444	87.44	70-130
59 Toluene	10.000	9.669	96.69	70-130
60 Methyl Isobutyl Ke	50.000	48.561	97.12	70-130
68 2-Hexanone	50.000	49.031	98.06	70-130
72 Chlorobenzene	10.000	9.987	99.87	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 35 Dibromofluorometha	10.000	9.904	99.04	70-130
$ 43 1,2-Dichloroethane	10.000	9.882	98.82	70-130
$ 57 Toluene-d8	10.000	9.420	94.20	70-130
$ 79 Bromofluorobenzene	10.000	9.750	97.50	70-130

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

CCB

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 20090162A

Lab File ID: 09031004CCB Lab Sample ID: CCB

Date Analyzed: 03/10/09 Time Analyzed: 1029

GC Column: RESTEK RTX-VMSID: 0.25 (mm) Heated Purge: (Y/N) Y

Instrument ID: NEELIX

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS	LCS	09031005LCS	1059
02	S09T001752	S09T001752	09031006_52	1408
03	S09T001768	S09T001768	09031007_68	1439
04	S09T001757	S09T001757	09031008_57	1509
05	S09T001777	S09T001777	09031009_77	1539
06	S09T001777MS	S09T001777MS	09031010MS	1610
07	S09T001777MS	S09T001777MSD	09031011MSD	1640
08	S09T001789	S09T001789	09031012_89	1710
09	S09T001801	S09T001801	09031013_01	1740
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
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22				
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30				

COMMENTS: Sample S09T001801 was not reported from this batch due to a QC Failure MJD 3/11/09

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 20090162A

Lab File ID: 09031002BFB BFB Injection Date: 03/10/09

Instrument ID: NEELIX BFB Injection Time: 0929

GC Column: ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	14.9
75	30.0 - 66.0% of mass 95	41.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.2 (0.2)1
174	50.0 - 120.0% of mass 95	95.1
175	4.0 - 9.0% of mass 174	6.8 (7.2)1
176	93.0 - 101.0% of mass 174	92.9 (97.7)1
177	5.0 - 9.0% of mass 176	6.3 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	09031003CCV	03/10/09	0959
02	CCB	CCB	09031004CCB	03/10/09	1029
03	LCS	LCS	09031005LCS	03/10/09	1059
04	S09T001752	S09T001752	09031006_52	03/10/09	1408
05	S09T001768	S09T001768	09031007_68	03/10/09	1439
06	S09T001757	S09T001757	09031008_57	03/10/09	1509
07	S09T001777	S09T001777	09031009_77	03/10/09	1539
08	S09T001777MS	S09T001777MS	09031010MS	03/10/09	1610
09	S09T001777MS	S09T001777MSD	09031011MSD	03/10/09	1640
10	S09T001789	S09T001789	09031012_89	03/10/09	1710
11	S09T001801	S09T001801	09031013_01	03/10/09	1740
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Sample S09T001801 was not reported with this batch due to a QC Failure.
MJD
03/19/09

FORM V VOA
OLM03.0

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 090304CAL

Instrument ID: NEELIX Calibration Date(s): 03/04/09 03/04/09

Column: RESTEK RTX-VMS ID: 0.25 (mm) Calibration Time(s): 1545 1816

LAB FILE ID: RF10: 09030403CAL1RF30: 09030404CAL2RF100: 09030405CAL
RF300: 09030406CALRF500: 09030407CAL

COMPOUND	RF10	RF30	RF100	RF300	RF500
Total 1,2-Dichloroethene	0.336	0.322	0.318	0.325	0.334
Total Xylenes	0.583	0.567	0.595	0.607	0.624
Total Trihalomethanes	0.311	0.297	0.317	0.319	0.325
Chloromethane	0.399	0.358	0.382	0.420	0.444
Vinyl Chloride	0.358	0.336	0.334	0.382	0.397
Bromomethane	0.232	0.177	0.184	0.190	0.194
Chloroethane	0.178	0.177	0.184	0.199	0.205
1,1-Dichloroethene	0.217	0.228	0.221	0.237	0.244
Acetone	0.026	0.024	0.021	0.022	0.023
Carbon Disulfide	0.854	0.847	0.818	0.881	0.909
Methylene Chloride	0.666	0.380	0.320	0.294	0.298
1,1-Dichloroethane	0.463	0.444	0.460	0.467	0.476
2-Butanone	0.114	0.107	0.100	0.109	0.107
Chloroform	0.447	0.419	0.443	0.441	0.452
Carbon Tetrachloride	0.334	0.339	0.322	0.348	0.363
Tetrahydrofuran	0.032	0.029	0.026	0.028	0.027
1,1,1-Trichloroethane	0.367	0.374	0.370	0.394	0.400
n-Butanol	0.007	0.007	0.006	0.007	0.006
Benzene	1.121	1.043	1.080	1.098	1.134
1,2-Dichloroethane	0.283	0.271	0.286	0.282	0.286
Trichloroethene	0.275	0.265	0.259	0.265	0.274
2-Pentanone	0.031	0.031	0.029	0.032	0.032
1,2-Dichloropropane	0.271	0.261	0.271	0.269	0.276
Bromodichloromethane	0.322	0.309	0.330	0.326	0.332
Methyl Isobutyl Ketone	0.281	0.276	0.257	0.284	0.272
cis-1,3-dichloropropene	0.486	0.477	0.495	0.488	0.509
Toluene	0.839	0.820	0.825	0.830	0.862
2-Hexanone	0.199	0.200	0.184	0.202	0.195
trans-1,3-Dichloropropene	0.453	0.434	0.449	0.443	0.454
Tetrachloroethene	0.317	0.307	0.294	0.306	0.311
1,1,2-Trichloroethane	0.223	0.206	0.212	0.216	0.218
Dibromochloromethane	0.310	0.305	0.325	0.324	0.333
Ethylbenzene	1.559	1.534	1.565	1.606	1.660
Chlorobenzene	1.082	1.006	1.030	1.031	1.061
Styrene	1.089	1.072	1.132	1.152	1.181
Bromoform	0.249	0.243	0.248	0.259	0.260
1,1,2,2-Tetrachloroethane	0.654	0.636	0.616	0.645	0.629

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 090304CAL

Instrument ID: NEELIX Calibration Date(s): 03/04/09 03/04/09

Column: RESTEK RTX-VMS ID: 0.25 (mm) Calibration Time(s): 1545 1816

LAB FILE ID: RF10: 09030403CAL1RF30: 09030404CAL2RF100: 09030405CAL
RF300: 09030406CALRF500: 09030407CAL

COMPOUND	RF10	RF30	RF100	RF300	RF500
1,3-Dichlorobenzene	1.654	1.569	1.616	1.584	1.644
1,4-Dichlorobenzene	1.758	1.598	1.656	1.620	1.665
1,2-Dichlorobenzene	1.534	1.438	1.491	1.460	1.503
Hexane	0.065	0.068	0.066	0.072	0.075
Ethyl Acetate	0.228	0.228	0.218	0.231	0.228
Hexachloroethane	0.274	0.265	0.286	0.285	0.296
Dichlorodifluoromethane	0.062	0.059	0.067	0.083	0.089
Trichlorofluoromethane	0.241	0.241	0.243	0.277	0.283
Diethyl ether	0.132	0.134	0.127	0.129	0.133
Freon 113	0.262	0.264	0.259	0.279	0.285
Methyl Acetate	0.210	0.184	0.169	0.176	0.169
tert-Butyl-Methyl Ether	0.697	0.675	0.709	0.728	0.737
trans-1,2-Dichloroethene	0.282	0.265	0.262	0.277	0.281
Cyclohexane	0.483	0.493	0.473	0.525	0.540
cis-1,2-Dichloroethene	0.289	0.276	0.287	0.289	0.298
Methylcyclohexane	0.496	0.490	0.476	0.522	0.544
2-Nitropropane	0.060	0.058	0.057	0.060	0.058
1,2-Dibromoethane	0.293	0.277	0.280	0.281	0.286
m,p-Xylene	0.684	0.670	0.683	0.693	0.716
Isopropylbenzene	1.832	1.774	1.803	1.849	1.923
1,2-Dibromo-3-Chloropropane	0.122	0.113	0.099	0.104	0.100
1,2,4-Trichlorobenzene	0.840	0.790	0.938	0.946	0.964
o-Xylene	0.690	0.680	0.698	0.707	0.728
Dibromofluoromethane	0.237	0.227	0.240	0.238	0.242
1,2-Dichloroethane-d4	0.062	0.058	0.059	0.057	0.059
Toluene-d8	1.099	1.074	1.091	1.113	1.157
Bromofluorobenzene	0.872	0.785	0.772	0.775	0.794

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 090304CAL

Instrument ID: NEELIX Calibration Date(s): 03/04/09 03/04/09

Column: RESTEK RTX-VMS ID: 0.25 (mm) Calibration Time(s): 1545 1816

RF750: 09030408CAL

COMPOUND	RF750	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2
Total 1,2-Dichloroethene	0.320	AVRG		0.32589592	2.4
Total Xylenes	0.622	AVRG		0.59972249	3.8
Total Trihalomethanes	0.324	AVRG		0.31543263	3.2
Chloromethane	0.446	AVRG		0.40822290	8.5
Vinyl Chloride	0.389	AVRG		0.36598475	7.5
Bromomethane	0.193	AVRG		0.19506828	9.9
Chloroethane	0.199	AVRG		0.19008985	6.3
1,1-Dichloroethene	0.231	AVRG		0.22955171	4.3
Acetone	0.025	AVRG		2.348e-002	8.5
Carbon Disulfide	0.867	AVRG		0.86271564	3.6
Methylene Chloride	0.291	WLINR	-0.1232374	3.48848682	1.000
1,1-Dichloroethane	0.462	AVRG		0.46187140	2.3
2-Butanone	0.113	AVRG		0.10842294	4.8
Chloroform	0.438	AVRG		0.44020542	2.6
Carbon Tetrachloride	0.344	AVRG		0.34174201	4.0
Tetrahydrofuran	0.028	AVRG		2.861e-002	7.2
1,1,1-Trichloroethane	0.386	AVRG		0.38174089	3.5
n-Butanol	0.006	AVRG		6.486e-003	4.2
Benzene	1.109	AVRG		1.09740861	3.0
1,2-Dichloroethane	0.280	AVRG		0.28129281	2.0
Trichloroethene	0.265	AVRG		0.26713917	2.2
2-Pentanone	0.033	AVRG		3.135e-002	4.7
1,2-Dichloropropane	0.273	AVRG		0.27010739	1.8
Bromodichloromethane	0.330	AVRG		0.32482904	2.6
Methyl Isobutyl Ketone	0.276	AVRG		0.27433648	3.4
cis-1,3-dichloropropene	0.498	AVRG		0.49225123	2.2
Toluene	0.841	AVRG		0.83635150	1.8
2-Hexanone	0.202	AVRG		0.19718308	3.6
trans-1,3-Dichloropropene	0.447	AVRG		0.44664926	1.6
Tetrachloroethene	0.302	AVRG		0.30627760	2.6
1,1,2-Trichloroethane	0.214	AVRG		0.21515249	2.6
Dibromochloromethane	0.334	AVRG		0.32187449	3.7
Ethylbenzene	1.628	AVRG		1.59209721	3.0
Chlorobenzene	1.054	AVRG		1.04375208	2.6
Styrene	1.191	AVRG		1.13630670	4.2
Bromoform	0.265	AVRG		0.25405629	3.3
1,1,2,2-Tetrachloroethane	0.631	AVRG		0.63513177	2.1

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 090304CAL

Instrument ID: NEELIX Calibration Date(s): 03/04/09 03/04/09

Column: RESTEK RTX-VMS ID: 0.25 (mm) Calibration Time(s): 1545 1816

RF750: 09030408CAL

COMPOUND	RF750	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2
1,3-Dichlorobenzene	1.626	AVRG		1.61548189	2.0
1,4-Dichlorobenzene	1.653	AVRG		1.65844480	3.3
1,2-Dichlorobenzene	1.484	AVRG		1.48502367	2.2
Hexane	0.070	AVRG		6.936e-002	5.5
Ethyl Acetate	0.230	AVRG		0.22714291	2.1
Hexachloroethane	0.298	AVRG		0.28381143	4.4
Dichlorodifluoromethane	0.089	WLINR	6.089e-002	11.3411690	0.996
Trichlorofluoromethane	0.259	AVRG		0.25756231	7.3
Diethyl ether	0.132	AVRG		0.13135040	1.8
Freon 113	0.271	AVRG		0.27024387	3.7
Methyl Acetate	0.169	AVRG		0.17935990	9.0
tert-Butyl-Methyl Ether	0.747	AVRG		0.71558099	3.8
trans-1,2-Dichloroethene	0.272	AVRG		0.27334434	3.1
Cyclohexane	0.515	AVRG		0.50490861	5.1
cis-1,2-Dichloroethene	0.291	AVRG		0.28848660	2.4
Methylcyclohexane	0.521	AVRG		0.50817792	4.9
2-Nitropropane	0.058	AVRG		5.836e-002	1.8
1,2-Dibromoethane	0.286	AVRG		0.28387407	2.0
m,p-Xylene	0.699	AVRG		0.69099954	2.3
Isopropylbenzene	1.865	AVRG		1.84093351	2.8
1,2-Dibromo-3-Chloropropane	0.100	AVRG		0.10636137	8.7
1,2,4-Trichlorobenzene	0.985	AVRG		0.91054669	8.5
o-Xylene	0.724	AVRG		0.70457043	2.7
Dibromofluoromethane	0.237	AVRG		0.23700122	2.3
1,2-Dichloroethane-d4	0.058	AVRG		5.898e-002	2.6
Toluene-d8	1.123	AVRG		1.10944365	2.6
Bromofluorobenzene	0.793	AVRG		0.79880323	4.7

FORM VI VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 20090162A

Instrument ID: NEELIX Calibration Date: 03/10/09 Time: 0959

Lab File ID: 09031003CCV Init. Calib. Date(s): 03/04/09 03/04/09

Heated Purge: (Y/N) Y Init. Calib. Times: 1545 1816

GC Column: RESTEK RTX-VMS ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
Total 1,2-Dichloroethene	203.02	200.00	AVRG	1.5	20.0
Total Xylenes	300.50	300.00	AVRG	0.2	20.0
Total Trihalomethanes	395.39	400.00	AVRG	-1.2	20.0
Chloromethane	92.649	100.00	AVRG	-7.4	20.0
Vinyl Chloride	96.714	100.00	AVRG	-3.3	20.0
Bromomethane	93.984	100.00	AVRG	-6.0	20.0
Chloroethane	101.43	100.00	AVRG	1.4	20.0
1,1-Dichloroethene	104.32	100.00	AVRG	4.3	20.0
Acetone	445.86	500.00	AVRG	-10.8	20.0
Carbon Disulfide	101.52	100.00	AVRG	1.5	20.0
Methylene Chloride	114.19	100.00	WLINR	14.2	20.0
1,1-Dichloroethane	101.11	100.00	AVRG	1.1	20.0
2-Butanone	457.43	500.00	AVRG	-8.5	20.0
Chloroform	100.65	100.00	AVRG	0.6	20.0
Carbon Tetrachloride	104.29	100.00	AVRG	4.3	20.0
Tetrahydrofuran	277.03	300.00	AVRG	-7.6	20.0
1,1,1-Trichloroethane	102.77	100.00	AVRG	2.8	20.0
n-Butanol	894.90	1000.0	AVRG	-10.5	20.0
Benzene	99.949	100.00	AVRG	-0.0	20.0
1,2-Dichloroethane	99.717	100.00	AVRG	-0.3	20.0
Trichloroethene	103.12	100.00	AVRG	3.1	20.0
2-Pentanone	453.58	500.00	AVRG	-9.3	20.0
1,2-Dichloropropane	100.74	100.00	AVRG	0.7	20.0
Bromodichloromethane	100.61	100.00	AVRG	0.6	20.0
Methyl Isobutyl Ketone	461.12	500.00	AVRG	-7.8	20.0
cis-1,3-dichloropropene	99.131	100.00	AVRG	-0.9	20.0
Toluene	101.56	100.00	AVRG	1.6	20.0
2-Hexanone	462.58	500.00	AVRG	-7.5	20.0
trans-1,3-Dichloropropene	96.817	100.00	AVRG	-3.2	20.0
Tetrachloroethene	103.07	100.00	AVRG	3.1	20.0
1,1,2-Trichloroethane	99.460	100.00	AVRG	-0.5	20.0
Dibromochloromethane	99.013	100.00	AVRG	-1.0	20.0
Ethylbenzene	101.47	100.00	AVRG	1.5	20.0
Chlorobenzene	99.321	100.00	AVRG	-0.7	20.0
Styrene	97.953	100.00	AVRG	-2.0	20.0
Bromoform	95.118	100.00	AVRG	-4.9	20.0
1,1,2,2-Tetrachloroethane	97.814	100.00	AVRG	-2.2	20.0

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 20090162A

Instrument ID: NEELIX Calibration Date: 03/10/09 Time: 0959

Lab File ID: 09031003CCV Init. Calib. Date(s): 03/04/09 03/04/09

Heated Purge: (Y/N) Y Init. Calib. Times: 1545 1816

GC Column: RESTEK RTX-VMS ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
1,3-Dichlorobenzene	101.72	100.00	AVRG	1.7	20.0	
1,4-Dichlorobenzene	101.08	100.00	AVRG	1.1	20.0	
1,2-Dichlorobenzene	100.30	100.00	AVRG	0.3	20.0	
Hexane	102.69	100.00	AVRG	2.7	20.0	
Ethyl Acetate	237.49	250.00	AVRG	-5.0	20.0	
Hexachloroethane	102.60	100.00	AVRG	2.6	20.0	
Dichlorodifluoromethane	78.090	100.00	WLINR	-21.9	20.0	<-
Trichlorofluoromethane	106.97	100.00	AVRG	7.0	20.0	
Diethyl ether	95.285	100.00	AVRG	-4.7	20.0	
Freon 113	105.22	100.00	AVRG	5.2	20.0	
Methyl Acetate	91.936	100.00	AVRG	-8.1	20.0	
tert-Butyl-Methyl Ether	95.229	100.00	AVRG	-4.8	20.0	
trans-1,2-Dichloroethene	103.60	100.00	AVRG	3.6	20.0	
Cyclohexane	102.54	100.00	AVRG	2.5	20.0	
cis-1,2-Dichloroethene	99.429	100.00	AVRG	-0.6	20.0	
Methylcyclohexane	101.72	100.00	AVRG	1.7	20.0	
2-Nitropropane	240.98	250.00	AVRG	-3.6	20.0	
1,2-Dibromoethane	95.954	100.00	AVRG	-4.0	20.0	
m,p-Xylene	201.49	200.00	AVRG	0.7	20.0	
Isopropylbenzene	101.74	100.00	AVRG	1.7	20.0	
1,2-Dibromo-3-Chloropropane	94.976	100.00	AVRG	-5.0	20.0	
1,2,4-Trichlorobenzene	102.29	100.00	AVRG	2.3	20.0	
o-Xylene	99.005	100.00	AVRG	-1.0	20.0	
Dibromofluoromethane	99.826	100.00	AVRG	-0.2	20.0	
1,2-Dichloroethane-d4	99.213	100.00	AVRG	-0.8	20.0	
Toluene-d8	102.03	100.00	AVRG	2.0	20.0	
Bromofluorobenzene	98.858	100.00	AVRG	-1.1	20.0	

dichlorodifluoromethane was not a target compound for this project.
MJD 03/19/09

Data File: 09031003CCV.D
Report Date: 19-Mar-2009 13:39

WSCF/222-S

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: neelix.i
Lab File ID: 09031003CCV.D
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: vlm
Method File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Misc Info: VOA

Calibration Date: 04-MAR-2009
Calibration Time: 16:46
Client Smp ID: CCV
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
46 Fluorobenzene	1266172	633086	2532344	1169886	-7.60
71 Chlorobenzene-d5	1102286	551143	2204572	994858	-9.75
93 1,4-Dichlorobenze	731206	365603	1462412	652152	-10.81

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
46 Fluorobenzene	11.13	10.63	11.63	11.13	-0.00
71 Chlorobenzene-d5	14.27	13.77	14.77	14.27	-0.00
93 1,4-Dichlorobenze	16.36	15.86	16.86	16.36	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 20090162A

Lab File ID (Standard): 09031003CCV Date Analyzed: 03/10/09

Instrument ID: NEELIX Time Analyzed: 0959

GC Column: RESTEK RTX-VMS ID: 0.25 (mm) Heated Purge: (Y/N) Y

		IS1 AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	1169886	11.13	994858	14.27	652152	16.36
	UPPER LIMIT	2339772	11.63	1989716	14.77	1304304	16.86
	LOWER LIMIT	584943	10.63	497429	13.77	326076	15.86
	EPA SAMPLE NO.						
01	CCB	1079424	11.12	952007	14.26	602759	16.36
02	LCS	1160594	11.13	1012553	14.27	646253	16.36
03	S09T001752	986650	11.13	877477	14.27	533733	16.36
04	S09T001768	1008313	11.13	873634	14.27	511359	16.36
05	S09T001757	1119728	11.13	938687	14.27	568535	16.36
06	S09T001777	1138362	11.13	989463	14.27	605812	16.36
07	S09T001777MS	1052365	11.13	927204	14.27	564239	16.36
08	S09T001777MS	1119601	11.12	953341	14.27	600323	16.36
09	S09T001789	1097685	11.13	935471	14.27	566375	16.36
10	S09T001801	13111*	11.13	12085*	14.27	9905*	16.36
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA OLM03.0

Sample S09T001801 was not reported from this batch. See Rerun 03/13/09. MJB 05/19/09

Data File: 09031002BFB.D
Report Date: 19-Mar-2009 13:39

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031002BFB.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 10-MAR-2009 09:29
Operator : vlm Inst ID: neelix.i
Smp Info : BFB
Misc Info :
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\BFBCLP.m
Meth Date : 26-Feb-2009 10:13 mjd Quant Type: ISTD
Cal Date : 04-MAY-2006 10:07 Cal File: 6050403.D
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: WC90978

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	SIMILARITY
1 bfb						CAS #: 460-00-4			
9.154	9.204	(0.000)	95	107152			100.00- 100.00	100.00	
9.154	9.204	(0.000)	50	15978			8.00- 40.00	14.91	
9.154	9.204	(0.000)	75	43912			30.00- 66.00	40.98	
9.154	9.204	(0.000)	96	6967			5.00- 9.00	6.50	
9.154	9.204	(0.000)	173	206			0.00- 2.00	0.20	
9.154	9.204	(0.000)	174	101904			50.00- 120.00	95.10	
9.154	9.204	(0.000)	175	7305			4.00- 9.00	7.17	
9.154	9.204	(0.000)	176	99544			93.00- 101.00	97.68	
9.154	9.204	(0.000)	177	6778			5.00- 9.00	6.81	

Data File: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031002BFB.D

Date : 10-MAR-2009 09:29

Client ID: BFB

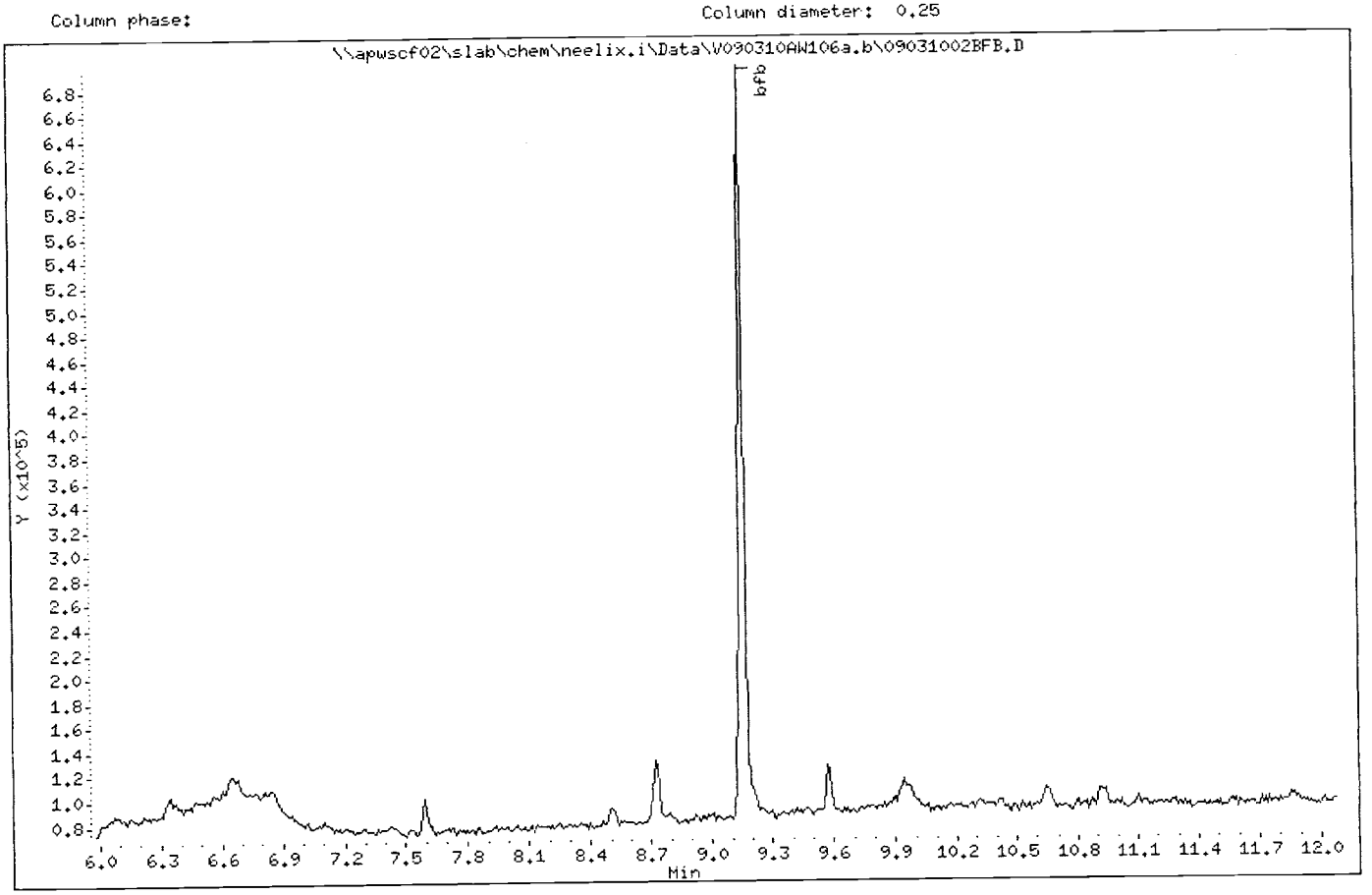
Instrument: neelix.i

Sample Info: BFB

Operator: vlm

Column phase:

Column diameter: 0.25



File: 09031003CCV.D
Report Date: 19-Mar-2009 13:39

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031003CCV.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 10-MAR-2009 09:59
Operator : vlm Inst ID: neelix.i
Smp Info : CCV
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 15:45 Cal File: 09030403CAL1.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008TC_NTC.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	10.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

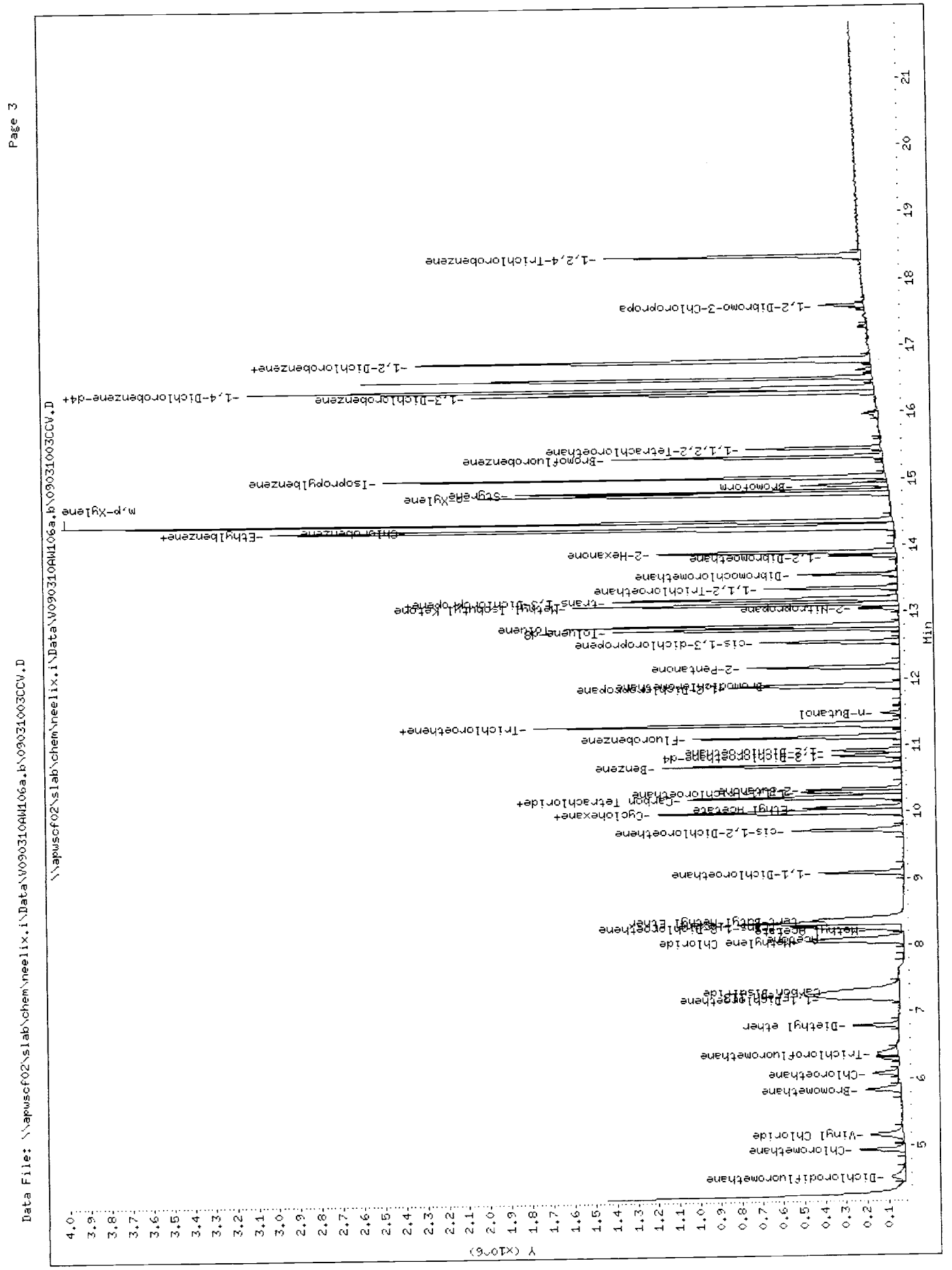
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
M	1 Total 1,2-Dichloroethene	100				666852	200.000	203.02
M	2 Total Xylenes	100				2079127	300.000	300.50
M	3 Total Trihalomethanes	100				1458152	400.000	395.39
	7 Dichlorodifluoromethane	87	4.538	4.539	(0.408)	74272	100.000	78.090
	8 Chloromethane	50	4.943	4.944	(0.444)	442466	100.000	92.649
	9 Vinyl Chloride	62	5.166	5.177	(0.464)	414092	100.000	96.714
	10 Bromomethane	94	5.835	5.845	(0.524)	214478	100.000	93.984
	11 Chloroethane	64	6.078	6.088	(0.546)	225570	100.000	101.43
	12 Trichlorofluoromethane	101	6.361	6.382	(0.572)	322323	100.000	106.97(M)
	13 Diethyl ether	74	6.797	6.797	(0.611)	146420	100.000	95.285
	14 1,1-Dichloroethene	96	7.202	7.202	(0.647)	280146	100.000	104.32
	15 Freon 113	101	7.252	7.263	(0.652)	332666	100.000	105.22
	16 Carbon Disulfide	76	7.313	7.314	(0.657)	1024614	100.000	101.52
	18 Methylene Chloride	84	8.052	8.063	(0.723)	424259	100.000	114.19
	19 Acetone	58	8.103	8.103	(0.728)	122463	500.000	445.86
	20 Methyl Acetate	43	8.234	8.234	(0.740)	192909	100.000	91.936
	21 trans-1,2-Dichloroethene	96	8.275	8.276	(0.743)	331284	100.000	103.60
	23 Hexane	86	8.326	8.326	(0.748)	82326	100.000	102.69
	24 tert-Butyl Methyl Ether	73	8.376	8.387	(0.753)	797211	100.000	95.229
	25 1,1-Dichloroethane	63	9.085	9.086	(0.816)	546345	100.000	101.11
	29 cis-1,2-Dichloroethene	96	9.733	9.734	(0.874)	335568	100.000	99.429
	30 Cyclohexane	56	9.996	9.997	(0.898)	605662	100.000	102.54
	31 Chloroform	83	10.007	10.017	(0.899)	518348	100.000	100.65

Data File: 09031003CCV.D
Report Date: 19-Mar-2009 13:39

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	32 Ethyl Acetate	43	10.067	10.068	(0.904)	631095	250.000	237.49
	33 Carbon Tetrachloride	117	10.219	10.230	(0.918)	416952	100.000	104.29
	34 Tetrahydrofuran	72	10.219	10.230	(0.918)	92714	300.000	277.03
$	35 Dibromofluoromethane	113	10.229	10.230	(0.919)	276782	100.000	99.826
	37 1,1,1-Trichloroethane	97	10.300	10.301	(0.925)	458947	100.000	102.77
	38 2-Butanone	43	10.341	10.351	(0.929)	580220	500.000	457.43
	41 Benzene	78	10.705	10.706	(0.962)	1283190	100.000	99.949
$	43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	68457	100.000	99.213
	44 1,2-Dichloroethane	62	10.918	10.929	(0.981)	328148	100.000	99.717
*	46 Fluorobenzene	96	11.131	11.131	(1.000)	1169886	100.000	
	47 Trichloroethene	95	11.303	11.313	(1.015)	322270	100.000	103.12
	48 Methylcyclohexane	83	11.323	11.324	(1.017)	604715	100.000	101.72
	49 n-Butanol	56	11.485	11.496	(1.032)	67899	1000.00	894.90
	50 1,2-Dichloropropane	63	11.880	11.891	(1.067)	318343	100.000	100.74
	51 Bromodichloromethane	83	11.910	11.911	(1.070)	382333	100.000	100.61
	53 2-Pentanone	86	12.174	12.184	(1.094)	166377	500.000	453.58
	56 cis-1,3-dichloropropene	75	12.548	12.559	(0.879)	485464	100.000	99.131
$	57 Toluene-d8	98	12.751	12.751	(0.894)	1126166	100.000	102.03
	59 Toluene	92	12.801	12.802	(0.897)	845013	100.000	101.56
	64 2-Nitropropane	41	13.044	13.055	(0.914)	139920	250.000	240.98
	60 Methyl Isobutyl Ketone	43	13.115	13.126	(0.919)	1258517	500.000	461.12
	61 trans-1,3-Dichloropropene	75	13.186	13.187	(0.924)	430209	100.000	96.817
	62 Tetrachloroethene	164	13.206	13.207	(0.925)	314053	100.000	103.07
	63 1,1,2-Trichloroethane	83	13.358	13.369	(0.936)	212891	100.000	99.460
	66 Dibromochloromethane	129	13.561	13.572	(0.950)	317060	100.000	99.013
	67 1,2-Dibromoethane	107	13.834	13.845	(0.969)	270987	100.000	95.954
	68 2-Hexanone	43	13.895	13.906	(0.974)	907441	500.000	462.58
	70 Ethylbenzene	91	14.249	14.250	(0.999)	1607214	100.000	101.47
*	71 Chlorobenzene-d5	117	14.270	14.270	(1.000)	994858	100.000	
	72 Chlorobenzene	112	14.280	14.291	(1.001)	1031335	100.000	99.321
	73 m,p-Xylene	106	14.371	14.372	(1.007)	1385153	200.000	201.49
	75 o-Xylene	106	14.776	14.777	(1.035)	693974	100.000	99.005
	76 Styrene	104	14.817	14.817	(1.038)	1107326	100.000	97.953
	77 Bromoform	173	14.908	14.908	(1.045)	240411	100.000	95.118
	78 Isopropylbenzene	105	15.029	15.030	(1.053)	1863352	100.000	101.74
$	79 Bromofluorobenzene	95	15.333	15.334	(0.937)	514992	100.000	98.858
	80 1,1,2,2-Tetrachloroethane	83	15.454	15.465	(0.945)	405147	100.000	97.814
	92 1,3-Dichlorobenzene	146	16.295	16.296	(0.996)	1071619	100.000	101.72
*	93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	652152	100.000	
	95 1,4-Dichlorobenzene	146	16.366	16.376	(1.001)	1093255	100.000	101.08
	97 1,2-Dichlorobenzene	146	16.791	16.802	(1.027)	971400	100.000	100.30
	100 Hexachloroethane	117	16.771	16.771	(1.507)	340660	100.000	102.60
	99 1,2-Dibromo-3-Chloropropane	75	17.601	17.602	(1.076)	65879	100.000	94.976
	101 1,2,4-Trichlorobenzene	180	18.340	18.351	(1.121)	607402	100.000	102.29

QC Flag Legend

M - Compound response manually integrated.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\\apwscf02\slab\chem\neelix.i\Data\W090310AM106a.b\090310003CCV.D
Y (X10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl Chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether
-Methylene Chloride
-cis-1,2-Dichloroethene
-1,1-Dichloroethane
-cis-1,3-dichloropropene
-2-Pentanone
-n-Butanol
-Trichloroethene+
-Fluorobenzene
-Benzene
-2-Butanone
-Carbon Tetrachloride+
-Ethyl Acetate
-Cyclohexane+
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl Isobutyl Ketone
-trans-1,3-dichloropropene
-1,1,2-Trichloroethane
-Dibromochloromethane
-2-Hexanone
-1,2-Dibromoethane
-Ethylbenzene
m,p-Xylene
-Bromoform
-Styrene
-Isopropylbenzene
-Bromofluorobenzene
-1,1,2,2-Tetrachloroethane
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4+
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene

Data File: 09031004CCB.D
Report Date: 19-Mar-2009 13:40

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031004CCB.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 10-MAR-2009 10:29
Operator : vlm Inst ID: neelix.i
Smp Info : CCB
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008TC_NTC.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	10.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	18 Methylene Chloride	84	8.052	8.063	(0.724)	94775	18.3057	1.830
$	35 Dibromofluoromethane	113	10.219	10.230	(0.919)	278737	108.956	10.896
$	43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	65705	103.205	10.320
*	46 Fluorobenzene	96	11.120	11.131	(1.000)	1079424	100.000	
$	57 Toluene-d8	98	12.741	12.751	(0.893)	1100796	104.222	10.422
*	71 Chlorobenzene-d5	117	14.260	14.270	(1.000)	952007	100.000	
$	79 Bromofluorobenzene	95	15.333	15.334	(0.937)	505679	105.025	10.502
*	93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	602759	100.000	

Data File: 09031004CCB.D
Report Date: 19-Mar-2009 13:40

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031004CCB.D
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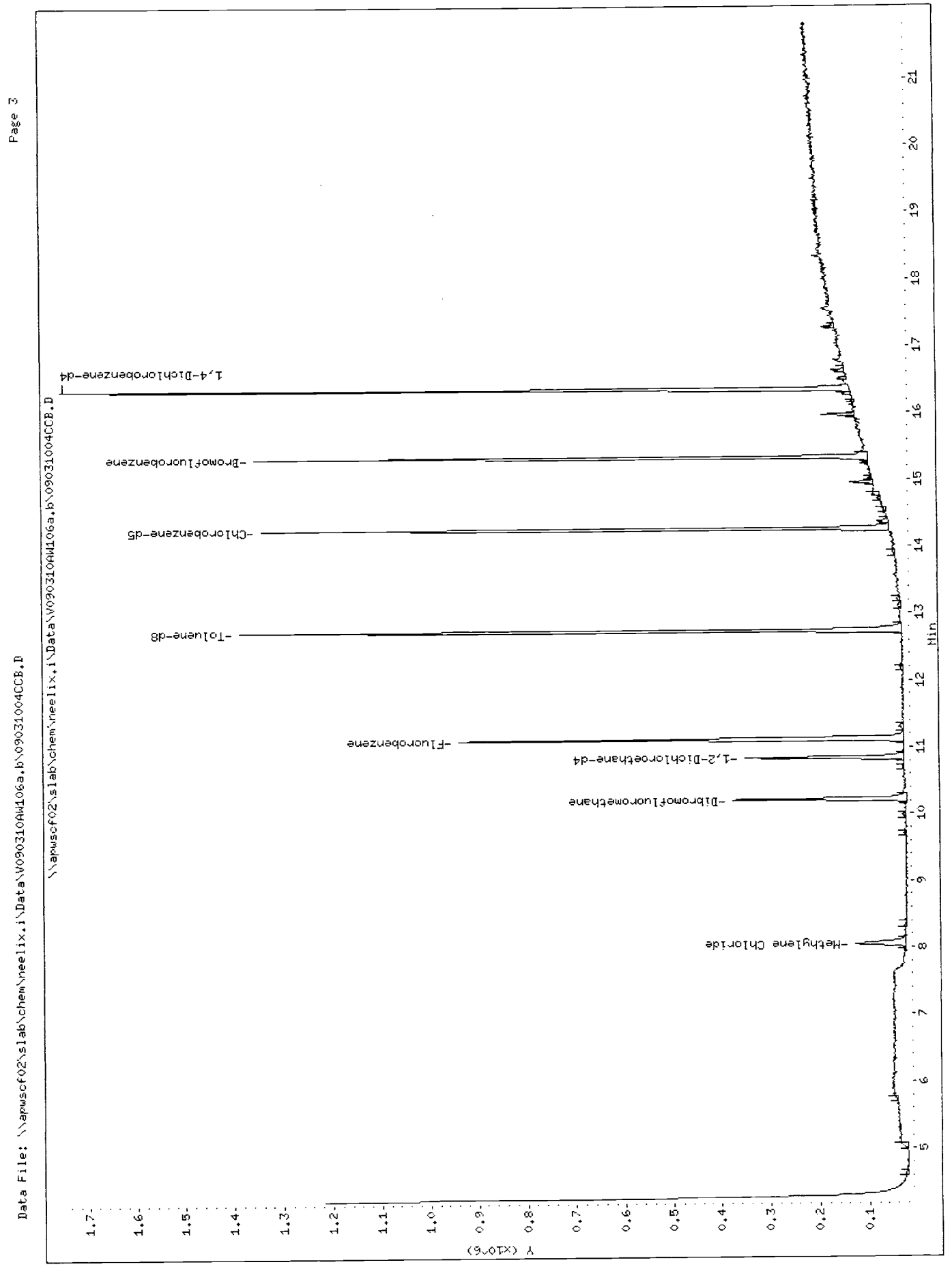
Inj Date : 10-MAR-2009 10:29
Operator : vlm Inst ID: neelix.i
Smp Info : CCB
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008TC_NTC.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -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1,4-Dichlorobenzene-d4
Bromofluorobenzene
Chlorobenzene-d5
Toluene-d8
Fluorobenzene
1,2-Dichloroethane-d4
Dibromofluoromethane
Methylene Chloride
Min
Y (X10^6)

Data File: 09031005LCS.D
Report Date: 19-Mar-2009 13:40

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031005LCS.D
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 10-MAR-2009 10:59
Operator : vlm Inst ID: neelix.i
Smp Info : LCS
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008TC_NTC.sub
Target Version: 4.14

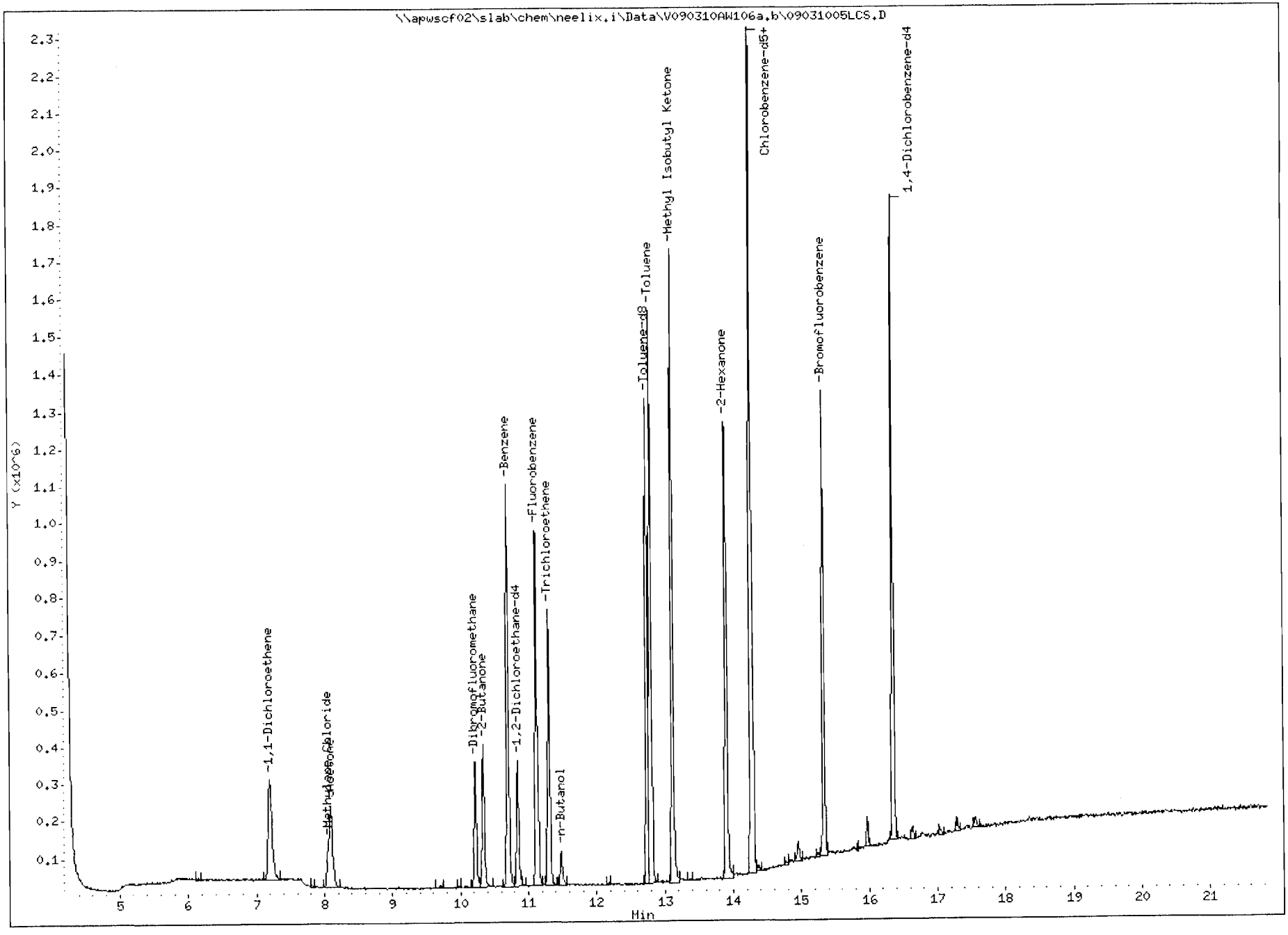
Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	10.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	14 1,1-Dichloroethene	96	7.201	7.202	(0.647)	256186	96.1600	9.616
	18 Methylene Chloride	84	8.062	8.063	(0.724)	93022	15.6366	1.564(a)
	19 Acetone	58	8.103	8.103	(0.728)	122562	449.790	44.979
$	35 Dibromofluoromethane	113	10.219	10.230	(0.918)	272418	99.0387	9.904
	38 2-Butanone	43	10.341	10.351	(0.929)	601953	478.367	47.837
	41 Benzene	78	10.705	10.706	(0.962)	1224881	96.1712	9.617
$	43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	67644	98.8197	9.882
*	46 Fluorobenzene	96	11.130	11.131	(1.000)	1160594	100.000	
	47 Trichloroethene	95	11.303	11.313	(1.015)	298196	96.1798	9.618
	49 n-Butanol	56	11.485	11.496	(1.032)	65820	874.445	87.444
$	57 Toluene-d8	98	12.741	12.751	(0.893)	1058243	94.2025	9.420
	59 Toluene	92	12.801	12.802	(0.897)	818796	96.6872	9.669
	60 Methyl Isobutyl Ketone	43	13.115	13.126	(0.919)	1348934	485.612	48.561
	68 2-Hexanone	43	13.895	13.906	(0.974)	978953	490.314	49.031
*	71 Chlorobenzene-d5	117	14.270	14.270	(1.000)	1012553	100.000	
	72 Chlorobenzene	112	14.280	14.291	(1.001)	1055460	99.8681	9.987
$	79 Bromofluorobenzene	95	15.333	15.334	(0.937)	503320	97.4954	9.750
*	93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	646253	100.000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


\\apwscf02\slab\chem\neelix.i\Data\W090310AW106a.b\09031005LCS.D
Y (x10^6)
Min
-1,1-Dichloroethene
-Dibromofluoromethane
-2-Butanone
-Benzene
-1,2-Dichloroethane-d4
-Fluorobenzene
-Trichloroethene
-n-Butanol
-Toluene-d8
-Toluene
-Methyl Isobutyl Ketone
-2-Hexanone
Chlorobenzene-d5
-Bromofluorobenzene
1,4-Dichlorobenzene-d4

Data File: 09031006_52.D
Report Date: 19-Mar-2009 13:40

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031006_52.D
Lab Smp Id: S09T001752 Client Smp ID: S09T001752
Inj Date : 10-MAR-2009 14:08
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001752
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008TC_NTC.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	9.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
18 Methylene Chloride	84	8.052	8.063	(0.723)	75380	14.3283	1.592(a)
$ 35 Dibromofluoromethane	113	10.229	10.230	(0.919)	264427	113.082	12.565
$ 43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	68368	117.486	13.054
* 46 Fluorobenzene	96	11.131	11.131	(1.000)	986650	100.000	
$ 57 Toluene-d8	98	12.751	12.751	(0.894)	1019394	104.713	11.635
* 71 Chlorobenzene-d5	117	14.270	14.270	(1.000)	877477	100.000	
$ 79 Bromofluorobenzene	95	15.333	15.334	(0.937)	475855	111.612	12.401
* 93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	533733	100.000	

QC Flag Legend

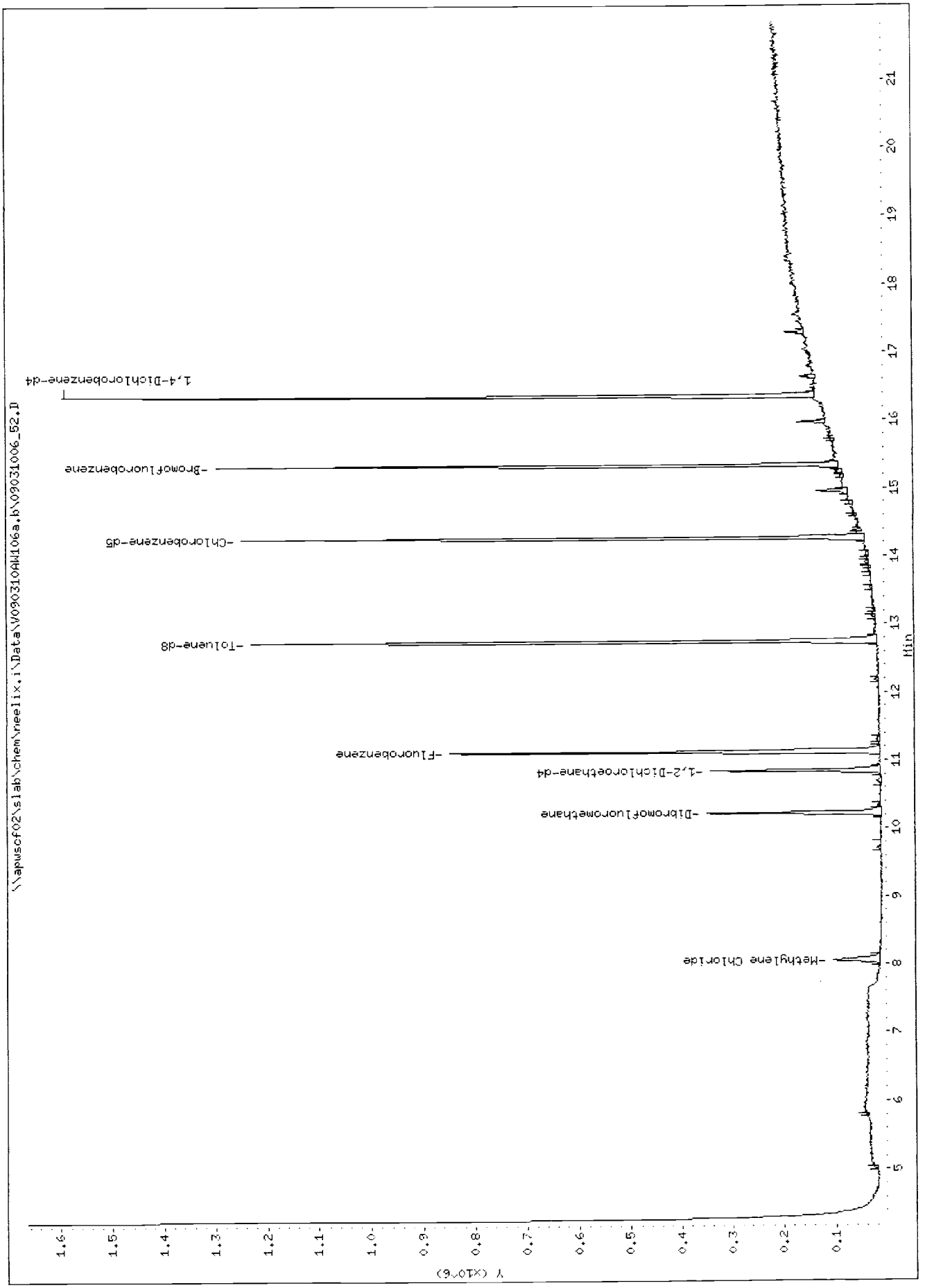
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: 09031006_52.D
Report Date: 19-Mar-2009 13:40

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031006_52.D
Lab Smp Id: S09T001752 Client Smp ID: S09T001752
Inj Date : 10-MAR-2009 14:08
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001752
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008TC_NTC.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -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\\apwscf02\slab\chem\neelix.i\Data\W090310AW106a.b\09031006_52.D
1,4-Dichlorobenzene-d4
Bromofluorobenzene
Chlorobenzene-d5
Toluene-d8
Fluorobenzene
1,2-Dichloroethane-d4
Dibromofluoromethane
Methylene Chloride
Min
Y (X10^6)

Data File: 09031007_68.D
Report Date: 19-Mar-2009 13:41

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031007_68.D
Lab Smp Id: S09T001768 Client Smp ID: S09T001768
Inj Date : 10-MAR-2009 14:39
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001768
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008TC_NTC.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

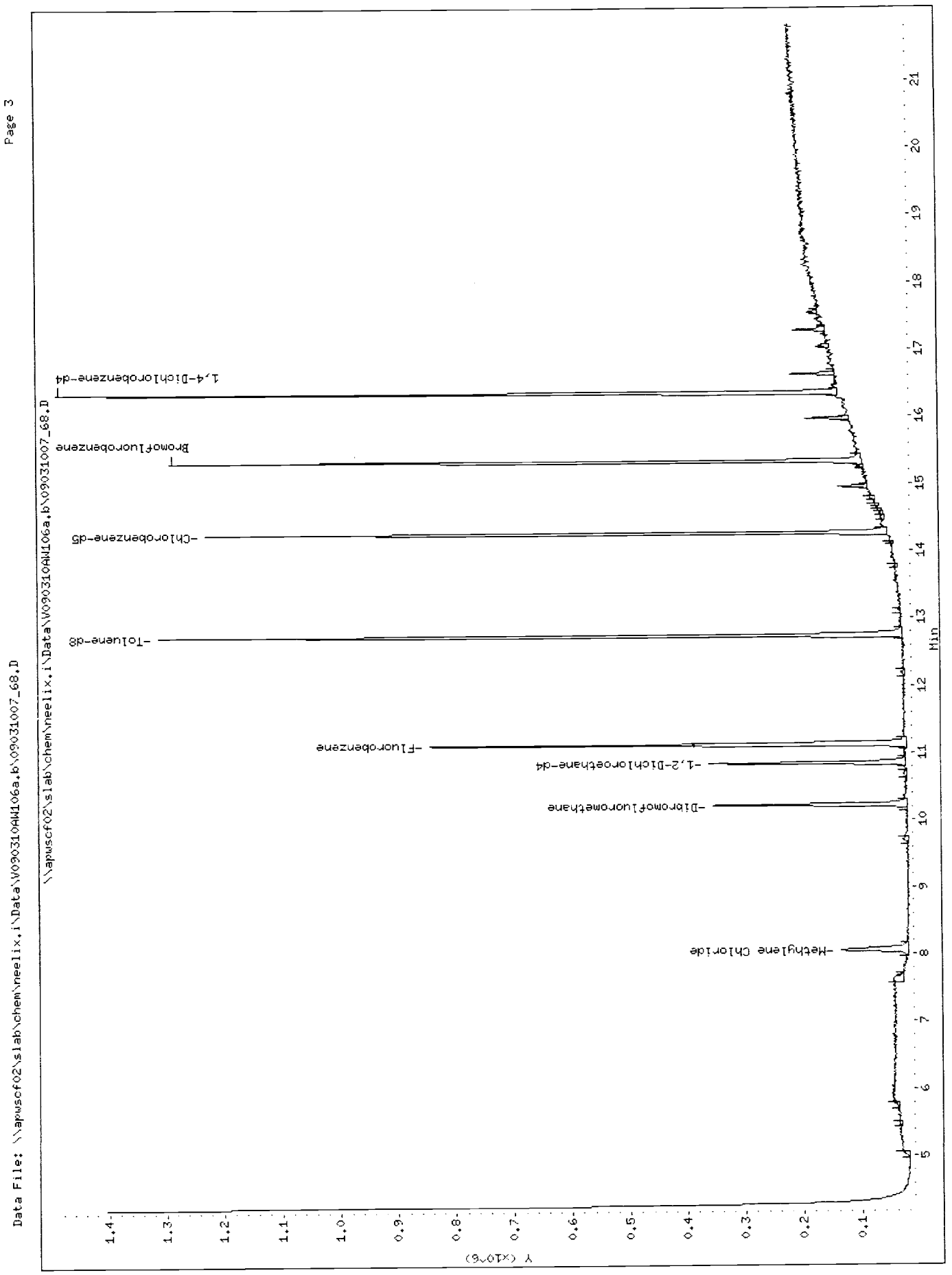
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	9.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	18 Methylene Chloride	84	8.062	8.063	(0.724)	104275	23.7526	2.639
$	35 Dibromofluoromethane	113	10.219	10.230	(0.918)	271670	113.683	12.631
$	43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	68202	114.682	12.742
*	46 Fluorobenzene	96	11.131	11.131	(1.000)	1008313	100.000	
$	57 Toluene-d8	98	12.741	12.751	(0.893)	1053337	108.676	12.075
*	71 Chlorobenzene-d5	117	14.270	14.270	(1.000)	873634	100.000	
$	79 Bromofluorobenzene	95	15.333	15.334	(0.937)	474068	116.058	12.895
*	93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	511359	100.000	

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031007_68.D
Lab Smp Id: S09T001768 Client Smp ID: S09T001768
Inj Date : 10-MAR-2009 14:39
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001768
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008TC_NTC.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -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\\apuscf02\slab\chem\neelix,i\Data\W090310AW106a,b\09031007_68.D
1,4-Dichlorobenzene-d4
Bromofluorobenzene
Chlorobenzene-d5
Toluene-d8
Fluorobenzene
1,2-Dichloroethane-d4
Dibromofluoromethane
Methylene Chloride
Min
Y (X10^6)

Data File: 09031008_57.D
Report Date: 19-Mar-2009 13:41

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031008_57.D
Lab Smp Id: S09T001757 Client Smp ID: S09T001757
Inj Date : 10-MAR-2009 15:09
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001757
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008NTC.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	0.25000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
18 Methylene Chloride	84	8.052	8.063	(0.723)	89826	15.6613	62.645(a)
$ 35 Dibromofluoromethane	113	10.219	10.230	(0.918)	277765	104.668	418.67
$ 43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	67662	102.454	409.81
* 46 Fluorobenzene	96	11.131	11.131	(1.000)	1119728	100.000	
$ 57 Toluene-d8	98	12.741	12.751	(0.893)	1100134	105.638	422.55
* 71 Chlorobenzene-d5	117	14.270	14.270	(1.000)	938687	100.000	
$ 79 Bromofluorobenzene	95	15.333	15.334	(0.937)	477596	105.163	420.65
* 93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	568535	100.000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: 09031008_57.D
Report Date: 19-Mar-2009 13:41

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031008_57.D
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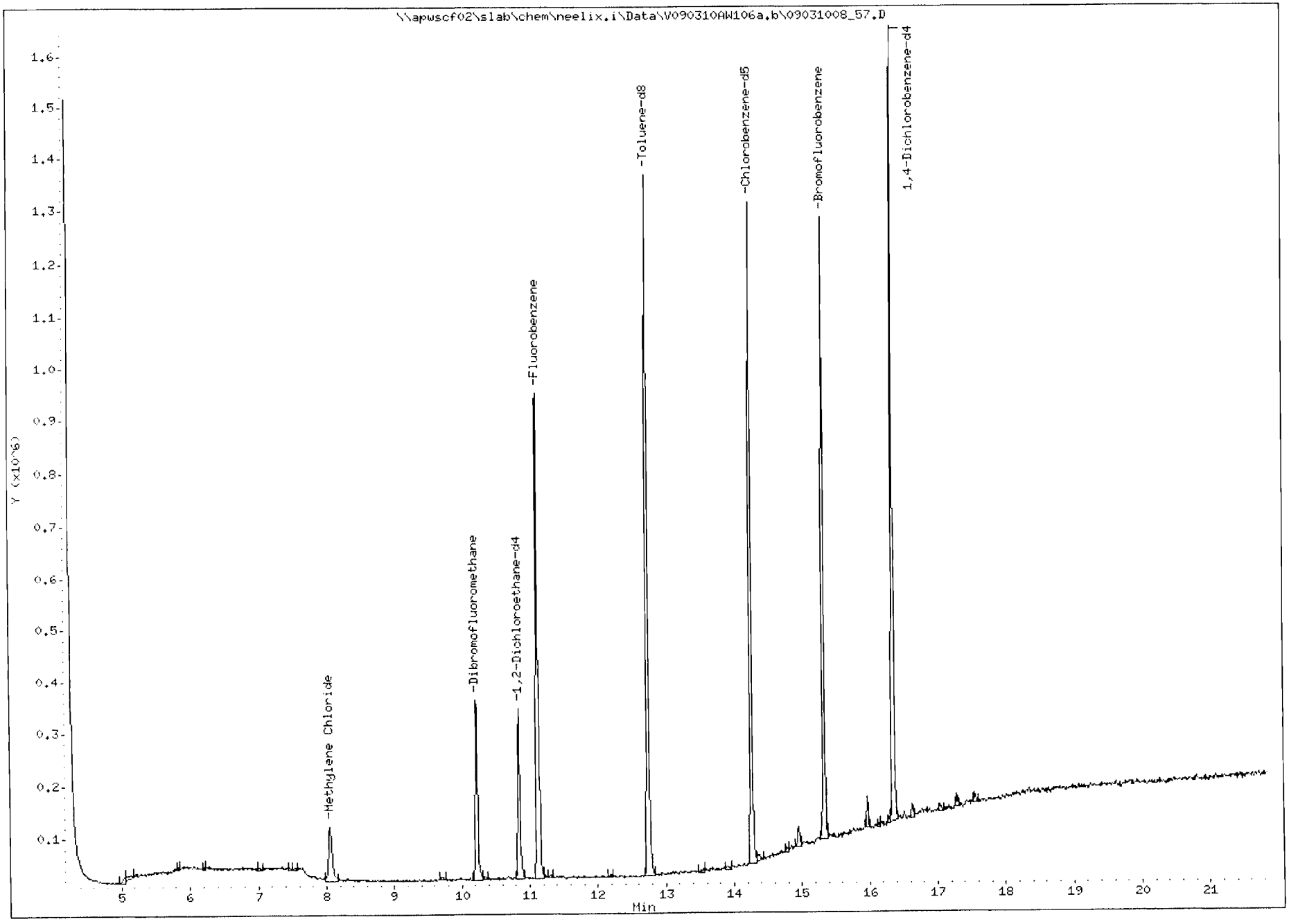
Inj Date : 10-MAR-2009 15:09
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001757
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008NTC.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -


\\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031008_57.D
Y (x10^6)
Min
-Methylene Chloride
-Dibromofluoromethane
-1,2-Dichloroethane-d4
-Fluorobenzene
-Toluene-d8
-Chlorobenzene-d5
-Bromofluorobenzene
1,4-Dichlorobenzene-d4

Data File: 09031009_77.D
Report Date: 19-Mar-2009 13:41

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031009_77.D
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Inj Date : 10-MAR-2009 15:39
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001777
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008NTC.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	0.25000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	18 Methylene Chloride	84	8.052	8.063	(0.723)	90531	15.4193	61.677(a)
	19 Acetone	58	8.103	8.103	(0.728)	46667	174.608	698.43(a)
	34 Tetrahydrofuran	72	10.219	10.230	(0.918)	7366	22.6192	90.477(a)
$	35 Dibromofluoromethane	113	10.219	10.230	(0.918)	21176	7.84898	31.396(aR)
$	43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	69674	103.773	415.09
*	46 Fluorobenzene	96	11.131	11.131	(1.000)	1138362	100.000	
	49 n-Butanol	56	11.485	11.496	(1.032)	139509	1889.63	7558.5
$	57 Toluene-d8	98	12.741	12.751	(0.893)	1090001	99.2938	397.18
*	71 Chlorobenzene-d5	117	14.270	14.270	(1.000)	989463	100.000	
$	79 Bromofluorobenzene	95	15.333	15.334	(0.937)	488682	100.983	403.93
*	93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	605812	100.000	

QC Flag Legend

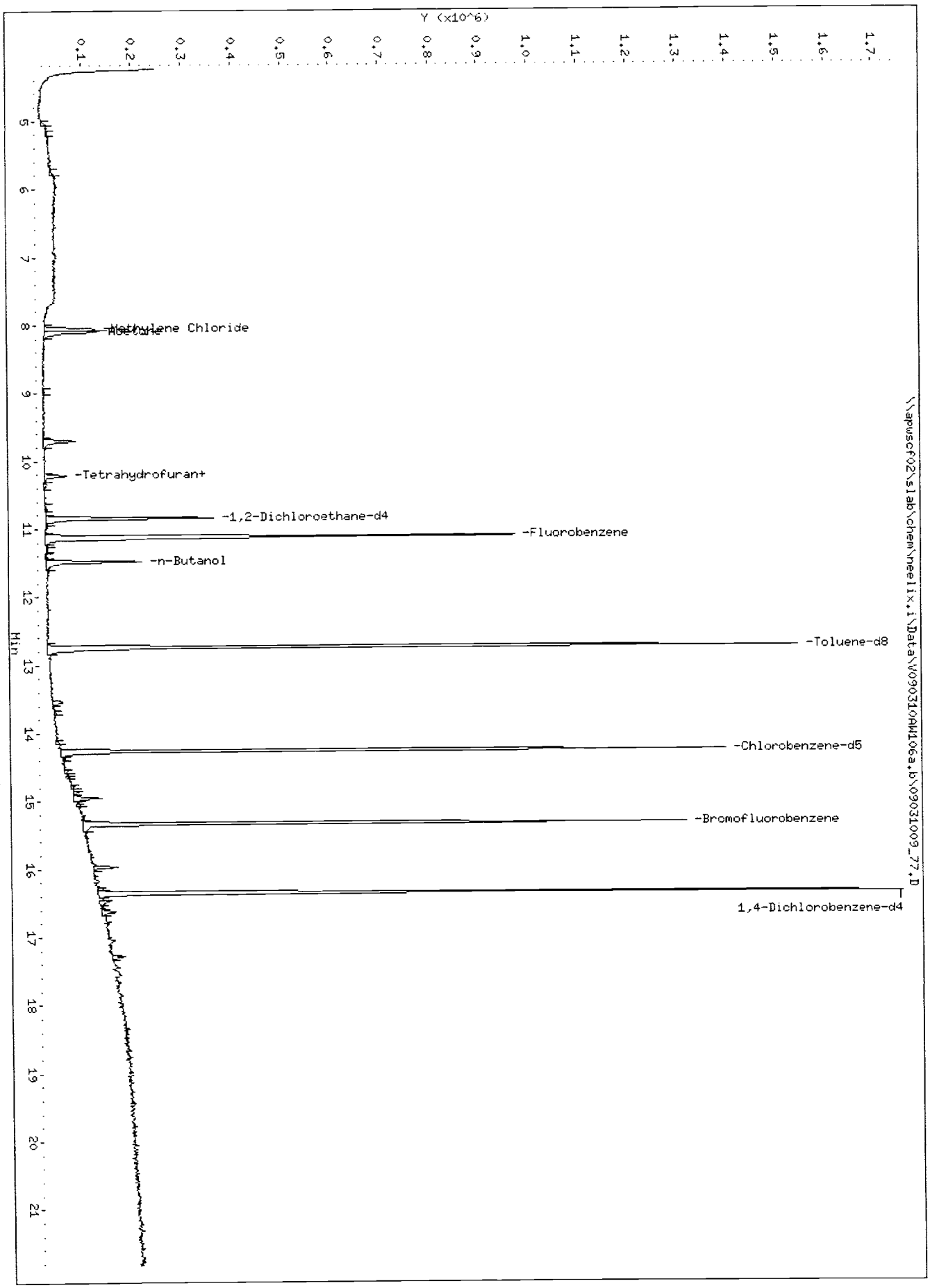
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: 09031009_77.D
Report Date: 19-Mar-2009 13:41

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031009_77.D
Lab Smp Id: S09T001777 Client Smp ID: S09T001777
Inj Date : 10-MAR-2009 15:39
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001777
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008NTC.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -


Y (x10^6)
Min
-Methylene Chloride
-Tetrahydrofuran+
-1,2-Dichloroethane-d4
-Fluorobenzene
-n-Butanol
-Toluene-d8
-Chlorobenzene-d5
-Bromofluorobenzene
1,4-Dichlorobenzene-d4
Data File: \\apwscf02\slab\chem\neelix.i\Data\W090310AW106a.b\09031009_77.D
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Data File: 09031010MS.D
Report Date: 19-Mar-2009 13:42

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031010MS.D
Lab Smp Id: S09T001777MS Client Smp ID: S09T001777MS
Inj Date : 10-MAR-2009 16:10
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001777
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 10 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008NTC.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

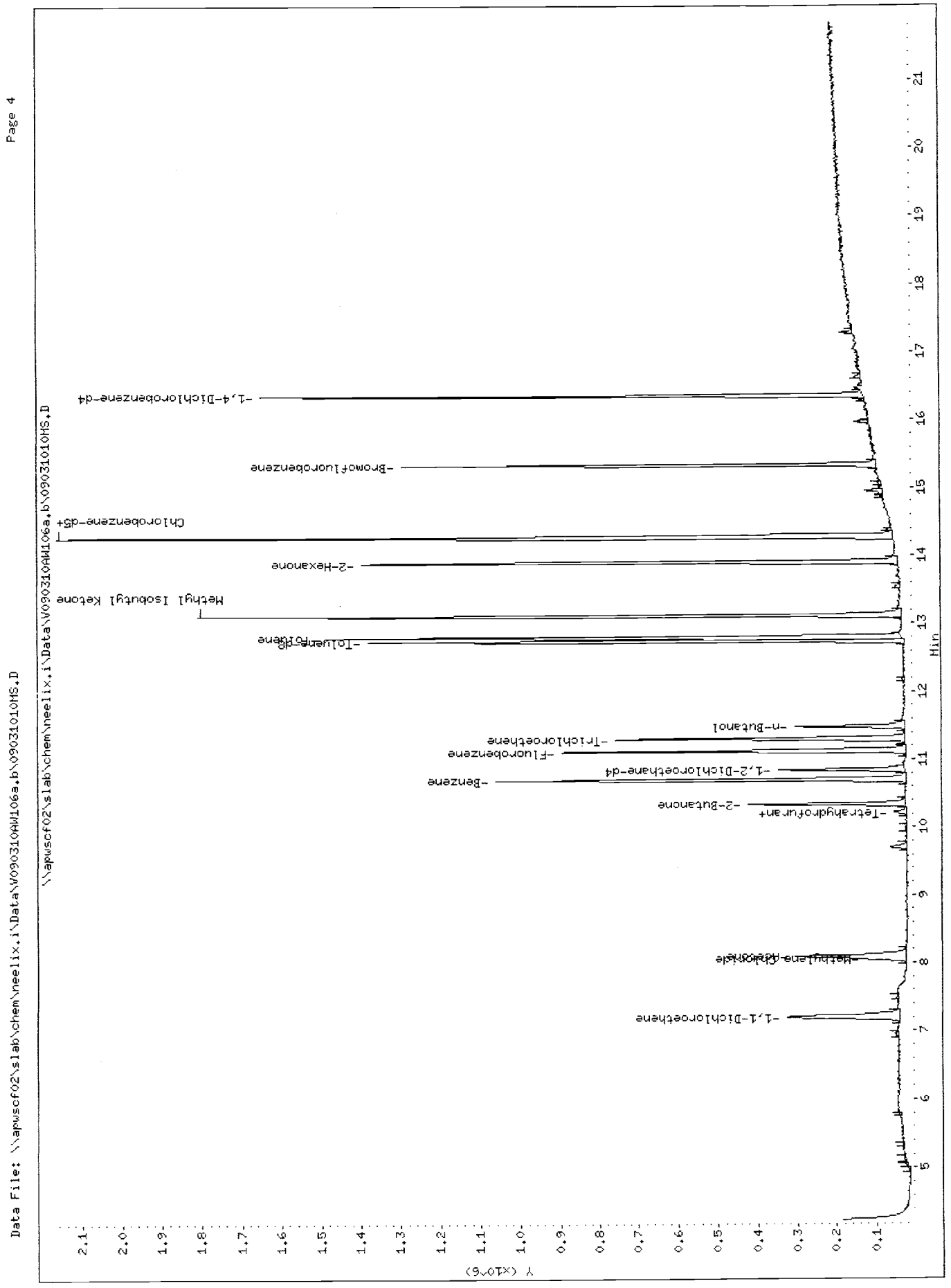
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	0.25000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	14 1,1-Dichloroethene	96	7.202	7.202	(0.647)	274389	113.585	454.34
	18 Methylene Chloride	84	8.052	8.063	(0.723)	90462	17.6635	70.654
	19 Acetone	58	8.103	8.103	(0.728)	170141	688.616	2754.5(R)
	34 Tetrahydrofuran	72	10.219	10.230	(0.918)	6765	22.4713	89.885(a)
$	35 Dibromofluoromethane	113	10.229	10.230	(0.919)	11631	4.66337	18.653(aR)
	38 2-Butanone	43	10.341	10.351	(0.929)	628372	550.718	2202.9
	41 Benzene	78	10.705	10.706	(0.962)	1203161	104.181	416.72
$	43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	67052	108.029	432.12
*	46 Fluorobenzene	96	11.131	11.131	(1.000)	1052365	100.000	
	47 Trichloroethene	95	11.303	11.313	(1.015)	289423	102.951	411.80
	49 n-Butanol	56	11.485	11.496	(1.032)	206615	3027.26	12109(AR)
$	57 Toluene-d8	98	12.741	12.751	(0.893)	1022938	99.4418	397.77
	59 Toluene	92	12.801	12.802	(0.897)	779563	100.528	402.11
	60 Methyl Isobutyl Ketone	43	13.115	13.126	(0.919)	1421796	558.957	2235.8
	68 2 Hexanone	43	13.895	13.906	(0.974)	1062095	580.923	2323.7
*	71 Chlorobenzene-d5	117	14.270	14.270	(1.000)	927204	100.000	
	72 Chlorobenzene	112	14.280	14.291	(1.001)	990689	102.368	409.47
$	79 Bromofluorobenzene	95	15.333	15.334	(0.937)	475128	105.416	421.66
*	93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	564239	100.000	

Data File: 09031010MS.D
Report Date: 19-Mar-2009 13:42

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.


Page 4
Data File: \\apwscf02\slab\chem\neelix,i\Data\W090310AW106a,b\090310l0HS,D
\\apwscf02\slab\chem\neelix,i\Data\W090310AW106a,b\090310l0HS,D
1,4-Dichlorobenzene-d4
Bromofluorobenzene
Chlorobenzene-d5
2-Hexanone
Methyl Isobutyl Ketone
Toluene-d8
n-Butanol
Trichloroethene
Fluorobenzene
1,2-Dichloroethane-d4
Benzene
2-Butanone
Tetrahydrofuran
1,1-Dichloroethene
Min
Y (x10^6)

Data File: 09031011MSD.D
Report Date: 19-Mar-2009 13:42

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031011MSD.D
Lab Smp Id: S09T001777MSD Client Smp ID: S09T001777MSD
Inj Date : 10-MAR-2009 16:40
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001777 MSD
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 11 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008NTC.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

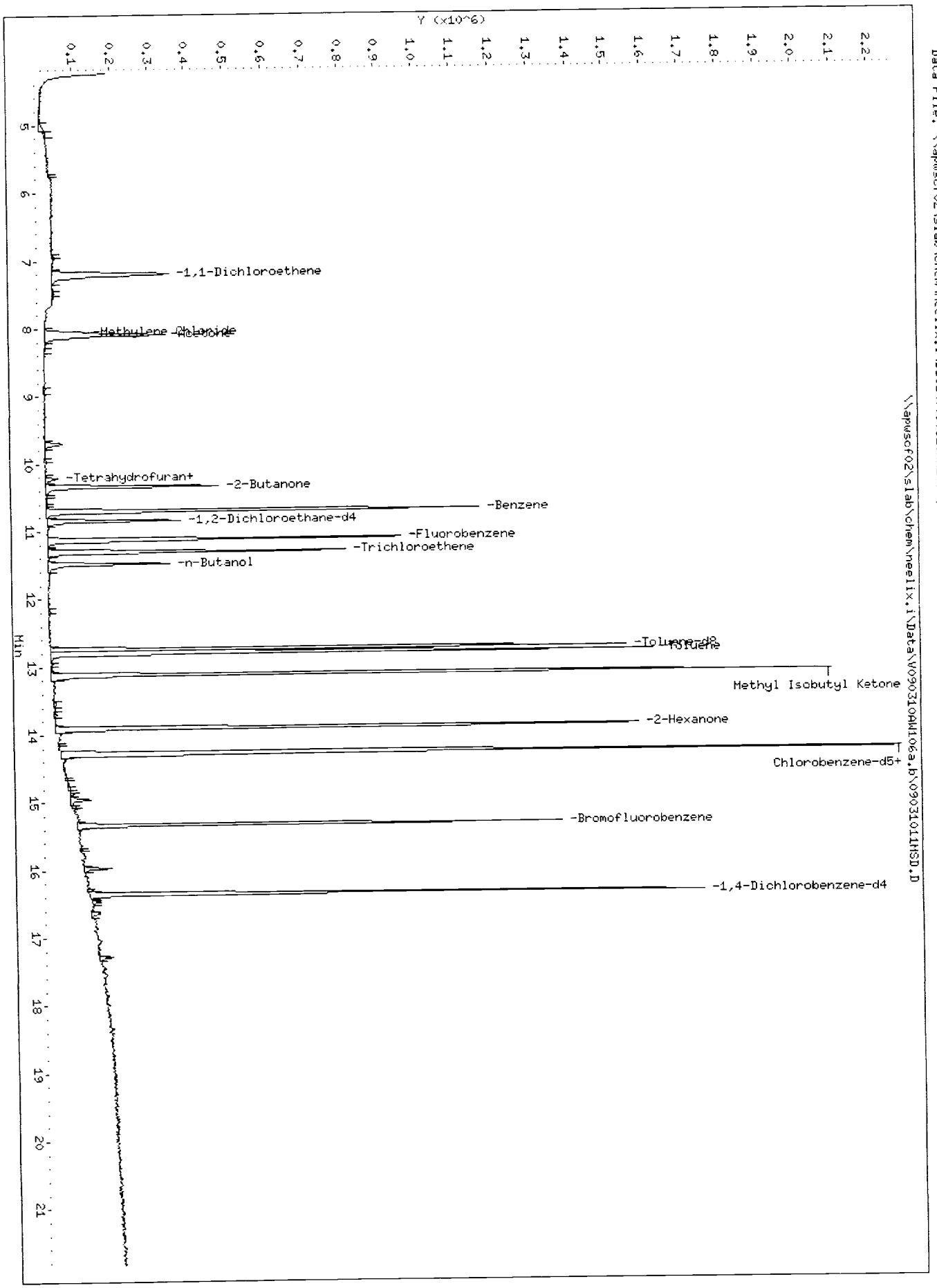
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	0.25000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	14 1,1-Dichloroethene	96	7.201	7.202	(0.648)	290315	112.960	451.84
	18 Methylene Chloride	84	8.052	8.063	(0.724)	90666	15.9262	63.705(a)
	19 Acetone	58	8.103	8.103	(0.729)	188411	716.766	2867.1(R)
	34 Tetrahydrofuran	72	10.219	10.230	(0.919)	6714	20.9626	83.850(a)
$	35 Dibromofluoromethane	113	10.219	10.230	(0.919)	8555	3.22408	12.896(aR)
	38 2-Butanone	43	10.341	10.351	(0.930)	712767	587.169	2348.7
	41 Benzene	78	10.705	10.706	(0.963)	1317870	107.261	429.04
$	43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	73998	112.060	448.24
*	46 Fluorobenzene	96	11.120	11.131	(1.000)	1119601	100.000	
	47 Trichloroethene	95	11.303	11.313	(1.016)	316267	105.743	422.97
	49 n-Butanol	56	11.485	11.496	(1.033)	228691	3149.49	12598(AR)
$	57 Toluene-d8	98	12.741	12.751	(0.893)	1097589	103.773	415.09
	59 Toluene	92	12.801	12.802	(0.897)	844902	105.967	423.87
	60 Methyl Isobutyl Ketone	43	13.115	13.126	(0.919)	1629403	623.012	2492.0
	68 2-Hexanone	43	13.895	13.906	(0.974)	1209310	643.309	2573.2
*	71 Chlorobenzene-d5	117	14.270	14.270	(1.000)	953341	100.000	
	72 Chlorobenzene	112	14.280	14.291	(1.001)	1054639	105.988	423.95
$	79 Bromofluorobenzene	95	15.333	15.334	(0.937)	505503	105.414	421.66
*	93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	600323	100.000	

Data File: 09031011MSD.D
Report Date: 19-Mar-2009 13:42

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
Min
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
-1,1-Dichloroethene
Methylene Chloride
Acetone
-Tetrahydrofuran+
-2-Butanone
-Benzene
-1,2-Dichloroethane-d4
-Fluorobenzene
-Trichloroethene
-n-Butanol
-Toluene-d8
Toluene
Methyl Isobutyl Ketone
-2-Hexanone
Chlorobenzene-d5+
-Bromofluorobenzene
-1,4-Dichlorobenzene-d4
Data File: \\apwscf02\slab\chem\neelix.i\Data\W090310AW106a.b\090311011HSD.D
\\apwscf02\slab\chem\neelix.i\Data\W090310AW106a.b\090311011HSD.D

Data File: 09031012_89.D
Report Date: 19-Mar-2009 13:42

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031012_89.D
Lab Smp Id: S09T001789 Client Smp ID: S09T001789
Inj Date : 10-MAR-2009 17:10
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001789
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008NTC.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Unit correction factor
Vo	0.25000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
18 Methylene Chloride	84	8.052	8.063	(0.723)	92302	17.0102	68.041
19 Acetone	58	8.103	8.103	(0.728)	43028	166.958	667.83(a)
34 Tetrahydrofuran	72	10.219	10.230	(0.918)	5968	19.0054	76.022(a)
$ 35 Dibromofluoromethane	113	10.219	10.230	(0.918)	9747	3.74665	14.986(aR)
$ 43 1,2-Dichloroethane-d4	102	10.847	10.858	(0.975)	71087	109.801	439.20
* 46 Fluorobenzene	96	11.131	11.131	(1.000)	1097685	100.000	
49 n-Butanol	56	11.485	11.496	(1.032)	120600	1694.04	6776.2
$ 57 Toluene-d8	98	12.751	12.751	(0.894)	1097936	105.789	423.16
* 71 Chlorobenzene-d5	117	14.270	14.270	(1.000)	935471	100.000	
$ 79 Bromofluorobenzene	95	15.333	15.334	(0.937)	489175	108.124	432.49
* 93 1,4-Dichlorobenzene-d4	152	16.356	16.356	(1.000)	566375	100.000	

QC Flag Legend

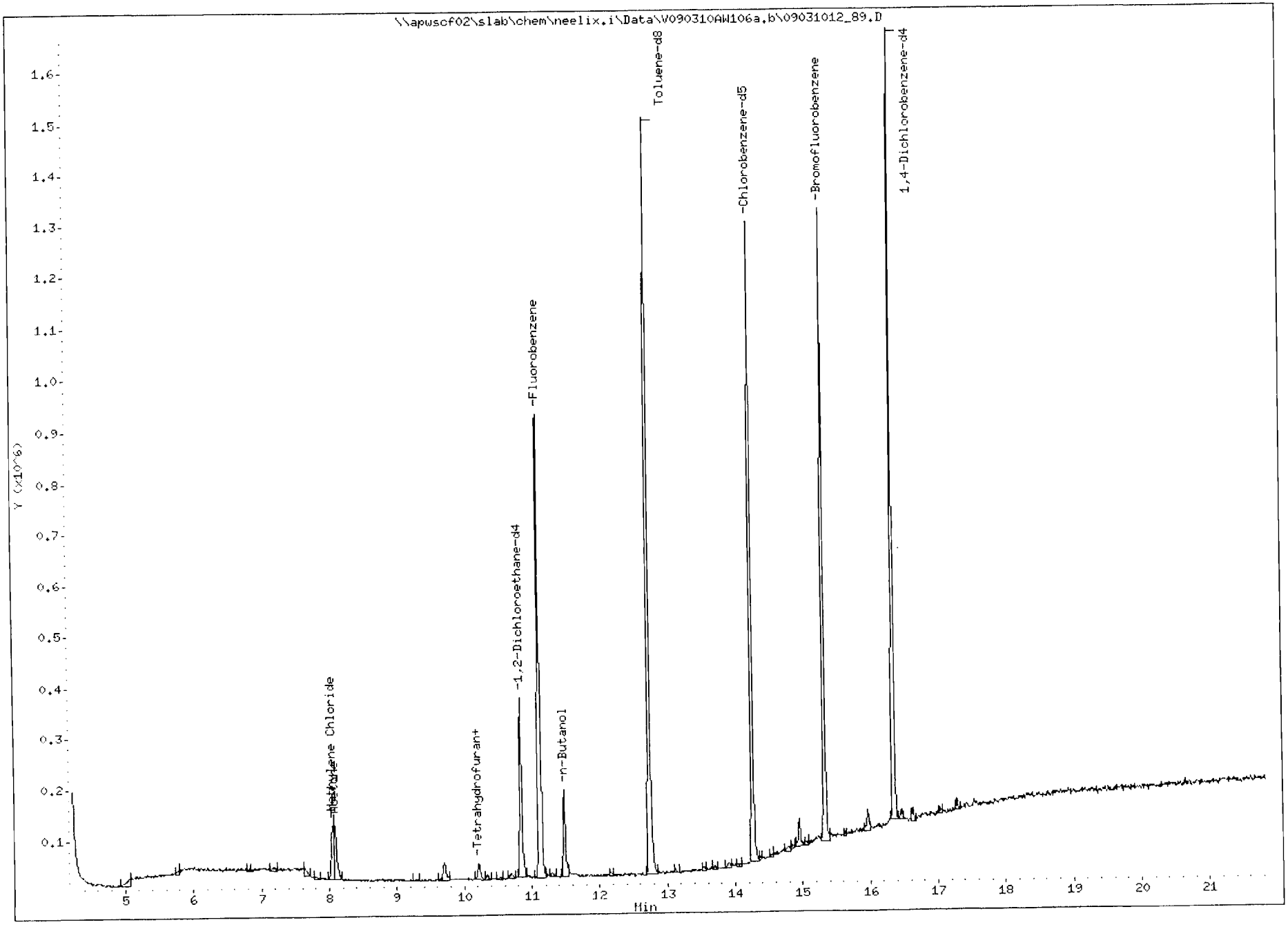
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: 09031012_89.D
Report Date: 19-Mar-2009 13:42

WSCF/222-S

Data file : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\09031012_89.D
Lab Smp Id: S09T001789 Client Smp ID: S09T001789
Inj Date : 10-MAR-2009 17:10
Operator : vlm Inst ID: neelix.i
Smp Info : S09T001789
Misc Info : VOA
Comment :
Method : \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b\8260B090304.m
Meth Date : 19-Mar-2009 10:15 neelix.i Quant Type: ISTD
Cal Date : 04-MAR-2009 18:16 Cal File: 09030408CAL5.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2008NTC.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -


\\apwscf02\slab\chem\neelix.i\Data\W090310AW106a.b\09031012_89.D
Y (x10^6)
Min
-Tetrahydrofuran+
-1,2-Dichloroethane-d4
-Fluorobenzene
-n-Butanol
Toluene-d8
-Chlorobenzene-d5
-Bromofluorobenzene
1,4-Dichlorobenzene-d4

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         Comment: 090310 AW106 EVAP3
        Operator: VLM
       Data Path: C:\MSDCHEM\1\DATA\090310\
Top                    Pre-Seq Cmd:
Instrument Control     Pre-Seq Cmd:
Data Analysis          Pre-Seq Cmd:

Top                   Post-Seq Cmd:
Instrument Control    Post-Seq Cmd:
Data Analysis         Post-Seq Cmd:

   Method Sections To Run      On A Barcode Mismatch
     (X) Full Method              (X) Inject Anyway
     ( ) Reprocessing Only        ( ) Don't Inject
```

Line			Sample Name/Misc Info		
1)	Sample	1	09031001	BFB	PRERUN
2)	BFB	2	09031002	BFB	BFB
3)	Sample	3	09031003	8260	CCV
4)	Sample	4	09031004	8260	CCB
5)	Sample	5	09031005	8260	LCS
6)	Sample	6	09031006	8260	S09T001752
7)	Sample	7	09031007	8260	S09T001768
8)	Sample	8	09031008	8260	S09T001757
9)	Sample	9	09031009	8260	S09T001777
10)	Sample	10	09031010	8260	S09T001777 MS
11)	Sample	11	09031011	8260	S09T001777 MSD
12)	Sample	12	09031012	8260	S09T001789
13)	Sample	13	09031013	8260	S09T001801

Last Modified: Tue Mar 10 08:29:21 2009 Page: 1

SAMPLE INFORMATION SUMMARY

BATCH: \\apwscf02\slab\chem\neelix.i\Data\V090310AW106a.b

Data File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
09031002BFB.D	10-MAR-2009 09:29	BFB	1.00	neelix	BFBCLP.m	V090310AW106a.b
09031003CCV.D	10-MAR-2009 09:59	Continuing Cal	1.00	neelix	8260B090304.m	V090310AW106a.b
09031004CCB.D	10-MAR-2009 10:29	BLANK	1.00	neelix	8260B090304.m	V090310AW106a.b
09031005LCS.D	10-MAR-2009 10:59	LCS	1.00	neelix	8260B090304.m	V090310AW106a.b
09031006_52.D	10-MAR-2009 14:08	Unknown	1.00	neelix	8260B090304.m	V090310AW106a.b
09031007_68.D	10-MAR-2009 14:39	Unknown	1.00	neelix	8260B090304.m	V090310AW106a.b
09031008_57.D	10-MAR-2009 15:09	Unknown	1.00	neelix	8260B090304.m	V090310AW106a.b
09031009_77.D	10-MAR-2009 15:39	Unknown	1.00	neelix	8260B090304.m	V090310AW106a.b
09031010MS.D	10-MAR-2009 16:10	MS	1.00	neelix	8260B090304.m	V090310AW106a.b
09031011MSD.D	10-MAR-2009 16:40	MSD	1.00	neelix	8260B090304.m	V090310AW106a.b
09031012_89.D	10-MAR-2009 17:10	Unknown	1.00	neelix	8260B090304.m	V090310AW106a.b
09031013_01.D	10-MAR-2009 17:40	Unknown	1.00	neelix	8260B090304.m	V090310AW106a.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
09031002BFB.D	LIQUID	VOA	BFB	13311	BFB	AW106_EVAP3
09031003CCV.D	LIQUID	VOA	CCV	13311	CCV	AW106_EVAP3
09031004CCB.D	LIQUID	VOA	CCB	13311	CCB	AW106_EVAP3
09031005LCS.D	LIQUID	VOA	LCS	13311	LCS	AW106_EVAP3
09031006_52.D	LIQUID	VOA	S09T001752	13311	S09T001752	AW106_EVAP3
09031007_68.D	LIQUID	VOA	S09T001768	13311	S09T001768	AW106_EVAP3
09031008_57.D	LIQUID	VOA	S09T001757	13311	S09T001757	AW106_EVAP3
09031009_77.D	LIQUID	VOA	S09T001777	13311	S09T001777	AW106_EVAP3
09031010MS.D	LIQUID	VOA	S09T001777MS	13311	S09T001777MS	AW106_EVAP3
09031011MSD.D	LIQUID	VOA	S09T001777MSD	13311	S09T001777MSD	AW106_EVAP3
09031012_89.D	LIQUID	VOA	S09T001789	13311	S09T001789	AW106_EVAP3
09031013_01.D	LIQUID	VOA	S09T001801	13311	S09T001801	AW106_EVAP3

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
09031002BFB.D	all.sub		14300263	14300264	314	46000005
09031003CCV.D	2008TC_NTC.sub	2008NTC.spk	14300277	14300264	13502842	16025
09031004CCB.D	2008TC_NTC.sub	2008NTC.spk	14300279	14300264	13502842	16025
09031005LCS.D	2008TC_NTC.sub	2008NTC.spk	14300281	14300264	13502842	16025
09031006_52.D	2008TC_NTC.sub	2008NTC.spk	14300283	14300264	13502842	16025
09031007_68.D	2008TC_NTC.sub	2008NTC.spk	14300285	14300264	13502842	16025
09031008_57.D	2008NTC.sub	2008NTC.spk	14300287	14300264	13502842	16025
09031009_77.D	2008NTC.sub	2008NTC.spk	14300289	14300264	13502842	16025
09031010MS.D	2008NTC.sub	2008NTC.spk	14300291	14300264	13502842	16025
09031011MSD.D	2008NTC.sub	2008NTC.spk	14300293	14300264	13502842	16025
09031012_89.D	2008NTC.sub	2008NTC.spk	14300295	14300264	13502842	16025
09031013_01.D	2008NTC.sub	2008NTC.spk	14300297	14300264	13502842	16025

VOC GC/MS Technical Data Review Checklist

Project Code: AW-106 EVAP3 Sample S09T001801 Rerun

Method: LA-523-118 Rev./Mod.: G0

Review Items	----- Level 1 ----- Yes	No	N/A	Level 2	Comments & Samples Affected
Tune					
1. Did BFB meet tune criteria?	✓			✓	
2. Were all samples injected within 12 hours of the tune?	✓			✓	
Initial Calibration		✓			
1. Is completed ICAL checklist attached?				✓	
Continuing Calibration					
1. Do the target compounds %D meet method criteria?	✓			✓	
2. Was elution order checked for isomeric pairs?	✓			✓	
3. Traceability of standards properly documented?	✓			✓	
4. Manual integrations/ratio failures checked?	✓			✓	
5. Do the Internal Stds meet criteria against the ICAL?	✓			✓	
Client Samples & QC Sample Results					
1. Is the automated formula shown on the printout correct?	✓			✓	
2. MDL values checked for correctness?	✓			✓	
3. Were spectra for positive results evaluated?	✓			✓	
4. Are positive results within calibration range?	✓			✓	
5. Dilutions due to target cpds? ____ Dilutions due to non-targets? ____		✓			
6. Data checked for detector saturation?	✓			✓	
7. Do internal standards (IS) meet criteria?	✓			✓	
8. Are target constituents in LCS within control limits?	✓			✓	
9. All target cpds in MB < method criteria?	✓			✓	
10. Are surrogate recoveries for MB and LCS within control limits?	✓			✓	
11. Are MS/MSD recoveries and RPDs within control limits?			✓	✓	MS/MSD were run on the 10th,
12. Are surrogate recoveries for samples within control limits?	✓			✓	except DBFM-which is a know waste
13. Manual integrations checked?	✓			✓	tank MATRIX affect
14. TIC's/Unknowns evaluated?	✓			✓	
15. Internal Stds used to quantitate TICs free from coelution?	✓			✓	
16. Chromatogram TIC/Unknown/I.S. peaks integrated properly?	✓			✓	
17. Is appropriate raw data included?	✓			✓	
18. Are all manually entered data verified?	✓			✓	
19. Are all flags present (B,J etc.)?	✓			✓	
20. Is the order of the analysis correct (Tune/CCV/Blank, etc.)?	✓			✓	
21. Is the data package complete – all required bench sheets, forms, etc.?	✓			✓	

1st Level Data Reduction: Mark Duckshere Date: 3/23/09

2nd Level Data Reviewer: [signature] Date: 4-2-09

VOC GC/MS Initial Calibration Review Checklist

Instrument ID and Date: Neelix 03/04/09

Analysis Method Used: LA-523-118 Rev./Mod.: G-0

Review Items	----- Level 1 ----- Yes	No	N/A	Level 2	Comments
Initial Calibration					List all exceptions below (cpd & RSD)
1. BFB meets criteria?	✓			✓	
2. ICAL date and instrument ID verified?	✓			✓	
3. Sufficient number of calibration points used?	✓			✓	
4. Reasons for removal of points documented?			✓	✓	
5. %RSD or correlation coefficient within method limits?	✓			✓	
6. Isomeric pairs checked for correct peak assignment?	✓			✓	
7. Data checked for detector saturation?	✓			✓	(1),(2),(3)
8. Standards traceability properly documented?	✓			✓	
9. Internal Std. Area responses within method criteria?	✓			✓	
10. Manual integrations checked?	✓			✓	
11. 2nd source ICV recovery within method criteria?		✓		✓	I.S. Failure - ICV Reran 3/5/09 - PASS

(1) 1,1,2-trichloroethane Quant Signal on Cal-Level 6 is close to saturation but curve looks good.

(2) m/p Xylene Qual signal on Cal-Level 6 is slightly saturated but passed ratio Requirement.

(3) Isopropylbenzene Quant signal on Cal-Level 6 is close to saturation but curve looks good.

1st Level Data Reduction: Mark Buchheim Date: 3/19/09

2nd Level Data Reviewer: KAK Date: 03/23/09

PEER REVIEWED by DR Hansen

Project: AW106 CVAP 3 Sample 1801 VOA rerun

Item	Review Comment	Resolution
1.	Checklist is marked "N/A" for MS/MSD. Why? The MS/MSD were analyzed, and are required.	MS/MSD were analyzed with the original analyses and were not required. DRH 4-3-09
2.	The 2 TIC's that appear in the sample did NOT appear in any of the other samples, nor the other 2 times this sample was analyzed. Are they system artifacts? Contaminates from sample being opened?	added Comment to Narrative. -MJD 4/6/09 Flagged as "System artifact" and added "Y" flag
3.	Interesting to note that the surrogate DBFM recovery dramatically improved over the first 2 analyses. Idea's? Is the increase in DBFM related to the TIC's in # 2 above?	Don't think so. I checked the N-Butanol result on each analyses of this sample 03/10 and 03/12 and the N-Butanol result was consistent - indicating that the difference was not due to an incorrect subsample.
4.	When will the Ical checklist be available?	Checklist was included. DRH 4-3-09
5	THF MDL doesn't match the shave area	Mark showed me the correct MDL location for THF. DRH 4-3-09

Mark Duchsherer — Resolved by: Name

Mark Duchsherer — Signature

4-9-09 — Date

Daniel R Hansen — Peer Reviewer Concurrence: Name

Daniel R Hansen — Signature

4-09-09 — Date

Page 1 of 1