August 22, 2006

Mr. Chuck Zimmerman
Brown and Caldwell
3264 Goni Rd., Suite 153
Carson City, NV 89706

Dear Mr. Zimmerman:

Enclosed is the quality assurance review of the analytical data for the analyses of the 15 filter samples that were collected on June 7, 2006, in association with the ARCO Yerington Mine Site (Event 83). The samples were collectively analyzed for gross alpha, gross beta, radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-234, uranium-235, and uranium-238.

Based on this quality assurance review, several thorium-230 results were qualified as "not-detected" due to blank contamination. In addition, two thorium-230 results were qualified as estimated due to field duplicate imprecision. Furthermore, a few gross alpha, radium-226, radium-228, thorium-230, thorium-232, and uranium-234 results were qualified as estimated due to positive results reported between the method detection limit and the reporting limit.

If you have any questions or comments, please do not hesitate to call.

Sincerely,

Konstadina Vlahogiani, M.S.
Senior Quality Assurance Chemist III/
Project Manager

Concurred by:

Rock J. Vitale, CEAC, CPC
Technical Director of Chemistry/
Principal

KV/RJV:hm
Enc.

cc: Mr. Guy Graening – Brown and Caldwell

QUALITY ASSURANCE REVIEW

OF THE SAMPLES COLLECTED AT THE

ARCO YERINGTON MINE SITE

ON JUNE 7, 2006 (EVENT 83)

August 22, 2006

Prepared for:

ATLANTIC RICHFIELD COMPANY
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Prepared by:

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1.0 Introduction

This quality assurance (QA) review is based upon a rigorous examination of all data generated from the analyses of the 15 filter samples that were collected by Brown and Caldwell on June 7, 2006, in association with the ARCO Yerington Mine Site (Event 83). The samples included in this QA review are specified on Table 1.

This review has been performed with guidance from the "National Functional Guidelines for Inorganic Data Review" (US EPA, 2/94). The aforementioned document is not entirely applicable to the type of analyses and analytical protocols performed on the samples evaluated in this QA review, but it has been used with professional judgment to aid the data reviewer in the interpretation of the QC analysis results and in the overall evaluation of the sample data deliverables. It should also be noted that results affected by blank contamination will be designated with a "UJ" qualifier (not the "U" qualifier typically used when following the National Functional Guidelines) in order to be consistent with historical project validation protocols and the current project database.

The reported analytical results are presented as a summary of the data in Section 2. Data were examined to determine the usability of the analytical results and the compliance relative to the requirements specified in the published analytical methods, the Severn Trent Laboratories, Inc. (STL) analytical Standard Operating Procedures (SOPs), the Quality Assurance Project Plan (QAPjP) for the Atlantic Richfield Company Yerington Mine Site (September 2003), and the Technical Requirements For Environmental Laboratory Analytical Services, BP Global Contract Lab Network (GCLN) (5/22/02, Revision 08). Qualifier codes have been placed next to results to enable the data user to quickly assess the qualitative and/or quantitative reliability of any result. This critical QA review identifies data quality issues for specific samples and specific evaluation criteria. The data qualifications allow the data's end-user to best understand the usability of the analytical results. Data not qualified in this report should be considered valid based on the QC criteria that have been reviewed. Details of this QA review are presented in Section 1 of this report. This report was prepared to provide a critical review of the laboratory analyses and reported analytical results. Rigorous QA reviews of laboratory-generated data routinely identify various problems associated with analytical measurements, even from the most experienced and capable laboratories.

TABLE 1

SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Field Sample Identification	Laboratory Sample Identification	SDG Number	Matrix	Date Sample Collected	Parameters Examined
000487	J6F270218-1	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
000488	J6F270218-2	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
000489	J6F270218-3	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
000490	J6F270218-4	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
000491	J6F270218-5	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
000492	J6F270218-6	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
000493 (Trip Blank)	J6F270218-7	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
P-0660	J6F270218-8	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
P-0661	J6F270218-9	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
P-0662	J6F270218-10	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
P-0663	J6F270218-11	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
P-0664	J6F270218-12	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
P-0665	J6F270218-13	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
P-0666 (Field Duplicate of P-0660)	J6F270218-14	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U
P-0667 (Field Blank)	J6F270218-15	31999	Filter	6/7/06	α, β, ^{226}Ra, ^{228}Ra, Th, U

NOTES:

α	-	Gross Alpha by STL SOP RICH-RC-5014/5016 (based on US EPA Method 900.0).
β	-	Gross Beta by STL SOP RICH-RC-5014/5016 (based on US EPA Method 900.0).
^{226}Ra	-	Radium-226 by STL SOP RICH-RC-5005 (based on US EPA Method 903.1).
^{228}Ra	-	Radium-228 by STL SOP RICH-RC-5005 (based on US EPA Method 904.0).
Th	-	Thorium-228, Thorium-230, and Thorium-232 by STL SOP RICH-RC-5087.
U	-	Uranium-234, Uranium-235, and Uranium-238 by STL SOP RICH-RC-5067 (based on US EPA Method 908.0).

2.0 Findings

Complete support documentation for this radiological analysis QA review is presented in Section 8.0 of this report. The cover sheet for this section is a checklist of all QA procedures required by the protocols and examined in this data review.

A. Gross Alpha Analysis

Fifteen samples were analyzed for gross alpha by STL SOP RICH-RC-5014/5016 (based on US EPA Method 900.0). The findings offered in this report for this fraction are based on the items on the following table.

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Holding Times	√			
Blank Results	√			
LCS Recoveries	√			
Field Duplicate Precision	√			
Efficiency Checks	√			
Background Checks	√			
Traceability Documents	√			
Sample Preparation	√			
Quantitation of Results			√	
Evaluation of Raw Data	√			

Quantitation of Results: All positive results reported at concentrations greater than the method detection limit (MDL) but less than the reporting limit (RL) were qualified as estimated and flagged "J" on the data tables.

B. Gross Beta Analysis

Fifteen samples were analyzed for gross beta by STL SOP RICH-RC-5014/5016 (based on US EPA Method 900.0). The findings offered in this report for this fraction are based on the items on the following table.

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Holding Times	√			
Blank Results	√			
LCS Recoveries	√			
Field Duplicate Precision	√			
Efficiency Checks	√			

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Background Checks	√			
Traceability Documents	√			
Sample Preparation	√			
Quantitation of Results	√			
Evaluation of Raw Data	√			

No findings were observed for the gross beta fraction.

C. Radium-226 Analysis

Fifteen samples were analyzed for radium-226 by STL SOP RICH-RC-5005 (based on US EPA Method 903.1). The findings offered in this report for this fraction are based on the items on the following table.

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Holding Times	√			
Blank Results	√			
LCS Recoveries	√			
Chemical Yield	√			
Field Duplicate Precision	√			
Instrument Performance Checks	√			
Background Checks	√			
Traceability Documents	√			
Sample Preparation	√			
Quantitation of Results			√	
Evaluation of Raw Data	√			

Quantitation of Results: All positive results reported at concentrations greater than the MDL but less than the RL were qualified as estimated and flagged "J" on the data tables.

D. Radium-228 Analysis

Fifteen samples were analyzed for radium-228 by STL SOP RICH-RC-5005 (based on US EPA Method 904.0). The findings offered in this report for this fraction are based on the items on the following table.

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Holding Times	√			
Blank Results	√			
LCS Recoveries	√			
Chemical Yield	√			
Field Duplicate Precision	√			
Efficiency Checks	√			
Background Checks	√			
Traceability Documents	√			
Sample Preparation	√			
Quantitation of Results			√	
Evaluation of Raw Data	√			

Quantitation of Results: All positive results reported at concentrations greater than the MDL but less than the RL were qualified as estimated and flagged "J" on the data tables.

E. Thorium-228, Thorium-230, and Thorium-232 Analysis

Fifteen samples were analyzed for thorium-228, thorium-230, and thorium-232 by STL SOP RICH-RC-5087. The findings offered in this report for this fraction are based on the items on the following table.

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Holding Times	√			
Blank Results			√	
LCS Recoveries	√			
Chemical Yield	√			
Field Duplicate Precision			√	
Energy Calibration Check	√			
Efficiency Calibration Check	√			
Background Check	√			
Full Width at the Half Maximum	√			
Traceability Documents	√			
Sample Preparation	√			

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Quantitation of Results			√	
Evaluation of Raw Data	√			

Blank Analysis Results: Thorium-230 was observed to be present in the method blank, trip blank, and field blank associated with all project samples. The positive results for thorium-230 in samples 000487, 000489, 000490, 000492, P-0665, and P-0666 should be considered "not-detected" and have been flagged "UJ" on the data tables.

Field Duplicate Precision: Acceptable precision and sample representativeness (replicate error ratio [RER] <1.96) were not observed between the positive results observed in the field duplicate pair (sample P-0660 and its field duplicate, sample P-0666) analyzed for thorium-230. The positive results for thorium-230 in samples P-0660 and P-0666 should be considered estimated and have been flagged "J" (unless previously flagged "UJ" due to blank contamination) on the data tables.

Quantitation of Results: All positive results reported at concentrations greater than the MDL but less than the RL were qualified as estimated and flagged "J" on the data tables.

F. Uranium-234, Uranium-235, and Uranium-238 Analysis

Fifteen samples were analyzed for uranium-234, uranium-235, and uranium-238 by STL SOP RICH-RC-5067 (based on US EPA Method 908.0). The findings offered in this report for this fraction are based on the items on the following table.

Item Reviewed	Acceptable	Acceptable With Discussion	Acceptable With Qualification	Not Acceptable
Holding Times	√			
Blank Results	√			
LCS Recoveries	√			
Chemical Yield	√			
Field Duplicate Precision	√			
Energy Calibration Check	√			
Efficiency Calibration Check	√			
Background Check	√			
Full Width at the Half Maximum	√			
Traceability Documents	√			
Sample Preparation	√			
Quantitation of Results			√	
Evaluation of Raw Data	√			

Quantitation of Results: All positive results reported at concentrations greater than the MDL but less than the RL were qualified as estimated and flagged "J" on the data tables.

3.0 Qualifier Summary Tables

A. Gross Alpha Analysis

Analyte	SDG Number	Samples	Validation Qualifier	Reason for Qualification
gross alpha	31999	000487, 000488, 000489, 000491, P-0662, and P-0665	J	T - positive result reported between the MDL and RL

B. Gross Beta Analysis

Analyte	SDG Number	Sample	Validation Qualifier	Reason(s) for Qualification
Qualification of Data Was Not Warranted				

C. Radium-226 Analysis

Analyte	SDG Number	Sample	Validation Qualifier	Reason for Qualification
radium-226	31999	000491	J	T - positive result reported between the MDL and RL

D. Radium-228 Analysis

Analytes	SDG Number	Sample	Validation Qualifier	Reason for Qualification
radium-228	31999	P-0663	J	T - positive result reported between the MDL and RL

E. Thorium-228, Thorium-230, and Thorium-232 Analysis

Analyte	SDG Number	Samples	Validation Qualifier	Reasons for Qualification
thorium-230	31999	000493 and P-0667	J	T - positive result reported between the MDL and RL

Analyte	SDG Number	Samples	Validation Qualifier	Reasons for Qualification
thorium-232	31999	000491	J	T - positive result reported between the MDL and RL
thorium-230	31999	000487, 000489, 000490, 000492, P-0665, and P-0666	UJ	2-method blank contamination/ 7-field and trip blank contamination
thorium-230	31999	P-0660 and P-0666	J	8-field duplicate imprecision

F. Uranium-234, Uranium-235, and Uranium-236 Analysis

Analyte	SDG Number	Sample	Validation Qualifier	Reason(s) for Qualification
uranium-234	31999	000491	J	T - positive result reported between the MDL and RL

4.0 Overall Assessment

Based on this quality assurance review, several thorium-230 results were qualified as “not-detected” due to blank contamination. In addition, two thorium-230 results were qualified as estimated due to field duplicate imprecision. Furthermore, a few gross alpha, radium-226, radium-228, thorium-230, thorium-232, and uranium-234 results were qualified as estimated due to positive results reported between the MDL and the RL.

5.0 Radiological Data Qualifiers and Valid Reason Codes

Radiological Data Qualifiers

U Analyte not detected at the detection limit concentration.

J Reported value is an estimated concentration.

UJ Analyte not detected at an estimated detection limit concentration.

R These data were rejected and were not used for any purposes.

UR The analyte was not detected. The detection limit is unreliable and may be representative of a false negative. These data were rejected and are not usable for any purpose.

Valid Reason Codes

1	Holding time violation
2	Method blank contamination
3	Surrogate recovery
4	Matrix spike/matrix spike duplicate recovery
5	Matrix spike/matrix spike duplicate precision outside limits
6	Laboratory control sample recovery
7	Field blank contamination
8	Field duplicate precision outside limits
9	Other deficiencies (including cooler temperature)
A	Absence of supporting QC
S	ICV, CCV or column performance check problem
Y	Initial and continuing calibration blank problem
M	Interference check samples problem
O	Post-digestion spike outside of 85-115%
F	MSA correlation coefficient <0.995, or MSA not done
G	Serial dilution problem
K	DFTPP or BFB tuning problem
Q	Initial calibration problem
X	Internal standard recovery problem
V	Second source standard calibration verification problem
L	Low bias
Z	Retention time problem
N	Counting time error (radionuclide chemistry)
W	Detector instability (radionuclide chemistry)
C	Co-elution of compounds
E	Value exceeds linear calibration range
I	Interferences present during analysis
T	Trace level compound, poor quantitation
P	1C/2C precision outside of limits
B	LCS/LCSD precision outside limits
D	Lab Dup/Rep precision outside limits
H	High bias

6.0 Signatures

Report prepared by:

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Date: 8/22/06

7.0 ANALYTICAL RESULTS

Arco - Yerington
SDG: 32815

			Lab Sample	9H796F10					9H796L10					9H796N10				
			Field Sample	000487					000488					000489				
			Collect Date	6/4/2006					6/4/2006					6/4/2006				
			Type	N					N					N				
			Parent															
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
E900.0	ALPHA	ALPHA, GROSS	PCI	5.22	J / T	4.52	20	3.4	5.5	J / T	4.55	20	3.5	6.46	J / T	3.86	20	3.6
	BETA	BETA, GROSS	PCI	15.4		5.54	6	4.1	17.5		5.21	6	4.2	15.7		4.99	6	3.9
E903.1	RA-226	RADIUM-226	PCI	0.0988	U	0.787	1	0.41	0.279	U	0.649	1	0.38	0.181	U	0.771	1	0.42
E904.0	RA-228	RADIUM-228	PCI	0.812	U	2.51	3.1	1.1	0.9	U	2.67	3.1	1.2	-0.125	U	2.26	3.1	0.94
E908	U-234	URANIUM-234	PCI	0.28	U	0.479	1	0.35	0.286	U	0.258	1	0.33	0.206	U	0.28	1	0.29
	U-235	URANIUM-235	PCI	0.1	U	0.271	1	0.2	0.267	U	0.457	1	0.34	0	U	0.28	1	0.25
	U-238	URANIUM-238	PCI	-0.02	U	0.479	1	0.04	-0.0381	U	0.539	1	0.054	0.0825	U	0.494	1	0.21
ISOTH	TH-228	THORIUM-228	PCI	0.188	U	0.405	1	0.23	0.0553	U	0.663	1	0.25	0.177	U	0.12	1	0.18
	TH-230	THORIUM-230	PCI	0.628	UJ / 2,7	0.215	1	0.33	0.317	U	0.286	1	0.37	0.253	UJ / 2,7	0.114	1	0.21
	TH-232	THORIUM-232	PCI	-0.0359	U	0.264	1	0.051	0	U	0.286	1	0.26	0	U	0.114	1	0.1

			Lab Sample	9H796P10					9H796Q10					9H796R10				
			Field Sample	000490					000491					000492				
			Collect Date	6/4/2006					6/4/2006					6/4/2006				
			Type	N					N					N				
			Parent															
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
E900.0	ALPHA	ALPHA, GROSS	PCI	3.1	U	5.41	20	3.1	5.85	J / T	5.57	20	3.9	4.18	U	4.57	20	3.1
	BETA	BETA, GROSS	PCI	19		5.03	6	4.3	15.8		5.25	6	4	17.6		5.01	6	4.1
E903.1	RA-226	RADIUM-226	PCI	0.472	U	1.02	2	0.6	0.913	J / T	0.855	1	0.64	0.22	U	0.93	1	0.51
E904.0	RA-228	RADIUM-228	PCI	0.76	U	2.39	3.1	1.1	1.02	U	2.36	3.1	1.1	0.0134	U	1.85	3.1	0.73
E908	U-234	URANIUM-234	PCI	-0.0309	U	0.515	1	0.031	0.702	J / T	0.518	1	0.56	-0.0332	U	0.554	1	0.034
	U-235	URANIUM-235	PCI	0.081	U	0.441	1	0.19	0.0789	U	0.518	1	0.21	-0.0083	U	0.417	1	0.017
	U-238	URANIUM-238	PCI	-0.0464	U	0.572	1	0.039	0.486	U	0.555	1	0.47	-0.0332	U	0.554	1	0.034
ISOTH	TH-228	THORIUM-228	PCI	0.132	U	0.226	1	0.16	0.18	U	0.336	1	0.21	0.196	U	0.261	1	0.2
	TH-230	THORIUM-230	PCI	0.287	UJ / 2,7	0.0972	1	0.21	0.21	U	0.229	1	0.19	0.499	UJ / 2,7	0.113	1	0.3
	TH-232	THORIUM-232	PCI	0.0179	U	0.215	1	0.08	0.305	J / T	0.281	1	0.24	0.125	U	0.113	1	0.15

			Lab Sample	9H796T10					9H796W10					9H797D10				
			Field Sample	000493					P-0660					P-0661				
			Collect Date	6/4/2006					6/4/2006					6/4/2006				
			Type	TB					N					N				
			Parent	AM-1-TSP														
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
E900.0	ALPHA	ALPHA, GROSS	PCI	-0.0749	U	4.59	20	1.7	3.84	U	4.01	20	2.9	2.42	U	5.53	20	3
	BETA	BETA, GROSS	PCI	1.07	U	5.05	6	2.4	13.5		5.06	6	3.8	12.5		5	6	3.7
E903.1	RA-226	RADIUM-226	PCI	0.433	U	0.631	1	0.42	-0.304	U	0.876	1	0.41	0.359	U	1.06	2	0.6
E904.0	RA-228	RADIUM-228	PCI	1.3	U	1.77	3.1	0.88	0.844	U	1.82	3.1	0.84	0.641	U	1.99	3.1	0.89
E908	U-234	URANIUM-234	PCI	-0.028	U	0.582	1	0.033	0.158	U	0.557	1	0.29	0	U	0.27	1	0.24
	U-235	URANIUM-235	PCI	-0.0187	U	0.533	1	0.027	-0.0395	U	0.557	1	0.056	-0.0597	U	0.628	1	0.07
	U-238	URANIUM-238	PCI	0.117	U	0.316	1	0.23	-0.0592	U	0.622	1	0.069	0.0398	U	0.628	1	0.21
ISOTH	TH-228	THORIUM-228	PCI	0.0191	U	0.229	1	0.085	-0.0555	U	0.372	1	0.11	0.111	U	0.373	1	0.19
	TH-230	THORIUM-230	PCI	0.273	J / T	0.218	1	0.21	2.66	J / 8	0.212	1	0.77	0.0846	U	0.115	1	0.12
	TH-232	THORIUM-232	PCI	-0.0364	U	0.268	1	0.052	0.0353	U	0.0956	1	0.071	0	U	0.115	1	0.1

			Lab Sample	9H797E10					9H797F10					9H797H10				
			Field Sample	P-0662					P-0663					P-0664				
			Collect Date	6/4/2006					6/4/2006					6/4/2006				
			Type	N					N					N				
			Parent															
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
E900.0	ALPHA	ALPHA, GROSS	PCI	6.44	J / T	5.42	20	4	3.9	U	4.67	20	3.1	3.7	U	4.62	20	3
	BETA	BETA, GROSS	PCI	10.5		6.06	7	3.7	16.1		4.86	5	4.2	13.2		5.14	6	3.7
E903.1	RA-226	RADIUM-226	PCI	0.0622	U	0.64	1	0.32	0.246	U	0.486	1	0.3	0.107	U	0.635	1	0.34
E904.0	RA-228	RADIUM-228	PCI	1.03	U	1.62	3.1	0.79	1.9	J / T	1.65	3.1	0.93	1.43	U	1.96	3.1	0.97
E908	U-234	URANIUM-234	PCI	-0.149	U	0.872	1	0.11	0.078	U	0.76	1	0.29	0.0553	U	0.757	1	0.28
	U-235	URANIUM-235	PCI	-0.0637	U	0.67	1	0.074	-0.0195	U	0.467	1	0.039	-0.0184	U	0.441	1	0.037
	U-238	URANIUM-238	PCI	-0.0213	U	0.829	1	0.24	0.078	U	0.76	1	0.29	0.0737	U	0.719	1	0.28
ISOTH	TH-228	THORIUM-228	PCI	0.0898	U	0.33	1	0.17	-0.00002	U	0.447	1	0.17	0	U	0.42	1	0.17
	TH-230	THORIUM-230	PCI	0.171	U	0.116	1	0.17	0.115	U	0.275	1	0.17	0.13	U	0.223	1	0.16
	TH-232	THORIUM-232	PCI	0	U	0.116	1	0.1	0	U	0.124	1	0.11	0.0372	U	0.101	1	0.075

			Lab Sample	9H797J10					9H797K10					9H797M10				
			Field Sample	P-0665					P-0666					P-0667				
			Collect Date	6/4/2006					6/4/2006					6/4/2006				
			Type	N					FD					FB				
			Parent						P-0660					AM-6-PM10				
Method	CAS Number	Chemical Name	Units	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert	Result	Qual / Reason	MDL	RDL	Uncert
E900.0	ALPHA	ALPHA, GROSS	PCI	5.02	J / T	4.09	20	3.3	-0.602	U	5.52	20	2	-2.18	U	6.06	20	1.8
	BETA	BETA, GROSS	PCI	12.8		5.17	6	3.6	12.9		5.12	6	3.6	1.67	U	5	6	2.5
E903.1	RA-226	RADIUM-226	PCI	0.246	U	0.72	1	0.41	0.39	U	0.573	1	0.37	0.0122	U	0.32	1	0.14
E904.0	RA-228	RADIUM-228	PCI	1.53	U	1.84	3.1	0.95	0.96	U	2.34	3.1	1.1	0.838	U	1.8	3.1	0.83
E908	U-234	URANIUM-234	PCI	0	U	0.27	1	0.24	-0.0219	U	0.525	1	0.044	0	U	0.305	1	0.28
	U-235	URANIUM-235	PCI	-0.0199	U	0.477	1	0.04	0.11	U	0.297	1	0.22	-0.0225	U	0.54	1	0.045
	U-238	URANIUM-238	PCI	0.159	U	0.563	1	0.29	-0.0219	U	0.525	1	0.044	-0.0225	U	0.54	1	0.045
ISOTH	TH-228	THORIUM-228	PCI	-0.078	U	0.42	1	0.12	0.241	U	0.263	1	0.22	0.131	U	0.119	1	0.15
	TH-230	THORIUM-230	PCI	0.502	UJ / 2,7	0.223	1	0.29	0.377	UJ / 2,7	0.113	1	0.26	0.209	J / T	0.113	1	0.19
	TH-232	THORIUM-232	PCI	0	U	0.274	1	0.091	0	U	0.113	1	0.1	0.0417	U	0.113	1	0.084

8.0 SUPPORTING DOCUMENTATION

Analytical Data Package Prepared For

Brown and Caldwell

Yerington Air Quality - Event #83

Radiochemical Analysis By

STL Richland

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: STLR

Data Package Contains _____ Pages

Report No.: 32815

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
31999		000487	J6F270218-1	H796F1AG	9H796F10	6179343
		000487	J6F270218-1	H796F1AA	9H796F10	6179344
		000487	J6F270218-1	H796F1AE	9H796F10	6179346
		000487	J6F270218-1	H796F1AF	9H796F10	6179351
		000487	J6F270218-1	H796F1AC	9H796F10	6179354
		000487	J6F270218-1	H796F1AD	9H796F10	6179357
		000488	J6F270218-2	H796L1AG	9H796L10	6179343
		000488	J6F270218-2	H796L1AA	9H796L10	6179344
		000488	J6F270218-2	H796L1AE	9H796L10	6179346
		000488	J6F270218-2	H796L1AF	9H796L10	6179351
		000488	J6F270218-2	H796L1AC	9H796L10	6179354
		000488	J6F270218-2	H796L1AD	9H796L10	6179357
		000489	J6F270218-3	H796N1AG	9H796N10	6179343
		000489	J6F270218-3	H796N1AA	9H796N10	6179344
		000489	J6F270218-3	H796N1AE	9H796N10	6179346
		000489	J6F270218-3	H796N1AF	9H796N10	6179351
		000489	J6F270218-3	H796N1AC	9H796N10	6179354
		000489	J6F270218-3	H796N1AD	9H796N10	6179357
		000490	J6F270218-4	H796P1AG	9H796P10	6179343
		000490	J6F270218-4	H796P1AA	9H796P10	6179344
		000490	J6F270218-4	H796P1AE	9H796P10	6179346
		000490	J6F270218-4	H796P1AF	9H796P10	6179351
		000490	J6F270218-4	H796P1AC	9H796P10	6179354
		000490	J6F270218-4	H796P1AD	9H796P10	6179357
		000491	J6F270218-5	H796Q1AG	9H796Q10	6179343
		000491	J6F270218-5	H796Q1AA	9H796Q10	6179344

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
31999		000491	J6F270218-5	H796Q1AE	9H796Q10	6179346
		000491	J6F270218-5	H796Q1AF	9H796Q10	6179351
		000491	J6F270218-5	H796Q1AC	9H796Q10	6179354
		000491	J6F270218-5	H796Q1AD	9H796Q10	6179357
		000492	J6F270218-6	H796R1AG	9H796R10	6179343
		000492	J6F270218-6	H796R1AA	9H796R10	6179344
		000492	J6F270218-6	H796R1AE	9H796R10	6179346
		000492	J6F270218-6	H796R1AF	9H796R10	6179351
		000492	J6F270218-6	H796R1AC	9H796R10	6179354
		000492	J6F270218-6	H796R1AD	9H796R10	6179357
		000493	J6F270218-7	H796T1AG	9H796T10	6179343
		000493	J6F270218-7	H796T1AA	9H796T10	6179344
		000493	J6F270218-7	H796T1AE	9H796T10	6179346
		000493	J6F270218-7	H796T1AF	9H796T10	6179351
		000493	J6F270218-7	H796T1AC	9H796T10	6179354
		000493	J6F270218-7	H796T1AD	9H796T10	6179357
		P-0660	J6F270218-8	H796W1AG	9H796W10	6179343
		P-0660	J6F270218-8	H796W1AA	9H796W10	6179344
		P-0660	J6F270218-8	H796W1AE	9H796W10	6179346
		P-0660	J6F270218-8	H796W1AF	9H796W10	6179351
		P-0660	J6F270218-8	H796W1AC	9H796W10	6179354
		P-0660	J6F270218-8	H796W1AD	9H796W10	6179357
		P-0661	J6F270218-9	H797D1AG	9H797D10	6179343
		P-0661	J6F270218-9	H797D1AA	9H797D10	6179344
		P-0661	J6F270218-9	H797D1AE	9H797D10	6179346
		P-0661	J6F270218-9	H797D1AF	9H797D10	6179351
		P-0661	J6F270218-9	H797D1AC	9H797D10	6179354
		P-0661	J6F270218-9	H797D1AD	9H797D10	6179357
		P-0662	J6F270218-10	H797E1AG	9H797E10	6179343
		P-0662	J6F270218-10	H797E1AA	9H797E10	6179344
		P-0662	J6F270218-10	H797E1AE	9H797E10	6179346
		P-0662	J6F270218-10	H797E1AF	9H797E10	6179351
		P-0662	J6F270218-10	H797E1AC	9H797E10	6179354
		P-0662	J6F270218-10	H797E1AD	9H797E10	6179357
		P-0663	J6F270218-11	H797F1AG	9H797F10	6179343
		P-0663	J6F270218-11	H797F1AA	9H797F10	6179344
		P-0663	J6F270218-11	H797F1AE	9H797F10	6179346
		P-0663	J6F270218-11	H797F1AF	9H797F10	6179351
		P-0663	J6F270218-11	H797F1AC	9H797F10	6179354

Report No.: 32815

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
31999		P-0663	J6F270218-11	H797F1AD	9H797F10	6179357
		P-0664	J6F270218-12	H797H1AG	9H797H10	6179343
		P-0664	J6F270218-12	H797H1AA	9H797H10	6179344
		P-0664	J6F270218-12	H797H1AE	9H797H10	6179346
		P-0664	J6F270218-12	H797H1AF	9H797H10	6179351
		P-0664	J6F270218-12	H797H1AC	9H797H10	6179354
		P-0664	J6F270218-12	H797H1AD	9H797H10	6179357
		P-0665	J6F270218-13	H797J1AG	9H797J10	6179343
		P-0665	J6F270218-13	H797J1AA	9H797J10	6179344
		P-0665	J6F270218-13	H797J1AE	9H797J10	6179346
		P-0665	J6F270218-13	H797J1AF	9H797J10	6179351
		P-0665	J6F270218-13	H797J1AC	9H797J10	6179354
		P-0665	J6F270218-13	H797J1AD	9H797J10	6179357
		P-0666	J6F270218-14	H797K1AG	9H797K10	6179343
		P-0666	J6F270218-14	H797K1AA	9H797K10	6179344
		P-0666	J6F270218-14	H797K1AE	9H797K10	6179346
		P-0666	J6F270218-14	H797K1AF	9H797K10	6179351
		P-0666	J6F270218-14	H797K1AC	9H797K10	6179354
		P-0666	J6F270218-14	H797K1AD	9H797K10	6179357
		P-0667	J6F270218-15	H797M1AG	9H797M10	6179343
		P-0667	J6F270218-15	H797M1AA	9H797M10	6179344
		P-0667	J6F270218-15	H797M1AE	9H797M10	6179346
		P-0667	J6F270218-15	H797M1AF	9H797M10	6179351
		P-0667	J6F270218-15	H797M1AC	9H797M10	6179354
		P-0667	J6F270218-15	H797M1AD	9H797M10	6179357

Sample Results Summary

STL Richland STLR

Ordered by Client Sample ID, Batch No.

Date: 26-Jul-06

Report No. : 32815

SDG No: 31999

Client ID	Work Order Number	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	MDC|MDA	RER2
000487	H796F1AG	U-234	0.280 +- 0.352	ND	pCi/sample	98%	0.479	
		U-235	0.100 +- 0.201	ND	pCi/sample	98%	0.271	
		U-238	-0.0200 +- 0.0401	ND	pCi/sample	98%	0.479	
000487	H796F1AA	TH-228	0.188 +- 0.234	ND	pCi/sample	108%	0.405	
		TH-230	0.628 +- 0.326	=	pCi/sample	108%	0.215	
		TH-232	-0.0359 +- 0.0512	ND	pCi/sample	108%	0.264	
000487	H796F1AE	ALPHA	5.22 +- 3.42	=	pCi/sample	100%	4.52	
000487	H796F1AF	BETA	15.4 +- 4.06	=	pCi/sample	100%	5.54	
000487	H796F1AC	RA-226	0.0988 +- 0.413	ND	pCi/sample	98%	0.787	
000487	H796F1AD	RA-228	0.812 +- 1.13	ND	pCi/sample	88%	2.51	
000488	H796L1AG	U-234	0.286 +- 0.333	ND	pCi/sample	93%	0.258	
		U-235	0.267 +- 0.335	ND	pCi/sample	93%	0.457	
		U-238	-0.0381 +- 0.0543	ND	pCi/sample	93%	0.539	
000488	H796L1AA	TH-228	0.0553 +- 0.248	ND	pCi/sample	40%	0.663	
		TH-230	0.317 +- 0.371	ND	pCi/sample	40%	0.286	
		TH-232	0.00000 +- 0.258	ND	pCi/sample	40%	0.286	
000488	H796L1AE	ALPHA	5.50 +- 3.53	=	pCi/sample	100%	4.55	
000488	H796L1AF	BETA	17.5 +- 4.21	=	pCi/sample	100%	5.21	
000488	H796L1AC	RA-226	0.279 +- 0.385	ND	pCi/sample	105%	0.649	
000488	H796L1AD	RA-228	0.900 +- 1.20	ND	pCi/sample	95%	2.67	
000489	H796N1AG	U-234	0.206 +- 0.294	ND	pCi/sample	95%	0.28	
		U-235	0.00000 +- 0.253	ND	pCi/sample	95%	0.28	
		U-238	0.0825 +- 0.211	ND	pCi/sample	95%	0.494	
000489	H796N1AA	TH-228	0.177 +- 0.179	ND	pCi/sample	102%	0.12	
		TH-230	0.253 +- 0.211	=	pCi/sample	102%	0.114	
		TH-232	0.00000 +- 0.103	ND	pCi/sample	102%	0.114	
000489	H796N1AE	ALPHA	6.46 +- 3.57	=	pCi/sample	100%	3.86	
000489	H796N1AF	BETA	15.7 +- 3.88	=	pCi/sample	100%	4.99	
000489	H796N1AC	RA-226	0.181 +- 0.424	ND	pCi/sample	105%	0.771	
000489	H796N1AD	RA-228	-0.1250 +- 0.937	ND	pCi/sample	95%	2.26	

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RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

= ERPIMS - Equal To, Analyte Detected

ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

Sample Results Summary

STL Richland STLR

Ordered by Client Sample ID, Batch No.

Date: 26-Jul-06

Report No. : 32815

SDG No: 31999

Client ID	Work Order Number	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	MDC|MDA	RER2
000490	H796P1AG	U-234	-0.0309 +- 0.0313	ND	pCi/sample	106%	0.515	
		U-235	0.0810 +- 0.195	ND	pCi/sample	106%	0.441	
		U-238	-0.0464 +- 0.0386	ND	pCi/sample	106%	0.572	
000490	H796P1AA	TH-228	0.132 +- 0.157	ND	pCi/sample	111%	0.226	
		TH-230	0.287 +- 0.209	=	pCi/sample	111%	0.0972	
		TH-232	0.0179 +- 0.0803	ND	pCi/sample	111%	0.215	
000490	H796P1AE	ALPHA	3.10 +- 3.11	ND	pCi/sample	100%	5.41	
000490	H796P1AF	BETA	19.0 +- 4.29	=	pCi/sample	100%	5.03	
000490	H796P1AC	RA-226	0.472 +- 0.603	ND	pCi/sample	95%	1.02	
000490	H796P1AD	RA-228	0.760 +- 1.07	ND	pCi/sample	87%	2.39	
000491	H796Q1AG	U-234	0.702 +- 0.562	=	pCi/sample	98%	0.518	
		U-235	0.0789 +- 0.210	ND	pCi/sample	98%	0.518	
		U-238	0.486 +- 0.472	ND	pCi/sample	98%	0.555	
000491	H796Q1AA	TH-228	0.180 +- 0.210	ND	pCi/sample	102%	0.336	
		TH-230	0.210 +- 0.194	ND	pCi/sample	102%	0.229	
		TH-232	0.305 +- 0.241	=	pCi/sample	102%	0.281	
000491	H796Q1AE	ALPHA	5.85 +- 3.92	=	pCi/sample	100%	5.57	
000491	H796Q1AF	BETA	15.8 +- 3.99	=	pCi/sample	100%	5.25	
000491	H796Q1AC	RA-226	0.913 +- 0.537	=	pCi/sample	100%	0.855	
000491	H796Q1AD	RA-228	1.02 +- 1.08	ND	pCi/sample	89%	2.36	
000492	H796R1AG	U-234	-0.0332 +- 0.0336	ND	pCi/sample	101%	0.554	
		U-235	-0.0083 +- 0.0167	ND	pCi/sample	101%	0.417	
		U-238	-0.0332 +- 0.0336	ND	pCi/sample	101%	0.554	
000492	H796R1AA	TH-228	0.196 +- 0.203	ND	pCi/sample	100%	0.261	
		TH-230	0.499 +- 0.302	=	pCi/sample	100%	0.113	
		TH-232	0.125 +- 0.146	ND	pCi/sample	100%	0.113	
000492	H796R1AE	ALPHA	4.18 +- 3.15	ND	pCi/sample	100%	4.57	
000492	H796R1AF	BETA	17.6 +- 4.13	=	pCi/sample	100%	5.01	
000492	H796R1AC	RA-226	0.220 +- 0.512	ND	pCi/sample	102%	0.93	
000492	H796R1AD	RA-228	0.0134 +- 0.732	ND	pCi/sample	91%	1.85	

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Sample Results Summary

STL Richland STLR

Ordered by Client Sample ID, Batch No.

Date: 26-Jul-06

Report No. : 32815

SDG No: 31999

Client ID	Work Order Number	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	MDC|MDA	RER2
000493	H796T1AG	U-234	-0.0280 +- 0.0327	ND	pCi/sample	89%	0.582	
		U-235	-0.0187 +- 0.0266	ND	pCi/sample	89%	0.533	
		U-238	0.117 +- 0.234	ND	pCi/sample	89%	0.316	
000493	H796T1AA	TH-228	0.0191 +- 0.0854	ND	pCi/sample	94%	0.229	
		TH-230	0.273 +- 0.215	=	pCi/sample	94%	0.218	
		TH-232	-0.0364 +- 0.0519	ND	pCi/sample	94%	0.268	
000493	H796T1AE	ALPHA	-0.0749 +- 1.72	ND	pCi/sample	100%	4.59	
000493	H796T1AF	BETA	1.07 +- 2.44	ND	pCi/sample	100%	5.05	
000493	H796T1AC	RA-226	0.433 +- 0.420	ND	pCi/sample	109%	0.631	
000493	H796T1AD	RA-228	1.30 +- 0.884	ND	pCi/sample	94%	1.77	
P-0660	H796W1AG	U-234	0.158 +- 0.285	ND	pCi/sample	101%	0.557	
		U-235	-0.0395 +- 0.0562	ND	pCi/sample	101%	0.557	
		U-238	-0.0592 +- 0.0690	ND	pCi/sample	101%	0.622	
P-0660	H796W1AA	TH-228	-0.0555 +- 0.111	ND	pCi/sample	92%	0.372	
		TH-230	2.66 +- 0.774	=	pCi/sample	92%	0.212	
		TH-232	0.0353 +- 0.0708	ND	pCi/sample	92%	0.0956	
P-0660	H796W1AE	ALPHA	3.84 +- 2.69	ND	pCi/sample	100%	4.01	
P-0660	H796W1AF	BETA	13.5 +- 3.85	=	pCi/sample	100%	5.06	
P-0660	H796W1AC	RA-226	-0.3040 +- 0.414	ND	pCi/sample	100%	0.876	
P-0660	H796W1AD	RA-228	0.844 +- 0.836	ND	pCi/sample	87%	1.82	
P-0661	H797D1AG	U-234	0.00000 +- 0.244	ND	pCi/sample	103%	0.27	
		U-235	-0.0597 +- 0.0696	ND	pCi/sample	103%	0.628	
		U-238	0.0398 +- 0.211	ND	pCi/sample	103%	0.628	
P-0661	H797D1AA	TH-228	0.111 +- 0.194	ND	pCi/sample	107%	0.373	
		TH-230	0.0846 +- 0.121	ND	pCi/sample	107%	0.115	
		TH-232	0.00000 +- 0.104	ND	pCi/sample	107%	0.115	
P-0661	H797D1AE	ALPHA	2.42 +- 2.96	ND	pCi/sample	100%	5.53	
P-0661	H797D1AF	BETA	12.5 +- 3.72	=	pCi/sample	100%	5.0	
P-0661	H797D1AC	RA-226	0.359 +- 0.603	ND	pCi/sample	96%	1.06	
P-0661	H797D1AD	RA-228	0.641 +- 0.890	ND	pCi/sample	86%	1.99	

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RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

= ERPIMS - Equal To, Analyte Detected

ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

Sample Results Summary

STL Richland STLR

Ordered by Client Sample ID, Batch No.

Date: 26-Jul-06

Report No. : 32815

SDG No: 31999

Client ID	Work Order Number	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	MDC|MDA	RER2
P-0662	H797E1AG	U-234	-0.1490 +- 0.115	ND	pCi/sample	91%	0.872	
		U-235	-0.0637 +- 0.0743	ND	pCi/sample	91%	0.67	
		U-238	-0.0213 +- 0.237	ND	pCi/sample	91%	0.829	
P-0662	H797E1AA	TH-228	0.0898 +- 0.169	ND	pCi/sample	99%	0.33	
		TH-230	0.171 +- 0.174	ND	pCi/sample	99%	0.116	
		TH-232	0.00000 +- 0.105	ND	pCi/sample	99%	0.116	
P-0662	H797E1AE	ALPHA	6.44 +- 4.00	=	pCi/sample	100%	5.42	
P-0662	H797E1AF	BETA	10.5 +- 3.71	=	pCi/sample	100%	6.06	
P-0662	H797E1AC	RA-226	0.0622 +- 0.324	ND	pCi/sample	97%	0.64	
P-0662	H797E1AD	RA-228	1.03 +- 0.787	ND	pCi/sample	89%	1.62	
P-0663	H797F1AG	U-234	0.0780 +- 0.292	ND	pCi/sample	101%	0.76	
		U-235	-0.0195 +- 0.0391	ND	pCi/sample	101%	0.467	
		U-238	0.0780 +- 0.292	ND	pCi/sample	101%	0.76	
P-0663	H797F1AA	TH-228	-0.0000176 +- 0.167	ND	pCi/sample	99%	0.447	
		TH-230	0.115 +- 0.167	ND	pCi/sample	99%	0.275	
		TH-232	0.00000 +- 0.112	ND	pCi/sample	99%	0.124	
P-0663	H797F1AE	ALPHA	3.90 +- 3.11	ND	pCi/sample	100%	4.67	
P-0663	H797F1AF	BETA	16.1 +- 4.23	=	pCi/sample	100%	4.86	
P-0663	H797F1AC	RA-226	0.246 +- 0.302	ND	pCi/sample	99%	0.486	
P-0663	H797F1AD	RA-228	1.90 +- 0.926	=	pCi/sample	90%	1.65	
P-0664	H797H1AG	U-234	0.0553 +- 0.278	ND	pCi/sample	101%	0.757	
		U-235	-0.0184 +- 0.0370	ND	pCi/sample	101%	0.441	
		U-238	0.0737 +- 0.276	ND	pCi/sample	101%	0.719	
P-0664	H797H1AA	TH-228	0.00000195 +- 0.166	ND	pCi/sample	105%	0.42	
		TH-230	0.130 +- 0.155	ND	pCi/sample	105%	0.223	
		TH-232	0.0372 +- 0.0747	ND	pCi/sample	105%	0.101	
P-0664	H797H1AE	ALPHA	3.70 +- 3.05	ND	pCi/sample	100%	4.62	
P-0664	H797H1AF	BETA	13.2 +- 3.65	=	pCi/sample	100%	5.14	
P-0664	H797H1AC	RA-226	0.107 +- 0.336	ND	pCi/sample	96%	0.535	
P-0664	H797H1AD	RA-228	1.43 +- 0.973	ND	pCi/sample	86%	1.96	

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RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

= ERPIMS - Equal To, Analyte Detected

ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

Sample Results Summary

STL Richland STLR

Ordered by Client Sample ID, Batch No.

Date: 26-Jul-06

Report No. : 32815

SDG No: 31999

Client ID	Work Order Number	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	MDC/MDA	RER2
P-0665	H797J1AG	U-234	0.00000 +- 0.244	ND	pCi/sample	109%	0.27	
		U-235	-0.0199 +- 0.0400	ND	pCi/sample	109%	0.477	
		U-238	0.159 +- 0.288	ND	pCi/sample	109%	0.563	
P-0665	H797J1AA	TH-228	-0.0780 +- 0.124	ND	pCi/sample	100%	0.42	
		TH-230	0.502 +- 0.294	=	pCi/sample	100%	0.223	
		TH-232	0.00000062 +- 0.0911	ND	pCi/sample	100%	0.274	
P-0665	H797J1AE	ALPHA	5.02 +- 3.28	=	pCi/sample	100%	4.09	
P-0665	H797J1AF	BETA	12.8 +- 3.64	=	pCi/sample	100%	5.17	
P-0665	H797J1AC	RA-226	0.246 +- 0.411	ND	pCi/sample	94%	0.72	
P-0665	H797J1AD	RA-228	1.53 +- 0.946	ND	pCi/sample	84%	1.84	
P-0666	H797K1AG	U-234	-0.0219 +- 0.0440	ND	pCi/sample	91%	0.525	
		U-235	0.110 +- 0.220	ND	pCi/sample	91%	0.297	
		U-238	-0.0219 +- 0.0440	ND	pCi/sample	91%	0.525	
P-0666	H797K1AA	TH-228	0.241 +- 0.224	ND	pCi/sample	102%	0.263	
		TH-230	0.377 +- 0.260	=	pCi/sample	102%	0.113	
		TH-232	0.00000 +- 0.102	ND	pCi/sample	102%	0.113	
P-0666	H797K1AE	ALPHA	-0.6020 +- 1.99	ND	pCi/sample	100%	5.52	
P-0666	H797K1AF	BETA	12.9 +- 3.63	=	pCi/sample	100%	5.12	
P-0666	H797K1AC	RA-226	0.390 +- 0.374	ND	pCi/sample	96%	0.573	
P-0666	H797K1AD	RA-228	0.960 +- 1.07	ND	pCi/sample	86%	2.34	
P-0667	H797M1AG	U-234	0.00000 +- 0.276	ND	pCi/sample	82%	0.305	
		U-235	-0.0225 +- 0.0452	ND	pCi/sample	82%	0.54	
		U-238	-0.0225 +- 0.0452	ND	pCi/sample	82%	0.54	
P-0667	H797M1AA	TH-228	0.131 +- 0.153	ND	pCi/sample	101%	0.119	
		TH-230	0.209 +- 0.190	=	pCi/sample	101%	0.113	
		TH-232	0.0417 +- 0.0837	ND	pCi/sample	101%	0.113	
P-0667	H797M1AE	ALPHA	-2.1800 +- 1.79	ND	pCi/sample	100%	6.06	
P-0667	H797M1AF	BETA	1.67 +- 2.48	ND	pCi/sample	100%	5.0	
P-0667	H797M1AC	RA-226	0.0122 +- 0.135	ND	pCi/sample	95%	0.32	
P-0667	H797M1AD	RA-228	0.838 +- 0.832	ND	pCi/sample	86%	1.8	

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

= ERPIMS - Equal To, Analyte Detected

ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

Sample Results Summary

STL Richland STLR

Ordered by Client Sample ID, Batch No.

Date: 26-Jul-06

Report No. : 32815

SDG No: 31999

Client ID	Work Order Number	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	MDC|MDA	RER2

Number of Results: 150

STL Richland RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

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QC Results Summary

STL Richland STLR

Ordered by QC Type, Batch No.

Date: 26-Jul-06

Report No. : 32815

SDG No.: 31999

QC Type	Work Order Number	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	Recovery	Bias	MDC|MDA
BLANK QC	H8DM71AA	U-234	0.0327 +- 0.0368	N	pCi/sample	96%			0.0513
		U-235	0.0174 +- 0.0259	N	pCi/sample	96%			0.0365
		U-238	all ND 0.0454 +- 0.0412	=	pCi/sample	96%			0.0246
BLANK QC	H8DM81AA	TH-228	0.0113 +- 0.0134	N	pCi/sample	101%			0.0193
		TH-230	0.0276 +- 0.0190	=	pCi/sample	101%			0.00832
		TH-232	-0.00154 +- 0.00308	N	pCi/sample	101%			0.0184
BLANK QC	H8DNK1AA	ALPHA	-0.00597 +- 0.0457	N	pCi/sample	100%			0.117
BLANK QC	H8DNT1AA	BETA	0.0559 +- 0.226	N	pCi/sample	100%			0.472
BLANK QC	H8DN71AA	RA-226	-0.0325 +- 0.129	N	pCi/sample	94%			0.265
BLANK QC	H8DPD1AA	RA-228	0.114 +- 0.197	N	pCi/sample	83%			0.461
LCS	H8DM71AC	U-234	1.01 +- 0.249	=	pCi/sample	77%	105%	0.0	0.0487
		U-235	0.0517 +- 0.0430	=	pCi/sample	77%	117%	0.2	0.0234
		U-238	1.02 +- 0.249	=	pCi/sample	77%	100%	0.0	0.0234
LCS	H8DM81AC	TH-230	1.65 +- 0.315	=	pCi/sample	108%	91%	-0.1	0.0186
LCS	H8DNK1AC	ALPHA	2.32 +- 0.544	=	pCi/sample	100%	97%	0.0	0.107
LCS	H8DNT1AC	BETA	4.45 +- 0.830	=	pCi/sample	100%	97%	0.0	0.397
LCS	H8DN71AC	RA-226	1.34 +- 0.359	=	pCi/sample	95%	97%	0.0	0.145
LCS	H8DPD1AC	RA-228	3.95 +- 0.672	=	pCi/sample	87%	78%	-0.2	0.444

Number of Results: 18

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

= ERPIMS - Equal To, Analyte Detected

ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

RADIOLOGICAL BLANK CONTAMINATION

NORMALIZED ABSOLUTE DIFFERENCE (NAD) LIMIT > 2.58

NAD = ABS (SAMPLE ACT - BLANK ACT) / SQRT [(TPU SAMPLE)2 + (TPU BLANK)2]

SDG **31999**

Th-230
Lab Blank

Sample No.	Sample Act	Sample TPU	Blank Act	Blank TPU	NAD	Qualifier	MB
000487	0.628	0.326	0.0276	0.019	1.839	UJ	
000488			0.0276	0.019	1.453	ND	ND
000489	0.253	0.211	0.0276	0.019	1.1	UJ	
000490	0.287	0.209	0.0276	0.019	1.236	UJ	
000491			0.0276	0.019	1.453	ND	ND
000492	0.499	0.302	0.0276	0.019	1.558	UJ	
000493	0.273	0.215	0.0276	0.019	1.137	Trip Blank	
P-0660	2.66	0.774	0.0276	0.019	3.400	Do not qualify.	
P-0661			0.0276	0.019	1.453	ND	
P-0662			0.0276	0.019	1.453	ND	
P-0663			0.0276	0.019	1.453	ND	
P-0664			0.0276	0.019	1.453	ND	
P-0665	0.502	0.294	0.0276	0.019	1.610	UJ	
P-0666	0.377	0.26	0.0276	0.019	1.340	UJ	
P-0667	0.209	0.19	0.0276	0.019	0.950	Field Blank	

Th-230
Field Blank

Sample No.	Sample Act	Sample TPU	Blank Act	Blank TPU	NAD	Qualifier	
000487	0.628	0.326	0.209	0.19	1.110	UJ	ND
000488			0.209	0.19	1.100	ND	
000489	0.253	0.211	0.209	0.19	0.2	UJ	ND
000490	0.287	0.209	0.209	0.19	0.276	UJ	
000491			0.209	0.19	1.100	ND	ND
000492	0.499	0.302	0.209	0.19	0.813	UJ	ND
000493	0.273	0.215	0.209	0.19	0.223	Trip Blank	TB
P-0660	2.66	0.774	0.209	0.19	3.075	Do not qualify.	ND
P-0661			0.209	0.19	1.100	ND	ND
P-0662			0.209	0.19	1.100	ND	ND
P-0663			0.209	0.19	1.100	ND	ND
P-0664			0.209	0.19	1.100	ND	ND
P-0665	0.502	0.294	0.209	0.19	0.837	UJ	ND
P-0666	0.377	0.26	0.209	0.19	0.522	UJ	ND
P-0667	0.209	0.19	0.209	0.19	0.000	Field Blank	

Th-230
Trip Blank

Sample No.	Sample Act	Sample TPU	Blank Act	Blank TPU	NAD	Qualifier	
000487	0.628	0.326	0.273	0.215	0.909	UJ	ND
000488			0.273	0.215	1.270	ND	
000489	0.253	0.211	0.273	0.215	0.1	UJ	ND
000490	0.287	0.209	0.273	0.215	0.047	UJ	
000491			0.273	0.215	1.270	ND	ND
000492	0.499	0.302	0.273	0.215	0.610	UJ	ND
000493	0.273	0.215	0.273	0.215	0.000	Trip Blank	TB
P-0660	2.66	0.774	0.273	0.215	2.971	Do not qualify.	ND
P-0661			0.273	0.215	1.270	ND	ND
P-0662			0.273	0.215	1.270	ND	ND
P-0663			0.273	0.215	1.270	ND	ND
P-0664			0.273	0.215	1.270	ND	ND
P-0665	0.502	0.294	0.273	0.215	0.629	UJ	ND
P-0666	0.377	0.26	0.273	0.215	0.308	UJ	ND
P-0667	0.209	0.19	0.273	0.215	0.223	Field Blank	

RADIOLOGICAL FIELD DUPLICATE EVALUATION

REPLICATE ERROR RATIO (RER) LIMIT < 1.96

RER = ABS (SAMPLE ACT - DUPLICATE ACT) / SQRT [(TPU SAMPLE)2 + (TPU DUPLICATE)2]

SDG **31999**

Samples: P-0660 and P-0666

P-0666 previously UK-qualified

Analyte	Sample Act	Sample TPU	Duplicate Act	Duplicate TPU	RER	Qualifier
Th-230	2.66	0.774	0.377	0.26	2.796	J
beta	13.5	2.89	12.9	3.63	0.129	No qualifier.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland
Lot-Sample No.: J6F270218/1
Client Sample ID: 000487
Yerington Air Quality - Event #83

SDG: 31999
Report No. : 32815
COC No. :

Collection Date: 6/7/2006 10:00:00 AM
Received Date: 6/26/2006 9:00:00 AM
Matrix: FILTER AIR

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H796F1AG			Report DB ID: 9H796F10								
U-234	0.280	ND	0.35	0.35	0.479	pCi/sample	98%	0.58	7/18/06 06:21 p	1.0	0.06258	E908.0
						0.104	1.0	(1.6)		Sample	Sample	ALP10
U-235	0.100	ND	0.20	0.20	0.271	pCi/sample	98%	0.37	7/18/06 06:21 p	1.0	0.06258	E908.0
							1.0	1.		Sample	Sample	ALP10
U-238	-0.0200	ND	0.040	0.040	0.479	pCi/sample	98%	-0.04	7/18/06 06:21 p	1.0	0.06258	E908.0
						0.104	1.0	-1.		Sample	Sample	ALP10
								Ratio U-234/238 = -14.0				
Batch: 6179344	Work Order: H796F1AA			Report DB ID: 9H796F10								
TH-228	0.188	ND	0.23	0.23	0.405	pCi/sample	108%	0.46	7/19/06 12:16 a	1.0	0.06387	ISOTH
						0.152	1.0	(1.6)		Sample	Sample	ALP172
TH-230	0.628	=	0.31	0.33	0.215	pCi/sample	108%	(2.9)	7/19/06 12:16 a	1.0	0.06387	ISOTH
						0.0591	1.0	(3.9)		Sample	Sample	ALP172
TH-232	-0.0359	ND	0.051	0.051	0.264	pCi/sample	108%	-0.14	7/19/06 12:16 a	1.0	0.06387	ISOTH
						0.0835	1.0	-(1.4)		Sample	Sample	ALP172
Batch: 6179346	Work Order: H796F1AE			Report DB ID: 9H796F10								
ALPHA	5.22	=	3.2	3.4	4.52	pCi/sample	100%	(1.2)	7/18/06 01:26 p	1.0	0.02088	E900.0
						1.78	20.0	(3.)		Sample	Sample	GPC10B
Batch: 6179351	Work Order: H796F1AF			Report DB ID: 9H796F10								
BETA	15.4	=	3.4	4.1	5.54	pCi/sample	100%	(2.8)	7/18/06 01:34 p	1.0	0.08365	E900.0
						2.66	5.0	(7.6)		Sample	Sample	GPC26B
Batch: 6179354	Work Order: H796F1AC			Report DB ID: 9H796F10								

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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 10:00:00 AM
Lot-Sample No.:	J6F270218-1	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	000487	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.0988	ND	0.41	0.41	0.787	pCi/sample	98%	*0.13*	7/21/06 04:44 p	1.0	0.25265	E903.1
						0.337	1.0	*0.48*		Sample	Sample	ASC2RC
Batch: 6179357	Work Order: H796F1AD			Report DB ID: 9H796F10								
RA-228	0.812	ND	1.1	1.1	2.51	pCi/sample	88%	*0.32*	7/25/06 06:10 a	1.0	0.25265	E904.0
						1.15	3.1	*(1.4)*		Sample	Sample	GPC7B

Number of Results: 10

Comments:

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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland | SDG: 31999 | Collection Date: 6/7/2006 10:25:00 AM

Lot-Sample No.: J6F270218-2 | Report No. : 32815 | Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: 000488 | COC No. : | Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H796L1AG			Report DB ID: 9H796L10								
U-234	0.286	ND	0.33	0.33	0.258	pCi/sample	93%	(1.1)	7/18/06 06:21 p	1.0	0.0623	E908.0
							1.0	(1.7)		Sample	Sample	ALP11
U-235	0.267	ND	0.33	0.34	0.457	pCi/sample	93%	0.58	7/18/06 06:21 p	1.0	0.0623	E908.0
						0.0992	1.0	(1.6)		Sample	Sample	ALP11
U-238	-0.0381	ND	0.054	0.054	0.539	pCi/sample	93%	-0.07	7/18/06 06:21 p	1.0	0.0623	E908.0
						0.14	1.0	-(1.4)		Sample	Sample	ALP11
								Ratio U-234/238 = -7.5				
Batch: 6179344	Work Order: H796L1AA			Report DB ID: 9H796L10								
TH-228	0.0553	ND	0.25	0.25	0.663	pCi/sample	40%	0.08	7/19/06 12:16 a	1.0	0.08517	ISOTH
						0.182	1.0	0.45		Sample	Sample	ALP173
TH-230	0.317	ND	0.37	0.37	0.286	pCi/sample	40%	(1.1)	7/19/06 12:16 a	1.0	0.08517	ISOTH
							1.0	(1.7)		Sample	Sample	ALP173
TH-232	0.00000	ND	0.0000	0.26	0.286	pCi/sample	40%	0.	7/19/06 12:16 a	1.0	0.08517	ISOTH
							1.0	0.		Sample	Sample	ALP173
Batch: 6179346	Work Order: H796L1AE			Report DB ID: 9H796L10								
ALPHA	5.50	=	3.3	3.5	4.55	pCi/sample	100%	(1.2)	7/18/06 01:26 p	1.0	0.02088	E900.0
						1.77	20.0	(3.1)		Sample	Sample	GPC10C
Batch: 6179351	Work Order: H796L1AF			Report DB ID: 9H796L10								
BETA	17.5	=	3.5	4.2	5.21	pCi/sample	100%	(3.4)	7/18/06 01:34 p	1.0	0.08479	E900.0
						2.49	5.0	(8.3)		Sample	Sample	GPC26C
Batch: 6179354	Work Order: H796L1AC			Report DB ID: 9H796L10								

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= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 10:25:00 AM
Lot-Sample No.:	J6F270218-2	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	000488	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.279	ND	0.38	0.38	0.649	pCi/sample	105%	*0.43*	7/21/06 04:42 p	1.0	0.25093	E903.1
						0.265	1.0	*(1.5)*		Sample	Sample	ASC3RA
Batch: 6179357	Work Order: 9H796L1AD			Report DB ID: 9H796L10								
RA-228	0.900	ND	1.2	1.2	2.67	pCi/sample	95%	*0.34*	7/25/06 06:10 a	1.0	0.25093	E904.0
						1.23	3.1	*(1.5)*		Sample	Sample	GPC7C

Number of Results: 10

Comments:

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland | SDG: 31999 | Collection Date: 6/7/2006 10:35:00 AM

Lot-Sample No.: J6F270218-3 | Report No. : 32815 | Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: 000489 | COC No. : | Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H796N1AG			Report DB ID: 9H796N10								
U-234	0.206	ND	0.29	0.29	0.28	pCi/sample	95%	0.74	7/18/06 06:22 p	1.0	0.06249	E908.0
							1.0	(1.4)		Sample	Sample	ALP12
U-235	0.00000	ND	0.0000	0.25	0.28	pCi/sample	95%	0.	7/18/06 06:22 p	1.0	0.06249	E908.0
							1.0	0.		Sample	Sample	ALP12
U-238	0.0825	ND	0.21	0.21	0.494	pCi/sample	95%	0.17	7/18/06 06:22 p	1.0	0.06249	E908.0
						0.107	1.0	0.78		Sample	Sample	ALP12
								Ratio U-234/238 = 2.5				
Batch: 6179344	Work Order: H796N1AA			Report DB ID: 9H796N10								
TH-228	0.177	ND	0.18	0.18	0.12	pCi/sample	102%	(1.5)	7/19/06 12:16 a	1.0	0.08634	ISOTH
							1.0	(2.)		Sample	Sample	ALP174
TH-230	0.253	=	0.21	0.21	0.114	pCi/sample	102%	(2.2)	7/19/06 12:16 a	1.0	0.08634	ISOTH
							1.0	(2.4)		Sample	Sample	ALP174
TH-232	0.00000	ND	0.0000	0.10	0.114	pCi/sample	102%	0.	7/19/06 12:16 a	1.0	0.08634	ISOTH
							1.0	0.		Sample	Sample	ALP174
Batch: 6179346	Work Order: H796N1AE			Report DB ID: 9H796N10								
ALPHA	6.46	=	3.3	3.6	3.86	pCi/sample	100%	(1.7)	7/18/06 01:26 p	1.0	0.02107	E900.0
						1.46	20.0	(3.6)		Sample	Sample	GPC10D
Batch: 6179351	Work Order: H796N1AF			Report DB ID: 9H796N10								
BETA	15.7	=	3.3	3.9	4.99	pCi/sample	100%	(3.1)	7/18/06 01:34 p	1.0	0.08646	E900.0
						2.39	5.0	(8.1)		Sample	Sample	GPC26D
Batch: 6179354	Work Order: H796N1AC			Report DB ID: 9H796N10								

STL Richland
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V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland
Lot-Sample No.: J6F270218-3
Client Sample ID: 000489
Yerington Air Quality - Event #83

SDG: 31999
Report No. : 32815
COC No. :

Collection Date: 6/7/2006 10:35:00 AM
Received Date: 6/26/2006 9:00:00 AM
Matrix: FILTER AIR

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.181	ND	0.42	0.42	0.771	pCi/sample	105%	0.23	7/21/06 04:42 p	1.0	0.25486	E903.1
						0.331	1.0	0.86		Sample	Sample	ASC4UA
Batch: 6179357	Work Order: H796N1AD			Report DB ID: 9H796N10								
RA-228	-0.1250	ND	0.94	0.94	2.26	pCi/sample	95%	-0.06	7/25/06 05:35 a	1.0	0.25486	E904.0
						1.03	3.1	-0.27		Sample	Sample	GPC1A

Number of Results: 10

Comments:

20

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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland | SDG: 31999 | Collection Date: 6/7/2006 10:50:00 AM

Lot-Sample No.: J6F270218-4 | Report No. : 32815 | Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: 000490 | COC No. : | Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H796P1AG			Report DB ID: 9H796P10								
U-234	-0.0309	ND	0.031	0.031	0.515	pCi/sample	106%	-0.06	7/18/06 06:22 p	1.0	0.06234	E908.0
						0.127	1.0	-(2.)		Sample	Sample	ALP69
U-235	0.0810	ND	0.19	0.19	0.441	pCi/sample	106%	0.18	7/18/06 06:22 p	1.0	0.06234	E908.0
						0.0898	1.0	0.83		Sample	Sample	ALP69
U-238	-0.0464	ND	0.038	0.039	0.572	pCi/sample	106%	-0.08	7/18/06 06:22 p	1.0	0.06234	E908.0
						0.156	1.0	-(2.4)		Sample	Sample	ALP69
								Ratio U-234/238 = 0.7				
Batch: 6179344	Work Order: H796P1AA			Report DB ID: 9H796P10								
TH-228	0.132	ND	0.16	0.16	0.226	pCi/sample	111%	0.58	7/19/06 12:16 a	1.0	0.0856	ISOTH
						0.0619	1.0	(1.7)		Sample	Sample	ALP175
TH-230	0.287	=	0.20	0.21	0.0972	pCi/sample	111%	(3.)	7/19/06 12:16 a	1.0	0.0856	ISOTH
							1.0	(2.7)		Sample	Sample	ALP175
TH-232	0.0179	ND	0.080	0.080	0.215	pCi/sample	111%	0.08	7/19/06 12:16 a	1.0	0.0856	ISOTH
						0.059	1.0	0.45		Sample	Sample	ALP175
Batch: 6179346	Work Order: H796P1AE			Report DB ID: 9H796P10								
ALPHA	3.10	ND	3.0	3.1	5.41	pCi/sample	100%	0.57	7/18/06 01:26 p	1.0	0.02116	E900.0
						2.21	20.0	(2.)		Sample	Sample	GPC10E
Batch: 6179351	Work Order: H796P1AF			Report DB ID: 9H796P10								
BETA	19.0	=	3.4	4.3	5.03	pCi/sample	100%	(3.8)	7/18/06 01:34 p	1.0	0.08489	E900.0
						2.41	5.0	(8.9)		Sample	Sample	GPC27A
Batch: 6179354	Work Order: H796P1AC			Report DB ID: 9H796P10								

STL Richland
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V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 10:50:00 AM
Lot-Sample No.:	J6F270218-4	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	000490	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.472	ND	0.60	0.60	1.02	pCi/sample	95%	*0.46*	7/21/06 04:43 p	1.0	0.25174	E903.1
						0.453	1.0	*(1.6)*		Sample	Sample	ASC7RH
Batch: 6179357	Work Order: H796P1AD			Report DB ID: 9H796P10								
RA-228	0.760	ND	1.0	1.1	2.39	pCi/sample	87%	*0.32*	7/25/06 05:35 a	1.0	0.25174	E904.0
						1.08	3.1	*(1.4)*		Sample	Sample	GPC1C

Number of Results: 10

Comments:

STL Richland
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V4.15.0 A37

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 11:00:00 AM
Lot-Sample No.:	J6F270218-5	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	000491	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H796Q1AG			Report DB ID: 9H796Q10								
U-234	0.702	=	0.55	0.56	0.518	pCi/sample	98%	(1.4)	7/18/06 06:22 p	1.0	0.0604	E908.0
						0.118	1.0	(2.5)		Sample	Sample	ALP71
U-235	0.0789	ND	0.21	0.21	0.518	pCi/sample	98%	0.15	7/18/06 06:22 p	1.0	0.0604	E908.0
						0.118	1.0	0.75		Sample	Sample	ALP71
U-238	0.486	ND	0.47	0.47	0.555	pCi/sample	98%	0.88	7/18/06 06:22 p	1.0	0.0604	E908.0
						0.137	1.0	(2.1)		Sample	Sample	ALP71
								Ratio U-234/238 = 1.4				
Batch: 6179344	Work Order: H796Q1AA			Report DB ID: 9H796Q10								
TH-228	0.180	ND	0.21	0.21	0.336	pCi/sample	102%	0.54	7/19/06 12:16 a	1.0	0.08115	ISOTH
						0.114	1.0	(1.7)		Sample	Sample	ALP176
TH-230	0.210	ND	0.19	0.19	0.229	pCi/sample	102%	0.92	7/19/06 12:16 a	1.0	0.08115	ISOTH
						0.0627	1.0	(2.2)		Sample	Sample	ALP176
TH-232	0.305	=	0.24	0.24	0.281	pCi/sample	102%	(1.1)	7/19/06 12:16 a	1.0	0.08115	ISOTH
						0.0867	1.0	(2.5)		Sample	Sample	ALP176
Batch: 6179346	Work Order: H796Q1AE			Report DB ID: 9H796Q10								
ALPHA	5.85	=	3.7	3.9	5.57	pCi/sample	100%	(1.1)	7/18/06 04:13 p	1.0	0.02042	E900.0
						2.27	20.0	(3.)		Sample	Sample	GPC10A
Batch: 6179351	Work Order: H796Q1AF			Report DB ID: 9H796Q10								
BETA	15.8	=	3.4	4.0	5.25	pCi/sample	100%	(3.)	7/18/06 01:34 p	1.0	0.08123	E900.0
						2.51	5.0	(7.9)		Sample	Sample	GPC27C
Batch: 6179354	Work Order: H796Q1AC			Report DB ID: 9H796Q10								

STL Richland
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V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland
Lot-Sample No.: J6F270218-5
Client Sample ID: 000491
Yerington Air Quality - Event #83

SDG: 31999
Report No. : 32815
COC No. :

Collection Date: 6/7/2006 11:00:00 AM
Received Date: 6/26/2006 9:00:00 AM
Matrix: FILTER AIR

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.913	=	0.61	0.64	0.855	pCi/sample	100%	(1.1)	7/21/06 04:41 p	1.0	0.2425	E903.1
						0.353	1.0	(2.9)		Sample	Sample	ASC8RD
Batch: 6179357	Work Order: H796Q1AD			Report DB ID: 9H796Q10								
RA-228	1.02	ND	1.1	1.1	2.36	pCi/sample	89%	0.43	7/25/06 05:35 a	1.0	0.2425	E904.0
						1.07	3.1	(1.9)		Sample	Sample	GPC1D

Number of Results: 10

Comments:

STL Richland
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V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland
Lot-Sample No.: J6F270218-6
Client Sample ID: 000492
Yerington Air Quality - Event #83

SDG: 31999
Report No. : 32815
COC No. :

Collection Date: 6/7/2006 11:20:00 AM
Received Date: 6/26/2006 9:00:00 AM
Matrix: FILTER AIR

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H796R1AG			Report DB ID: 9H796R10								
U-234	-0.0332	ND	0.033	0.034	0.554	pCi/sample	101%	-0.06	7/18/06 06:23 p	1.0	0.06244	E908.0
						0.136	1.0	-(2.)		Sample	Sample	ALP83
U-235	-0.0083	ND	0.017	0.017	0.417	pCi/sample	101%	-0.02	7/18/06 06:23 p	1.0	0.06244	E908.0
						0.0682	1.0	-1.		Sample	Sample	ALP83
U-238	-0.0332	ND	0.033	0.034	0.554	pCi/sample	101%	-0.06	7/18/06 06:23 p	1.0	0.06244	E908.0
						0.136	1.0	-(2.)		Sample	Sample	ALP83
								Ratio U-234/238 = 1.0				
Batch: 6179344	Work Order: H796R1AA			Report DB ID: 9H796R10								
TH-228	0.196	ND	0.20	0.20	0.261	pCi/sample	100%	0.75	7/19/06 12:16 a	1.0	0.08321	ISOTH
						0.0717	1.0	(1.9)		Sample	Sample	ALP177
TH-230	0.499	=	0.29	0.30	0.113	pCi/sample	100%	(4.4)	7/19/06 12:16 a	1.0	0.08321	ISOTH
							1.0	(3.3)		Sample	Sample	ALP177
TH-232	0.125	ND	0.14	0.15	0.113	pCi/sample	100%	(1.1)	7/19/06 12:16 a	1.0	0.08321	ISOTH
							1.0	(1.7)		Sample	Sample	ALP177
Batch: 6179348	Work Order: H796R1AE			Report DB ID: 9H796R10								
ALPHA	4.18	ND	3.0	3.1	4.57	pCi/sample	100%	0.91	7/18/06 04:13 p	1.0	0.02069	E900.0
						1.79	20.0	(2.7)		Sample	Sample	GPC10B
Batch: 6179351	Work Order: H796R1AF			Report DB ID: 9H796R10								
BETA	17.6	=	3.3	4.1	5.01	pCi/sample	100%	(3.5)	7/18/06 01:34 p	1.0	0.08434	E900.0
						2.4	5.0	(3.5)		Sample	Sample	GPC27D
Batch: 6179354	Work Order: H796R1AC			Report DB ID: 9H796R10								

STL Richland
rpt:STLRchSample
V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland
SDG: 31999
Collection Date: 6/7/2006 11:20:00 AM

Lot-Sample No.: J6F270218-6
Report No. : 32815
Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: 000492
COC No. :
Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.220	ND	0.51	0.51	0.93	pCi/sample	102%	0.24	7/21/06 04:44 p	1.0	0.25459	E903.1
						0.401	1.0	0.86		Sample	Sample	ASC9RC
Batch: 6179357	Work Order: H796R1AD			Report DB ID: 9H796R10								
RA-228	0.0134	ND	0.72	0.73	1.85	pCi/sample	91%	0.01	7/25/06 06:05 a	1.0	0.25459	E904.0
						0.798	3.1	0.04		Sample	Sample	GPC2A

Number of Results: 10

Comments:

STL Richland
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V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland | SDG: 31999 | Collection Date: 6/7/2006 10:10:00 AM

Lot-Sample No.: J6F270218-7 | Report No. : 32815 | Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: 000493 | COC No. : | Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H796T1AG			Report DB ID: 9H796T10								
U-234	-0.0280	ND	0.032	0.033	0.582	pCi/sample	89%	-0.05	7/18/06 06:23 p	1.0	0.06256	E908.0
						0.133	1.0	-(1.7)		Sample	Sample	ALP84
U-235	-0.0187	ND	0.026	0.027	0.533	pCi/sample	89%	-0.04	7/18/06 06:23 p	1.0	0.06256	E908.0
						0.109	1.0	-(1.4)		Sample	Sample	ALP84
U-238	0.117	ND	0.23	0.23	0.316	pCi/sample	89%	0.37	7/18/06 06:23 p	1.0	0.06256	E908.0
							1.0	1.		Sample	Sample	ALP84
								Ratio U-234/238 = -0.2				
Batch: 6179344	Work Order: H796T1AA			Report DB ID: 9H796T10								
TH-228	0.0191	ND	0.085	0.085	0.229	pCi/sample	94%	0.08	7/19/06 12:16 a	1.0	0.08453	ISOTH
						0.0628	1.0	0.45		Sample	Sample	ALP178
TH-230	0.273	=	0.21	0.21	0.218	pCi/sample	94%	(1.3)	7/19/06 12:16 a	1.0	0.08453	ISOTH
						0.0599	1.0	(2.5)		Sample	Sample	ALP178
TH-232	-0.0364	ND	0.051	0.052	0.268	pCi/sample	94%	-0.14	7/19/06 12:16 a	1.0	0.08453	ISOTH
						0.0847	1.0	-(1.4)		Sample	Sample	ALP178
Batch: 6179346	Work Order: H796T1AE			Report DB ID: 9H796T10								
ALPHA	-0.0749	ND	1.7	1.7	4.59	pCi/sample	100%	-0.02	7/18/06 04:13 p	1.0	0.02117	E900.0
						1.79	20.0	-0.09		Sample	Sample	GPC10C
Batch: 6179351	Work Order: H796T1AF			Report DB ID: 9H796T10								
BETA	1.07	ND	2.4	2.4	5.05	pCi/sample	100%	0.21	7/18/06 01:34 p	1.0	0.08395	E900.0
						2.41	5.0	0.88		Sample	Sample	GPC28B
Batch: 6179354	Work Order: H796T1AC			Report DB ID: 9H796T10								

STL Richland
rptSTLRchSample
V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 10:10:00 AM
Lot-Sample No.:	J6F270218-7	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	000493	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.433	ND	0.41	0.42	0.631	pCi/sample	109%	*0.69*	7/21/06 04:43 p	1.0	0.25289	E903.1
						0.251	1.0	*(2.1)*		Sample	Sample	ASCDSA
Batch: 6179357	Work Order: H796T1AD			Report DB ID: 9H796T10								
RA-228	1.30	ND	0.86	0.88	1.77	pCi/sample	94%	*0.73*	7/25/06 06:05 a	1.0	0.25289	E904.0
						0.768	3.1	*(2.9)*		Sample	Sample	GPC2B

Number of Results: 10

Comments:

STL Richland
rptSTLRichSample
V4.15.0 A37

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland | SDG: 31999 | Collection Date: 6/7/2006 9:55:00 AM

Lot-Sample No.: J6F270218-8 | Report No. : 32815 | Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: P-0660 | COC No. : | Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H796W1AG			Report DB ID: 9H796W10								
U-234	0.158	ND	0.28	0.29	0.557	pCi/sample	101%	0.28	7/18/06 06:24 p	1.0	0.06241	E908.0
						0.145	1.0	(1.1)		Sample	Sample	ALP1
U-235	-0.0395	ND	0.056	0.056	0.557	pCi/sample	101%	-0.07	7/18/06 06:24 p	1.0	0.06241	E908.0
						0.145	1.0	-(1.4)		Sample	Sample	ALP1
U-238	-0.0592	ND	0.068	0.069	0.622	pCi/sample	101%	-0.1	7/18/06 06:24 p	1.0	0.06241	E908.0
						0.178	1.0	-(1.7)		Sample	Sample	ALP1
								Ratio U-234/238 = -2.7				
Batch: 6179344	Work Order: H796W1AA			Report DB ID: 9H796W10								
TH-228	-0.0555	ND	0.11	0.11	0.372	pCi/sample	92%	-0.15	7/19/06 12:17 a	1.0	0.08475	ISOTH
						0.136	1.0	-1.		Sample	Sample	ALP114
TH-230	2.66	=	0.62	0.77	0.212	pCi/sample	92%	(12.6)	7/19/06 12:17 a	1.0	0.08475	ISOTH
						0.058	1.0	(6.9)		Sample	Sample	ALP114
TH-232	0.0353	ND	0.071	0.071	0.0956	pCi/sample	92%	0.37	7/19/06 12:17 a	1.0	0.08475	ISOTH
							1.0	1.		Sample	Sample	ALP114
Batch: 6179346	Work Order: H796W1AE			Report DB ID: 9H796W10								
ALPHA	3.84	ND	2.8	2.9	4.01	pCi/sample	100%	0.96	7/18/06 04:13 p	1.0	0.02068	E900.0
						1.52	20.0	(2.7)		Sample	Sample	GPC10D
Batch: 6179351	Work Order: H796W1AF			Report DB ID: 9H796W10								
BETA	13.5	=	3.2	3.8	5.06	pCi/sample	100%	(2.7)	7/18/06 01:34 p	1.0	0.08329	E900.0
						2.42	5.0	(7.)		Sample	Sample	GPC28C
Batch: 6179354	Work Order: H796W1AC			Report DB ID: 9H796W10								

STL Richland
rptSTLRchSample
V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 9:55:00 AM
Lot-Sample No.:	J6F270218-8	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	P-0660	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	-0.3040	ND	0.41	0.41	0.876	pCi/sample	100%	-0.35	7/21/06 05:11 p	1.0	0.25152	E903.1
						0.392	1.0	-(1.5)		Sample	Sample	ASCEHB
Batch: 6179357	Work Order: H796W1AD			Report DB ID: 9H796W10								
RA-226	0.844	ND	0.80	0.84	1.82	pCi/sample	87%	0.46	7/25/06 06:05 a	1.0	0.25152	E904.0
						0.775	3.1	(2.)		Sample	Sample	GPC2C

Number of Results: 10

Comments:

STL Richland
rptSTLRichSample
V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 10:20:00 AM
Lot-Sample No.:	J6F270218-9	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	P-0661	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H797D1AG			Report DB ID: 9H797D10								
U-234	0.00000	ND	0.0000	0.24	0.27	pCi/sample	103%	0.	7/18/06 06:24 p	1.0	0.06248	E908.0
							1.0	0.		Sample	Sample	ALP2
U-235	-0.0597	ND	0.069	0.070	0.628	pCi/sample	103%	-0.1	7/18/06 06:24 p	1.0	0.06248	E908.0
						0.179	1.0	(1.7)		Sample	Sample	ALP2
U-238	0.0398	ND	0.21	0.21	0.628	pCi/sample	103%	0.06	7/18/06 06:24 p	1.0	0.06248	E908.0
						0.179	1.0	0.38		Sample	Sample	ALP2
Batch: 6179344	Work Order: H797D1AA			Report DB ID: 9H797D10								
TH-228	0.111	ND	0.19	0.19	0.373	pCi/sample	107%	0.3	7/19/06 12:17 a	1.0	0.08341	ISOTH
						0.126	1.0	(1.1)		Sample	Sample	ALP116
TH-230	0.0848	ND	0.12	0.12	0.115	pCi/sample	107%	0.74	7/19/06 12:17 a	1.0	0.08341	ISOTH
							1.0	(1.4)		Sample	Sample	ALP116
TH-232	0.00000	ND	0.0000	0.10	0.115	pCi/sample	107%	0.	7/19/06 12:17 a	1.0	0.08341	ISOTH
							1.0	0.		Sample	Sample	ALP116
Batch: 6179346	Work Order: H797D1AE			Report DB ID: 9H797D10								
ALPHA	2.42	ND	2.9	3.0	5.53	pCi/sample	100%	0.44	7/18/06 04:13 p	1.0	0.02086	E900.0
						2.26	20.0	(1.6)		Sample	Sample	GPC10E
Batch: 6179351	Work Order: H797D1AF			Report DB ID: 9H797D10								
BETA	12.5	=	3.1	3.7	5.0	pCi/sample	100%	(2.5)	7/18/06 01:34 p	1.0	0.08541	E900.0
						2.39	5.0	(6.7)		Sample	Sample	GPC28D
Batch: 6179354	Work Order: H797D1AC			Report DB ID: 9H797D10								

STL Richland
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V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 10:20:00 AM
Lot-Sample No.:	J6F270218-9	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	P-0661	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rsl/MDC, Rsl/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.359	ND	0.60	0.60	1.06	pCi/sample	96%	*0.34*	7/21/06 05:12 p	1.0	0.25735	E903.1
						0.454	1.0	*(1.2)*		Sample	Sample	ASCFSA
Batch: 6179357	Work Order: H797D1AD			Report DB ID: 9H797D10								
RA-228	0.641	ND	0.89	0.89	1.99	pCi/sample	86%	*0.32*	7/25/06 06:05 a	1.0	0.25735	E904.0
						0.867	3.1	*(1.4)*		Sample	Sample	GPC2D

Number of Results: 10

Comments:

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland | SDG: 31999 | Collection Date: 6/7/2006 10:30:00 AM

Lot-Sample No.: J6F270218-10 | Report No. : 32815 | Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: P-0662 | COC No. : | Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H797E1AG			Report DB ID: 9H797E10								
U-234	-0.1490	ND	0.11	0.11	0.872	pCi/sample	91%	-0.17	7/18/06 06:24 p	1.0	0.06215	E908.0
						0.292	1.0	-(2.6)		Sample	Sample	ALP3
U-235	-0.0637	ND	0.074	0.074	0.67	pCi/sample	91%	-0.1	7/18/06 06:24 p	1.0	0.06215	E908.0
						0.191	1.0	-(1.7)		Sample	Sample	ALP3
U-238	-0.0213	ND	0.24	0.24	0.829	pCi/sample	91%	-0.03	7/18/06 06:24 p	1.0	0.06215	E908.0
						0.271	1.0	-0.18		Sample	Sample	ALP3
								Ratio U-234/238 = 7.0				
Batch: 6179344	Work Order: H797E1AA			Report DB ID: 9H797E10								
TH-228	0.0898	ND	0.17	0.17	0.33	pCi/sample	99%	0.27	7/19/06 12:17 a	1.0	0.08433	ISOTH
						0.104	1.0	(1.1)		Sample	Sample	ALP119
TH-230	0.171	ND	0.17	0.17	0.116	pCi/sample	99%	(1.5)	7/19/06 12:17 a	1.0	0.08433	ISOTH
							1.0	(2.)		Sample	Sample	ALP119
TH-232	0.00000	ND	0.0000	0.10	0.116	pCi/sample	99%	0.	7/19/06 12:17 a	1.0	0.08433	ISOTH
							1.0	0.		Sample	Sample	ALP119
Batch: 6179346	Work Order: H797E1AE			Report DB ID: 9H797E10								
ALPHA	6.44	=	3.8	4.0	5.42	pCi/sample	100%	(1.2)	7/18/06 07:02 p	1.0	0.02072	E900.0
						2.21	20.0	(3.2)		Sample	Sample	GPC10A
Batch: 6179351	Work Order: H797E1AF			Report DB ID: 9H797E10								
BETA	10.5	=	3.4	3.7	6.06	pCi/sample	100%	(1.7)	7/18/06 01:34 p	1.0	0.08603	E900.0
						2.93	5.0	(5.6)		Sample	Sample	GPC31A
Batch: 6179354	Work Order: H797E1AC			Report DB ID: 9H797E10								

STL Richland
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V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 10:30:00 AM
Lot-Sample No.:	J6F270218-10	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	P-0662	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.0622	ND	0.32	0.32	0.64	pCi/sample	97%	*0.1*	7/21/06 05:10 p	1.0	0.2517	E903.1
						0.264	1.0	*0.38*		Sample	Sample	ASCGSA
Batch: 6179357	Work Order: H797E1AD			Report DB ID: 9H797E10								
RA-228	1.03	ND	0.76	0.79	1.62	pCi/sample	89%	*0.64*	7/25/06 06:05 a	1.0	0.2517	E904.0
						0.687	3.1	*(2.6)*		Sample	Sample	GPC3A

Number of Results: 10

Comments:

STL Richland
rptSTLRchSample
V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 10:45:00 AM
Lot-Sample No.:	J6F270218-11	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	P-0663	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H797F1AG			Report DB ID: 9H797F10								
U-234	0.0780	ND	0.29	0.29	0.76	pCi/sample	101%	0.1	7/18/06 06:25 p	1.0	0.06092	E908.0
						0.248	1.0	0.53		Sample	Sample	ALP4
U-235	-0.0195	ND	0.039	0.039	0.467	pCi/sample	101%	-0.04	7/18/06 06:25 p	1.0	0.06092	E908.0
						0.101	1.0	-1.		Sample	Sample	ALP4
U-238	0.0780	ND	0.29	0.29	0.76	pCi/sample	101%	0.1	7/18/06 06:25 p	1.0	0.06092	E908.0
						0.248	1.0	0.53		Sample	Sample	ALP4
								Ratio U-234/238 = 1.0				
Batch: 6179344	Work Order: H797F1AA			Report DB ID: 9H797F10								
TH-228	-0.0000176	ND	0.17	0.17	0.447	pCi/sample	99%	0.	7/19/06 12:17 a	1.0	0.08219	ISOTH
						0.158	1.0	0.		Sample	Sample	ALP120
TH-230	0.115	ND	0.17	0.17	0.275	pCi/sample	99%	0.42	7/19/06 12:17 a	1.0	0.08219	ISOTH
						0.0755	1.0	(1.4)		Sample	Sample	ALP120
TH-232	0.00000	ND	0.0000	0.11	0.124	pCi/sample	99%	0.	7/19/06 12:17 a	1.0	0.08219	ISOTH
							1.0	0.		Sample	Sample	ALP120
Batch: 6179346	Work Order: H797F1AE			Report DB ID: 9H797F10								
ALPHA	3.90	ND	3.0	3.1	4.67	pCi/sample	100%	0.84	7/18/06 07:02 p	1.0	0.0203	E900.0
						1.83	20.0	(2.5)		Sample	Sample	GPC10B
Batch: 6179351	Work Order: H797F1AF			Report DB ID: 9H797F10								
BETA	16.1	=	3.2	4.2	4.86	pCi/sample	100%	(3.3)	7/18/06 01:34 p	1.0	0.08165	E900.0
						2.32	5.0	(7.6)		Sample	Sample	GPC31B
Batch: 6179354	Work Order: H797F1AC			Report DB ID: 9H797F10								

STL Richland
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V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 10:45:00 AM
Lot-Sample No.:	J6F270218-11	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	P-0663	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.246	ND	0.30	0.30	0.486	pCi/sample	99%	*0.51*	7/21/06 05:11 p	1.0	0.24356	E903.1
						0.184	1.0	*(1.6)*		Sample	Sample	ASCJSB
Batch: 6179357	Work Order: H797F1AD			Report DB ID: 9H797F10								
RA-228	1.90	=	0.89	0.93	1.65	pCi/sample	90%	*(1.2)*	7/25/06 06:05 a	1.0	0.24356	E904.0
						0.705	3.1	*(4.1)*		Sample	Sample	GPC3B

Number of Results: 10

Comments:

STL Richland
rptSTLRchSample
V4.15.0 A97

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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland | SDG: 31999 | Collection Date: 6/7/2006 11:05:00 AM

Lot-Sample No.: J6F270218-12 | Report No. : 32815 | Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: P-0664 | COC No. : | Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H797H1AG			Report DB ID: 9H797H10								
U-234	0.0553	ND	0.28	0.28	0.757	pCi/sample	101%	0.07	7/18/06 06:25 p	1.0	0.06232	E908.0
						0.254	1.0	0.4		Sample	Sample	ALP5
U-235	-0.0184	ND	0.037	0.037	0.441	pCi/sample	101%	-0.04	7/18/06 06:25 p	1.0	0.06232	E908.0
						0.0959	1.0	-1.		Sample	Sample	ALP5
U-238	0.0737	ND	0.28	0.28	0.719	pCi/sample	101%	0.1	7/18/06 06:25 p	1.0	0.06232	E908.0
						0.235	1.0	0.53		Sample	Sample	ALP5
								Ratio U-234/238 = 0.7				
Batch: 6179344	Work Order: H797H1AA			Report DB ID: 9H797H10								
TH-228	0.00000195	ND	0.17	0.17	0.42	pCi/sample	105%	0.	7/19/06 10:14 a	1.0	0.08332	ISOTH
						0.157	1.0	0.		Sample	Sample	ALP171
TH-230	0.130	ND	0.15	0.16	0.223	pCi/sample	105%	0.58	7/19/06 10:14 a	1.0	0.08332	ISOTH
						0.0612	1.0	(1.7)		Sample	Sample	ALP171
TH-232	0.0372	ND	0.074	0.075	0.101	pCi/sample	105%	0.37	7/19/06 10:14 a	1.0	0.08332	ISOTH
							1.0	1.		Sample	Sample	ALP171
Batch: 6179346	Work Order: H797H1AE			Report DB ID: 9H797H10								
ALPHA	3.70	ND	2.9	3.0	4.62	pCi/sample	100%	0.8	7/18/06 07:02 p	1.0	0.02075	E900.0
						1.8	20.0	(2.4)		Sample	Sample	GPC10C
Batch: 6179351	Work Order: H797H1AF			Report DB ID: 9H797H10								
BETA	13.2	=	3.2	3.7	5.14	pCi/sample	100%	(2.6)	7/18/06 01:34 p	1.0	0.08304	E900.0
						2.46	5.0	(7.2)		Sample	Sample	GPC31C
Batch: 6179354	Work Order: H797H1AC			Report DB ID: 9H797H10								

STL Richland
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V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 11:05:00 AM
Lot-Sample No.:	J6F270218-12	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	P-0664	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.107	ND	0.34	0.34	0.635	pCi/sample	96%	*0.17*	7/21/06 05:11 p	1.0	0.24933	E903.1
						0.266	1.0	*0.64*		Sample	Sample	ASCLMC
Batch: 6179357	Work Order: H797H1AD			Report DB ID: 9H797H10								
RA-228	1.43	ND	0.95	0.97	1.96	pCi/sample	86%	*0.73*	7/25/06 08:05 a	1.0	0.24933	E904.0
						0.853	3.1	*(2.9)*		Sample	Sample	GPC3C

Number of Results: 10

Comments:

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland | SDG: 31999 | Collection Date: 6/7/2006 11:10:00 AM

Lot-Sample No.: J6F270218-13 | Report No. : 32815 | Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: P-0665 | COC No. : | Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H797J1AG			Report DB ID: 9H797J10								
U-234	0.00000	ND	0.0000	0.24	0.27	pCi/sample	109%	0.	7/18/06 06:25 p	1.0	0.06015	E908.0
							1.0	0.		Sample	Sample	ALP6
U-235	-0.0199	ND	0.040	0.040	0.477	pCi/sample	109%	-0.04	7/18/06 06:25 p	1.0	0.06015	E908.0
						0.104	1.0	-1.		Sample	Sample	ALP6
U-238	0.159	ND	0.29	0.29	0.563	pCi/sample	109%	0.28	7/18/06 06:25 p	1.0	0.06015	E908.0
						0.146	1.0	(1.1)		Sample	Sample	ALP6
Batch: 6179344	Work Order: H797J1AA			Report DB ID: 9H797J10								
TH-228	-0.0780	ND	0.12	0.12	0.42	pCi/sample	100%	-0.19	7/19/06 10:14 a	1.0	0.06099	ISOTH
						0.157	1.0	(1.3)		Sample	Sample	ALP172
TH-230	0.502	=	0.28	0.29	0.223	pCi/sample	100%	(2.3)	7/19/06 10:14 a	1.0	0.06099	ISOTH
						0.0612	1.0	(3.4)		Sample	Sample	ALP172
TH-232	0.00000062	ND	0.091	0.091	0.274	pCi/sample	100%	0.	7/19/06 10:14 a	1.0	0.06099	ISOTH
						0.0865	1.0	0.		Sample	Sample	ALP172
Batch: 6179346	Work Order: H797J1AE			Report DB ID: 9H797J10								
ALPHA	5.02	=	3.1	3.3	4.09	pCi/sample	100%	(1.2)	7/18/06 07:02 p	1.0	0.02002	E900.0
						1.55	20.0	(3.1)		Sample	Sample	GPC10D
Batch: 6179351	Work Order: H797J1AF			Report DB ID: 9H797J10								
BETA	12.8	=	3.2	3.6	5.17	pCi/sample	100%	(2.5)	7/18/06 01:34 p	1.0	0.08455	E900.0
						2.47	5.0	(7.1)		Sample	Sample	GPC32A
Batch: 6179354	Work Order: H797J1AC			Report DB ID: 9H797J10								

STL Richland
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V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland
SDG: 31999
Collection Date: 6/7/2006 11:10:00 AM

Lot-Sample No.: J6F270218-13
Report No. : 32815
Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: P-0665
COC No. :
Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.246	ND	0.41	0.41	0.72	pCi/sample	94%	0.34	7/21/06 05:10 p	1.0	0.24665	E903.1
						0.306	1.0	(1.2)		Sample	Sample	ASCMRA
Batch: 6179357	Work Order: H797J1AD			Report DB ID: 9H797J10								
RA-228	1.53	ND	0.93	0.95	1.84	pCi/sample	84%	0.83	7/25/06 06:05 a	1.0	0.24665	E904.0
						0.79	3.1	(3.2)		Sample	Sample	GPC3D

Number of Results: 10

Comments:

STL Richland
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V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland | SDG: 31999 | Collection Date: 6/7/2006 10:05:00 AM

Lot-Sample No.: J6F270218-14 | Report No. : 32815 | Received Date: 6/26/2006 9:00:00 AM

Client Sample ID: P-0666 | COC No. : | Matrix: FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H797K1AG			Report DB ID: 9H797K10								
U-234	-0.0219	ND	0.044	0.044	0.525	pCi/sample	91%	-0.04	7/18/06 06:25 p	1.0	0.06187	E908.0
						0.114	1.0	-1.		Sample	Sample	ALP7
U-235	0.110	ND	0.22	0.22	0.297	pCi/sample	91%	0.37	7/18/06 06:25 p	1.0	0.06187	E908.0
							1.0	1.		Sample	Sample	ALP7
U-238	-0.0219	ND	0.044	0.044	0.525	pCi/sample	91%	-0.04	7/18/06 06:25 p	1.0	0.06187	E908.0
						0.114	1.0	-1.		Sample	Sample	ALP7
								Ratio U-234/238 = 1.0				
Batch: 6179344	Work Order: H797K1AA			Report DB ID: 9H797K10								
TH-228	0.241	ND	0.22	0.22	0.263	pCi/sample	102%	0.92	7/19/06 10:14 a	1.0	0.08496	ISOTH
						0.0722	1.0	(2.2)		Sample	Sample	ALP173
TH-230	0.377	=	0.25	0.26	0.113	pCi/sample	102%	(3.3)	7/19/06 10:14 a	1.0	0.08496	ISOTH
							1.0	(2.9)		Sample	Sample	ALP173
TH-232	0.00000	ND	0.0000	0.10	0.113	pCi/sample	102%	0.	7/19/06 10:14 a	1.0	0.08496	ISOTH
							1.0	0.		Sample	Sample	ALP173
Batch: 6179346	Work Order: H797K1AE			Report DB ID: 9H797K10								
ALPHA	-0.6020	ND	2.0	2.0	5.52	pCi/sample	100%	-0.11	7/18/06 07:02 p	1.0	0.02066	E900.0
						2.25	20.0	-0.6		Sample	Sample	GPC10E
Batch: 6179351	Work Order: H797K1AF			Report DB ID: 9H797K10								
BETA	12.9	=	3.2	3.6	5.12	pCi/sample	100%	(2.5)	7/18/06 01:34 p	1.0	0.08229	E900.0
						2.45	5.0	(7.1)		Sample	Sample	GPC32B
Batch: 6179354	Work Order: H797K1AC			Report DB ID: 9H797K10								

STL Richland
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V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
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FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name: STL Richland
Lot-Sample No.: J6F270218-14
Client Sample ID: P-0666
Yerington Air Quality - Event #83

SDG: 31999
Report No. : 32815
COC No. :

Collection Date: 6/7/2006 10:05:00 AM
Received Date: 6/26/2006 9:00:00 AM
Matrix: FILTER AIR

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.390	ND	0.37	0.37	0.573	pCi/sample	96%	*0.68*	7/21/06 05:26 p	1.0	0.25209	E903.1
						0.236	1.0	*(2.1)*		Sample	Sample	ASCNMA
Batch: 6179357	Work Order: H797K1AD			Report DB ID: 9H797K10								
RA-228	0.960	ND	1.1	1.1	2.34	pCi/sample	86%	*0.41*	7/25/06 06:05 a	1.0	0.25209	E904.0
						1.05	3.1	*(1.8)*		Sample	Sample	GPC4A

Number of Results: 10

Comments:

STL Richland
rptSTLRchSample
V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 11:15:00 AM
Lot-Sample No.:	J6F270218-15	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	P-0667	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H797M1AG			Report DB ID: 9H797M10								
U-234	0.00000	ND	0.0000	0.28	0.305	pCi/sample	82%	0.	7/18/06 06:25 p	1.0	0.06267	E908.0
							1.0	0.		Sample	Sample	ALP8
U-235	-0.0225	ND	0.045	0.045	0.54	pCi/sample	82%	-0.04	7/18/06 06:25 p	1.0	0.06267	E908.0
						0.117	1.0	-1.		Sample	Sample	ALP8
U-238	-0.0225	ND	0.045	0.045	0.54	pCi/sample	82%	-0.04	7/18/06 06:25 p	1.0	0.06267	E908.0
						0.117	1.0	-1.		Sample	Sample	ALP8
Batch: 6179344	Work Order: H797M1AA			Report DB ID: 9H797M10								
TH-228	0.131	ND	0.15	0.15	0.119	pCi/sample	101%	(1.1)	7/19/06 10:14 a	1.0	0.08715	ISOTH
							1.0	(1.7)		Sample	Sample	ALP174
TH-230	0.209	=	0.19	0.19	0.113	pCi/sample	101%	(1.8)	7/19/06 10:14 a	1.0	0.08715	ISOTH
							1.0	(2.2)		Sample	Sample	ALP174
TH-232	0.0417	ND	0.083	0.084	0.113	pCi/sample	101%	0.37	7/19/06 10:14 a	1.0	0.08715	ISOTH
							1.0	1.		Sample	Sample	ALP174
Batch: 6179346	Work Order: H797M1AE			Report DB ID: 9H797M10								
ALPHA	-2.1800	ND	1.7	1.8	6.06	pCi/sample	100%	-0.36	7/19/06 08:30 a	1.0	0.02084	E900.0
						2.54	20.0	-(2.4)		Sample	Sample	GPC10A
Batch: 6179351	Work Order: H797M1AF			Report DB ID: 9H797M10								
BETA	1.67	ND	2.5	2.5	5.0	pCi/sample	100%	0.33	7/18/06 01:34 p	1.0	0.08539	E900.0
						2.4	5.0	(1.4)		Sample	Sample	GPC32C
Batch: 6179354	Work Order: H797M1AC			Report DB ID: 9H797M10								

STL Richland
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V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 26-Jul-06

Lab Name:	STL Richland	SDG:	31999	Collection Date:	6/7/2006 11:15:00 AM
Lot-Sample No.:	J6F270218-15	Report No. :	32815	Received Date:	6/26/2006 9:00:00 AM
Client Sample ID:	P-0667	COC No. :		Matrix:	FILTER AIR

Yerington Air Quality - Event #83

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
RA-226	0.0122	ND	0.14	0.14	0.32	pCi/sample	95%	*0.04*	7/21/06 05:26 p	1.0	0.25018	E903.1
						0.11	1.0	*0.18*		Sample	Sample	ASCQMC
Batch: 6179357	Work Order: H797M1AD			Report DB ID: 9H797M10								
RA-228	0.838	ND	0.82	0.83	1.8	pCi/sample	86%	*0.47*	7/25/06 06:05 a	1.0	0.25018	E904.0
						0.772	3.1	*(2.)*		Sample	Sample	GPC4B

Number of Results: 10

Comments:

STL Richland
rptSTLRchSample
V4.15.0 A87

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-343

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H8DM71AA			Report DB ID: H8DM71AB								
U-234	0.0327	ND	0.036	0.037	0.0513	pCi/sample	96%	0.64	7/18/06 06:26 p	1.0	1.0	E908.0
					0.0134	1.0		(1.8)		Sample	Sample	ALP85
U-235	0.0174	ND	0.026	0.026	0.0365	pCi/sample	96%	0.48	7/18/06 06:26 p	1.0	1.0	E908.0
					0.00597	1.0		(1.3)		Sample	Sample	ALP85
U-238	0.0454	=	0.041	0.041	0.0246	pCi/sample	96%	(1.8)	7/18/06 06:26 p	1.0	1.0	E908.0
						1.0		(2.2)		Sample	Sample	ALP85

Ratio U-234/238 = 0.7

Number of Results: 3

Comments:

STL Richland

rptSTLRchBlank
V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 26-Jul-06

Lab Name: STL Richland SDG: 31999

Lot-Sample No.: J6F280000-344 Report No. : 32815 Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179344	Work Order: H8DM81AA			Report DB ID: H8DM81AB								
TH-228	0.0113	ND	0.013	0.013	0.0193	pCi/sample	101%	0.58	7/19/06 10:14 a	1.0	1.0	ISOTH
					0.0053	1.0		(1.7)		Sample	Sample	ALP175
TH-230	0.0276	=	0.018	0.019	0.00832	pCi/sample	101%	(3.3)	7/19/06 10:14 a	1.0	1.0	ISOTH
						1.0		(2.9)		Sample	Sample	ALP175
TH-232	-0.00154	ND	0.0031	0.0031	0.0184	pCi/sample	101%	-0.08	7/19/06 10:14 a	1.0	1.0	ISOTH
					0.00505	1.0		-1.		Sample	Sample	ALP175

Number of Results: 3

Comments:

STL Richland
rptSTLRchBlank
V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-346

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179346	Work Order: H8DNK1AA			Report DB ID: H8DNK1AB								
ALPHA	-0.00597	ND	0.046	0.046	0.117	pCi/sample	100%	-0.05	7/19/06 08:30 a	1.0	1.0	E900.0
					0.0485	20.0		-0.26		Sample	Sample	GPC10B

Number of Results: 1

Comments:

47

STL Richland
rptSTLRchBlank
V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-351

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179951	Work Order: H8DNT1AA			Report DB ID: H8DNT1AB								
BETA	0.0559	ND	0.23	0.23	0.472	pCi/sample	100%	0.12	7/18/06 01:34 p	1.0	1.0	E900.0
					0.227	5.0		0.49		Sample	Sample	GPC32D

Number of Results: 1

Comments:

STL Richland
rptSTLRchBlank
V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-354

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179354	Work Order: H8DN71AA			Report DB ID: H8DN71AB								
RA-226	-0.0325	ND	0.13	0.13	0.265	pCi/sample	94%	-0.12	7/21/06 05:28 p	1.0	1.0	E903.1
					0.116	1.0		-0.5		Sample	Sample	ASCKME

Number of Results: 1

Comments:

STL Richland

rptSTLRchBlank
V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-357

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 6179357	Work Order: H8DPD1AA			Report DB ID: H8DPD1AB								
RA-228	0.114	ND	0.18	0.20	0.461	pCi/sample	83%	0.25	7/25/06 06:05 a	1.0	1.0	E904.0
					0.198	3.1		(1.2)		Sample	Sample	GPC4C

Number of Results: 1

Comments:

09

STL Richland
rptSTLRichBlank
V4.15.0 A97

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

LCS RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-343

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 6179343	Work Order: H8DM71AC			Report DB ID: H8DM71CS									
U-234	1.01	=	0.19	0.25	0.0487	pCi/sample	76.55%	0.968	0.0056	105%	7/18/06 06:26 p	1.0	E908.0
						Rec Limits:				0.0		Sample	ALP87
U-235	0.0517	=	0.042	0.043	0.0234	pCi/sample	76.55%	0.0442	0.00026	117%	7/18/06 06:26 p	1.0	E908.0
						Rec Limits:				0.2		Sample	ALP87
U-238	1.02	=	0.19	0.25	0.0234	pCi/sample	76.55%	1.01	0.0059	100%	7/18/06 06:26 p	1.0	E908.0
						Rec Limits:				0.0		Sample	ALP87

Number of Results: 3

Comments:

STL Richland
rpiSTLRchLcs
V4.15.0 A97

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
= ERPIMS - Equal To, Analyte Detected

FORM II

LCS RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-344

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 6179344	Work Order: H8DM61AC			Report DB ID: H8DM81CS									
TH-230	1.65	=	0.14	0.32	0.0186	pCi/sample	108.10%	1.81	0.06	91%	7/19/06 10:14 a	1.0	ISOTH
						Rec Limits:		70.	130.	-0.1		Sample	ALP176

Number of Results: 1

Comments:

52

STL Richland
rptSTLRchLcs
V4.15.0 A97

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
= ERPIMS - Equal To, Analyte Detected

FORM II

LCS RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-346

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 6179346	Work Order: H8DNK1AC			Report DB ID: H8DNK1CS									
ALPHA	2.32	=	0.27	0.54	0.107	pCi/sample	100.00%	2.39	0.075	97%	7/19/06 08:30 a	1.0	E900.0
						Rec Limits:				0.0		Sample	GPC10C

Number of Results: 1

Comments:

53

STL Richland
rptSTLRchLcs
V4.15.0 A97

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
= ERPIMS - Equal To, Analyte Detected

FORM II

LCS RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-351

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 6179351	Work Order: H8DNT1AC			Report DB ID: H6DNT1CS									
BETA	4.45	=	0.39	0.83	0.397	pCi/sample	100.00%	4.59	0.037	97%	7/18/06 04:22 p	1.0	E900.0
						Rec Limits:				0.0		Sample	GPC31B

Number of Results: 1

Comments:

54

STL Richland
rptSTLRchLcs
V4.15.0 A97

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
= ERPIMS - Equal To, Analyte Detected

FORM II

LCS RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-354

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 6179354	Work Order: H8DN71AC			Report DB ID: H8DN71CS									
RA-226	1.34	=	0.23	0.36	0.145	pCi/sample	95.48%	1.38	0.021	97%	7/21/06 05:28 p	1.0	E903.1
						Rec Limits:		70.	130.	0.0		Sample	ASCPMA

Number of Results: 1

Comments:

CS
CS

STL Richland
rptSTLRchLcs
V4.15.0 A37

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
= ERPIMS - Equal To, Analyte Detected

FORM II

LCS RESULTS

Date: 26-Jul-06

Lab Name: STL Richland

SDG: 31999

Lot-Sample No.: J6F280000-357

Report No. : 32815

Matrix: FILTER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 6179357	Work Order: H8DPD1AC			Report DB ID: H8DPD1CS									
RA-228	3.95	=	0.50	0.67	0.444	pCi/sample	86.61%	5.07	0.021	78%	7/25/06 06:05 a	1.0	E904.0
							Rec Limits:	70.	130.	-0.2		Sample	GPC4D

Number of Results: 1

Comments:

STL Richland
rptSTLRchLcs
V4.15.0 A97

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
= ERPIMS - Equal To, Analyte Detected

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/20/2006 3:07:37 PM

Lot No., Due Date: J6F270218,J6F140270; 07/25/2006,07/12/2006

Client, Site: 536403; AIR MONITORING Yerington Mine

QC Batch No., Method Test: 6179344; RTHISO Thiso by ALP

SDG, Matrix: 31999,31902; FILTER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review [signature] Date 7/20/06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6179544

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	√		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	√		
3. Are the correct isotopes reported?	√		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	√		
2. Does the blank result meet the Contract criteria?	√		
3. Is the blank result < the Contract Detection Limit?	√		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			√
5. Is the LCS recovery with contract acceptance criteria?	√		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	√		
8. Do the MS/MSD results and yields meet acceptance criteria?			√
9. Do the duplicate sample results and yields meet acceptance criteria?			√
C. Other 1. Are all Nonconformances included and noted?			√
2. Are all required forms filled out?	√		
3. Was the correct methodology used?	√		
4. Was transcription checked?	√		
5. Were all calculations checked at a minimum frequency?	√		
6. Were units checked?	√		

Comments on any "No" response:

Second Level Review: Sheryl A Adam Date: 7-21-06

STL RICHLAND

7/14/2006 11:27:49 AM

Sample Preparation/Analysis

Balance Id:1120373922

536403. Brown and Caldwell , Brown & Caldwell

9N Thiso PrpRc5016, SepRC5084(5003)
S1 Thorium-228,230,232 by Alpha Spec
01 STANDARD TEST SET

Pipet #: _____

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179344 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech: 7-18-06 [illegible]

SEQ Batch, Test: None

Prep Tech: HansenM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	CC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H7DWT-1-AA J6F140270-1-SAMP 05/24/2006 07:40	0.833g	501.65g	50.48g,in AmtRec: FILTER	0.0838g #Containers: 1	THTF0676 07/06/06,pd 10/04/04,r	560	Scr:	Alpha:	Beta:	
2 H796F-1-AA J6F270218-1-SAMP 06/07/2006 10:00	0.833g	501.59g	50.50g,in AmtRec: FILTER	0.0839g #Containers: 1	THTF0677 07/06/06,pd 10/04/04,r		Scr:	Alpha:	Beta:	
3 H796L-1-AA J6F270218-2-SAMP 06/07/2006 10:25	0.833g	501.03g	51.23g,in AmtRec: FILTER	0.0852g #Containers: 1	THTF0678 07/06/06,pd 10/04/04,r		Scr:	Alpha:	Beta:	
4 H796N-1-AA J6F270218-3-SAMP 06/07/2006 10:35	0.833g	500.85g	51.91g,in AmtRec: FILTER	0.0863g #Containers: 1	THTF0679 07/06/06,pd 10/04/04,r		Scr:	Alpha:	Beta:	
5 H796P-1-AA J6F270218-4-SAMP 06/07/2006 10:50	0.833g	501.24g	51.51g,in AmtRec: FILTER	0.0856g #Containers: 1	THTF0680 07/06/06,pd 10/04/04,r		Scr:	Alpha:	Beta:	
6 H796Q-1-AA J6F270218-5-SAMP 06/07/2006 11:00	0.833g	517.56g	50.42g,in AmtRec: FILTER	0.0811g #Containers: 1	THTF0681 07/06/06,pd 10/04/04,r		Scr:	Alpha:	Beta:	
7 H796R-1-AA J6F270218-6-SAMP 06/07/2006 11:20	0.833g	502.44g	50.19g,in AmtRec: FILTER	0.0832g #Containers: 1	THTF0682 07/06/06,pd 10/04/04,r		Scr:	Alpha:	Beta:	

STL RICHLAND

7/14/2006 11:27:50 AM

Sample Preparation/Analysis

Balance Id:1120373922

536403, Brown and Caldwell , Brown & Caldwell

9N Thiso PrpRc5016, SepRC5034(5003)
S1 Thorium-228,230,232 by Alpha Spec
01 STANDARD TEST SET

Pipet #: _____

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179344 FILTER pCi/sampl PM, Quote: SA , 63174

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: HansenM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 H796T-1-AA J6F270218-7-SAMP 06/07/2006 10:10	0.833g	500.22g	50.76g,in	0.0845g	THTF0683 07/06/06,pd 10/04/04,r					
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
9 H796W-1-AA J6F270218-8-SAMP 06/07/2006 09:55	0.833g	501.87g	51.06g,in	0.0847g	THTF0684 07/06/06,pd 10/04/04,r					
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
10 H797D-1-AA J6F270218-9-SAMP 06/07/2006 10:20	0.833g	500.74g	50.14g,in	0.0834g	THTF0685 07/06/06,pd 10/04/04,r					
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
11 H797E-1-AA J6F270218-10-SAMP 06/07/2006 10:30	0.833g	503.68g	50.99g,in	0.0843g	THTF0686 07/06/06,pd 10/04/04,r					
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
12 H797F-1-AA J6F270218-11-SAMP 06/07/2006 10:45	0.833g	513.46g	50.66g,in	0.0822g	THTF0692 07/14/06,pd 10/04/04,r					
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
13 H797H-1-AA J6F270218-12-SAMP 06/07/2006 11:05	0.833g	501.88g	50.20g,in	0.0833g	THTF0693 07/14/06,pd 10/04/04,r					
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
14 H797J-1-AA J6F270218-13-SAMP 06/07/2006 11:10	0.833g	521.25g	50.68g,in	0.081g	THTF0694 07/14/06,pd 10/04/04,r					
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:

STLRICHLAND

7/14/2006 11:27:50 AM

Sample Preparation/Analysis

Balance Id:1120373922

536403, Brown and Caldwell , Brown & Caldwell

9N Thiso PrpRc5016, SepRC5084(5003)
S1 Thorium-228,230,232 by Alpha Spec
01 STANDARD TEST SET

Pipet #: _____

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179344 FILTER pCi/sampl PM, Quote: SA , 63174

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: HansenM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15H797K-1-AA J6F270218-14-SAMP 06/07/2006 10:05	0.833g	506.13g	51.63g,in	0.085g	THTF0695 07/14/06,pd 10/04/04,r					
		AmtRec: FILTER	#Containers: 1					Scr:	Alpha:	Beta:
16H797M-1-AA J6F270218-15-SAMP 06/07/2006 11:15	0.833g	500.73g	52.39g,in	0.0872g	THTF0696 07/14/06,pd 10/04/04,r					
		AmtRec: FILTER	#Containers: 1					Scr:	Alpha:	Beta:
17H8DM8-1-AA-B J6F280000-344-BLK 06/07/2006 10:00			1.00sa,in	1.00sa	THTF0697 07/14/06,pd 10/04/04,r					
		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
18H8DM8-1-AC-C J6F280000-344-LCS 06/07/2006 10:00			1.00sa,in	1.00sa	THSO0082 06/15/06,pd 10/04/04,r					
		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
536403, Brown and Caldwell Brown & Caldwell , SA , 63174

H7DWT1AA-SAMP Constituent List:

Th-228	RDL:1	pCi/sam	LCL:	UCL:	RPD:	Th-230	RDL:1	pCi/sam	LCL:	UCL:	RPD:
Th-232	RDL:1	pCi/sam	LCL:	UCL:	RPD:	Th-234	RDL:	pCi/sam	LCL:20	UCL:115	RPD:20

H8DM81AA-BLK:

Th-228	RDL:1	pCi/sam	LCL:	UCL:	RPD:	Th-230	RDL:1	pCi/sam	LCL:	UCL:	RPD:
Th-232	RDL:1	pCi/sam	LCL:	UCL:	RPD:	Th-234	RDL:	pCi/sam	LCL:20	UCL:115	RPD:20

7/20/2006 3:06:56 PM

Rpt DB Transfer log (Batch Results)

STL

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	Mdq	Sample Date / Units	Expected	Yield	Volumes
31999	**9H796F10**		**J6F2702181**	000487	FILTER	6/26/2006 9:00:00		6/7/2006 10:00:00 AM			
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**5.2157E+00**	1.623E+00	1.71E+00	4.523E+00	PCI/SA	1.0	1.0E+0	2.088E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.5369E+01**	1.72E+00	2.03E+00	5.537E+00	PCI/SA	1.0	1.0E+0	8.365E-2
TH-228	9NS1	0	7/19/2006 12:16:34	**1.6822E-01**	1.16E-01	1.172E-01	4.052E-01	PCI/SA	1.079	1.0E+0	8.387E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**6.2836E-01**	1.534E-01	1.529E-01	2.154E-01	PCI/SA	1.079	1.0E+0	8.387E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**-3.5906E-02**	2.539E-02	2.558E-02	2.643E-01	PCI/SA	1.079	1.0E+0	8.387E-2
U-234	7YSR	0	7/18/2006 6:21:43 PM	**2.7995E-01**	1.743E-01	1.758E-01	4.788E-01	PCI/SA	0.975	1.0E+0	8.258E-2
U-235	7YSR	0	7/18/2006 6:21:43 PM	**9.9979E-02**	9.998E-02	1.003E-01	2.709E-01	PCI/SA	0.975	1.0E+0	8.258E-2
U-238	7YSR	0	7/18/2006 6:21:43 PM	**-1.9991E-02**	1.999E-02	2.006E-02	4.786E-01	PCI/SA	0.975	1.0E+0	8.258E-2
31999	**9H796L10**		**J6F2702182**	000488	FILTER	6/26/2006 9:00:00		6/7/2006 10:25:00 AM			
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**5.4966E+00**	1.672E+00	1.766E+00	4.546E+00	PCI/SA	1.0	1.0E+0	2.088E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.7538E+01**	1.725E+00	2.106E+00	5.209E+00	PCI/SA	1.0	1.0E+0	8.479E-2
TH-228	9NS1	0	7/19/2006 12:16:34	**5.5304E-02**	1.237E-01	1.238E-01	6.634E-01	PCI/SA	0.396	1.0E+0	8.517E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**3.165E-01**	1.827E-01	1.857E-01	2.859E-01	PCI/SA	0.396	1.0E+0	8.517E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**0.0E+00**	0.0E+00	1.292E-01	2.859E-01	PCI/SA	0.396	1.0E+0	8.517E-2
U-234	7YSR	0	7/18/2006 6:21:54 PM	**2.8598E-01**	1.651E-01	1.667E-01	2.583E-01	PCI/SA	0.926	1.0E+0	8.23E-2
U-235	7YSR	0	7/18/2006 6:21:54 PM	**2.6691E-01**	1.662E-01	1.676E-01	4.566E-01	PCI/SA	0.926	1.0E+0	8.23E-2
U-238	7YSR	0	7/18/2006 6:21:54 PM	**-3.8129E-02**	2.696E-02	2.713E-02	5.387E-01	PCI/SA	0.926	1.0E+0	8.23E-2
31999	**9H796N10**		**J6F2702183**	000489	FILTER	6/26/2006 9:00:00		6/7/2006 10:35:00 AM			
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**6.4647E+00**	1.658E+00	1.785E+00	3.857E+00	PCI/SA	1.0	1.0E+0	2.107E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.57E+01**	1.626E+00	1.941E+00	4.99E+00	PCI/SA	1.0	1.0E+0	8.648E-2
TH-228	9NS1	0	7/19/2006 12:16:34	**1.7654E-01**	8.827E-02	8.968E-02	1.198E-01	PCI/SA	1.023	1.0E+0	8.634E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.5259E-01**	1.031E-01	1.056E-01	1.141E-01	PCI/SA	1.023	1.0E+0	8.634E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**0.0E+00**	0.0E+00	5.156E-02	1.141E-01	PCI/SA	1.023	1.0E+0	8.634E-2
U-234	7YSR	0	7/18/2006 6:22:08 PM	**2.0832E-01**	1.459E-01	1.468E-01	2.796E-01	PCI/SA	0.951	1.0E+0	8.249E-2
U-235	7YSR	0	7/18/2006 6:22:08 PM	**0.0E+00**	0.0E+00	1.363E-01	2.798E-01	PCI/SA	0.951	1.0E+0	8.249E-2
U-238	7YSR	0	7/18/2006 6:22:08 PM	**8.2533E-02**	1.052E-01	1.054E-01	4.941E-01	PCI/SA	0.951	1.0E+0	8.249E-2
31999	**9H796P10**		**J6F2702184**	000490	FILTER	6/26/2006 9:00:00		6/7/2006 10:50:00 AM			
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**3.1E+00**	1.521E+00	1.554E+00	5.409E+00	PCI/SA	1.0	1.0E+0	2.116E-2
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.905E+01**	1.708E+00	2.143E+00	5.03E+00	PCI/SA	1.0	1.0E+0	8.489E-2
TH-228	9NS1	0	7/19/2006 12:16:34	**1.3167E-01**	7.755E-02	7.84E-02	2.256E-01	PCI/SA	1.107	1.0E+0	8.56E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.8707E-01**	1.015E-01	1.045E-01	9.724E-02	PCI/SA	1.107	1.0E+0	8.56E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**1.7942E-02**	4.012E-02	4.015E-02	2.152E-01	PCI/SA	1.107	1.0E+0	8.56E-2
U-234	7YSR	0	7/18/2006 6:22:38 PM	**-3.0904E-02**	1.545E-02	1.565E-02	5.153E-01	PCI/SA	1.056	1.0E+0	8.234E-2
U-235	7YSR	0	7/18/2006 6:22:38 PM	**8.1011E-02**	9.708E-02	9.729E-02	4.409E-01	PCI/SA	1.056	1.0E+0	8.234E-2
U-238	7YSR	0	7/18/2006 6:22:38 PM	**-4.6358E-02**	1.892E-02	1.928E-02	5.724E-01	PCI/SA	1.056	1.0E+0	8.234E-2
31999	**9H796Q10**		**J6F2702185**	000491	FILTER	6/26/2006 9:00:00		6/7/2006 11:00:00 AM			
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	**5.8528E+00**	1.861E+00	1.958E+00	5.57E+00	PCI/SA	1.0	1.0E+0	2.042E-2
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.5815E+01**	1.678E+00	1.993E+00	5.248E+00	PCI/SA	1.0	1.0E+0	8.123E-2
TH-228	9NS1	0	7/19/2006 12:16:34	**1.7989E-01**	1.039E-01	1.051E-01	3.38E-01	PCI/SA	1.017	1.0E+0	8.115E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.0972E-01**	9.533E-02	9.71E-02	2.287E-01	PCI/SA	1.017	1.0E+0	8.115E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**3.0505E-01**	1.175E-01	1.206E-01	2.806E-01	PCI/SA	1.017	1.0E+0	8.115E-2
U-234	7YSR	0	7/18/2006 6:22:53 PM	**7.0218E-01**	2.752E-01	2.809E-01	5.183E-01	PCI/SA	0.981	1.0E+0	8.04E-2
U-235	7YSR	0	7/18/2006 6:22:53 PM	**7.8919E-02**	1.049E-01	1.051E-01	5.183E-01	PCI/SA	0.981	1.0E+0	8.04E-2
U-238	7YSR	0	7/18/2006 6:22:53 PM	**4.861E-01**	2.329E-01	2.361E-01	5.549E-01	PCI/SA	0.981	1.0E+0	8.04E-2
31999	**9H796R10**		**J6F2702186**	000492	FILTER	6/26/2006 9:00:00		6/7/2006 11:20:00 AM			
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	**4.1775E+00**	1.513E+00	1.574E+00	4.568E+00	PCI/SA	1.0	1.0E+0	2.069E-2
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.7615E+01**	1.668E+00	2.065E+00	5.009E+00	PCI/SA	1.0	1.0E+0	8.434E-2
TH-228	9NS1	0	7/19/2006 12:16:34	**1.9618E-01**	9.989E-02	1.014E-01	2.615E-01	PCI/SA	0.997	1.0E+0	8.321E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**4.9901E-01**	1.441E-01	1.508E-01	1.127E-01	PCI/SA	0.997	1.0E+0	8.321E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**1.2475E-01**	7.203E-02	7.289E-02	1.127E-01	PCI/SA	0.997	1.0E+0	8.321E-2
U-234	7YSR	0	7/18/2006 6:23:10 PM	**-3.3198E-02**	1.66E-02	1.681E-02	5.536E-01	PCI/SA	1.009	1.0E+0	8.244E-2

6179344. **Samples Inserted | Updated | NotUpdated => 2 | 0 | 18,
**Results Inserted | ReTestInserted | Updated | NotInserted => 52 | 0 | 0 | 0.
**Diff RptDb | Qtlms => *wo:H8DM81AA=> , mat:FILTER | Air *wo:H8DM81AA=> , mat:FILTER | Air *wo:H8DM81AA=> , mat:FILTER | Air.

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SDG or Batch / Isotope	Rpt Db Id / Method	RTat Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	Mass	Sample Date / Units	Expected	Yield	Volumes
U-235	7YSR	0	7/18/2006 6:23:10 PM	-6.2994E-03	8.299E-03	8.326E-03	4.172E-01	PCi/SA	1.009	1.0E+0	8.244E-2
U-238	7YSR	0	7/18/2006 6:23:10 PM	-3.3198E-02	1.66E-02	1.681E-02	5.536E-01	PCi/SA	1.009	1.0E+0	8.244E-2
31999	**9H796T10**		**J6F2702187**	000493	FILTER	6/26/2006 9:00:00		6/7/2006 10:10:00 AM			
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	-7.4933E-02	8.593E-01	8.593E-01	4.586E+00	PCi/SA	1.0	1.0E+0	2.117E-2
BETA	BDS8	0	7/18/2006 1:34:32 PM	1.0747E+00	1.22E+00	1.222E+00	5.046E+00	PCi/SA	1.0	1.0E+0	8.395E-2
TH-228	9NS1	0	7/19/2006 12:16:34	1.9076E-02	4.265E-02	4.269E-02	2.288E-01	PCi/SA	0.936	1.0E+0	8.453E-2
TH-230	9NS1	0	7/19/2006 12:16:34	2.7293E-01	1.045E-01	1.073E-01	2.183E-01	PCi/SA	0.936	1.0E+0	8.453E-2
TH-232	9NS1	0	7/19/2006 12:16:34	-3.639E-02	2.573E-02	2.593E-02	2.678E-01	PCi/SA	0.936	1.0E+0	8.453E-2
U-234	7YSR	0	7/18/2006 6:23:32 PM	-2.801E-02	1.617E-02	1.633E-02	5.817E-01	PCi/SA	0.865	1.0E+0	8.256E-2
U-235	7YSR	0	7/18/2006 6:23:32 PM	-1.8673E-02	1.32E-02	1.339E-02	5.33E-01	PCi/SA	0.865	1.0E+0	8.256E-2
U-238	7YSR	0	7/18/2006 6:23:32 PM	1.166E-01	1.166E-01	1.17E-01	3.16E-01	PCi/SA	0.865	1.0E+0	8.256E-2
31999	**9H796W10**		**J6F2702188**	P-0660	FILTER	6/26/2006 9:00:00		6/7/2006 9:55:00 AM			
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	3.8436E+00	1.391E+00	1.445E+00	4.008E+00	PCi/SA	1.0	1.0E+0	2.088E-2
BETA	BDS8	0	7/18/2006 1:34:32 PM	1.3482E+01	1.585E+00	1.923E+00	5.061E+00	PCi/SA	1.0	1.0E+0	8.329E-2
TH-228	9NS1	0	7/19/2006 12:17:22	-5.5508E-02	5.549E-02	5.57E-02	3.722E-01	PCi/SA	0.916	1.0E+0	8.475E-2
TH-230	9NS1	0	7/19/2006 12:17:22	2.6634E+00	3.08E-01	3.872E-01	2.116E-01	PCi/SA	0.916	1.0E+0	8.475E-2
TH-232	9NS1	0	7/19/2006 12:17:22	3.5277E-02	3.538E-02	3.541E-02	9.56E-02	PCi/SA	0.916	1.0E+0	8.475E-2
U-234	7YSR	0	7/18/2006 6:24:30 PM	1.5766E-01	1.423E-01	1.427E-01	5.571E-01	PCi/SA	1.006	1.0E+0	8.241E-2
U-235	7YSR	0	7/18/2006 6:24:30 PM	-3.9462E-02	2.79E-02	2.808E-02	5.571E-01	PCi/SA	1.006	1.0E+0	8.241E-2
U-238	7YSR	0	7/18/2006 6:24:30 PM	-5.9194E-02	3.418E-02	3.45E-02	8.223E-01	PCi/SA	1.006	1.0E+0	8.241E-2
31999	**9H797D10**		**J6F2702189**	P-0661	FILTER	6/26/2006 9:00:00		6/7/2006 10:20:00 AM			
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	2.4154E+00	1.461E+00	1.482E+00	5.531E+00	PCi/SA	1.0	1.0E+0	2.086E-2
BETA	BDS8	0	7/18/2006 1:34:32 PM	1.2452E+01	1.549E+00	1.861E+00	5.002E+00	PCi/SA	1.0	1.0E+0	8.541E-2
TH-228	9NS1	0	7/19/2006 12:17:33	1.1088E-01	9.667E-02	9.717E-02	3.728E-01	PCi/SA	1.071	1.0E+0	8.341E-2
TH-230	9NS1	0	7/19/2006 12:17:33	8.4616E-02	5.983E-02	6.03E-02	1.147E-01	PCi/SA	1.071	1.0E+0	8.341E-2
TH-232	9NS1	0	7/19/2006 12:17:33	0.0E+00	0.0E+00	5.182E-02	1.147E-01	PCi/SA	1.071	1.0E+0	8.341E-2
U-234	7YSR	0	7/18/2006 6:24:37 PM	0.0E+00	0.0E+00	1.219E-01	2.697E-01	PCi/SA	1.029	1.0E+0	8.248E-2
U-235	7YSR	0	7/18/2006 6:24:37 PM	-5.9728E-02	3.448E-02	3.481E-02	6.282E-01	PCi/SA	1.029	1.0E+0	8.248E-2
U-238	7YSR	0	7/18/2006 6:24:37 PM	3.9782E-02	1.053E-01	1.054E-01	8.282E-01	PCi/SA	1.029	1.0E+0	8.248E-2
31999	**9H797E10**		**J6F27021810**	P-0662	FILTER	6/26/2006 9:00:00		6/7/2006 10:30:00 AM			
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	6.44E+00	1.867E+00	2.002E+00	5.424E+00	PCi/SA	1.0	1.0E+0	2.072E-2
BETA	BDS8	0	7/18/2006 1:34:19 PM	1.046E+01	1.699E+00	1.853E+00	6.064E+00	PCi/SA	1.0	1.0E+0	8.603E-2
TH-228	9NS1	0	7/19/2006 12:17:45	8.9776E-02	8.399E-02	8.438E-02	3.305E-01	PCi/SA	0.991	1.0E+0	8.433E-2
TH-230	9NS1	0	7/19/2006 12:17:45	1.7129E-01	8.565E-02	8.702E-02	1.16E-01	PCi/SA	0.991	1.0E+0	8.433E-2
TH-232	9NS1	0	7/19/2006 12:17:45	0.0E+00	0.0E+00	5.245E-02	1.16E-01	PCi/SA	0.991	1.0E+0	8.433E-2
U-234	7YSR	0	7/18/2006 6:24:49 PM	-1.4874E-01	5.622E-02	5.748E-02	8.732E-01	PCi/SA	0.906	1.0E+0	8.215E-2
U-235	7YSR	0	7/18/2006 6:24:49 PM	-6.3746E-02	3.68E-02	3.716E-02	6.704E-01	PCi/SA	0.906	1.0E+0	8.215E-2
U-238	7YSR	0	7/18/2006 6:24:49 PM	-2.1298E-02	1.183E-01	1.183E-01	8.288E-01	PCi/SA	0.906	1.0E+0	8.215E-2
31999	**9H797F10**		**J6F27021811**	P-0663	FILTER	6/26/2006 9:00:00		6/7/2006 10:45:00 AM			
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	3.9003E+00	1.502E+00	1.556E+00	4.671E+00	PCi/SA	1.0	1.0E+0	2.03E-2
BETA	BDS8	0	7/18/2006 1:34:19 PM	1.6067E+01	1.616E+00	2.113E+00	4.856E+00	PCi/SA	1.0	1.0E+0	8.165E-2
TH-228	9NS1	0	7/19/2006 12:17:53	-1.7632E-05	8.33E-02	8.33E-02	4.466E-01	PCi/SA	0.992	1.0E+0	8.219E-2
TH-230	9NS1	0	7/19/2006 12:17:53	1.1467E-01	8.27E-02	8.334E-02	2.751E-01	PCi/SA	0.992	1.0E+0	8.219E-2
TH-232	9NS1	0	7/19/2006 12:17:53	0.0E+00	0.0E+00	5.618E-02	1.243E-01	PCi/SA	0.992	1.0E+0	8.219E-2
U-234	7YSR	0	7/18/2006 6:25:00 PM	7.7955E-02	1.456E-01	1.459E-01	7.601E-01	PCi/SA	1.011	1.0E+0	8.092E-2
U-235	7YSR	0	7/18/2006 6:25:00 PM	-1.9478E-02	1.946E-02	1.954E-02	4.685E-01	PCi/SA	1.011	1.0E+0	8.092E-2
U-238	7YSR	0	7/18/2006 6:25:00 PM	7.7955E-02	1.458E-01	1.459E-01	7.601E-01	PCi/SA	1.011	1.0E+0	8.092E-2
31999	**9H797H10**		**J6F27021812**	P-0664	FILTER	6/26/2006 9:00:00		6/7/2006 11:05:00 AM			
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	3.7E+00	1.475E+00	1.524E+00	4.621E+00	PCi/SA	1.0	1.0E+0	2.075E-2
BETA	BDS8	0	7/18/2006 1:34:19 PM	1.3205E+01	1.591E+00	1.827E+00	5.143E+00	PCi/SA	1.0	1.0E+0	8.304E-2
TH-228	9NS1	0	7/19/2006 10:14:05	1.9535E-06	8.279E-02	8.279E-02	4.201E-01	PCi/SA	1.047	1.0E+0	8.332E-2
TH-230	9NS1	0	7/19/2006 10:14:05	1.3025E-01	7.672E-02	7.757E-02	2.232E-01	PCi/SA	1.047	1.0E+0	8.332E-2
TH-232	9NS1	0	7/19/2006 10:14:05	3.7213E-02	3.721E-02	3.736E-02	1.006E-01	PCi/SA	1.047	1.0E+0	8.332E-2
U-234	7YSR	0	7/18/2006 6:25:11 PM	5.5292E-02	1.392E-01	1.392E-01	7.569E-01	PCi/SA	1.009	1.0E+0	8.232E-2

6179344, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 52 | 0 | 0 | 0,
**Diff RptDb | Qtims => *wo:H8DM81AA=> , mat:FILTER | Air *wo:H8DM81AA=> , mat:FILTER | Air *wo:H8DM81AA=> , mat:FILTER | Air.

SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	LotSample / Analysis Date	Client Id / Result	Cnt Uncert	Tot Uncert	Matrix / MDA	Received Date / Units	Sample Date / Expected	Yield	Volumes	
U-235	7YSR	0		7/18/2006 6:25:11 PM	-1.8434E-02	1.643E-02	1.649E-02	4.414E-01	PCI/SA		1.009	1.0E+0	8.232E-2
U-238	7YSR	0		7/18/2006 6:25:11 PM	7.3726E-02	1.379E-01	1.381E-01	7.192E-01	PCI/SA		1.009	1.0E+0	8.232E-2
31999	**9H797J10**			**J6F27021813**	P-0665		FILTER	6/26/2006 9:00:00	6/7/2006 11:10:00 AM				
ALPHA	BAS7	0		7/18/2006 7:02:47 PM	5.0222E+00	1.555E+00	1.638E+00	4.09E+00	PCI/SA		1.0	1.0E+0	2.002E-2
BETA	BDS8	0		7/18/2006 1:34:38 PM	1.2848E+01	1.59E+00	1.818E+00	5.167E+00	PCI/SA		1.0	1.0E+0	8.455E-2
TH-228	9NS1	0		7/19/2006 10:14:05	-7.7987E-02	6.166E-02	6.204E-02	4.197E-01	PCI/SA		1.004	1.0E+0	8.099E-2
TH-230	9NS1	0		7/19/2006 10:14:05	5.0194E-01	1.404E-01	1.472E-01	2.23E-01	PCI/SA		1.004	1.0E+0	8.099E-2
TH-232	9NS1	0		7/19/2006 10:14:05	6.2033E-07	4.554E-02	4.554E-02	2.737E-01	PCI/SA		1.004	1.0E+0	8.099E-2
U-234	7YSR	0		7/18/2006 6:25:24 PM	0.0E+00	0.0E+00	1.219E-01	3.698E-01	PCI/SA		1.091	1.0E+0	8.015E-2
U-235	7YSR	0		7/18/2006 6:25:24 PM	-1.9916E-02	1.992E-02	1.998E-02	4.769E-01	PCI/SA		1.091	1.0E+0	8.015E-2
U-238	7YSR	0		7/18/2006 6:25:24 PM	1.5928E-01	1.436E-01	1.441E-01	5.626E-01	PCI/SA		1.091	1.0E+0	8.015E-2
31999	**9H797K10**			**J6F27021814**	P-0666		FILTER	6/26/2006 9:00:00	6/7/2006 10:05:00 AM				
ALPHA	BAS7	0		7/18/2006 7:02:47 PM	-6.0243E-01	9.947E-01	9.967E-01	5.518E+00	PCI/SA		1.0	1.0E+0	2.066E-2
BETA	BDS8	0		7/18/2006 1:34:38 PM	1.2862E+01	1.583E+00	1.813E+00	5.122E+00	PCI/SA		1.0	1.0E+0	8.329E-2
TH-228	9NS1	0		7/19/2006 10:14:05	2.4133E-01	1.097E-01	1.118E-01	2.632E-01	PCI/SA		1.024	1.0E+0	8.496E-2
TH-230	9NS1	0		7/19/2006 10:14:05	3.7652E-01	1.255E-01	1.3E-01	1.134E-01	PCI/SA		1.024	1.0E+0	8.496E-2
TH-232	9NS1	0		7/19/2006 10:14:05	0.0E+00	0.0E+00	5.124E-02	1.134E-01	PCI/SA		1.024	1.0E+0	8.496E-2
U-234	7YSR	0		7/18/2006 6:25:43 PM	-2.1922E-02	2.192E-02	2.199E-02	5.248E-01	PCI/SA		0.914	1.0E+0	8.187E-2
U-235	7YSR	0		7/18/2006 6:25:43 PM	1.0956E-01	1.096E-01	1.099E-01	2.969E-01	PCI/SA		0.914	1.0E+0	8.187E-2
U-238	7YSR	0		7/18/2006 6:25:43 PM	-2.1922E-02	2.192E-02	2.199E-02	5.248E-01	PCI/SA		0.914	1.0E+0	8.187E-2
31999	**9H797M10**			**J6F27021815**	P-0667		FILTER	6/26/2006 9:00:00	6/7/2006 11:15:00 AM				
ALPHA	BAS7	0		7/19/2006 8:30:44 AM	-2.1818E+00	8.681E-01	8.973E-01	6.058E+00	PCI/SA		1.0	1.0E+0	2.084E-2
BETA	BDS8	0		7/18/2006 1:34:38 PM	1.6716E+00	1.229E+00	1.236E+00	5.002E+00	PCI/SA		1.0	1.0E+0	8.539E-2
TH-228	9NS1	0		7/19/2006 10:14:05	1.3121E-01	7.575E-02	7.667E-02	1.185E-01	PCI/SA		1.011	1.0E+0	8.715E-2
TH-230	9NS1	0		7/19/2006 10:14:05	2.0851E-01	9.325E-02	9.511E-02	1.13E-01	PCI/SA		1.011	1.0E+0	8.715E-2
TH-232	9NS1	0		7/19/2006 10:14:05	4.1702E-02	4.17E-02	4.187E-02	1.13E-01	PCI/SA		1.011	1.0E+0	8.715E-2
U-234	7YSR	0		7/18/2006 6:25:53 PM	0.0E+00	0.0E+00	1.38E-01	3.054E-01	PCI/SA		0.816	1.0E+0	8.267E-2
U-235	7YSR	0		7/18/2006 6:25:53 PM	-2.2549E-02	2.255E-02	2.262E-02	5.399E-01	PCI/SA		0.816	1.0E+0	8.267E-2
U-238	7YSR	0		7/18/2006 6:25:53 PM	-2.2549E-02	2.255E-02	2.262E-02	5.399E-01	PCI/SA		0.816	1.0E+0	8.267E-2
31902	**9H7DWT10**			**J6F1402701**	000473		FILTER	6/14/2006 10:00:00	6/24/2006 7:40:00 AM				
ALPHA	BAS7	0		7/18/2006 1:26:23 PM	3.4147E+00	1.54E+00	1.581E+00	5.324E+00	PCI/SA		1.0	1.0E+0	2.098E-2
BETA	BDS8	0		7/18/2006 1:34:31 PM	1.2465E+01	1.685E+00	1.896E+00	5.665E+00	PCI/SA		1.0	1.0E+0	8.326E-2
TH-228	9NS1	0		7/19/2006 12:16:34	-3.9324E-02	7.357E-02	7.365E-02	4.233E-01	PCI/SA		1.057	1.0E+0	8.382E-2
TH-230	9NS1	0		7/19/2006 12:16:34	2.0344E-01	9.247E-02	9.419E-02	2.219E-01	PCI/SA		1.057	1.0E+0	8.382E-2
TH-232	9NS1	0		7/19/2006 12:16:34	0.0E+00	0.0E+00	4.53E-02	1.002E-01	PCI/SA		1.057	1.0E+0	8.382E-2
U-234	7YSR	0		7/18/2006 6:21:38 PM	8.4174E-02	1.073E-01	1.075E-01	5.042E-01	PCI/SA		0.936	1.0E+0	8.232E-2
U-235	7YSR	0		7/18/2006 6:21:38 PM	0.0E+00	0.0E+00	1.289E-01	2.852E-01	PCI/SA		0.936	1.0E+0	8.232E-2
U-238	7YSR	0		7/18/2006 6:21:38 PM	-4.2133E-02	2.979E-02	2.999E-02	5.948E-01	PCI/SA		0.936	1.0E+0	8.232E-2
31999	**H8DM81AB**			**J6F280000344**	INTRA-LAB BLANK		FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM				
TH-228	9NS1	0	B	7/19/2006 10:14:05	1.1276E-02	6.642E-03	6.712E-03	1.932E-02	PCI/SA		1.011	1.0E+0	1.0E+0
TH-230	9NS1	0	B	7/19/2006 10:14:05	2.7646E-02	9.215E-03	9.515E-03	8.324E-03	PCI/SA		1.011	1.0E+0	1.0E+0
TH-232	9NS1	0	B	7/19/2006 10:14:05	-1.5358E-03	1.536E-03	1.541E-03	1.642E-02	PCI/SA		1.011	1.0E+0	1.0E+0
31999	**H8DM81CS**			**J6F280000344**	INTRA-LAB CHECK		FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM				
TH-230	9NS1	0	S	7/19/2006 10:14:05	1.6477E+00	7.145E-02	1.576E-01	1.856E-02	PCI/SA	1.8052E+00	1.081	1.0E+0	1.0E+0

6179344, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16.
**Results Inserted | ReTestInserted | Updated | NotInserted => 52 | 0 | 0 | 0.
**Diff RptDb | Qtlms => *wo:H8DM81AA=> , mat:FILTER | Air *wo:H8DM81AA=> , mat:FILTER | Air *wo:H8DM81AA=> , mat:FILTER | Air.

7/20/2006 3:07:01 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/20/2005, 7/25/2006, Batch: '6179344', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6179344						
AC		CalcC	HansenM	7/17/2006 9:38:22		
SC			wagarr	isBatched	6/28/2006 1:36:13 PM	ICOC_RADCALC v4.8.24
SC			HansenM	InPrep2	7/17/2006 9:38:22 AM	RICH-RC-5016 REVISION 5
SC			HansenM	Prep2C	7/17/2006 9:38:49 AM	RICH-RC-5016 REVISION 5
SC			FABREM	Sep2C	7/18/2006 6:53:43 PM	RICH-RC-5039 REV 6
SC			DAWKINSO	InCnt1	7/18/2006 8:04:58 PM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	7/19/2006 10:19:40 PM	RICH-RD-0008 REVISION 4
AC			HansenM	7/17/2006 9:38:49		
AC			FABREM	7/18/2006 6:53:43 PM		
AC			DAWKINSO	7/18/2006 8:04:58 PM		
AC			DAWKINSO	7/19/2006 10:19:40		

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.18

Batch Nbr: 6179344

Alpha Spec, Thiso by ALP , Results

7/19/2006 10:18:25 PM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	ILcC	IDC	QC	Yield	RYld
Thiso by ALP			Richland Standard Alpiso Wo Blk Subt.											
Calc	S1	FILTER	H7DWT1AA	TH-228	-3.93E-02	(7.37E-02)	U4	PCI/SA	R	1.58E-01	4.23E-01		106%	
Calc	S1	FILTER	H7DWT1AA	TH-230	2.03E-01	(9.42E-02)		PCI/SA	R	6.08E-02	2.22E-01		106%	
Calc	S1	FILTER	H7DWT1AA	TH-232	0.00E+00	(4.53E-02)	U4	PCI/SA	R		1.00E-01		106%	
Calc	S1	FILTER	H796F1AA	TH-228	1.88E-01	(1.17E-01)	U4	PCI/SA	R	1.52E-01	4.05E-01		108%	
Calc	S1	FILTER	H796F1AA	TH-230	6.28E-01	(1.63E-01)		PCI/SA	R	5.91E-02	2.15E-01		108%	
Calc	S1	FILTER	H796F1AA	TH-232	-3.59E-02	(2.56E-02)	U4	PCI/SA	R	8.35E-02	2.64E-01		108%	
Calc	S1	FILTER	H796L1AA	TH-228	5.53E-02	(1.24E-01)	U4	PCI/SA	R	1.82E-01	6.63E-01		40%	
Calc	S1	FILTER	H796L1AA	TH-230	3.17E-01	(1.86E-01)		PCI/SA	R		2.86E-01		40%	
Calc	S1	FILTER	H796L1AA	TH-232	0.00E+00	(1.29E-01)	U4	PCI/SA	R		2.86E-01		40%	
Calc	S1	FILTER	H796N1AA	TH-228	1.77E-01	(8.97E-02)		PCI/SA	R		1.20E-01		102%	
Calc	S1	FILTER	H796N1AA	TH-230	2.53E-01	(1.08E-01)		PCI/SA	R		1.14E-01		102%	
Calc	S1	FILTER	H796N1AA	TH-232	0.00E+00	(5.16E-02)	U4	PCI/SA	R		1.14E-01		102%	
Calc	S1	FILTER	H796P1AA	TH-228	1.32E-01	(7.84E-02)		PCI/SA	R	6.19E-02	2.26E-01		111%	
Calc	S1	FILTER	H796P1AA	TH-230	2.87E-01	(1.05E-01)		PCI/SA	R		9.72E-02		111%	
Calc	S1	FILTER	H796P1AA	TH-232	1.79E-02	(4.01E-02)	U4	PCI/SA	R	5.90E-02	2.15E-01		111%	
Calc	S1	FILTER	H796Q1AA	TH-228	1.80E-01	(1.05E-01)		PCI/SA	R	1.14E-01	3.36E-01		102%	
Calc	S1	FILTER	H796Q1AA	TH-230	2.10E-01	(9.71E-02)		PCI/SA	R	6.27E-02	2.29E-01		102%	
Calc	S1	FILTER	H796Q1AA	TH-232	3.05E-01	(1.21E-01)		PCI/SA	R	8.87E-02	2.81E-01		102%	
Calc	S1	FILTER	H796R1AA	TH-228	1.96E-01	(1.01E-01)		PCI/SA	R	7.17E-02	2.61E-01		100%	
Calc	S1	FILTER	H796R1AA	TH-230	4.99E-01	(1.51E-01)		PCI/SA	R		1.13E-01		100%	
Calc	S1	FILTER	H796R1AA	TH-232	1.25E-01	(7.29E-02)		PCI/SA	R		1.13E-01		100%	
Calc	S1	FILTER	H796T1AA	TH-228	1.91E-02	(4.27E-02)	U4	PCI/SA	R	6.28E-02	2.29E-01		94%	
Calc	S1	FILTER	H796T1AA	TH-230	2.73E-01	(1.07E-01)		PCI/SA	R	5.99E-02	2.18E-01		94%	
Calc	S1	FILTER	H796T1AA	TH-232	-3.64E-02	(2.59E-02)	U4	PCI/SA	R	8.47E-02	2.68E-01		94%	
Calc	S1	FILTER	H796W1AA	TH-228	-5.55E-02	(5.57E-02)	U4	PCI/SA	R	1.36E-01	3.72E-01		92%	
Calc	S1	FILTER	H796W1AA	TH-230	2.66E+00	(3.87E-01)		PCI/SA	R	5.80E-02	2.12E-01		92%	
Calc	S1	FILTER	H796W1AA	TH-232	3.53E-02	(3.54E-02)	U4	PCI/SA	R		9.56E-02		92%	
Calc	S1	FILTER	H797D1AA	TH-228	1.11E-01	(9.72E-02)	U4	PCI/SA	R	1.26E-01	3.73E-01		107%	
Calc	S1	FILTER	H797D1AA	TH-230	8.46E-02	(6.03E-02)	U4	PCI/SA	R		1.15E-01		107%	
Calc	S1	FILTER	H797D1AA	TH-232	0.00E+00	(5.18E-02)	U4	PCI/SA	R		1.15E-01		107%	
Calc	S1	FILTER	H797E1AA	TH-228	8.98E-02	(8.44E-02)	U4	PCI/SA	R	1.04E-01	3.30E-01		99%	
Calc	S1	FILTER	H797E1AA	TH-230	1.71E-01	(8.70E-02)		PCI/SA	R		1.16E-01		99%	
Calc	S1	FILTER	H797E1AA	TH-232	0.00E+00	(5.24E-02)	U4	PCI/SA	R		1.16E-01		99%	
Calc	S1	FILTER	H797F1AA	TH-228	-1.76E-05	(8.33E-02)	U4	PCI/SA	R	1.58E-01	4.47E-01		99%	
Calc	S1	FILTER	H797F1AA	TH-230	1.15E-01	(8.33E-02)	U4	PCI/SA	R	7.55E-02	2.75E-01		99%	
Calc	S1	FILTER	H797F1AA	TH-232	0.00E+00	(5.62E-02)	U4	PCI/SA	R		1.24E-01		99%	
Calc	S1	FILTER	H797H1AA	TH-228	1.95E-06	(8.28E-02)	U4	PCI/SA	R	1.57E-01	4.20E-01		105%	

() - (1s Uncertainities)
IDC - Instrument Detection Level in Conc Units
MLcC- Method Decision Level in Conc Units
MDC - Minimum Detectable Concentration
*Std - Lc, MDC using StdDev for Set of Blanks

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Regardless of Significants
Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:61
RADCALC v4.8.18
STL Richland

Batch Nbr: 6179344

Alpha Spec, Thiso by ALP , Results

7/19/2006 10:18:25 PM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	ILcC	IDC	QC	Yield	RYld
Calc	S1	FILTER	H797H1AA	TH-230	1.30E-01	(7.76E-02)		PCI/SA	R	6.12E-02	2.23E-01		105%	
Calc	S1	FILTER	H797H1AA	TH-232	3.72E-02	(3.74E-02)	U4	PCI/SA	R		1.01E-01		105%	
Calc	S1	FILTER	H797J1AA	TH-228	-7.80E-02	(6.20E-02)	U4	PCI/SA	R	1.57E-01	4.20E-01		100%	
Calc	S1	FILTER	H797J1AA	TH-230	5.02E-01	(1.47E-01)		PCI/SA	R	6.12E-02	2.23E-01		100%	
Calc	S1	FILTER	H797J1AA	TH-232	6.20E-07	(4.55E-02)	U4	PCI/SA	R	8.65E-02	2.74E-01		100%	
Calc	S1	FILTER	H797K1AA	TH-228	2.41E-01	(1.12E-01)		PCI/SA	R	7.22E-02	2.63E-01		102%	
Calc	S1	FILTER	H797K1AA	TH-230	3.77E-01	(1.30E-01)		PCI/SA	R		1.13E-01		102%	
Calc	S1	FILTER	H797K1AA	TH-232	0.00E+00	(5.12E-02)	U4	PCI/SA	R		1.13E-01		102%	
Calc	S1	FILTER	H797M1AA	TH-228	1.31E-01	(7.67E-02)		PCI/SA	R		1.19E-01		101%	
Calc	S1	FILTER	H797M1AA	TH-230	2.09E-01	(9.51E-02)		PCI/SA	R		1.13E-01		101%	
Calc	S1	FILTER	H797M1AA	TH-232	4.17E-02	(4.19E-02)	U4	PCI/SA	R		1.13E-01		101%	
Calc	S1	FILTER	H8DM81AA	TH-228	1.13E-02	(6.71E-03)		PCI/SA	R	5.30E-03	1.93E-02	B	101%	
Calc	S1	FILTER	H8DM81AA	TH-230	2.76E-02	(9.52E-03)		PCI/SA	R		8.32E-03	B	101%	
Calc	S1	FILTER	H8DM81AA	TH-232	-1.54E-03	(1.54E-03)	U4	PCI/SA	R	5.05E-03	1.84E-02	B	101%	
Calc	S1	FILTER	H8DM81AC	TH-230	1.55E+00	(1.58E-01)		PCI/SA	R	5.09E-03	1.86E-02	S	108%	91%

OR
LB
7/20/06

() - (1s Uncertainities)
IDC - Instrument Detection Level in Conc Units
MLcC- Method Decision Level in Conc Units
MDC - Minimum Detectable Concentration
*Std - Lc, MDC using StdDev for Set of Blanks

Page 2

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Regardless of Significants
Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:70
RADCALC v4.8.18
STL Richland

Batch Nbr: 6179344

Alpha Spec, Thiso by ALP , Calculated Results

Detailed Report

7/19/2006 10:18:26 PM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BS	Sa/On Date	Analysis Date/Ppt Wt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
1	Calc	S1	FILTER	*STLE	AlpisoWoBS	H7DWT1AA	PCI/SA		05/24/06 07:40	07/19/06 00:16			1	1.00 Sa	
536403,000473					J6F140270-1 v4.8.18		FILTER					THTF0676 Alq		0.083823 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:06	TH-228	2	8	ALP171	ED	N	N	2.9087E-01		N	106%	N		1.0000E+00	4.5045E-01	1.0568E+00	
			499.4666666	998.95			Y		(8.726E-03)			6%			(0.000E+00)	11.929891		
1	07/18/06 20:06	TH-229	627	4	ALP171	ED	Y	N	2.9087E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.726E-03)						(0.000E+00)	11.929891		
2	07/18/06 20:06	TH-230	6	1	ALP171	ED	N	N	2.9087E-01		N	106%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.726E-03)			6%			(0.000E+00)	11.929891		
3	07/18/06 20:06	TH-232	0	0	ALP171	ED	N	N	2.9087E-01		N	106%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.726E-03)			6%			(0.000E+00)	11.929891		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.cC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	-0.039324	U4	-2.00204E-03	-0.006925	-0.006925	1.00 Sa	106%		0.423304		
				(0.073653)		(3.7456E-03)	(0.012964)	(0.012964)	(0.027064)			0.158459		
	07/19/06	TH-229	R	23.11865		1.25133E+00	4.302089	4.302089	1.00 Sa	106%				
				(1.751555)		(5.0173E-02)	(0.215435)	(0.215435)	(0.027064)					
	07/19/06	TH-230	R	0.203444		1.10118E-02	0.037858	0.037858	1.00 Sa	106%		0.221866		
				(0.094188)		(5.0053E-03)	(0.017395)	(0.017395)	(0.027064)			0.060848		
	07/19/06	TH-232	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 Sa	106%		0.100242		
				(0.045303)		(0.0000E+00)	(0.00843)	(0.00843)	(0.027064)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BS	Sa/On Date	Analysis Date/Ppt Wt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
2	Calc	S1	FILTER	*STLE	AlpisoWoBS	H796F1AA	PCI/SA		06/07/06 10:00	07/19/06 00:16			1	1.00 Sa	
536403,000487					J6F270218-1 v4.8.18		FILTER					THTF0677 Alq		0.083866 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:06	TH-228	8	6	ALP172	ED	N	N	2.9949E-01		N	106%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			499.4666666	998.95			Y		(8.985E-03)			6%			(0.000E+00)	11.92374		
1	07/18/06 20:06	TH-229	665	7	ALP172	ED	Y	N	2.9949E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.985E-03)						(0.000E+00)	11.92374		
2	07/18/06 20:06	TH-230	18	1	ALP172	ED	N	N	2.9949E-01		N	106%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.985E-03)			6%			(0.000E+00)	11.92374		
3	07/18/06 20:06	TH-232	0	2	ALP172	ED	N	N	2.9949E-01		N	106%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.985E-03)			6%			(0.000E+00)	11.92374		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:2

RADCALC v4.8.18

STL Richland

STLRICHLAND

STLRICHLAND

Batch Nbr: 6179344

Alpha Spec, Thiso by ALP , Calculated Results

7/19/2006 10:18:26 PM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.LcC/MDC	StdDv/MdC/LcC
	07/19/06	TH-228	R	0.188222	U4	1.00108E-02	0.033628	0.033628	1.00 Sa	108%		0.406199		
				(0.117188)		(6.1710E-03)	(0.020849)	(0.020849)	(0.027064)			0.151682		
	07/19/06	TH-229	R	23.751929		1.32441E+00	4.422214	4.422214	1.00 Sa	108%				
				(1.786325)		(5.1696E-02)	(0.217711)	(0.217711)	(0.027064)					
	07/19/06	TH-230	R	0.628358		3.50374E-02	0.11699	0.11699	1.00 Sa	108%		0.215366		
				(0.162934)		(8.5531E-03)	(0.029597)	(0.029597)	(0.027064)			0.059065		
	07/19/06	TH-232	R	-0.035906	U4	-2.00210E-03	-0.006685	-0.006685	1.00 Sa	108%		0.264258		
				(0.025582)		(1.4157E-03)	(0.004748)	(0.004748)	(0.027064)			0.083531		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
3	Calc	S1	FILTER	*STLE	AlpisoWoBS	H796L1AA	PCI/SA		06/07/06 10:25	07/19/06 00:16			1	1.00 Sa	
536400,000488					J6F270218-2 v4.8.18		FILTER					THTF0678 Alq		0.085174 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:06	TH-228	1	1	ALP173	ED	N	N	2.5374E-01		N	40%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			499.4666666	998.95			Y		(7.612E-03)			3%			(0.000E+00)	11.74071		
1	07/18/06 20:06	TH-229	205	2	ALP173	ED	Y	N	2.5374E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.612E-03)						(0.000E+00)	11.74071		
2	07/18/06 20:06	TH-230	3	0	ALP173	ED	N	N	2.5374E-01		N	40%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.612E-03)			3%			(0.000E+00)	11.74071		
3	07/18/06 20:06	TH-232	0	0	ALP173	ED	N	N	2.5374E-01		N	40%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.612E-03)			3%			(0.000E+00)	11.74071		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.LcC/MDC	StdDv/MdC/LcC
	07/19/06	TH-228	R	0.055304	U4	1.00108E-03	0.010035	0.010035	1.00 Sa	40%		0.663415		
				(0.123797)		(2.2384E-03)	(0.022456)	(0.022456)	(0.027064)			0.181945		
	07/19/06	TH-229	R	8.512774		4.08436E-01	1.809645	1.809645	1.00 Sa	40%				
				(0.810748)		(2.8701E-02)	(0.122988)	(0.122988)	(0.027064)					
	07/19/06	TH-230	R	0.316504		6.00641E-03	0.059846	0.059846	1.00 Sa	40%		0.285909		
				(0.18574)		(3.4678E-03)	(0.034956)	(0.034956)	(0.027064)					
	07/19/06	TH-232	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 Sa	40%		0.285909		
				(0.129212)		(0.0000E+00)	(0.024432)	(0.024432)	(0.027064)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
4	Calc	S1	FILTER	*STLE	AlpisoWoBS	H796N1AA	PCI/SA		06/07/06 10:35	07/19/06 00:16			1	1.00 Sa	
536400,000489					J6F270218-3 v4.8.18		FILTER					THTF0679 Alq		0.086335 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:06	TH-228	4	0	ALP174	ED	N	N	2.4814E-01		N	102%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			499.4666666	998.95			Y		(7.444E-03)			6%			(0.000E+00)	11.582749		

0 - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:4

RADCALC v4.8.18

STL Richland

STLRICHLAND

Batch Nbr: 6179344 — Alpha Spec, Thiso by ALP , Calculated Results — 7/19/2006 10:18:26 PM

1	07/18/06 20:06	TH-229	520	3	ALP174	ED	Y	N	2.4814E-01	N	100%	N	1.0000E+00	4.5045E-01	1.0000E+00
			499.4666666	998.95			Y		(7.444E-03)				(0.000E+00)	11.582749	
2	07/18/06 20:06	TH-230	6	0	ALP174	ED	N	N	2.4814E-01	N	102%	N	1.0000E+00	4.5045E-01	1.0000E+00
			499.4666666	998.95			Y		(7.444E-03)		6%		(0.000E+00)	11.582749	
3	07/18/06 20:06	TH-232	0	0	ALP174	ED	N	N	2.4814E-01	N	102%	N	1.0000E+00	4.5045E-01	1.0000E+00
			499.4666666	998.95			Y		(7.444E-03)		6%		(0.000E+00)	11.582749	

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	0.176536		8.00854E-03	0.032469	0.032469	1.00 Sa	102%		0.119603		
				(0.069679)		(4.0043E-03)	(0.016391)	(0.016391)	(0.027064)					
	07/19/06	TH-229	R	21.827578		1.03811E+00	4.183573	4.183573	1.00 Sa	102%				
				(1.700517)		(4.5689E-02)	(0.222832)	(0.222832)	(0.027064)					
	07/19/06	TH-230	R	0.252586		1.20128E-02	0.048412	0.048412	1.00 Sa	102%		0.114084		
				(0.105581)		(4.9043E-03)	(0.020048)	(0.020048)	(0.027064)					
	07/19/06	TH-232	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 Sa	102%		0.114084		
				(0.051559)		(0.0000E+00)	(0.009882)	(0.009882)	(0.027064)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/FpfWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
6	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H796P1AA	PCi/SA		06/07/06 10:50	07/19/06 00:16			1	1.00 Sa	
636403,000490					J6F270218-4 v4.8.18		FILTER					THTF0680 Alq		0.085603 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:06	TH-228	4	1	ALP175	ED	N	N	2.9360E-01		N	111%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			499.4666666	998.95			Y		(8.808E-03)			7%			(0.000E+00)	11.681784		
1	07/18/06 20:06	TH-229	661	2	ALP175	ED	Y	N	2.9360E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.808E-03)						(0.000E+00)	11.681784		
2	07/18/06 20:06	TH-230	8	0	ALP175	ED	N	N	2.9360E-01		N	111%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.808E-03)			7%			(0.000E+00)	11.681784		
3	07/18/06 20:06	TH-232	1	1	ALP175	ED	N	N	2.9360E-01		N	111%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.808E-03)			7%			(0.000E+00)	11.681784		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	0.131666		7.00749E-03	0.024012	0.024012	1.00 Sa	111%		0.225639		
				(0.078402)		(4.1275E-03)	(0.014233)	(0.014233)	(0.027064)			0.061663		
	07/19/06	TH-229	R	23.683061		1.32141E+00	4.500721	4.500721	1.00 Sa	111%				
				(1.780339)		(5.1494E-02)	(0.221342)	(0.221342)	(0.027064)					
	07/19/06	TH-230	R	0.287067		1.60171E-02	0.054554	0.054554	1.00 Sa	111%		0.097244		
				(0.104549)		(5.6629E-03)	(0.019625)	(0.019625)	(0.027064)					
	07/19/06	TH-232	R	0.017942	U4	1.00108E-03	0.00341	0.00341	1.00 Sa	111%		0.215229		
				(0.040149)		(2.2384E-03)	(0.007628)	(0.007628)	(0.027064)			0.059028		

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
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RecCnt:8 RADCALC v4.8.18 STL Richland

STLRICHLAND

Batch Nbr: 6179344 — Alpha Spec, Thiso by ALP , Calculated Results — 7/19/2006 10:18:26 PM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
6	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H796Q1AA	PCI/SA		06/07/06 11:00	07/19/06 00:16			1	1.00 Sa	
536403,000491					J6F270218-5 v4.8.18		FILTER					THTF0681 Alq		0.08115 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:06	TH-228	6	3	ALP176	ED	N	N	2.9146E-01		N	102%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			499.4666666	998.95			Y		(8.744E-03)			6%			(0.000E+00)	12.322898		
1	07/18/06 20:06	TH-229	608	2	ALP176	ED	Y	N	2.9146E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.744E-03)						(0.000E+00)	12.322898		
2	07/18/06 20:06	TH-230	8	1	ALP176	ED	N	N	2.9146E-01		N	102%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.744E-03)			6%			(0.000E+00)	12.322898		
3	07/18/06 20:06	TH-232	9	2	ALP176	ED	N	N	2.9146E-01		N	102%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.744E-03)			6%			(0.000E+00)	12.322898		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/ILcC	Blk,LcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	0.179586		9.00966E-03	0.031099	0.031099	1.00 Sa	102%		0.335986		
				(0.10506)		(5.2017E-03)	(0.018077)	(0.018077)	(0.027064)			0.113895		
	07/19/06	TH-229	R	23.145276		1.21530E+00	4.169682	4.169682	1.00 Sa	102%				
				(1.760256)		(4.9388E-02)	(0.210621)	(0.210621)	(0.027064)					
	07/19/06	TH-230	R	0.209719		1.10116E-02	0.037781	0.037781	1.00 Sa	102%		0.228708		
				(0.097103)		(5.0053E-03)	(0.017361)	(0.017361)	(0.027064)			0.062724		
	07/19/06	TH-232	R	0.305045		1.60171E-02	0.054955	0.054955	1.00 Sa	102%		0.28064		
				(0.120564)		(6.1710E-03)	(0.021494)	(0.021494)	(0.027064)			0.088706		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
7	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H796R1AA	PCI/SA		06/07/06 11:20	07/19/06 00:16			1	1.00 Sa	
536403,000492					J6F270218-6 v4.8.18		FILTER					THTF0682 Alq		0.08321 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:06	TH-228	5	1	ALP177	ED	N	N	2.6130E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			499.4666666	998.95			Y		(7.839E-03)			6%			(0.000E+00)	12.017718		
1	07/18/06 20:06	TH-229	532	0	ALP177	ED	Y	N	2.6130E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.839E-03)						(0.000E+00)	12.017718		
2	07/18/06 20:06	TH-230	12	0	ALP177	ED	N	N	2.6130E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.839E-03)			6%			(0.000E+00)	12.017718		
3	07/18/06 20:06	TH-232	3	0	ALP177	ED	N	N	2.6130E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.839E-03)			6%			(0.000E+00)	12.017718		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
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Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants. Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:7 RADCALC v4.6.18 STL Richland

STLRICHLAND

Batch Nbr: 6179344

Alpha Spec, Thiso by ALP , Calculated Results

7/19/2006 10:18:27 PM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.LcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	0.196176		9.00963E-03	0.034777	0.034777	1.00 Sa	100%		0.261481		
				(0.101417)		(4.5675E-03)	(0.017869)	(0.017869)	(0.027064)			0.071713		
	07/19/06	TH-229	R	22.066436		1.06514E+00	4.076276	4.076276	1.00 Sa	100%				
				(1.710991)		(4.6180E-02)	(0.214913)	(0.214913)	(0.027064)					
	07/19/06	TH-230	R	0.499012		2.40256E-02	0.092181	0.092181	1.00 Sa	100%		0.112694		
				(0.150809)		(6.9356E-03)	(0.027361)	(0.027361)	(0.027064)					
	07/19/06	TH-232	R	0.124753		6.00641E-03	0.023045	0.023045	1.00 Sa	100%		0.112694		
				(0.072886)		(3.4678E-03)	(0.0134)	(0.0134)	(0.027064)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
8	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H796T1AA	PCI/SA		06/07/06 10:10	07/19/06 00:16			1	1.00 Sa	
536403,000423					J6F270218-7 v4.8.18		FILTER					THTF0683 Alq		0.084529 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Tro/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:06	TH-228	1	1	ALP178	ED	N	N	3.1338E-01		N	94%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			499.4666666	998.95			Y		(9.401E-03)			6%			(0.000E+00)	11.830264		
1	07/18/06 20:06	TH-229	598	1	ALP178	ED	Y	N	3.1338E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(9.401E-03)						(0.000E+00)	11.830264		
2	07/18/06 20:06	TH-230	8	1	ALP178	ED	N	N	3.1338E-01		N	94%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(9.401E-03)			6%			(0.000E+00)	11.830264		
3	07/18/06 20:06	TH-232	0	2	ALP178	ED	N	N	3.1338E-01		N	94%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(9.401E-03)			6%			(0.000E+00)	11.830264		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.LcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	0.019076	U4	1.00108E-03	0.003435	0.003435	1.00 Sa	94%		0.226836		
				(0.042588)		(2.2384E-03)	(0.007685)	(0.007685)	(0.027064)			0.062759		
	07/19/06	TH-229	R	20.342262		1.19628E+00	3.817317	3.817317	1.00 Sa	94%				
				(1.550316)		(4.8971E-02)	(0.193736)	(0.193736)	(0.027064)					
	07/19/06	TH-230	R	0.272932		1.50180E-02	0.051217	0.051217	1.00 Sa	94%		0.218273		
				(0.107267)		(5.7507E-03)	(0.019917)	(0.019917)	(0.027064)			0.059962		
	07/19/06	TH-232	R	-0.03639	U4	-2.00210E-03	-0.006829	-0.006829	1.00 Sa	94%		0.267835		
				(0.025932)		(1.4157E-03)	(0.004851)	(0.004851)	(0.027064)			0.084658		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
9	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H796W1AA	PCI/SA		06/07/06 09:55	07/19/06 00:17			1	1.00 Sa	
536403,P-0660					J6F270218-8 v4.8.18		FILTER					THTF0684 Alq		0.084749 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Tro/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:07	TH-228	1	5	ALP114	ED	N	N	3.2873E-01		N	93%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			500.1666666	1000			Y		(9.862E-03)			6%			(0.000E+00)	11.799549		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh.mm, 24hr Time

RecCnt:9

RADCALC v4.8.18

STL Richland

STLRICHLAND

Batch Nbr: 6179344

Alpha Spec, Thiso by ALP , Calculated Results

7/19/2006 10:18:27 PM

1	07/18/06 20:07	TH-229	613	1	ALP114	ED	Y	N	3.2873E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00
			500.1666666	1000			Y		(9.862E-03)						(0.000E+00)	11.799549	
2	07/18/06 20:07	TH-230	78	1	ALP114	ED	N	N	3.2873E-01		N	92%	N		1.0000E+00	4.5045E-01	1.0000E+00
			500.1666666	1000			Y		(9.862E-03)			6%			(0.000E+00)	11.799549	
3	07/18/06 20:07	TH-232	1	0	ALP114	ED	N	N	3.2873E-01		N	92%	N		1.0000E+00	4.5045E-01	1.0000E+00
			500.1666666	1000			Y		(9.862E-03)			6%			(0.000E+00)	11.799549	

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	-0.055508	U4	-3.00067E-03	-0.010021	-0.010021	1.00 Sa	92%		0.372198		
				(0.055702)		(2.9996E-03)	(0.01004)	(0.01004)	(0.027064)			0.136065		
	07/19/06	TH-229	R	19.799876		1.22459E+00	3.725207	3.725207	1.00 Sa	92%				
				(1.503633)		(4.9511E-02)	(0.187547)	(0.187547)	(0.027064)					
	07/19/06	TH-230	R	2.663432		1.50949E-01	0.501106	0.501106	1.00 Sa	92%		0.211614		
				(0.387186)		(1.7458E-02)	(0.067044)	(0.067044)	(0.027064)			0.068041		
	07/19/06	TH-232	R	0.035277	U4	1.99933E-03	0.006637	0.006637	1.00 Sa	92%		0.095602		
				(0.035414)		(1.9993E-03)	(0.006652)	(0.006652)	(0.027064)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
10	Calc	S1	FILTER	*STLE	AlpisoWoBS	H797D1AA	PCI/SA		06/07/06 10:20	07/19/06 00:17			1	1.00 Sa	
536403,P-0661					J6F27021B-9 v4.8.18		FILTER					THTF0665 Alq		0.08341 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:07	TH-228	4	3	ALP116	ED	N	N	2.5523E-01		N	107%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			500.1166666	1000.0833			Y		(7.657E-03)			7%			(0.000E+00)	11.989		
1	07/18/06 20:07	TH-229	557	0	ALP116	ED	Y	N	2.5523E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			500.1166666	1000.0833			Y		(7.657E-03)						(0.000E+00)	11.989		
2	07/18/06 20:07	TH-230	2	0	ALP116	ED	N	N	2.5523E-01		N	107%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			500.1166666	1000.0833			Y		(7.657E-03)			7%			(0.000E+00)	11.989		
3	07/18/06 20:07	TH-232	0	0	ALP116	ED	N	N	2.5523E-01		N	107%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			500.1166666	1000.0833			Y		(7.657E-03)			7%			(0.000E+00)	11.989		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	0.110878	U4	4.99838E-03	0.019702	0.019702	1.00 Sa	107%		0.372827		
				(0.097174)		(4.3580E-03)	(0.01723)	(0.01723)	(0.027064)			0.126367		
	07/19/06	TH-229	R	23.565554		1.11374E+00	4.363634	4.363634	1.00 Sa	107%				
				(1.814365)		(4.7191E-02)	(0.228545)	(0.228545)	(0.027064)					
	07/19/06	TH-230	R	0.084616	U4	3.99907E-03	0.015668	0.015668	1.00 Sa	107%		0.114655		
				(0.060304)		(2.8278E-03)	(0.011131)	(0.011131)	(0.027064)					
	07/19/06	TH-232	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 Sa	107%		0.114655		
				(0.051817)		(0.0000E+00)	(0.009595)	(0.009595)	(0.027064)					

0 - (1's Uncertainities), O - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentrasion

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:11

RADCALC v4.8.18

STL Richland

STLRICHLAND

Batch Nbr: 6179344

Alpha Spec, Thiso by ALP , Calculated Results

7/19/2006 10:18:27 PM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
11	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H797E1AA	PCI/SA		06/07/06 10:30	07/18/06 00:17			1	1.00 Sa	
536403,P-0662					,J6F270218-10 v4.8.18		FILTER					THTF0686 Alq		0.084329 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:07	TH-228	3	2	ALP119	ED	N	N	2.5157E-01		N	99%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			500.1833333	1000.0833			Y		(7.547E-03)			6%			(0.000E+00)	11.858362		
1	07/18/06 20:07	TH-229	510	1	ALP119	ED	Y	N	2.5157E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			500.1833333	1000.0833			Y		(7.547E-03)						(0.000E+00)	11.858362		
2	07/18/06 20:07	TH-230	4	0	ALP119	ED	N	N	2.5157E-01		N	99%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			500.1833333	1000.0833			Y		(7.547E-03)			6%			(0.000E+00)	11.858362		
3	07/18/06 20:07	TH-232	0	0	ALP119	ED	N	N	2.5157E-01		N	99%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			500.1833333	1000.0833			Y		(7.547E-03)			6%			(0.000E+00)	11.858362		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	0.089776	U4	3.99797E-03	0.016126	0.016128	1.00 Sa	99%		0.330451		
				(0.08438)		(3.7404E-03)	(0.015131)	(0.015131)	(0.027064)			0.104456		
	07/19/06	TH-229	R	21.628344		1.01863E+00	4.049039	4.049039	1.00 Sa	99%				
				(1.688959)		(4.5161E-02)	(0.21675)	(0.21675)	(0.027064)					
	07/19/06	TH-230	R	0.17129		7.99707E-03	0.032067	0.032067	1.00 Sa	99%		0.116049		
				(0.087019)		(3.9885E-03)	(0.016189)	(0.016189)	(0.027064)					
	07/19/06	TH-232	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 Sa	99%		0.116049		
				(0.052447)		(0.0000E+00)	(0.009819)	(0.009819)	(0.027064)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
12	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H797F1AA	PCI/SA		06/07/06 10:45	07/19/06 00:17			1	1.00 Sa	
536403,P-0663					,J6F270218-11 v4.8.18		FILTER					THTF0692 Alq		0.082187 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:07	TH-228	2	4	ALP120	ED	N	N	2.4073E-01		N	99%	N		1.0000E+00	4.5045E-01	1.0421E+00	
			500.1166666	1000.05			Y		(7.222E-03)			6%			(0.000E+00)	12.167362		
1	07/18/06 20:07	TH-229	487	1	ALP120	ED	Y	N	2.4073E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			500.1166666	1000.05			Y		(7.222E-03)						(0.000E+00)	12.167362		
2	07/18/06 20:07	TH-230	3	1	ALP120	ED	N	N	2.4073E-01		N	99%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			500.1166666	1000.05			Y		(7.222E-03)			6%			(0.000E+00)	12.167362		
3	07/18/06 20:07	TH-232	0	0	ALP120	ED	N	N	2.4073E-01		N	99%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			500.1166666	1000.05			Y		(7.222E-03)			6%			(0.000E+00)	12.167362		

0 - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

RecCnt:12 RADCALC v4.8.18

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

STL Richland

STLRICHLAND

Batch Nbr: 8179344

Alpha Spec, Thiso by ALP , Calculated Results

7/19/2006 10:18:27 PM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	-1.7632E-05	U4	-7.33126E-07	-3.0871E-06	-3.0871E-06	1.00 Sa	99%		0.446592		
				(0.083298)		(3.4635E-03)	(0.014585)	(0.014585)	(0.027064)			0.158229		
	07/19/06	TH-229	R	22.147308		9.72773E-01	4.040898	4.040898	1.00 Sa	99%				
				(1.742633)		(4.4137E-02)	(0.219799)	(0.219799)	(0.027064)					
	07/19/06	TH-230	R	0.114673	U4	4.99865E-03	0.020923	0.020923	1.00 Sa	99%		0.275149		
				(0.083344)		(3.6048E-03)	(0.01516)	(0.01516)	(0.027064)			0.075464		
	07/19/06	TH-232	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 Sa	99%		0.12431		
				(0.05618)		(0.0000E+00)	(0.01025)	(0.01025)	(0.027064)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
13	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H797H1AA	PCI/SA		06/07/06 11:05	07/19/06 10:14			1	1.00 Sa	
536403,P-0664					J6F270216-12 v4.8.18		FILTER					THTF0693 Alq		0.06332 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/19/06 06:04	TH-228	3	6	ALP171	ED	N	N	2.9087E-01		N	105%	N		1.0000E+00	4.5045E-01	1.0425E+00	
			499.4666666	998.95			Y		(8.726E-03)			6%			(0.000E+00)	12.001932		
1	07/19/06 06:04	TH-229	818	4	ALP171	ED	Y	N	2.9087E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.726E-03)						(0.000E+00)	12.001932		
2	07/19/06 06:04	TH-230	4	1	ALP171	ED	N	N	2.9087E-01		N	105%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.726E-03)			6%			(0.000E+00)	12.001932		
3	07/19/06 06:04	TH-232	1	0	ALP171	ED	N	N	2.9087E-01		N	105%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.726E-03)			6%			(0.000E+00)	12.001932		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	1.9535E-06	U4	1.00212E-07	3.4661E-07	3.4661E-07	1.00 Sa	105%		0.420103		
				(0.082792)		(4.2471E-03)	(0.01469)	(0.01469)	(0.027064)			0.157261		
	07/19/06	TH-229	R	22.923338		1.23332E+00	4.240139	4.240139	1.00 Sa	105%				
				(1.740325)		(4.9813E-02)	(0.213329)	(0.213329)	(0.027064)					
	07/19/06	TH-230	R	0.130247		7.00749E-03	0.024092	0.024092	1.00 Sa	105%		0.223206		
				(0.077569)		(4.1275E-03)	(0.014283)	(0.014283)	(0.027064)			0.061215		
	07/19/06	TH-232	R	0.037213	U4	2.00214E-03	0.006883	0.006883	1.00 Sa	105%		0.100648		
				(0.037357)		(2.0021E-03)	(0.006899)	(0.006899)	(0.027064)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
14	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H797J1AA	PCI/SA		06/07/06 11:10	07/19/06 10:14			1	1.00 Sa	
536403,P-0665					J6F270216-13 v4.8.18		FILTER					THTF0694 Alq		0.080991 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/19/06 06:04	TH-228	1	6	ALP172	ED	N	N	2.9949E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0425E+00	
			499.4666666	998.95			Y		(8.985E-03)			6%			(0.000E+00)	12.347086		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

RecCnt:14 RADCALC v4.8.18

IDC - Instrument Detection Level in Conc Units, MLoC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

STL Richland

STL RICHLAND

Batch Nbr: 6179344 — Alpha Spec, Thiso by ALP , Calculated Results — 7/19/2006 10:19:28 PM

1	07/19/06 06:04	TH-229	614	6	ALP172	ED	Y	N	2.9949E-01	N	100%	N	1.0000E+00	4.5045E-01	1.0000E+00
			499.4666666	998.95			Y		(8.985E-03)				(0.000E+00)	12.347086	
2	07/19/06 06:04	TH-230	14	1	ALP172	ED	N	N	2.9949E-01	N	100%	N	1.0000E+00	4.5045E-01	1.0000E+00
			499.4666666	998.95			Y		(8.985E-03)		6%		(0.000E+00)	12.347086	
3	07/19/06 06:04	TH-232	1	2	ALP172	ED	N	N	2.9949E-01	N	100%	N	1.0000E+00	4.5045E-01	1.0000E+00
			499.4666666	998.95			Y		(8.985E-03)		6%		(0.000E+00)	12.347086	

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDv/MdC/LcC
	07/19/06	TH-228	R	-0.077987	U4	-4.00417E-03	-0.013451	-0.013451	1.00 Sa	100%		0.419738		
				(0.062037)		(3.1656E-03)	(0.010672)	(0.010672)	(0.027064)			0.157124		
	07/19/06	TH-229	R	22.717587		1.22330E+00	4.084615	4.084615	1.00 Sa	100%				
				(1.72731)		(4.9672E-02)	(0.206211)	(0.206211)	(0.027064)					
	07/19/06	TH-230	R	0.501944		2.70288E-02	0.090249	0.090249	1.00 Sa	100%		0.223012		
				(0.147164)		(7.5579E-03)	(0.025958)	(0.025958)	(0.027064)			0.061162		
	07/19/06	TH-232	R	6.2033E-07	U4	3.34040E-08	1.1154E-07	1.1154E-07	1.00 Sa	100%		0.273651		
				(0.045537)		(2.4521E-03)	(0.008188)	(0.008188)	(0.027064)			0.086496		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EmYld	Total/Analy Vol	Final/Count Vol
15	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H797K1AA	PCI/SA		06/07/06 10:05	07/19/06 10:14			1	1.00 Sa	
536403,P-0666					J6F270216-14 v4.8.18		FILTER					THTF0696 Alq		0.084957 Sa	

Sq	Crit Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/19/06 06:04	TH-228	6	1	ALP173	ED	N	N	2.5374E-01		N	102%	N		1.0000E+00	4.5045E-01	1.0425E+00	
			499.4666666	998.95			Y		(7.612E-03)			6%			(0.000E+00)	11.770613		
1	07/19/06 06:04	TH-229	531	2	ALP173	ED	Y	N	2.5374E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.612E-03)						(0.000E+00)	11.770613		
2	07/19/06 06:04	TH-230	9	0	ALP173	ED	N	N	2.5374E-01		N	102%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.612E-03)			6%			(0.000E+00)	11.770613		
3	07/19/06 06:04	TH-232	0	0	ALP173	ED	N	N	2.5374E-01		N	102%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.612E-03)			6%			(0.000E+00)	11.770613		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDv/MdC/LcC
	07/19/06	TH-228	R	0.241331		1.10118E-02	0.043659	0.043659	1.00 Sa	102%		0.263163		
				(0.111803)		(5.0053E-03)	(0.020073)	(0.020073)	(0.027064)			0.072179		
	07/19/06	TH-229	R	22.172848		1.06113E+00	4.181921	4.181921	1.00 Sa	102%				
				(1.721018)		(4.8158E-02)	(0.220975)	(0.220975)	(0.027064)					
	07/19/06	TH-230	R	0.37652		1.80192E-02	0.071014	0.071014	1.00 Sa	102%		0.113374		
				(0.129954)		(6.0064E-03)	(0.024175)	(0.024175)	(0.027064)					
	07/19/06	TH-232	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 Sa	102%		0.113374		
				(0.051238)		(0.0000E+00)	(0.009664)	(0.009664)	(0.027064)					

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:16 RADCALC v4.8.18 STL Richland

STL RICHLAND

Batch Nbr: 6179344

Alpha Spec, Thiso by ALP , Calculated Results

7/19/2006 10:18:28 PM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
16	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H797M1AA	PCI/SA		06/07/06 11:15	07/19/06 10:14			1	1.00 Sa	
636403,P-0667					J6F270218-15 v4.8.18		FILTER					THTF0696 Alq		0.087154 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/19/06 06:04	TH-228	3	0	ALP174	ED	N	N	2.4814E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0425E+00	
			499.4666666	998.95			Y		(7.444E-03)			6%			(0.000E+00)	11.473878		
1	07/19/06 06:04	TH-229	514	3	ALP174	ED	Y	N	2.4814E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.444E-03)						(0.000E+00)	11.473878		
2	07/19/06 06:04	TH-230	5	0	ALP174	ED	N	N	2.4814E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.444E-03)			6%			(0.000E+00)	11.473878		
3	07/19/06 06:04	TH-232	1	0	ALP174	ED	N	N	2.4814E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(7.444E-03)			6%			(0.000E+00)	11.473878		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/ILcC	Blkd.cC/MDC	StdDvMdCALcC
	07/19/06	TH-229	R	0.131298		6.00641E-03	0.024352	0.024352	1.00 Sa	101%		0.116524		
				(0.076665)		(3.4678E-03)	(0.014161)	(0.014161)	(0.027064)					
	07/19/06	TH-229	R	21.3722		1.02509E+00	4.135161	4.135161	1.00 Sa	101%				
				(1.66816)		(4.5425E-02)	(0.221136)	(0.221136)	(0.027064)					
	07/19/06	TH-230	R	0.208509		1.00107E-02	0.040343	0.040343	1.00 Sa	101%		0.113012		
				(0.095113)		(4.4769E-03)	(0.018259)	(0.018259)	(0.027064)					
	07/19/06	TH-232	R	0.041702	U4	2.00214E-03	0.008069	0.008069	1.00 Sa	101%		0.113012		
				(0.04187)		(2.0021E-03)	(0.008088)	(0.008088)	(0.027064)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
17	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H8DM61AA	PCI/SA	B	06/07/06 10:00	07/19/06 10:14			1	1.00 Sa	
C,INTRA-LAB BLANK					J6F280000-344		FILTER					THTF0697 Alq		1.00 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/19/06 06:04	TH-228	4	1	ALP175	ED	N	N	2.9360E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0425E+00	
			499.4666666	998.95			Y		(8.808E-03)			6%			(0.000E+00)	1.00		
1	07/19/06 06:04	TH-229	605	2	ALP175	ED	Y	N	2.9360E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.808E-03)						(0.000E+00)	1.00		
2	07/19/06 06:04	TH-230	9	0	ALP175	ED	N	N	2.9360E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.808E-03)			6%			(0.000E+00)	1.00		
3	07/19/06 06:04	TH-232	0	1	ALP175	ED	N	N	2.9360E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666666	998.95			Y		(8.808E-03)			6%			(0.000E+00)	1.00		

0 - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:17

RADCALC v4.8.18

STL Richland

STL RICHLAND

Batch Nbr: 6179344

Alpha Spec, Thiso by ALP , Calculated Results

7/19/2006 10:16:28 PM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	TH-228	R	0.011276		7.00749E-03	0.024012	0.024012	1.00 Sa	101%		0.019324		
				(0.006712)		(4.1275E-03)	(0.014236)	(0.014236)	(0.017321)			0.0053		
	07/19/06	TH-229	R	1.855332		1.20929E+00	4.118842	4.118842	1.00 Sa	101%				
				(0.135829)		(4.9266E-02)	(0.208388)	(0.208388)	(0.017321)					
	07/19/06	TH-230	R	0.027645		1.80192E-02	0.061373	0.061373	1.00 Sa	101%		0.008324		
				(0.009515)		(6.0064E-03)	(0.020872)	(0.020872)	(0.017321)					
	07/19/06	TH-232	R	-0.001536	U4	-1.00105E-03	-0.00341	-0.00341	1.00 Sa	101%		0.018424		
				(0.001541)		(1.0011E-03)	(0.003417)	(0.003417)	(0.017321)			0.005053		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
19	Calc	S1	FILTER	*STLE	AlpIsoWoBS	H8DM81AC	PCI/SA	S	06/07/06 10:00	07/19/06 10:14		THSO0082	1	1.00 Sa	
0,INTRA-LAB CHECK					J6F280000-344		FILTER					THSO0082 Alq		1.00 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/19/06 06:04	TH-229	537	2	ALP176	ED	Y	N	2.9146E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666866	998.95			Y		(8.744E-03)						(0.000E+00)	1.00		
2	07/19/06 06:04	TH-230	533	1	ALP176	ED	N	N	2.9146E-01		N	108%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			499.4666866	998.95			Y		(8.744E-03)			6%			(0.000E+00)	1.00		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	TH-229	R	1.967968		1.27336E+00	4.368892	4.368892	1.00 Sa	108%				
				(0.142946)		(5.0551E-02)	(0.217395)	(0.217395)	(0.017321)					
	07/19/06	TH-230	R	1.647709		1.06614E+00	3.657917	3.657917	1.00 Sa	108%	91%	0.01856		
				(0.157575)		(4.6234E-02)	(0.291387)	(0.291387)	(0.017321)			0.00509		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:18

RADCALC v4.8.18

STL Richland

Thorium
ESI-Calculated Results

Sample		sample counts	sample time	bkg counts	bkg time	net cpm	total vol.(l)	nalytical v	yield	eff	decay	**Activity** pCi/sample
H7DWT	Th-228	2	499.4666	6	998.95	-0.0020	1	0.08382	1	0.2909	1.0568	**-0.039**
	Th-229	627	499.4666	4	998.95	1.2513	1	0.08382	1	0.2909	1	**23.118**
	Th-230	6	499.4666	1	998.95	0.0110	1	0.08382	1	0.2909	1	**0.203**
	Th-232	0	499.4666	0	998.95	0.0000	1	0.08382	1	0.2909	1	**0.000**
H796F	Th-228	8	499.4666	6	998.95	0.0100	1	0.08389	1	0.2995	1.0421	**0.187**
	Th-229	665	499.4666	7	998.95	1.3244	1	0.08389	1	0.2995	1	**23.746**
	Th-230	18	499.4666	1	998.95	0.0350	1	0.08389	1	0.2995	1	**0.628**
	Th-232	0	499.4666	2	998.95	-0.0020	1	0.08389	1	0.2995	1	**-0.036**
H796L	Th-228	1	499.4666	1	998.95	0.0010	1	0.08517	0.4	0.2537	1.0421	**0.054**
	Th-229	205	499.4666	2	998.95	0.4084	1	0.08517	1	0.2537	1	**8.513**
	Th-230	3	499.4666	0	998.95	0.0060	1	0.08517	0.4	0.2537	1	**0.313**
	Th-232	0	499.4666	0	998.95	0.0000	1	0.08517	0.4	0.2537	1	**0.000**
H796N	Th-228	4	499.4666	0	998.95	0.0080	1	0.08634	1	0.2481	1.0421	**0.175**
	Th-229	520	499.4666	3	998.95	1.0381	1	0.08634	1	0.2481	1	**21.828**
	Th-230	6	499.4666	0	998.95	0.0120	1	0.08634	1	0.2481	1	**0.253**
	Th-232	0	499.4666	0	998.95	0.0000	1	0.08634	1	0.2481	1	**0.000**
H796P	Th-228	4	499.4666	1	998.95	0.0070	1	0.0856	1	0.2936	1.0421	**0.131**
	Th-229	661	499.4666	2	998.95	1.3214	1	0.0856	1	0.2936	1	**23.683**
	Th-230	8	499.4666	0	998.95	0.0160	1	0.0856	1	0.2936	1	**0.287**
	Th-232	1	499.4666	1	998.95	0.0010	1	0.0856	1	0.2936	1	**0.018**
H796Q	Th-228	6	499.4666	3	998.95	0.0090	1	0.08115	1	0.2915	1.0421	**0.179**
	Th-229	608	499.4666	2	998.95	1.2153	1	0.08115	1	0.2915	1	**23.145**
	Th-230	6	499.4666	1	998.95	0.0110	1	0.08115	1	0.2915	1	**0.210**
	Th-232	9	499.4666	2	998.95	0.0160	1	0.08115	1	0.2915	1	**0.305**
H796R	Th-228	5	499.4666	1	998.95	0.0090	1	0.08321	1	0.2613	1.0421	**0.195**
	Th-229	532	499.4666	0	998.95	1.0651	1	0.08321	1	0.2613	1	**22.067**

Sample		sample count	sample time	bkg count	bkg time	net cpm	total vol.(l)	nalytical v	yield	eff	decay	Activity
												pCi/sample
	Th-230	12	499.4666	0	998.95	0.0240	1	0.08321	1	0.2613	1	**0.498**
	Th-232	3	499.4666	0	998.95	0.0060	1	0.08321	1	0.2613	1	**0.124**
H796T	Th-228	1	499.4666	1	998.95	0.0010	1	0.08453	0.94	0.3134	1.0421	**0.019**
	Th-229	598	499.4666	1	998.95	1.1963	1	0.08453	1	0.3134	1	**20.342**
	Th-230	8	499.4666	1	998.95	0.0150	1	0.08453	0.94	0.3134	1	**0.272**
	Th-232	0	499.4666	2	998.95	-0.0020	1	0.08453	0.94	0.3134	1	**-0.036**
H796W	Th-228	1	500.1666	5	1000	-0.0030	1	0.08475	0.92	0.3287	1.0421	**-0.055**
	Th-229	613	500.1666	1	1000	1.2246	1	0.08475	1	0.3287	1	**19.800**
	Th-230	76	500.1666	1	1000	0.1509	1	0.08475	0.92	0.3287	1	**2.653**
	Th-232	1	500.1666	0	1000	0.0020	1	0.08475	0.92	0.3287	1	**0.035**
H797D	Th-228	4	500.1666	3	1000.083	0.0050	1	0.08341	1	0.2552	1.0421	**0.110**
	Th-229	557	500.1666	0	1000.083	1.1136	1	0.08341	1	0.2552	1	**23.563**
	Th-230	2	500.1666	0	1000.083	0.0040	1	0.08341	1	0.2552	1	**0.085**
	Th-232	0	500.1666	0	1000.083	0.0000	1	0.08341	1	0.2552	1	**0.000**
H797E	Th-228	3	500.18333	2	1000.083	0.0040	1	0.08433	0.99	0.2516	1.0421	**0.089**
	Th-229	510	500.18333	1	1000.083	1.0186	1	0.08433	1	0.2516	1	**21.628**
	Th-230	4	500.18333	0	1000.083	0.0080	1	0.08433	0.99	0.2516	1	**0.172**
	Th-232	0	500.18333	0	1000.083	0.0000	1	0.08433	0.99	0.2516	1	**0.000**
H797F	Th-228	2	500.116666	4	1000.05	0.0000	1	0.08219	0.99	0.2407	1.0421	**0.000**
	Th-229	487	500.116666	1	1000.05	0.9728	1	0.08219	1	0.2407	1	**22.148**
	Th-230	3	500.116666	1	1000.05	0.0050	1	0.08219	0.99	0.2407	1	**0.115**
	Th-232	0	500.116666	0	1000.05	0.0000	1	0.08219	0.99	0.2407	1	**0.000**
H797H	Th-228	3	499.4666	6	998.95	0.0000	1	0.08332	1	0.2909	1.0425	**0.000**
	Th-229	618	499.4666	4	998.95	1.2333	1	0.08332	1	0.2909	1	**22.923**
	Th-230	4	499.4666	1	998.95	0.0070	1	0.08332	1	0.2909	1	**0.130**
	Th-232	1	499.4666	0	998.95	0.0020	1	0.08332	1	0.2909	1	**0.037**
H797J	Th-228	1	499.4666	6	998.95	-0.0040	1	0.08099	1	0.2995	1.0425	**-0.078**
	Th-229	614	499.4666	6	998.95	1.2233	1	0.08099	1	0.2995	1	**22.718**
	Th-230	14	499.4666	1	998.95	0.0270	1	0.08099	1	0.2995	1	**0.502**
	Th-232	1	499.4666	2	998.95	0.0000	1	0.08099	1	0.2995	1	**0.000**

Sample		sample count	sample time	bkg count	bkg time	net cpm	total vol.(l)	nalytical v	yield	eff	decay	**Activity**
												pCi/sample
H797K	Th-228	6	499.4666	1	998.95	0.0110	1	0.08496	1	0.2537	1.0425	**0.240**
	Th-229	531	499.4666	2	998.95	1.0611	1	0.08496	1	0.2537	1	**22.173**
	Th-230	9	499.4666	0	998.95	0.0180	1	0.08496	1	0.2537	1	**0.377**
	Th-232	0	499.4666	0	998.95	0.0000	1	0.08496	1	0.2537	1	**0.000**
H797M	Th-228	3	499.4666	0	998.95	0.0060064	1	0.08715	1	0.2481	1.0425	**0.130**
	Th-229	514	499.4666	3	998.95	1.0260947	1	0.08715	1	0.2481	1	**21.372**
	Th-230	5	499.4666	0	998.95	0.0100107	1	0.08715	1	0.2481	1	**0.2085**
	Th-232	1	499.4666	0	998.95	0.00200	1	0.08715	1	0.2481	1	**0.0417**
H8DM81AA	Th-228	4	499.4666	1	998.95	0.00701	1	1	1	0.2936	1.043	**0.0112**
	Th-229	605	499.4666	2	998.95	1.20929	1	1	1	0.2936	1	**1.8553**
	Th-230	9	499.4666	0	998.95	0.01802	1	1	1	0.2936	1	**0.0276**
	Th-232	0	499.4666	1	998.95	-0.00100	1	1	1	0.2936	1	**-0.0015**
H8DM81AC	Th-229	637	499.4666	1	998.95	1.27436	1	1	1	0.2915	1	**1.9695**
	Th-230	533	499.4666	1	998.95	1.0661374	1	1	1	0.2915	1	**1.6477**

SEVERN TRENT **STL**

STL RICHLAND

THORIUM ISOTOPIC COUNTING REQUEST

7/19 0430

C.R. Technician: BD
Date Counted: 7/18/06
C.R. Analyst: [illegible]
Date Analyzed: 7/19/06

Counting Time
Sample: 500 Minutes

Background: See Alpha Analysis Report
BRC 5/24/06

SOP's
Operating: RICHRD008
Review: RICHRD0016
617944

WorkOrder #	Th-229 (4845 KeV) Tracer from Th-234 Beta Count (7)				TOTAL COUNTS			Det #	Comment
	ID	Activity	ROI Cts	BKG	Th-228 (5423 KeV) (6)	Th-230 (4688 KeV) (8)	Th-232 (4010 KeV) (9)		
H7DWT1AA		10		0	See Alpha Analysis Report for ROI Information			171	
H796F1AA		10		0	See Alpha Analysis Report for ROI Information			172	
H796L1AA		10		0	See Alpha Analysis Report for ROI Information			173	
H796N1AA		10		0	See Alpha Analysis Report for ROI Information			174	
H796D1AA		10		0	See Alpha Analysis Report for ROI Information			175	
H796Q1AA		10		0	See Alpha Analysis Report for ROI Information			176	
H796R1AA		10		0	See Alpha Analysis Report for ROI Information			177	
H796T1AA		10		0	See Alpha Analysis Report for ROI Information			178	
		10		0	See Alpha Analysis Report for ROI Information				

Comments:

Form No: RC-012, 10/02, Rev 9

Approved by: [illegible]

Date: 7/19/06

STLRICHLAND

SEVERN TRENT **STL**

THORIUM ISOTOPIC COUNTING REQUEST

C.R. Technician OD
Date Counted 7/18/06
C.R. Analyst GB
Date Analyzed 7/19/06

Counting Time
Sample 500 Minutes
Background See Alpha Analysis Report
BRC 5/24/06 6179341

SOP's
Operating: RICHRD008
Review: RICHRD0016

WorkOrder #	Th-229 (4845 KeV) Tracer from Th-234 Beta Count (7)				TOTAL COUNTS			Det #	Comment
	ID	Activity	ROI Cts	BKG	Th-228 (5423 KeV) (6)	Th-230 (4688 KeV) (8)	Th-232 (4010 KeV) (9)		
H796W1AA ✓		10		0	See Alpha Analysis Report for ROI Information			114 ✓	
H797D1AA ✓		10		0	See Alpha Analysis Report for ROI Information			116 ✓	
H797E1AA ✓		10		0	See Alpha Analysis Report for ROI Information			119 ✓	
H797F1AA ✓		10		0	See Alpha Analysis Report for ROI Information			120 ✓	
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				

Comments:

Form No: RC-012, 10/02, Rev 9

Approved by: [signature]

Date: 7/19/06

SEVERN TRENT **STL**

STL RICHLAND

THORIUM ISOTOPIC COUNTING REQUEST

C.R. Technician VB
Date Counted 7/19/06
C.R. Analyst MD
Date Analyzed 7/19/06

Counting Time
Sample 500 Minutes

Background See Alpha Analysis Report
BRC 5/24/06 499344

SOP's
Operating: RICHRD008
Review: RICHRD0016

1/84

WorkOrder #	Th-229 (4845 KeV) Tracer from Th-234 Beta Count (7)				TOTAL COUNTS			Det #	Comment
	ID	Activity	ROI Cts	BKG	Th-228 (5423 KeV) (6)	Th-230 (4688 KeV) (8)	Th-232 (4010 KeV) (9)		
H797H1AA		10		0	See Alpha Analysis Report for ROI Information			171	
H797J1AA		10		0	See Alpha Analysis Report for ROI Information			172	
H797K1AA		10		0	See Alpha Analysis Report for ROI Information			173	
H797M1AA		10		0	See Alpha Analysis Report for ROI Information			174	
H8DM81AA		10		0	See Alpha Analysis Report for ROI Information			175	
H8DM81AC		10		0	See Alpha Analysis Report for ROI Information			176	
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				

Comments:

Form No: RC-012, 10/02, Rev 9

Approved by: MD

Date: 7/19/06

186

7/26/2006 10:59:59 AM

Standard Material Fractions (Vials)

Vial Prep: 7/25/05 to 7/27/06,SMFractionIdentifier Between THTF0676 and THTF0686, Order by SMIdentifier,ConstituentCode,SMFractionIdentifier

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date		Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	TH22906A100		Ref: 10/4/2004			2.1430E+01	± 7.070E-01	DPM/G			
THTF0676	TH-229	4.0696E+00	± 1.343E-01	DPM	0.1899	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0677	TH-229	4.0974E+00	± 1.352E-01	DPM	0.1912	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0678	TH-229	4.0696E+00	± 1.343E-01	DPM	0.1899	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0679	TH-229	4.0888E+00	± 1.349E-01	DPM	0.1908	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0680	TH-229	4.0653E+00	± 1.342E-01	DPM	0.1897	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0681	TH-229	4.0996E+00	± 1.353E-01	DPM	0.1913	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0682	TH-229	4.0867E+00	± 1.349E-01	DPM	0.1907	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0683	TH-229	4.0803E+00	± 1.346E-01	DPM	0.1904	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0684	TH-229	4.0653E+00	± 1.342E-01	DPM	0.1897	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0685	TH-229	4.0738E+00	± 1.344E-01	DPM	0.1901	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0686	TH-229	4.0846E+00	± 1.348E-01	DPM	0.1906	g	7/6/2006	7/6/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
		4.0801E+000	± 1.233E-002	(11)	0.302%		4.0653E+000 , 4.0996E+000					

* - Isotope is an impurity

7/26/2006 11:00:18 AM

Standard Material Fractions (Vials)

Vial Prep. 7/25/05 to 7/27/06,SMFractionIdentifier Between THTF0692 and THTF0697, Order by SMIdentifier,ConstituentCode,SMFractionIdentifier

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date		Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	TH22906A100		Ref: 10/4/2004			2.1430E+01	± 7.070E-01	DPM/G			
THTF0692	TH-229	4.0717E+00	± 1.344E-01	DPM	0.19	g	7/14/2006	7/14/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0693	TH-229	4.0481E+00	± 1.336E-01	DPM	0.1889	g	7/14/2006	7/14/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0694	TH-229	4.0674E+00	± 1.342E-01	DPM	0.1898	g	7/14/2006	7/14/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0695	TH-229	4.0846E+00	± 1.348E-01	DPM	0.1906	g	7/14/2006	7/14/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0696	TH-229	4.0888E+00	± 1.349E-01	DPM	0.1908	g	7/14/2006	7/14/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
THTF0697	TH-229	4.0738E+00	± 1.344E-01	DPM	0.1901	g	7/14/2006	7/14/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
		4.0724E+000	± 1.439E-002	(6)		0.353%	4.0481E+000 , 4.0888E+000					

* - Isotope is an Impurity

7/28/2006 11:00:35 AM

Standard Material Fractions (Vials)

Vial Prep: 7/25/05 to 7/27/06,SMFractionIdentifier Between THSO0082 and THSO0082, Order by SMIdentifier,ConstituentCode,SMFractionIdentifier

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	TH22906A100		Ref: 10/4/2004			2.1430E+01	± 7.070E-01	DPM/G		
THSO0082	TH-229	**4.0417E+00**	**± 1.334E-01**	DPM	0.1888	g	6/15/2006	6/15/2006	Armstron	2.1430E+01	± 7.070E-01	DPM/G
		4.0417E+000	± 4.042E+000	(1)			4.0417E+000 , 4.0417E+000				

STL Richland, SMFractions v4.8.12 Page 1 Record Count: 2

* - Isotope is an Impurity

Th22906A

Th22906A100
Ref. 6102
21.43 ± 0.707
dpm/g
6/8/2006 DVF

SEVERN TRENT SERVICES

ISOTOPE RECORD FORM

1) Isotope: TH229
2) Reference Number: 6102
3) Half Life: 7340 ±160 yrs
4) Storage Location: Std Lab
5) Source Identification Number: Th22906A000

****

CALIBRATION DATA

6) Activity as Received Units: 9.77 pCi/ml
7) Overall Uncertainty Percent: 3.3%
8) Reference Date / Time: 10/4/2004 12:00 EST
9) Activity dpm/g: 21.43 dpm/g
10) Volume or Mass (ml/g): 5.08969 g
11) Calibrated by: Analytics
12) Certificate Solution Number: 69227-288

****

SURVEY DATA

13) Date Received: 6/6/2006
14) Surveyed by: tda
15) Survey Reading (Beta/Gamma) cpm: BKGD
16) Survey Reading (Alpha) cpm: BKGD

****

17) Activity Conversion: 9.77 pCi/ml * 2.22 dpm/g / 1.012 g/ml=
21.43 dpm/g

18) Remarks: Diluted source from STL DENVER

19) Isotope File Updated by: tda

20) QC Approved: _____

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

Recieved 10/8/04
R Henderson
TH22904AL

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

69227-288

Th-229 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Th-229
ACTIVITY (dps):	3.633 E2
HALF-LIFE:	7340 years
CALIBRATION DATE:	October 4, 2004 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.3%

Impurities: γ-impurities <0.1%
Th-228 2.3 dps
Th-230 2.3 dps
Th-232 0.15 dps

5.08969 grams 0.5M HNO_3 solution.

P O NUMBER 2071151, Item 2

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: [signature] 10-7-04

SEVERN TRENT STL

STANDARD SOLUTION PREP SHEET

STL Denver

PARENT

STL# TH22904AL Isotope ^{229}Th Date received 10/8/04

1 Activity (pCi or Bq) 71.37959 Bq Per (gram or ml) g

2 on 10 / 4 / 2004 at 10:00 MST

3 Half life (t 1/2) 7340 y

SOLUTION

4 Weight of source and vial 8.9313

5 Weight of vial 3.8671

6 Weight of source (line 4 - line 5) 5.0642

7 Total Activity (line 1 X line 6) = 361.53 Bq

8 Total Activity pCi (Bq/0.037) 9769.7 pCi

9 Diluted up to 1000 mls in 0.5% HNO3

10 Therefore making a solution of 9.77 pCi per 1 ml on the standard refe

Th-229
SRS 89227-286 Qty 9.82E-3 µCi QA
Date 10-04-04 12:00 EST Exp. XXXXXX
PO # 2071151, Item 2
5.08968 g 0.5M HNO3 solution

CAUTION RADIOACTIVE MATERIAL

ANALYTICS
1380 Seaboard Ind Blvd • Atlanta, GA 30318 • USA • 404.352.8677

DECAY DATA

Decay = exp(- Lambda x t)
Lambda = (Natural log 2)/(t 1/2) ; t = decay duration Note: t and t 1/2 must be i

11 Lambda = 0.6931 / t 1/2 9.443×10^{-5} y^{-1}

12 Date to decay 10 / 8 / 2004

13 Reference Date 10 / 4 / 2004

14 Decay duration (12 - 13) 4 days

15 Decay duration in t 1/2 units .01095 y

Decay = exp -(line 11 x line 15)

16 Decay = exp - (9.443×10^{-5} y^{-1} x .01095 y) = 0.999999

17 Decayed activity = original activity x decay = 9.77

NOTES: Assigned ID = TH22904ALA1

Prepared by [signature] Preparation date 10/8/04

N:/QA/Forms/Rad/Standard Solution Prep Sheet.XLS

RADIOCHEMISTRY LABORATORY
STANDARDS CALIBRATION CHECK WORKSHEET
PARENT SOLUTION

SEVERN TRENT SERVICES

STL Denver

Standard Information:

Isotope:	^{228}Th	Activity/unit:	9.77	pCi/ml
STL#:	TH22904ALA1	Cert. TPU:	3.30%	
Cert#:	69227-288	Ref. Date:	10/4/2004	
Date Rec'd:	10/8/2004	Date Prepared:	10/8/2004	

Description of Mounting:

1 ml run against 1 ml of TH23004ALA2, through UTEVA resin.
NdF_3 precipitation followed.

Detector Efficiency: 22% Chemical Yield = 59 - 73%

Determination of Acceptance Limit:

Acceptance Limit(pCi) = 9.2 to 10.1

RESULT PASSES

SUMMARY OF RESULTS

Verification	Activity	2 sigma Error	Units
STD# 1	9.88	0.42	pCi/ml
STD# 2	9.81	0.46	pCi/ml
STD# 3	9.23	0.42	pCi/ml
MEAN	9.64	0.43	pCi/ml
STD. DEV.	0.36	0.02	pCi/ml

Date Performed: 10/8/04 Analyst: [signature]

*Expires one year from date performed.
8/28/2003

N:/QA/Forms/Rad/Standards Check Worksheet Parent.XLS

ISOTOPE DILUTION RECORD

1) Prepared by	tda	2) Date Prepared	10/8/2004
3) Source Identification Number / Ref. Number	**TH22906A100**		**6102**
4) Source Activity (dpm ± dpm/g)	2.1430E+03	±	7.070E-01
5) Percent error of Source Activity	3.3 %		
6) Weight of Source Material used (g)	1		
7) (% Error) of Weight of Source Material used	0.4800 %		
8) Diluent	0.5 M HNO3		
9) Total Weight of the Dilution (g)	100		
10) (% Error) of Total Weight of the Dilution	0.3000 %		
11) Specific Activity of Diluted Solution dpm/g	**2.1430E+01**	±	**7.175E-01**
12) Total Uncertainty	3.348 %		
13) Dilution Identification Number / Ref. Number	**TH22906A100**		**6102**
14) Calibration Reference Date	11/12/2003		
15) Isotope Inventory File update by/date	tda		
16) Reviewed by/date			
17) Location	OCLAB	18) Exhausted	

****

CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	TH23006A100		Ref: 1/28/2004			2.1698E+01	± 7.160E-01	DPM/G		
THSO0082	TH-230	**4.0076E+00**	**± 1.323E-01**	DPM	0.1847	g	6/15/2006	6/15/2006	Armstron	2.1698E+01	± 7.160E-01	DPM/G
		4.0076E+000	± 4.008E+000	(1)			4.0076E+000 , 4.0076E+000				

* - Isotope is an impurity

Th23006

Th23006A100
Ref. 6098
21.698 ± 0.718
dpm/g
5/24/2006 DVF

ISOTOPE DILUTION RECORD

1) Prepared by	lda	2) Date Prepared	9/15/2004
3) Source Identification Number / Ref. Number	**FROM STL DENVER**		
4) Source Activity (dpm ± dpm/g)		±	
5) Percent error of Source Activity	%		
6) Weight of Source Material used (g)			
7) (% Error) of Weight of Source Material used	#DIV/0! %		
8) Diluent			
9) Total Weight of the Dilution (g)			
10) (% Error) of Total Weight of the Dilution	3.3000 %		
11) Specific Activity of Diluted Solution dpm/g	**2.1698E+01**	±	**7.160E-01**
12) Total Uncertainty	#DIV/0! %		
13) Dilution Identification Number / Ref. Number	**Th23006A100**		**6096**
14) Calibration Reference Date	1/28/2004		
15) Isotope Inventory File update by/date	lda		6/8/2006
16) Reviewed by/date			
17) Location gciab		18) Exhausted	

****

CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

Th-230 Calibration Check

5/24/2008
lda

Source
Th23008A100 #8098

Source
TH23406A100 #4657

Calculation for Th230 Radiochemical Yield
*(Th230 cpm * d/c) / (Th230 dpm expected * Tracer Yield) =*

	Th230 cpm	d/c	Th230 dpm found	Th230 dpm expected	Tracer Yield	RCHEM Yield
DVF2601	6.485	3.406	22.088	22.123	1.128	0.886414
DVF2602	6.112	3.431	20.970	22.115	1.075	0.948237
DVF2604	6.336	3.191	20.225	22.069	1.081	0.916424
					Avg.	0.854
					Std. Dev.	0.04
					rsd<10%	8.66

Calculation for Th234Tracer Yield

	COUNTS TIME	SAMPLE COUNTS	BKGRD	BKGRD CT TIME	SAMPLE CPM	SAMPLE WT (g)	REF COUNTS	REF CPM	REF WT (g)	SAMPLE CPM/G
DVF2601	20	10658	667	500	531.566	0.265	138526	6926.300	3.891	2006.183
DVF2602	20	10138	795	500	505.310	0.266	137549	6877.450	3.894	1898.948
DVF2604	20	9951	562	500	496.426	0.265	135033	6751.650	3.898	1873.306

SEVERN TRENT **STL**

COUNTING REQUEST

Type of count:					
Alpha:		count time:			units:
Beta:		count time:			units:
Gamma:		count time:		Geom.:	units:
Alpha Spec:	✓	count time:	1000		units: dpm/Sa

Requested by: TDA

Date submitted: 5/24/06

	Sample ID	Isotopes of interest	Sample Date
175	DNT2601	Th23006A100	
		#6096	
176	2602		
177	2603		
178	2604		

ADDITIONAL INSTRUCTIONS:

T060089 Copy Th23006A100 #6096

DM 5/24/06 Th23406A100 #6094

STLRICHLAND NO.:CC-021.8/02, Rev. 2

STLRICHLAND

T060089

THORIUM BETA DATA FORM

SEVERN TRENT SERVICES

Th23406A100 #6094

Requested by: TDA

Lab Tech:

BETA

Analysis: Th 234

Sample ID	Vial Code	TH-234 WT.	Date-time Counted	Set ID	Gross Counts	Counting Time	Bkg. Counts	Count Room Tech
DUF2601						20min		
2602								
2603								
2604								

FORM NO. RC-097, 6/00, REV 1

Thorium Yield Determination by Beta-emitting Th-234 tracer

Reference Tracer Data: Ref. Date: 19-May-06

Ref. ID	Beta Detector	Gross Counts	Count Time	Bkg Counts	Bkg Time	Bkg CPM	Grams Found	SrY-90 Eff	DPM/g of Tracer
CAL5793	30A	138526	20	687	500	1.3340	3.891	0.4482	3971.00
CAL5800	30B	137549	20	795	500	1.5900	3.8941	0.4568	3865.08
CAL5801	30C	137829	20	704	500	1.4080	3.8875	0.4464	3970.03
CAL5802	30D	135033	20	562	500	1.1240	3.8977	0.4461	3882.36
							Average DPM/g of tracer =		3905.82

Sample Tracer Data:

VIAL ID	Tracer Mass	DPM Tracer
DVF2601	0.2647	1033.67
DVF2602	0.2661	1039.34
DVF2603	0.2653	1036.22
DVF2604	0.265	1035.04
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00

FORM NO. RC-103, REV. 2, 10/95

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date		Prep by	Std Decayed Activity/Concentration		
Parent Standard: TH23406A100					Ref: 5/18/2006		2.3166E+03	± 3.168E+02	CPM/G			
DVF2601	TH-234	5.1029E+02	± 6.979E+01	CPM	0.2647	g	5/24/2006	5/24/2006	Armstron	1.9278E+03	± 2.636E+02	CPM/G
DVF2602	TH-234	5.1298E+02	± 7.016E+01	CPM	0.2661	g	5/24/2006	5/24/2006	Armstron	1.9278E+03	± 2.636E+02	CPM/G
DVF2603	TH-234	5.1143E+02	± 6.994E+01	CPM	0.2653	g	5/24/2006	5/24/2006	Armstron	1.9278E+03	± 2.636E+02	CPM/G
DVF2604	TH-234	5.1085E+02	± 6.987E+01	CPM	0.265	g	5/24/2006	5/24/2006	Armstron	1.9277E+03	± 2.636E+02	CPM/G
		5.1139E+002 ± 1.160E+000 (4)			0.227%		5.1029E+002 , 5.1298E+002					

* - Isotope is an impurity

5/24/2006 5:38:39 PM

Standard Material Fractions (Vials)

Vial Prep: 5/23/05 to 5/25/06,SMFractionIdentifier Between DVF2601 and DVF2604, Order by SMIdentifier,ConstituentCode,SMFractionIdentifier

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date		Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	TH23006A100			Ref: 9/15/2004		2.1698E+01	± 7.160E-01	DPM/G			
DVF2601	TH-230	2.2123E+01	± 7.300E-01	DPM	1.0196	g	5/24/2006	5/24/2006	Armstron	2.1698E+01	± 7.160E-01	DPM/G
DVF2602	TH-230	2.2115E+01	± 7.298E-01	DPM	1.0192	g	5/24/2006	5/24/2006	Armstron	2.1698E+01	± 7.160E-01	DPM/G
DVF2603	TH-230	2.2106E+01	± 7.295E-01	DPM	1.0188	g	5/24/2006	5/24/2006	Armstron	2.1698E+01	± 7.160E-01	DPM/G
DVF2604	TH-230	2.2069E+01	± 7.283E-01	DPM	1.0171	g	5/24/2006	5/24/2006	Armstron	2.1698E+01	± 7.160E-01	DPM/G

2.2103E+001 ± 2.386E-002 (4) 0.108% 2.2069E+001 , 2.2123E+001

STL Richland, SMFractions v4.8.12 Page 1 Record Count: 6

* - Isotope is an Impurity

SEVERN TRENT STL RICHLAND

THORIUM ISOTOPIC COUNTING REQUEST

1041

R. Technician: RO
Date Counted: 5/24/06
R. Analyst: D
Date Analyzed: 6/20/06

Counting Time
Sample: 1000 Minutes

Background: See Alpha Analysis Report
STLR 5/24/06

SOP's
Operating: RICHRD008
Review: RICHRD0016
TO 60089

WorkOrder #	Th-229 (4845 KeV) Tracer from Th-234 Beta Count (7)				TOTAL COUNTS			Det #	Comment
					Th-228 (5423 KeV)	Th-230 (4688 KeV)	Th-232 (4010 KeV)		
	ID	Activity	ROI Cts	BKG	(6)	(8)	(9)		
DVF2601		10		0	See Alpha Analysis Report for ROI Information			175	3.406
DVF2602		10		0	See Alpha Analysis Report for ROI Information			176	3.431
DVF2603		10		0	See Alpha Analysis Report for ROI Information			177	3.827
DVF2604		10		0	See Alpha Analysis Report for ROI Information			178	3.191
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				
		10		0	See Alpha Analysis Report for ROI Information				

Comments:

Form No: RC-012, 10/02, Rev 9

Approved by: S

Date: 6/20/06

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date		Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	TH23408A100		Ref: 5/18/2006			3.3168E+03	± 3.168E+02	CPM/G			
DVF2601	TH-234	5.1029E+02	± 6.979E+01	CPM	0.2647	g	5/24/2006	5/24/2006	Armstron	1.9278E+03	± 2.636E+02	CPM/G
DVF2602	TH-234	5.1298E+02	± 7.016E+01	CPM	0.2661	g	5/24/2006	5/24/2006	Armstron	1.9278E+03	± 2.636E+02	CPM/G
DVF2603	TH-234	5.1143E+02	± 6.994E+01	CPM	0.2653	g	5/24/2006	5/24/2006	Armstron	1.9278E+03	± 2.636E+02	CPM/G
DVF2604	TH-234	5.1085E+02	± 6.987E+01	CPM	0.265	g	5/24/2006	5/24/2006	Armstron	1.9277E+03	± 2.636E+02	CPM/G
		5.1139E+002	± 1.160E+000	(4)		0.227%	5.1029E+002 , 5.1298E+002					

* - Isotope is an Impurity

5/24/2006 9:46:53 AM

Standard Material Fractions (Vials)

Vial Prep: 5/23/05 to 5/25/06,SMFractionIdentifier Between dvf2601 and dvf2604, Order by SMIdentifier,ConstituentCode,SMFractionIdentifier

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	TH23006A100		Ref: 9/15/2004			2.1698E+01	± 7.160E-01	DPM/G		
DVF2601	TH-230	2.2123E+01	± 7.300E-01	DPM	1.0196	g	5/24/2006	5/24/2006	Armstron 2.1698E+01	± 7.160E-01	DPM/G
DVF2602	TH-230	2.2115E+01	± 7.298E-01	DPM	1.0192	g	5/24/2006	5/24/2006	Armstron 2.1698E+01	± 7.160E-01	DPM/G
DVF2603	TH-230	2.2106E+01	± 7.295E-01	DPM	1.0188	g	5/24/2006	5/24/2006	Armstron 2.1698E+01	± 7.160E-01	DPM/G
DVF2604	TH-230	2.2069E+01	± 7.283E-01	DPM	1.0171	g	5/24/2006	5/24/2006	Armstron 2.1698E+01	± 7.160E-01	DPM/G
		2.2103E+001	± 2.366E-002	(4)		0.108%	2.2069E+001 , 2.2123E+001				

STL Richland, SMFractions v4.8.12

Page 1

Record Count: 5

* - Isotope is an Impurity

Quality Assurance Report. Generated 27-JUL-2006 10:53:55.67

QA Filename : RDND06::RDND06$DKA100:[ALP119.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : % Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		0.2484	| | |
20-JUL-2006 08:34	chk		0.2449	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		9.0000	| | |
20-JUL-2006 08:34	chk		9.3333	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		354.2452	| | |
20-JUL-2006 08:34	chk		353.6215	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 10-DEC-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.260584 Std Deviation : 0.004686

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		0.2552	| | |
20-JUL-2006 08:34	chk		0.2590	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		7.5623	| | |

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
20-JUL-2006 08:34	chk		7.3055	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:53:56.99

QA Filename : RDND06::RDND06$DKA100:[ALP119.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |
21-JUL-2006 09:20	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |
21-JUL-2006 09:20	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |
21-JUL-2006 09:20	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

22-JUN-2006 10:15 bkg 0.0000 | | |
21-JUL-2006 09:20 bkg 0.0020 | | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---
22-JUN-2006 10:15 bkg 0.0040 | | |
21-JUL-2006 09:20 bkg 0.0040 | | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---
Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---
22-JUN-2006 10:15 bkg 0.0040 | | |
21-JUL-2006 09:20 bkg 0.0040 | | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---
22-JUN-2006 10:15 bkg 0.0030 | | |
21-JUL-2006 09:20 bkg 0.0030 | | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

22-JUN-2006 10:15 bkg 0.0020 | | |
21-JUL-2006 09:20 bkg 0.0020 | | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

22-JUN-2006 10:15 bkg 0.0020 | | |
21-JUL-2006 09:20 bkg 0.0020 | | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

22-JUN-2006 10:15 bkg 0.0020 | | |
21-JUL-2006 09:20 bkg 0.0020 | | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

22-JUN-2006 10:15 bkg 0.0090 | | |
21-JUL-2006 09:20 bkg 0.0140 | | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0130	| | |
21-JUL-2006 09:20	bkg		0.0180	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0050	| | |
21-JUL-2006 09:20	bkg		0.0040	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:53:47.68

QA Filename : RDND06::RDND06$DKA100:[ALP116.QA]GROUP_1_CHK.QAF;2

-- Multi-Test Full Report --

Description : U-238 Centroid
Parameter Units : channel Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		178.2944	| | |
20-JUL-2006 08:33	chk		176.2570	| | |
21-JUL-2006 09:20	chk		175.9342	| | |
22-JUL-2006 06:24	chk		175.9426	| | |
23-JUL-2006 06:31	chk		176.2930	| | |
24-JUL-2006 17:16	chk		176.3109	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		8.8333	| | |
20-JUL-2006 08:33	chk		9.3333	| | |
21-JUL-2006 09:20	chk		9.0000	| | |
22-JUL-2006 06:24	chk		9.0000	| | |
23-JUL-2006 06:31	chk		8.5000	| | |
24-JUL-2006 17:16	chk		8.3333	| | |

-- Multi-Test Full Report --

Description : Cf-252 Centroid
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		434.6060	| | |
20-JUL-2006 08:33	chk		429.3671	| | |

21-JUL-2006 09:20	chk	430.7857	|	|	|
22-JUL-2006 06:24	chk	430.5469	|	|	|
23-JUL-2006 06:31	chk	431.0691	|	|	|
24-JUL-2006 17:16	chk	431.0714	|	|	|

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : counts/decay Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
21-JUN-2006 16:50	chk		0.1713	|	|	|	
20-JUL-2006 08:33	chk		0.1746	|	|	|	
21-JUL-2006 09:20	chk		0.1760	|	|	|	
22-JUL-2006 06:24	chk		0.1712	|	|	|	
23-JUL-2006 06:31	chk		0.1707	|	|	|	

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
24-JUL-2006 17:16	chk		0.1699	|	|	|	

-- Multi-Test Full Report --

Description : Am-241 Efficiency
Parameter Units : counts/decay Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
21-JUN-2006 16:50	chk		0.1636	|	|	|	
20-JUL-2006 08:33	chk		0.1708	|	|	|	
21-JUL-2006 09:20	chk		0.1707	|	|	|	
22-JUL-2006 06:24	chk		0.1666	|	|	|	
23-JUL-2006 06:31	chk		0.1630	|	|	|	
24-JUL-2006 17:16	chk		0.1650	|	|	|	

Quality Assurance Report. Generated 27-JUL-2006 10:53:48.66

QA Filename : RDND06::RDND06$DKA100:[ALP116,QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0060	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0060	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0140	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0220	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)

Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0050	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:53:37.27

QA Filename : RDND06::RDND06$DKA100:[ALP114,QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:49	chk		0.4216	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:49	chk		7.4000	| | |

-- Multi-Test Full Report --

Description : Centroid, Pu-239
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:49	chk		291.6127	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:49	chk		0.3321	| | |

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : % Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:49	chk		0.4216	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:49	chk		336.4172	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:53:38.31

QA Filename : RDND06::RDND06$DKA100:[ALP114.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0020	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0020	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0020	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0020	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)

Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0020	| | |
21-JUL-2006 09:20	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0050	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0050	| | |
21-JUL-2006 09:20	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0040	| | |
21-JUL-2006 09:20	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0090	| | |
21-JUL-2006 09:20	bkg		0.0300	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0200	| | |
21-JUL-2006 09:20	bkg		0.0230	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
22-JUN-2006 10:15	bkg		0.0020				
21-JUL-2006 09:20	bkg		0.0110				

Quality Assurance Report. Generated 27-JUL-2006 10:24:57.85

QA Filename : $DISK1:[ALP171.QA]GROUP_8_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.308323 Std Deviation : 0.004261

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.3069	| | |
6-JUL-2006 09:27	chk		0.3032	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.149660 Std Deviation : 0.335488

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		7.3333	| | |
6-JUL-2006 09:27	chk		7.3333	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 335.962128 Std Deviation : 7.932692

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		333.4685	| | |
6-JUL-2006 09:27	chk		333.4337	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 0.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.308076 Std Deviation : 0.017149

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.3114	| | |
6-JUL-2006 09:27	chk		0.3127	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00

Mean : 5.833249 Std Deviation : 0.233188

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		5.8989	| | |
6-JUL-2006 09:27	chk		5.8989	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:24:58.53

QA Filename : $DISK1:[ALP171.QA]GROUP_8_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000393 Std Deviation : 0.000630

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |
9-JUL-2006 10:13	bkg		0.0020	|In| |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0020	| | |
9-JUL-2006 10:13	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000572 Std Deviation : 0.000635

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0010				
7-JUL-2006 07:45	bkg		0.0010				
8-JUL-2006 07:53	bkg		0.0010				
9-JUL-2006 10:13	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000536 Std Deviation : 0.000882

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0020				
8-JUL-2006 07:53	bkg		0.0000				
9-JUL-2006 10:13	bkg		0.0010				

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000429 Std Deviation : 0.000743

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |
8-JUL-2006 07:53	bkg		0.0010	| | |
9-JUL-2006 10:13	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000322 Std Deviation : 0.000549

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |
8-JUL-2006 07:53	bkg		0.0010	| | |
9-JUL-2006 10:13	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000250 Std Deviation : 0.000519

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
7-JUL-2006 07:45	bkg		0.0020	Ac			
8-JUL-2006 07:53	bkg		0.0020	Ac			
9-JUL-2006 10:13	bkg		0.0010				

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000250 Std Deviation : 0.000519

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0010				
8-JUL-2006 07:53	bkg		0.0030	Ac			
9-JUL-2006 10:13	bkg		0.0010				

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000286 Std Deviation : 0.000535

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				

7-JUL-2006 07:45	bkg	0.0010	| | |
8-JUL-2006 07:53	bkg	0.0020	|Ac| |
9-JUL-2006 10:13	bkg	0.0010	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000679 Std Deviation : 0.000864

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0030	|In| |
7-JUL-2006 07:45	bkg		0.0010	| | |

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUL-2006 07:53	bkg		0.0010	| | |
9-JUL-2006 10:13	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000572 Std Deviation : 0.000921

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0010	| | |
9-JUL-2006 10:13	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000751 Std Deviation : 0.001077

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0010	| | |
9-JUL-2006 10:13	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000858 Std Deviation : 0.001240

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUL-2006 10:13	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000786 Std Deviation : 0.001032

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0020				
8-JUL-2006 07:53	bkg		0.0010				
9-JUL-2006 10:13	bkg		0.0010				

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000894 Std Deviation : 0.001450

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0010				
7-JUL-2006 07:45	bkg		0.0020				
8-JUL-2006 07:53	bkg		0.0030				
9-JUL-2006 10:13	bkg		0.0010				

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00

Mean : 0.000822 Std Deviation : 0.001443

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0020	| | |
8-JUL-2006 07:53	bkg		0.0040	|In| |
9-JUL-2006 10:13	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.007186 Std Deviation : 0.020985

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 6

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0040	| | |
7-JUL-2006 07:45	bkg		0.0210	| | |
8-JUL-2006 07:53	bkg		0.0180	| | |
9-JUL-2006 10:13	bkg		0.0080	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.006256 Std Deviation : 0.020016

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

9-JUN-2006 06:58	bkg	0.0180	| |	
7-JUL-2006 07:45	bkg	0.0380	| |	
8-JUL-2006 07:53	bkg	0.0350	| |	
9-JUL-2006 10:13	bkg	0.0370	| |	

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2002 00:00 End Date : 1-JUL-2003 00:00
Mean : 0.000822 Std Deviation : 0.001417

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0030	| | |
7-JUL-2006 07:45	bkg		0.0060	|Ac| |
8-JUL-2006 07:53	bkg		0.0040	|In| |
9-JUL-2006 10:13	bkg		0.0070	|Ac| |

Quality Assurance Report. Generated 27-JUL-2006 10:24:54.54

QA Filename : $DISK1:[ALP171.QA]GROUP_7_CHK.QAF;1

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-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.267819 Std Deviation : 0.004211

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 10:15	chk		0.2632				
6-JUL-2006 09:27	chk		0.2679				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 5.826797 Std Deviation : 0.354277

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 10:15	chk		6.3333				
6-JUL-2006 09:27	chk		6.5000				

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 337.789246 Std Deviation : 3.295884

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		337.4952	| | |
6-JUL-2006 09:27	chk		337.5477	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 0.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.267808 Std Deviation : 0.003226

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.2678	| | |
6-JUL-2006 09:27	chk		0.2683	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00

Mean : 5.651565 Std Deviation : 0.025683

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		5.6454	| | |
6-JUL-2006 09:27	chk		5.6378	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:24:55.22

QA Filename : $DISK1:[ALP171.QA]GROUP_7_BKG.QAF;1

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-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000263 Std Deviation : 0.000519

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000211 Std Deviation : 0.000526

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000228 Std Deviation : 0.000424

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000281 Std Deviation : 0.000560

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000246 Std Deviation : 0.000576

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000193 Std Deviation : 0.000480

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000176 Std Deviation : 0.000384

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000228 Std Deviation : 0.000464

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000299 Std Deviation : 0.000534

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

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Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000544 Std Deviation : 0.001002

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000228 Std Deviation : 0.000568

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000281 Std Deviation : 0.000649

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000316 Std Deviation : 0.000760

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000228 Std Deviation : 0.000536

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000667 Std Deviation : 0.000933

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000685 Std Deviation : 0.000949

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002143 Std Deviation : 0.002834

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0080	|In| |
7-JUL-2006 07:45	bkg		0.0120	|Ac| |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002213 Std Deviation : 0.004702

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0120	|In| |
7-JUL-2006 07:45	bkg		0.0290	|Ac| |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000615 Std Deviation : 0.000997

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0030	|In| |
7-JUL-2006 07:45	bkg		0.0030	|In| |

Quality Assurance Report. Generated 27-JUL-2006 10:24:51.23

QA Filename : $DISK1:[ALP171.QA]GROUP_6_CHK.QAF;1

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-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.295889 Std Deviation : 0.018452

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.2948	| | |
6-JUL-2006 09:27	chk		0.2993	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.059749 Std Deviation : 0.461202

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		7.8333	| | |
6-JUL-2006 09:27	chk		7.6667	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 348.819885 Std Deviation : 3.232368

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		348.3824	| | |
6-JUL-2006 09:27	chk		348.0585	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 0.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.298507 Std Deviation : 0.018482

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.3008	| | |
6-JUL-2006 09:27	chk		0.3019	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00

Mean : 6.042167 Std Deviation : 0.024254

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		6.0497	| | |
6-JUL-2006 09:27	chk		6.0707	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:24:51.97

QA Filename : $DISK1:[ALP171.QA]GROUP_6_BKG.QAF;1

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-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000507 Std Deviation : 0.000730

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0020	|In| |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000320 Std Deviation : 0.000511

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000474 Std Deviation : 0.000793

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000567 Std Deviation : 0.000732

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000369 Std Deviation : 0.000544

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	|In| |
7-JUL-2006 07:45	bkg		0.0020	|In| |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000403 Std Deviation : 0.000578

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	|In| |
7-JUL-2006 07:45	bkg		0.0020	|In| |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000445 Std Deviation : 0.000685

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0020	|In| |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000460 Std Deviation : 0.000752

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000438 Std Deviation : 0.000704

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000687 Std Deviation : 0.000798

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0020				
7-JUL-2006 07:45	bkg		0.0010				

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000743 Std Deviation : 0.000821

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0020				
7-JUL-2006 07:45	bkg		0.0030	In			

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000805 Std Deviation : 0.000773

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0010				
7-JUL-2006 07:45	bkg		0.0020				

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000861 Std Deviation : 0.000873

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0030	|In| |
7-JUL-2006 07:45	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001290 Std Deviation : 0.001377

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001591 Std Deviation : 0.001749

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001584 Std Deviation : 0.001836

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.005490 Std Deviation : 0.012838

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0080	| | |
7-JUL-2006 07:45	bkg		0.0180	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.005628 Std Deviation : 0.013862

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0190				
7-JUL-2006 07:45	bkg		0.0360	In			

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000963 Std Deviation : 0.001653

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0030				
7-JUL-2006 07:45	bkg		0.0060	Ac			

Quality Assurance Report. Generated 27-JUL-2006 10:24:47.98

QA Filename : $DISK1:[ALP171.QA]GROUP_5_CHK.QAF;1

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-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.301218 Std Deviation : 0.007587

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 10:15	chk		0.2982				
6-JUL-2006 09:27	chk		0.3111				
7-JUL-2006 07:45	chk		0.2980				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.056604 Std Deviation : 0.705551

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 10:15	chk		7.6667				
6-JUL-2006 09:27	chk		9.1667	In			
7-JUL-2006 07:45	chk		8.0000				

-- Multi-Test Full Report --

Description : Centroid, Am-241

Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 328.122986 Std Deviation : 3.190161

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		327.4756	| | |
6-JUL-2006 09:27	chk		327.5407	| | |
7-JUL-2006 07:45	chk		327.3919	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 0.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.299768 Std Deviation : 0.025059

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.3042	| | |
6-JUL-2006 09:27	chk		0.1226	|Ac| |
7-JUL-2006 07:45	chk		0.2988	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 5.904138 Std Deviation : 0.016597

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 10:15	chk		5.9036				
6-JUL-2006 09:27	chk		5.8593	In			
7-JUL-2006 07:45	chk		5.9292				

Quality Assurance Report. Generated 27-JUL-2006 10:24:48.66

QA Filename : $DISK1:[ALP171.QA]GROUP_5_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000469 Std Deviation : 0.000602

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
8-JUL-2006 07:53	bkg		0.0010				

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000408 Std Deviation : 0.000616

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000505 Std Deviation : 0.000701

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000750 Std Deviation : 0.000801

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000508 Std Deviation : 0.000583

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000486 Std Deviation : 0.000605

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000405 Std Deviation : 0.000765

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

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9-JUN-2006 06:58 bkg	0.0000	| | |
8-JUL-2006 07:53 bkg	0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000527 Std Deviation : 0.000862

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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9-JUN-2006 06:58 bkg	0.0000	| | |
8-JUL-2006 07:53 bkg	0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000503 Std Deviation : 0.000833

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

---

9-JUN-2006 06:58 bkg	0.0000	| | |
8-JUL-2006 07:53 bkg	0.0010	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)

Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000642 Std Deviation : 0.000824

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0010				
8-JUL-2006 07:53	bkg		0.0000				

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000566 Std Deviation : 0.000752

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0010				
8-JUL-2006 07:53	bkg		0.0020				

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000728 Std Deviation : 0.000897

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
8-JUL-2006 07:53	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000764 Std Deviation : 0.000887

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
8-JUL-2006 07:53	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000889 Std Deviation : 0.001062

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
8-JUL-2006 07:53	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001013 Std Deviation : 0.001134

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
8-JUL-2006 07:53	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001013 Std Deviation : 0.001078

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
8-JUL-2006 07:53	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.003171 Std Deviation : 0.004377

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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9-JUN-2006 06:58	bkg	0.0100			
8-JUL-2006 07:53	bkg	0.0170	Ac		

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.003203 Std Deviation : 0.005070

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0220	Ac			
8-JUL-2006 07:53	bkg		0.0270	Ac			

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000982 Std Deviation : 0.001805

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0020				
8-JUL-2006 07:53	bkg		0.0070	Ac			

Quality Assurance Report. Generated 27-JUL-2006 10:24:44.90

QA Filename : $DISK1:[ALP171.QA]GROUP_4_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.250281 Std Deviation : 0.040767

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.2551	| | |
6-JUL-2006 09:27	chk		0.2547	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 9.260000 Std Deviation : 0.885228

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		11.0000	| | |
6-JUL-2006 09:27	chk		11.0000	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 336.563843 Std Deviation : 6.420682

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		334.4590	| | |
6-JUL-2006 09:27	chk		334.5060	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 0.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.253111 Std Deviation : 0.025489

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.2595	| | |
6-JUL-2006 09:27	chk		0.2616	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00

Mean : 5.512194 Std Deviation : 0.156428

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		5.5224	| | |
6-JUL-2006 09:27	chk		5.5250	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:24:45.57

QA Filename : $DISK1:[ALP171.QA]GROUP_4_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000207 Std Deviation : 0.000450

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000173 Std Deviation : 0.000465

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |

7-JUL-2006 07:45	bkg	0.0000			
8-JUL-2006 07:53	bkg	0.0020	Ac		

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000155 Std Deviation : 0.000411

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0000				
8-JUL-2006 07:53	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000414 Std Deviation : 0.000650

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0030	Ac			
8-JUL-2006 07:53	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000362 Std Deviation : 0.000641

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0020	In			
8-JUL-2006 07:53	bkg		0.0010				

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000311 Std Deviation : 0.000569

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0020	In			
8-JUL-2006 07:53	bkg		0.0010				

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000311 Std Deviation : 0.000569

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000242 Std Deviation : 0.000471

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000190 Std Deviation : 0.000396

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000414 Std Deviation : 0.000650

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |
8-JUL-2006 07:53	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000242 Std Deviation : 0.000432

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |
8-JUL-2006 07:53	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000362 Std Deviation : 0.000584

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0020	|In| |
8-JUL-2006 07:53	bkg		0.0020	|In| |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000431 Std Deviation : 0.000625

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0030	|Ac| |
8-JUL-2006 07:53	bkg		0.0020	|In| |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000639 Std Deviation : 0.000969

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

9-JUN-2006 06:58 bkg	0.0010	| |	
7-JUL-2006 07:45 bkg	0.0050	|Ac|	|
8-JUL-2006 07:53 bkg	0.0000	| |	

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000742 Std Deviation : 0.001037

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0020	| | |
7-JUL-2006 07:45 bkg			0.0010	| | |
8-JUL-2006 07:53 bkg			0.0020	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000690 Std Deviation : 0.000996

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0010	| | |
7-JUL-2006 07:45 bkg			0.0010	| | |
8-JUL-2006 07:53 bkg			0.0020	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002865 Std Deviation : 0.005130

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0090	| | |
7-JUL-2006 07:45	bkg		0.0230	|Ac| |
8-JUL-2006 07:53	bkg		0.0220	|Ac| |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003400 Std Deviation : 0.007306

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0190	|In| |
7-JUL-2006 07:45	bkg		0.0320	|Ac| |
8-JUL-2006 07:53	bkg		0.0350	|Ac| |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000863 Std Deviation : 0.001640

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0040	| | |
7-JUL-2006 07:45	bkg		0.0080	|Ac| |
8-JUL-2006 07:53	bkg		0.0070	|Ac| |

Quality Assurance Report. Generated 27-JUL-2006 10:24:41.42

QA Filename : $DISK1:[ALP171.QA]GROUP_3_CHK.QAF;1

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-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.257996 Std Deviation : 0.004489

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 10:15	chk		0.2568				
6-JUL-2006 09:27	chk		0.2581				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 8.201389 Std Deviation : 0.498174

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 10:15	chk		8.6667				
6-JUL-2006 09:27	chk		8.8333				

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 335.608368 Std Deviation : 3.382019

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		335.0600	| | |
6-JUL-2006 09:27	chk		335.0555	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 0.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.256787 Std Deviation : 0.017117

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.2576	| | |
6-JUL-2006 09:27	chk		0.2584	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00

Mean : 5.931320 Std Deviation : 0.161764

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		5.9430	| | |
6-JUL-2006 09:27	chk		5.9801	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:24:42.46

QA Filename : $DISK1:[ALP171.QA]GROUP_3_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000178 Std Deviation : 0.000386

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	|In| |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000161 Std Deviation : 0.000371

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	|In| |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000161 Std Deviation : 0.000371

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000388 Std Deviation : 0.000583

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000323 Std Deviation : 0.000505

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000242 Std Deviation : 0.000469

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000355 Std Deviation : 0.000630

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000420 Std Deviation : 0.000781

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000404 Std Deviation : 0.000757

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000565 Std Deviation : 0.000803

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000565 Std Deviation : 0.000843

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0040	|Ac| |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000581 Std Deviation : 0.000861

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0030	|In| |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000614 Std Deviation : 0.000913

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0030	|In| |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001049 Std Deviation : 0.001153

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001130 Std Deviation : 0.001301

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001082 Std Deviation : 0.001298

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0050	|Ac| |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002809 Std Deviation : 0.004239

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0150	|In| |
7-JUL-2006 07:45	bkg		0.0200	|Ac| |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002842 Std Deviation : 0.006371

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0220	Ac			
7-JUL-2006 07:45	bkg		0.0390	Ac			

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-FEB-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001066 Std Deviation : 0.001630

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0020				
7-JUL-2006 07:45	bkg		0.0050	In			

Quality Assurance Report. Generated 27-JUL-2006 10:24:37.93

QA Filename : $DISK1:[ALP171.QA]GROUP_2_CHK.QAF;1

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-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.297289 Std Deviation : 0.024314

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.3119	| | |
6-JUL-2006 09:27	chk		0.3011	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 9.231293 Std Deviation : 0.604589

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		10.0000	| | |
6-JUL-2006 09:27	chk		10.1667	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 348.274567 Std Deviation : 6.209133

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		347.1468	| | |
6-JUL-2006 09:27	chk		347.1642	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 0.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.296714 Std Deviation : 0.027705

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.3121	| | |
6-JUL-2006 09:27	chk		0.3073	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00

Mean : 5.620669 Std Deviation : 0.118430

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 10:15	chk		5.6665				
6-JUL-2006 09:27	chk		5.6567				

Quality Assurance Report. Generated 27-JUL-2006 10:24:38.64

QA Filename : $DISK1:[ALP171.QA]GROUP_2_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001754 Std Deviation : 0.012093

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0020				

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.080180 Std Deviation : 0.732191

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.003539 Std Deviation : 0.029349

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0020				

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.012058 Std Deviation : 0.103351

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0010				
7-JUL-2006 07:45	bkg		0.0010				

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.078712 Std Deviation : 0.715220

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.077611 Std Deviation : 0.705504

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.049923 Std Deviation : 0.451783

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.005572 Std Deviation : 0.044052

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002381 Std Deviation : 0.014581

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.081567 Std Deviation : 0.735576

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.004297 Std Deviation : 0.031043

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0040	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002643 Std Deviation : 0.014457

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0050	| | |
7-JUL-2006 07:45	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002822 Std Deviation : 0.015541

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0050	| | |
7-JUL-2006 07:45	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.013435 Std Deviation : 0.109283

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0040	| | |
7-JUL-2006 07:45	bkg		0.0060	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.071166 Std Deviation : 0.635031

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0030	| | |
7-JUL-2006 07:45	bkg		0.0080	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.078464 Std Deviation : 0.702537

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0070	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.069939 Std Deviation : 0.596201

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0140	| | |
7-JUL-2006 07:45	bkg		0.0240	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.126213 Std Deviation : 1.117549

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0240	| | |
7-JUL-2006 07:45	bkg		0.0470	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.080998 Std Deviation : 0.730226

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0030	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:24:34.42

QA Filename : $DISK1:[ALP171.QA]GROUP_1_CHK.QAF;1

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-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.296046 Std Deviation : 0.043339

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.3009	| | |
6-JUL-2006 09:27	chk		0.2988	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 8.214286 Std Deviation : 0.538989

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		8.5000	| | |
6-JUL-2006 09:27	chk		8.8333	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 345.771149 Std Deviation : 9.955386

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		343.1082	| | |
6-JUL-2006 09:27	chk		343.5408	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.299194 Std Deviation : 0.021661

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 10:15	chk		0.3011	| | |
6-JUL-2006 09:27	chk		0.3043	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 5.742941 Std Deviation : 0.264376

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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8-JUN-2006 10:15 chk	5.8179	| | |
6-JUL-2006 09:27 chk	5.8053	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:24:35.15

QA Filename : $DISK1:[ALP171.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000498 Std Deviation : 0.000677

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
10-JUN-2006 06:49	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000501 Std Deviation : 0.000758

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
10-JUN-2006 06:49	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000396 Std Deviation : 0.000592

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
10-JUN-2006 06:49	bkg		0.0010	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000583 Std Deviation : 0.000834

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
10-JUN-2006 06:49	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000579 Std Deviation : 0.000824

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
10-JUN-2006 06:49	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000568 Std Deviation : 0.000812

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
10-JUN-2006 06:49	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0030	|In| |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000681 Std Deviation : 0.001087

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0050	|Ac| |

10-JUN-2006 06:49 bkg	0.0010		
7-JUL-2006 07:45 bkg	0.0030	In	

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000855 Std Deviation : 0.001135

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58 bkg			0.0050	Ac			
10-JUN-2006 06:49 bkg			0.0010				
7-JUL-2006 07:45 bkg			0.0030				

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000975 Std Deviation : 0.001214

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58 bkg			0.0050	Ac			
10-JUN-2006 06:49 bkg			0.0010				
7-JUL-2006 07:45 bkg			0.0020				

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001186 Std Deviation : 0.001317

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0020				
10-JUN-2006 06:49	bkg		0.0020				
7-JUL-2006 07:45	bkg		0.0010				

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000905 Std Deviation : 0.000990

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0020				
10-JUN-2006 06:49	bkg		0.0030		In		
7-JUL-2006 07:45	bkg		0.0020				

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001121 Std Deviation : 0.001217

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
10-JUN-2006 06:49	bkg		0.0050	|Ac| |
7-JUL-2006 07:45	bkg		0.0050	|Ac| |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001025 Std Deviation : 0.001214

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
10-JUN-2006 06:49	bkg		0.0040	|In| |
7-JUL-2006 07:45	bkg		0.0060	|Ac| |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001591 Std Deviation : 0.001671

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0060	|In| |
10-JUN-2006 06:49	bkg		0.0030	| | |
7-JUL-2006 07:45	bkg		0.0060	|In| |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002309 Std Deviation : 0.002342

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0060				
10-JUN-2006 06:49	bkg		0.0080	In			
7-JUL-2006 07:45	bkg		0.0060				

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002281 Std Deviation : 0.002303

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0060				
10-JUN-2006 06:49	bkg		0.0070	In			
7-JUL-2006 07:45	bkg		0.0050				

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.008574 Std Deviation : 0.016764

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0130				
10-JUN-2006 06:49	bkg		0.0120				
7-JUL-2006 07:45	bkg		0.0240				

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.007344 Std Deviation : 0.015358

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0230				
10-JUN-2006 06:49	bkg		0.0330				
7-JUL-2006 07:45	bkg		0.0450	In			

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001604 Std Deviation : 0.002726

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

9-JUN-2006 06:58 bkg	0.0040	| | |
10-JUN-2006 06:49 bkg	0.0010	| | |
7-JUL-2006 07:45 bkg	0.0070	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:54:05.13

QA Filename : RDND06::RDND06$DKA100:[ALP120.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : % Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
21-JUN-2006 16:50	chk		0.2448				
20-JUL-2006 08:34	chk		0.2387				
21-JUL-2006 09:20	chk		0.2440				
22-JUL-2006 06:25	chk		0.2350				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
21-JUN-2006 16:50	chk		9.6667				
20-JUL-2006 08:34	chk		9.5000				
21-JUL-2006 09:20	chk		10.0000				
22-JUL-2006 06:25	chk		9.0000				

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
21-JUN-2006 16:50	chk		356.2223				
20-JUL-2006 08:34	chk		355.1964				
21-JUL-2006 09:20	chk		355.1736				
22-JUL-2006 06:25	chk		355.5762				

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 10-DEC-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.244857 Std Deviation : 0.003575

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		0.2410	| | |
20-JUL-2006 08:34	chk		0.2427	| | |
21-JUL-2006 09:20	chk		0.2440	| | |
22-JUL-2006 06:25	chk		0.2370	|In| |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
21-JUN-2006 16:50	chk		7.3956	| | |
20-JUL-2006 08:34	chk		7.4733	| | |
21-JUL-2006 09:20	chk		7.2641	| | |
22-JUL-2006 06:25	chk		7.3570	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:54:06.49

QA Filename : RDND06::RDND06$DKA100:[ALP120.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
23-JUL-2006 06:44	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
23-JUL-2006 06:44	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |
23-JUL-2006 06:44	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |
23-JUL-2006 06:44	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |

23-JUL-2006 06:44 bkg 0.0000 | | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |
23-JUL-2006 06:44	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |
23-JUL-2006 06:44	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0010	| | |
23-JUL-2006 06:44	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

22-JUN-2006 10:15 bkg 0.0010 | | |
23-JUL-2006 06:44 bkg 0.0000 | | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---
22-JUN-2006 10:15 bkg 0.0020 | | |
23-JUL-2006 06:44 bkg 0.0030 | | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---
22-JUN-2006 10:15 bkg 0.0040 | | |
23-JUL-2006 06:44 bkg 0.0030 | | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---
Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---
22-JUN-2006 10:15 bkg 0.0040 | | |
23-JUL-2006 06:44 bkg 0.0020 | | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

22-JUN-2006 10:15 bkg 0.0050 | | |
23-JUL-2006 06:44 bkg 0.0050 | | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---

22-JUN-2006 10:15 bkg 0.0040 | | |
23-JUL-2006 06:44 bkg 0.0040 | | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---

22-JUN-2006 10:15 bkg 0.0040 | | |
23-JUL-2006 06:44 bkg 0.0030 | | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---

22-JUN-2006 10:15 bkg 0.0030 | | |
23-JUL-2006 06:44 bkg 0.0030 | | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---

22-JUN-2006 10:15 bkg 0.0180 | | |
23-JUL-2006 06:44 bkg 0.0120 | | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0230	| | |
23-JUL-2006 06:44	bkg		0.0230	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 10:15	bkg		0.0000	| | |
23-JUL-2006 06:44	bkg		0.0060	| | |

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/19/2006 10:31:23 AM

Lot No., Due Date: J6F270218,J6F140270; 07/25/2006,07/12/2006

Client, Site: 536403; AIR MONITORING Yerington Mine

QC Batch No., Method Test: 6179343; RUSIO Also by ALP

SDG, Matrix: 31999,31902; FILTER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?			✓
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Matt Lara **Date** 7-19-06

SEVERN TRENT **STL**

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6179343

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	/		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?			/
C. Other 1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response:

Second Level Review: Sheryl A. Adam Date: 7-20-09

STI-RICHLAND

7/14/2006 11:22:30 AM

Sample Preparation/Analysis

Balance Id:1120373922

536403, Brown and Caldwell , Brown & Caldwell

7Y Also PrpRC5016/5086, SepRC5067(5039)
SR Uranium-234,235,238 by Alpha Spec
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179343 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech: 7-18-06 7:16

SEQ Batch, Test: None

Prep Tech: HansenM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H7DWT-1-AG J6F140270-1-SAMP 05/24/2006 07:40	0.833g	501.65g	37.53g,in	0.0623g	UITC15931 06/23/06,pd 01/20/04,r	200				
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
2 H796F-1-AG J6F270218-1-SAMP 06/07/2006 10:00	0.833g	501.59g	37.68g,in	0.0628g	UITC15932 06/23/06,pd 01/20/04,r					
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
3 H796L-1-AG J6F270218-2-SAMP 06/07/2006 10:25	0.833g	501.03g	37.47g,in	0.0623g	UITC15933 06/28/06,pd 01/20/04,r					
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
4 H796N-1-AG J6F270218-3-SAMP 06/07/2006 10:35	0.833g	500.85g	37.57g,in	0.0629g	UITC15934 06/28/06,pd 01/20/04,r					
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
5 H796P-1-AG J6F270218-4-SAMP 06/07/2006 10:50	0.833g	501.24g	37.51g,in	0.0623g	UITC15935 06/28/06,pd 01/20/04,r					
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
6 H796Q-1-AG J6F270218-5-SAMP 06/07/2006 11:00	0.833g	517.56g	37.53g,in	0.0604g	UITC15936 06/28/06,pd 01/20/04,r					
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
7 H796R-1-AG J6F270218-6-SAMP 06/07/2006 11:20	0.833g	502.44g	37.68g,in	0.0624g	UITC15937 06/28/06,pd 01/20/04,r					
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:

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STLRICHLAND

7/14/2006 11:22:31 AM

Sample Preparation/Analysis

Balance Id:1120373922

536403, Brown and Caldwell , Brown & Caldwell

7Y Uiso PrpRC5016/5086, SepRC5067(5039)
SR Uranium-234,235,238 by Alpha Spec
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179343 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: HansenM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 H796T-1-AG J6F270218-7-SAMP 06/07/2006 10:10	0.833g	500.23g	37.57g,in AmtRec: FILTER	0.0626g #Containers: 1	UITC15938 06/28/06,pd 01/20/04,r			Scr:	Alpha:	Beta:
9 H796W-1-AG J6F270218-8-SAMP 06/07/2006 09:55	0.833g	501.87g	37.60g,in AmtRec: FILTER	0.0624g #Containers: 1	UITC15939 06/28/06,pd 01/20/04,r			Scr:	Alpha:	Beta:
10 H797D-1-AG J6F270218-9-SAMP 06/07/2006 10:20	0.833g	500.74g	37.56g,in AmtRec: FILTER	0.0625g #Containers: 1	UITC15940 06/28/06,pd 01/20/04,r			Scr:	Alpha:	Beta:
11 H797E-1-AG J6F270218-10-SAMP 06/07/2006 10:30	0.833g	503.68g	37.58g,in AmtRec: FILTER	0.0622g #Containers: 1	UITC15941 06/28/06,pd 01/20/04,r			Scr:	Alpha:	Beta:
12 H797F-1-AG J6F270218-11-SAMP 06/07/2006 10:40	0.833g	513.46g	37.55g,in AmtRec: FILTER	0.0609g #Containers: 1	UITC15942 06/28/06,pd 01/20/04,r			Scr:	Alpha:	Beta:
13 H797H-1-AG J6F270218-12-SAMP 06/07/2006 11:05	0.833g	501.88g	37.55g,in AmtRec: FILTER	0.0623g #Containers: 1	UITC15943 06/28/06,pd 01/20/04,r			Scr:	Alpha:	Beta:
14 H797J-1-AG J6F270218-13-SAMP 06/07/2006 11:10	0.833g	521.25g	37.64g,in AmtRec: FILTER	0.0602g #Containers: 1	UITC15944 06/28/06,pd 01/20/04,r			Scr:	Alpha:	Beta:

425

STL RICHLAND

7/14/2006 11:22:31 AM

Sample Preparation/Analysis

Balance Id:1120373922

536403, Brown and Caldwell , Brown & Caldwell

7Y Uiso PrpRC5016/5086, SepRC5067(5039)
SR Uranium-234,235,238 by Alpha Spec
01 STANDARD TEST SET

Pipet #: _____

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179343 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: HansenM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15H797K-1-AG J6F270218-14-SAMP	0.633g	506.13g	37.59g,in	0.0619g	UITC15945 06/28/06,pd 01/20/04,r					
06/07/2006 10:05		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
16H797M-1-AG J6F270218-15-SAMP	0.633g	500.73g	37.67g,in	0.0627g	UITC15946 06/28/06,pd 01/20/04,r					
06/07/2006 11:15		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
17H8DM7-1-AA-B J6F280000-343-BLK			1.00sa,in	1.00sa	UITC15947 06/28/06,pd 01/20/04,r					
06/07/2006 10:00		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:
18H8DM7-1-AC-C J6F280000-343-LCS			1.00sa,in	1.00sa	UISF0460 06/15/06,pd 01/20/04,r					
06/07/2006 10:00		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:

Comments:

All Clients for Batch:
536403, Brown and Caldwell Brown & Caldwell , SA , 63174

H7DWT1AG-SAMP Constituent List:

U-232	RDL:	pCi/sam	LCL:20	UCL:115	RPD:20	U-234	RDL:1	pCi/sam	LCL:	UCL:	RPD:
U-235	RDL:1	pCi/sam	LCL:	UCL:	RPD:	U-238	RDL:1	pCi/sam	LCL:	UCL:	RPD:

H8DM71AA-BLK:

U-232	RDL:	pCi/sam	LCL:20	UCL:115	RPD:20	U-234	RDL:1	pCi/sam	LCL:	UCL:	RPD:
U-235	RDL:1	pCi/sam	LCL:	UCL:	RPD:	U-238	RDL:1	pCi/sam	LCL:	UCL:	RPD:

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7/19/2006 10:30:23 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/19/2005, 7/24/2006, Batch: '6179343', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6179343						
AC		CalcC	HansenM	7/17/2006 9:38:10		
SC			wagarr	IsBatched	6/28/2006 1:36:13 PM	ICOC_RADCALC v4.8.24
SC			HansenM	InPrep2	7/17/2006 9:38:10 AM	RICH-RC-5016 REVISION 5
SC			HansenM	Prep2C	7/17/2006 9:38:38 AM	RICH-RC-5016 REVISION 5
SC			FABREM	Sep2C	7/18/2006 3:47:55 PM	RICH-RC-5039 REV 6
SC			BlackCL	CalcC	7/19/2006 7:30:08 AM	RICH-RD-0008 REVISION 4
AC			HansenM	7/17/2006 9:38:38		
AC			FABREM	7/18/2006 3:47:55 PM		
AC			BlackCL	7/19/2006 7:30:08		

AC: Accepting entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.6.18

7/19/2006 10:30:18 AM

Rpt DB Transfer log (Batch Results)

STL

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tst uncert	Sample Date / Mda	Units	expected	Yield	Volumes
31999	**9H796F10**		**J6F2702181**	000487	FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM				
U-234	7YSR	0	7/18/2006 6:21:43 PM	**2.7995E-01**	1.743E-01	1.758E-01	4.788E-01	PCI/SA	0.975	1.0E+0	8.258E-2
U-235	7YSR	0	7/18/2006 6:21:43 PM	**9.9979E-02**	9.998E-02	1.003E-01	2.709E-01	PCI/SA	0.975	1.0E+0	8.258E-2
U-238	7YSR	0	7/18/2006 6:21:43 PM	**-1.9991E-02**	1.999E-02	2.006E-02	4.766E-01	PCI/SA	0.975	1.0E+0	8.258E-2
31999	**9H796L10**		**J6F2702182**	000488	FILTER	6/26/2006 9:00:00	6/7/2006 10:25:00 AM				
U-234	7YSR	0	7/18/2006 6:21:54 PM	**2.8598E-01**	1.651E-01	1.667E-01	2.563E-01	PCI/SA	0.926	1.0E+0	8.23E-2
U-235	7YSR	0	7/18/2006 6:21:54 PM	**2.6691E-01**	1.662E-01	1.676E-01	4.566E-01	PCI/SA	0.926	1.0E+0	8.23E-2
U-238	7YSR	0	7/18/2006 6:21:54 PM	**-3.8129E-02**	2.696E-02	2.713E-02	5.387E-01	PCI/SA	0.926	1.0E+0	8.23E-2
31999	**9H796N10**		**J6F2702183**	000489	FILTER	6/26/2006 9:00:00	6/7/2006 10:35:00 AM				
U-234	7YSR	0	7/18/2006 6:22:08 PM	**2.0632E-01**	1.459E-01	1.468E-01	2.796E-01	PCI/SA	0.951	1.0E+0	8.249E-2
U-235	7YSR	0	7/18/2006 6:22:08 PM	**0.0E+00**	0.0E+00	1.263E-01	2.796E-01	PCI/SA	0.951	1.0E+0	8.249E-2
U-238	7YSR	0	7/18/2006 6:22:08 PM	**8.2533E-02**	1.052E-01	1.054E-01	4.941E-01	PCI/SA	0.951	1.0E+0	8.249E-2
31999	**9H796P10**		**J6F2702184**	000490	FILTER	6/26/2006 9:00:00	6/7/2006 10:50:00 AM				
U-234	7YSR	0	7/18/2006 6:22:38 PM	**-3.0904E-02**	1.545E-02	1.565E-02	5.153E-01	PCI/SA	1.056	1.0E+0	8.234E-2
U-235	7YSR	0	7/18/2006 6:22:38 PM	**9.1011E-02**	9.708E-02	9.729E-02	4.409E-01	PCI/SA	1.056	1.0E+0	8.234E-2
U-238	7YSR	0	7/18/2006 6:22:38 PM	**-4.6356E-02**	1.892E-02	1.928E-02	5.724E-01	PCI/SA	1.056	1.0E+0	8.234E-2
31999	**9H796Q10**		**J6F2702185**	000491	FILTER	6/26/2006 9:00:00	6/7/2006 11:00:00 AM				
U-234	7YSR	0	7/18/2006 6:22:53 PM	**7.0218E-01**	2.752E-01	2.809E-01	5.183E-01	PCI/SA	0.981	1.0E+0	8.04E-2
U-235	7YSR	0	7/18/2006 6:22:53 PM	**7.8919E-02**	1.049E-01	1.051E-01	5.183E-01	PCI/SA	0.981	1.0E+0	8.04E-2
U-238	7YSR	0	7/18/2006 6:22:53 PM	**4.861E-01**	2.329E-01	2.361E-01	5.549E-01	PCI/SA	0.981	1.0E+0	8.04E-2
31999	**9H796R10**		**J6F2702186**	000492	FILTER	6/26/2006 9:00:00	6/7/2006 11:20:00 AM				
U-234	7YSR	0	7/18/2006 6:23:10 PM	**-3.3198E-02**	1.66E-02	1.681E-02	5.536E-01	PCI/SA	1.009	1.0E+0	8.244E-2
U-235	7YSR	0	7/18/2006 6:23:10 PM	**-8.2994E-03**	8.299E-03	8.326E-03	4.173E-01	PCI/SA	1.009	1.0E+0	8.244E-2
U-238	7YSR	0	7/18/2006 6:23:10 PM	**-3.3198E-02**	1.66E-02	1.681E-02	5.536E-01	PCI/SA	1.009	1.0E+0	8.244E-2
31999	**9H796T10**		**J6F2702187**	000493	FILTER	6/26/2006 9:00:00	6/7/2006 10:10:00 AM				
U-234	7YSR	0	7/18/2006 6:23:32 PM	**-2.801E-02**	1.617E-02	1.633E-02	5.817E-01	PCI/SA	0.885	1.0E+0	8.256E-2
U-235	7YSR	0	7/18/2006 6:23:32 PM	**-1.8673E-02**	1.32E-02	1.329E-02	5.33E-01	PCI/SA	0.885	1.0E+0	8.256E-2
U-238	7YSR	0	7/18/2006 6:23:32 PM	**1.166E-01**	1.166E-01	1.17E-01	3.16E-01	PCI/SA	0.885	1.0E+0	8.256E-2
31999	**9H796W10**		**J6F2702188**	P-0660	FILTER	6/26/2006 9:00:00	6/7/2006 9:55:00 AM				
U-234	7YSR	0	7/18/2006 6:24:30 PM	**1.5766E-01**	1.422E-01	1.427E-01	5.571E-01	PCI/SA	1.006	1.0E+0	8.241E-2
U-235	7YSR	0	7/18/2006 6:24:30 PM	**-3.9462E-02**	2.79E-02	2.808E-02	5.571E-01	PCI/SA	1.006	1.0E+0	8.241E-2
U-238	7YSR	0	7/18/2006 6:24:30 PM	**-5.9194E-02**	3.418E-02	3.45E-02	6.223E-01	PCI/SA	1.006	1.0E+0	8.241E-2
31999	**9H797D10**		**J6F2702189**	P-0661	FILTER	6/26/2006 9:00:00	6/7/2006 10:20:00 AM				
U-234	7YSR	0	7/18/2006 6:24:37 PM	**0.0E+00**	0.0E+00	1.219E-01	2.697E-01	PCI/SA	1.029	1.0E+0	8.248E-2
U-235	7YSR	0	7/18/2006 6:24:37 PM	**-5.9728E-02**	3.448E-02	3.481E-02	6.282E-01	PCI/SA	1.029	1.0E+0	8.248E-2
U-238	7YSR	0	7/18/2006 6:24:37 PM	**3.9782E-02**	1.053E-01	1.054E-01	6.282E-01	PCI/SA	1.029	1.0E+0	8.248E-2
31999	**9H797E10**		**J6F27021810**	P-0662	FILTER	6/26/2006 9:00:00	6/7/2006 10:30:00 AM				
U-234	7YSR	0	7/18/2006 6:24:49 PM	**-1.4874E-01**	5.622E-02	5.748E-02	6.722E-01	PCI/SA	0.906	1.0E+0	8.215E-2
U-235	7YSR	0	7/18/2006 6:24:49 PM	**-8.3746E-02**	3.58E-02	3.716E-02	6.704E-01	PCI/SA	0.906	1.0E+0	8.215E-2
U-238	7YSR	0	7/18/2006 6:24:49 PM	**-2.1298E-02**	1.183E-01	1.183E-01	8.288E-01	PCI/SA	0.906	1.0E+0	8.215E-2
31999	**9H797F10**		**J6F27021811**	P-0663	FILTER	6/26/2006 9:00:00	6/7/2006 10:45:00 AM				
U-234	7YSR	0	7/18/2006 6:25:00 PM	**7.7955E-02**	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	8.092E-2
U-235	7YSR	0	7/18/2006 6:25:00 PM	**-1.9478E-02**	1.948E-02	1.954E-02	4.665E-01	PCI/SA	1.011	1.0E+0	8.092E-2
U-238	7YSR	0	7/18/2006 6:25:00 PM	**7.7955E-02**	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	8.092E-2
31999	**9H797H10**		**J6F27021812**	P-0664	FILTER	6/26/2006 9:00:00	6/7/2006 11:05:00 AM				
U-234	7YSR	0	7/18/2006 6:25:11 PM	**5.5292E-02**	1.392E-01	1.392E-01	7.569E-01	PCI/SA	1.009	1.0E+0	8.232E-2
U-235	7YSR	0	7/18/2006 6:25:11 PM	**-1.8434E-02**	1.843E-02	1.849E-02	4.414E-01	PCI/SA	1.009	1.0E+0	8.232E-2
U-238	7YSR	0	7/18/2006 6:25:11 PM	**7.3726E-02**	1.379E-01	1.381E-01	7.192E-01	PCI/SA	1.009	1.0E+0	8.232E-2
31999	**9H797J10**		**J6F27021813**	P-0665	FILTER	6/26/2006 9:00:00	6/7/2006 11:10:00 AM				
U-234	7YSR	0	7/18/2006 6:25:24 PM	**0.0E+00**	0.0E+00	1.219E-01	2.698E-01	PCI/SA	1.091	1.0E+0	8.015E-2
U-235	7YSR	0	7/18/2006 6:25:24 PM	**-1.9916E-02**	1.992E-02	1.998E-02	4.769E-01	PCI/SA	1.091	1.0E+0	8.015E-2
U-238	7YSR	0	7/18/2006 6:25:24 PM	**1.5928E-01**	1.436E-01	1.441E-01	5.626E-01	PCI/SA	1.091	1.0E+0	8.015E-2

6179343, **Samples Inserted | Updated | NotUpdated => 18 | 0 | 0,
**Results Inserted | ReTestInserted | Updated | NotInserted => 54 | 0 | 0 | 0,
**Diff RptDb | Qtims => *wo:H8DM71AA=> , mat:FILTER | Air *wo:H8DM71AA=> , mat:FILTER | Air *wo:H8DM71AC=> , mat:FILTER | Air *wo:H8DM71AC=> , mat:FILTER | Air.

SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	LotSample / Analysis Date	Client Id / Result		Matrix / Cnt Uncert	Received Date / Tot Uncert	Sample Date / Mda	Units	expected	Yield	Volumes	
31999	**9H797K10**			**J6F27021814**	P-0666		FILTER	6/26/2006 9:00:00	6/7/2006 10:05:00 AM					
U-234	7YSR	0		7/18/2006 6:25:43 PM	**-2.1922E-02**	2.192E-02	2.199E-02	5.248E-01	PCI/SA		0.914	1.0E+0	3.187E-2	
U-235	7YSR	0		7/18/2006 6:25:43 PM	**1.0956E-01**	1.096E-01	1.099E-01	2.969E-01	PCI/SA		0.914	1.0E+0	3.187E-2	
U-238	7YSR	0		7/18/2006 6:25:43 PM	**-2.1922E-02**	2.192E-02	2.199E-02	5.248E-01	PCI/SA		0.914	1.0E+0	3.187E-2	
31999	**9H797M10**			**J6F27021815**	P-0667		FILTER	6/26/2006 9:00:00	6/7/2006 11:15:00 AM					
U-234	7YSR	0		7/18/2006 6:25:53 PM	**0.0E+00**	0.0E+00	1.38E-01	3.054E-01	PCI/SA		0.816	1.0E+0	3.267E-2	
U-235	7YSR	0		7/18/2006 6:25:53 PM	**-2.2549E-02**	2.255E-02	2.262E-02	5.399E-01	PCI/SA		0.816	1.0E+0	3.267E-2	
U-238	7YSR	0		7/18/2006 6:25:53 PM	**-2.2549E-02**	2.255E-02	2.262E-02	5.399E-01	PCI/SA		0.816	1.0E+0	3.267E-2	
31902	**9H7DWT10**			**J6F1402701**	000473		FILTER	6/14/2006 10:00:00	5/24/2006 7:40:00 AM					
U-234	7YSR	0		7/18/2006 6:21:38 PM	**8.4174E-02**	1.073E-01	1.075E-01	5.042E-01	PCI/SA		0.936	1.0E+0	3.232E-2	
U-235	7YSR	0		7/18/2006 6:21:38 PM	**0.0E+00**	0.0E+00	1.289E-01	2.852E-01	PCI/SA		0.936	1.0E+0	3.232E-2	
U-238	7YSR	0		7/18/2006 6:21:38 PM	**-4.2133E-02**	2.979E-02	2.999E-02	5.948E-01	PCI/SA		0.936	1.0E+0	3.232E-2	
31999	**H8DM71AB**			**J6F280000343**	INTRA-LAB BLANK		FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM					
U-234	7YSR	0	B	7/18/2006 6:26:05 PM	**3.2658E-02**	1.822E-02	1.841E-02	5.128E-02	PCI/SA		0.96	1.0E+0	1.0E+0	
U-235	7YSR	0	B	7/18/2006 6:26:05 PM	**1.7419E-02**	1.285E-02	1.293E-02	3.652E-02	PCI/SA		0.96	1.0E+0	1.0E+0	
U-238	7YSR	0	B	7/18/2006 6:26:05 PM	**4.5363E-02**	2.029E-02	2.062E-02	2.459E-02	PCI/SA		0.96	1.0E+0	1.0E+0	
31999	**H8DM71CS**			**J6F280000343**	INTRA-LAB CHECK		FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM					
U-234	7YSR	0	S	7/18/2006 6:26:14 PM	**1.0138E+00**	9.367E-02	1.244E-01	4.872E-02	PCI/SA	9.6804E-01	0.766	1.0E+0	1.0E+0	
U-235	7YSR	0	S	7/18/2006 6:26:14 PM	**5.1722E-02**	2.112E-02	2.152E-02	2.336E-02	PCI/SA	4.4167E-02	0.766	1.0E+0	1.0E+0	
U-238	7YSR	0	S	7/18/2006 6:26:14 PM	**1.0172E+00**	9.364E-02	1.245E-01	2.336E-02	PCI/SA	1.0138E+00	0.766	1.0E+0	1.0E+0	

6179343, **Samples Inserted | Updated | NotUpdated => 18 | 0 | 0,
**Results Inserted | ReTestInserted | Updated | NotInserted => 54 | 0 | 0 | 0.
**Diff RptDb | Qtims => *wo:H8DM71AA=> , mat:FILTER | Air *wo:H8DM71AA=> , mat:FILTER | Air *wo:H8DM71AC=> , mat:FILTER | Air *wo:H8DM71AC=> , mat:FILTER | Air.

Batch Nbr: 6179343

Alpha Spec, UIso by ALP , Results

7/19/2006 7:27:03 AM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	MLcC	MDC	QC	Yield	RYld
UIso by ALP				Richland Standard AlpIso Wo Blk Subt.										
Calc	SR	FILTER	H7DWT1AG	U-234	8.42E-02	(1.08E-01)	U4	PCI/SA	R	1.10E-01	5.04E-01		94%	
Calc	SR	FILTER	H7DWT1AG	U-235	0.00E+00	(1.29E-01)	U4	PCI/SA	R		2.85E-01		94%	
Calc	SR	FILTER	H7DWT1AG	U-238	-4.21E-02	(3.00E-02)	U4	PCI/SA	R	1.55E-01	5.95E-01		94%	
Calc	SR	FILTER	H796F1AG	U-234	2.80E-01	(1.76E-01)	U4	PCI/SA	R	1.04E-01	4.79E-01		98%	
Calc	SR	FILTER	H796F1AG	U-235	1.00E-01	(1.00E-01)	U4	PCI/SA	R		2.71E-01		98%	
Calc	SR	FILTER	H796F1AG	U-238	-2.00E-02	(2.01E-02)	U4	PCI/SA	R	1.04E-01	4.79E-01		98%	
Calc	SR	FILTER	H796L1AG	U-234	2.86E-01	(1.67E-01)		PCI/SA	R		2.58E-01		93%	
Calc	SR	FILTER	H796L1AG	U-235	2.87E-01	(1.68E-01)	U4	PCI/SA	R	9.92E-02	4.57E-01		93%	
Calc	SR	FILTER	H796L1AG	U-238	-3.81E-02	(2.71E-02)	U4	PCI/SA	R	1.40E-01	5.39E-01		93%	
Calc	SR	FILTER	H796N1AG	U-234	2.06E-01	(1.47E-01)	U4	PCI/SA	R		2.80E-01		95%	
Calc	SR	FILTER	H796N1AG	U-235	0.00E+00	(1.28E-01)	U4	PCI/SA	R		2.80E-01		95%	
Calc	SR	FILTER	H796N1AG	U-238	8.25E-02	(1.05E-01)	U4	PCI/SA	R	1.07E-01	4.94E-01		95%	
Calc	SR	FILTER	H796P1AG	U-234	-3.09E-02	(1.56E-02)	U4	PCI/SA	R	1.27E-01	5.15E-01		106%	
Calc	SR	FILTER	H796P1AG	U-235	8.10E-02	(9.73E-02)	U4	PCI/SA	R	8.98E-02	4.41E-01		106%	
Calc	SR	FILTER	H796P1AG	U-238	-4.64E-02	(1.93E-02)	U4	PCI/SA	R	1.56E-01	5.72E-01		106%	
Calc	SR	FILTER	H796Q1AG	U-234	7.02E-01	(2.81E-01)		PCI/SA	R	1.18E-01	5.18E-01		98%	
Calc	SR	FILTER	H796Q1AG	U-235	7.89E-02	(1.05E-01)	U4	PCI/SA	R	1.18E-01	5.18E-01		98%	
Calc	SR	FILTER	H796Q1AG	U-238	4.86E-01	(2.36E-01)		PCI/SA	R	1.37E-01	5.55E-01		98%	
Calc	SR	FILTER	H796R1AG	U-234	-3.32E-02	(1.68E-02)	U4	PCI/SA	R	1.36E-01	5.54E-01		101%	
Calc	SR	FILTER	H796R1AG	U-235	-8.30E-03	(8.33E-03)	U4	PCI/SA	R	6.82E-02	4.17E-01		101%	
Calc	SR	FILTER	H796R1AG	U-238	-3.32E-02	(1.68E-02)	U4	PCI/SA	R	1.36E-01	5.54E-01		101%	
Calc	SR	FILTER	H796T1AG	U-234	-2.80E-02	(1.63E-02)	U4	PCI/SA	R	1.33E-01	5.82E-01		89%	
Calc	SR	FILTER	H796T1AG	U-235	-1.87E-02	(1.33E-02)	U4	PCI/SA	R	1.09E-01	5.33E-01		89%	
Calc	SR	FILTER	H796T1AG	U-238	1.17E-01	(1.17E-01)	U4	PCI/SA	R		3.16E-01		89%	
Calc	SR	FILTER	H796W1AG	U-234	1.58E-01	(1.43E-01)	U4	PCI/SA	R	1.45E-01	5.57E-01		101%	
Calc	SR	FILTER	H796W1AG	U-235	-3.95E-02	(2.81E-02)	U4	PCI/SA	R	1.45E-01	5.57E-01		101%	
Calc	SR	FILTER	H796W1AG	U-238	-5.92E-02	(3.45E-02)	U4	PCI/SA	R	1.78E-01	6.22E-01		101%	
Calc	SR	FILTER	H797D1AG	U-234	0.00E+00	(1.22E-01)	U4	PCI/SA	R		2.70E-01		103%	
Calc	SR	FILTER	H797D1AG	U-235	-5.97E-02	(3.48E-02)	U4	PCI/SA	R	1.79E-01	6.28E-01		103%	
Calc	SR	FILTER	H797D1AG	U-238	3.98E-02	(1.05E-01)	U4	PCI/SA	R	1.79E-01	6.28E-01		103%	
Calc	SR	FILTER	H797E1AG	U-234	-1.49E-01	(5.75E-02)	U4	PCI/SA	R	2.92E-01	8.72E-01		91%	
Calc	SR	FILTER	H797E1AG	U-235	-6.37E-02	(3.72E-02)	U4	PCI/SA	R	1.91E-01	6.70E-01		91%	
Calc	SR	FILTER	H797E1AG	U-238	-2.13E-02	(1.18E-01)	U4	PCI/SA	R	2.71E-01	8.29E-01		91%	
Calc	SR	FILTER	H797F1AG	U-234	7.80E-02	(1.46E-01)	U4	PCI/SA	R	2.48E-01	7.60E-01		101%	
Calc	SR	FILTER	H797F1AG	U-235	-1.95E-02	(1.95E-02)	U4	PCI/SA	R	1.01E-01	4.67E-01		101%	
Calc	SR	FILTER	H797F1AG	U-238	7.80E-02	(1.46E-01)	U4	PCI/SA	R	2.48E-01	7.60E-01		101%	
Calc	SR	FILTER	H797H1AG	U-234	5.53E-02	(1.39E-01)	U4	PCI/SA	R	2.54E-01	7.57E-01		101%	

() - (1s Uncertainities)
IDC - Instrument Detection Level in Conc Units
MLcC- Method Decision Level in Conc Units
MDC - Minimum Detectable Concentration
*Std - Lc, MDC using StdDev for Set of Blanks

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Regardless of Significants
Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:51
RADCALC v4.8.18
STL Richland

Batch Nbr: 6179343

Alpha Spec, Uiso by ALP , Results

7/19/2006 7:27:03 AM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	ILcC	IDC	QC	Yield	RYld
Calc	SR	FILTER	H797H1AG	U-235	-1.84E-02	(1.85E-02)	U4	PCI/SA	R	9.59E-02	4.41E-01		101%	
Calc	SR	FILTER	H797H1AG	U-238	7.37E-02	(1.38E-01)	U4	PCI/SA	R	2.35E-01	7.19E-01		101%	
Calc	SR	FILTER	H797J1AG	U-234	0.00E+00	(1.22E-01)	U4	PCI/SA	R		2.70E-01		109%	
Calc	SR	FILTER	H797J1AG	U-235	-1.99E-02	(2.00E-02)	U4	PCI/SA	R	1.04E-01	4.77E-01		109%	
Calc	SR	FILTER	H797J1AG	U-238	1.59E-01	(1.44E-01)	U4	PCI/SA	R	1.46E-01	5.63E-01		109%	
Calc	SR	FILTER	H797K1AG	U-234	-2.19E-02	(2.20E-02)	U4	PCI/SA	R	1.14E-01	5.25E-01		91%	
Calc	SR	FILTER	H797K1AG	U-235	1.10E-01	(1.10E-01)	U4	PCI/SA	R		2.97E-01		91%	
Calc	SR	FILTER	H797K1AG	U-238	-2.19E-02	(2.20E-02)	U4	PCI/SA	R	1.14E-01	5.25E-01		91%	
Calc	SR	FILTER	H797M1AG	U-234	0.00E+00	(1.38E-01)	U4	PCI/SA	R		3.05E-01		82%	
Calc	SR	FILTER	H797M1AG	U-235	-2.25E-02	(2.26E-02)	U4	PCI/SA	R	1.17E-01	5.40E-01		82%	
Calc	SR	FILTER	H797M1AG	U-238	-2.25E-02	(2.26E-02)	U4	PCI/SA	R	1.17E-01	5.40E-01		82%	
Calc	SR	FILTER	H8DM71AA	U-234	3.27E-02	(1.84E-02)		PCI/SA	R	1.34E-02	5.13E-02	B	96%	
Calc	SR	FILTER	H8DM71AA	U-235	1.74E-02	(1.29E-02)	U4	PCI/SA	R	5.97E-03	3.65E-02	B	96%	
Calc	SR	FILTER	H8DM71AA	U-238	4.54E-02	(2.06E-02)		PCI/SA	R		2.46E-02	B	96%	
Calc	SR	FILTER	H8DM71AC	U-234	1.01E+00	(1.24E-01)		PCI/SA	R	1.27E-02	4.87E-02	S	77%	105%
Calc	SR	FILTER	H8DM71AC	U-235	5.17E-02	(2.15E-02)		PCI/SA	R		2.34E-02	S	77%	117%
Calc	SR	FILTER	H8DM71AC	U-238	1.02E+00	(1.25E-01)		PCI/SA	R		2.34E-02	S	77%	100%

Matt Hardy 7-19-06

() - (1s Uncertainties)
IDC - Instrument Detection Level in Conc Units
MLcC- Method Decision Level in Conc Units
MDC - Minimum Detectable Concentration
*Std - Lc, MDC using StdDev for Set of Blanks

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Reguardless of Significants
Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:72
RADCALC v4.8.18
STL Richland

STLRICHLAND

Batch Nbr: 6179343

Alpha Spec, Ulso by ALP , Calculated Results

7/19/2006 7:27:04 AM

Detailed Report

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/SB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
1	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H7DWT1AG	PCI/SA		05/24/06 07:40	07/18/06 18:21			1	1.00 SA	
536403.000473					J6F140270-1 v4.8.18		FILTER					UITC15931 Alq		0.062319 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:41	U-232	691	4	ALP9	ED	Y	N	3.6670E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1833333	1000.0333			Y		(1.100E-02)						(0.000E+00)	16.046387		
1	07/18/06 16:41	U-234	1	1	ALP9	ED	N	N	3.6670E-01		N	94%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1833333	1000.0333			Y		(1.100E-02)			5%			(0.000E+00)	16.046387		
2	07/18/06 16:41	U-235	0	0	ALP9	ED	N	N	3.6670E-01		N	94%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1833333	1000.0333			Y		(1.100E-02)			5%			(0.000E+00)	16.046387		
3	07/18/06 16:41	U-238	0	2	ALP9	ED	N	N	3.6670E-01		N	94%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1833333	1000.0333			Y		(1.100E-02)			5%			(0.000E+00)	16.046387		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.LcC/MDC	StdDv/MdC/LcC
	07/19/06	U-232	R	67.960345		3.44784E+00	9.402249	9.402249	1.00 SA	94%				
				(5.078159)		(1.3133E-01)	(0.455876)	(0.455876)	(0.027066)					
	07/19/06	U-234	R	0.084174	U4	3.98545E-03	0.011645	0.011645	1.00 SA	94%		0.50415		
				(0.107542)		(5.0945E-03)	(0.014864)	(0.014864)	(0.027066)			0.108539		
	07/19/06	U-235	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 SA	94%		0.285202		
				(0.128893)		(0.0000E+00)	(0.017832)	(0.017832)	(0.027066)					
	07/19/06	U-238	R	-0.042133	U4	-1.99993E-03	-0.005829	-0.005829	1.00 SA	94%		0.594842		
				(0.029985)		(1.4142E-03)	(0.004135)	(0.004135)	(0.027066)			0.154912		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/SB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
2	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H796F1AG	PCI/SA		06/07/06 10:00	07/18/06 18:21			1	1.00 SA	
536403.000487					J6F270218-1 v4.8.18		FILTER					UITC15932 Alq		0.062576 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:41	U-232	724	3	ALP10	ED	Y	N	3.6914E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0166666	1000.3166			Y		(1.107E-02)						(0.000E+00)	15.980596		
1	07/18/06 16:41	U-234	3	1	ALP10	ED	N	N	3.6914E-01		N	98%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0166666	1000.3166			Y		(1.107E-02)			5%			(0.000E+00)	15.980596		
2	07/18/06 16:41	U-235	1	0	ALP10	ED	N	N	3.6914E-01		N	98%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0166666	1000.3166			Y		(1.107E-02)			5%			(0.000E+00)	15.980596		
3	07/18/06 16:41	U-238	0	1	ALP10	ED	N	N	3.6914E-01		N	98%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0166666	1000.3166			Y		(1.107E-02)			5%			(0.000E+00)	15.980596		

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:2

RADCALC v4.8.18

STL Richland

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Batch Nbr: 6179343 — Alpha Spec, UIso by ALP , Calculated Results — 7/19/2006 7:27:04 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk LcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	70.527903		3.61670E+00	9.797638	9.797638	1.00 SA	98%				
				(5.238232)		(1.3454E-01)	(0.468214)	(0.468214)	(0.027066)					
	07/19/06	U-234	R	0.279946	U4	1.39991E-02	0.03889	0.03889	1.00 SA	98%		0.478631		
				(0.175758)		(8.7170E-03)	(0.024315)	(0.024315)	(0.027066)			0.104005		
	07/19/06	U-235	R	0.099979	U4	4.99958E-03	0.013889	0.013889	1.00 SA	98%		0.270944		
				(0.100299)		(4.9996E-03)	(0.013911)	(0.013911)	(0.027066)					
	07/19/06	U-238	R	-0.019991	U4	-9.99683E-04	-0.002777	-0.002777	1.00 SA	98%		0.47883		
				(0.020055)		(9.9968E-04)	(0.002782)	(0.002782)	(0.027066)			0.104005		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
3	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H796L1AG	PCI/SA		06/07/06 10:25	07/18/06 18:21			1	1.00 SA	
536403,000488					J6F270218-2 v4.8.18		FILTER					UITC15933 Alq		0.062297 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:41	U-232	766	9	ALP11	ED	Y	N	4.0933E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.05	1000.2833			Y		(1.228E-02)						(0.000E+00)	16.052218		
1	07/18/06 16:41	U-234	3	0	ALP11	ED	N	N	4.0933E-01		N	93%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.05	1000.2833			Y		(1.228E-02)			4%			(0.000E+00)	16.052216		
2	07/18/06 16:41	U-235	3	1	ALP11	ED	N	N	4.0933E-01		N	93%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.05	1000.2833			Y		(1.228E-02)			4%			(0.000E+00)	16.052218		
3	07/18/06 16:41	U-238	0	2	ALP11	ED	N	N	4.0933E-01		N	93%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.05	1000.2833			Y		(1.228E-02)			4%			(0.000E+00)	16.052218		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk LcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	67.479772		3.82005E+00	9.332371	9.332371	1.00 SA	93%				
				(4.979265)		(1.3838E-01)	(0.438945)	(0.438945)	(0.027066)					
	07/19/06	U-234	R	0.285978		1.49963E-02	0.03955	0.03955	1.00 SA	93%		0.258331		
				(0.166672)		(8.6581E-03)	(0.022941)	(0.022941)	(0.027066)					
	07/19/06	U-235	R	0.266911	U4	1.39965E-02	0.036913	0.036913	1.00 SA	93%		0.456561		
				(0.167559)		(8.7156E-03)	(0.023078)	(0.023078)	(0.027066)			0.099174		
	07/19/06	U-238	R	-0.038129	U4	-1.99943E-03	-0.005273	-0.005273	1.00 SA	93%		0.53867		
				(0.027132)		(1.4138E-03)	(0.00374)	(0.00374)	(0.027066)			0.140253		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
4	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H796N1AG	PCI/SA		06/07/06 10:35	07/18/06 18:22			1	1.00 SA	
536403,000489					J6F270218-3 v4.8.18		FILTER					UITC15934 Alq		0.062485 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:42	U-232	706	12	ALP12	ED	Y	N	3.6724E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0166666	1000.2333			Y		(1.102E-02)						(0.000E+00)	16.00374		

0 - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:4 RADCALC v4.8.18 STL Richland

STLRICHLAND

Batch Nbr: 6179343 — Alpha Spec, Ulso by ALP , Calculated Results — 7/19/2006 7:27:04 AM

1	07/18/06 16:42	U-234	2	0	ALP12	ED	N	N	3.6724E-01	N	95%	N	1.0000E+00	4.5045E-01	1.0000E+00
			200.0166666	1000.2333			Y		(1.102E-02)		5%		(0.000E+00)	16.00374	
2	07/18/06 16:42	U-235	0	0	ALP12	ED	N	N	3.6724E-01	N	95%	N	1.0000E+00	4.5045E-01	1.0000E+00
			200.0166666	1000.2333			Y		(1.102E-02)		5%		(0.000E+00)	16.00374	
3	07/18/06 16:42	U-238	1	1	ALP12	ED	N	N	3.6724E-01	N	95%	N	1.0000E+00	4.5045E-01	1.0000E+00
			200.0166666	1000.2333			Y		(1.102E-02)		5%		(0.000E+00)	16.00374	

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	89.051882		3.51771E+00	9.578721	9.578721	1.00 SA	95%				
				(5.148715)		(1.3289E-01)	(0.462076)	(0.462076)	(0.027066)					
	07/19/06	U-234	R	0.206325	U4	9.99617E-03	0.028621	0.028621	1.00 SA	95%		0.27957		
				(0.146833)		(7.0705E-03)	(0.020303)	(0.020303)	(0.027066)					
	07/19/06	U-235	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 SA	95%		0.27957		
				(0.126348)		(0.0000E+00)	(0.017527)	(0.017527)	(0.027066)					
	07/19/06	U-238	R	0.082533	U4	3.99982E-03	0.011449	0.011449	1.00 SA	95%		0.494085		
				(0.105414)		(5.0986E-03)	(0.014608)	(0.014608)	(0.027066)			0.107321		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BS	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/Enr/Yld	Total/Analy Vol	Final/Count Vol
5	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H796P1A0	PCI/SA		06/07/06 10:50	07/18/06 18:22			1	1.00 SA	
536403,000480					J6F270218-4 v4.8.18		FILTER					UITC15935 Alq		0.062337 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:42	U-232	798	24	ALP69	ED	Y	N	3.7411E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2333333	2500.0166			Y		(1.122E-02)						(0.000E+00)	16.041821		
1	07/18/06 16:42	U-234	0	4	ALP69	ED	N	N	3.7411E-01		N	106%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2333333	2500.0166			Y		(1.122E-02)			5%			(0.000E+00)	16.041821		
2	07/18/06 16:42	U-235	1	2	ALP69	ED	N	N	3.7411E-01		N	106%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2333333	2500.0166			Y		(1.122E-02)			5%			(0.000E+00)	16.041821		
3	07/18/06 16:42	U-238	0	6	ALP69	ED	N	N	3.7411E-01		N	106%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2333333	2500.0166			Y		(1.122E-02)			5%			(0.000E+00)	16.041821		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	76.792415		3.97575E+00	10.627181	10.627181	1.00 SA	106%				
				(5.638883)		(1.4109E-01)	(0.493842)	(0.493842)	(0.027066)					
	07/19/06	U-234	R	-0.030904	U4	-1.59999E-03	-0.004277	-0.004277	1.00 SA	106%		0.515304		
				(0.015845)		(7.9999E-04)	(0.002151)	(0.002151)	(0.027066)			0.12702		
	07/19/06	U-235	R	0.081011	U4	4.19418E-03	0.011211	0.011211	1.00 SA	106%		0.440942		
				(0.097293)		(5.0261E-03)	(0.013449)	(0.013449)	(0.027066)			0.089816		
	07/19/06	U-238	R	-0.046356	U4	-2.39998E-03	-0.006415	-0.006415	1.00 SA	106%		0.572364		
				(0.019279)		(9.7979E-04)	(0.002643)	(0.002643)	(0.027066)			0.155567		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:6 RADCALC v4.8.18 STL Richland

STLRICHLAND

Batch Nbr: 6179343 — Alpha Spec, Uiso by ALP , Calculated Results — 7/19/2006 7:27:04 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
6	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H796Q1AG	PCI/SA		06/07/06 11:00	07/18/06 18:22			1	1.00 SA	
536403,000491					,J6F270218-6 v4.8.18		FILTER					UITC15936 Alq		0.060404 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:42	U-232	727	29	ALP71	ED	Y	N	3.6536E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2166666	2500.0333			Y		(1.096E-02)						(0.000E+00)	16.555303		
1	07/18/06 16:42	U-234	7	3	ALP71	ED	N	N	3.6536E-01		N	98%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2166666	2500.0333			Y		(1.096E-02)			5%			(0.000E+00)	16.555303		
2	07/18/06 16:42	U-235	1	3	ALP71	ED	N	N	3.6536E-01		N	98%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2166666	2500.0333			Y		(1.096E-02)			5%			(0.000E+00)	16.555303		
3	07/18/06 16:42	U-238	5	4	ALP71	ED	N	N	3.6536E-01		N	98%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2166666	2500.0333			Y		(1.096E-02)			5%			(0.000E+00)	16.555303		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	73.875952		3.61947E-00	9.90648	9.90648	1.00 SA	98%				
				(5.487378)		(1.3469E-01)	(0.473515)	(0.473515)	(0.027066)					
	07/19/06	U-234	R	0.702176		3.37621E-02	0.094159	0.094159	1.00 SA	98%		0.518264		
				(0.280898)		(1.3233E-02)	(0.037285)	(0.037285)	(0.027066)			0.11845		
	07/19/06	U-235	R	0.078919	U4	3.79461E-03	0.010563	0.010563	1.00 SA	98%		0.518263		
				(0.105061)		(5.0424E-03)	(0.014075)	(0.014075)	(0.027066)			0.11845		
	07/19/06	U-238	R	0.486105		2.33730E-02	0.065185	0.065185	1.00 SA	98%		0.55489		
				(0.236103)		(1.1197E-02)	(0.031443)	(0.031443)	(0.027066)			0.136774		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
7	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H796R1AG	PCI/SA		06/07/06 11:20	07/18/06 18:23			1	1.00 SA	
536403,000492					,J6F270218-6 v4.8.18		FILTER					UITC15937 Alq		0.062437 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:43	U-232	711	16	ALP83	ED	Y	N	3.4771E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2166666	2500.0333			Y		(1.043E-02)						(0.000E+00)	16.016178		
1	07/18/06 16:43	U-234	0	4	ALP83	ED	N	N	3.4771E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2166666	2500.0333			Y		(1.043E-02)			5%			(0.000E+00)	16.016178		
2	07/18/06 16:43	U-235	0	1	ALP83	ED	N	N	3.4771E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2166666	2500.0333			Y		(1.043E-02)			5%			(0.000E+00)	16.016178		
3	07/18/06 16:43	U-238	0	4	ALP83	ED	N	N	3.4771E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2166666	2500.0333			Y		(1.043E-02)			5%			(0.000E+00)	16.016178		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:7 RADCALC v4.8.18 STL Richland

Batch Nbr: 6179343

Alpha Spec, UIso by ALP , Calculated Results

7/19/2006 7:27:05 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	73.549605		3.54475E+00	10.19471	10.19471	1.00 SA	101%				
				(5.476515)		(1.3319E-01)	(0.490169)	(0.490169)	(0.027066)					
	07/19/06	U-234	R	-0.033198	U4	-1.59998E-03	-0.004602	-0.004602	1.00 SA	101%		0.553586		
				(0.016811)		(7.9999E-04)	(0.002316)	(0.002316)	(0.027066)			0.136453		
	07/19/06	U-235	R	-0.008299	U4	-3.99995E-04	-0.00115	-0.00115	1.00 SA	101%		0.417215		
				(0.008326)		(3.9999E-04)	(0.001152)	(0.001152)	(0.027066)			0.068226		
	07/19/06	U-238	R	-0.033198	U4	-1.59998E-03	-0.004602	-0.004602	1.00 SA	101%		0.553586		
				(0.016811)		(7.9999E-04)	(0.002316)	(0.002316)	(0.027066)			0.136453		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BS	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
8	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H796T1AG	PCI/SA		06/07/06 10:10	07/18/06 16:23			1	1.00 SA	
536403,000493					J6F270218-7 v4.8.18		FILTER					UITC15938 Alq		0.062564 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:43	U-232	826	26	ALP84	ED	Y	N	3.4843E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2	2500.15			Y		(1.045E-02)						(0.000E+00)	15.983609		
1	07/18/06 16:43	U-234	0	3	ALP84	ED	N	N	3.4843E-01		N	89%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2	2500.15			Y		(1.045E-02)			4%			(0.000E+00)	15.983609		
2	07/18/06 16:43	U-235	0	2	ALP84	ED	N	N	3.4843E-01		N	89%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2	2500.15			Y		(1.045E-02)			4%			(0.000E+00)	15.983609		
3	07/18/06 16:43	U-238	1	0	ALP84	ED	N	N	3.4843E-01		N	89%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2	2500.15			Y		(1.045E-02)			4%			(0.000E+00)	15.983609		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	64.397175		3.11647E+00	8.94428	8.94428	1.00 SA	89%				
				(4.879382)		(1.2499E-01)	(0.447978)	(0.447978)	(0.027066)					
	07/19/06	U-234	R	-0.02801	U4	-1.19993E-03	-0.00389	-0.00389	1.00 SA	89%		0.58172		
				(0.016332)		(6.9278E-04)	(0.002258)	(0.002258)	(0.027066)			0.132948		
	07/19/06	U-235	R	-0.018673	U4	-7.99952E-04	-0.002594	-0.002594	1.00 SA	89%		0.532958		
				(0.013291)		(5.6565E-04)	(0.00184)	(0.00184)	(0.027066)			0.108552		
	07/19/06	U-238	R	0.116598	U4	4.99500E-03	0.016195	0.016195	1.00 SA	89%		0.315981		
				(0.116985)		(4.9950E-03)	(0.016222)	(0.016222)	(0.027066)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BS	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
9	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H796W1AG	PCI/SA		06/07/06 09:55	07/18/06 16:24			1	1.00 SA	
536403,P-0660					J6F270218-8 v4.8.18		FILTER					UITC15939 Alq		0.062408 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:44	U-232	741	3	ALP1	ED	Y	N	3.8576E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.2166668	1000.1166			Y		(1.097E-02)						(0.000E+00)	16.023537		

0 - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:9

RADCALC v4.8.18

STL Richland

STLRICHLAND

Batch Nbr: 6179343 — Alpha Spec, Uiso by ALP , Calculated Results — 7/19/2006 7:27:05 AM

1	07/18/06 16:44	U-234	2	2	ALP1	ED	N	N	3.6576E-01	N	101%	N	1.0000E+00	4.5045E-01	1.0000E+00
			200.2166666	1000.1166			Y		(1.097E-02)		5%		(0.000E+00)	16.023537	
2	07/18/06 16:44	U-235	0	2	ALP1	ED	N	N	3.6576E-01	N	101%	N	1.0000E+00	4.5045E-01	1.0000E+00
			200.2166666	1000.1166			Y		(1.097E-02)		5%		(0.000E+00)	16.023537	
3	07/18/06 16:44	U-238	0	3	ALP1	ED	N	N	3.6576E-01	N	101%	N	1.0000E+00	4.5045E-01	1.0000E+00
			200.2166666	1000.1166			Y		(1.097E-02)		5%		(0.000E+00)	16.023537	

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	72.974199		3.69799E+00	10.110307	10.110307	1.00 SA	101%				
				(5.404278)		(1.3597E-01)	(0.47978)	(0.47978)	(0.027066)					
	07/19/06	U-234	R	0.157659	U4	7.98941E-03	0.021843	0.021843	1.00 SA	101%		0.557098		
				(0.142709)		(7.2036E-03)	(0.019733)	(0.019733)	(0.027066)			0.145086		
	07/19/06	U-235	R	-0.039462	U4	-1.99977E-03	-0.005467	-0.005467	1.00 SA	101%		0.557098		
				(0.028082)		(1.4140E-03)	(0.003878)	(0.003878)	(0.027066)			0.145085		
	07/19/06	U-238	R	-0.059194	U4	-2.99965E-03	-0.008201	-0.008201	1.00 SA	101%		0.822274		
				(0.034501)		(1.7318E-03)	(0.004757)	(0.004757)	(0.027066)			0.177693		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
10	Calc	SR	FILTER	*STLE	AlphaWoBS	H797D1AG1	PCI/SA		06/07/06 10:20	07/18/06 18:24			1	1.00 SA	
636403,P-0661					J6F270218-9 v4.8.18		FILTER					UITC15940 Alq		0.062482 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:44	U-232	755	15	ALP2	ED	Y	N	3.6206E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.1333			Y		(1.086E-02)						(0.000E+00)	16.004485		
1	07/18/06 16:44	U-234	0	0	ALP2	ED	N	N	3.6206E-01		N	103%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.1333			Y		(1.086E-02)			5%			(0.000E+00)	16.004485		
2	07/18/06 16:44	U-235	0	3	ALP2	ED	N	N	3.6206E-01		N	103%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.1333			Y		(1.086E-02)			5%			(0.000E+00)	16.004485		
3	07/18/06 16:44	U-238	1	3	ALP2	ED	N	N	3.6206E-01		N	103%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.1333			Y		(1.086E-02)			5%			(0.000E+00)	16.004485		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	74.831092		3.75612E+00	10.379915	10.379915	1.00 SA	103%				
				(5.533817)		(1.3737E-01)	(0.490846)	(0.490846)	(0.027066)					
	07/19/06	U-234	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 SA	103%		0.269671		
				(0.121874)		(0.0000E+00)	(0.016905)	(0.016905)	(0.027066)					
	07/19/06	U-235	R	-0.059728	U4	-2.99960E-03	-0.008285	-0.008285	1.00 SA	103%		0.628158		
				(0.034812)		(1.7318E-03)	(0.004806)	(0.004806)	(0.027066)			0.17935		
	07/19/06	U-238	R	0.038782	U4	1.99790E-03	0.005518	0.005518	1.00 SA	103%		0.628158		
				(0.105363)		(5.2891E-03)	(0.014612)	(0.014612)	(0.027066)			0.17935		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:11 RADCALC v4.8.18 STL Richland

STLRICHLAND

Batch Nbr: 6179343 — Alpha Spec, Uiso by ALP , Calculated Results — 7/19/2006 7:27:05 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
11	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H797E1AG	PCI/SA		06/07/06 10:30	07/18/06 18:24			1	1.00 SA	
536403,P-0662					J6F270218-10 v4.8.18		FILTER					UITC15941 Alq		0.062151 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:44	U-232	690	8	ALP3	ED	Y	N	3.7851E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.0333			Y		(1.130E-02)						(0.000E+00)	16.089885		
1	07/18/06 16:44	U-234	0	7	ALP3	ED	N	N	3.7651E-01		N	91%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.0333			Y		(1.130E-02)			4%			(0.000E+00)	16.089885		
2	07/18/06 16:44	U-235	0	3	ALP3	ED	N	N	3.7851E-01		N	91%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.0333			Y		(1.130E-02)			4%			(0.000E+00)	16.089885		
3	07/18/06 16:44	U-238	1	6	ALP3	ED	N	N	3.7851E-01		N	91%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.0333			Y		(1.130E-02)			4%			(0.000E+00)	16.089885		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.LcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	66.224836		3.44028E+00	9.137373	9.137373	1.00 SA	91%				
				(4.951058)		(1.3130E-01)	(0.443582)	(0.443582)	(0.027066)					
	07/19/06	U-234	R	-0.148741	U4	-6.99977E-03	-0.020522	-0.020522	1.00 SA	91%		0.872194		
				(0.057481)		(2.6457E-03)	(0.007845)	(0.007845)	(0.027066)			0.292378		
	07/19/06	U-235	R	-0.063746	U4	-2.99990E-03	-0.008795	-0.008795	1.00 SA	91%		0.67037		
				(0.03716)		(1.7320E-03)	(0.005103)	(0.005103)	(0.027066)			0.191406		
	07/19/06	U-238	R	-0.021298	U4	-1.00230E-03	-0.002939	-0.002939	1.00 SA	91%		0.828842		
				(0.118275)		(5.5655E-03)	(0.016318)	(0.016318)	(0.027066)			0.27069		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
12	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H797F1AG	PCI/SA		06/07/06 10:45	07/18/06 18:24			1	1.00 SA	
536403,P-0663					J6F270218-11 v4.8.18		FILTER					UITC15942 Alq		0.060918 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:44	U-232	7756	5	ALP4	ED	Y	N	3.7951E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0166666	1000.3			Y		(1.139E-02)						(0.000E+00)	16.415408		
1	07/18/06 16:44	U-234	2	6	ALP4	ED	N	N	3.7951E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0166666	1000.3			Y		(1.139E-02)			5%			(0.000E+00)	16.415408		
2	07/18/06 16:44	U-235	0	1	ALP4	ED	N	N	3.7951E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0166666	1000.3			Y		(1.139E-02)			5%			(0.000E+00)	16.415408		
3	07/18/06 16:44	U-238	2	5	ALP4	ED	N	N	3.7951E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0166666	1000.3			Y		(1.139E-02)			5%			(0.000E+00)	16.415408		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:12 — RADCALC v4.8.18 — STL Richland

STLRICHLAND

Batch Nbr: 6179343 — Alpha Spec, Uiso by ALP , Calculated Results — 7/19/2006 7:27:05 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	75.396951		3.86968E+00	10.196603	10.196603	1.00 SA	101%				
				(5.554126)		(1.3920E-01)	(0.47761)	(0.47761)	(0.027066)					
	07/19/06	U-234	R	0.077955	U4	4.00097E-03	0.010543	0.010543	1.00 SA	101%		0.760133		
				(0.145921)		(7.4825E-03)	(0.019725)	(0.019725)	(0.027066)			0.24822		
	07/19/06	U-235	R	-0.019478	U4	-9.99700E-04	-0.002634	-0.002634	1.00 SA	101%		0.466537		
				(0.01954)		(9.9970E-04)	(0.002638)	(0.002638)	(0.027066)			0.101335		
	07/19/06	U-238	R	0.077955	U4	4.00097E-03	0.010543	0.010543	1.00 SA	101%		0.760132		
				(0.145921)		(7.4825E-03)	(0.019725)	(0.019725)	(0.027066)			0.24822		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
13	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H797H1AG	PCI/SA		06/07/06 11:05	07/18/06 18:25			1	1.00 SA	
536403,P-0664					J6F270218-12 v4.8.18		FILTER					UITC15943 Alq		0.062324 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:45	U-232	799	2	ALP5	ED	Y	N	3.9200E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.05	1000.2			Y		(1.176E-02)						(0.000E+00)	16.045193		
1	07/18/06 16:45	U-234	2	7	ALP5	ED	N	N	3.9200E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.05	1000.2			Y		(1.176E-02)			5%			(0.000E+00)	16.045193		
2	07/18/06 16:45	U-235	0	1	ALP5	ED	N	N	3.9200E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.05	1000.2			Y		(1.176E-02)			5%			(0.000E+00)	16.045193		
3	07/18/06 16:45	U-238	2	6	ALP5	ED	N	N	3.9200E-01		N	101%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.05	1000.2			Y		(1.176E-02)			5%			(0.000E+00)	16.045193		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	73.602529		3.99200E+00	10.183597	10.183597	1.00 SA	101%				
				(5.401395)		(1.4130E-01)	(0.472517)	(0.472517)	(0.027066)					
	07/19/06	U-234	R	0.055292	U4	2.99890E-03	0.00765	0.00765	1.00 SA	101%		0.756863		
				(0.139235)		(7.5480E-03)	(0.01926)	(0.01926)	(0.027066)			0.253699		
	07/19/06	U-235	R	-0.018434	U4	-9.99800E-04	-0.00255	-0.00255	1.00 SA	101%		0.44143		
				(0.018492)		(9.9980E-04)	(0.002554)	(0.002554)	(0.027066)			0.095889		
	07/19/06	U-238	R	0.073728	U4	3.99870E-03	0.010201	0.010201	1.00 SA	101%		0.719247		
				(0.138064)		(7.4815E-03)	(0.019094)	(0.019094)	(0.027066)			0.23488		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
14	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H797J1AG	PCI/SA		06/07/06 11:10	07/18/06 18:25			1	1.00 SA	
536403,P-0665					J6F270218-13 v4.8.18		FILTER					UITC15944 Alq		0.060152 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:45	U-232	829	5	ALP8	ED	Y	N	3.7594E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.0833333	1000.1666			Y		(1.128E-02)						(0.000E+00)	16.624609		

STLRICHLAND

Batch Nbr: 6179343 — Alpha Spec, Uiso by ALP , Calculated Results — 7/19/2006 7:27:05 AM

1	07/18/06 16:45	U-234	0	0	ALP6	ED	N	N	3.7594E-01	N	109%	N	1.0000E+00	4.5045E-01	1.0000E+00
			200.0833333	1000.1666			Y		(1.128E-02)		5%		(0.000E+00)	16.624609	
2	07/18/06 16:45	U-235	0	1	ALP6	ED	N	N	3.7594E-01	N	109%	N	1.0000E+00	4.5045E-01	1.0000E+00
			200.0833333	1000.1666			Y		(1.128E-02)		5%		(0.000E+00)	16.624609	
3	07/18/06 16:45	U-238	2	2	ALP6	ED	N	N	3.7594E-01	N	109%	N	1.0000E+00	4.5045E-01	1.0000E+00
			200.0833333	1000.1666			Y		(1.128E-02)		5%		(0.000E+00)	16.624609	

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	82.432595		4.13827E+00	11.00781	11.00781	1.00 SA	109%				
				(6.024937)		(1.4392E-01)	(0.505579)	(0.505579)	(0.027066)					
	07/19/06	U-234	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 SA	109%		0.269798		
				(0.121931)		(0.0000E+00)	(0.016282)	(0.016282)	(0.027066)					
	07/19/06	U-235	R	-0.019918	U4	-9.99833E-04	-0.00266	-0.00266	1.00 SA	109%		0.476855		
				(0.019978)		(9.9983E-04)	(0.002664)	(0.002664)	(0.027066)			0.10359		
	07/19/06	U-238	R	0.15928	U4	7.99617E-03	0.02127	0.02127	1.00 SA	109%		0.562621		
				(0.144134)		(7.2082E-03)	(0.019209)	(0.019209)	(0.027066)			0.146499		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
15	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H797K1AG	PCI/SA		06/07/06 10:05	07/18/06 16:25			1	1.00 SA	
536403,P-0666					,J6F270218-14 v4.8.18		FILTER					UITC19945 Alq		0.061866 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:45	U-232	670	3	ALP7	ED	Y	N	3.6324E-01	N		100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1166666	1000.1166			Y		(1.090E-02)						(0.000E+00)	16.163848		
1	07/18/06 16:45	U-234	0	1	ALP7	ED	N	N	3.6324E-01	N		91%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1166666	1000.1166			Y		(1.090E-02)			4%			(0.000E+00)	16.163848		
2	07/18/06 16:45	U-235	1	0	ALP7	ED	N	N	3.6324E-01	N		91%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1166666	1000.1166			Y		(1.090E-02)			4%			(0.000E+00)	16.163848		
3	07/18/06 16:45	U-238	0	1	ALP7	ED	N	N	3.6324E-01	N		91%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1166666	1000.1166			Y		(1.090E-02)			4%			(0.000E+00)	16.163848		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	87.050181		3.34505E+00	9.208915	9.208915	1.00 SA	91%				
				(5.030122)		(1.2936E-01)	(0.450718)	(0.450718)	(0.027066)					
	07/19/06	U-234	R	-0.021922	U4	-9.99883E-04	-0.003011	-0.003011	1.00 SA	91%		0.524798		
				(0.021994)		(9.9988E-04)	(0.003016)	(0.003016)	(0.027066)			0.114012		
	07/19/06	U-235	R	0.109561	U4	4.99709E-03	0.015047	0.015047	1.00 SA	91%		0.296909		
				(0.109918)		(4.9971E-03)	(0.015072)	(0.015072)	(0.027066)					
	07/19/06	U-238	R	-0.021922	U4	-9.99883E-04	-0.003011	-0.003011	1.00 SA	91%		0.524798		
				(0.021994)		(9.9988E-04)	(0.003016)	(0.003016)	(0.027066)			0.114012		

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU — Page 9 — RecCnt:16 — RADCALC v4.8.18
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration — STL Richland
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

STLRICHLAND

Batch Nbr: 6179343 — Alpha Spec, Ulso by ALP , Calculated Results — 7/19/2006 7:27:05 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
16	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H797M1AG	PCI/SA		06/07/06 11:15	07/18/06 18:25			1	1.00 SA	
536403,P-0667					J6F270218-15 v4.6.18		FILTER					UITC15946 Alq		0.062667 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:45	U-232	644	5	ALP8	ED	Y	N	3.9047E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.2166			Y		(1.171E-02)						(0.000E+00)	15.957432		
1	07/18/06 16:45	U-234	0	0	ALP8	ED	N	N	3.9047E-01		N	82%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.2166			Y		(1.171E-02)			4%			(0.000E+00)	15.957432		
2	07/18/06 16:45	U-235	0	1	ALP8	ED	N	N	3.9047E-01		N	82%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.2166			Y		(1.171E-02)			4%			(0.000E+00)	15.957432		
3	07/18/06 16:45	U-238	0	1	ALP8	ED	N	N	3.9047E-01		N	82%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1	1000.2166			Y		(1.171E-02)			4%			(0.000E+00)	15.957432		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	59.153828		3.21339E+00	8.229497	8.229497	1.00 SA	82%				
				(4.46236)		(1.2684E-01)	(0.408013)	(0.408013)	(0.027066)					
	07/19/06	U-234	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 SA	82%		0.305449		
				(0.138043)		(0.0000E+00)	(0.018205)	(0.018205)	(0.027066)					
	07/19/06	U-235	R	-0.022549	U4	-9.99783E-04	-0.003137	-0.003137	1.00 SA	82%		0.539871		
				(0.022623)		(9.9978E-04)	(0.003142)	(0.003142)	(0.027066)			0.117281		
	07/19/06	U-238	R	-0.022549	U4	-9.99783E-04	-0.003137	-0.003137	1.00 SA	82%		0.539871		
				(0.022623)		(9.9978E-04)	(0.003142)	(0.003142)	(0.027066)			0.117281		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
17	Calc	SR	FILTER	*STLE	AlpIsoWoBS	H8DM71AA	PCI/SA	B	06/07/06 10:00	07/18/06 18:26			1	1.00 SA	
0,INTRA-LAB BLANK					J6F280000-343		FILTER					UITC15947 Alq		1.00 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:45	U-232	504	51	ALP85	ED	Y	N	2.5840E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1833333	2500.1166			Y		(7.752E-03)						(0.000E+00)	1.00		
1	07/18/06 16:45	U-234	4	5	ALP85	ED	N	N	2.5840E-01		N	96%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1833333	2500.1166			Y		(7.752E-03)			5%			(0.000E+00)	1.00		
2	07/18/06 16:45	U-235	2	1	ALP85	ED	N	N	2.5840E-01		N	96%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1833333	2500.1166			Y		(7.752E-03)			5%			(0.000E+00)	1.00		
3	07/18/06 16:45	U-238	5	0	ALP85	ED	N	N	2.5840E-01		N	96%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1833333	2500.1166			Y		(7.752E-03)			5%			(0.000E+00)	1.00		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:17 RADCALC v4.6.18 STL Richland

STLRICHLAND

Batch Nbr: 6179343

Alpha Spec, Uiso by ALP , Calculated Results

7/19/2006 7:27:05 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	4.353385		2.49729E+00	9.664524	9.664524	1.00 SA	96%				
				(0.329191)		(1.1216E-01)	(0.522062)	(0.522062)	(0.017321)					
	07/19/06	U-234	R	0.032658		1.79818E-02	0.072501	0.072501	1.00 SA	96%		0.05128		
				(0.01841)		(1.0031E-02)	(0.040691)	(0.040691)	(0.017321)			0.013355		
	07/19/06	U-235	R	0.017419	U4	9.59086E-03	0.038669	0.038669	1.00 SA	96%		0.036524		
				(0.012929)		(7.0759E-03)	(0.028629)	(0.028629)	(0.017321)			0.005972		
	07/19/06	U-238	R	0.045363		2.49771E-02	0.100705	0.100705	1.00 SA	96%		0.024587		
				(0.02062)		(1.1170E-02)	(0.045465)	(0.045465)	(0.017321)					

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/Ppt Wt	Sep1/Sep2 Date	QC/Tracer Vial	Multi/EntYld	Total/Analy Vol	Final/Count Vol
18	Calc	SR	FILTER	*STLE	AlpIsoWcBS	H8DM71AC	PCI/SA	S	06/07/06 10:00	07/18/06 18:26		UISF0460	1	1.00 SA	
0,INTRA-LAB CHECK					J6F280000-343		FILTER					UISF0460 Aq		1.00 sa	

Sq	Cnt Date	Parameter	Sample Cpt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 16:46	U-232	526	8	ALP87	ED	Y	N	3.4106E-01		N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1333333	1000.0166			Y		(1.023E-02)						(0.000E+00)	1.00		
1	07/18/06 16:46	U-234	118	2	ALP87	ED	N	N	3.4106E-01		N	77%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1333333	1000.0166			Y		(1.023E-02)			4%			(0.000E+00)	1.00		
2	07/18/06 16:46	U-235	6	0	ALP87	ED	N	N	3.4106E-01		N	77%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1333333	1000.0166			Y		(1.023E-02)			4%			(0.000E+00)	1.00		
3	07/18/06 16:46	U-238	118	0	ALP87	ED	N	N	3.4106E-01		N	77%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			200.1333333	1000.0166			Y		(1.023E-02)			4%			(0.000E+00)	1.00		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	U-232	R	3.460612		2.62025E+00	7.682567	7.682567	1.00 sa	77%				
				(0.25929)		(1.1463E-01)	(0.407533)	(0.407533)	(0.017321)					
	07/19/06	U-234	R	1.013751		5.67807E-01	2.250529	2.250529	1.00 sa	77%	105%	0.048721		
				(0.124374)		(5.4296E-02)	(0.24911)	(0.24911)	(0.017321)			0.012588		
	07/19/06	U-235	R	0.051722		2.99800E-02	0.114823	0.114823	1.00 sa	77%	117%	0.023361		
				(0.021524)		(1.2239E-02)	(0.047396)	(0.047396)	(0.017321)					
	07/19/06	U-238	R	1.017201		5.89807E-01	2.258189	2.258189	1.00 sa	77%	100%	0.023361		
				(0.124534)		(5.4278E-02)	(0.249308)	(0.249308)	(0.017321)					

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:18

RADCALC v4.8.16

STL Richland

			Uranium								
			ESI-Calculated Results								
Sample		sample counts	sample time	bkg count	bkg time	net cpm	total vol.(l)	nalytical v	yield	eff	**Activity**
											pCi/sample
H7DWT	U-232	691	200.183333	4	1000.033	3.4478	1	0.06232	1	0.3667	**67.961**
	U-234	1	200.183333	1	1000.033	0.0040	1	0.06232	0.94	0.3667	**0.084**
	U-235	0	200.183333	0	1000.033	0.0000	1	0.06232	0.94	0.3667	**0.000**
	U-238	0	200.183333	2	1000.033	-0.0020	1	0.06232	0.94	0.3667	**-0.042**
H796F	U-232	724	200.01666	3	1000.317	3.6167	1	0.06258	1	0.3691	**70.528**
	U-234	3	200.01666	1	1000.317	0.0140	1	0.06258	0.98	0.3691	**0.279**
	U-235	1	200.01666	0	1000.317	0.0050	1	0.06258	0.98	0.3691	**0.099**
	U-238	0	200.01666	1	1000.317	-0.0010	1	0.06258	0.98	0.3691	**-0.020**
H796L	U-232	766	200.05	9	1000.283	3.8200	1	0.0623	1	0.4093	**67.480**
	U-234	3	200.05	0	1000.283	0.0150	1	0.0623	0.93	0.4093	**0.285**
	U-235	3	200.05	1	1000.283	0.0140	1	0.0623	0.93	0.4093	**0.266**
	U-238	0	200.05	2	1000.283	-0.0020	1	0.0623	0.93	0.4093	**-0.038**
H796N	U-232	706	200.01666	12	1000.233	3.5177	1	0.06249	1	0.3672	**69.053**
	U-234	2	200.01666	0	1000.233	0.0100	1	0.06249	0.95	0.3672	**0.207**
	U-235	0	200.01666	0	1000.233	0.0000	1	0.06249	0.95	0.3672	**0.000**
	U-238	1	200.01666	1	1000.233	0.0040	1	0.06249	0.95	0.3672	**0.083**
H796P	U-232	798	200.233	24	2500.017	3.9758	1	0.06234	1	0.3741	**76.793**
	U-234	0	200.233	4	2500.017	-0.0016	1	0.06234	1	0.3741	**-0.031**
	U-235	1	200.233	2	2500.017	0.0042	1	0.06234	1	0.3741	**0.081**
	U-238	0	200.233	6	2500.017	-0.0024	1	0.06234	1	0.3741	**-0.046**
H796Q	U-232	727	200.21666	29	2500.033	3.6195	1	0.0604	1	0.3654	**73.876**
	U-234	7	200.21666	3	2500.033	0.0338	1	0.0604	0.98	0.3654	**0.703**
	U-235	1	200.21666	3	2500.033	0.0038	1	0.0604	0.98	0.3654	**0.079**
	U-238	5	200.21666	4	2500.033	0.0234	1	0.0604	0.98	0.3654	**0.487**
H796R	U-232	711	200.21666	16	2500.033	3.5448	1	0.06244	1	0.3477	**73.548**
	U-234	0	200.21666	4	2500.033	-0.0016	1	0.06244	1	0.3477	**-0.033**
	U-235	0	200.21666	1	2500.033	-0.0004	1	0.06244	1	0.3477	**-0.008**
	U-238	0	200.21666	4	2500.033	-0.0016	1	0.06244	1	0.3477	**-0.033**

Sample		sample counts	sample time	bkg count	bkg time	net cpm	total vol.(l)	nalytical v	yield	eff	**Activity**
											pCi/sample
H796T	U-232	626	200.2	26	2500.15	3.1165	1	0.06256	1	0.3484	**64.398**
	U-234	0	200.2	3	2500.15	-0.0012	1	0.06256	0.89	0.3484	**-0.028**
	U-235	0	200.2	2	2500.15	-0.0008	1	0.06256	0.89	0.3484	**-0.019**
	U-238	1	200.2	0	2500.15	0.0050	1	0.06256	0.89	0.3484	**0.116**
H796W	U-232	741	200.21666	3	1000.117	3.6980	1	0.06241	1	0.3658	**72.975**
	U-234	2	200.21666	2	1000.117	0.0080	1	0.06241	1	0.3658	**0.158**
	U-235	0	200.21666	2	1000.117	-0.0020	1	0.06241	1	0.3658	**-0.039**
	U-238	0	200.21666	3	1000.117	-0.0030	1	0.06241	1	0.3658	**-0.059**
H797D	U-232	755	200.1	15	1000.133	3.7581	1	0.06248	1	0.3621	**74.831**
	U-234	0	200.1	0	1000.133	0.0000	1	0.06248	1	0.3621	**0.000**
	U-235	0	200.1	3	1000.133	-0.0030	1	0.06248	1	0.3621	**-0.060**
	U-238	1	200.1	3	1000.133	0.0020	1	0.06248	1	0.3621	**0.040**
H797E	U-232	690	200.1	8	1000.033	3.4403	1	0.06215	1	0.3765	**66.224**
	U-234	0	200.1	7	1000.033	-0.0070	1	0.06215	0.91	0.3765	**-0.148**
	U-235	0	200.1	3	1000.033	-0.0030	1	0.06215	0.91	0.3765	**-0.063**
	U-238	1	200.1	6	1000.033	-0.0010	1	0.06215	0.91	0.3765	**-0.021**
H797F	U-232	775	200.01666	5	1000.3	3.8697	1	0.06092	1	0.3795	**75.397**
	U-234	2	200.01666	6	1000.3	0.0040	1	0.06092	1	0.3795	**0.078**
	U-235	0	200.01666	1	1000.3	-0.0010	1	0.06092	1	0.3795	**-0.019**
	U-238	2	200.01666	6	1000.3	0.0040	1	0.06092	1	0.3795	**0.078**
H797H	U-232	799	200.05	2	1000.2	3.9920	1	0.06232	1	0.392	**73.603**
	U-234	2	200.05	7	1000.2	0.0030	1	0.06232	1	0.392	**0.055**
	U-235	0	200.05	1	1000.2	-0.0010	1	0.06232	1	0.392	**-0.018**
	U-238	2	200.05	6	1000.2	0.0040	1	0.06232	1	0.392	**0.074**
H797J	U-232	829	200.08333	5	1000.167	4.1383	1	0.06015	1	0.376	**82.432**
	U-234	0	200.08333	0	1000.167	0.0000	1	0.06015	1	0.376	**0.000**
	U-235	0	200.08333	1	1000.167	-0.0010	1	0.06015	1	0.376	**-0.020**
	U-238	2	200.08333	2	1000.167	0.0080	1	0.06015	1	0.376	**0.159**

Sample		sample counts	sample time	bkg count	bkg time	net cpm	total vol.(l)	nalytical v	yield	eff	**Activity**
											pCi/sample
H797K	U-232	670	200.1166	3	1000.117	3.3450	1	0.06187	1	0.3632	**67.051**
	U-234	0	200.1166	1	1000.117	-0.001	1	0.06187	0.91	0.3632	**-0.022**
	U-235	1	200.1166	0	1000.117	0.0049971	1	0.06187	0.91	0.3632	**0.110**
	U-238	0	200.1166	1	1000.117	-0.001	1	0.06187	0.91	0.3632	**-0.022**
H797M	U-232	644	200.1	5	1000.217	3.2134	1	0.06267	1	0.3905	**59.154**
	U-234	0	200.1	0	1000.217	0	1	0.06267	0.82	0.3905	**0.000**
	U-235	0	200.1	1	1000.217	-0.001	1	0.06267	0.82	0.3905	**-0.022**
	U-238	0	200.1	1	1000.217	-0.001	1	0.06267	0.82	0.3905	**-0.022**
H8DM71AA	U-232	504	200.18333	51	2500.117	2.4973	1	1	1	0.2584	**4.353**
	U-234	4	200.18333	5	2500.117	0.0179818	1	1	0.96	0.2584	**0.033**
	U-235	2	200.18333	1	2500.117	0.0095909	1	1	0.96	0.2584	**0.017**
	U-238	5	200.18333	0	2500.117	0.0249771	1	1	0.96	0.2584	**0.045**
H8DM71AC	U-232	526	200.1333	8	1000.017	2.6202	1	1	1	0.3411	**3.461**
	U-234	118	200.1333	2	1000.017	0.5876071	1	1	0.77	0.3411	**1.008**
	U-235	6	200.1333	0	1000.017	0.02998	1	1	0.77	0.3411	**0.051**
	U-238	118	200.1333	0	1000.017	0.589607	1	1	0.77	0.3411	**1.011**

SEVERN TRENT **STL**

STL RICHLAND

URANIUM ISOTOPIC COUNTING REQUEST

2005

C.R. Technician: OR

Date Counted: 7/18/06

Counting Time
Sample: 2008 Minutes
Background: See Alpha Regions Report
BRC 3/24/06 6179343

SOP's
Operating: RICHRD008
Review: RICHRD0016

WorkOrder #	U-232 (5320 KeV) Tracer	TOTAL COUNTS U-238 (4196 KeV)	U-235 (4396 KeV)	U-234 (4776 KeV)	Det #	Comments/Edits
H9DWT1AG	See Counting Room Printout for ROI information				9	
H796F1AG	See Counting Room Printout for ROI information				10	
H796L1AG	See Counting Room Printout for ROI information				11	
H796N1AG	See Counting Room Printout for ROI information				12	
H796P1AG	See Counting Room Printout for ROI information				69	
H796Q1AG	See Counting Room Printout for ROI information				71	EDIT
H796R1AG	See Counting Room Printout for ROI information				83	
H796T1AG	See Counting Room Printout for ROI information				84	EDIT
	See Counting Room Printout for ROI information					

Comments:

Form No: RC-011, 7/02, Rev 8

Approved by: [illegible]

Date: 7/18/06

443

STLRICHLAND

SEVERN TRENT **STL**

URANIUM ISOTOPIC COUNTING REQUEST

2005

C.R. Technician: AD

Date Counted: 7/18/06

Counting Time
Sample: 200 Minutes
Background: See Alpha Regions Report
BRC 5/24/06

SOP's
Operating: RICHRD008
Review: RICHRD0016
6179343

WorkOrder #	U-232 (5320 KeV) Tracer	TOTAL COUNTS U-238 (4196 KeV)	U-235 (4396 KeV)	U-234 (4776 KeV)	Det #	Comments/Edits
H796W1AG	See Counting Room Printout for ROI information				1	
H797D1AG	See Counting Room Printout for ROI information				2	
H797E1AG	See Counting Room Printout for ROI information				3	
H797F1AG	See Counting Room Printout for ROI information				4	
H797H1AG	See Counting Room Printout for ROI information				5	
H797J1AG	See Counting Room Printout for ROI information				6	
H797K1AG	See Counting Room Printout for ROI information				7	
H797M1AG	See Counting Room Printout for ROI information				8	
	See Counting Room Printout for ROI information					

Comments:

Form No: RC-011, 7/02, Rev 8

Approved by: AD

Date: 7/18/06

506

STLRICHLAND

SEVERN TRENT **STL**

URANIUM ISOTOPIC COUNTING REQUEST

2005

C.R. Technician: CP

Date Counted: 7/18/06

Counting Time
Sample: 200 Minutes
Background: See Alpha Regions Report
BRC 5/24/06

SOP's
Operating: RICHRD008
Review: RICHRD0016
6179343

WorkOrder #	U-232 (5320 KeV) Tracer	TOTAL COUNTS			Det #	Comments/Edits
		U-238 (4196 KeV)	U-235 (4396 KeV)	U-234 (4776 KeV)		
H8DM71AA	See Counting Room Printout for ROI information				85	
H8DM71AC	See Counting Room Printout for ROI information				87	
	See Counting Room Printout for ROI information					
	See Counting Room Printout for ROI information					
	See Counting Room Printout for ROI information					
	See Counting Room Printout for ROI information					
	See Counting Room Printout for ROI information					
	See Counting Room Printout for ROI information					
	See Counting Room Printout for ROI information					

Comments:

Form No: RC-011, 7/02, Rev 8

Approved by: CP

Date: 7/18/06

593

7/26/2006 11:00:57 AM

Standard Material Fractions (Vials)

Vial Prep: 7/25/05 to 7/27/06,SMFractionIdentifier Between UITC15931 and UITC15947, Order by SMIdentifier,ConstituentCode,SMFractionIdentifier

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date		Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	U23206A100		Ref: 1/20/2004			2.0087E+01	±		DPM/G		
UITC15931	U-232	1.0056E+01	± 2.773E-03	DPM	0.5128	g	6/23/2006	6/23/2006	Armstron	1.9610E+01	± 0.000E+00	DPM/G
UITC15932	U-232	1.0054E+01	± 2.773E-03	DPM	0.5127	g	6/23/2006	6/23/2006	Armstron	1.9610E+01	± 0.000E+00	DPM/G
UITC15933	U-232	1.0080E+01	± 2.773E-03	DPM	0.5141	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15934	U-232	1.0074E+01	± 2.773E-03	DPM	0.5136	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15935	U-232	1.0072E+01	± 2.773E-03	DPM	0.5137	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15936	U-232	1.0100E+01	± 2.773E-03	DPM	0.5151	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15937	U-232	1.0106E+01	± 2.773E-03	DPM	0.5154	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15938	U-232	1.0110E+01	± 2.773E-03	DPM	0.5156	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15939	U-232	1.0057E+01	± 2.773E-03	DPM	0.5129	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15940	U-232	1.0094E+01	± 2.773E-03	DPM	0.5148	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15941	U-232	1.0092E+01	± 2.773E-03	DPM	0.5147	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15942	U-232	1.0092E+01	± 2.773E-03	DPM	0.5147	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15943	U-232	1.0096E+01	± 2.773E-03	DPM	0.5149	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15944	U-232	1.0096E+01	± 2.773E-03	DPM	0.5149	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15945	U-232	1.0078E+01	± 2.773E-03	DPM	0.514	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15946	U-232	1.0088E+01	± 2.773E-03	DPM	0.5145	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G
UITC15947	U-232	1.0074E+01	± 2.773E-03	DPM	0.5138	g	6/28/2006	6/28/2006	Armstron	1.9608E+01	± 0.000E+00	DPM/G

1.0084E+001 ± 1.711E-002 (17) 0.170% 1.0054E+001 , 1.0110E+001

STL Richland, SMFractions v4.8.12 Page 1 Record Count: 17

* - Isotope is an impurity

7/26/2006 11:01:10 AM

Standard Material Fractions (Vials)

Vial Prep: 7/25/05 to 7/27/06,SMFractionIdentifier Between UISF0460 and UISF0460, Order by SMIdentifier,ConstituentCode,SMFractionIdentifier

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	U23206A100		Ref: 1/20/2004			2.0087E+01	±		DPM/G	
UISF0460	U-232	1.0045E+01	± 2.774E-03	DPM	0.5121	g	6/15/2006	6/15/2006	Armstron 1.9615E+01	± 0.000E+00	DPM/G
		1.0045E+001	± 1.004E+001	(1)			1.0045E+001 , 1.0045E+001				

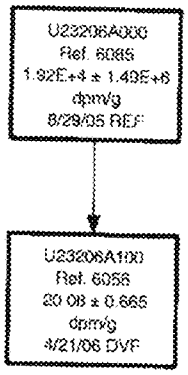
STL Richland, SMFractions v4.6.12

Page 1

Record Count: 2

* - Isotope is an Impurity

U23206A


U23206A000
Ref. 6085
1.92E+4 ± 1.49E+6
dpm/g
8/29/05 REF
U23206A100
Ref. 6056
20.08 ± 0.665
dpm/g
4/21/06 DVF

STL# U23204AL
REC'D 1/22/04

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 • U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

67541-288

U-232 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by the Department Des Applications Et De La Metrologie Des Rayonnements Ionisants (DAMRI), Paris, France, as Number 23236.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	U-232
ACTIVITY (dps):	3.552 E3
CALIBRATION DATE:	January 20, 2004 12:00 EST
HALF-LIFE:	68.9 years
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.3%

Impurities: α-impurities: U-233 <0.3%
Am-241 <0.15%

5.21467 grams 1M HNO_3 solution.

P O NUMBER 2041166/280100, Item 1

SOURCE PREPARED BY: M. D. Currie
M. D. Currie, Radiochemist

Q A APPROVED: 1-21-04

[illegible]
U-232
SRS 87541-288 Amount 1.00E-1 uCi DA [illegible]
Date 01/20/04 12:00 EST Exp. XXXXXX
PO# 2041166/280100, Item 1
5.21487 grams 1M HNO3 solution
CAUTION RADIOACTIVE MATERIAL

SEVERN TRENT SERVICES

STANDARD SOLUTION PREP SHEET

STL Denver

PARENT SOLUTION		STL# U232AL Isotope U 232 Date received 1/22/04
	1	Activity (pCi or Bq) 19,200 Per (gram or ml)
	2	on 1 / 10 / 2004 at 1000 MST
	3	Half life (t 1/2) 68.9 y
	4	Weight of source and vial 9.0737g 5.21467g FROM CERT.
	5	Weight of vial 3.8604g
	6	Weight of source (line 4 - line 5) 5.2133g
	7	Total Activity (line 1 X line 6) =
	8	Total Activity pCi (Bq/0.037) 96,000 pCi
	9	Diluted up to 1000 mls in 1 M HNO3
	10	Therefore making a solution of 96 pCi per 1 ml on the standard reference date
DECAY DATA		Decay = exp(- Lambda x t)
		Lambda = (Natural log 2)/(t 1/2) ; t = decay duration Note: t and t 1/2 must be in the same units
	11	Lambda = 0.6931 / t 1/2 0.0006 y^{-1}
	12	Date to decay 2 / 12 / 04
	13	Reference Date 1 / 20 / 04
	14	Decay duration (12 - 13) 22
	15	Decay duration in t 1/2 units 0.0657 y
		Decay = exp -(line 11 x line 15)
	16	Decay = exp - (0.01006 x 0.0657) = 0.9993
	17	Decayed activity = original activity x decay = 95.9

NOTES:

W:\QA/Forms/Rad/Standard Solution Prep Sheet.XLS

Prepared by [signature] Preparation date 2/12/04

SEVERN TRENT SERVICES

RADIOLOGICAL DAUGHTER SOLUTION LOG

STL Denver

STL PARENT # U23204AL
ISOTOPE U 232
ACTIVITY 28 pCi/ml

REF. DATE 1/10/04
HALF LIFE(t 1/2) 68.9y
DATE REC. 1/27/04

SOLUTION #	PARENT mls USED	VOLUME DILUTED UP TO	DATE PREPARED	PREPARED BY	REF. DATE ACTIVITY	DISPOSED OF DATE	COMMENTS
U23204ALA1	100.0	1L	2/12/04	[illegible]	2.8 pCi/ml		
U23204ALA2	100.0	1000 ml	6/1/04	[illegible]	9.6 pCi/ml		
U23204ALA3	100.0	1000 ml	11/02/04	RAH	9.6 pCi/ml		
U23204ALA4	100.0	1.0L	2/04/05	RAH	9.6 pCi/ml		
U23204ALA5	100.0	1.0L	5/04/05	RAH	9.6 pCi/ml		
U23204ALA6	100.0	1.0L	8/27/05	RAH	9.6 pCi/ml		

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SEVERN TRENT STL

RADIOCHEMISTRY LABORATORY
STANDARDS CALIBRATION CHECK WORKSHEET
PARENT SOLUTION

STL Denver

Standard Information:

Isotope: ^{232}U

STL#: U23204ALA6

Cert#:

Date Rec'd: 1/22/2004

Cert. Activity 3.9

Activity/unit: 9.6 pCi/mL

Cert. TPU: 3.30%

Ref. Date: 1/20/2004

Date Prepared: 9/1/2005

Description of Mounting:

Full U chemistry followed by micro-precipitation

Detector Efficiency 0.22 Chemical Yield = 53%

Determination of Acceptance Limit:

Acceptance Limit(pCi/ml) = 8.75957856 to 10.1297113

RESULT PASSES

Summary of Results:

U23201ALA2
vs.
U23204ALA6

Verification	Activity	2-Sigma Error	Units
STD# 1	10.04	0.68	pCi/ml
STD# 2	9.70	0.71	pCi/ml
STD# 3	8.59	0.66	pCi/ml
MEAN	9.44	0.69	pCi/ml
STD. DEV.	0.76	0.03	pCi/ml

Analyst: Roger A. Sanderson Date Performed: 9/1/05

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ISOTOPE RECORD FORM

1) Isotope U-232 2) Reference Number 6085

3) Half Life 69.9 yrs 4) Storage Location STDLAB

5) Source Identification Number U23206A000

****

CALIBRATION DATA

6) Activity as Received Units 3552 dps

7) Overall Uncertainty Percent 3.3%

8) Reference Date / Time 1/20/2004

9) Activity dpm/g 40869 ± 1348 dpm/g

10) Volume or Mass (ml/g) 5.21467 g

11) Calibrated by Analytics

12) Certificate Solution Number 67541-288

****

SURVEY DATA

13) Date Received 4/17/2006

14) Surveyed by tda

15) Survey Reading (Beta/Gamma) cpm <100 cpm

16) Survey Reading (Alpha) cpm <100 cpm

****

17) Activity Conversion 3552 dps * 60 / 5.21467 g =

40869 ± 1348 dpm/g

18) Remarks

19) Isotope File Updated by 5/18/06 tda

20) QC Approved

ISOTOPE DILUTION RECORD

1) Prepared by	tda	2) Date Prepared	9/29/2005
3) Source Identification Number / Ref. Number	**U23206A000**		**6085**
4) Source Activity (dpm ± dpm/g)	1.9200E+04	±	1.497E+06
5) Percent error of Source Activity	3.3 %		
6) Weight of Source Material used (g)	1.5692		
7) (% Error) of Weight of Source Material used	0.3059 %		
8) Diluent	1 M HCl		
9) Total Weight of the Dilution (g)	1500		
10) (% Error) of Total Weight of the Dilution	0.0200 %		
11) Specific Activity of Diluted Solution dpm/g	**2.0086E+01**	**±**	**6.657E-01**
12) Total Uncertainty	3.314 %		
13) Dilution Identification Number / Ref. Number	**U23206A100**		**6086**
14) Calibration Reference Date	1/20/2004		
15) Isotope Inventory File update by/date	tda		4/17/2006
16) Reviewed by/date			
17) Location	QCLAB	18) Exhausted	

****

CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

SEVERN TRENT STL

RADIOCHEMISTRY LABORATORY
STANDARDS CALIBRATION CHECK WORKSHEET
PARENT SOLUTION

STL Denver

Standard Information:

Isotope: ^{232}U
STL#: U23204ALA6
Cert#:
Date Rec'd: 1/22/2004

Cert. Activity 3.9
Activity/unit: 9.6 pCi/mL
Cert. TPU: 3.30%
Ref. Date: 1/20/2004
Date Prepared: 9/1/2005

Description of Mounting:

Full U chemistry followed by micro-precipitation

Detector Efficiency 0.22 Chemical Yield = 53%

Determination of Acceptance Limit:

Acceptance Limit(pCi/ml) = 8.75957856 to 10.1297113

RESULT PASSES

Summary of Results:

U23801ALA2
vs.
U03204ALA6

Verification	Activity	2-Sigma Error	Units
STD# 1	10.04	0.68	pCi/ml
STD# 2	9.70	0.71	pCi/ml
STD# 3	8.59	0.66	pCi/ml
MEAN	9.44	0.69	pCi/ml
STD. DEV.	0.76	0.03	pCi/ml

Analyst: [signature] Date Performed: 9/1/05

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SEVERN TRENT SERVICES

RADIOLOGICAL DAUGHTER SOLUTION LOG

STL Denver

STL PARENT # U23204AL
ISOTOPE U232
ACTIVITY 96 pCi/ml

REF. DATE 1/10/04
HALF LIFE(t 1/2) 68.9y
DATE REC. 1/22/04

SOLUTION #	PARENT mls USED	VOLUME DILUTED UP TO	DATE PREPARED	PREPARED BY	REF. DATE ACTIVITY	DISPOSED OF DATE	COMMENTS
U23204AL A1	100.0	1L	2/12/04	[illegible]	9.6 pCi/ml		
U23204AL A2	100.0	1000ml	6/1/04	[illegible]	9.6 pCi/ml		
U23204AL A3	100.0	1000ml	11/02/04	RAH	9.6 pCi/ml		
U23204AL A4	100.0	1.0L	2/24/05	RAH	9.6 pCi/ml		
U23204AL A5	100.0	1.0L	5/24/05	RAH	9.6 pCi/ml		
U23204AL A6	100.0	1.0L	8/27/05	RAH	9.6 pCi/ml		

N:/QA/Forms/Rad/Radiological Daughter Solution Log.XLS

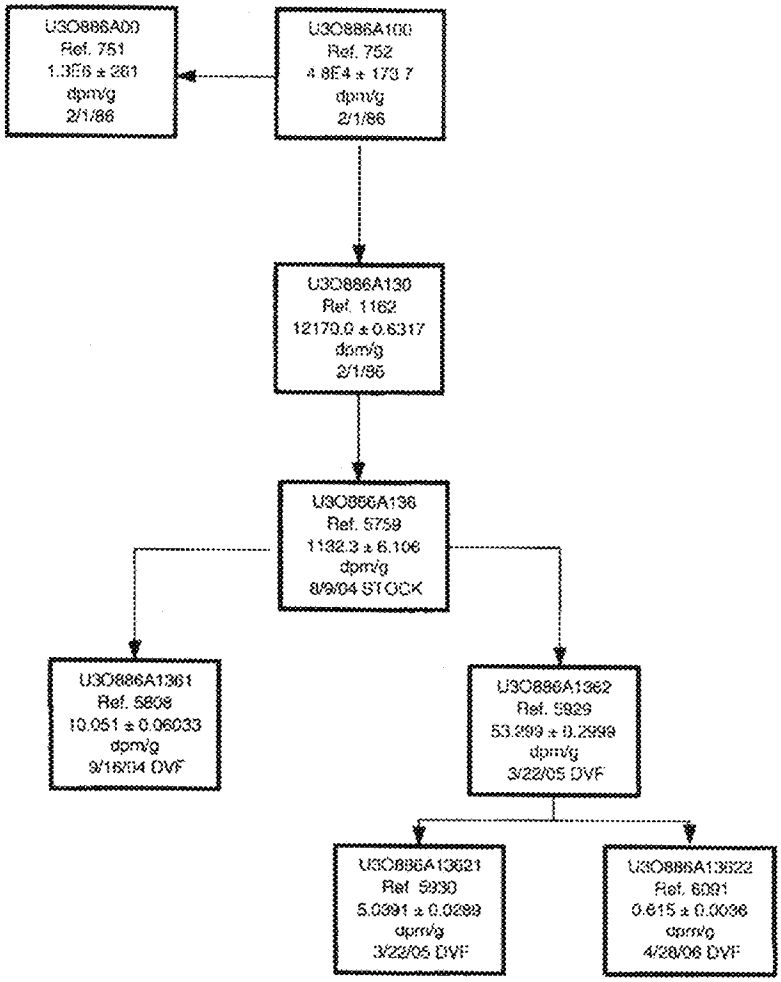
Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard: U3O886A1362			Ref: 3/22/2005			3.5107E+01	± 1.950E-01	UG/G		
U8SF0460	U	**2.9244E+00**	**± 1.699E-02**	UG	0.0833	g	6/15/2006	6/15/2006	Armstron 3.5107E+01	± 1.950E-01	UG/G
		2.9244E+000	± 2.924E+000	(1)			2.9244E+000 , 2.9244E+000				

* - Isotope is an Impurity

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	U3O888A1362		Ref: 3/22/2005			5.3995E+01	± 2.999E-01	DPM/G		
UISF0460	UISO	**4.4978E+00**	**± 2.612E-02**	DPM	0.0833	g	6/15/2006	6/15/2006	Armstron	5.3995E+01	± 2.999E-01	DPM/G
		4.4978E+000	± 4.498E+000	(1)			4.4978E+000 , 4.4978E+000				

* - Isotope is an Impurity

U3088A136
Link



ISOTOPE DILUTION RECORD

1) Prepared by	tda	2) Date Prepared	5/8/2006
3) Source Identification Number / Ref. Number	***U30886A1362***		***5929***
4) Source Activity (dpm ± dpm/g)	5.3995E+01	±	2.999E-01
5) Source Activity (ug ± ug/g)	3.5107E+01		1.9499E-01
6) Percent error of Source Activity	0.555 %		
7) Weight of Source Material used (g)	14.4649		
8) (% Error) of Weight of Source Material used	0.0011 %		
9) Diluent	2M HNO3		
10) Total Weight of the Dilution (g)	250		
11) (% Error) of Total Weight of the Dilution	0.0144 %		
12) Specific Activity of Diluted Solution dpm/g	***3.1241E+00***	±	***1.777E-02***
13) Specific Activity of Diluted Solution ug/g	***2.0313E+00***	±	***1.155E-02***
14) Specific Activity of Diluted Solution ug/ml	***2.1654E+00***	±	***1.232E-02***
15) Total Uncertainty	0.569 %		
16) Dilution Identification Number / Ref. Number	***U30886A13623***		***6103***
17) Calibration Reference Date	3/22/2005		
18) Isotope Inventory File update by/date	tda		6/8/2006
19) Reviewed by/date			
20) Location QCLAB		21) Exhausted	

****

CALCULATIONS

*8) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100) ^2*

*11) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100) ^2*

*12-13) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

15) % Total Uncertainty = [(% error of Source Activity ^2 + % error of Wt. used + % error of Dilution Wt.)

Form: CC-006, 5/5/94, Rev 2

U.S. Department of Commerce
Juanita M. Kreps
Secretary

National Bureau of Standards
Ernest Ambler, Director

National Bureau of Standards Certificate

751

Standard Reference Material 950b

Uranium Oxide (U_3O_8)

(In Cooperation with the Department of Energy, New Brunswick Laboratory, Argonne, Illinois)

This material consists of normal uranium in the form of oxide, U_3O_8. It is intended to provide a reference material of known uranium content.

CERTIFIED VALUE

Uranium Oxide (U_3O_8). . . . 99.968 ± 0.020 percent

The stated uncertainty of ±0.020 percent associated with the certified value is the linear sum of 0.0076 percent, which is the limit of the random error of the assay measurements at the 99 percent confidence level (2.807 S_m, where S_m is the standard error of the mean with n = 24), and 0.012 percent, the estimated upper limit of conceivable systematic errors including material variability. The above certified value is based on material heated at 800 °C for one hour in an open crucible in a muffle furnace and cooled in a desiccator. *It is important that the material be freshly ignited in this manner to obtain accurate results.*

The total impurities as determined by spectrochemical analysis are estimated to be less than 50 μg/g. The determined iron content is ~3 μg/g and the determined vanadium content is ~ 1 μg/g. The assay of this material is based on the use of NBS Potassium Dichromate (SRM 136c), as the oxidizing agent as described in the NBL titrimetric method for the precise assay of uranium metal.[1,2] The assay values obtained are compatible with those obtained from the assay of NBS Uranium Metal, (SRM 960) and NBS Uranium Oxide, (SRM 950a). The certified value for this lot of uranium oxide has also been confirmed using a coulometric procedure.

The atomic weights used in the calculations are: uranium, 238.029, and oxygen, 15.9994.

This material was prepared under contract with the National Lead Company of Ohio, Cincinnati, Ohio. Assay of the material was performed by N. M. Trahey of the New Brunswick Laboratory, Argonne, Illinois and J. R. Moody and W. Koch of the NBS Analytical Chemistry Division. Iron and vanadium were measured by B. I. Diamondstone and S. A. Wicks of the NBS Analytical Chemistry Division.

Overall direction and coordination of the technical measurements leading to the certification were performed under the chairmanship of I. L. Barnes.

The technical and support aspects involved in the preparation, certification, and issuance of this Standard Reference Material were coordinated through the Office of Standard Reference Materials by W. P. Reed.

Washington, D.C. 20234
March 1, 1978

J. Paul Cali, Chief
Office of Standard Reference Materials

(over)

ISOTOPE RECORD FORM

1) Isotope: U-NAT
2) Reference Number: #751
3) Half Life: Negligable Decay
4) Storage Location: STD LAB
5) Source Identification Number: U3O886A000

****

CALIBRATION DATA

6) Activity as Received Units: 1.304E+06 dpm/g
7) Overall Uncertainty Percent: 0.02%
8) Reference Date / Time: 1-Feb-86
9) Activity dpm/g: 1.304E+06 ± 2.61E+02 (0.02%) dpm/g
10) Volume or Mass (ml/g): 10 g
11) Calibrated by: NBS
12) Certificate Solution Number: SRM 950B Uranium Oxide

****

SURVEY DATA

13) Date Received: 2/1/86
14) Surveyed by: D.D. & A.V.R.
15) Survey Reading (Beta/Gamma) cpm: 100,000 cpm at Contact
16) Survey Reading (Alpha) cpm: Background

****

17) Activity Conversion: (0.8481g U-nat / g U3O8) (0.99968) (1.538E+06 dpm / g U-nat) = 1.304E+06 ± 2.61E+02 (0.02%) dpm/g U3O8

18) Remarks: MW U3O8 = (3 * 238.0289) + (8 * 15.9994) = 842.0819 g / mole U3O8

Material was ignited at 800°C in a crucible for 1 hr and cooled to room temperature in a sealed dessicator.

19) Isotope File Updated by: D.D.
20) QC Approved: D.D.

± Dilution

U_3O_8 99.968 ± 0.02

$\frac{g\ U_3O_8}{g\ 8N\ HNO_3} = \frac{(.99968)\ 3.3411\ g}{90.83\ g}$ (0.8481) (~~0.2827~~)

$= \frac{0.03120 \times 10^6}{\cancel{0.01040}}\ \frac{g\ U\text{-nat}}{g\ HNO_3\ stock}$?

$= \frac{3.120}{\cancel{1.040} \times 10^4}\ \frac{\mu g\ U\text{-nat}}{g}$

$\frac{3.120}{\cancel{1.040} \times 10^4} \times 1.538 = \frac{47,986}{\cancel{15,995}}$ dpm/g

O = 15.9994

U 238.0289

MW U_3O_8

= (3) 238.0289 = 714.0867

(8) 15.9994 = 127.9952

842.0819 g/mole U_3O_8

$\frac{(3)(238.0289\ g\ U/mole\ U)}{842.0819\ g/mole} = \cancel{0.2827}$ 0.8481

AVR
3/31/86

Source:

$0.8481\ g\ U\text{-nat}/g\ U_3O_8\ (.99968)(1.538 \times 10^6\ dpm/g\ U\text{-nat}) = 1.304 \times 10^6\ dpm/g\ U_3O_8$

10^3 mg in 1 g

10^6 μg in 1 g

1.538 dpm/μg U

1.538×10^6 dpm/g U-nat

Gwen Drane U_3O_8 Dissolution

Chuck Sanderquist
prepared this

3-24-86

Preparation of Standard U_3O_8 solution

Weighing boat weighs ~~.9649~~ .9650 g empty

With U_3O_8, 4.3061 g

98.33
80.83
179.16

U_3O_8 delivered: 4.3061
.9650
3.3411 g

Primary standard storage bottle (Quepac 100 ml) 98.3323 g
bottle plus $U(NO_3)_2$ solution 189.16 g

90.83 g of ≈ 8N HNO_3

The weighed U_3O_8 was quantitatively transferred to a beaker and dissolved in strong (but not concentrated) HNO_3 by warming to just below boiling for 30-40 minutes. The solution (about 25 ml) was quantitatively transferred to a bottle and the beaker leached several times with 8N HNO_3, with each leach rinsed into the bottle.

1st Conc HNO_3
2 - X ~~2nd~~ 8M HNO_3
X+1. Distilled H_2O

} ie. Conc. of HNO_3 not known in final. Chuck estimates 8N HNO_3

INTERNATIONAL TECHNOLOGY CORPORATION

ISOTOPE RECORD FORM

1) Isotope U-NAT 2) ITAS Sequence Number #751

3) Half Life N/A 4) Storage Location S+D Lab

5) Source Identification Number U30886A000

****

CALIBRATION DATA

6) Activity as Received Units 1.3045×10^6 dpm/g

7) Overall Uncertainty .02%

8) Reference Date/Time 2-1-86

9) Activity dpm/g $1.3045 \times 10^6 \pm 261$ (.02%) dpm/g

10) Volume and/or Mass (ml/g) 10g 11) Calibrated by NBS

12) Certificate Solution Number SRM 950B Uranium Oxide

****

SURVEY DATA

U308 99.968 ± .02% pure

13) Date Received 2/86

14) Survey Reading (Beta/Gamma) 7 ~~1000~~ 100,000 cpm at contact 11/8/93 VA

15) Survey Reading (Alpha) 0 16) Surveyed by DD + AVR

17) Isotope File Updated by D.D.

****

18) Activity Conversion $\left(\frac{0.8481\text{g U-NAT}}{\text{g U308}}\right)(.99968)\left(1.538 \times 10^6 \text{ dpm/g U-NAT}\right)$

$= 1.3045 \times 10^6 \pm 261$ .02% dpm/g

O = 15.9994 U = 238.0289 mW U308 = (3) 238.0289 = 714.0867

19) Remarks (8) 15.9994 = 127.9952, 842.0819 g/mole U308

(3) 238.0289 g U/mole U = .8481 g U-Nat/g U308

842.0819 g mole

20) CC Approved VA 11-8-93

FORM CC-008, 01/10/91, Rev 1

AVR Material was ignited at 800°C in a crucible for 1 hour and then cooled to room temp. in a sealed dissicator. U_3O_8 was stored in dissicator until dissolved (a couple of days). See attached procedure 11/8/93 VA

STLRICHLAND

600

STANDARD ID	UST NUMBER
U30886A000	751

ANALYTE	LOCATION	REFERENCE DATE AND TIME		RECEIVE DATE	SUPPLIER
UNAT	P-G	01FEB86	1200	01FEB86	NBS

SAMPLE SIZE	ACTIVITY OR CONCENTRATION		ERROR	DATE EXHAUSTED
1.00E+01 G	1.30E+06	DPM/G	2.61E+02	

(C)ontinue, (E)dit, (D)elete, (Q)uit <C> ?

Quality Assurance Report. Generated 27-JUL-2006 11:03:30.94

QA Filename : RDND06::RDND06$DKA100:[ALP85,QA]GROUP_1_CHK.QAF;2

-- Multi-Test Full Report --

Description : Centroid, U-238
Parameter Units : channel Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 178.895111 Std Deviation : 0.531929

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		179.3344	| | |
20-JUL-2006 08:33	chk		179.1254	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 9.981088 Std Deviation : 0.426360

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		9.8333	| | |
20-JUL-2006 08:33	chk		10.1667	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.260135 Std Deviation : 0.022235

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		0.2552	| | |
20-JUL-2006 08:33	chk		0.2557	| | |

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.249002 Std Deviation : 0.021549

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		0.2462	| | |
20-JUL-2006 08:33	chk		0.2470	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.161857 Std Deviation : 0.076454

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

---

8-JUN-2006 13:41	chk	7.1624	| | |
20-JUL-2006 08:33	chk	7.1075	| | |

Quality Assurance Report. Generated 27-JUL-2006 11:03:35.11

QA Filename : RDND06::RDND06$DKA100:[ALP85.QA]GROUP_1_BKG.QAF;2

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001873 Std Deviation : 0.001043

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0024	| | |
21-JUL-2006 09:20	bkg		0.0024	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004728 Std Deviation : 0.002202

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0052	| | |
21-JUL-2006 09:20	bkg		0.0052	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.010549 Std Deviation : 0.004456

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0092	| | |
21-JUL-2006 09:20	bkg		0.0136	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.054796 Std Deviation : 0.020990

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0612	| | |
21-JUL-2006 09:20	bkg		0.0528	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.050937 Std Deviation : 0.019479

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0568	| | |
21-JUL-2006 09:20	bkg		0.0508	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.044094 Std Deviation : 0.017542

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0424	| | |
21-JUL-2006 09:20	bkg		0.0376	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.032377 Std Deviation : 0.013434

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0284	| | |
21-JUL-2006 09:20	bkg		0.0300	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.016853 Std Deviation : 0.007109

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0128	| | |
21-JUL-2006 09:20	bkg		0.0156	| | |

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000635 Std Deviation : 0.000705

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0012	| | |
21-JUL-2006 09:20	bkg		0.0004	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001308 Std Deviation : 0.001133

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0004	| | |
21-JUL-2006 09:20	bkg		0.0012	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001716 Std Deviation : 0.001103

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0024	| | |
21-JUL-2006 09:20	bkg		0.0008	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.059609 Std Deviation : 0.022579

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0584	| | |
21-JUL-2006 09:20	bkg		0.0596	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000800 Std Deviation : 0.000889

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0012	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000788 Std Deviation : 0.000766

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0012	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001467 Std Deviation : 0.000909

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

9-JUN-2006 06:58 bkg	0.0016	| | |
21-JUL-2006 09:20 bkg	0.0008	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.016676 Std Deviation : 0.006702

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0144	| | |
21-JUL-2006 09:20 bkg			0.0208	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001546 Std Deviation : 0.001000

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0020	| | |
21-JUL-2006 09:20 bkg			0.0008	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001836 Std Deviation : 0.001059

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0028	| | |
21-JUL-2006 09:20	bkg		0.0016	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cpm Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 5-APR-1996 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.013839 Std Deviation : 0.005605

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0132	| | |
21-JUL-2006 09:20	bkg		0.0180	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:55:01.68

QA Filename : RDND06::RDND06$DKA100:[ALP84.QA]GROUP_1_CHK.QAF;2

-- Multi-Test Full Report --

Description : Centroid, U-238
Parameter Units : channel Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		176.7164	| | |
20-JUL-2006 08:33	chk		177.1906	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		5.0000	| | |
20-JUL-2006 08:33	chk		4.7500	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		0.3394	| | |
20-JUL-2006 08:33	chk		0.3417	| | |

-- Multi-Test Full Report --

Description : Efficiency, Po-210
Parameter Units : % Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

8-JUN-2006 13:41	chk	0.3609	| | |
20-JUL-2006 08:33	chk	0.3565	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		7.2747	| | |
20-JUL-2006 08:33	chk		7.3459	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:55:02.59

QA Filename : RDND06::RDND06$DKA100:[ALP84.QA]GROUP_1_BKG.QAF;2

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0012	| | |
21-JUL-2006 09:20	bkg		0.0008	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0008	| | |
21-JUL-2006 09:20	bkg		0.0008	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0408	| | |
21-JUL-2006 09:20	bkg		0.0540	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0388	| | |
21-JUL-2006 09:20	bkg		0.0460	| | |

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0004	| | |
21-JUL-2006 09:20	bkg		0.0004	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0016	| | |
21-JUL-2006 09:20	bkg		0.0016	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0004	| | |
21-JUL-2006 09:20	bkg		0.0024	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0452	| | |
21-JUL-2006 09:20	bkg		0.0580	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0008	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0008	| | |
21-JUL-2006 09:20	bkg		0.0004	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

9-JUN-2006 06:58 bkg	0.0012	| | |
21-JUL-2006 09:20 bkg	0.0024	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0072	| | |
21-JUL-2006 09:20 bkg			0.0060	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0012	| | |
21-JUL-2006 09:20 bkg			0.0024	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0012	| | |
21-JUL-2006 09:20 bkg			0.0012	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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9-JUN-2006 06:58 bkg	0.0056	| | |
21-JUL-2006 09:20 bkg	0.0048	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:54:51.62

QA Filename : RDND06::RDND06$DKA100:[ALP83.QA]GROUP_1_CHK.QAF;2

-- Multi-Test Full Report --

Description : Centroid, U-238
Parameter Units : channel Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		178.2588	| | |
20-JUL-2006 08:33	chk		178.2689	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		9.0000	| | |
20-JUL-2006 08:33	chk		9.0000	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		0.3151	| | |
20-JUL-2006 08:33	chk		0.3194	| | |

-- Multi-Test Full Report --

Description : Efficiency, Po-210
Parameter Units : % Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

8-JUN-2006 13:41	chk	0.3355	|	|	|
20-JUL-2006 08:33	chk	0.3427	|	|	|

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 13:41	chk		7.3648	|	|	|	
20-JUL-2006 08:33	chk		7.2932	|	|	|	

Quality Assurance Report. Generated 27-JUL-2006 10:54:52.52

QA Filename : RDND06::RDND06$DKA100:[ALP83.QA]GROUP_1_BKG.QAF;2

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0028	|	|	|	
21-JUL-2006 09:20	bkg		0.0008	|	|	|	

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0024	|	|	|	
21-JUL-2006 09:20	bkg		0.0024	|	|	|	

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0400	| | |
21-JUL-2006 09:20	bkg		0.0432	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0280	| | |
21-JUL-2006 09:20	bkg		0.0360	| | |

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0016	| | |
21-JUL-2006 09:20	bkg		0.0004	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0004	| | |
21-JUL-2006 09:20	bkg		0.0012	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0024	| | |
21-JUL-2006 09:20	bkg		0.0008	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0400	| | |
21-JUL-2006 09:20	bkg		0.0500	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0024	| | |
21-JUL-2006 09:20	bkg		0.0008	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0004	| | |
21-JUL-2006 09:20	bkg		0.0016	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

9-JUN-2006 06:58 bkg	0.0016	| | |
21-JUL-2006 09:20 bkg	0.0020	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0072	| | |
21-JUL-2006 09:20 bkg			0.0060	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0016	| | |
21-JUL-2006 09:20 bkg			0.0016	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58 bkg			0.0032	| | |
21-JUL-2006 09:20 bkg			0.0012	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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9-JUN-2006 06:58 bkg	0.0068	| | |
21-JUL-2006 09:20 bkg	0.0036	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:54:33.54

QA Filename : RDND06::RDND06$DKA100:[ALP71.QA]GROUP_1_CHK.QAF;2

-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.370021 Std Deviation : 0.042658

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
11-JUN-2006 13:43	chk		0.3745				
20-JUL-2006 08:33	chk		0.3661				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 8.563750 Std Deviation : 0.501284

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
11-JUN-2006 13:43	chk		8.6667				
20-JUL-2006 08:33	chk		8.6667				

-- Multi-Test Full Report --

Description : Centroid, Pu-239
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 309.599640 Std Deviation : 0.462379

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
11-JUN-2006 13:43	chk		309.4947	| | |
20-JUL-2006 08:33	chk		309.5623	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.352204 Std Deviation : 0.040274

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
11-JUN-2006 13:43	chk		0.3533	| | |
20-JUL-2006 08:33	chk		0.3514	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 10.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00

Mean : 6.503906 Std Deviation : 0.037273

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
11-JUN-2006 13:43	chk		6.4757	| | |
20-JUL-2006 08:33	chk		6.4953	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:54:36.25

QA Filename : RDND06::RDND06$DKA100:[ALP71.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000605 Std Deviation : 0.000870

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:13	bkg		0.0008	| | |
21-JUL-2006 09:19	bkg		0.0008	| | | R
23-JUL-2006 06:31	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001294 Std Deviation : 0.001169

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:13	bkg		0.0016	| | |

21-JUL-2006 09:19 bkg	0.0020	| | |	R	
23-JUL-2006 06:31 bkg	0.0020	| | |		

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000559 Std Deviation : 0.000792

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS	Rej
12-JUN-2006 08:13	bkg		0.0012	| | |	
21-JUL-2006 09:19	bkg		0.0008	| | |	R
23-JUL-2006 06:31	bkg		0.0004	| | |	

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000943 Std Deviation : 0.000983

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS	Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS	Rej
12-JUN-2006 08:13	bkg		0.0008	| | |	
21-JUL-2006 09:19	bkg		0.0004	| | |	R
23-JUL-2006 06:31	bkg		0.0020	| | |	

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001288 Std Deviation : 0.001010

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:13	bkg		0.0012	| | |
21-JUL-2006 09:19	bkg		0.0008	| | | R
23-JUL-2006 06:31	bkg		0.0032	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001261 Std Deviation : 0.000956

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:13	bkg		0.0012	| | |
21-JUL-2006 09:19	bkg		0.0008	| | | R
23-JUL-2006 06:31	bkg		0.0028	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000885 Std Deviation : 0.000756

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0024	In			
21-JUL-2006 09:19	bkg		0.0004				R
23-JUL-2006 06:31	bkg		0.0012				

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000716 Std Deviation : 0.000771

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0028	In			
21-JUL-2006 09:19	bkg		0.0004				R
23-JUL-2006 06:31	bkg		0.0016				

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000638 Std Deviation : 0.000726

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0028	In			
21-JUL-2006 09:19	bkg		0.0004				R
23-JUL-2006 06:31	bkg		0.0016				

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001442 Std Deviation : 0.000790

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0008				
21-JUL-2006 09:19	bkg		0.0012				R
23-JUL-2006 06:31	bkg		0.0020				

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002033 Std Deviation : 0.001287

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0036				
21-JUL-2006 09:19	bkg		0.0064	Ac			R
23-JUL-2006 06:31	bkg		0.0052	In			

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002765 Std Deviation : 0.001627

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0052				
21-JUL-2006 09:19	bkg		0.0080	Ac			R
23-JUL-2006 06:31	bkg		0.0064	In			

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003477 Std Deviation : 0.002068

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0076				
21-JUL-2006 09:19	bkg		0.0116	Ac			R
23-JUL-2006 06:31	bkg		0.0084	In			

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.027011 Std Deviation : 0.013875

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

12-JUN-2006 08:13 bkg	0.0620	|In| |		
21-JUL-2006 09:19 bkg	0.0608	|In| |	R	
23-JUL-2006 06:31 bkg	0.0532	| | |		

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.027613 Std Deviation : 0.013676

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS	Rej
12-JUN-2006 08:13 bkg			0.0624	|In| |	
21-JUL-2006 09:19 bkg			0.0592	|In| |	R
23-JUL-2006 06:31 bkg			0.0532	| | |	

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.026505 Std Deviation : 0.013136

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS	Rej
12-JUN-2006 08:13 bkg			0.0604	|In| |	
21-JUL-2006 09:19 bkg			0.0548	|In| |	R
23-JUL-2006 06:31 bkg			0.0504	| | |	

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.024397 Std Deviation : 0.012025

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0388				
21-JUL-2006 09:19	bkg		0.0456				R
23-JUL-2006 06:31	bkg		0.0492	In			

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.016074 Std Deviation : 0.007657

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0272				
21-JUL-2006 09:19	bkg		0.0352	In			R
23-JUL-2006 06:31	bkg		0.0296				

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 27-NOV-2000 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.007731 Std Deviation : 0.003947

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:13	bkg		0.0148				
21-JUL-2006 09:19	bkg		0.0180	In			R
23-JUL-2006 06:31	bkg		0.0188	In			

Quality Assurance Report. Generated 27-JUL-2006 10:54:17.41

QA Filename : RDND06::RDND06$DKA100:[ALP69.QA]GROUP_1_CHK.QAF;2

-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.394028 Std Deviation : 0.005463

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
11-JUN-2006 13:43	chk		0.3895				
20-JUL-2006 08:33	chk		0.3972				
21-JUL-2006 09:19	chk		0.3972				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 7.714286 Std Deviation : 0.252990

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
11-JUN-2006 13:43	chk		7.5000				
20-JUL-2006 08:33	chk		8.5000	Ac			
21-JUL-2006 09:19	chk		8.3333	In			

-- Multi-Test Full Report --

Description : Centroid, Pu-239

Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 317.168091 Std Deviation : 0.486328

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
11-JUN-2006 13:43	chk		316.9731	| | |
20-JUL-2006 08:33	chk		316.5673	| | |
21-JUL-2006 09:19	chk		316.5510	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.377131 Std Deviation : 0.003316

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
11-JUN-2006 13:43	chk		0.3775	| | |
20-JUL-2006 08:33	chk		0.3759	| | |
21-JUL-2006 09:19	chk		0.3795	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 10.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 7.544940 Std Deviation : 0.050985

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
11-JUN-2006 13:43	chk		7.5171	| | |
20-JUL-2006 08:33	chk		7.5494	| | |
21-JUL-2006 09:19	chk		7.5038	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:54:19.73

QA Filename : RDND06::RDND06$DKA100:[ALP69.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001423 Std Deviation : 0.001789

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0020	| | |
22-JUL-2006 06:10	bkg		0.0008	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002350 Std Deviation : 0.002748

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0032	| | |
22-JUL-2006 06:10	bkg		0.0032	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000888 Std Deviation : 0.000792

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0012	| | |
22-JUL-2006 06:10	bkg		0.0012	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002499 Std Deviation : 0.003558

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0016	| | |
22-JUL-2006 06:10	bkg		0.0024	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002921 Std Deviation : 0.003468

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0016	| | |
22-JUL-2006 06:10	bkg		0.0012	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002749 Std Deviation : 0.003239

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0020	| | |
22-JUL-2006 06:10	bkg		0.0012	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001744 Std Deviation : 0.001443

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

---

12-JUN-2006 08:12 bkg 0.0012 | | |
22-JUL-2006 06:10 bkg 0.0008 | | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001168 Std Deviation : 0.000776

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

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Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

12-JUN-2006 08:12 bkg 0.0016 | | |
22-JUL-2006 06:10 bkg 0.0008 | | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.000868 Std Deviation : 0.000581

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

12-JUN-2006 08:12 bkg 0.0016 | | |
22-JUL-2006 06:10 bkg 0.0008 | | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)

Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.001531 Std Deviation : 0.000968

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:12	bkg		0.0032				
22-JUL-2006 06:10	bkg		0.0036	In			

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002208 Std Deviation : 0.001112

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 08:12	bkg		0.0048	In			
22-JUL-2006 06:10	bkg		0.0056	Ac			

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.002840 Std Deviation : 0.001510

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0056	| | |
22-JUL-2006 06:10	bkg		0.0068	|In| |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.003550 Std Deviation : 0.001862

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0080	|In| |
22-JUL-2006 06:10	bkg		0.0084	|In| |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.027284 Std Deviation : 0.013528

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0532	| | |
22-JUL-2006 06:10	bkg		0.0688	|Ac| |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.027409 Std Deviation : 0.013410

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0496	| | |
22-JUL-2006 06:10	bkg		0.0684	|Ac| |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.025648 Std Deviation : 0.012567

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUN-2006 08:12	bkg		0.0460	| | |
22-JUL-2006 06:10	bkg		0.0644	|Ac| |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.022920 Std Deviation : 0.011276

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

---

12-JUN-2006 08:12 bkg 0.0424 | | |
22-JUL-2006 06:10 bkg 0.0420 | | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.020349 Std Deviation : 0.010016

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---

12-JUN-2006 08:12 bkg 0.0364 | | |
22-JUL-2006 06:10 bkg 0.0376 | | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2002 00:00 End Date : ----------
Mean : 0.007615 Std Deviation : 0.003760

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---

12-JUN-2006 08:12 bkg 0.0140 | | |
22-JUL-2006 06:10 bkg 0.0132 | | |

Quality Assurance Report. Generated 27-JUL-2006 10:26:22.64

QA Filename : $DISK1:[ALP12.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.469828 Std Deviation : 0.031207

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.4797	| | |
5-JUL-2006 08:38	chk		0.4859	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 6.410000 Std Deviation : 0.878833

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		7.8333	| | |
5-JUL-2006 08:38	chk		7.1667	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 325.017944 Std Deviation : 2.465420

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		328.0264	| | |
5-JUL-2006 08:38	chk		329.0159	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.363454 Std Deviation : 0.024583

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3742	| | |
5-JUL-2006 08:38	chk		0.3707	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 6.571554 Std Deviation : 0.048130

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

1-JUN-2006 07:11	chk	6.5233	| | |
5-JUL-2006 08:38	chk	6.5360	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:26:23.33

QA Filename : $DISK1:[ALP12.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000481 Std Deviation : 0.000720

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000648 Std Deviation : 0.000828

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000315 Std Deviation : 0.000543

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000407 Std Deviation : 0.000714

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.000592 Std Deviation : 0.000880

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000592 Std Deviation : 0.000942

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000611 Std Deviation : 0.000833

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000463 Std Deviation : 0.000719

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	|In| |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000463 Std Deviation : 0.000770

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000944 Std Deviation : 0.000998

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0030	|In| |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002074 Std Deviation : 0.002126

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0090	|Ac| |
6-JUL-2006 06:57	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002648 Std Deviation : 0.002258

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0090	|In| |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003462 Std Deviation : 0.002969

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0120	|In| |
6-JUL-2006 06:57	bkg		0.0050	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.025644 Std Deviation : 0.018140

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0420	| | |
6-JUL-2006 06:57	bkg		0.0620	|In| |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.025052 Std Deviation : 0.017910

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

2-JUN-2006 07:27 bkg	0.0540	| | |
6-JUL-2006 06:57 bkg	0.0590	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.024108 Std Deviation : 0.017409

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0530	| | |
6-JUL-2006 06:57 bkg			0.0570	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.021441 Std Deviation : 0.015846

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0480	| | |
6-JUL-2006 06:57 bkg			0.0410	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.013054 Std Deviation : 0.009865

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0290	| | |
6-JUL-2006 06:57	bkg		0.0250	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-MAY-2003 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.006740 Std Deviation : 0.005183

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0140	| | |
6-JUL-2006 06:57	bkg		0.0170	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:26:14.21

QA Filename : $DISK1:[ALP11.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.426857 Std Deviation : 0.004766

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		0.4344				
5-JUL-2006 08:38	chk		0.4225				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 8.197531 Std Deviation : 0.288812

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		8.6667				
5-JUL-2006 08:38	chk		8.5000				

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 341.135895 Std Deviation : 1.344488

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		341.1759	| | |
5-JUL-2006 08:38	chk		342.1103	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.428916 Std Deviation : 0.003032

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.4325	| | |
5-JUL-2006 08:38	chk		0.4294	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 6.421444 Std Deviation : 0.042999

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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1-JUN-2006 07:11	chk	6.3933	| | |	
5-JUL-2006 08:38	chk	6.3737	| | |	

Quality Assurance Report. Generated 27-JUL-2006 10:26:14.86

QA Filename : $DISK1:[ALP11.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000896 Std Deviation : 0.000939

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001138 Std Deviation : 0.001093

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000552 Std Deviation : 0.000783

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000896 Std Deviation : 0.000900

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.001000 Std Deviation : 0.001165

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000965 Std Deviation : 0.001149

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000965 Std Deviation : 0.001017

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001034 Std Deviation : 0.001117

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0030	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000827 Std Deviation : 0.001104

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0030	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001896 Std Deviation : 0.001611

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004034 Std Deviation : 0.003922

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0030	| | |
6-JUL-2006 06:57	bkg		0.0060	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004758 Std Deviation : 0.004005

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0050	| | |
6-JUL-2006 06:57	bkg		0.0070	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.005172 Std Deviation : 0.004301

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0070	| | |
6-JUL-2006 06:57	bkg		0.0090	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.018032 Std Deviation : 0.016400

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0490	| | |
6-JUL-2006 06:57	bkg		0.0380	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.017963 Std Deviation : 0.016465

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

2-JUN-2006 07:27 bkg	0.0500	| | |
6-JUL-2006 06:57 bkg	0.0450	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.017136 Std Deviation : 0.016064

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0510	|In| |
6-JUL-2006 06:57 bkg			0.0440	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.014481 Std Deviation : 0.014091

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0380	| | |
6-JUL-2006 06:57 bkg			0.0390	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.010757 Std Deviation : 0.010269

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0280				
6-JUL-2006 06:57	bkg		0.0270				

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004517 Std Deviation : 0.004709

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0150	In			
6-JUL-2006 06:57	bkg		0.0160	In			

Quality Assurance Report. Generated 27-JUL-2006 10:26:05.75

QA Filename : $DISK1:[ALP10.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.309922 Std Deviation : 0.004454

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3091	| | |
5-JUL-2006 08:38	chk		0.3027	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 6.987655 Std Deviation : 0.226106

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		6.8333	| | |
5-JUL-2006 08:38	chk		7.0000	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

STLRICHLAND 666

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 336.677368 Std Deviation : 0.876445

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		338.0055				
5-JUL-2006 08:38	chk		338.9368	In			

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.394555 Std Deviation : 0.004192

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		0.3956				
5-JUL-2006 08:38	chk		0.3897				

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 6.459927 Std Deviation : 0.025137

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

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1-JUN-2006 07:11	chk	6.4506	|	|	|
5-JUL-2006 08:38	chk	6.4220	|	|	|

Quality Assurance Report. Generated 27-JUL-2006 10:26:06.42

QA Filename : $DISK1:[ALP10.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000786 Std Deviation : 0.000917

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0020	|	|	|	
6-JUL-2006 06:57	bkg		0.0000	|	|	|	

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000893 Std Deviation : 0.000875

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0020	|	|	|	
6-JUL-2006 06:57	bkg		0.0020	|	|	|	

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000321 Std Deviation : 0.000612

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0000				
6-JUL-2006 06:57	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000750 Std Deviation : 0.001236

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0010				
6-JUL-2006 06:57	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.001214 Std Deviation : 0.001315

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001178 Std Deviation : 0.001188

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000678 Std Deviation : 0.000863

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000536 Std Deviation : 0.000793

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000464 Std Deviation : 0.000793

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001143 Std Deviation : 0.001079

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001893 Std Deviation : 0.001618

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002035 Std Deviation : 0.001731

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002285 Std Deviation : 0.001802

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.015141 Std Deviation : 0.013112

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0320	| | |
6-JUL-2006 06:57	bkg		0.0390	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.014248 Std Deviation : 0.012835

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

2-JUN-2006 07:27 bkg	0.0300	| | |
6-JUL-2006 06:57 bkg	0.0390	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.013748 Std Deviation : 0.012643

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0290	| | |
6-JUL-2006 06:57 bkg			0.0370	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.011891 Std Deviation : 0.012423

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0260	| | |
6-JUL-2006 06:57 bkg			0.0490	|In| |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.007427 Std Deviation : 0.008503

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0180				
6-JUL-2006 06:57	bkg		0.0360		Ac		

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 31-JAN-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003392 Std Deviation : 0.003189

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0050				
6-JUL-2006 06:57	bkg		0.0060				

Quality Assurance Report. Generated 27-JUL-2006 10:25:55.42

QA Filename : $DISK1:[ALP9.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : % Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.373852 Std Deviation : 0.003536

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3779	| | |
5-JUL-2006 08:38	chk		0.3707	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 6.166667 Std Deviation : 0.361551

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		5.8333	| | |
5-JUL-2006 08:38	chk		5.8333	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 349.244873 Std Deviation : 0.728632

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		349.1499	| | |
5-JUL-2006 08:38	chk		350.5717	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.398089 Std Deviation : 0.002419

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3989	| | |
5-JUL-2006 08:38	chk		0.3985	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 6.375503 Std Deviation : 0.028041

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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1-JUN-2006 07:11	chk	6.3953	| | |		
5-JUL-2006 08:38	chk	6.3600	| | |		

Quality Assurance Report. Generated 27-JUL-2006 10:25:56.06

QA Filename : $DISK1:[ALP9.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000737 Std Deviation : 0.000733

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001158 Std Deviation : 0.000898

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000421 Std Deviation : 0.000507

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001105 Std Deviation : 0.000994

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0030	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.001263 Std Deviation : 0.001327

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0030	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001210 Std Deviation : 0.001437

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000737 Std Deviation : 0.001046

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000737 Std Deviation : 0.000933

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000632 Std Deviation : 0.000955

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000368 Std Deviation : 0.000955

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0000				
6-JUL-2006 06:57	bkg		0.0040		Ac		

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001000 Std Deviation : 0.001054

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0010				
6-JUL-2006 06:57	bkg		0.0020				

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001421 Std Deviation : 0.001574

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0020				
6-JUL-2006 06:57	bkg		0.0030				

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001474 Std Deviation : 0.001645

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.011104 Std Deviation : 0.011224

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0250	| | |
6-JUL-2006 06:57	bkg		0.0270	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.010420 Std Deviation : 0.010452

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

2-JUN-2006 07:27 bkg	0.0200	| | |
6-JUL-2006 06:57 bkg	0.0280	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.009894 Std Deviation : 0.009926

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0190	| | |
6-JUL-2006 06:57 bkg			0.0270	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.009947 Std Deviation : 0.010410

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0130	| | |
6-JUL-2006 06:57 bkg			0.0290	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.006157 Std Deviation : 0.007065

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0040	| | |
6-JUL-2006 06:57	bkg		0.0160	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 26-AUG-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002579 Std Deviation : 0.002567

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0070	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:27:57.69

QA Filename : $DISK1:[ALP8.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.375124 Std Deviation : 0.006654

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3691	| | |
5-JUL-2006 08:37	chk		0.3733	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 8.583334 Std Deviation : 0.231869

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		8.6667	| | |
5-JUL-2006 08:37	chk		8.6667	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 363.333099 Std Deviation : 1.444996

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		364.1717	| | |
5-JUL-2006 08:37	chk		365.9324	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.387771 Std Deviation : 0.004159

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3849	| | |
5-JUL-2006 08:37	chk		0.3841	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.337654 Std Deviation : 0.062616

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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1-JUN-2006 07:11	chk	7.3519	| | |
5-JUL-2006 08:37	chk	7.3439	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:27:58.37

QA Filename : $DISK1:[ALP8.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000187 Std Deviation : 0.000397

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0010	|In| |
7-JUL-2006 07:45	bkg		0.0010	|In| |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000531 Std Deviation : 0.000842

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000219 Std Deviation : 0.000420

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000656 Std Deviation : 0.000787

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000719 Std Deviation : 0.000924

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0030	In			
6-JUL-2006 06:57	bkg		0.0020				
7-JUL-2006 07:45	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000687 Std Deviation : 0.000931

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0030	In			
6-JUL-2006 06:57	bkg		0.0020				
7-JUL-2006 07:45	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000469 Std Deviation : 0.000879

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0030	In			

6-JUL-2006 06:57	bkg	0.0000			
7-JUL-2006 07:45	bkg	0.0000			

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000406 Std Deviation : 0.000756

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0020	In			
6-JUL-2006 06:57	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000437 Std Deviation : 0.000619

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0010				
6-JUL-2006 06:57	bkg		0.0000				
7-JUL-2006 07:45	bkg		0.0000				

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000750 Std Deviation : 0.001164

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0040	|In| |
6-JUL-2006 06:57	bkg		0.0000	| | |
7-JUL-2006 07:45	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001062 Std Deviation : 0.001318

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0060	|Ac| |
6-JUL-2006 06:57	bkg		0.0030	| | |
7-JUL-2006 07:45	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001281 Std Deviation : 0.001611

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

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Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

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2-JUN-2006 07:27	bkg	0.0050	|In|	
6-JUL-2006 06:57	bkg	0.0060	|In|	
7-JUL-2006 07:45	bkg	0.0030		

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001625 Std Deviation : 0.002121

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

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2-JUN-2006 07:27	bkg	0.0060	|In|	
6-JUL-2006 06:57	bkg	0.0080	|Ac|	
7-JUL-2006 07:45	bkg	0.0050		

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.014904 Std Deviation : 0.014580

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

2-JUN-2006 07:27	bkg	0.0400		
6-JUL-2006 06:57	bkg	0.0460	|In|	
7-JUL-2006 07:45	bkg	0.0390		

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.017435 Std Deviation : 0.016885

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0510	| | |
6-JUL-2006 06:57	bkg		0.0510	| | |
7-JUL-2006 07:45	bkg		0.0400	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.016623 Std Deviation : 0.016045

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0480	| | |
6-JUL-2006 06:57	bkg		0.0500	|In| |
7-JUL-2006 07:45	bkg		0.0380	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.014061 Std Deviation : 0.014528

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0390	| | |
6-JUL-2006 06:57	bkg		0.0370	| | |
7-JUL-2006 07:45	bkg		0.0420	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.013092 Std Deviation : 0.013428

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0340	| | |
6-JUL-2006 06:57	bkg		0.0350	| | |
7-JUL-2006 07:45	bkg		0.0360	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 13-SEP-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004562 Std Deviation : 0.004420

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

2-JUN-2006 07:27 bkg	0.0100	| | |
6-JUL-2006 06:57 bkg	0.0110	| | |
7-JUL-2006 07:45 bkg	0.0110	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:27:49.84

QA Filename : $DISK1:[ALP7,QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.351803 Std Deviation : 0.006234

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		0.3676	In			
5-JUL-2006 08:37	chk		0.3479				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 6.846154 Std Deviation : 0.311534

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		6.1667	In			
5-JUL-2006 08:37	chk		6.6667				

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 352.753784 Std Deviation : 1.036395

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		352.6049	| | |
5-JUL-2006 08:37	chk		353.9541	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.366340 Std Deviation : 0.003823

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3759	|In| |
5-JUL-2006 08:37	chk		0.3619	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.465387 Std Deviation : 0.058591

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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1-JUN-2006 07:11	chk	7.4568			
5-JUL-2006 08:37	chk	7.3345	In		

Quality Assurance Report. Generated 27-JUL-2006 10:27:50.54

QA Filename : $DISK1:[ALP7.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000791 Std Deviation : 0.000965

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0000				
6-JUL-2006 06:57	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001883 Std Deviation : 0.002238

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0000				
6-JUL-2006 06:57	bkg		0.0020				

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000279 Std Deviation : 0.000549

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001883 Std Deviation : 0.002382

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0030	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.001790 Std Deviation : 0.002730

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001604 Std Deviation : 0.002610

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000721 Std Deviation : 0.001031

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000419 Std Deviation : 0.000499

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000302 Std Deviation : 0.000513

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000605 Std Deviation : 0.000849

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0040	|Ac| |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001395 Std Deviation : 0.001365

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001767 Std Deviation : 0.001659

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002558 Std Deviation : 0.002185

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0030				
6-JUL-2006 06:57	bkg		0.0050				

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.016696 Std Deviation : 0.013140

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0440	In			
6-JUL-2006 06:57	bkg		0.0350				

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.016161 Std Deviation : 0.012726

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

2-JUN-2006 07:27 bkg	0.0440	|In|	|
6-JUL-2006 06:57 bkg	0.0330	|	|

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.015231 Std Deviation : 0.012195

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0440	|In| |
6-JUL-2006 06:57 bkg			0.0320	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.017231 Std Deviation : 0.020740

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27 bkg			0.0390	| | |
6-JUL-2006 06:57 bkg			0.0410	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.015045 Std Deviation : 0.018971

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0380	| | |
6-JUL-2006 06:57	bkg		0.0360	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.005953 Std Deviation : 0.006399

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0140	| | |
6-JUL-2006 06:57	bkg		0.0100	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:27:40.87

QA Filename : $DISK1:[ALP6.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.325251 Std Deviation : 0.006666

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3273	| | |
5-JUL-2006 08:37	chk		0.3241	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 6.639785 Std Deviation : 0.497895

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		7.0000	| | |
5-JUL-2006 08:37	chk		6.8333	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 347.728180 Std Deviation : 1.396113

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		349.5738				
5-JUL-2006 08:37	chk		350.5637	In			

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.332953 Std Deviation : 0.003929

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		0.3348				
5-JUL-2006 08:37	chk		0.3313				

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.492301 Std Deviation : 0.067717

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

1-JUN-2006 07:11	chk	7.4167	|	|	|
5-JUL-2006 08:37	chk	7.4737	|	|	|

Quality Assurance Report. Generated 27-JUL-2006 10:27:41.96

QA Filename : $DISK1:[ALP6.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000809 Std Deviation : 0.001054

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0020	|	|	|	
3-JUN-2006 09:55	bkg		0.0010	|	|	|	
6-JUL-2006 06:57	bkg		0.0000	|	|	|	

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001073 Std Deviation : 0.001083

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0010	|	|	|	
3-JUN-2006 09:55	bkg		0.0010	|	|	|	
6-JUL-2006 06:57	bkg		0.0020	|	|	|	

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000529 Std Deviation : 0.000819

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0030	Ac			
3-JUN-2006 09:55	bkg		0.0010				
6-JUL-2006 06:57	bkg		0.0010				

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000926 Std Deviation : 0.001027

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0000				
3-JUN-2006 09:55	bkg		0.0020				
6-JUL-2006 06:57	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

STLRICHLAND 710

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000941 Std Deviation : 0.001006

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
3-JUN-2006 09:55	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000926 Std Deviation : 0.001012

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
3-JUN-2006 09:55	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000632 Std Deviation : 0.000845

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |

3-JUN-2006 09:55	bkg	0.0000	| | |	
6-JUL-2006 06:57	bkg	0.0000	| | |	

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000500 Std Deviation : 0.000782

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
3-JUN-2006 09:55	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000412 Std Deviation : 0.000674

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
3-JUN-2006 09:55	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001132 Std Deviation : 0.001257

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
3-JUN-2006 09:55	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002088 Std Deviation : 0.002514

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0040	| | |
3-JUN-2006 09:55	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002808 Std Deviation : 0.003315

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0050	| | |
3-JUN-2006 09:55	bkg		0.0040	| | |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004014 Std Deviation : 0.004811

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0060	| | |
3-JUN-2006 09:55	bkg		0.0050	| | |
6-JUL-2006 06:57	bkg		0.0060	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.037949 Std Deviation : 0.019692

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0540	| | |
3-JUN-2006 09:55	bkg		0.0410	| | |
6-JUL-2006 06:57	bkg		0.0440	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.037758 Std Deviation : 0.020102

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0560				
3-JUN-2006 09:55	bkg		0.0380				
6-JUL-2006 06:57	bkg		0.0420				

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.035435 Std Deviation : 0.018888

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0530				
3-JUN-2006 09:55	bkg		0.0370				
6-JUL-2006 06:57	bkg		0.0360				

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.032244 Std Deviation : 0.022966

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0430	| | |
3-JUN-2006 09:55	bkg		0.0430	| | |
6-JUL-2006 06:57	bkg		0.0370	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0360	| | |
3-JUN-2006 09:55	bkg		0.0400	| | |
6-JUL-2006 06:57	bkg		0.0310	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.010042 Std Deviation : 0.007105

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0130	| | |
3-JUN-2006 09:55	bkg		0.0170	| | |
6-JUL-2006 06:57	bkg		0.0090	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:27:31.49

QA Filename : $DISK1:[ALP5.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.386193 Std Deviation : 0.005793

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		0.3956				
5-JUL-2006 08:37	chk		0.3827				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.314103 Std Deviation : 0.237238

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		7.1667				
5-JUL-2006 08:37	chk		7.1667				

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 356.797455 Std Deviation : 1.803836

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		358.7440	| | |
5-JUL-2006 08:37	chk		361.1956	|In| |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.396566 Std Deviation : 0.002030

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3980	| | |
5-JUL-2006 08:37	chk		0.3957	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.406622 Std Deviation : 0.054339

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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1-JUN-2006 07:11	chk	7.4852	|	|	|
5-JUL-2006 08:37	chk	7.3652	|	|	|

Quality Assurance Report. Generated 27-JUL-2006 10:27:32.16

QA Filename : $DISK1:[ALP5.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.006642 Std Deviation : 0.003045

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0060	|	|	|	
6-JUL-2006 06:57	bkg		0.0050	|	|	|	

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.010641 Std Deviation : 0.005285

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0060	|	|	|	
6-JUL-2006 06:57	bkg		0.0060	|	|	|	

-- Multi-Test Full Report --

STLRICHLAND 719

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002357 Std Deviation : 0.001193

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.010784 Std Deviation : 0.004227

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0100	| | |
6-JUL-2006 06:57	bkg		0.0160	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.010534 Std Deviation : 0.004573

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0100	| | |
6-JUL-2006 06:57	bkg		0.0090	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.009784 Std Deviation : 0.004192

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0100	| | |
6-JUL-2006 06:57	bkg		0.0070	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.005178 Std Deviation : 0.003255

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0060	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002107 Std Deviation : 0.001571

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

2-JUN-2006 07:27 bkg 0.0040 | | |
6-JUL-2006 06:57 bkg 0.0010 | | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002750 Std Deviation : 0.002066

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
---

2-JUN-2006 07:27 bkg 0.0050 | | |
6-JUL-2006 06:57 bkg 0.0020 | | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003821 Std Deviation : 0.002842

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
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Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
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2-JUN-2006 07:27 bkg 0.0060 | | |
6-JUL-2006 06:57 bkg 0.0040 | | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.020247 Std Deviation : 0.018011

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0380	| | |
6-JUL-2006 06:57	bkg		0.0490	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.019461 Std Deviation : 0.016536

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0390	| | |
6-JUL-2006 06:57	bkg		0.0410	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.018426 Std Deviation : 0.015552

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0370	| | |
6-JUL-2006 06:57	bkg		0.0370	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.023639 Std Deviation : 0.024900

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0380	| | |
6-JUL-2006 06:57	bkg		0.0390	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.021354 Std Deviation : 0.022932

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0320	| | |
6-JUL-2006 06:57	bkg		0.0350	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 7-FEB-2005 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.006785 Std Deviation : 0.008061

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0070				
6-JUL-2006 06:57	bkg		0.0070				

Quality Assurance Report. Generated 27-JUL-2006 10:27:23.55

QA Filename : $DISK1:[ALP4.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.235788 Std Deviation : 0.004487

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.2327	| | |
5-JUL-2006 08:37	chk		0.2396	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.520833 Std Deviation : 0.242264

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		7.3333	| | |
5-JUL-2006 08:37	chk		7.5000	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 348.086151 Std Deviation : 1.001933

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		349.1272	| | |
5-JUL-2006 08:37	chk		349.7118	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.295257 Std Deviation : 0.002712

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.2927	| | |
5-JUL-2006 08:37	chk		0.2981	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 10.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00

Mean : 7.468806 Std Deviation : 0.049590

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		7.4798	| | |
5-JUL-2006 08:37	chk		7.5650	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:27:24.21

QA Filename : $DISK1:[ALP4.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004638 Std Deviation : 0.004362

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0070	| | |
6-JUL-2006 06:57	bkg		0.0090	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.008387 Std Deviation : 0.013025

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0050	| | |
6-JUL-2006 06:57	bkg		0.0130	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002333 Std Deviation : 0.002650

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.007582 Std Deviation : 0.009439

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0100	| | |
6-JUL-2006 06:57	bkg		0.0070	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.008276 Std Deviation : 0.011263

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0060	| | |
6-JUL-2006 06:57	bkg		0.0060	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.007610 Std Deviation : 0.010833

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0060	| | |
6-JUL-2006 06:57	bkg		0.0060	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004499 Std Deviation : 0.006178

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002139 Std Deviation : 0.002799

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0010	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001250 Std Deviation : 0.001628

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0000	| | |
6-JUL-2006 06:57	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002361 Std Deviation : 0.002520

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0050	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002361 Std Deviation : 0.002002

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002527 Std Deviation : 0.002248

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0050	| | |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002833 Std Deviation : 0.002624

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0050				
6-JUL-2006 06:57	bkg		0.0050				

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.020553 Std Deviation : 0.019217

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0500				
6-JUL-2006 06:57	bkg		0.0670	In			

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.021359 Std Deviation : 0.019641

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0500	| | |
6-JUL-2006 06:57	bkg		0.0660	|In| |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.020192 Std Deviation : 0.018658

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0480	| | |
6-JUL-2006 06:57	bkg		0.0590	|In| |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.020636 Std Deviation : 0.025898

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:27	bkg		0.0510	| | |
6-JUL-2006 06:57	bkg		0.0420	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.018609 Std Deviation : 0.024026

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0430				
6-JUL-2006 06:57	bkg		0.0360				

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 8-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.006916 Std Deviation : 0.009950

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:27	bkg		0.0080				
6-JUL-2006 06:57	bkg		0.0190				

Quality Assurance Report. Generated 27-JUL-2006 10:27:15.67

QA Filename : $DISK1:[ALP3.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.365252 Std Deviation : 0.005434

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3636	| | |
5-JUL-2006 08:37	chk		0.3674	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 8.037635 Std Deviation : 0.249851

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		8.3333	| | |
5-JUL-2006 08:37	chk		8.5000	| | |

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 357.160919 Std Deviation : 0.962220

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		358.1125	| | |
5-JUL-2006 08:37	chk		359.1271	|In| |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.371223 Std Deviation : 0.002318

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.3689	| | |
5-JUL-2006 08:37	chk		0.3711	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.390490 Std Deviation : 0.051585

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

STLRICHLAND 738

1-JUN-2006 07:11	chk	7.3369	| | |	
5-JUL-2006 08:37	chk	7.4151	| | |	

Quality Assurance Report. Generated 27-JUL-2006 10:27:16.33

QA Filename : $DISK1:[ALP3.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004885 Std Deviation : 0.004005

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0060	| | |
6-JUL-2006 06:57	bkg		0.0080	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.006799 Std Deviation : 0.005804

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0060	| | |
6-JUL-2006 06:57	bkg		0.0080	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002657 Std Deviation : 0.002209

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0040	| | |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.006771 Std Deviation : 0.005688

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0050	| | |
6-JUL-2006 06:57	bkg		0.0080	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.006171 Std Deviation : 0.004706

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0070	| | |
6-JUL-2006 06:57	bkg		0.0080	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.005514 Std Deviation : 0.004307

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0050	| | |
6-JUL-2006 06:57	bkg		0.0080	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003342 Std Deviation : 0.003019

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0050	| | |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002228 Std Deviation : 0.002302

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0030	| | |
6-JUL-2006 06:57	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001657 Std Deviation : 0.001846

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0030	| | |
6-JUL-2006 06:57	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002857 Std Deviation : 0.002734

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0020	| | |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004628 Std Deviation : 0.004080

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0050	| | |
6-JUL-2006 06:57	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004828 Std Deviation : 0.004076

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0060	| | |
6-JUL-2006 06:57	bkg		0.0070	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.005228 Std Deviation : 0.004243

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:26	bkg		0.0090				
6-JUL-2006 06:57	bkg		0.0080				

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.023169 Std Deviation : 0.021372

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:26	bkg		0.0610				
6-JUL-2006 06:57	bkg		0.0560				

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.023254 Std Deviation : 0.020951

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

2-JUN-2006 07:26 bkg	0.0530	| | |
6-JUL-2006 06:57 bkg	0.0610	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.021997 Std Deviation : 0.019588

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26 bkg			0.0480	| | |
6-JUL-2006 06:57 bkg			0.0570	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.017998 Std Deviation : 0.017145

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26 bkg			0.0350	| | |
6-JUL-2006 06:57 bkg			0.0580	|In| |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.016369 Std Deviation : 0.015838

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0330	| | |
6-JUL-2006 06:57	bkg		0.0550	|In| |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 9-AUG-2004 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.005971 Std Deviation : 0.005469

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0170	|In| |
6-JUL-2006 06:57	bkg		0.0220	|In| |

Quality Assurance Report. Generated 27-JUL-2006 10:27:07.53

QA Filename : $DISK1:[ALP2.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.175045 Std Deviation : 0.003226

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		0.1761				
5-JUL-2006 08:37	chk		0.1781				
6-JUL-2006 06:56	chk		0.1790				
7-JUL-2006 07:44	chk		0.1763				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 8.667708 Std Deviation : 0.468852

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		9.5000				
5-JUL-2006 08:37	chk		10.0000	In			
6-JUL-2006 06:56	chk		10.0000	In			
7-JUL-2006 07:44	chk		10.0000	In			

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 352.040527 Std Deviation : 1.257586

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		353.6506				
5-JUL-2006 08:37	chk		354.5613	In			
6-JUL-2006 06:56	chk		354.6158	In			
7-JUL-2006 07:44	chk		353.5907				

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 0.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.186466 Std Deviation : 0.001776

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		0.1874				
5-JUL-2006 08:37	chk		0.1912	In			
6-JUL-2006 06:56	chk		0.1904	In			
7-JUL-2006 07:44	chk		0.1889				

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 10.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.360987 Std Deviation : 0.062783

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		7.4015				
5-JUL-2006 08:37	chk		7.1539		Ac		
6-JUL-2006 06:56	chk		7.1627		Ac		
7-JUL-2006 07:44	chk		7.3547				

Quality Assurance Report. Generated 27-JUL-2006 10:27:08.30

QA Filename : $DISK1:[ALP2.QA]GROUP_1_BKG.QAF;1

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002529 Std Deviation : 0.001966

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:26	bkg		0.0020				
3-JUN-2006 09:55	bkg		0.0010				
8-JUL-2006 07:51	bkg		0.0020				

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004058 Std Deviation : 0.003094

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0010	| | |
3-JUN-2006 09:55	bkg		0.0040	| | |
8-JUL-2006 07:51	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001661 Std Deviation : 0.001635

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0000	| | |
3-JUN-2006 09:55	bkg		0.0010	| | |
8-JUL-2006 07:51	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003205 Std Deviation : 0.002685

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

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Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

2-JUN-2006 07:26	bkg		0.0020			
3-JUN-2006 09:55	bkg		0.0030			
8-JUL-2006 07:51	bkg		0.0030		N	

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003338 Std Deviation : 0.003262

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

2-JUN-2006 07:26	bkg		0.0000			
3-JUN-2006 09:55	bkg		0.0020			
8-JUL-2006 07:51	bkg		0.0010			

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003044 Std Deviation : 0.002944

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

2-JUN-2006 07:26	bkg		0.0000			
3-JUN-2006 09:55	bkg		0.0010			

8-JUL-2006 07:51 bkg 0.0000 | | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001838 Std Deviation : 0.002302

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0000	| | |
3-JUN-2006 09:55	bkg		0.0010	| | |
8-JUL-2006 07:51	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001103 Std Deviation : 0.001362

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0000	| | |
3-JUN-2006 09:55	bkg		0.0020	| | |
8-JUL-2006 07:51	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)

Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000853 Std Deviation : 0.001162

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0000	| | |
3-JUN-2006 09:55	bkg		0.0020	| | |
8-JUL-2006 07:51	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001470 Std Deviation : 0.001387

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0000	| | |
3-JUN-2006 09:55	bkg		0.0010	| | |
8-JUL-2006 07:51	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002353 Std Deviation : 0.001976

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej

---

2-JUN-2006 07:26 bkg	0.0060	| | |
3-JUN-2006 09:55 bkg	0.0010	| | |
8-JUL-2006 07:51 bkg	0.0030	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003205 Std Deviation : 0.002600

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

---

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

---

2-JUN-2006 07:26 bkg	0.0100	|In| |
3-JUN-2006 09:55 bkg	0.0020	| | |
8-JUL-2006 07:51 bkg	0.0060	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004293 Std Deviation : 0.003390

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

---

2-JUN-2006 07:26 bkg	0.0160	|Ac| |
3-JUN-2006 09:55 bkg	0.0030	| | |
8-JUL-2006 07:51 bkg	0.0080	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.044170 Std Deviation : 0.024960

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0770	| | |
3-JUN-2006 09:55	bkg		0.0820	| | |
8-JUL-2006 07:51	bkg		0.0620	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.046361 Std Deviation : 0.027137

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0780	| | |
3-JUN-2006 09:55	bkg		0.0940	| | |
8-JUL-2006 07:51	bkg		0.0800	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.044317 Std Deviation : 0.026277

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0770	| | |
3-JUN-2006 09:55	bkg		0.0930	| | |
8-JUL-2006 07:51	bkg		0.0790	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.039656 Std Deviation : 0.023999

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0620	| | |
3-JUN-2006 09:55	bkg		0.0660	| | |
8-JUL-2006 07:51	bkg		0.0700	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.035642 Std Deviation : 0.021540

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0580	| | |

3-JUN-2006 09:55	bkg	0.0610	|	|	|
8-JUL-2006 07:51	bkg	0.0630	|	|	|

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.011557 Std Deviation : 0.007815

Measurement Time	Sample ID	Sample Analyst	Value	LU|	SD|	UD|	BS Rej
2-JUN-2006 07:26	bkg		0.0130	|	|	|	
3-JUN-2006 09:55	bkg		0.0160	|	|	|	
8-JUL-2006 07:51	bkg		0.0190	|	|	|	

Quality Assurance Report. Generated 27-JUL-2006 10:26:58.49

QA Filename : $DISK1:[ALP1.QA]GROUP_1_CHK.QAF;1

-- Multi-Test Full Report --

Description : Efficiency, Am-241
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.209517 Std Deviation : 0.003923

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		0.2140				
5-JUL-2006 08:37	chk		0.2127				

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 8.008065 Std Deviation : 0.347286

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:11	chk		8.5000				
5-JUL-2006 08:37	chk		8.5000				

-- Multi-Test Full Report --

Description : Centroid, Am-241
Parameter Units : channels Parameter Type : Peak

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 347.770142 Std Deviation : 0.850119

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		348.2881	| | |
5-JUL-2006 08:37	chk		349.2927	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.178589 Std Deviation : 0.002097

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 07:11	chk		0.1824	| | |
5-JUL-2006 08:37	chk		0.1782	| | |

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 7.481739 Std Deviation : 0.067220

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

1-JUN-2006 07:11	chk	7.5164	|	|	|
5-JUL-2006 08:37	chk	7.4997	|	|	|

Quality Assurance Report. Generated 27-JUL-2006 10:26:59.21

QA Filename : $DISK1:[ALP1.QA]GROUP_1_BKG.QAF;4

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004809 Std Deviation : 0.003483

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:26	bkg		0.0030	|	|	|	
6-JUL-2006 06:56	bkg		0.0010	|	|	|	

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.006053 Std Deviation : 0.004657

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:26	bkg		0.0020	|	|	|	
6-JUL-2006 06:56	bkg		0.0060	|	|	|	

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002367 Std Deviation : 0.002048

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0010	| | |
6-JUL-2006 06:56	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.006605 Std Deviation : 0.004945

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0000	| | |
6-JUL-2006 06:56	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00

Mean : 0.006083 Std Deviation : 0.004319

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0020	| | |
6-JUL-2006 06:56	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.005575 Std Deviation : 0.003813

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0020	| | |
6-JUL-2006 06:56	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003083 Std Deviation : 0.002260

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0020	| | |
6-JUL-2006 06:56	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001352 Std Deviation : 0.001301

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:26	bkg		0.0000				
6-JUL-2006 06:56	bkg		0.0000				

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.000964 Std Deviation : 0.001155

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:26	bkg		0.0000				
6-JUL-2006 06:56	bkg		0.0000				

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.001477 Std Deviation : 0.001570

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0030	| | |
6-JUL-2006 06:56	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.002671 Std Deviation : 0.002197

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0050	| | |
6-JUL-2006 06:56	bkg		0.0040	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.003179 Std Deviation : 0.002504

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0030	| | |
6-JUL-2006 06:56	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.004372 Std Deviation : 0.003265

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:26	bkg		0.0050				
6-JUL-2006 06:56	bkg		0.0040				

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.043724 Std Deviation : 0.026625

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
2-JUN-2006 07:26	bkg		0.0840				
6-JUL-2006 06:56	bkg		0.0860				

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.043748 Std Deviation : 0.026380

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

2-JUN-2006 07:26 bkg	0.0910	| | |
6-JUL-2006 06:56 bkg	0.0820	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.041465 Std Deviation : 0.024814

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26 bkg			0.0840	| | |
6-JUL-2006 06:56 bkg			0.0780	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.035436 Std Deviation : 0.021383

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26 bkg			0.0790	|In| |
6-JUL-2006 06:56 bkg			0.0630	| | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.032177 Std Deviation : 0.019688

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0720	|In| |
6-JUL-2006 06:56	bkg		0.0580	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type : Nuclide

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 3-SEP-2002 00:00 End Date : 30-MAY-2030 00:00
Mean : 0.011147 Std Deviation : 0.006989

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
2-JUN-2006 07:26	bkg		0.0210	| | |
6-JUL-2006 06:56	bkg		0.0220	| | |

Quality Assurance Report. Generated 27-JUL-2006 11:03:55.97

QA Filename : RDND06::RDND06$DKA100:[ALP87,QA]GROUP_1_CHK.QAF;2

-- Multi-Test Full Report --

Description : Centroid, U-238
Parameter Units : channel Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		108.6452	| | |
20-JUL-2006 08:33	chk		108.6908	| | |

-- Multi-Test Full Report --

Description : Constant FWHM
Parameter Units : channels Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		9.3333	| | |
20-JUL-2006 08:33	chk		9.0000	| | |

-- Multi-Test Full Report --

Description : Average Efficiency
Parameter Units : % Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
8-JUN-2006 13:41	chk		0.3018	| | |
20-JUL-2006 08:33	chk		0.3050	| | |

-- Multi-Test Full Report --

Description : Efficiency, Pu-239
Parameter Units : % Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

8-JUN-2006 13:41	chk	0.3163	|	|	|
20-JUL-2006 08:33	chk	0.3131	|	|	|

-- Multi-Test Full Report --

Description : Energy Calibration Slope
Parameter Units : keV/chan Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUN-2006 13:41	chk		6.1989	|	|	|	
20-JUL-2006 08:33	chk		6.1890	|	|	|	

Quality Assurance Report. Generated 27-JUL-2006 11:03:56.91

QA Filename : RDND06::RDND06$DKA100:[ALP87.QA]GROUP_1_BKG.QAF;2

-- Multi-Test Full Report --

Description : 4901, Pu-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0010	|	|	|	
21-JUL-2006 09:20	bkg		0.0010	|	|	|	
22-JUL-2006 05:58	bkg		0.0030	|	|	|	

-- Multi-Test Full Report --

Description : 5155, Pu-239 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 06:58	bkg		0.0010	|	|	|	
21-JUL-2006 09:20	bkg		0.0000	|	|	|	
22-JUL-2006 05:58	bkg		0.0010	|	|	|	

-- Multi-Test Full Report --

Description : 5275, Am-243 bkg (cnts/min)

Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
21-JUL-2006 09:20	bkg		0.0010	| | |
22-JUL-2006 05:58	bkg		0.0020	| | |

-- Multi-Test Full Report --

Description : 5486, Am-241 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0410	| | |
21-JUL-2006 09:20	bkg		0.0370	| | |
22-JUL-2006 05:58	bkg		0.0400	| | |

-- Multi-Test Full Report --

Description : 5499, Pu-238 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0390	| | |
21-JUL-2006 09:20	bkg		0.0360	| | |
22-JUL-2006 05:58	bkg		0.0370	| | |

-- Multi-Test Full Report --

Description : 5770, Pu-236 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0350	| | |
21-JUL-2006 09:20	bkg		0.0290	| | |

22-JUL-2006 05:58 bkg 0.0350 | | |

-- Multi-Test Full Report --

Description : 5805, Cm-244 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0250	| | |
21-JUL-2006 09:20	bkg		0.0180	| | |
22-JUL-2006 05:58	bkg		0.0210	| | |

-- Multi-Test Full Report --

Description : 6113, Cm-242 bkg (cnts/min)
Parameter Units : cnts/min Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0110	| | |
21-JUL-2006 09:20	bkg		0.0100	| | |
22-JUL-2006 05:58	bkg		0.0090	| | |

-- Multi-Test Full Report --

Description : 4010, Th-232 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |
22-JUL-2006 05:58	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4688, Th-230 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |

21-JUL-2006 09:20	bkg	0.0000	| | |
22-JUL-2006 05:58	bkg	0.0010	| | |

-- Multi-Test Full Report --

Description : 4845, Th-229 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |
22-JUL-2006 05:58	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5423, Th-228 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0420	| | |
21-JUL-2006 09:20	bkg		0.0330	| | |
22-JUL-2006 05:58	bkg		0.0390	| | |

-- Multi-Test Full Report --

Description : 4196, U-238 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0010	| | |
22-JUL-2006 05:58	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4396, U-235 bkg (cnts/min)

Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0000	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |
22-JUL-2006 05:58	bkg		0.0000	| | |

-- Multi-Test Full Report --

Description : 4776, U-234 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |
22-JUL-2006 05:58	bkg		0.0010	| | |

-- Multi-Test Full Report --

Description : 5320, U-232 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0070	| | |
21-JUL-2006 09:20	bkg		0.0040	| | |
22-JUL-2006 05:58	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 4788, Np-237 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0020	| | |
21-JUL-2006 09:20	bkg		0.0000	| | |

22-JUL-2006 05:58 bkg 0.0020 | | |

-- Multi-Test Full Report --

Description : 4882, Po-209 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0010	| | |
21-JUL-2006 09:20	bkg		0.0010	| | |
22-JUL-2006 05:58	bkg		0.0030	| | |

-- Multi-Test Full Report --

Description : 5305, Po-210 bkg (cnts/min)
Parameter Units : cpm Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
9-JUN-2006 06:58	bkg		0.0040	| | |
21-JUL-2006 09:20	bkg		0.0030	| | |
22-JUL-2006 05:58	bkg		0.0050	| | |

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/19/2006 2:06:59 PM

Lot No., Due Date: J6F270218,J6F140270; 07/25/2006,07/12/2006

Client, Site: 536403; AIR MONITORING Yerington Mine

QC Batch No., Method Test: 6179346; RALPHA-A Alpha by GPC-Am

SDG, Matrix: 31999,31902; FILTER

1.0 COC

	Yes	No	N/A
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		

2.0 QC Batch

	Yes	No	N/A
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		

3.0 QC & Samples

	Yes	No	N/A
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?			✓
3.5 Are the sample yields and MDAs within contract limits?	✓		

4.0 Raw Data

	Yes	No	N/A
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		

5.0 Other

	Yes	No	N/A
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review [signature] **Date** 7/19/06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 1179346

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?			✓
C. Other 1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review: Sheryl A. Adam Date: 7-20-96

STLRICHLAND

7/14/2006 10:40:42 AM

Sample Preparation/Analysis

536403, Brown and Caldwell Caldwell . Brown &

BA Gross Alpha PrpRC5016/5014
S7 Gross Alpha by GPC using Am-241 curve
01 STANDARD TEST SET

Balance Id:1120373922
Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179346 FILTER pCi/sampl PM, Quote: SA , 63174

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: HansenM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst Init/Date	Comments:
8 H796T-1-AE J6F270218-7-SAMP 06/07/2006 10:10	0.833g	12.71g,in		1.5	0.9	120	10C	1729	7/8/06	
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
9 H796W-1-AE J6F270218-8-SAMP 06/07/2006 09:55	0.833g	12.58g,in			1.3		10D			
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
10H797D-1-AE J6F270218-9-SAMP 06/07/2006 10:20	0.833g	12.54g,in			1.0		10E			
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
11H797E-1-AE J6F270218-10-SAMP 06/07/2006 10:30	0.833g	12.53g,in			1.2		10A	2018		
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
12H797F-1-AE J6F270218-11-SAMP 06/07/2006 10:45	0.833g	12.51g,in			1.0		10B			
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
13H797H-1-AE J6F270218-12-SAMP 06/07/2006 11:05	0.833g	12.50g,in			4.1		10C			
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
14H797J-1-AE J6F270218-13-SAMP 06/07/2006 11:10	0.833g	12.53g,in			1.5		10D			
		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 14
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.24

778

STLRICHLAND

7/14/2006 10:40:41 AM

Sample Preparation/Analysis

Balance Id:1120373922

536403, Brown and Caldwell , Brown & Caldwell

BA Gross Alpha PrpRC5016/5014
S7 Gross Alpha by GPC using Am-241 curve
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179346 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech:

SEQ Batch, Test: None , All Tests: 6167169 7YSR, 6167182 9NS1, 6167184 BAS7, 6167185 BDS8, 6167188 BXTE, 6167192 BXTF, 6179343 7YSR, 6179344 9NS1, 6179346 BAS7, 6179351 BDS8, 6179354 BXTE, 6179357 BXTF

Prep Tech: HansenM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst Init/Date	Comments:
1 H7DWT-1-AE J6F140370-1-SAMP 05/24/2006 07:40	0.833g	12.62g,in	AmtRec: FILTER #Containers: 1	1.5	5.1	150	10A	1141	7/18	Scr: Alpha: Beta:
2 H796F-1-AE J6F270218-1-SAMP 06/07/2006 10:00	0.833g	12.57g,in	AmtRec: FILTER #Containers: 1		6.3		10B			Scr: Alpha: Beta:
3 H796L-1-AE J6F270218-2-SAMP 06/07/2006 10:25	0.833g	12.56g,in	AmtRec: FILTER #Containers: 1		2.7		10C			Scr: Alpha: Beta:
4 H796N-1-AE J6F270218-3-SAMP 06/07/2006 10:35	0.833g	12.67g,in	AmtRec: FILTER #Containers: 1		2.2		10D			Scr: Alpha: Beta:
5 H796P-1-AE J6F270218-4-SAMP 06/07/2006 10:50	0.833g	12.73g,in	AmtRec: FILTER #Containers: 1		2.1		10E		7/18	Scr: Alpha: Beta:
6 H796Q-1-AE J6F270218-5-SAMP 06/07/2006 11:00	0.833g	12.69g,in	AmtRec: FILTER #Containers: 1		3.0		10A	1729		Scr: Alpha: Beta:
7 H796R-1-AE J6F270218-6-SAMP 06/07/2006 11:20	0.833g	12.48g,in	AmtRec: FILTER #Containers: 1		2.7		10B			Scr: Alpha: Beta:

STL Richland Key: in - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.24

STLRICHLAND

7/14/2006 10:40:43 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown & Caldwell

BA Gross Alpha PrpRC5016/5014
S7 Gross Alpha by GPC using Am-241 curve
01 STANDARD TEST SET

Balance Id:1120373922

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179346 FILTER pCi/sampl PM, Quote: SA , 63174

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: HansenM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15H797K-1-AE J6F270218-14-SAMP 06/07/2006 10:05	0.833g	12.55g,in AmtRec: FILTER	#Containers: 1	1.5	~~1.5~~ 0.1	150	10B	2018	7/18/06	
								Scr:	Alpha:	Beta:
16H797M-1-AE J6F270218-15-SAMP 06/07/2006 11:15	0.833g	12.53g,in AmtRec: FILTER	#Containers: 1		0.1 1.0		~~10E~~ 7/18/06 OP 10A	0946	7/19/06	
								Scr:	Alpha:	Beta:
17H8DNK-1-AA-B J6F280000-346-BLK 06/07/2006 10:00		1.00sa,in AmtRec:	#Containers: 1		0.1		10B			
								Scr:	Alpha:	Beta:
18H8DNK-1-AC-C J6F280000-346-LCS 06/07/2006 10:00		1.00sa,in AmtRec:	ASC0394 06/15/06.pd 02/09/06.r #Containers: 1		0.~~7~~ 4 7/19/06		10C			
								Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
536403, Brown and Caldwell Brown & Caldwell , SA , 63174

H7DWT1AE-SAMP Constituent List:
ALPHA RDL:20 pCi/sam LCL: UCL: RPD:
H8DNK1AA-BLK:
ALPHA RDL:20 pCi/sam LCL: UCL: RPD:
H8DNK1AC-LCS:

H7DWT1AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

7/19/2006 2:06:20 PM

Rpt DB Transfer log (Batch Results)

STL

SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	MDA	Sample Date / Units	Expected	Yield	Volumes
31999	**9H796F10**			**J6F2702181**	000487	FILTER	6/26/2006 9:00:00		6/7/2006 10:00:00 AM			
ALPHA	BAS7		0	7/18/2006 1:26:23 PM	**5.2157E+00**	1.623E+00	1.71E+00	4.523E+00	PCI/SA	1.0	1.0E+0	2.088E-2
BETA	BDS8		0	7/18/2006 1:34:31 PM	**1.5389E+01**	1.72E+00	2.03E+00	5.537E+00	PCI/SA	1.0	1.0E+0	8.365E-2
U-234	7YSR		0	7/18/2006 6:21:43 PM	**2.7995E-01**	1.743E-01	1.756E-01	4.788E-01	PCI/SA	0.975	1.0E+0	8.258E-2
U-235	7YSR		0	7/18/2006 6:21:43 PM	**9.9979E-02**	9.998E-02	1.003E-01	2.709E-01	PCI/SA	0.975	1.0E+0	8.258E-2
U-238	7YSR		0	7/18/2006 6:21:43 PM	**-1.9991E-02**	1.999E-02	2.006E-02	4.788E-01	PCI/SA	0.975	1.0E+0	8.258E-2
31999	**9H796L10**			**J6F2702182**	000488	FILTER	6/26/2006 9:00:00		6/7/2006 10:25:00 AM			
ALPHA	BAS7		0	7/18/2006 1:26:23 PM	**5.4966E+00**	1.672E+00	1.766E+00	4.546E+00	PCI/SA	1.0	1.0E+0	2.088E-2
BETA	BDS8		0	7/18/2006 1:34:31 PM	**1.7538E+01**	1.725E+00	2.106E+00	5.209E+00	PCI/SA	1.0	1.0E+0	8.479E-2
U-234	7YSR		0	7/18/2006 6:21:54 PM	**2.8598E-01**	1.651E-01	1.687E-01	2.583E-01	PCI/SA	0.926	1.0E+0	8.23E-2
U-235	7YSR		0	7/18/2006 6:21:54 PM	**2.6591E-01**	1.662E-01	1.676E-01	4.566E-01	PCI/SA	0.926	1.0E+0	8.23E-2
U-238	7YSR		0	7/18/2006 6:21:54 PM	**-3.8128E-02**	2.696E-02	2.713E-02	5.387E-01	PCI/SA	0.926	1.0E+0	8.23E-2
31999	**9H796N10**			**J6F2702183**	000489	FILTER	6/26/2006 9:00:00		6/7/2006 10:35:00 AM			
ALPHA	BAS7		0	7/18/2006 1:26:23 PM	**6.4647E+00**	1.658E+00	1.785E+00	3.857E+00	PCI/SA	1.0	1.0E+0	2.107E-2
BETA	BDS8		0	7/18/2006 1:34:31 PM	**1.57E+01**	1.626E+00	1.941E+00	4.99E+00	PCI/SA	1.0	1.0E+0	8.648E-2
U-234	7YSR		0	7/18/2006 6:22:08 PM	**2.0632E-01**	1.459E-01	1.468E-01	2.796E-01	PCI/SA	0.951	1.0E+0	8.249E-2
U-235	7YSR		0	7/18/2006 6:22:08 PM	**0.0E+00**	0.0E+00	1.263E-01	2.798E-01	PCI/SA	0.951	1.0E+0	8.249E-2
U-238	7YSR		0	7/18/2006 6:22:08 PM	**8.2533E-02**	1.052E-01	1.054E-01	4.941E-01	PCI/SA	0.951	1.0E+0	8.249E-2
31999	**9H796P10**			**J6F2702184**	000490	FILTER	6/26/2006 9:00:00		6/7/2006 10:50:00 AM			
ALPHA	BAS7		0	7/18/2006 1:26:23 PM	**3.1E+00**	1.521E+00	1.554E+00	5.409E+00	PCI/SA	1.0	1.0E+0	2.116E-2
BETA	BDS8		0	7/18/2006 1:34:35 PM	**1.905E+01**	1.708E+00	2.143E+00	5.03E+00	PCI/SA	1.0	1.0E+0	8.489E-2
U-234	7YSR		0	7/18/2006 6:22:38 PM	**-3.0904E-02**	1.545E-02	1.565E-02	5.153E-01	PCI/SA	1.056	1.0E+0	8.234E-2
U-235	7YSR		0	7/18/2006 6:22:38 PM	**8.1011E-02**	9.708E-02	9.729E-02	4.409E-01	PCI/SA	1.056	1.0E+0	8.234E-2
U-238	7YSR		0	7/18/2006 6:22:38 PM	**-4.6356E-02**	1.892E-02	1.928E-02	5.724E-01	PCI/SA	1.056	1.0E+0	8.234E-2
31999	**9H796Q10**			**J6F2702185**	000491	FILTER	6/26/2006 9:00:00		6/7/2006 11:00:00 AM			
ALPHA	BAS7		0	7/18/2006 4:13:36 PM	**5.8528E+00**	1.661E+00	1.958E+00	5.57E+00	PCI/SA	1.0	1.0E+0	2.042E-2
BETA	BDS8		0	7/18/2006 1:34:35 PM	**1.5815E+01**	1.678E+00	1.993E+00	5.248E+00	PCI/SA	1.0	1.0E+0	8.133E-2
U-234	7YSR		0	7/18/2006 6:22:53 PM	**7.0218E-01**	2.752E-01	2.809E-01	5.183E-01	PCI/SA	0.981	1.0E+0	8.04E-2
U-235	7YSR		0	7/18/2006 6:22:53 PM	**7.0919E-02**	1.049E-01	1.051E-01	5.183E-01	PCI/SA	0.981	1.0E+0	8.04E-2
U-238	7YSR		0	7/18/2006 6:22:53 PM	**4.861E-01**	2.329E-01	2.361E-01	5.549E-01	PCI/SA	0.981	1.0E+0	8.04E-2
31999	**9H796R10**			**J6F2702186**	000492	FILTER	6/26/2006 9:00:00		6/7/2006 11:20:00 AM			
ALPHA	BAS7		0	7/18/2006 4:13:36 PM	**4.1775E+00**	1.513E+00	1.574E+00	4.568E+00	PCI/SA	1.0	1.0E+0	2.069E-2
BETA	BDS8		0	7/18/2006 1:34:35 PM	**1.7615E+01**	1.668E+00	2.065E+00	5.009E+00	PCI/SA	1.0	1.0E+0	8.434E-2
U-234	7YSR		0	7/18/2006 6:23:10 PM	**-3.3198E-02**	1.66E-02	1.681E-02	5.536E-01	PCI/SA	1.009	1.0E+0	8.244E-2
U-235	7YSR		0	7/18/2006 6:23:10 PM	**-8.2994E-03**	8.299E-03	8.326E-03	4.172E-01	PCI/SA	1.009	1.0E+0	8.244E-2
U-238	7YSR		0	7/18/2006 6:23:10 PM	**-3.3198E-02**	1.66E-02	1.681E-02	5.536E-01	PCI/SA	1.009	1.0E+0	8.244E-2
31999	**9H796T10**			**J6F2702187**	000493	FILTER	6/26/2006 9:00:00		6/7/2006 10:10:00 AM			
ALPHA	BAS7		0	7/18/2006 4:13:36 PM	**-7.4933E-02**	8.593E-01	8.593E-01	4.586E+00	PCI/SA	1.0	1.0E+0	2.117E-2
BETA	BDS8		0	7/18/2006 1:34:32 PM	**1.0747E+00**	1.22E+00	1.322E+00	5.046E+00	PCI/SA	1.0	1.0E+0	8.389E-2
U-234	7YSR		0	7/18/2006 6:23:32 PM	**-2.801E-02**	1.617E-02	1.633E-02	5.817E-01	PCI/SA	0.885	1.0E+0	8.256E-2
U-235	7YSR		0	7/18/2006 6:23:32 PM	**-1.8673E-02**	1.32E-02	1.329E-02	5.33E-01	PCI/SA	0.885	1.0E+0	8.256E-2
U-238	7YSR		0	7/18/2006 6:23:32 PM	**1.166E-01**	1.166E-01	1.17E-01	3.16E-01	PCI/SA	0.885	1.0E+0	8.256E-2
31999	**9H796W10**			**J6F2702188**	P-0660	FILTER	6/26/2006 9:00:00		6/7/2006 9:55:00 AM			
ALPHA	BAS7		0	7/18/2006 4:13:36 PM	**3.8436E+00**	1.391E+00	1.445E+00	4.008E+00	PCI/SA	1.0	1.0E+0	2.088E-2
BETA	BDS8		0	7/18/2006 1:34:32 PM	**1.3482E+01**	1.585E+00	1.923E+00	5.061E+00	PCI/SA	1.0	1.0E+0	8.329E-2
U-234	7YSR		0	7/18/2006 6:24:30 PM	**1.5766E-01**	1.422E-01	1.427E-01	5.571E-01	PCI/SA	1.006	1.0E+0	8.241E-2
U-235	7YSR		0	7/18/2006 6:24:30 PM	**-3.9462E-02**	2.79E-02	2.808E-02	5.571E-01	PCI/SA	1.006	1.0E+0	8.241E-2
U-238	7YSR		0	7/18/2006 6:24:30 PM	**-5.9194E-02**	3.418E-02	3.45E-02	6.223E-01	PCI/SA	1.006	1.0E+0	8.241E-2
31999	**9H797D10**			**J6F2702189**	P-0661	FILTER	6/26/2006 9:00:00		6/7/2006 10:20:00 AM			
ALPHA	BAS7		0	7/18/2006 4:13:36 PM	**2.4154E+00**	1.461E+00	1.482E+00	6.531E+00	PCI/SA	1.0	1.0E+0	2.086E-2
BETA	BDS8		0	7/18/2006 1:34:32 PM	**1.2452E+01**	1.549E+00	1.861E+00	5.002E+00	PCI/SA	1.0	1.0E+0	8.541E-2
U-234	7YSR		0	7/18/2006 6:24:37 PM	**0.0E+00**	0.0E+00	1.219E-01	2.697E-01	PCI/SA	1.029	1.0E+0	8.246E-2

6179346, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0.
**Diff RptDb | Qtims => .

STL Richland, Wa Calc Review v4.6.18

SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot uncert	mdc	Sample Date / Units	Expected	Yield	Volumes
U-235	7YSR		0	7/18/2006 6:24:37 PM	-5.9728E-02	3.448E-02	3.481E-02	6.282E-01	PCI/SA	1.029	1.0E+0	8.248E-2
U-238	7YSR		0	7/18/2006 6:24:37 PM	3.9782E-02	1.053E-01	1.054E-01	6.282E-01	PCI/SA	1.029	1.0E+0	8.248E-2
31999	**9H797E10**			**J6F27021810**	P-0662	FILTER	6/26/2006 9:00:00		6/7/2006 10:30:00 AM			
ALPHA	BAS7		0	7/18/2006 7:02:47 PM	6.44E+00	1.867E+00	2.002E+00	5.424E+00	PCI/SA	1.0	1.0E+0	2.072E-2
BETA	BDS8		0	7/18/2006 1:34:19 PM	1.046E+01	1.699E+00	1.853E+00	6.064E+00	PCI/SA	1.0	1.0E+0	8.603E-2
U-234	7YSR		0	7/18/2006 6:24:49 PM	-1.4874E-01	5.622E-02	5.748E-02	8.722E-01	PCI/SA	0.906	1.0E+0	8.215E-2
U-235	7YSR		0	7/18/2006 6:24:49 PM	-5.3746E-02	3.68E-02	3.716E-02	6.704E-01	PCI/SA	0.906	1.0E+0	8.215E-2
U-238	7YSR		0	7/18/2006 6:24:49 PM	-2.1298E-02	1.183E-01	1.183E-01	8.288E-01	PCI/SA	0.906	1.0E+0	8.215E-2
31999	**9H797F10**			**J6F27021811**	P-0663	FILTER	6/26/2006 9:00:00		6/7/2006 10:45:00 AM			
ALPHA	BAS7		0	7/18/2006 7:02:47 PM	3.9003E+00	1.502E+00	1.556E+00	4.671E+00	PCI/SA	1.0	1.0E+0	2.03E-2
BETA	BDS8		0	7/18/2006 1:34:19 PM	1.8067E+01	1.616E+00	2.113E+00	4.856E+00	PCI/SA	1.0	1.0E+0	8.166E-2
U-234	7YSR		0	7/18/2006 6:25:00 PM	7.7955E-02	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	8.092E-2
U-235	7YSR		0	7/18/2006 6:25:00 PM	-1.9478E-02	1.948E-02	1.954E-02	4.665E-01	PCI/SA	1.011	1.0E+0	8.092E-2
U-238	7YSR		0	7/18/2006 6:25:00 PM	7.7955E-02	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	8.092E-2
31999	**9H797H10**			**J6F27021812**	P-0664	FILTER	6/26/2006 9:00:00		6/7/2006 11:05:00 AM			
ALPHA	BAS7		0	7/18/2006 7:02:47 PM	3.7E+00	1.475E+00	1.524E+00	4.621E+00	PCI/SA	1.0	1.0E+0	2.075E-2
BETA	BDS8		0	7/18/2006 1:34:19 PM	1.3205E+01	1.591E+00	1.827E+00	5.143E+00	PCI/SA	1.0	1.0E+0	8.304E-2
U-234	7YSR		0	7/18/2006 6:25:11 PM	5.5292E-02	1.392E-01	1.392E-01	7.569E-01	PCI/SA	1.009	1.0E+0	8.232E-2
U-235	7YSR		0	7/18/2006 6:25:11 PM	-1.8434E-02	1.843E-02	1.849E-02	4.414E-01	PCI/SA	1.009	1.0E+0	8.232E-2
U-238	7YSR		0	7/18/2006 6:25:11 PM	7.3726E-02	1.379E-01	1.381E-01	7.192E-01	PCI/SA	1.009	1.0E+0	8.232E-2
31999	**9H797J10**			**J6F27021813**	P-0665	FILTER	6/26/2006 9:00:00		6/7/2006 11:10:00 AM			
ALPHA	BAS7		0	7/18/2006 7:02:47 PM	5.0222E+00	1.555E+00	1.638E+00	4.09E+00	PCI/SA	1.0	1.0E+0	2.003E-2
BETA	BDS8		0	7/18/2006 1:34:38 PM	1.2848E+01	1.59E+00	1.818E+00	5.167E+00	PCI/SA	1.0	1.0E+0	8.455E-2
U-234	7YSR		0	7/18/2006 6:25:24 PM	0.0E+00	0.0E+00	1.219E-01	2.698E-01	PCI/SA	1.091	1.0E+0	8.015E-2
U-235	7YSR		0	7/18/2006 6:25:24 PM	-1.9916E-02	1.992E-02	1.998E-02	4.769E-01	PCI/SA	1.091	1.0E+0	8.015E-2
U-238	7YSR		0	7/18/2006 6:25:24 PM	1.5928E-01	1.436E-01	1.441E-01	5.626E-01	PCI/SA	1.091	1.0E+0	8.015E-2
31999	**9H797K10**			**J6F27021814**	P-0666	FILTER	6/26/2006 9:00:00		6/7/2006 10:05:00 AM			
ALPHA	BAS7		0	7/18/2006 7:02:47 PM	-6.0243E-01	9.947E-01	9.967E-01	5.518E+00	PCI/SA	1.0	1.0E+0	2.068E-2
BETA	BDS8		0	7/18/2006 1:34:38 PM	1.2862E+01	1.583E+00	1.813E+00	5.132E+00	PCI/SA	1.0	1.0E+0	8.229E-2
U-234	7YSR		0	7/18/2006 6:25:43 PM	-2.1922E-02	2.192E-02	2.199E-02	5.248E-01	PCI/SA	0.914	1.0E+0	8.187E-2
U-235	7YSR		0	7/18/2006 6:25:43 PM	1.0956E-01	1.096E-01	1.099E-01	2.969E-01	PCI/SA	0.914	1.0E+0	8.187E-2
U-238	7YSR		0	7/18/2006 6:25:43 PM	-2.1922E-02	2.192E-02	2.199E-02	5.248E-01	PCI/SA	0.914	1.0E+0	8.187E-2
31999	**9H797M10**			**J6F27021815**	P-0667	FILTER	6/26/2006 9:00:00		6/7/2006 11:15:00 AM			
ALPHA	BAS7		0	7/19/2006 8:30:44 AM	-2.1818E+00	8.881E-01	8.973E-01	6.058E+00	PCI/SA	1.0	1.0E+0	2.084E-2
BETA	BDS8		0	7/18/2006 1:34:38 PM	1.6716E+00	1.229E+00	1.238E+00	5.002E+00	PCI/SA	1.0	1.0E+0	8.539E-2
U-234	7YSR		0	7/18/2006 6:25:53 PM	0.0E+00	0.0E+00	1.36E-01	3.054E-01	PCI/SA	0.816	1.0E+0	8.287E-2
U-235	7YSR		0	7/18/2006 6:25:53 PM	-2.2549E-02	2.255E-02	2.262E-02	5.399E-01	PCI/SA	0.816	1.0E+0	8.287E-2
U-238	7YSR		0	7/18/2006 6:25:53 PM	-2.2549E-02	2.255E-02	2.262E-02	5.399E-01	PCI/SA	0.816	1.0E+0	8.287E-2
31902	**9H7DWT10**			**J6F1402701**	000473	FILTER	6/14/2006 10:00:00		5/24/2006 7:40:00 AM			
ALPHA	BAS7		0	7/18/2006 1:26:23 PM	3.4147E+00	1.54E+00	1.581E+00	5.324E+00	PCI/SA	1.0	1.0E+0	2.096E-2
BETA	BDS8		0	7/18/2006 1:34:31 PM	1.2465E+01	1.665E+00	1.896E+00	5.685E+00	PCI/SA	1.0	1.0E+0	8.326E-2
U-234	7YSR		0	7/18/2006 6:21:38 PM	8.4174E-02	1.073E-01	1.075E-01	5.042E-01	PCI/SA	0.936	1.0E+0	8.232E-2
U-235	7YSR		0	7/18/2006 6:21:38 PM	0.0E+00	0.0E+00	1.289E-01	2.852E-01	PCI/SA	0.936	1.0E+0	8.232E-2
U-238	7YSR		0	7/18/2006 6:21:38 PM	-4.2133E-02	2.979E-02	2.999E-02	5.946E-01	PCI/SA	0.936	1.0E+0	8.232E-2
31999	**H8DNK1AB**			**J6F280000348**	INTRA-LAB BLANK	FILTER	6/26/2006 9:00:00		6/7/2006 10:00:00 AM			
ALPHA	BAS7		0 B	7/19/2006 8:30:44 AM	-5.9742E-03	2.282E-02	2.283E-02	1.172E-01	PCI/SA	1.0	1.0E+0	1.0E+0
31999	**H8DNK1CS**			**J6F280000346**	INTRA-LAB CHECK	FILTER	6/26/2006 9:00:00		6/7/2006 10:00:00 AM			
ALPHA	BAS7		0 S	7/19/2006 8:30:44 AM	2.3228E+00	1.357E-01	2.721E-01	1.068E-01	PCI/SA	2.3923E+00 1.0	1.0E+0	1.0E+0

8179346, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 16 | 0 | 0 | 0.
**Diff RptDb | Qtims => .

7/19/2006 2:06:24 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/19/2005, 7/24/2006, Batch: '6179346', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6179346						
AC		CalcC	HansenM	7/14/2006 1:33:54 PM		
SC			wagarr	IsBatched	6/28/2006 1:36:13 PM	ICOC_RADCALC v4.8.24
SC			HansenM	InPrep2	7/14/2006 1:33:54 PM	RICH-RC-5016 REVISION 5
SC			HansenM	Prep2C	7/14/2006 1:34:26 PM	RICH-RC-5016 REVISION 5
SC			ScottM	InPrep2	7/15/2006 9:15:49 AM	RICH-RC-5014 REVISION 6
SC			BlackCL	InCnt1	7/18/2006 11:58:17 AM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	7/19/2006 10:11:19 AM	RICH-RD-0003 REVISION 4
AC			HansenM	7/14/2006 1:34:26 PM		
AC			ScottM	7/15/2006 9:15:49		
AC			BlackCL	7/18/2006 11:58:17		
AC			BlackCL	7/19/2006 10:11:19		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.18

Batch Nbr: 6179346

Alpha Beta, Alpha by GPC-Am , Results

7/19/2006 10:11:14 AM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	ILcC	IDC	QC	Yield	RYld
Alpha by GPC-Am				Richland Standard Gross Alpha/Beta Wo Blk Subt										
Calc	S7	FILTER	H7DWT1AE	ALPHA	3.41E+00	(1.58E+00)		PCI/SA	R	2.17E+00	5.32E+00		100%	
Calc	S7	FILTER	H796F1AE	ALPHA	5.22E+00	(1.71E+00)		PCI/SA	R	1.78E+00	4.52E+00		100%	
Calc	S7	FILTER	H796L1AE	ALPHA	5.50E+00	(1.77E+00)		PCI/SA	R	1.77E+00	4.55E+00		100%	
Calc	S7	FILTER	H796N1AE	ALPHA	6.46E+00	(1.78E+00)		PCI/SA	R	1.46E+00	3.86E+00		100%	
Calc	S7	FILTER	H796P1AE	ALPHA	3.10E+00	(1.55E+00)		PCI/SA	R	2.21E+00	5.41E+00		100%	
Calc	S7	FILTER	H796Q1AE	ALPHA	5.85E+00	(1.96E+00)		PCI/SA	R	2.27E+00	5.57E+00		100%	
Calc	S7	FILTER	H796R1AE	ALPHA	4.18E+00	(1.57E+00)		PCI/SA	R	1.78E+00	4.57E+00		100%	
Calc	S7	FILTER	H796T1AE	ALPHA	-7.49E-02	(8.59E-01)	U4	PCI/SA	R	1.78E+00	4.59E+00		100%	
Calc	S7	FILTER	H796W1AE	ALPHA	3.84E+00	(1.45E+00)		PCI/SA	R	1.52E+00	4.01E+00		100%	
Calc	S7	FILTER	H797D1AE	ALPHA	2.42E+00	(1.48E+00)	U4	PCI/SA	R	2.26E+00	5.53E+00		100%	
Calc	S7	FILTER	H797E1AE	ALPHA	6.44E+00	(2.00E+00)		PCI/SA	R	2.21E+00	5.42E+00		100%	
Calc	S7	FILTER	H797F1AE	ALPHA	3.90E+00	(1.56E+00)		PCI/SA	R	1.83E+00	4.67E+00		100%	
Calc	S7	FILTER	H797H1AE	ALPHA	3.70E+00	(1.52E+00)		PCI/SA	R	1.80E+00	4.62E+00		100%	
Calc	S7	FILTER	H797J1AE	ALPHA	5.02E+00	(1.64E+00)		PCI/SA	R	1.55E+00	4.09E+00		100%	
Calc	S7	FILTER	H797K1AE	ALPHA	-6.02E-01	(9.97E-01)	U4	PCI/SA	R	2.25E+00	5.52E+00		100%	
Calc	S7	FILTER	H797M1AE	ALPHA	-2.18E+00	(8.97E-01)	U4	PCI/SA	R	2.54E+00	6.06E+00		100%	
Calc	S7	FILTER	H8DNK1AA	ALPHA	-5.97E-03	(2.28E-02)	U4	PCI/SA	R	4.85E-02	1.17E-01	B	100%	
Calc	S7	FILTER	H8DNK1AC	ALPHA	2.32E+00	(2.72E-01)		PCI/SA	R	4.30E-02	1.07E-01	S	100%	97%

DM
SE
7/19/06

() - (1s Uncertainities)
IDC - Instrument Detection Level in Conc Units
MLcC- Method Decision Level in Conc Units
MDC - Minimum Detectable Concentration
*Std - Lc, MDC using StdDev for Set of Blanks

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Reguardless of Significants
Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:18
RADCALC v4.6.24
STL Richland

STLRICHLAND

Batch Nbr: 6179346

Alpha Beta, Alpha by GPC-Am , Calculated Results

Detailed Report

7/19/2006 10:11:14 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
1	Calc	S7	FILTER	*STLE	GabWoBS	H7DWT1AE	PCI/SA		05/24/06 07:40	07/18/06 13:26			1	1.00 SA	
536403,000473					J6F140270-1 v4.8.24		FILTER			00.9				0.020956 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 14:41	ALPHA	18	22	GPC10A	1.5	N	N	3.9448E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.363E-02)	(0.000E+00)		8%			(0.000E+00)	47.719563		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.LcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	3.414688		6.26667E-02	0.158858	0.158858	1.00 SA	100%		5.324031		
				(1.580794)		(2.8269E-02)	(0.072964)	(0.072964)	(0.027097)			2.171081		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
2	Calc	S7	FILTER	*STLE	GabWoBS	H796F1AE	PCI/SA		06/07/06 10:00	07/18/06 13:26			1	1.00 SA	
536403,000487					J6F270218-1 v4.8.24		FILTER			01.3				0.020875 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 14:41	ALPHA	19	15	GPC10B	1.5	N	N	3.9993E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.343E-02)	(0.000E+00)		8%			(0.000E+00)	47.903648		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.LcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	5.215668		9.66667E-02	0.24171	0.24171	1.00 SA	100%		4.522934		
				(1.710475)		(3.0074E-02)	(0.078068)	(0.078068)	(0.027097)			1.775126		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
3	Calc	S7	FILTER	*STLE	GabWoBS	H796L1AE	PCI/SA		06/07/06 10:25	07/18/06 13:26			1	1.00 SA	
536403,000488					J6F270218-2 v4.8.24		FILTER			01.0				0.020882 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 14:41	ALPHA	19	14	GPC10C	1.5	N	N	3.8722E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.289E-02)	(0.000E+00)		8%			(0.000E+00)	47.888264		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk.LcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	5.49659		9.86667E-02	0.254811	0.254811	1.00 SA	100%		4.545704		
				(1.766088)		(3.0007E-02)	(0.08058)	(0.08058)	(0.027097)			1.770666		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
4	Calc	S7	FILTER	*STLE	GabWoBS	H796N1AE	PCI/SA		06/07/06 10:35	07/18/06 13:26			1	1.00 SA	
536403,000489					J6F270218-3 v4.8.24		FILTER			01.2				0.021072 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 14:41	ALPHA	22	11	GPC10D	1.5	N	N	4.1223E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.199E-02)	(0.000E+00)		8%			(0.000E+00)	47.455446		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TFU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:4

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179346 — Alpha Beta, Alpha by GPC-Am , Calculated Results — 7/19/2006 10:11:15 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	6.464665		1.24667E-01	0.302422	0.302422	1.00 SA	100%		3.85707		
				(1.784814)		(3.1965E-02)	(0.081704)	(0.081704)	(0.027096)			1.480973		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
5	Calc	S7	FILTER	*STLE	GabWoBS	H796P1AE	PCI/SA		06/07/06 10:50	07/18/06 13:26			1	1.00 SA	
536403,000490					J6F270218-4 v4.8.24		FILTER			01.0				0.021156 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 14:41	ALPHA	15	22	GPC10E	1.5	N	N	3.8463E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.138E-02)	(0.000E+00)		8%			(0.000E+00)	47.268554		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	3.100015		5.60000E-02	0.145594	0.145594	1.00 SA	100%		5.408813		
				(1.553587)		(2.7471E-02)	(0.072494)	(0.072494)	(0.027096)			2.205854		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
6	Calc	S7	FILTER	*STLE	GabWoBS	H796Q1AE	PCI/SA		06/07/06 11:00	07/18/06 16:13			1	1.00 SA	
536403,000491					J6F270218-6 v4.8.24		FILTER			04.1				0.020424 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 17:28	ALPHA	22	22	GPC10A	1.5	N	N	3.8687E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.336E-02)	(0.000E+00)		8%			(0.000E+00)	48.961429		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	5.852762		1.02667E-01	0.265375	0.265375	1.00 SA	100%		5.57003		
				(1.958187)		(3.2646E-02)	(0.087498)	(0.087498)	(0.027096)			2.271397		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
7	Calc	S7	FILTER	*STLE	GabWoBS	H796R1AE	PCI/SA		06/07/06 11:20	07/18/06 16:13			1	1.00 SA	
536403,000492					J6F270218-6 v4.8.24		FILTER			01.5				0.020691 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 17:28	ALPHA	16	15	GPC10B	1.5	N	N	3.9954E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.341E-02)	(0.000E+00)		8%			(0.000E+00)	48.930871		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	4.177507		7.66667E-02	0.191887	0.191887	1.00 SA	100%		4.5677		
				(1.57394)		(2.7769E-02)	(0.071468)	(0.071468)	(0.027097)			1.792695		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
8	Calc	S7	FILTER	*STLE	GabWoBS	H796T1AE	PCI/SA		06/07/06 10:10	07/18/06 16:13			1	1.00 SA	
536403,000493					J6F270218-7 v4.8.24		FILTER			05.1				0.021166 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn

0 - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:8

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179346

Alpha Beta, Alpha by GPC-Am , Calculated Results

7/19/2006 10:11:15 AM

0	07/18/06 17:28	ALPHA	4	14	GPC10C	1.5	N	N	3.7669E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.261E-02)	(0.000E+00)		8%			(0.000E+00)	47.246593		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	-0.074933	U4	-1.33333E-03	-0.003521	-0.003521	1.00 SA	100%		4.585799		
				(0.859322)		(1.5290E-02)	(0.040377)	(0.040377)	(0.027098)			1.786286		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
9	Calc	S7	FILTER	*STLE	GabWoBS	H796W1AE	PCI/SA		06/07/06 09:55	07/18/06 16:13			1	1.00 SA	
536403,P-0660					J6F270218-8 v4.8.24		FILTER			06.3				0.02088 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 17:28	ALPHA	14	11	GPC10D	1.5	N	N	4.0038E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.165E-02)	(0.000E+00)		8%			(0.000E+00)	47.692289		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	3.843582		7.13333E-02	0.178166	0.178166	1.00 SA	100%		4.007794		
				(1.445355)		(2.5811E-02)	(0.066227)	(0.066227)	(0.027097)			1.518084		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
10	Calc	S7	FILTER	*STLE	GabWoBS	H797D1AE	PCI/SA		06/07/06 10:20	07/18/06 16:13			1	1.00 SA	
536403,P-0661					J6F270218-9 v4.8.24		FILTER			02.7				0.020861 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 17:28	ALPHA	13	22	GPC10E	1.5	N	N	3.8143E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.129E-02)	(0.000E+00)		8%			(0.000E+00)	47.936878		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	2.41539	U4	4.26667E-02	0.111859	0.111859	1.00 SA	100%		5.531269		
				(1.481547)		(2.5903E-02)	(0.068316)	(0.068316)	(0.027097)			2.25559		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
11	Calc	S7	FILTER	*STLE	GabWoBS	H797E1AE	PCI/SA		06/07/06 10:30	07/18/06 19:02			1	1.00 SA	
536403,P-0662					J6F270218-10 v4.8.24		FILTER			02.2				0.020722 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:17	ALPHA	24	22	GPC10A	1.5	N	N	3.9154E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.352E-02)	(0.000E+00)		8%			(0.000E+00)	48.256813		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	6.440045		1.16000E-01	0.296267	0.296267	1.00 SA	100%		5.424467		
				(2.001992)		(3.3960E-02)	(0.090545)	(0.090545)	(0.027097)			2.212038		

0 - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:12

RADCALC v4.8.24

STL Richland

Batch Nbr: 6179346

Alpha Beta, Alpha by GPC-Am , Calculated Results

7/19/2006 10:11:15 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
12	Calc	S7	FILTER	*STLE	GabWoBS	H797F1AE	PCI/SA		06/07/06 10:46	07/18/06 19:02			1	1.00 SA	
536403,P-0663					,J6F270218-11 v4.8.24		FILTER			02.1				0.020295 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:17	ALPHA	15	15	GPC10B	1.5	N	N	3.9834E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.337E-02)	(0.000E+00)		8%			(0.000E+00)	49.272467		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk LcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	3.900252		7.00000E-02	0.175729	0.175729	1.00 SA	100%		4.670709		
				(1.555518)		(2.6957E-02)	(0.069369)	(0.069369)	(0.027097)			1.833123		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
13	Calc	S7	FILTER	*STLE	GabWoBS	H797H1AE	PCI/SA		06/07/06 11:05	07/18/06 19:02			1	1.00 SA	
536403,P-0664					,J6F270218-12 v4.8.24		FILTER			03.0				0.020747 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:17	ALPHA	14	14	GPC10C	1.5	N	N	3.8337E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.277E-02)	(0.000E+00)		8%			(0.000E+00)	48.19976		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk LcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	3.70004		6.53333E-02	0.170418	0.170418	1.00 SA	100%		4.621148		
				(1.523928)		(2.6043E-02)	(0.069517)	(0.069517)	(0.027097)			1.800055		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
14	Calc	S7	FILTER	*STLE	GabWoBS	H797J1AE	PCI/SA		06/07/06 11:10	07/18/06 19:02			1	1.00 SA	
536403,P-0665					,J6F270218-13 v4.8.24		FILTER			02.7				0.020024 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:17	ALPHA	17	11	GPC10D	1.5	N	N	4.0910E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.190E-02)	(0.000E+00)		8%			(0.000E+00)	49.940168		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blk LcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	5.022213		9.13333E-02	0.223254	0.223254	1.00 SA	100%		4.090041		
				(1.637658)		(2.8276E-02)	(0.071683)	(0.071683)	(0.027097)			1.548218		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
15	Calc	S7	FILTER	*STLE	GabWoBS	H797K1AE	PCI/SA		06/07/06 10:05	07/18/06 19:02			1	1.00 SA	
536403,P-0666					,J6F270218-14 v4.8.24		FILTER			00.1				0.020655 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/18/06 20:17	ALPHA	5	22	GPC10E	1.5	N	N	3.8614E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.143E-02)	(0.000E+00)		8%			(0.000E+00)	48.414266		

() - (1s Uncertainities), Q - Qualifier, U Result Is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:15

RADCALC v4.8.24

STL Richland

STL RICHLAND

788

STLRICHLAND

Batch Nbr: 6179346

Alpha Beta, Alpha by GPC-Am , Calculated Results

7/19/2006 10:11:15 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	-0.602426	U4	-1.06667E-02	-0.027824	-0.027824	1.00 SA	100%		5.518247		
				(0.998859)		(1.7613E-02)	(0.045674)	(0.045674)	(0.027097)			2.25028		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
16	Calc	S7	FILTER	*STLE	GabWoBS	H797M1AE	PCI/SA		06/07/06 11:15	07/19/06 08:30			1	1.00 SA	
636403,P-0667					,J6F270218-15 v4.8.24		FILTER			00.1				0.020845 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/19/06 09:45	ALPHA	3	30	GPC10A	1.5	N	N	3.9819E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.368E-02)	(0.000E+00)		8%			(0.000E+00)	47.974178		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	-2.181767	U4	-4.00000E-02	-0.100961	-0.100961	1.00 SA	100%		6.058039		
				(0.897342)		(1.5918E-02)	(0.041126)	(0.041126)	(0.027097)			2.537811		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
17	Calc	S7	FILTER	*STLE	GabWoBS	H8DNK1AA	PCI/SA	B	06/07/06 10:00	07/19/06 08:30			1	1.00 SA	
0,INTRA-LAB BLANK					,J6F280000-346		FILTER			00.1				1.00 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/19/06 09:45	ALPHA	7	26	GPC10B	1.5	N	N	4.0213E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.350E-02)	(0.000E+00)		8%			(0.000E+00)	1.00		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	-0.005974	U4	-5.33333E-03	-0.013263	-0.013263	1.00 SA	100%		0.11722		
				(0.022831)		(2.0374E-02)	(0.050679)	(0.050679)	(0.017321)			0.04852		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
18	Calc	S7	FILTER	*STLE	GabWoBS	H8DNK1AC	PCI/SA	S	06/07/06 10:00	07/19/06 08:30		ASC0394	1	1.00 SA	
0,INTRA-LAB CHECK					,J6F280000-346		FILTER			00.4		ASC0394 Alq		1.00 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/19/06 09:45	ALPHA	306	19	GPC10C	1.5	N	N	3.8825E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.293E-02)	(0.000E+00)		8%			(0.000E+00)	1.00		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/19/06	ALPHA	R	2.322758		2.00200E+00	5.156529	5.156529	1.00 SA	100%	97%	0.106831		
				(0.272081)		(1.1694E-01)	(0.538877)	(0.538877)	(0.017321)			0.04296		

0 - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:16

RADCALC v4.6.24
STL Richland

ESI-Calculated Values

GROSS ALPHA

sample	sample count	sample time	bkg count	bkg time	NCR_S	CR Uncertainty	Efficiency	$NDPM_S$	Total Vol	Analytical Vol	Sample Activity
H7DWT	16	150	22	500	0.0626667	0.028268553	0.39448	0.158859	1	0.020956	3.414681808
H796F	19	150	15	500	0.0966667	0.030073983	0.39993	0.241709	1	0.020875	5.215708383
H796L	19	150	14	500	0.0986667	0.030007406	0.38722	0.254808	1	0.020882	5.496517434
H796N	22	150	11	500	0.1246667	0.031965259	0.41223	0.30242	1	0.021072	6.464754261
H796P	15	150	22	500	0.056	0.027471197	0.38463	0.145594	1	0.021156	3.099976055
H796Q	22	150	22	500	0.1026667	0.032646252	0.38687	0.265378	1	0.020424	5.852893639
H796R	16	150	15	500	0.0766667	0.027768887	0.39954	0.191887	1	0.020691	4.177455775
H796T	4	150	14	500	-0.0013333	0.015289793	0.37869	-0.003521	1	0.021166	-0.074931277
H796W	14	150	11	500	0.0713333	0.025811281	0.40038	0.178164	1	0.02088	3.843586635
H797D	13	150	22	500	0.0426667	0.02580267	0.38143	0.11186	1	0.020861	2.415381686
H797E	24	150	22	500	0.116	0.033980386	0.39154	0.296266	1	0.020722	6.440168182
H797F	15	150	15	500	0.07	0.026956755	0.39834	0.175729	1	0.020295	3.900336623
H797H	14	150	14	500	0.0653333	0.0260427	0.38337	0.170418	1	0.020747	3.700056965
H797J	17	150	11	500	0.0913333	0.028276413	0.4091	0.223254	1	0.020024	5.022223288
H797K	5	150	22	500	-0.0106667	0.017613126	0.38614	-0.027624	1	0.020655	-0.602428844
H797M	3	150	30	500	-0.04	0.015916449	0.39619	-0.100962	1	0.020845	-2.181733036
H8DNK1AA	7	150	26	500	-0.0053333	0.020374276	0.40213	-0.013263	1	1	-0.005974193
H8DNK1AC	306	150	19	500	2.002	0.116944431	0.38825	5.156471	1	1	2.32273484

7/14/2006 10:40:44 AM

Sample Preparation/Analysis

BA Gross Alpha PrpRC5016/5014
S7 Gross Alpha by GPC using Am-241 curve
01 STANDARD TEST SET

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179346 pCi/sampl
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,HansenM

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

H8DNK1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Scl.Not.: Y ODRs: B
H8DNK1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Scl.Not.: Y ODRs: B

Approved By _____ Date: _____

STRICKLAND

7/26/2006 11:01:25 AM

Standard Material Fractions (Vials)

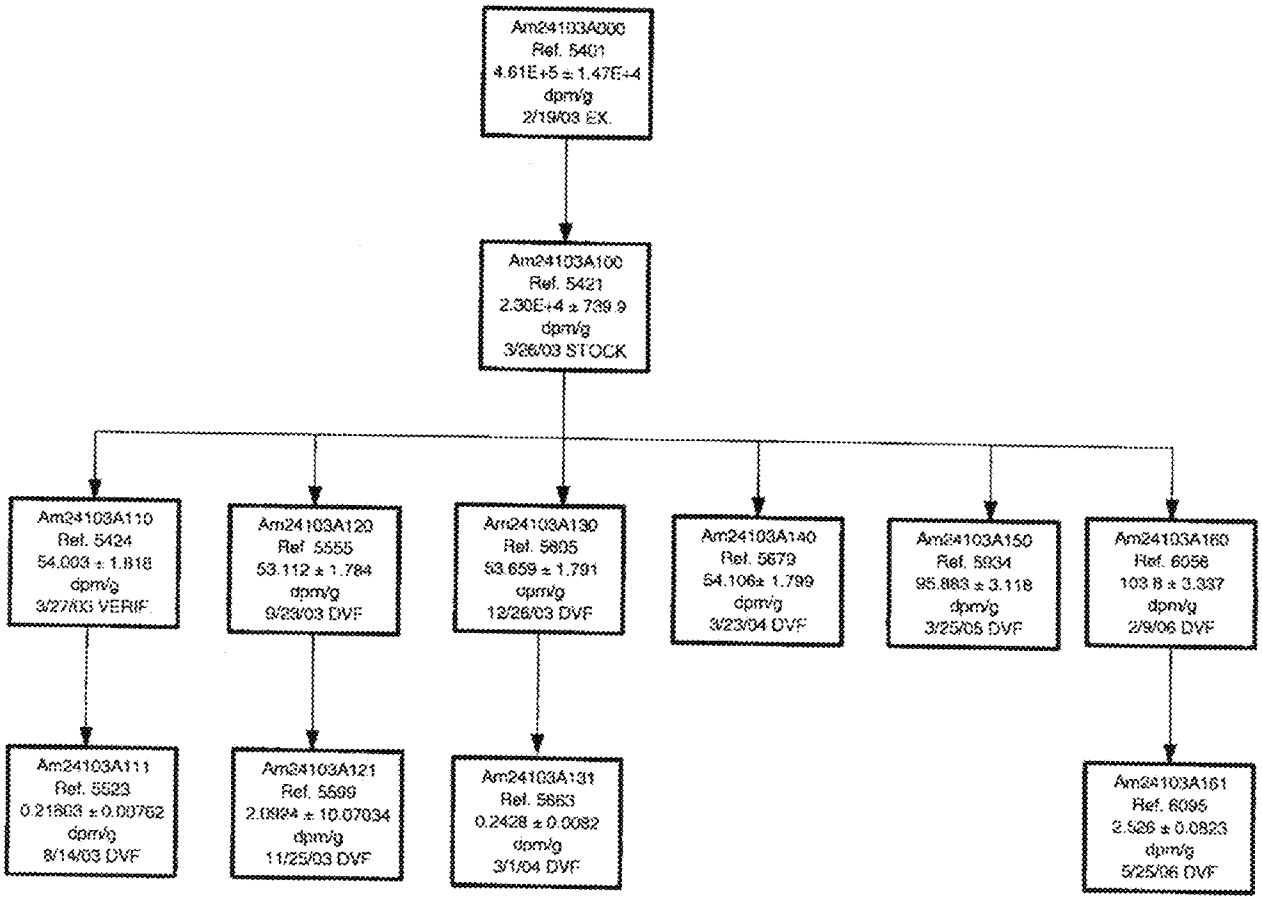
Vial Prep: 7/25/05 to 7/27/06,SMFractionIdentifier Between ASC0394 and ASC0394, Order by SMIdentifier,ConstituentCode,SMFractionIdentifier

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	AM24103A160			Ref: 2/9/2006		1.0380E+02		± 3.253E+00	DPM/G	
ASC0394	AM-241	**5.3116E+00**	**± 1.671E-01**	DPM	0.0512	g	6/15/2006	6/15/2006	Armstron 1.0374E+02	± 3.251E+00	DPM/G
		5.3116E+000	± 5.312E+000	(1)			5.3116E+000 , 5.3116E+000				

STL Richland, SMFractions v4.8.12 Page 1 Record Count: 1

* - Isotope is an Impurity

AM24103A000



AM241-2003

ISOTOPE DILUTION RECORD

1) Prepared by	tda	2) Date Prepared	2/9/2006
3) Source Identification Number / Ref. Number	**AM24103A100**		**5421**
4) Source Activity (dpm ± dpm/g)	2.2910E+04	±	7.365E-02
5) Percent error of Source Activity	3.215 %		
6) Weight of Source Material used (g)	1.0007		
7) (% Error) of Weight of Source Material used	0.4797 %		
8) Diluent	2 M HNO3		
9) Total Weight of the Dilution (g)	220.87		
10) (% Error) of Total Weight of the Dilution	0.1358 %		
11) Specific Activity of Diluted Solution dpm/g	**1.0380E+02**	±	**3.377E+00**
12) Total Uncertainty	3.253 %		
13) Dilution Identification Number / Ref. Number	**AM24103A160**		**6056**
14) Calibration Reference Date	2/9/2006		
15) Isotope Inventory File update by/date	tda		2/9/2006
16) Reviewed by/date			
17) Location	qclab	18) Exhausted	

CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

ISOTOPE DILUTION RECORD

1) Prepared by	W.G	2) Date Prepared	3/25/2005
3) Source Identification Number / Ref. Number	**AM24103A100**		**5421**
4) Source Activity (dpm ± dpm/g)	2.2940E+04	±	7.375E+02
5) Percent error of Source Activity	3.215 %		
6) Weight of Source Material used (g)	1.0186		
7) (% Error) of Weight of Source Material used	0.4712 %		
8) Diluent	2M HNO3-P0500135		
9) Total Weight of the Dilution (g)	243.7		
10) (% Error) of Total Weight of the Dilution	0.1231 %		
11) Specific Activity of Diluted Solution dpm/g	**9.5883E+01**	**±**	**3.118E+00**
12) Total Uncertainty	3.252 %		
13) Dilution Identification Number / Ref. Number	**AM24103A150**		**5934**
14) Calibration Reference Date	3/25/2005		
15) Isotope Inventory File update by/date	W.G		3/25/2005
16) Reviewed by/date	sew		3/28/2005
17) Location QCLAB/STWT1132	18) Exhausted		

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CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

ISOTOPE DILUTION RECORD

1) Prepared by	W.G	2) Date Prepared	3/23/2004
3) Source Identification Number / Ref. Number	**AM24103A100**		**5421**
4) Source Activity (dpm ± dpm/g)	2.2977E+04	±	7.387E+02
5) Percent error of Source Activity	3.215 %		
6) Weight of Source Material used (g)	0.5744		
7) (% Error) of Weight of Source Material used	0.8357 %		
8) Diluent	2M HNO3-P0400085		
9) Total Weight of the Dilution (g)	243.93		
10) (% Error) of Total Weight of the Dilution	0.1230 %		
11) Specific Activity of Diluted Solution dpm/g	**5.4106E+01**	±	**1.799E+00**
12) Total Uncertainty	3.324 %		
13) Dilution Identification Number / Ref. Number	**AM24103A140**		**5679**
14) Calibration Reference Date	3/23/2004		
15) Isotope Inventory File update by/date	W.G		3/23/2004
16) Reviewed by/date	SEW		3/26/2004
17) Location QCLAB/STWT0942	18) Exhausted		

CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

ISOTOPE DILUTION RECORD

1) Prepared by	W.G	2) Date Prepared	12/26/2003
3) Source Identification Number / Ref. Number	**AM24103A100**		**5421**
4) Source Activity (dpm ± dpm/g)	2.2986E+04	±	7.390E+02
5) Percent error of Source Activity	3.215 %		
6) Weight of Source Material used (g)	0.5414		
7) (% Error) of Weight of Source Material used	0.8866 %		
8) Diluent	2M HNO3-P0300705		
9) Total Weight of the Dilution (g)	231.92		
10) (% Error) of Total Weight of the Dilution	0.1294 %		
11) Specific Activity of Diluted Solution dpm/g	**5.3659E+01**	±	**1.791E+00**
12) Total Uncertainty	3.338 %		
13) Dilution Identification Number / Ref. Number	**AM24103A130**		**5605**
14) Calibration Reference Date	12/26/2003		
15) Isotope Inventory File update by/date	W.G		12/26/2003
16) Reviewed by/date	SEW		1/5/2004
17) Location OCLAB/STWT0894	18) Exhausted		

CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form. CC-006, 7/15/99, Rev 3

ISOTOPE DILUTION RECORD

1) Prepared by W.G

2) Date Prepared 9/23/2003

3) Source Identification Number / Ref. Number AM24103A100 5421

4) Source Activity (dpm ± dpm/g) 2.2996E+04 ± 7.393E+02

5) Percent error of Source Activity 3.215 %

6) Weight of Source Material used (g) 0.4983

7) (% Error) of Weight of Source Material used 0.9633 %

8) Diluent 2M HNO3-P0300455

9) Total Weight of the Dilution (g) 215.75

10) (% Error) of Total Weight of the Dilution 0.1390 %

11) Specific Activity of Diluted Solution dpm/g 5.3112E+01 ± 1.784E+00

12) Total Uncertainty 3.359 %

13) Dilution Identification Number / Ref. Number AM24103A120 5555

14) Calibration Reference Date 9/23/2003

15) Isotope Inventory File update by/date W.G 9/23/2003

16) Reviewed by/date SEW 9/24/2003

17) Location QCLAB/STWT0653

18) Exhausted

CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

ISOTOPE DILUTION RECORD

1) Prepared by W.G

2) Date Prepared 3/26/03

3) **Source Identification Number / Ref. Number** AM24103A000 5401

4) Source Activity (dpm ± dpm/g) 4.6049E+05 ± 1.474E+04

5) Percent error of Source Activity 3.2 %

6) Weight of Source Material used (g) 5.0651

7) (% Error) of Weight of Source Material used 0.0948 %

8) Diluent 2M HNO3-P0300164

9) Total Weight of the Dilution (g) 101.35

10) (% Error) of Total Weight of the Dilution 0.2960 %

11) **Specific Activity of Diluted Solution dpm/g** 2.3014E+04 ± 7.399E+02

12) Total Uncertainty 3.215 %

13) **Dilution Identification Number / Ref. Number** AM24103A100 5421

14) Calibration Reference Date 3/26/03

15) Isotope Inventory File update by/date W.G 3/26/03

16) Reviewed by/date SEW 3/26/03

17) Location QCLAB/STWT0754

18) Exhausted

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CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

ISOTOPE RECORD FORM

1) Isotope Am-241 2) Reference Number 5401

3) Half Life 433 yrs. 4) Storage Location Std. Lab

5) Source Identification Number Am24103A000

****

CALIBRATION DATA

6) Activity as Received Units 3.923E+04 dps

7) Overall Uncertainty Percent 3.2%

8) Reference Date / Time 19-FEB-03 12:00 EST (9:00AM)

9) Activity dpm/g 4.6056E+5 ± 1.4740E+4 dpm/g

10) Volume or Mass (ml/g) 5.11069 g

11) Calibrated by ANALYTICS

12) Certificate Solution Number 65621-310

****

SURVEY DATA

13) Date Received 2/24/03

14) Surveyed by W.G

15) Survey Reading (Beta/Gamma) cpm <100 outside of surface

16) Survey Reading (Alpha) cpm <100 outside of surface

****

17) Activity Conversion 3.923E+04dps*60s/m/5.011069g = 4.606E+05 ± 1.474E+04 dpm/g

18) Remarks

19) Isotope File Updated by W.G 2/24/03

20) QC Approved SEW 3/11/03

Form No.: CC-008, 3/95, Rev. 2

ANALYTICS

#5401
Rec'd 2/24/03

1380 Seaboard Industrial Blvd
Atlanta, Georgia 30318 · U.S.A.
Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

65621-310

Am-241 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	3.923 E4
HALF-LIFE:	4.322 E2 years
CALIBRATION DATE:	February 19, 2003 12:00 EST
TOTAL UNCERTAINTY*:	3.2%
SYSTEMATIC:	2.2%
RANDOM:	1.0%

*99% confidence level.

5.11069 grams 1M HCl solution.

Impurities: γ-impurities <0.1%
α-impurities <0.1%

P O NUMBER 1703541-000 OP, Item 1

SOURCE PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: M. [illegible] 2-20-03

STLRICHLAND

Quality Assurance Report. Generated 27-JUL-2006 10:29:24.39

QA Filename : $DISK1:[QUAD10.QA]CHK.QAF;2

-- Multi-Test Full Report --

Description : Quad10A (Hex 1) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 47.599998 Upper Bound : 50.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 49.065498 Std Deviation : 0.463531

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:33	CHK		48.9000				
2-JUN-2006 05:44	CHK		49.6000				
3-JUN-2006 07:49	CHK		48.8000				
4-JUN-2006 07:55	CHK		48.7000				
5-JUN-2006 05:30	CHK		49.1000				
6-JUN-2006 06:10	CHK		49.2000				
7-JUN-2006 06:24	CHK		48.6000				
8-JUN-2006 06:35	CHK		49.4000				
9-JUN-2006 05:30	CHK		49.4000				
10-JUN-2006 05:57	CHK		49.3000				
11-JUN-2006 09:00	CHK		49.1000				
12-JUN-2006 05:27	CHK		49.3000				
13-JUN-2006 06:10	CHK		49.0000				
14-JUN-2006 05:26	CHK		49.0000				
15-JUN-2006 05:45	CHK		49.3000				
16-JUN-2006 05:23	CHK		49.2000				
17-JUN-2006 07:25	CHK		49.0000				
18-JUN-2006 05:48	CHK		49.2000				
19-JUN-2006 05:27	CHK		48.7000				
20-JUN-2006 05:55	CHK		48.8000				
21-JUN-2006 05:30	CHK		49.3000				

22-JUN-2006 05:53	CHK	48.9000				
23-JUN-2006 05:23	CHK	48.9000				
24-JUN-2006 06:04	CHK	49.0000				
26-JUN-2006 05:27	CHK	48.7000				
27-JUN-2006 04:56	CHK	48.7000				
28-JUN-2006 05:43	CHK	49.1000				
29-JUN-2006 06:05	CHK	48.7000				
30-JUN-2006 05:45	CHK	49.6000				
1-JUL-2006 08:03	CHK	49.6000				
2-JUL-2006 06:36	CHK	48.9000				
3-JUL-2006 05:06	CHK	49.4000				
4-JUL-2006 07:50	CHK	49.1000				
5-JUL-2006 05:23	CHK	49.2000				
6-JUL-2006 05:36	CHK	48.4000				
7-JUL-2006 05:31	CHK	49.4000				
8-JUL-2006 11:41	CHK	48.9000				
10-JUL-2006 05:29	CHK	48.8000				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
11-JUL-2006 06:25	CHK		49.1000				
12-JUL-2006 06:05	CHK		49.8000				
13-JUL-2006 05:57	CHK		48.7000				
14-JUL-2006 05:39	CHK		48.6000				
15-JUL-2006 06:32	CHK		49.3000				
15-JUL-2006 07:13	CHK		No Value				
17-JUL-2006 05:01	CHK		48.8000				
18-JUL-2006 06:05	CHK		49.5000				
19-JUL-2006 05:51	CHK		48.9000				
20-JUL-2006 05:10	CHK		49.1000				
21-JUL-2006 05:48	CHK		49.3000				
22-JUL-2006 05:38	CHK		49.3000				
24-JUL-2006 05:14	CHK		49.2000				
25-JUL-2006 06:03	CHK		49.4000				
26-JUL-2006 05:12	CHK		50.0000	In			

-- Multi-Test Full Report --

Description : Quad10B (Hex 2) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----

Lower Bound : 40.400002 Upper Bound : 43.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters -----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 41.726315 Std Deviation : 0.416509

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:33	CHK		41.7000				
2-JUN-2006 05:44	CHK		41.1000				
3-JUN-2006 07:49	CHK		41.8000				
4-JUN-2006 07:55	CHK		42.2000				
5-JUN-2006 05:30	CHK		42.0000				
6-JUN-2006 06:10	CHK		42.1000				
7-JUN-2006 06:24	CHK		41.6000				
8-JUN-2006 06:35	CHK		42.2000				
9-JUN-2006 05:30	CHK		41.7000				
10-JUN-2006 05:57	CHK		42.1000				
11-JUN-2006 09:00	CHK		41.9000				
12-JUN-2006 05:27	CHK		41.6000				
13-JUN-2006 06:10	CHK		41.4000				
14-JUN-2006 05:26	CHK		41.7000				
15-JUN-2006 05:45	CHK		42.0000				
16-JUN-2006 05:23	CHK		41.9000				
17-JUN-2006 07:25	CHK		41.7000				
18-JUN-2006 05:48	CHK		41.7000				
19-JUN-2006 05:27	CHK		42.1000				
20-JUN-2006 05:55	CHK		42.2000				
21-JUN-2006 05:30	CHK		41.6000				
22-JUN-2006 05:53	CHK		41.5000				
23-JUN-2006 05:23	CHK		41.6000				

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
24-JUN-2006 06:04	CHK		41.7000				
26-JUN-2006 05:27	CHK		42.4000				
27-JUN-2006 04:56	CHK		41.7000				
28-JUN-2006 05:43	CHK		41.7000				
29-JUN-2006 06:05	CHK		41.4000				
30-JUN-2006 05:45	CHK		41.2000				

1-JUL-2006 08:03	CHK	42.3000			
2-JUL-2006 06:36	CHK	40.9000			
3-JUL-2006 05:06	CHK	41.9000			
4-JUL-2006 07:50	CHK	41.7000			
5-JUL-2006 05:23	CHK	41.7000			
6-JUL-2006 05:36	CHK	42.3000			
7-JUL-2006 05:31	CHK	41.5000			
8-JUL-2006 11:41	CHK	41.9000			
10-JUL-2006 05:29	CHK	41.7000			
11-JUL-2006 06:25	CHK	41.8000			
12-JUL-2006 06:05	CHK	41.7000			
13-JUL-2006 05:57	CHK	41.8000			
14-JUL-2006 05:39	CHK	41.4000			
15-JUL-2006 06:32	CHK	41.8000			
15-JUL-2006 07:13	CHK	No Value			
17-JUL-2006 05:01	CHK	41.3000			
18-JUL-2006 06:05	CHK	41.7000			
19-JUL-2006 05:51	CHK	42.5000			
20-JUL-2006 05:10	CHK	41.8000			
21-JUL-2006 05:48	CHK	41.9000			
22-JUL-2006 05:38	CHK	42.0000			
24-JUL-2006 05:14	CHK	42.3000			
25-JUL-2006 06:03	CHK	42.4000			
26-JUL-2006 05:12	CHK	41.7000			

-- Multi-Test Full Report --

Description : Quad10C (Hex 3) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 44.900002 Upper Bound : 49.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 46.962921 Std Deviation : 0.670843

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:33	CHK		47.0000				
2-JUN-2006 05:44	CHK		47.4000				

3-JUN-2006 07:49	CHK	47.5000			
4-JUN-2006 07:55	CHK	47.3000			
5-JUN-2006 05:30	CHK	47.5000			
6-JUN-2006 06:10	CHK	47.6000			
7-JUN-2006 06:24	CHK	47.1000			
8-JUN-2006 06:35	CHK	46.5000			

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
9-JUN-2006 05:30	CHK		46.9000				
10-JUN-2006 05:57	CHK		46.8000				
11-JUN-2006 09:00	CHK		47.4000				
12-JUN-2006 05:27	CHK		46.6000				
13-JUN-2006 06:10	CHK		46.9000				
14-JUN-2006 05:26	CHK		47.7000				
15-JUN-2006 05:45	CHK		46.9000				
16-JUN-2006 05:23	CHK		46.9000				
17-JUN-2006 07:25	CHK		46.4000				
18-JUN-2006 05:48	CHK		47.2000				
19-JUN-2006 05:27	CHK		46.5000				
20-JUN-2006 05:55	CHK		47.3000				
21-JUN-2006 05:30	CHK		47.2000				
22-JUN-2006 05:53	CHK		46.8000				
23-JUN-2006 05:23	CHK		47.6000				
24-JUN-2006 06:04	CHK		47.2000				
26-JUN-2006 05:27	CHK		47.7000				
27-JUN-2006 04:56	CHK		47.1000				
28-JUN-2006 05:43	CHK		46.0000				
29-JUN-2006 06:05	CHK		46.9000				
30-JUN-2006 05:45	CHK		46.8000				
1-JUL-2006 08:03	CHK		47.2000				
2-JUL-2006 06:36	CHK		47.4000				
3-JUL-2006 05:06	CHK		46.6000				
4-JUL-2006 07:50	CHK		47.2000				
5-JUL-2006 05:23	CHK		47.2000				
6-JUL-2006 05:36	CHK		46.9000				
7-JUL-2006 05:31	CHK		47.2000				
8-JUL-2006 11:41	CHK		47.5000				
10-JUL-2006 05:29	CHK		47.2000				
11-JUL-2006 06:25	CHK		46.7000				
12-JUL-2006 06:05	CHK		47.9000				
13-JUL-2006 05:57	CHK		47.1000				

14-JUL-2006 05:39	CHK	47.6000				
15-JUL-2006 06:32	CHK	44.7000	Be	Ac		
15-JUL-2006 07:13	CHK	47.5000				
17-JUL-2006 05:01	CHK	47.2000				
18-JUL-2006 06:05	CHK	47.7000				
19-JUL-2006 05:51	CHK	47.3000				
20-JUL-2006 05:10	CHK	47.1000				
21-JUL-2006 05:48	CHK	45.2000	In			
22-JUL-2006 05:38	CHK	47.5000				
24-JUL-2006 05:14	CHK	47.3000				
25-JUL-2006 06:03	CHK	47.8000				
26-JUL-2006 05:12	CHK	46.4000				

-- Multi-Test Full Report --

Description : Quad10D (Hex 4) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 46.299999 Upper Bound : 50.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 48.150002 Std Deviation : 0.600698

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:33	CHK		47.5000				
2-JUN-2006 05:44	CHK		48.2000				
3-JUN-2006 07:49	CHK		48.1000				
4-JUN-2006 07:55	CHK		48.7000				
5-JUN-2006 05:30	CHK		47.9000				
6-JUN-2006 06:10	CHK		48.2000				
7-JUN-2006 06:24	CHK		48.5000				
8-JUN-2006 06:35	CHK		47.8000				
9-JUN-2006 05:30	CHK		48.6000				
10-JUN-2006 05:57	CHK		48.4000				

11-JUN-2006 09:00	CHK	47.6000			
12-JUN-2006 05:27	CHK	48.3000			
13-JUN-2006 06:10	CHK	48.0000			
14-JUN-2006 05:26	CHK	48.4000			
15-JUN-2006 05:45	CHK	47.6000			
16-JUN-2006 05:23	CHK	48.1000			
17-JUN-2006 07:25	CHK	47.6000			
18-JUN-2006 05:48	CHK	48.5000			
19-JUN-2006 05:27	CHK	48.3000			
20-JUN-2006 05:55	CHK	47.6000			
21-JUN-2006 05:30	CHK	48.3000			
22-JUN-2006 05:53	CHK	48.3000			
23-JUN-2006 05:23	CHK	48.7000			
24-JUN-2006 06:04	CHK	48.3000			
26-JUN-2006 05:27	CHK	47.9000			
27-JUN-2006 04:56	CHK	47.6000			
28-JUN-2006 05:43	CHK	48.0000			
29-JUN-2006 06:05	CHK	48.7000			
30-JUN-2006 05:45	CHK	48.3000			
1-JUL-2006 08:03	CHK	48.4000			
2-JUL-2006 06:36	CHK	48.3000			
3-JUL-2006 05:06	CHK	47.9000			
4-JUL-2006 07:50	CHK	48.2000			
5-JUL-2006 05:23	CHK	48.0000			
6-JUL-2006 05:36	CHK	48.0000			
7-JUL-2006 05:31	CHK	48.7000			
8-JUL-2006 11:41	CHK	48.4000			
10-JUL-2006 05:29	CHK	48.1000			
11-JUL-2006 06:25	CHK	47.8000			
12-JUL-2006 06:05	CHK	48.1000			
13-JUL-2006 05:57	CHK	48.0000			
14-JUL-2006 05:39	CHK	48.1000			
15-JUL-2006 06:32	CHK	48.2000			
15-JUL-2006 07:13	CHK	No Value			
17-JUL-2006 05:01	CHK	48.3000			
18-JUL-2006 06:05	CHK	48.4000			
19-JUL-2006 05:51	CHK	48.2000			
20-JUL-2006 05:10	CHK	48.2000			
21-JUL-2006 05:48	CHK	48.3000			
22-JUL-2006 05:38	CHK	48.1000			
24-JUL-2006 05:14	CHK	47.9000			
25-JUL-2006 06:03	CHK	48.6000			
26-JUL-2006 05:12	CHK	48.6000			

-- Multi-Test Full Report --

Description : Quad10E (Hex 5) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 44.799999 Upper Bound : 48.599998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 46.425556 Std Deviation : 0.531481

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 6

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:33	CHK		46.0000				
2-JUN-2006 05:44	CHK		46.5000				
3-JUN-2006 07:49	CHK		46.4000				
4-JUN-2006 07:55	CHK		46.1000				
5-JUN-2006 05:30	CHK		46.5000				
6-JUN-2006 06:10	CHK		46.1000				
7-JUN-2006 06:24	CHK		46.0000				
8-JUN-2006 06:35	CHK		45.6000				
9-JUN-2006 05:30	CHK		46.3000				
10-JUN-2006 05:57	CHK		47.1000				
11-JUN-2006 09:00	CHK		46.1000				
12-JUN-2006 05:27	CHK		46.6000				
13-JUN-2006 06:10	CHK		46.3000				
14-JUN-2006 05:26	CHK		46.2000				
15-JUN-2006 05:45	CHK		46.1000				
16-JUN-2006 05:23	CHK		46.4000				
17-JUN-2006 07:25	CHK		46.6000				
18-JUN-2006 05:48	CHK		46.8000				
19-JUN-2006 05:27	CHK		46.4000				
20-JUN-2006 05:55	CHK		46.4000				
21-JUN-2006 05:30	CHK		46.8000				
22-JUN-2006 05:53	CHK		46.2000				

23-JUN-2006 05:23	CHK	45.9000			
24-JUN-2006 06:04	CHK	46.3000			
26-JUN-2006 05:27	CHK	46.4000			
27-JUN-2006 04:56	CHK	46.9000			
28-JUN-2006 05:43	CHK	46.5000			
29-JUN-2006 06:05	CHK	47.1000			
30-JUN-2006 05:45	CHK	46.4000			
1-JUL-2006 08:03	CHK	46.1000			
2-JUL-2006 06:36	CHK	46.1000			
3-JUL-2006 05:06	CHK	46.9000			
4-JUL-2006 07:50	CHK	45.5000			
5-JUL-2006 05:23	CHK	46.7000			
6-JUL-2006 05:36	CHK	45.6000			
7-JUL-2006 05:31	CHK	46.0000			
8-JUL-2006 11:41	CHK	46.1000			
10-JUL-2006 05:29	CHK	46.0000			
11-JUL-2006 06:25	CHK	45.9000			
12-JUL-2006 06:05	CHK	46.6000			
13-JUL-2006 05:57	CHK	46.7000			
14-JUL-2006 05:39	CHK	46.6000			
15-JUL-2006 06:32	CHK	46.7000			
15-JUL-2006 07:13	CHK	No Value			
17-JUL-2006 05:01	CHK	46.9000			
18-JUL-2006 06:05	CHK	46.4000			
19-JUL-2006 05:51	CHK	46.4000			
20-JUL-2006 05:10	CHK	46.8000			
21-JUL-2006 05:48	CHK	47.1000			
22-JUL-2006 05:38	CHK	46.8000			
24-JUL-2006 05:14	CHK	46.8000			
25-JUL-2006 06:03	CHK	46.2000			
26-JUL-2006 05:12	CHK	46.3000			

-- Multi-Test Full Report --

Description : Quad10F (Hex 6) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 46.700001 Upper Bound : 50.099998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

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Start Date : 10-JAN-2006 00:00 End Date : 1-MAR-2006 00:00
Mean : 48.417023 Std Deviation : 0.513860

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 7

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:33	CHK		48.8000				
2-JUN-2006 05:44	CHK		48.2000				
3-JUN-2006 07:49	CHK		48.6000				
4-JUN-2006 07:55	CHK		48.7000				
5-JUN-2006 05:30	CHK		48.8000				
6-JUN-2006 06:10	CHK		48.5000				
7-JUN-2006 06:24	CHK		48.2000				
8-JUN-2006 06:35	CHK		48.5000				
9-JUN-2006 05:30	CHK		48.6000				
10-JUN-2006 05:57	CHK		49.0000				
11-JUN-2006 09:00	CHK		48.1000				
12-JUN-2006 05:27	CHK		48.7000				
13-JUN-2006 06:10	CHK		48.5000				
14-JUN-2006 05:26	CHK		48.2000				
15-JUN-2006 05:45	CHK		48.7000				
16-JUN-2006 05:23	CHK		48.8000				
17-JUN-2006 07:25	CHK		48.2000				
18-JUN-2006 05:48	CHK		48.6000				
19-JUN-2006 05:27	CHK		48.5000				
20-JUN-2006 05:55	CHK		48.6000				
21-JUN-2006 05:30	CHK		48.8000				
22-JUN-2006 05:53	CHK		49.3000				
23-JUN-2006 05:23	CHK		48.3000				
24-JUN-2006 06:04	CHK		49.0000				
26-JUN-2006 05:27	CHK		49.3000				
27-JUN-2006 04:56	CHK		48.5000				
28-JUN-2006 05:43	CHK		48.1000				
29-JUN-2006 06:05	CHK		48.2000				
30-JUN-2006 05:45	CHK		48.8000				
1-JUL-2006 08:03	CHK		48.5000				
2-JUL-2006 06:36	CHK		48.2000				
3-JUL-2006 05:06	CHK		49.0000				
4-JUL-2006 07:50	CHK		48.4000				
5-JUL-2006 05:23	CHK		48.7000				

6-JUL-2006 05:36	CHK	48.5000			
7-JUL-2006 05:31	CHK	48.5000			
8-JUL-2006 11:41	CHK	48.4000			
10-JUL-2006 05:29	CHK	48.5000			
11-JUL-2006 06:25	CHK	49.0000			
12-JUL-2006 06:05	CHK	48.2000			
13-JUL-2006 05:57	CHK	45.8000	Be	Ac	
14-JUL-2006 05:39	CHK	48.1000			
15-JUL-2006 06:32	CHK	49.2000			
15-JUL-2006 07:13	CHK	No Value			
17-JUL-2006 05:01	CHK	49.1000			
18-JUL-2006 06:05	CHK	48.5000			
19-JUL-2006 05:51	CHK	48.7000			
20-JUL-2006 05:10	CHK	48.7000			
21-JUL-2006 05:48	CHK	48.7000			
22-JUL-2006 05:38	CHK	45.3000	Be	Ac	
24-JUL-2006 05:14	CHK	49.1000			
25-JUL-2006 06:03	CHK	48.6000			
26-JUL-2006 05:12	CHK	48.3000			

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/19/2006 11:00:06 AM

Lot No., Due Date: J6F270218,J6F140270; 07/25/2006,07/12/2006

Client, Site: 536403; AIR MONITORING Yerington Mine

QC Batch No., Method Test: 6179351; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: 31999,31902; FILTER

1.0 COC

	Yes	No	N/A
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		

2.0 QC Batch

	Yes	No	N/A
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓

3.0 QC & Samples

	Yes	No	N/A
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?			✓
3.5 Are the sample yields and MDAs within contract limits?		✓	

4.0 Raw Data

	Yes	No	N/A
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?			✓
4.5 Were raw counts reviewed for anomalies?	✓		

5.0 Other

	Yes	No	N/A
5.1 Are all nonconformances included and noted?	✓		
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

For response to Item 3.5 see NCM #10-08350.

First Level Review Mea Lordy **Date** 7-19-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6179251

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?		/	
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	/		
3. Are the correct isotopes reported?	/		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			/
5. Is the LCS recovery with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?			/
C. Other 1. Are all Nonconformances included and noted?	/		
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: See NCM

Second Level Review: Sheryl R Adkins Date: 7-20-06

STLRICHLAND

7/14/2006 10:40:44 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown & Caldwell

BD Gross Beta PrpRC5016/5014
S8 Gross Beta by GPC using Sr/Y-90 curve
01 STANDARD TEST SET

Balance Id:1120373922
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: HansenM Scott

AnalyDueDate: 07/11/2006

Batch: 6179351 FILTER pCi/sampl PM, Quote: SA , 63174
SEQ Batch, Test: None

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H7DWT-1-AF J6F140270-1-SAMP 05/24/2006 07:40	0.833g	501.65g	50.14g,in	0.0833g	Dish PPT 1.5	0.7	150	26A	1448	7/18/06
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
2 H796F-1-AF J6F270218-1-SAMP 06/07/2006 10:00	0.833g	501.59g	50.37g,in	0.0837g	0.9			26B		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
3 H796L-1-AF J6F270218-2-SAMP 06/07/2006 10:25	0.833g	501.03g	51.00g,in	0.0848g	0.2			26C		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
4 H796N-1-AF J6F270218-3-SAMP 06/07/2006 10:35	0.833g	500.85g	52.00g,in	0.0865g	0.4			26D		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
5 H796P-1-AF J6F270218-4-SAMP 06/07/2006 10:50	0.833g	501.24g	51.08g,in	0.0849g	0.2			27A		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
6 H796Q-1-AF J6F270218-5-SAMP 06/07/2006 11:00	0.833g	517.56g	50.47g,in	0.0812g	0.5			27C		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
7 H796R-1-AF J6F270218-6-SAMP 06/07/2006 11:20	0.833g	502.44g	50.87g,in	0.0843g	0.2			27D		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.24

835

STLRICHLAND

7/14/2006 10:40:45 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown & Caldwell

BD Gross Beta PrpRC5016/5014
S8 Gross Beta by GPC using Sr/Y-90 curve
01 STANDARD TEST SET

Balance Id:1120373922

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179351 FILTER pCi/sampl PM, Quote: SA , 63174

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: HansenM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 H796T-1-AF J6F270218-7-SAMP 06/07/2006 10:10	0.833g	500.22g	50.41g,in	0.0839g	Dish 1.5	OFT 0.2	150	28B	1448	7/18 [illegible]
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
9 H796W-1-AF J6F270218-8-SAMP 06/07/2006 09:55	0.833g	501.87g	50.18g,in	0.0833g	0.2			28C		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
10H797D-1-AF J6F270218-9-SAMP 06/07/2006 10:20	0.833g	500.74g	51.34g,in	0.0854g	0.1 ~~0.2~~			28D		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
11H797E-1-AF J6F270218-10-SAMP 06/07/2006 10:30	0.833g	503.68g	52.02g,in	0.086g	0.8			31A		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
12H797F-1-AF J6F270218-11-SAMP 06/07/2006 10:45	0.833g	513.46g	50.33g,in	0.0817g	0.2			31B		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
13H797H-1-AF J6F270218-12-SAMP 06/07/2006 11:05	0.833g	501.88g	50.03g,in	0.083g	0.4			31C		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:
14H797J-1-AF J6F270218-13-SAMP 06/07/2006 11:10	0.833g	521.25g	52.91g,in	0.0846g	0.1			32A		
		AmtRec: FILTER		#Containers: 1				Scr:	Alpha:	Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 14

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.24

836

STLRICHLAND

7/14/2006 10:40:45 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown & Caldwell

BD Gross Beta PrpRC5016/5014
S8 Gross Beta by GPC using Sr/Y-90 curve
01 STANDARD TEST SET

Balance Id:1120373922
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: HansenM

AnalyDueDate: 07/11/2006

Batch: 6179351 FILTER pCi/sampl PM, Quote: SA , 63174
SEQ Batch, Test: None

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15H797K-1-AF J6F270218-14-SAMP 06/07/2006 10:05	0.833g	506.13g	50.00g,in AmtRec: FILTER	0.0823g #Containers: 1	Dilu PPT 1.5 0.1	150	32B	1448	7/18 [illegible]	Beta:
16H797M-1-AF J6F270218-15-SAMP 06/07/2006 11:15	0.833g	500.73g	51.33g,in AmtRec: FILTER	0.0854g #Containers: 1	0.1		32C			Beta:
17H8DNT-1-AA-B J6F280000-351-BLK 06/07/2006 10:00			1.00sa,in AmtRec:	1.00sa #Containers: 1	0.1		32D			Beta:
18H8DNT-1-AC-C J6F280000-351-LCS 06/07/2006 10:00			1.00sa,in AmtRec:	1.00sa #Containers: 1	BESB2835 06/15/06,pd 12/28/05,r 0.4		31B	1737	7/18/06 [illegible]	Beta:

Comments:

All Clients for Batch:
536403, Brown and Caldwell Brown & Caldwell , SA , 63174

H7DWT1AF-SAMP Constituent List:

BETA	RDL:5	pCi/sam	LCL:	UCL:	RPD:						
H8DNT1AA-BLK:											
BETA	RDL:5	pCi/sam	LCL:	UCL:	RPD:						
H8DNT1AC-LCS:											
Cs-137	RDL:	pCi/sam	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:	pCi/sam	LCL:70	UCL:130	RPD:20
Sr-90	RDL:	pCi/sam	LCL:70	UCL:130	RPD:20						

H7DWT1AF-SAMP Calc Info:

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-08350
NCM Initiated By: Matt Lardy
Date Opened: 07/19/2006
Date Closed:

Classification: **Deficiency**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Beta by GPC-Sr/Y
Lot #'s (Sample #'s): J6F140270 (1), J6F270218 (1,10,11,12,13,14,15,2,3,4,5,6,7,8,9),
QC Batches: 6179351

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Matt Lardy	07/19/2006	The MDC (IDC) on the listed samples sligtly exceed the CRDL of 5 pCi/Sa. However in each case the sample results exceeded the CRDL by a factor of two at least. H7DWT1AF, H796F1AF, H796L1AF, H796Q1AF, H797E1AF, H797H1AF, H797J1AF and H797K1AF.

Corrective Action

Name	Date	Corrective Action
Matt Lardy	07/19/2006	The results will be reported.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 7/19/2006

STLRICHLAND

7/19/2006 11:01:28 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/19/2005, 7/24/2006, Batch: '6179351', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6179351						
AC		CalcC	HansenM	7/14/2006 1:33:48 PM		
SC			wagarr	isBatched	6/26/2006 1:38:13 PM	ICOC_RADCALC v4.8.24
SC			HansenM	InPrep2	7/14/2006 1:33:48 PM	RICH-RC-5015 REVISION 5
SC			HansenM	Prep2C	7/14/2006 1:34:20 PM	RICH-RC-5016 REVISION 5
SC			ScottM	InPrep2	7/15/2006 9:15:41 AM	RICH-RC-5014 REVISION 6
SC			BlackCL	InCnt1	7/18/2006 11:58:23 AM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	7/18/2006 9:46:31 PM	RICH-RD-0003 REVISION 4
AC			HansenM	7/14/2006 1:34:20 PM		
AC			ScottM	7/15/2006 9:15:41		
AC			BlackCL	7/18/2006 11:58:23		
AC			DAWKINSO	7/18/2006 9:46:31 PM		

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.18

7/19/2006 11:01:23 AM

Rpt DB Transfer log (Batch Results)

STL

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot uncert	/ mda	Sample Date / Units	/ expected	Yield	Volumes	
31999	**9H796F10**		**J6F2702181**	000487	FILTER	6/26/2006 9:00:00		6/7/2006 10:00:00 AM				
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.5389E+01**	1.72E+00	2.03E+00	5.537E+00	PCI/SA		1.0	1.0E+0	8.365E-2
U-234	7YSR	0	7/18/2006 6:21:43 PM	**2.7995E-01**	1.743E-01	1.758E-01	4.768E-01	PCI/SA		0.975	1.0E+0	8.258E-2
U-235	7YSR	0	7/18/2006 6:21:43 PM	**9.9979E-02**	9.998E-02	1.003E-01	2.709E-01	PCI/SA		0.975	1.0E+0	8.258E-2
U-238	7YSR	0	7/18/2006 6:21:43 PM	**-1.9991E-02**	1.999E-02	2.006E-02	4.788E-01	PCI/SA		0.975	1.0E+0	8.258E-2
31999	**9H796L10**		**J6F2702182**	000488	FILTER	6/26/2006 9:00:00		6/7/2006 10:25:00 AM				
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.7538E+01**	1.725E+00	2.106E+00	5.209E+00	PCI/SA		1.0	1.0E+0	8.479E-2
U-234	7YSR	0	7/18/2006 6:21:54 PM	**2.8598E-01**	1.851E-01	1.667E-01	2.583E-01	PCI/SA		0.926	1.0E+0	8.23E-2
U-235	7YSR	0	7/18/2006 6:21:54 PM	**2.6691E-01**	1.662E-01	1.676E-01	4.568E-01	PCI/SA		0.926	1.0E+0	8.23E-2
U-238	7YSR	0	7/18/2006 6:21:54 PM	**-3.8129E-02**	2.696E-02	2.713E-02	5.367E-01	PCI/SA		0.926	1.0E+0	8.23E-2
31999	**9H796N10**		**J6F2702183**	000489	FILTER	6/26/2006 9:00:00		6/7/2006 10:35:00 AM				
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.57E+01**	1.626E+00	1.941E+00	4.99E+00	PCI/SA		1.0	1.0E+0	8.649E-2
U-234	7YSR	0	7/18/2006 6:22:08 PM	**2.0632E-01**	1.459E-01	1.468E-01	2.796E-01	PCI/SA		0.951	1.0E+0	8.249E-2
U-235	7YSR	0	7/18/2006 6:22:08 PM	**0.0E+00**	0.0E+00	1.263E-01	2.796E-01	PCI/SA		0.951	1.0E+0	8.249E-2
U-238	7YSR	0	7/18/2006 6:22:08 PM	**8.2533E-02**	1.052E-01	1.054E-01	4.941E-01	PCI/SA		0.951	1.0E+0	8.249E-2
31999	**9H796P10**		**J6F2702184**	000490	FILTER	6/26/2006 9:00:00		6/7/2006 10:50:00 AM				
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.905E+01**	1.708E+00	2.143E+00	5.03E+00	PCI/SA		1.0	1.0E+0	8.489E-2
U-234	7YSR	0	7/18/2006 6:22:38 PM	**-3.0904E-02**	1.545E-02	1.565E-02	5.153E-01	PCI/SA		1.056	1.0E+0	8.234E-2
U-235	7YSR	0	7/18/2006 6:22:38 PM	**8.1011E-02**	9.708E-02	9.729E-02	4.409E-01	PCI/SA		1.056	1.0E+0	8.234E-2
U-238	7YSR	0	7/18/2006 6:22:38 PM	**-4.6356E-02**	1.692E-02	1.928E-02	5.724E-01	PCI/SA		1.056	1.0E+0	8.234E-2
31999	**9H796Q10**		**J6F2702185**	000491	FILTER	6/26/2006 9:00:00		6/7/2006 11:00:00 AM				
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.5815E+01**	1.678E+00	1.993E+00	5.248E+00	PCI/SA		1.0	1.0E+0	8.123E-2
U-234	7YSR	0	7/18/2006 6:22:53 PM	**7.0218E-01**	2.752E-01	2.809E-01	5.183E-01	PCI/SA		0.981	1.0E+0	8.04E-2
U-235	7YSR	0	7/18/2006 6:22:53 PM	**7.8919E-02**	1.049E-01	1.051E-01	5.183E-01	PCI/SA		0.981	1.0E+0	8.04E-2
U-238	7YSR	0	7/18/2006 6:22:53 PM	**4.861E-01**	2.329E-01	2.361E-01	5.549E-01	PCI/SA		0.981	1.0E+0	8.04E-2
31999	**9H796R10**		**J6F2702186**	000492	FILTER	6/26/2006 9:00:00		6/7/2006 11:20:00 AM				
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.7615E+01**	1.668E+00	2.065E+00	5.009E+00	PCI/SA		1.0	1.0E+0	8.434E-2
U-234	7YSR	0	7/18/2006 6:23:10 PM	**-3.3198E-02**	1.66E-02	1.681E-02	5.536E-01	PCI/SA		1.009	1.0E+0	8.244E-2
U-235	7YSR	0	7/18/2006 6:23:10 PM	**-8.2994E-03**	8.299E-03	8.326E-03	4.172E-01	PCI/SA		1.009	1.0E+0	8.244E-2
U-238	7YSR	0	7/18/2006 6:23:10 PM	**-3.3198E-02**	1.66E-02	1.681E-02	5.536E-01	PCI/SA		1.009	1.0E+0	8.244E-2
31999	**9H796T10**		**J6F2702187**	000493	FILTER	6/26/2006 9:00:00		6/7/2006 10:10:00 AM				
BETA	BDS8	0	7/18/2006 1:34:32 PM	**1.0747E+00**	1.22E+00	1.222E+00	5.046E+00	PCI/SA		1.0	1.0E+0	8.395E-2
U-234	7YSR	0	7/18/2006 6:23:32 PM	**-2.801E-02**	1.617E-02	1.633E-02	5.817E-01	PCI/SA		0.885	1.0E+0	8.266E-2
U-235	7YSR	0	7/18/2006 6:23:32 PM	**-1.8673E-02**	1.32E-02	1.329E-02	5.33E-01	PCI/SA		0.885	1.0E+0	8.266E-2
U-238	7YSR	0	7/18/2006 6:23:32 PM	**1.166E-01**	1.166E-01	1.17E-01	3.16E-01	PCI/SA		0.885	1.0E+0	8.266E-2
31999	**9H796W10**		**J6F2702188**	P-0660	FILTER	6/26/2006 9:00:00		6/7/2006 9:55:00 AM				
BETA	BDS8	0	7/18/2006 1:34:32 PM	**1.3482E+01**	1.585E+00	1.923E+00	5.061E+00	PCI/SA		1.0	1.0E+0	8.329E-2
U-234	7YSR	0	7/18/2006 6:24:30 PM	**1.5766E-01**	1.422E-01	1.427E-01	5.571E-01	PCI/SA		1.006	1.0E+0	8.241E-2
U-235	7YSR	0	7/18/2006 6:24:30 PM	**-3.9462E-02**	2.79E-02	2.808E-02	5.571E-01	PCI/SA		1.006	1.0E+0	8.241E-2
U-238	7YSR	0	7/18/2006 6:24:30 PM	**-5.9194E-02**	3.418E-02	3.45E-02	6.223E-01	PCI/SA		1.006	1.0E+0	8.241E-2
31999	**9H797D10**		**J6F2702189**	P-0661	FILTER	6/26/2006 9:00:00		6/7/2006 10:20:00 AM				
BETA	BDS8	0	7/18/2006 1:34:32 PM	**1.2452E+01**	1.549E+00	1.861E+00	5.002E+00	PCI/SA		1.0	1.0E+0	8.541E-2
U-234	7YSR	0	7/18/2006 6:24:37 PM	**0.0E+00**	0.0E+00	1.219E-01	2.697E-01	PCI/SA		1.029	1.0E+0	8.248E-2
U-235	7YSR	0	7/18/2006 6:24:37 PM	**-5.9728E-02**	3.448E-02	3.481E-02	6.282E-01	PCI/SA		1.029	1.0E+0	8.248E-2
U-238	7YSR	0	7/18/2006 6:24:37 PM	**3.9782E-02**	1.053E-01	1.054E-01	6.282E-01	PCI/SA		1.029	1.0E+0	8.248E-2
31999	**9H797E10**		**J6F27021810**	P-0662	FILTER	6/26/2006 9:00:00		6/7/2006 10:30:00 AM				
BETA	BDS8	0	7/18/2006 1:34:19 PM	**1.046E+01**	1.699E+00	1.853E+00	6.064E+00	PCI/SA		1.0	1.0E+0	8.603E-2
U-234	7YSR	0	7/18/2006 6:24:49 PM	**-1.4874E-01**	5.622E-02	5.748E-02	8.722E-01	PCI/SA		0.906	1.0E+0	8.215E-2
U-235	7YSR	0	7/18/2006 6:24:49 PM	**-6.3746E-02**	3.68E-02	3.716E-02	6.704E-01	PCI/SA		0.906	1.0E+0	8.215E-2
U-238	7YSR	0	7/18/2006 6:24:49 PM	**-2.1298E-02**	1.183E-01	1.183E-01	8.288E-01	PCI/SA		0.906	1.0E+0	8.215E-2
31999	**9H797F10**		**J6F27021811**	P-0663	FILTER	6/26/2006 9:00:00		6/7/2006 10:45:00 AM				
BETA	BDS8	0	7/18/2006 1:34:19 PM	**1.6067E+01**	1.616E+00	2.113E+00	4.856E+00	PCI/SA		1.0	1.0E+0	8.165E-2

6179351,6179351, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0.
**Diff RptDb | Qtims => .

SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	Lot/Sample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	MDA	Sample Date / Units	Expected	Yield	Volumes	
U-234	7YSR	0		7/18/2006 6:25:00 PM	7.7955E-02	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	8.092E-2	
U-235	7YSR	0		7/18/2006 6:25:00 PM	-1.9478E-02	1.948E-02	1.954E-02	4.665E-01	PCI/SA	1.011	1.0E+0	8.092E-2	
U-238	7YSR	0		7/18/2006 6:25:00 PM	7.7955E-02	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	8.092E-2	
31999	**9H797H10**			**J6F27021812**	P-0664	FILTER	6/26/2006 9:00:00	6/7/2006 11:05:00 AM					
BETA	BDS8	0		7/18/2006 1:34:19 PM	1.3205E+01	1.591E+00	1.827E+00	5.143E+00	PCI/SA	1.0	1.0E+0	8.304E-2	
U-234	7YSR	0		7/18/2006 6:25:11 PM	5.5292E-02	1.392E-01	1.392E-01	7.569E-01	PCI/SA	1.009	1.0E+0	8.232E-2	
U-235	7YSR	0		7/18/2006 6:25:11 PM	-1.8434E-02	1.843E-02	1.849E-02	4.414E-01	PCI/SA	1.009	1.0E+0	8.232E-2	
U-238	7YSR	0		7/18/2006 6:25:11 PM	7.3726E-02	1.379E-01	1.381E-01	7.192E-01	PCI/SA	1.009	1.0E+0	8.232E-2	
31999	**9H797J10**			**J6F27021813**	P-0665	FILTER	6/26/2006 9:00:00	6/7/2006 11:10:00 AM					
BETA	BDS8	0		7/18/2006 1:34:38 PM	1.2848E+01	1.59E+00	1.818E+00	5.167E+00	PCI/SA	1.0	1.0E+0	8.455E-2	
U-234	7YSR	0		7/18/2006 6:25:24 PM	0.0E+00	0.0E+00	1.219E-01	2.698E-01	PCI/SA	1.091	1.0E+0	8.015E-2	
U-235	7YSR	0		7/18/2006 6:25:24 PM	-1.9916E-02	1.992E-02	1.998E-02	4.769E-01	PCI/SA	1.091	1.0E+0	8.015E-2	
U-238	7YSR	0		7/18/2006 6:25:24 PM	1.5928E-01	1.436E-01	1.441E-01	5.626E-01	PCI/SA	1.091	1.0E+0	8.015E-2	
31999	**9H797K10**			**J6F27021814**	P-0666	FILTER	6/26/2006 9:00:00	6/7/2006 10:05:00 AM					
BETA	BDS8	0		7/18/2006 1:34:38 PM	1.2862E+01	1.583E+00	1.813E+00	5.122E+00	PCI/SA	1.0	1.0E+0	8.229E-2	
U-234	7YSR	0		7/18/2006 6:25:43 PM	-2.1922E-02	2.192E-02	2.199E-02	5.248E-01	PCI/SA	0.914	1.0E+0	8.187E-2	
U-235	7YSR	0		7/18/2006 6:25:43 PM	1.0956E-01	1.096E-01	1.099E-01	2.969E-01	PCI/SA	0.914	1.0E+0	8.187E-2	
U-238	7YSR	0		7/18/2006 6:25:43 PM	-2.1922E-02	2.192E-02	2.199E-02	5.248E-01	PCI/SA	0.914	1.0E+0	8.187E-2	
31999	**9H797M10**			**J6F27021815**	P-0667	FILTER	6/26/2006 9:00:00	6/7/2006 11:15:00 AM					
BETA	BDS8	0		7/18/2006 1:34:38 PM	1.6716E+00	1.229E+00	1.238E+00	5.002E+00	PCI/SA	1.0	1.0E+0	8.539E-2	
U-234	7YSR	0		7/18/2006 6:25:53 PM	0.0E+00	0.0E+00	1.38E-01	3.054E-01	PCI/SA	0.816	1.0E+0	8.267E-2	
U-235	7YSR	0		7/18/2006 6:25:53 PM	-2.2549E-02	2.255E-02	2.262E-02	5.399E-01	PCI/SA	0.816	1.0E+0	8.267E-2	
U-238	7YSR	0		7/18/2006 6:25:53 PM	-2.2549E-02	2.255E-02	2.262E-02	5.399E-01	PCI/SA	0.816	1.0E+0	8.267E-2	
31902	**9H7DWT10**			**J6F1402701**	000473	FILTER	6/14/2006 10:00:00	5/24/2006 7:40:00 AM					
BETA	BDS8	0		7/18/2006 1:34:31 PM	1.2465E+01	1.665E+00	1.896E+00	5.665E+00	PCI/SA	1.0	1.0E+0	8.326E-2	
U-234	7YSR	0		7/18/2006 6:21:38 PM	8.4174E-02	1.073E-01	1.076E-01	5.042E-01	PCI/SA	0.936	1.0E+0	8.232E-2	
U-235	7YSR	0		7/18/2006 6:21:38 PM	0.0E+00	0.0E+00	1.289E-01	2.852E-01	PCI/SA	0.936	1.0E+0	8.232E-2	
U-238	7YSR	0		7/18/2006 6:21:38 PM	-4.2133E-02	2.979E-02	2.999E-02	5.948E-01	PCI/SA	0.936	1.0E+0	8.232E-2	
31999	**H8DNT1AB**			**J6F280000351**	INTRA-LAB BLANK	FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM					
BETA	BDS8	0	B	7/18/2006 1:34:38 PM	5.586E-02	1.129E-01	1.13E-01	4.723E-01	PCI/SA	1.0	1.0E+0	1.0E+0	
31999	**H8DNT1CS**			**J6F280000351**	INTRA-LAB CHECK	FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM					
BETA	BDS8	0	S	7/18/2006 4:22:47 PM	4.4486E+00	1.982E-01	4.148E-01	3.965E-01	PCI/SA	4.5918E+00	1.0	1.0E+0	1.0E+0

6179351,6179351, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16.
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0.
**Diff RptDb | Qtims => .

Batch Nbr: 6179351

Alpha Beta, Beta by GPC-Sr/Y , Results

7/18/2006 9:44:33 PM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	ILcC	IDC	QC	Yield	RYld
Beta by GPC-Sr/Y				Richland Standard Gross Alpha/Beta Wo Blk Subt										
Calc	S8	FILTER	H7DWT1AF	BETA	1.25E+01	(1.90E+00)		PCI/SA	R	2.73E+00	5.66E+00	—	100%	
Calc	S8	FILTER	H796F1AF	BETA	1.54E+01	(2.03E+00)		PCI/SA	R	2.66E+00	5.54E+00	—	100%	
Calc	S8	FILTER	H796L1AF	BETA	1.75E+01	(2.11E+00)		PCI/SA	R	2.49E+00	5.21E+00	—	100%	
Calc	S8	FILTER	H796N1AF	BETA	1.57E+01	(1.94E+00)		PCI/SA	R	2.39E+00	4.99E+00	✓	100%	
Calc	S8	FILTER	H796P1AF	BETA	1.90E+01	(2.14E+00)		PCI/SA	R	2.41E+00	5.03E+00	✓	100%	
Calc	S8	FILTER	H796Q1AF	BETA	1.58E+01	(1.99E+00)		PCI/SA	R	2.51E+00	5.25E+00	—	100%	
Calc	S8	FILTER	H796R1AF	BETA	1.76E+01	(2.07E+00)		PCI/SA	R	2.40E+00	5.01E+00	✓	100%	
Calc	S8	FILTER	H796T1AF	BETA	1.07E+00	(1.22E+00)	U4	PCI/SA	R	2.41E+00	5.05E+00	—	100%	
Calc	S8	FILTER	H796W1AF	BETA	1.35E+01	(1.92E+00)		PCI/SA	R	2.42E+00	5.06E+00	✓	100%	
Calc	S8	FILTER	H797D1AF	BETA	1.25E+01	(1.88E+00)		PCI/SA	R	2.39E+00	5.00E+00	✓	100%	
Calc	S8	FILTER	H797E1AF	BETA	1.05E+01	(1.85E+00)		PCI/SA	R	2.93E+00	6.06E+00	—	100%	
Calc	S8	FILTER	H797F1AF	BETA	1.61E+01	(2.11E+00)		PCI/SA	R	2.32E+00	4.86E+00	✓	100%	
Calc	S8	FILTER	H797H1AF	BETA	1.32E+01	(1.83E+00)		PCI/SA	R	2.46E+00	5.14E+00	—	100%	
Calc	S8	FILTER	H797J1AF	BETA	1.28E+01	(1.82E+00)		PCI/SA	R	2.47E+00	5.17E+00	—	100%	
Calc	S8	FILTER	H797K1AF	BETA	1.29E+01	(1.81E+00)		PCI/SA	R	2.45E+00	5.12E+00	—	100%	
Calc	S8	FILTER	H797M1AF	BETA	1.67E+00 ✓	(1.24E+00)	U4	PCI/SA	R	2.40E+00	5.00E+00	✓	100%	
Calc	S8	FILTER	H8DNT1AA	BETA	5.59E-02	(1.13E-01)	U4	PCI/SA	R	2.27E-01	4.72E-01	✓B	100%	
Calc	S8	FILTER	H8DNT1AC	BETA	4.45E+00	(4.15E-01)		PCI/SA	R	1.89E-01	3.97E-01	✓$	100%	97%

Matt Lardy 7-19-06

() - (1s Uncertainities)
IDC - Instrument Detection Level in Conc Units
MLcC- Method Decision Level in Conc Units
MDC - Minimum Detectable Concentration
*Std - Lc, MDC using StdDev for Set of Blanks

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Regardless of Significants
Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:18
RADCALC v4.8.24
STL Richland

STLRICHLAND

Batch Nbr: 6179351

Alpha Beta, Beta by GPC-Sr/Y , Calculated Results

Detailed Report

7/18/2006 9:44:33 PM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
1	Calc	S8	FILTER	*STLE	GabWoBS	H7DWT1AF	PCI/SA		05/24/06 07:40	07/18/06 13:34			1	1.00 Sa	
536403,000473					J6F140270-1 v4.8.24		FILTER			00.7				0.083258 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	378	734	GPC26A	1.5	N	N	4.5661E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.558E-02)	(0.000E+00)		5%			(0.000E+00)	12.010788		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	12.465		1.05200E+00	2.303956	2.303956	1.00 Sa	100%		5.664702		
				(1.895765)		(1.4048E-01)	(0.33781)	(0.33781)	(0.027064)			2.726935		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
2	Calc	S8	FILTER	*STLE	GabWoBS	H796F1AF	PCI/SA		06/07/06 10:00	07/18/06 13:34			1	1.00 Sa	
536403,000487					J6F270218-1 v4.8.24		FILTER			00.9				0.08365 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	381	649	GPC26B	1.5	N	N	4.3726E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.221E-02)	(0.000E+00)		5%			(0.000E+00)	11.954514		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	15.369167		1.24800E+00	2.854117	2.854117	1.00 Sa	100%		5.537137		
				(2.029877)		(1.3970E-01)	(0.358885)	(0.358885)	(0.027064)			2.658902		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
3	Calc	S8	FILTER	*STLE	GabWoBS	H796L1AF	PCI/SA		06/07/06 10:25	07/18/06 13:34			1	1.00 Sa	
536403,000488					J6F270218-2 v4.8.24		FILTER			00.2				0.084791 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	367	533	GPC26C	1.5	N	N	4.1822E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.033E-02)	(0.000E+00)		5%			(0.000E+00)	11.793659		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	17.537883		1.38067E+00	3.301278	3.301278	1.00 Sa	100%		5.20886		
				(2.105837)		(1.3581E-01)	(0.373281)	(0.373281)	(0.027064)			2.491163		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
4	Calc	S8	FILTER	*STLE	GabWoBS	H796N1AF	PCI/SA		06/07/06 10:35	07/18/06 13:34			1	1.00 Sa	
536403,000489					J6F270218-3 v4.8.24		FILTER			00.4				0.086485 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	352	530	GPC26D	1.5	N	N	4.2685E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(8.768E-03)	(0.000E+00)		5%			(0.000E+00)	11.562702		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

RecCnt:4

RADCALC v4.8.24

STL Richland

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

STLRICHLAND

Batch Nbr: 6179351

Alpha Beta, Beta by GPC-Sr/Y , Calculated Results

7/18/2006 9:44:33 PM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	15.699799		1.28667E+00	3.014312	3.014312	1.00 Sa	100%		4.990118		
				(1.940999)		(1.3328E-01)	(0.352202)	(0.352202)	(0.027064)			2.386252		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
5	Calc	S8	FILTER	*STLE	GabWoBS	H796P1AF	PCI/SA		06/07/06 10:50	07/18/06 13:34			1	1.00 Sa	
536403,000490					J6F270218-4 v4.8.24		FILTER			00.2				0.084889 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	405	557	GPC27A	1.5	N	N	4.4178E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(9.737E-03)	(0.000E+00)		5%			(0.000E+00)	11.780123		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	19.049786		1.58600E+00	3.589994	3.589994	1.00 Sa	100%		5.030235		
				(2.14341)		(1.4223E-01)	(0.376991)	(0.376991)	(0.027064)			2.408046		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
6	Calc	S8	FILTER	*STLE	GabWoBS	H796Q1AF	PCI/SA		06/07/06 11:00	07/18/06 13:34			1	1.00 Sa	
536403,000491					J6F270218-5 v4.8.24		FILTER			00.5				0.08123 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	367	580	GPC27C	1.5	N	N	4.5115E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(9.979E-03)	(0.000E+00)		5%			(0.000E+00)	12.31069		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	15.815195		1.28667E+00	2.851874	2.851874	1.00 Sa	100%		5.248327		
				(1.992899)		(1.3650E-01)	(0.34037)	(0.34037)	(0.027064)			2.514622		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
7	Calc	S8	FILTER	*STLE	GabWoBS	H796R1AF	PCI/SA		06/07/06 11:20	07/18/06 13:34			1	1.00 Sa	
536403,000492					J6F270218-6 v4.8.24		FILTER			00.5				0.084338 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	399	559	GPC27D	1.5	N	N	4.4733E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.132E-02)	(0.000E+00)		5%			(0.000E+00)	11.857072		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	17.615319		1.47533E+00	3.29812	3.29812	1.00 Sa	100%		5.008947		
				(2.065044)		(1.3973E-01)	(0.362949)	(0.362949)	(0.027064)			2.398041		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
8	Calc	S8	FILTER	*STLE	GabWoBS	H796T1AF	PCI/SA		06/07/06 10:10	07/18/06 13:34			1	1.00 Sa	
536403,000493					J6F270218-7 v4.8.24		FILTER			00.2				0.083946 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:6

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179351

Alpha Beta, Beta by GPC-Sr/Y , Calculated Results

7/18/2006 9:44:34 PM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
1	07/18/06 14:49	BETA	173	533		GPC28B 1.5 N N	4.3604E-01	1.0000E+00 N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00
			150	500		Y	(1.085E-02)	(0.000E+00)	5%			(0.000E+00)	11.912402	
	07/18/06	BETA	R	1.07473	U4	8.73333E-02	0.200287	0.200287	1.00 Sa	100%		5.046308		
				(1.221785)		(9.9100E-02)	(0.227549)	(0.227549)	(0.027064)			2.413422		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
9	Calc	S8	FILTER	*STLE	GabWoBS	H796W1AF	PCI/SA		06/07/06 09:55	07/18/06 13:34			1	1.00 Sa	
536403,P-0660					J6F270218-8 v4.8.24		FILTER			00.2				0.083288 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	326	538	GPC28C	1.5	N	N	4.4019E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(2.153E-02)	(0.000E+00)		5%			(0.000E+00)	12.006477		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	13.482289		1.09733E+00	2.492881	2.492881	1.00 Sa	100%		5.060784		
				(1.923075)		(1.2900E-01)	(0.341014)	(0.341014)	(0.027064)			2.420842		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
10	Calc	S8	FILTER	*STLE	GabWoBS	H797D1AF	PCI/SA		06/07/06 10:20	07/18/06 13:34			1	1.00 Sa	
536403,P-0661					J6F270218-9 v4.8.24		FILTER			00.1				0.085408 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	306	517	GPC28D	1.5	N	N	4.2611E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(2.227E-02)	(0.000E+00)		5%			(0.000E+00)	11.708774		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	12.451792		1.00600E+00	2.36088	2.36088	1.00 Sa	100%		5.002229		
				(1.861334)		(1.2517E-01)	(0.339776)	(0.339776)	(0.027064)			2.390724		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
11	Calc	S8	FILTER	*STLE	GabWoBS	H797E1AF	PCI/SA		06/07/06 10:30	07/18/06 13:34			1	1.00 Sa	
536403,P-0662					J6F270218-10 v4.8.24		FILTER			00.8				0.086032 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	384	840	GPC31A	1.5	N	N	4.4050E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.296E-02)	(0.000E+00)		5%			(0.000E+00)	11.823565		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	10.459753		8.80000E-01	1.997724	1.997724	1.00 Sa	100%		6.063999		
				(1.85273)		(1.4292E-01)	(0.344527)	(0.344527)	(0.027064)			2.926366		

() - (1s Uncertainties), Q - Qualifier, U Result Is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:12

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179351

Alpha Beta, Beta by GPC-Sr/Y , Calculated Results

7/18/2006 9:44:34 PM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
12	Calc	S8	FILTER	*STLE	GabWoBS	H797F1AF	PCI/SA		06/07/06 10:45	07/18/06 13:34			1	1.00 Sa	
536403,P-0663					J6F270218-11 v4.8.24		FILTER			00.2				0.061652 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	342	489	GPC31B	1.5	N	N	4.4704E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(2.468E-02)	(0.000E+00)		5%			(0.000E+00)	12.24714		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	16.06738		1.30200E+00	2.912486	2.912486	1.00 Sa	100%		4.85647		
				(2.11339)		(1.3098E-01)	(0.364567)	(0.364567)	(0.027064)			2.318135		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
13	Calc	S8	FILTER	*STLE	GabWoBS	H797H1AF	PCI/SA		06/07/06 11:05	07/18/06 13:34			1	1.00 Sa	
536403,P-0664					J6F270218-12 v4.8.24		FILTER			00.4				0.083038 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	331	563	GPC31C	1.5	N	N	4.4396E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(9.874E-03)	(0.000E+00)		5%			(0.000E+00)	12.042714		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	13.20451		1.08067E+00	2.434172	2.434172	1.00 Sa	100%		5.143496		
				(1.827395)		(1.3024E-01)	(0.322193)	(0.322193)	(0.027064)			2.462833		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
14	Calc	S8	FILTER	*STLE	GabWoBS	H797J1AF	PCI/SA		06/07/06 11:10	07/18/06 13:34			1	1.00 Sa	
536403,P-0665					J6F270218-13 v4.8.24		FILTER			00.1				0.084554 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	322	554	GPC32A	1.5	N	N	4.3066E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.036E-02)	(0.000E+00)		5%			(0.000E+00)	11.826692		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	12.848396		1.03867E+00	2.411787	2.411787	1.00 Sa	100%		5.167161		
				(1.818416)		(1.2856E-01)	(0.327132)	(0.327132)	(0.027064)			2.473306		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
15	Calc	S8	FILTER	*STLE	GabWoBS	H797K1AF	PCI/SA		06/07/06 10:05	07/18/06 13:34			1	1.00 Sa	
536403,P-0666					J6F270218-14 v4.8.24		FILTER			00.1				0.082291 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	317	539	GPC32B	1.5	N	N	4.4063E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.071E-02)	(0.000E+00)		5%			(0.000E+00)	12.151981		

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants. Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:15

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179351

Alpha Beta, Beta by GPC-Sr/Y , Calculated Results

7/18/2006 9:44:34 PM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	12.861842		1.03533E+00	2.349684	2.349684	1.00 Sa	100%		5.121549		
				(1.813382)		(1.2746E-01)	(0.317386)	(0.317386)	(0.027064)			2.450009		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
16	Calc	S8	FILTER	*STLE	GabWoBS	H797M1AF	PCI/SA		06/07/06 11:15	07/18/06 13:34			1	1.00 Sa	
536403,P-0867					,J6F270218-15 v4.8.24		FILTER			00.1				0.085391 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	190	563	GPC32C	1.5	N	N	4.4391E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(2.769E-02)	(0.000E+00)		5%			(0.000E+00)	11.710821		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	1.67159	U4	1.40667E-01	0.316881	0.316881	1.00 Sa	100%		5.002261		
				(1.238105)		(1.0342E-01)	(0.234356)	(0.234356)	(0.027064)			2.395206		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
17	Calc	S8	FILTER	*STLE	GabWoBS	H8DNT1AA	PCI/SA	B	06/07/06 10:00	07/18/06 13:34			1	1.00 Sa	
0,INTRA-LAB BLANK					,J6F280000-351		FILTER			00.1				1.00 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 14:49	BETA	300	650	GPC32D	1.5	N	N	4.3007E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(1.332E-02)	(0.000E+00)		5%			(0.000E+00)	1.00		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	0.05586	U4	5.33333E-02	0.12401	0.12401	1.00 Sa	100%		0.472326		
				(0.112979)		(1.0781E-01)	(0.250777)	(0.250777)	(0.017321)			0.225836		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
18	Calc	S8	FILTER	*STLE	GabWoBS	H8DNT1AC	PCI/SA	S	06/07/06 10:00	07/18/06 16:22		BES82835	1	1.00 Sa	
0,INTRA-LAB CHECK					,J6F280000-351		FILTER			00.4		BES82835 Aliq		1.00 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/18/06 17:37	BETA	809	489	GPC31B	1.5	N	N	4.4708E-01	1.0000E+00	N	100%	N		1.0000E+00	4.5045E-01	1.0000E+00	
			150	500			Y		(2.468E-02)	(0.000E+00)		5%			(0.000E+00)	1.00		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/18/06	BETA	R	4.448603		4.41533E+00	9.875909	9.875909	1.00 Sa	100%	97%	0.396503		
				(0.414767)		(1.9471E-01)	(0.854869)	(0.854869)	(0.017321)			0.189263		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants. Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:18

RADCALC v4.8.24

STL Richland

847

ESI-Calculated Values

GROSS BETA

sample	smp count	smp time	bkg count	bkg time	NCR_S	CR Uncertainty	Efficiency	$NDPM_S$	Total Vol	Analytical \	Sample Activity
H7DWT	378	150	734	500	1.052	0.140484875	0.45661	2.303936	1	0.083258	12.46497388
H796F	381	150	646	500	1.248	0.13970445	0.43726	2.854137	1	0.08365	15.36936467
H796L	367	150	533	500	1.380667	0.135805416	0.41822	3.301293	1	0.084791	17.53805027
H796N	352	150	530	500	1.286667	0.133283324	0.42685	3.01433	1	0.086485	15.69990411
H796P	405	150	557	500	1.586	0.142225174	0.44178	3.590022	1	0.084889	19.04990175
H796Q	367	150	580	500	1.286667	0.136495828	0.45115	2.851971	1	0.08123	15.8152354
H796R	389	150	559	500	1.475333	0.139731489	0.44733	3.298087	1	0.084338	17.6151302
H796T	173	150	533	500	0.087333	0.099100398	0.43604	0.200287	1	0.083946	1.074733346
H796W	326	150	538	500	1.097333	0.128999569	0.44019	2.492863	1	0.083288	13.48226911
H797D	306	150	517	500	1.006	0.125171882	0.42611	2.360893	1	0.085406	12.45187917
H797E	384	150	840	500	0.88	0.14292189	0.4405	1.99773	1	0.086032	10.45980928
H797F	342	150	489	500	1.302	0.130980915	0.44704	2.912491	1	0.081625	16.07268492
H797H	331	150	563	500	1.080667	0.130242509	0.44396	2.434153	1	0.083038	13.20438134
H797J	322	150	554	500	1.038667	0.128557812	0.43066	2.411802	1	0.084554	12.84856205
H797K	317	150	539	500	1.035333	0.127455439	0.44063	2.349666	1	0.082291	12.86177239
H797M	190	150	563	500	0.140667	0.103423616	0.44391	0.316881	1	0.085391	1.671595502
H8DNT1AA	203	150	650	500	0.053333	0.107806411	0.43007	0.124011	1	1	0.05586073
H8DNT1AC	809	150	489	500	4.415333	0.1947089	0.44708	9.875936	1	1	4.448619685

7/14/2006 10:40:46 AM

Sample Preparation/Analysis

Balance Id:1120373922

BD Gross Beta PrpRC5016/5014
S8 Gross Beta by GPC using Sr/Y-90 curve
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179351 pCi/sampl
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,HansenM

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HSDNT1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HSDNT1AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

7/26/2006 11:01:41 AM

Standard Material Fractions (Vials)

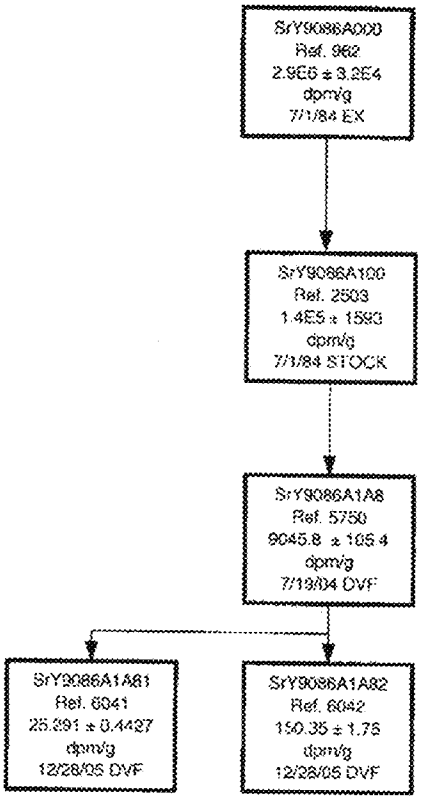
Vial Prep: 7/26/05 to 7/27/06,SMFractionIdentifier Between BESB2835 and BESB2835, Order by SMIdentifier,ConstituentCode,SMFractionIdentifier

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	SRY9086A1A82		Ref:	12/28/2005		1.5035E+02		± 1.164E+00	DPM/G	
BESB2835	SRY-90	**1.0216E+01**	**± 8.184E-02**	DPM	0.0687	g	6/15/2006	6/15/2006	Armstron	1.4870E+02	± 1.151E+00	DPM/G
		1.0216E+001	± 1.022E+001	(1)			1.0216E+001	, 1.0216E+001				

STL Richland, SMFractions v4.8.12 Page 1 Record Count: 1

* - Isotope is an Impurity

SrY9086A1A48



SRY9086A.XLW

ISOTOPE DILUTION RECORD

1) Prepared by	tda	2) Date Prepared	12/28/2005
3) Source Identification Number / Ref. Number	***SRY9086A1A8***		***5750***
4) Source Activity (dpm ± dpm/g)	8.7400E+03	±	1.018E+02
5) Percent error of Source Activity	1.1165 %		
6) Weight of Source Material used (g)	2.1494		
7) (% Error) of Weight of Source Material used	0.2233 %		
8) Diluent	2M HNO3		
9) Total Weight of the Dilution (g)	124.95		
10) (% Error) of Total Weight of the Dilution	0.2401 %		
11) Specific Activity of Diluted Solution dpm/g	***1.5035E+02***	±	***1.750E+00***
12) Total Uncertainty	1.164 %		
13) Dilution Identification Number / Ref. Number	***SRY9086A1A82***		***6042***
14) Calibration Reference Date	12/28/2005		
15) Isotope Inventory File update by/date	tda		12/28/2005
16) Reviewed by/date	SEW		1/17/2006
17) Location QCLAB		18) Exhausted	

****

CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

			SrY90 Verification Check			
					1/4/2006	
SrY9086A1A82 #6042						
150.35 ± 1.75 dpm/g						
I.D.		dpm	dpm	% yield		
		found	expected			
DVF2287		148.202	150.67	98.36		
DVF2288		153.997	150.16	102.56		
DVF2289		149.969	150.08	99.93		
			Average	101.24		
			Std. Dev	1.86		
The original NIST Certificate is located in Document Control Department.						

SEVERN TRENT SERVICES

Liquid Scintillation Counting Sheet

QC BATCH Number: T060002

Position	WorkOrder No.	Volume Analyzed (g mL L Hr)	Total Sample Volume (g mL L) OR Multiplier	Vial Label or Spike Value
1	BN			5mL DEAD LATER
2	DVF 2284	SrY90	86A1A81	SAME AS WO#
3	2285		#6041	
4	2286			
5	2287	SrY90	86A1A82	
6	2288		#6042	
7	2289			
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				

Preparation Information

Analysis: SrY90

Matrix: DIRECT QC

Client: RICH

Date Cocktail Added: 1/3/06

Total Count Time 30 min

Volume Counted: [illegible] mLs

Tray No(s): 15

Initials: TOA

Counting Information

Tower No: 3

LSC#: 4

CR Initials: KB

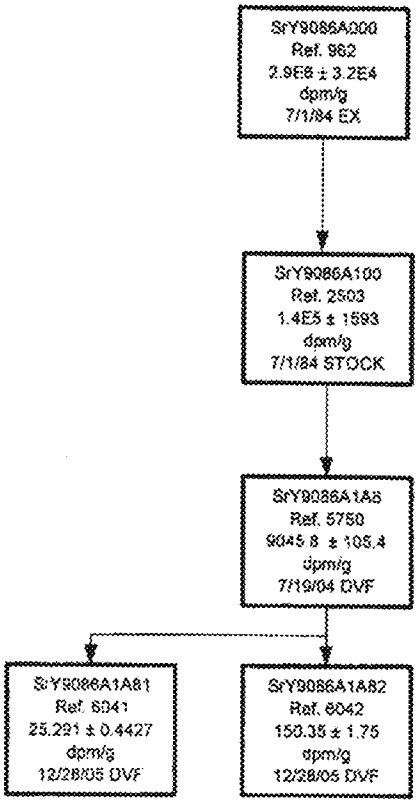
Comments

15 mL READYGEL TO ALL SAMPLES

```
Protocol #: 3        Name:ET-DPM Cal Check          03-Jan-06   16:57
Region A: LL-UL= 0.0-2000  Lcr=   0  Bkg= 0.00  %2 Sigma=0.50
Region B: LL-UL= 0.0-2000  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Region C: LL-UL= 0.0- 0.0  Lcr=   0  Bkg= 0.00  %2 Sigma=0.00
Time = 30.00     QIP = tSIE          ES Terminator = Count
Set up 29-Jan-1992 M. Lane
Luminescence Correction On

  S#   TIME    CPMA A:2S%  tSIE    SIS LUM FLAG
   1  30.00   47.30  5.30 354.0 1032.6   1    B
ET CPM  =     47.300 Background
   2  30.00   25.90 15.55 361.6 670.21   1
ET DPM  =     27.752
   3  30.00   26.20 15.40 362.3 776.11   1
ET DPM  =     28.719
   4  30.00   26.80 15.09 363.5 626.49   1
ET DPM  =     27.788
   5  30.00  146.13  3.88 361.9 719.13   0
ET DPM  =    148.202
   6  30.00  150.63  3.80 365.0 745.49   0
ET DPM  =    153.997
   7  30.00  145.83  3.88 359.1 685.61   0
ET DPM  =    149.969
```

SrY9086A1A48



Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep.Decayed To Date		Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	SRY9086A1A82		Ref: 12/28/2005			1.5035E+02	± 1.164E+00	DPM/G			
DVF2287	SRY-90	1.5067E+02	± 1.167E+00	DPM	1.0025	g	1/3/2006	1/3/2006	Armstron	1.5029E+02	± 1.164E+00	DPM/G
DVF2288	SRY-90	1.5016E+02	± 1.163E+00	DPM	0.9991	g	1/3/2006	1/3/2006	Armstron	1.5029E+02	± 1.164E+00	DPM/G
DVF2289	SRY-90	1.5008E+02	± 1.162E+00	DPM	0.9986	g	1/3/2006	1/3/2006	Armstron	1.5029E+02	± 1.164E+00	DPM/G
		1.5030E+002 ± 3.189E-001 (3)			0.212%		1.5008E+002 , 1.5067E+002					

* - Isotope is an Impurity

BRITISH CALIBRATION SERVICE

Approval No. 0146

Description

Principal radionuclide: Strontium-90

Daughter radionuclide: Yttrium-90

Product code: SIZ.44

Solution number: S4/31/118

Measurement

962

Reference time:	1200 GMT on 1 July 1984	
Radioactive concentration of strontium-90:	1.316	microcuries per gram of solution
which is equivalent to:	48.7	kilobecquerels per gram of solution
Mass of solution:	5.0380	grams
Total activity of strontium-90:	6.63	microcuries
which is equivalent to:	245	kilobecquerels

Method of measurement used (see reverse of the certificate): K

Accuracy

Overall uncertainty in the radioactive concentration quoted above: ± 1.11 %

Random uncertainty: ± 0.21 % Systematic uncertainty: ± 0.90 %

Overall uncertainty is defined on the reverse of the certificate.

Radionuclidic Purity

The estimated activities of any radioactive impurities found by high-resolution gamma ray spectrometry, or in any other examination of the solution, are listed below expressed as percentages of the activity of the principal radionuclide at the reference time.

Other radionuclides less than 0.01 %

Chemical Composition

0.1M HCl containing 100 micrograms of strontium and 100 micrograms of yttrium per ml.

Physical Data

Recommended half life: 28.6 ± 0.3 years

Strontium-90: 100% beta particle emission.
Yttrium-90: 100% beta particle emission. Half life 64.1 ± 0.1 hours.

The activity of the yttrium-90 is equal to the activity of the strontium-90.

Remarks

Tests made over a period of 2 years on standardized solutions of strontium-90 stored in glass ampoules have shown that loss of strontium-90 from solution is negligible other than by radioactive decay.

Approved Signatory

A.G.Tuck

Amersham

STLRICHLAND

This certificate is issued in accordance with the conditions of approval granted by the British Calibration Service which has verified the measurement capability of the laboratory and its traceability to United Kingdom national standards and to the units of measurement.

876

Methods of measurement

The measurement techniques listed below are currently in use at Amersham International for the absolute standardization of radioactive solutions. The methods used for this standardization are indicated on the front of the certificate.

Using a gas flow proportional counter

A 4π beta counting
B 4π alpha counting
C 4π internal conversion electron counting
D 4π coincidence counting
E 4π anticoincidence counting
F 4π coincidence and anticoincidence counting

Using a liquid scintillation counter

G 4π coincidence counting
H 4π anticoincidence counting
J 4π coincidence and anticoincidence counting
K 4π efficiency tracing

S.I. unit of radioactivity

The S.I. unit of radioactivity is the becquerel

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = 3.7×10^{10} becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = 3.7×10^{4} Bq = 37 kilobecquerels (kBq)
1 millicurie (mCi) = 3.7×10^{7} Bq = 37 megabecquerels (MBq)
1 kilobecquerel (kBq) = 27.027 nanocuries (nCi)
1 megabecquerel (MBq) = 27.027 microcuries (μCi)

Overall Uncertainty

The overall uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99.7% confidence level, and the estimated systematic uncertainties in the measurement.

Quality Assurance Report. Generated 27-JUL-2006 10:30:07.98

QA Filename : $DISK1:[QUAD31.QA]CHK.QAF;2

-- Multi-Test Full Report --

Description : QUAD 31A BETA %EFF
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 56.799999 Upper Bound : 62.084999

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 59.468987 Std Deviation : 0.872065

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:05	CHK		59.5000				
2-JUN-2006 06:36	CHK		58.7000				
5-JUN-2006 06:19	CHK		56.9000	In			
6-JUN-2006 06:16	CHK		59.1000				
7-JUN-2006 06:22	CHK		58.8000				
8-JUN-2006 07:06	CHK		58.1000				
9-JUN-2006 06:22	CHK		59.6000				
12-JUN-2006 06:06	CHK		59.5000				
13-JUN-2006 06:06	CHK		59.7000				
14-JUN-2006 06:16	CHK		58.1000				
15-JUN-2006 06:04	CHK		59.3000				
16-JUN-2006 06:09	CHK		59.8000				
17-JUN-2006 08:08	CHK		58.0000				
18-JUN-2006 06:04	CHK		58.7000				
19-JUN-2006 06:15	CHK		57.4000	In			
20-JUN-2006 06:37	CHK		59.8000				
21-JUN-2006 06:16	CHK		59.2000				
22-JUN-2006 06:09	CHK		60.1000				
23-JUN-2006 06:28	CHK		57.5000	In			
24-JUN-2006 06:20	CHK		58.8000				
26-JUN-2006 05:56	CHK		58.6000				

27-JUN-2006 05:29	CHK	59.4000			
28-JUN-2006 06:55	CHK	58.9000			
29-JUN-2006 06:15	CHK	60.0000			
30-JUN-2006 05:45	CHK	59.9000			
1-JUL-2006 07:56	CHK	59.8000			
3-JUL-2006 05:47	CHK	60.1000			
5-JUL-2006 05:53	CHK	59.6000			
6-JUL-2006 06:02	CHK	59.3000			
7-JUL-2006 06:28	CHK	58.6000			
8-JUL-2006 07:42	CHK	58.9000			
10-JUL-2006 06:03	CHK	58.7000			
11-JUL-2006 05:19	CHK	59.8000			
12-JUL-2006 06:13	CHK	59.8000			
13-JUL-2006 06:00	CHK	60.9000			
14-JUL-2006 06:42	CHK	60.0000			
16-JUL-2006 09:50	CHK	59.2000			
17-JUL-2006 05:32	CHK	58.8000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
18-JUL-2006 06:44	CHK		59.9000				
19-JUL-2006 06:12	CHK		59.7000				
20-JUL-2006 06:22	CHK		59.0000				
21-JUL-2006 06:22	CHK		60.5000				
24-JUL-2006 06:04	CHK		59.3000				
25-JUL-2006 06:25	CHK		59.5000				
26-JUL-2006 06:12	CHK		58.2000				

-- Multi-Test Full Report --

Description : QUAD 31B BETA %EFF
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 51.849998 Upper Bound : 57.303001

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 54.579086 Std Deviation : 0.908270

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:05	CHK		55.2000				
2-JUN-2006 06:36	CHK		53.5000				
5-JUN-2006 06:19	CHK		55.0000				
6-JUN-2006 06:16	CHK		52.4000	In			
7-JUN-2006 06:22	CHK		54.5000				
8-JUN-2006 07:06	CHK		54.0000				
9-JUN-2006 06:22	CHK		54.0000				
12-JUN-2006 06:06	CHK		53.2000				
13-JUN-2006 06:06	CHK		55.0000				
14-JUN-2006 06:16	CHK		53.9000				
15-JUN-2006 06:04	CHK		54.0000				
16-JUN-2006 06:09	CHK		53.9000				
17-JUN-2006 08:08	CHK		54.2000				
18-JUN-2006 06:04	CHK		52.8000				
19-JUN-2006 06:15	CHK		55.2000				
20-JUN-2006 06:37	CHK		53.9000				
21-JUN-2006 06:16	CHK		55.1000				
22-JUN-2006 06:09	CHK		54.3000				
23-JUN-2006 06:28	CHK		55.2000				
24-JUN-2006 06:20	CHK		53.8000				
26-JUN-2006 05:56	CHK		53.7000				
27-JUN-2006 05:29	CHK		55.4000				
28-JUN-2006 06:55	CHK		52.7000	In			
29-JUN-2006 06:15	CHK		55.5000				
30-JUN-2006 05:45	CHK		56.0000				
1-JUL-2006 07:56	CHK		55.2000				
3-JUL-2006 05:47	CHK		55.2000				
5-JUL-2006 05:53	CHK		54.3000				
6-JUL-2006 06:02	CHK		53.5000				
7-JUL-2006 06:28	CHK		55.0000				
8-JUL-2006 07:42	CHK		53.1000				

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
10-JUL-2006 06:03	CHK		55.8000				
11-JUL-2006 05:19	CHK		55.4000				
12-JUL-2006 06:13	CHK		56.1000				
13-JUL-2006 06:00	CHK		55.6000				
14-JUL-2006 06:42	CHK		55.1000				
16-JUL-2006 09:50	CHK		55.2000				

STLRICHLAND 881

17-JUL-2006 05:32	CHK	52.9000				
18-JUL-2006 06:44	CHK	55.2000				
19-JUL-2006 06:12	CHK	54.3000				
20-JUL-2006 06:22	CHK	53.9000				
21-JUL-2006 06:22	CHK	55.0000				
24-JUL-2006 06:04	CHK	52.8000				
25-JUL-2006 06:25	CHK	55.0000				
26-JUL-2006 06:12	CHK	51.9000	In			

-- Multi-Test Full Report --

Description : QUAD 31C BETA %EFF
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 47.715000 Upper Bound : 52.109001

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 49.911842 Std Deviation : 0.732404

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:05	CHK	50.3000					
2-JUN-2006 06:36	CHK	49.6000					
5-JUN-2006 06:19	CHK	50.3000					
6-JUN-2006 06:16	CHK	48.4000	In				
7-JUN-2006 06:22	CHK	50.2000					
8-JUN-2006 07:06	CHK	49.1000					
9-JUN-2006 06:22	CHK	48.6000					
12-JUN-2006 06:06	CHK	50.1000					
13-JUN-2006 06:06	CHK	49.1000					
14-JUN-2006 06:16	CHK	50.1000					
15-JUN-2006 06:04	CHK	49.8000					
16-JUN-2006 06:09	CHK	50.4000					
17-JUN-2006 08:08	CHK	49.5000					
18-JUN-2006 06:04	CHK	49.1000					
19-JUN-2006 06:15	CHK	49.9000					
20-JUN-2006 06:37	CHK	50.0000					
21-JUN-2006 06:16	CHK	50.3000					
22-JUN-2006 06:09	CHK	49.2000					

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23-JUN-2006 06:28	CHK	50.0000				
24-JUN-2006 06:20	CHK	49.7000				
26-JUN-2006 05:56	CHK	48.7000				
27-JUN-2006 05:29	CHK	49.6000				
28-JUN-2006 06:55	CHK	50.3000				
29-JUN-2006 06:15	CHK	50.8000				

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
30-JUN-2006 05:45	CHK		50.2000				
1-JUL-2006 07:56	CHK		50.5000				
3-JUL-2006 05:47	CHK		50.7000				
5-JUL-2006 05:53	CHK		49.8000				
6-JUL-2006 06:02	CHK		49.4000				
7-JUL-2006 06:28	CHK		49.2000				
8-JUL-2006 07:42	CHK		49.7000				
10-JUL-2006 06:03	CHK		50.3000				
11-JUL-2006 05:19	CHK		49.8000				
12-JUL-2006 06:13	CHK		50.2000				
13-JUL-2006 06:00	CHK		49.8000				
14-JUL-2006 06:42	CHK		50.3000				
16-JUL-2006 09:50	CHK		49.9000				
17-JUL-2006 05:32	CHK		49.3000				
18-JUL-2006 06:44	CHK		49.0000				
19-JUL-2006 06:12	CHK		50.4000				
20-JUL-2006 06:22	CHK		48.7000				
21-JUL-2006 06:22	CHK		50.0000				
24-JUL-2006 06:04	CHK		49.3000				
25-JUL-2006 06:25	CHK		50.5000				
26-JUL-2006 06:12	CHK		49.2000				

-- Multi-Test Full Report --

Description : QUAD 31D BETA %EFF
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 51.240002 Upper Bound : 56.770000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 54.005733 Std Deviation : 0.922110

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 06:05	CHK		53.9000	| | |
2-JUN-2006 06:36	CHK		54.2000	| | |
5-JUN-2006 06:19	CHK		53.7000	| | |
6-JUN-2006 06:16	CHK		53.7000	| | |
7-JUN-2006 06:22	CHK		53.0000	| | |
8-JUN-2006 07:06	CHK		54.0000	| | |
9-JUN-2006 06:22	CHK		53.4000	| | |
12-JUN-2006 06:06	CHK		52.2000	| | |
13-JUN-2006 06:06	CHK		53.4000	| | |
14-JUN-2006 06:16	CHK		54.3000	| | |
15-JUN-2006 06:04	CHK		53.8000	| | |
16-JUN-2006 06:09	CHK		54.3000	| | |
17-JUN-2006 08:08	CHK		53.9000	| | |
18-JUN-2006 06:04	CHK		53.4000	| | |
19-JUN-2006 06:15	CHK		53.9000	| | |
20-JUN-2006 06:37	CHK		53.6000	| | |
21-JUN-2006 06:16	CHK		52.4000	| | |

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
22-JUN-2006 06:09	CHK		53.7000	| | |
23-JUN-2006 06:28	CHK		52.7000	| | |
24-JUN-2006 06:20	CHK		54.0000	| | |
26-JUN-2006 05:56	CHK		53.9000	| | |
27-JUN-2006 05:29	CHK		53.2000	| | |
28-JUN-2006 06:55	CHK		52.8000	| | |
29-JUN-2006 06:15	CHK		54.7000	| | |
30-JUN-2006 05:45	CHK		54.0000	| | |
1-JUL-2006 07:56	CHK		53.6000	| | |
3-JUL-2006 05:47	CHK		54.4000	| | |
5-JUL-2006 05:53	CHK		54.5000	| | |
6-JUL-2006 06:02	CHK		54.0000	| | |
7-JUL-2006 06:28	CHK		53.6000	| | |
8-JUL-2006 07:42	CHK		53.4000	| | |
10-JUL-2006 06:03	CHK		54.7000	| | |
11-JUL-2006 05:19	CHK		54.7000	| | |
12-JUL-2006 06:13	CHK		54.3000	| | |

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13-JUL-2006 06:00	CHK	54.6000			
14-JUL-2006 06:42	CHK	54.6000			
16-JUL-2006 09:50	CHK	54.7000			
17-JUL-2006 05:32	CHK	53.3000			
18-JUL-2006 06:44	CHK	54.6000			
19-JUL-2006 06:12	CHK	54.2000			
20-JUL-2006 06:22	CHK	54.1000			
21-JUL-2006 06:22	CHK	54.6000			
24-JUL-2006 06:04	CHK	53.6000			
25-JUL-2006 06:25	CHK	53.3000			
26-JUL-2006 06:12	CHK	52.6000			

Quality Assurance Report. Generated 27-JUL-2006 10:30:09.08

QA Filename : $DISK1:[QUAD31.QA]BKG_15.QAF;2

-- Multi-Test Full Report --

Description : QUAD 31A BETA BKG
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.294076 Std Deviation : 0.191956

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:57	BKG		1.1800				
2-JUN-2006 05:49	BKG		1.1800				
3-JUN-2006 04:06	BKG		1.1400				
3-JUN-2006 23:24	BKG		1.2000				
5-JUN-2006 00:09	BKG		1.2100				
6-JUN-2006 04:47	BKG		1.1700				
7-JUN-2006 05:18	BKG		1.2700				
8-JUN-2006 06:16	BKG		1.4300				
9-JUN-2006 05:57	BKG		1.1400				
10-JUN-2006 03:57	BKG		1.2200				
10-JUN-2006 22:15	BKG		1.1600				
12-JUN-2006 00:14	BKG		1.1600				
13-JUN-2006 04:33	BKG		1.2400				

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14-JUN-2006 05:03	BKG	1.2800				
15-JUN-2006 04:36	BKG	1.1800				
16-JUN-2006 04:59	BKG	1.2300				
17-JUN-2006 03:53	BKG	1.2400				
18-JUN-2006 00:22	BKG	1.1700				
18-JUN-2006 22:49	BKG	1.1900				
20-JUN-2006 05:49	BKG	1.1800				
21-JUN-2006 04:18	BKG	1.4600				
22-JUN-2006 05:08	BKG	1.1400				
23-JUN-2006 05:22	BKG	1.1000				
24-JUN-2006 03:51	BKG	1.1300				
24-JUN-2006 21:05	BKG	1.1700				
26-JUN-2006 01:56	BKG	1.1800				
27-JUN-2006 02:17	BKG	1.2200				
28-JUN-2006 06:03	BKG	1.1500				
29-JUN-2006 05:13	BKG	1.2300				
30-JUN-2006 05:01	BKG	1.1300				
1-JUL-2006 05:59	BKG	1.2600				
2-JUL-2006 01:31	BKG	1.2600				
2-JUL-2006 23:01	BKG	1.1400				
4-JUL-2006 03:36	BKG	1.0400				
4-JUL-2006 20:02	BKG	1.1700				
6-JUL-2006 04:49	BKG	1.2100				
7-JUL-2006 04:57	BKG	1.1500				
8-JUL-2006 03:53	BKG	1.1400				
8-JUL-2006 23:11	BKG	1.1100				
9-JUL-2006 22:10	BKG	1.1400				
11-JUL-2006 04:56	BKG	1.2400				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUL-2006 04:52	BKG	1.1900					
13-JUL-2006 05:44	BKG	1.2100					
14-JUL-2006 04:54	BKG	1.1600					
15-JUL-2006 04:06	BKG	1.2100					
16-JUL-2006 00:37	BKG	1.1800					
16-JUL-2006 23:20	BKG	1.1200					
18-JUL-2006 05:56	BKG	1.6800	In				
19-JUL-2006 05:34	BKG	1.1700					
20-JUL-2006 05:26	BKG	1.1200					
21-JUL-2006 05:35	BKG	1.1400					
22-JUL-2006 01:19	BKG	1.3500					

22-JUL-2006 23:29	BKG	1.2100			
23-JUL-2006 19:17	BKG	1.1200			
25-JUL-2006 05:33	BKG	1.1600			
26-JUL-2006 05:24	BKG	1.2300			

-- Multi-Test Full Report --

Description : QUAD 31B BETA BKG
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.050595 Std Deviation : 0.061778

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:57	BKG		0.9800				
2-JUN-2006 05:49	BKG		1.0800				
3-JUN-2006 04:06	BKG		1.0500				
3-JUN-2006 23:24	BKG		1.0300				
5-JUN-2006 00:09	BKG		1.0800				
6-JUN-2006 04:47	BKG		1.0400				
7-JUN-2006 05:18	BKG		1.0700				
8-JUN-2006 06:16	BKG		1.1300				
9-JUN-2006 05:57	BKG		1.1300				
10-JUN-2006 03:57	BKG		1.0100				
10-JUN-2006 22:15	BKG		1.1200				
12-JUN-2006 00:14	BKG		1.0000				
13-JUN-2006 04:33	BKG		1.1200				
14-JUN-2006 05:03	BKG		1.1600				
15-JUN-2006 04:36	BKG		1.0600				
16-JUN-2006 04:59	BKG		0.9800				
17-JUN-2006 03:53	BKG		1.0700				
18-JUN-2006 00:22	BKG		1.0300				
18-JUN-2006 22:49	BKG		1.1000				
20-JUN-2006 05:49	BKG		1.0100				
21-JUN-2006 04:18	BKG		1.0400				
22-JUN-2006 05:08	BKG		1.0400				
23-JUN-2006 05:22	BKG		0.9900				
24-JUN-2006 03:51	BKG		1.0400				
24-JUN-2006 21:05	BKG		0.9700				

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26-JUN-2006 01:56 BKG 0.9800 | | |

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
27-JUN-2006 02:17	BKG		1.0100				
28-JUN-2006 06:03	BKG		0.9800				
29-JUN-2006 05:13	BKG		1.0100				
30-JUN-2006 05:01	BKG		1.0600				
1-JUL-2006 05:59	BKG		1.1100				
2-JUL-2006 01:31	BKG		1.1700				
2-JUL-2006 23:01	BKG		1.0100				
4-JUL-2006 03:36	BKG		1.1100				
4-JUL-2006 20:02	BKG		1.0700				
6-JUL-2006 04:49	BKG		1.1200				
7-JUL-2006 04:57	BKG		0.9800				
8-JUL-2006 03:53	BKG		1.0700				
8-JUL-2006 23:11	BKG		1.0400				
9-JUL-2006 22:10	BKG		1.0400				
11-JUL-2006 04:56	BKG		1.0500				
12-JUL-2006 04:52	BKG		1.0200				
13-JUL-2006 05:44	BKG		0.9300				
14-JUL-2006 04:54	BKG		1.0700				
15-JUL-2006 04:06	BKG		1.0000				
16-JUL-2006 00:37	BKG		0.9900				
16-JUL-2006 23:20	BKG		1.0100				
18-JUL-2006 05:56	BKG		0.9800				
19-JUL-2006 05:34	BKG		0.9900				
20-JUL-2006 05:26	BKG		1.0500				
21-JUL-2006 05:35	BKG		1.0300				
22-JUL-2006 01:19	BKG		1.0400				
22-JUL-2006 23:29	BKG		1.0400				
23-JUL-2006 19:17	BKG		1.0600				
25-JUL-2006 05:33	BKG		0.9700				
26-JUL-2006 05:24	BKG		1.1700				

-- Multi-Test Full Report --

Description : QUAD 31C BETA BKG

Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

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---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.163351 Std Deviation : 0.082268

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:57	BKG		1.1600				
2-JUN-2006 05:49	BKG		1.2200				
3-JUN-2006 04:06	BKG		1.1100				
3-JUN-2006 23:24	BKG		1.2500				
5-JUN-2006 00:09	BKG		1.3000				
6-JUN-2006 04:47	BKG		1.0500				
7-JUN-2006 05:18	BKG		1.3700	In			
8-JUN-2006 06:16	BKG		1.1800				
9-JUN-2006 05:57	BKG		1.1800				
10-JUN-2006 03:57	BKG		1.1900				
10-JUN-2006 22:15	BKG		1.2500				

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 00:14	BKG		1.1600				
13-JUN-2006 04:33	BKG		1.2800				
14-JUN-2006 05:03	BKG		1.1400				
15-JUN-2006 04:36	BKG		1.1400				
16-JUN-2006 04:59	BKG		1.1400				
17-JUN-2006 03:53	BKG		1.1700				
18-JUN-2006 00:22	BKG		1.2200				
18-JUN-2006 22:49	BKG		1.2300				
20-JUN-2006 05:49	BKG		1.2600				
21-JUN-2006 04:18	BKG		1.2200				
22-JUN-2006 05:08	BKG		1.1600				
23-JUN-2006 05:22	BKG		1.2300				
24-JUN-2006 03:51	BKG		1.1500				
24-JUN-2006 21:05	BKG		1.1400				
26-JUN-2006 01:56	BKG		1.2400				
27-JUN-2006 02:17	BKG		1.1800				
28-JUN-2006 06:03	BKG		1.1800				
29-JUN-2006 05:13	BKG		1.1800				
30-JUN-2006 05:01	BKG		1.2400				
1-JUL-2006 05:59	BKG		1.2200				
2-JUL-2006 01:31	BKG		1.1600				
2-JUL-2006 23:01	BKG		1.2100				

4-JUL-2006 03:36	BKG	1.1500				
4-JUL-2006 20:02	BKG	1.1400				
6-JUL-2006 04:49	BKG	1.1000				
7-JUL-2006 04:57	BKG	1.1500				
8-JUL-2006 03:53	BKG	1.1200				
8-JUL-2006 23:11	BKG	1.1500				
9-JUL-2006 22:10	BKG	1.1600				
11-JUL-2006 04:56	BKG	1.1200				
12-JUL-2006 04:52	BKG	1.0700				
13-JUL-2006 05:44	BKG	1.1400				
14-JUL-2006 04:54	BKG	1.1100				
15-JUL-2006 04:06	BKG	1.2000				
16-JUL-2006 00:37	BKG	1.1200				
16-JUL-2006 23:20	BKG	1.1000				
18-JUL-2006 05:56	BKG	1.1300				
19-JUL-2006 05:34	BKG	1.1400				
20-JUL-2006 05:26	BKG	1.1700				
21-JUL-2006 05:35	BKG	1.1400				
22-JUL-2006 01:19	BKG	1.1000				
22-JUL-2006 23:29	BKG	1.0900				
23-JUL-2006 19:17	BKG	1.1500				
25-JUL-2006 05:33	BKG	1.1500				
26-JUL-2006 05:24	BKG	1.1900				

-- Multi-Test Full Report --

Description : QUAD 31D BETA BKG
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.068486 Std Deviation : 0.060423

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:57	BKG		1.2200	In			
2-JUN-2006 05:49	BKG		1.1300				

3-JUN-2006 04:06	BKG	1.0800		
3-JUN-2006 23:24	BKG	1.2000	In	
5-JUN-2006 00:09	BKG	1.0800		
6-JUN-2006 04:47	BKG	1.0400		
7-JUN-2006 05:18	BKG	1.0500		
8-JUN-2006 06:16	BKG	1.1700		
9-JUN-2006 05:57	BKG	1.0300		
10-JUN-2006 03:57	BKG	1.0600		
10-JUN-2006 22:15	BKG	1.0800		
12-JUN-2006 00:14	BKG	1.0900		
13-JUN-2006 04:33	BKG	1.2200	In	
14-JUN-2006 05:03	BKG	1.2100	In	
15-JUN-2006 04:36	BKG	1.1200		
16-JUN-2006 04:59	BKG	1.1300		
17-JUN-2006 03:53	BKG	1.1100		
18-JUN-2006 00:22	BKG	1.1700		
18-JUN-2006 22:49	BKG	1.0600		
20-JUN-2006 05:49	BKG	1.0400		
21-JUN-2006 04:18	BKG	1.1300		
22-JUN-2006 05:08	BKG	1.0700		
23-JUN-2006 05:22	BKG	1.0100		
24-JUN-2006 03:51	BKG	1.1000		
24-JUN-2006 21:05	BKG	1.0500		
26-JUN-2006 01:56	BKG	1.1500		
27-JUN-2006 02:17	BKG	1.1400		
28-JUN-2006 06:03	BKG	1.1700		
29-JUN-2006 05:13	BKG	1.0300		
30-JUN-2006 05:01	BKG	1.0300		
1-JUL-2006 05:59	BKG	1.0400		
2-JUL-2006 01:31	BKG	1.2400	In	
2-JUL-2006 23:01	BKG	1.2900	Ac	
4-JUL-2006 03:36	BKG	1.3000	Ac	
4-JUL-2006 20:02	BKG	1.2000	In	
6-JUL-2006 04:49	BKG	1.2300	In	
7-JUL-2006 04:57	BKG	1.1700		
8-JUL-2006 03:53	BKG	1.1900	In	
8-JUL-2006 23:11	BKG	1.1300		
9-JUL-2006 22:10	BKG	1.1700		
11-JUL-2006 04:56	BKG	1.3100	Ac	
12-JUL-2006 04:52	BKG	1.1400		
13-JUL-2006 05:44	BKG	1.2300	In	
14-JUL-2006 04:54	BKG	1.1500		
15-JUL-2006 04:06	BKG	1.1100		

16-JUL-2006 00:37	BKG		1.1500		
16-JUL-2006 23:20	BKG		1.1400		
18-JUL-2006 05:56	BKG		1.2600	Ac	
19-JUL-2006 05:34	BKG		1.2200	In	
20-JUL-2006 05:26	BKG		1.2000	In	
21-JUL-2006 05:35	BKG		1.2700	Ac	
22-JUL-2006 01:19	BKG		1.2400	In	
22-JUL-2006 23:29	BKG		1.1900	In	
23-JUL-2006 19:17	BKG		1.1500		
25-JUL-2006 05:33	BKG		1.2300	In	

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Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUL-2006 05:24	BKG		1.1700				

Quality Assurance Report. Generated 27-JUL-2006 10:29:57.16

QA Filename : $DISK1:[QUAD28.QA]CHK.QAF;2

-- Multi-Test Full Report --

Description : Quad 28a Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 52.459999 Upper Bound : 62.590000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 57.532074 Std Deviation : 1.686781

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:52	CHK		56.1000				
2-JUN-2006 06:23	CHK		57.1000				
5-JUN-2006 06:03	CHK		56.4000				
6-JUN-2006 06:02	CHK		57.6000				
7-JUN-2006 06:06	CHK		53.9000	In			
8-JUN-2006 06:50	CHK		55.9000				
9-JUN-2006 06:09	CHK		54.6000				
10-JUN-2006 06:14	CHK		56.9000				
12-JUN-2006 05:53	CHK		56.0000				
13-JUN-2006 05:53	CHK		55.9000				
14-JUN-2006 06:02	CHK		55.6000				
15-JUN-2006 05:43	CHK		55.8000				
16-JUN-2006 05:54	CHK		55.0000				
17-JUN-2006 10:18	CHK		57.1000				
18-JUN-2006 06:05	CHK		56.4000				
19-JUN-2006 06:02	CHK		56.1000				
20-JUN-2006 06:22	CHK		56.4000				
21-JUN-2006 05:52	CHK		55.3000				
22-JUN-2006 05:54	CHK		56.3000				
23-JUN-2006 06:17	CHK		54.4000				
24-JUN-2006 06:21	CHK		55.0000				

26-JUN-2006 05:43	CHK	55.3000				
27-JUN-2006 05:15	CHK	55.7000				
28-JUN-2006 06:43	CHK	55.4000				
29-JUN-2006 06:00	CHK	54.8000				
30-JUN-2006 05:25	CHK	56.2000				
1-JUL-2006 08:53	CHK	55.8000				
3-JUL-2006 05:31	CHK	56.6000				
5-JUL-2006 05:37	CHK	56.2000				
6-JUL-2006 05:48	CHK	53.5000	In			
7-JUL-2006 06:17	CHK	56.2000				
8-JUL-2006 07:30	CHK	54.2000				
10-JUL-2006 05:50	CHK	56.9000				
11-JUL-2006 06:14	CHK	57.4000				
12-JUL-2006 06:01	CHK	56.0000				
13-JUL-2006 06:56	CHK	54.8000				
14-JUL-2006 06:10	CHK	54.9000				
17-JUL-2006 05:17	CHK	56.5000				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
18-JUL-2006 06:30	CHK		55.6000				
19-JUL-2006 05:57	CHK		57.5000				
20-JUL-2006 06:07	CHK		55.8000				
21-JUL-2006 06:07	CHK		55.1000				
24-JUL-2006 05:51	CHK		55.9000				
25-JUL-2006 06:08	CHK		56.5000				
26-JUL-2006 05:57	CHK		54.2000				

-- Multi-Test Full Report --

Description : Quad 28b Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 49.400002 Upper Bound : 56.299999

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 52.858170 Std Deviation : 1.153862

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:52	CHK		51.0000				
2-JUN-2006 06:23	CHK		52.5000				
5-JUN-2006 06:03	CHK		52.4000				
6-JUN-2006 06:02	CHK		52.1000				
7-JUN-2006 06:06	CHK		51.6000				
8-JUN-2006 06:50	CHK		52.2000				
9-JUN-2006 06:09	CHK		51.6000				
10-JUN-2006 06:14	CHK		51.7000				
12-JUN-2006 05:53	CHK		51.9000				
13-JUN-2006 05:53	CHK		52.0000				
14-JUN-2006 06:02	CHK		51.9000				
15-JUN-2006 05:43	CHK		50.2000	In			
16-JUN-2006 05:54	CHK		50.6000				
17-JUN-2006 10:18	CHK		51.8000				
18-JUN-2006 06:05	CHK		51.8000				
19-JUN-2006 06:02	CHK		51.9000				
20-JUN-2006 06:22	CHK		51.1000				
21-JUN-2006 05:52	CHK		51.2000				
22-JUN-2006 05:54	CHK		51.6000				
23-JUN-2006 06:17	CHK		51.3000				
24-JUN-2006 06:21	CHK		49.9000	In			
26-JUN-2006 05:43	CHK		51.4000				
27-JUN-2006 05:15	CHK		51.8000				
28-JUN-2006 06:43	CHK		50.3000	In			
29-JUN-2006 06:00	CHK		51.8000				
30-JUN-2006 05:25	CHK		50.8000				
1-JUL-2006 08:53	CHK		52.2000				
3-JUL-2006 05:31	CHK		52.0000				
5-JUL-2006 05:37	CHK		50.5000	In			
6-JUL-2006 05:48	CHK		50.7000				
7-JUL-2006 06:17	CHK		50.7000				

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Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
8-JUL-2006 07:30	CHK		51.1000				
10-JUL-2006 05:50	CHK		51.7000				
11-JUL-2006 06:14	CHK		52.6000				
12-JUL-2006 06:01	CHK		52.2000				
13-JUL-2006 06:56	CHK		50.4000	In			
14-JUL-2006 06:10	CHK		51.3000				

17-JUL-2006 05:17	CHK	51.7000			
18-JUL-2006 06:30	CHK	51.1000			
19-JUL-2006 05:57	CHK	51.5000			
20-JUL-2006 06:07	CHK	51.4000			
21-JUL-2006 06:07	CHK	51.6000			
24-JUL-2006 05:51	CHK	51.6000			
25-JUL-2006 06:08	CHK	51.9000			
26-JUL-2006 05:57	CHK	50.8000			

-- Multi-Test Full Report --

Description : Quad 28c Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 50.189999 Upper Bound : 57.099998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 54.035946 Std Deviation : 1.280502

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:52	CHK		52.9000				
2-JUN-2006 06:23	CHK		53.3000				
5-JUN-2006 06:03	CHK		53.1000				
6-JUN-2006 06:02	CHK		53.0000				
7-JUN-2006 06:06	CHK		51.7000				
8-JUN-2006 06:50	CHK		51.3000	In			
9-JUN-2006 06:09	CHK		51.9000				
10-JUN-2006 06:14	CHK		53.1000				
12-JUN-2006 05:53	CHK		52.6000				
13-JUN-2006 05:53	CHK		52.1000				
14-JUN-2006 06:02	CHK		51.6000				
15-JUN-2006 05:43	CHK		51.5000				
16-JUN-2006 05:54	CHK		51.6000				
17-JUN-2006 10:18	CHK		53.0000				
18-JUN-2006 06:05	CHK		52.8000				
19-JUN-2006 06:02	CHK		52.0000				
20-JUN-2006 06:22	CHK		52.1000				
21-JUN-2006 05:52	CHK		51.1000	In			

22-JUN-2006 05:54	CHK	52.6000				
23-JUN-2006 06:17	CHK	51.9000				
24-JUN-2006 06:21	CHK	51.2000	In			
26-JUN-2006 05:43	CHK	52.6000				
27-JUN-2006 05:15	CHK	52.1000				
28-JUN-2006 06:43	CHK	51.4000	In			

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
29-JUN-2006 06:00	CHK		52.1000				
30-JUN-2006 05:25	CHK		53.2000				
1-JUL-2006 08:53	CHK		53.1000				
3-JUL-2006 05:31	CHK		52.1000				
5-JUL-2006 05:37	CHK		52.1000				
6-JUL-2006 05:48	CHK		51.3000	In			
7-JUL-2006 06:17	CHK		51.9000				
8-JUL-2006 07:30	CHK		52.1000				
10-JUL-2006 05:50	CHK		51.5000				
11-JUL-2006 06:14	CHK		52.8000				
12-JUL-2006 06:01	CHK		52.7000				
13-JUL-2006 06:56	CHK		52.6000				
14-JUL-2006 06:10	CHK		52.3000				
17-JUL-2006 05:17	CHK		52.2000				
18-JUL-2006 06:30	CHK		52.9000				
19-JUL-2006 05:57	CHK		52.1000				
20-JUL-2006 06:07	CHK		51.6000				
21-JUL-2006 06:07	CHK		51.8000				
24-JUL-2006 05:51	CHK		52.8000				
25-JUL-2006 06:08	CHK		51.6000				
26-JUL-2006 05:57	CHK		51.5000				

-- Multi-Test Full Report --

Description : Quad 28d Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 49.290001 Upper Bound : 56.570000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 52.933334 Std Deviation : 1.213683

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:52	CHK		50.7000				
2-JUN-2006 06:23	CHK		51.7000				
5-JUN-2006 06:03	CHK		52.1000				
6-JUN-2006 06:02	CHK		52.3000				
7-JUN-2006 06:06	CHK		51.4000				
8-JUN-2006 06:50	CHK		50.8000				
9-JUN-2006 06:09	CHK		52.5000				
10-JUN-2006 06:14	CHK		51.7000				
12-JUN-2006 05:53	CHK		52.0000				
13-JUN-2006 05:53	CHK		51.0000				
14-JUN-2006 06:02	CHK		51.6000				
15-JUN-2006 05:43	CHK		49.1000	Be	Ac		
16-JUN-2006 05:54	CHK		51.4000				
17-JUN-2006 10:18	CHK		51.2000				
18-JUN-2006 06:05	CHK		51.5000				
19-JUN-2006 06:02	CHK		52.4000				
20-JUN-2006 06:22	CHK		51.3000				

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
21-JUN-2006 05:52	CHK		51.7000				
22-JUN-2006 05:54	CHK		50.8000				
23-JUN-2006 06:17	CHK		51.9000				
24-JUN-2006 06:21	CHK		51.5000				
26-JUN-2006 05:43	CHK		52.2000				
27-JUN-2006 05:15	CHK		50.0000	In			
28-JUN-2006 06:43	CHK		50.5000	In			
29-JUN-2006 06:00	CHK		51.6000				
30-JUN-2006 05:25	CHK		51.2000				
1-JUL-2006 08:53	CHK		52.3000				
3-JUL-2006 05:31	CHK		51.7000				
5-JUL-2006 05:37	CHK		51.1000				
6-JUL-2006 05:48	CHK		51.9000				
7-JUL-2006 06:17	CHK		50.8000				
8-JUL-2006 07:30	CHK		50.3000	In			
10-JUL-2006 05:50	CHK		51.7000				
11-JUL-2006 06:14	CHK		52.8000				

12-JUL-2006 06:01	CHK	51.4000			
13-JUL-2006 06:56	CHK	50.3000	In		
14-JUL-2006 06:10	CHK	51.1000			
17-JUL-2006 05:17	CHK	52.1000			
18-JUL-2006 06:30	CHK	51.0000			
19-JUL-2006 05:57	CHK	51.6000			
20-JUL-2006 06:07	CHK	50.2000	In		
21-JUL-2006 06:07	CHK	51.4000			
24-JUL-2006 05:51	CHK	52.0000			
25-JUL-2006 06:08	CHK	50.4000	In		
26-JUL-2006 05:57	CHK	50.5000	In		

Quality Assurance Report. Generated 27-JUL-2006 10:29:58.27

QA Filename : $DISK1:[QUAD28.QA]BKG_15.QAF;2

-- Multi-Test Full Report --

Description : Quad 28a Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.088703 Std Deviation : 0.062157

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:25	BKG		1.0600				
2-JUN-2006 05:49	BKG		1.1700				
3-JUN-2006 04:14	BKG		1.0600				
3-JUN-2006 23:25	BKG		1.0400				
5-JUN-2006 00:12	BKG		1.0600				
6-JUN-2006 05:24	BKG		1.0600				
7-JUN-2006 05:28	BKG		1.2000				
8-JUN-2006 06:14	BKG		1.2200	In			
9-JUN-2006 04:39	BKG		1.1800				
10-JUN-2006 04:12	BKG		1.1100				
10-JUN-2006 22:16	BKG		1.1300				
12-JUN-2006 00:35	BKG		1.0900				
13-JUN-2006 04:52	BKG		1.1200				

14-JUN-2006 04:55	BKG	1.0700				
15-JUN-2006 04:50	BKG	1.0400				
16-JUN-2006 05:10	BKG	1.0600				
17-JUN-2006 03:16	BKG	1.1400				
17-JUN-2006 23:53	BKG	1.1000				
18-JUN-2006 22:49	BKG	1.0500				
20-JUN-2006 05:53	BKG	1.0400				
21-JUN-2006 04:48	BKG	1.1500				
22-JUN-2006 05:05	BKG	1.0100				
23-JUN-2006 05:29	BKG	1.1100				
24-JUN-2006 04:09	BKG	1.0800				
24-JUN-2006 21:05	BKG	1.0600				
26-JUN-2006 02:27	BKG	1.0700				
27-JUN-2006 02:17	BKG	1.1000				
28-JUN-2006 05:59	BKG	1.1400				
29-JUN-2006 05:18	BKG	1.0900				
30-JUN-2006 04:49	BKG	1.0500				
1-JUL-2006 05:24	BKG	1.1500				
2-JUL-2006 00:55	BKG	1.0100				
2-JUL-2006 23:01	BKG	1.0900				
4-JUL-2006 04:05	BKG	1.1700				
4-JUL-2006 20:04	BKG	1.1800				
6-JUL-2006 04:52	BKG	1.0600				
7-JUL-2006 04:50	BKG	1.0700				
8-JUL-2006 03:59	BKG	1.0500				
8-JUL-2006 23:11	BKG	1.1100				
10-JUL-2006 00:05	BKG	1.1400				
11-JUL-2006 05:42	BKG	1.1300				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUL-2006 05:02	BKG		1.0900				
13-JUL-2006 05:56	BKG		1.0200				
14-JUL-2006 05:18	BKG		1.1100				
15-JUL-2006 03:53	BKG		1.1300				
16-JUL-2006 00:47	BKG		1.1600				
16-JUL-2006 23:38	BKG		1.1100				
18-JUL-2006 05:53	BKG		1.0500				
19-JUL-2006 05:05	BKG		1.1400				
20-JUL-2006 04:53	BKG		1.1200				
21-JUL-2006 05:33	BKG		1.1100				
22-JUL-2006 01:20	BKG		1.1000				

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22-JUL-2006 23:30	BKG	1.1500			
23-JUL-2006 19:18	BKG	1.1700			
25-JUL-2006 05:35	BKG	1.0800			
26-JUL-2006 05:02	BKG	1.0400			

-- Multi-Test Full Report --

Description : Quad 28b Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.076973 Std Deviation : 0.057023

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:25	BKG		1.1000				
2-JUN-2006 05:49	BKG		1.0900				
3-JUN-2006 04:14	BKG		1.1300				
3-JUN-2006 23:25	BKG		1.1000				
5-JUN-2006 00:12	BKG		1.0700				
6-JUN-2006 05:24	BKG		1.1000				
7-JUN-2006 05:28	BKG		1.1300				
8-JUN-2006 06:14	BKG		1.1400				
9-JUN-2006 04:39	BKG		1.0400				
10-JUN-2006 04:12	BKG		1.1400				
10-JUN-2006 22:16	BKG		1.1000				
12-JUN-2006 00:35	BKG		1.1500				
13-JUN-2006 04:52	BKG		1.1200				
14-JUN-2006 04:55	BKG		1.1300				
15-JUN-2006 04:50	BKG		1.0700				
16-JUN-2006 05:10	BKG		1.1700				
17-JUN-2006 03:16	BKG		1.0600				
17-JUN-2006 23:53	BKG		1.1100				
18-JUN-2006 22:49	BKG		1.1000				
20-JUN-2006 05:53	BKG		1.0500				
21-JUN-2006 04:48	BKG		1.1200				
22-JUN-2006 05:05	BKG		1.1000				
23-JUN-2006 05:29	BKG		1.2000	In			
24-JUN-2006 04:09	BKG		1.1400				
24-JUN-2006 21:05	BKG		1.1400				

26-JUN-2006 02:27 BKG 1.0900 | | |

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
27-JUN-2006 02:17	BKG		1.1700				
28-JUN-2006 05:59	BKG		1.1000				
29-JUN-2006 05:18	BKG		1.1400				
30-JUN-2006 04:49	BKG		1.0400				
1-JUL-2006 05:24	BKG		1.0800				
2-JUL-2006 00:55	BKG		1.0500				
2-JUL-2006 23:01	BKG		1.0600				
4-JUL-2006 04:05	BKG		1.1300				
4-JUL-2006 20:04	BKG		1.0800				
6-JUL-2006 04:52	BKG		1.1200				
7-JUL-2006 04:50	BKG		1.0500				
8-JUL-2006 03:59	BKG		1.0700				
8-JUL-2006 23:11	BKG		1.1400				
10-JUL-2006 00:05	BKG		1.1400				
11-JUL-2006 05:42	BKG		1.1100				
12-JUL-2006 05:02	BKG		1.1300				
13-JUL-2006 05:56	BKG		1.0900				
14-JUL-2006 05:18	BKG		1.0700				
15-JUL-2006 03:53	BKG		1.1400				
16-JUL-2006 00:47	BKG		1.1000				
16-JUL-2006 23:38	BKG		1.1300				
18-JUL-2006 05:53	BKG		1.0700				
19-JUL-2006 05:05	BKG		1.2100	In			
20-JUL-2006 04:53	BKG		1.1300				
21-JUL-2006 05:33	BKG		1.1400				
22-JUL-2006 01:20	BKG		1.0700				
22-JUL-2006 23:30	BKG		1.2100	In			
23-JUL-2006 19:18	BKG		1.1600				
25-JUL-2006 05:35	BKG		1.1100				
26-JUL-2006 05:02	BKG		1.1200				

-- Multi-Test Full Report --

Description : Quad 28c Beta Bkg

Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.199189 Std Deviation : 0.137805

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:25	BKG		1.1600				
2-JUN-2006 05:49	BKG		1.1900				
3-JUN-2006 04:14	BKG		1.1500				
3-JUN-2006 23:25	BKG		1.1800				
5-JUN-2006 00:12	BKG		1.2500				
6-JUN-2006 05:24	BKG		1.0600				
7-JUN-2006 05:28	BKG		1.3200				
8-JUN-2006 06:14	BKG		1.2100				
9-JUN-2006 04:39	BKG		1.1900				
10-JUN-2006 04:12	BKG		1.2200				
10-JUN-2006 22:16	BKG		1.2100				

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Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 00:35	BKG		1.1900				
13-JUN-2006 04:52	BKG		1.1900				
14-JUN-2006 04:55	BKG		1.3300				
15-JUN-2006 04:50	BKG		1.2800				
16-JUN-2006 05:10	BKG		1.3000				
17-JUN-2006 03:16	BKG		1.2500				
17-JUN-2006 23:53	BKG		1.2100				
18-JUN-2006 22:49	BKG		1.2900				
20-JUN-2006 05:53	BKG		1.0800				
21-JUN-2006 04:48	BKG		1.1200				
22-JUN-2006 05:05	BKG		1.2100				
23-JUN-2006 05:29	BKG		1.1100				
24-JUN-2006 04:09	BKG		1.1200				
24-JUN-2006 21:05	BKG		1.1200				
26-JUN-2006 02:27	BKG		1.1900				
27-JUN-2006 02:17	BKG		1.3100				
28-JUN-2006 05:59	BKG		1.2500				
29-JUN-2006 05:18	BKG		1.2200				
30-JUN-2006 04:49	BKG		1.1300				
1-JUL-2006 05:24	BKG		1.2000				
2-JUL-2006 00:55	BKG		1.2200				
2-JUL-2006 23:01	BKG		1.2500				

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4-JUL-2006 04:05	BKG	1.3300			
4-JUL-2006 20:04	BKG	1.1700			
6-JUL-2006 04:52	BKG	1.2600			
7-JUL-2006 04:50	BKG	1.1300			
8-JUL-2006 03:59	BKG	1.1500			
8-JUL-2006 23:11	BKG	1.1000			
10-JUL-2006 00:05	BKG	1.1300			
11-JUL-2006 05:42	BKG	1.1500			
12-JUL-2006 05:02	BKG	1.2700			
13-JUL-2006 05:56	BKG	1.1700			
14-JUL-2006 05:18	BKG	1.1600			
15-JUL-2006 03:53	BKG	1.2000			
16-JUL-2006 00:47	BKG	1.2200			
16-JUL-2006 23:38	BKG	1.1300			
18-JUL-2006 05:53	BKG	1.0800			
19-JUL-2006 05:05	BKG	1.1300			
20-JUL-2006 04:53	BKG	1.1900			
21-JUL-2006 05:33	BKG	1.1700			
22-JUL-2006 01:20	BKG	1.1800			
22-JUL-2006 23:30	BKG	1.2200			
23-JUL-2006 19:18	BKG	1.1300			
25-JUL-2006 05:35	BKG	1.2200			
26-JUL-2006 05:02	BKG	1.1300			

-- Multi-Test Full Report --

Description : Quad 28d Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.015622 Std Deviation : 0.066772

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:25	BKG		1.0300				
2-JUN-2006 05:49	BKG		1.0800				

3-JUN-2006 04:14	BKG	1.0000		
3-JUN-2006 23:25	BKG	1.0000		
5-JUN-2006 00:12	BKG	1.0800		
6-JUN-2006 05:24	BKG	1.1900	In	
7-JUN-2006 05:28	BKG	1.0600		
8-JUN-2006 06:14	BKG	1.0200		
9-JUN-2006 04:39	BKG	1.1100		
10-JUN-2006 04:12	BKG	1.0000		
10-JUN-2006 22:16	BKG	1.1500	In	
12-JUN-2006 00:35	BKG	1.1200		
13-JUN-2006 04:52	BKG	1.1300		
14-JUN-2006 04:55	BKG	1.1600	In	
15-JUN-2006 04:50	BKG	1.0800		
16-JUN-2006 05:10	BKG	1.1000		
17-JUN-2006 03:16	BKG	1.1000		
17-JUN-2006 23:53	BKG	1.0800		
18-JUN-2006 22:49	BKG	1.1300		
20-JUN-2006 05:53	BKG	1.1400		
21-JUN-2006 04:48	BKG	1.1700	In	
22-JUN-2006 05:05	BKG	1.0100		
23-JUN-2006 05:29	BKG	1.0700		
24-JUN-2006 04:09	BKG	1.0700		
24-JUN-2006 21:05	BKG	1.1300		
26-JUN-2006 02:27	BKG	1.1000		
27-JUN-2006 02:17	BKG	1.1000		
28-JUN-2006 05:59	BKG	1.1500	In	
29-JUN-2006 05:18	BKG	1.0500		
30-JUN-2006 04:49	BKG	1.1200		
1-JUL-2006 05:24	BKG	1.1200		
2-JUL-2006 00:55	BKG	1.1400		
2-JUL-2006 23:01	BKG	1.1100		
4-JUL-2006 04:05	BKG	1.1900	In	
4-JUL-2006 20:04	BKG	1.2200	Ac	
6-JUL-2006 04:52	BKG	1.0500		
7-JUL-2006 04:50	BKG	1.0700		
8-JUL-2006 03:59	BKG	0.9800		
8-JUL-2006 23:11	BKG	1.1700	In	
10-JUL-2006 00:05	BKG	1.0300		
11-JUL-2006 05:42	BKG	1.0800		
12-JUL-2006 05:02	BKG	1.1100		
13-JUL-2006 05:56	BKG	1.0400		
14-JUL-2006 05:18	BKG	1.0400		
15-JUL-2006 03:53	BKG	1.0300		

16-JUL-2006 00:47	BKG	1.0500			
16-JUL-2006 23:38	BKG	1.0200			
18-JUL-2006 05:53	BKG	1.0300			
19-JUL-2006 05:05	BKG	1.0800			
20-JUL-2006 04:53	BKG	1.0900			
21-JUL-2006 05:33	BKG	1.1100			
22-JUL-2006 01:20	BKG	1.1500	In		
22-JUL-2006 23:30	BKG	1.0800			
23-JUL-2006 19:18	BKG	1.1100			
25-JUL-2006 05:35	BKG	1.1500	In		

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Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUL-2006 05:02	BKG		1.0300				

Quality Assurance Report. Generated 27-JUL-2006 10:29:46.42

QA Filename : $DISK1:[QUAD27.QA]CHK.QAF;2

-- Multi-Test Full Report --

Description : Quad 27a Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 57.349998 Upper Bound : 63.287998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 60.319565 Std Deviation : 0.989589

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:38	CHK		60.8000				
2-JUN-2006 06:06	CHK		59.5000				
5-JUN-2006 05:47	CHK		60.4000				
6-JUN-2006 05:46	CHK		59.8000				
7-JUN-2006 05:49	CHK		60.8000				
8-JUN-2006 06:34	CHK		60.7000				
9-JUN-2006 05:53	CHK		60.3000				
10-JUN-2006 05:56	CHK		60.1000				
12-JUN-2006 05:34	CHK		59.8000				
13-JUN-2006 05:36	CHK		60.4000				
14-JUN-2006 05:47	CHK		59.9000				
15-JUN-2006 05:20	CHK		59.9000				
16-JUN-2006 05:40	CHK		60.1000				
17-JUN-2006 09:31	CHK		59.5000				
18-JUN-2006 05:45	CHK		60.3000				
19-JUN-2006 05:32	CHK		60.1000				
20-JUN-2006 06:09	CHK		59.9000				
21-JUN-2006 05:33	CHK		60.2000				
22-JUN-2006 05:40	CHK		60.9000				
23-JUN-2006 05:50	CHK		60.6000				
24-JUN-2006 05:59	CHK		60.2000				

26-JUN-2006 05:29	CHK	59.8000				
27-JUN-2006 05:00	CHK	60.5000				
28-JUN-2006 06:29	CHK	60.0000				
29-JUN-2006 05:43	CHK	60.5000				
30-JUN-2006 05:08	CHK	60.2000				
1-JUL-2006 08:16	CHK	60.6000				
2-JUL-2006 08:51	CHK	61.0000				
3-JUL-2006 05:15	CHK	59.9000				
5-JUL-2006 05:15	CHK	60.7000				
6-JUL-2006 05:31	CHK	60.0000				
7-JUL-2006 05:44	CHK	60.0000				
8-JUL-2006 07:09	CHK	58.9000				
10-JUL-2006 05:34	CHK	60.7000				
11-JUL-2006 05:58	CHK	60.9000				
12-JUL-2006 05:45	CHK	60.4000				
13-JUL-2006 06:40	CHK	60.3000				
14-JUL-2006 05:44	CHK	60.5000				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
17-JUL-2006 04:59	CHK		60.0000				
18-JUL-2006 06:15	CHK		60.6000				
19-JUL-2006 05:40	CHK		59.8000				
20-JUL-2006 05:37	CHK		60.3000				
21-JUL-2006 05:50	CHK		60.4000				
24-JUL-2006 05:37	CHK		60.0000				
25-JUL-2006 05:50	CHK		60.6000				
26-JUL-2006 05:40	CHK		61.0000				

-- Multi-Test Full Report --

Description : Quad 27b Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 53.250000 Upper Bound : 60.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 56.591892 Std Deviation : 1.112864

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:38	CHK		56.2000				
2-JUN-2006 06:06	CHK		56.3000				
5-JUN-2006 05:47	CHK		55.9000				
6-JUN-2006 05:46	CHK		56.7000				
7-JUN-2006 05:49	CHK		56.0000				
8-JUN-2006 06:34	CHK		56.1000				
9-JUN-2006 05:53	CHK		56.9000				
10-JUN-2006 05:56	CHK		56.3000				
12-JUN-2006 05:34	CHK		57.4000				
13-JUN-2006 05:36	CHK		57.1000				
14-JUN-2006 05:47	CHK		56.9000				
15-JUN-2006 05:20	CHK		56.8000				
16-JUN-2006 05:40	CHK		57.4000				
17-JUN-2006 09:31	CHK		56.7000				
18-JUN-2006 05:45	CHK		57.4000				
19-JUN-2006 05:32	CHK		56.3000				
20-JUN-2006 06:09	CHK		56.6000				
21-JUN-2006 05:33	CHK		57.1000				
22-JUN-2006 05:40	CHK		57.0000				
23-JUN-2006 05:50	CHK		56.8000				
24-JUN-2006 05:59	CHK		57.0000				
26-JUN-2006 05:29	CHK		57.3000				
27-JUN-2006 05:00	CHK		57.1000				
28-JUN-2006 06:29	CHK		56.8000				
29-JUN-2006 05:43	CHK		57.6000				
30-JUN-2006 05:08	CHK		56.6000				
1-JUL-2006 08:16	CHK		56.3000				
2-JUL-2006 08:51	CHK		57.1000				
3-JUL-2006 05:15	CHK		57.2000				
5-JUL-2006 05:15	CHK		56.6000				

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
6-JUL-2006 05:31	CHK		56.7000				
7-JUL-2006 05:44	CHK		56.4000				
8-JUL-2006 07:09	CHK		57.0000				
10-JUL-2006 05:34	CHK		57.4000				
11-JUL-2006 05:58	CHK		57.3000				
12-JUL-2006 05:45	CHK		57.6000				

13-JUL-2006 06:40	CHK	56.9000			
14-JUL-2006 05:44	CHK	56.4000			
17-JUL-2006 04:59	CHK	56.9000			
18-JUL-2006 06:15	CHK	56.3000			
19-JUL-2006 05:40	CHK	57.0000			
20-JUL-2006 05:37	CHK	56.6000			
21-JUL-2006 05:50	CHK	57.0000			
24-JUL-2006 05:37	CHK	56.7000			
25-JUL-2006 05:50	CHK	57.2000			
26-JUL-2006 05:40	CHK	57.2000			

-- Multi-Test Full Report --

Description : Quad 27c Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 49.400002 Upper Bound : 53.560001

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 51.482067 Std Deviation : 0.693336

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:38	CHK		51.7000				
2-JUN-2006 06:06	CHK		51.9000				
5-JUN-2006 05:47	CHK		51.3000				
6-JUN-2006 05:46	CHK		51.6000				
7-JUN-2006 05:49	CHK		51.2000				
8-JUN-2006 06:34	CHK		52.1000				
9-JUN-2006 05:53	CHK		51.0000				
10-JUN-2006 05:56	CHK		51.7000				
12-JUN-2006 05:34	CHK		51.4000				
13-JUN-2006 05:36	CHK		51.7000				
14-JUN-2006 05:47	CHK		51.4000				
15-JUN-2006 05:20	CHK		51.2000				
16-JUN-2006 05:40	CHK		51.3000				
17-JUN-2006 09:31	CHK		51.2000				
18-JUN-2006 05:45	CHK		51.4000				
19-JUN-2006 05:32	CHK		50.6000				

20-JUN-2006 06:09	CHK	51.5000			
21-JUN-2006 05:33	CHK	51.2000			
22-JUN-2006 05:40	CHK	52.1000			
23-JUN-2006 05:50	CHK	51.6000			
24-JUN-2006 05:59	CHK	51.6000			
26-JUN-2006 05:29	CHK	51.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
27-JUN-2006 05:00	CHK		51.9000				
28-JUN-2006 06:29	CHK		50.9000				
29-JUN-2006 05:43	CHK		51.5000				
30-JUN-2006 05:08	CHK		51.0000				
1-JUL-2006 08:16	CHK		51.1000				
2-JUL-2006 08:51	CHK		51.5000				
3-JUL-2006 05:15	CHK		51.8000				
5-JUL-2006 05:15	CHK		51.3000				
6-JUL-2006 05:31	CHK		51.1000				
7-JUL-2006 05:44	CHK		50.9000				
8-JUL-2006 07:09	CHK		51.3000				
10-JUL-2006 05:34	CHK		51.4000				
11-JUL-2006 05:58	CHK		52.2000				
12-JUL-2006 05:45	CHK		51.6000				
13-JUL-2006 06:40	CHK		51.1000				
14-JUL-2006 05:44	CHK		50.8000				
17-JUL-2006 04:59	CHK		51.5000				
18-JUL-2006 06:15	CHK		51.7000				
19-JUL-2006 05:40	CHK		51.5000				
20-JUL-2006 05:37	CHK		51.3000				
21-JUL-2006 05:50	CHK		51.9000				
24-JUL-2006 05:37	CHK		51.5000				
25-JUL-2006 05:50	CHK		51.4000				
26-JUL-2006 05:40	CHK		51.1000				

-- Multi-Test Full Report --

Description : Quad 27d Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 55.299999 Upper Bound : 58.160000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 56.713795 Std Deviation : 0.481548

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:38	CHK		56.9000				
2-JUN-2006 06:06	CHK		56.5000				
5-JUN-2006 05:47	CHK		56.8000				
6-JUN-2006 05:46	CHK		56.9000				
7-JUN-2006 05:49	CHK		56.7000				
8-JUN-2006 06:34	CHK		56.5000				
9-JUN-2006 05:53	CHK		56.1000				
10-JUN-2006 05:56	CHK		56.4000				
12-JUN-2006 05:34	CHK		56.7000				
13-JUN-2006 05:36	CHK		56.7000				
14-JUN-2006 05:47	CHK		56.5000				
15-JUN-2006 05:20	CHK		57.0000				
16-JUN-2006 05:40	CHK		56.9000				
17-JUN-2006 09:31	CHK		56.6000				

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
18-JUN-2006 05:45	CHK		56.3000				
19-JUN-2006 05:32	CHK		56.4000				
20-JUN-2006 06:09	CHK		56.7000				
21-JUN-2006 05:33	CHK		57.0000				
22-JUN-2006 05:40	CHK		57.2000				
23-JUN-2006 05:50	CHK		56.7000				
24-JUN-2006 05:59	CHK		56.2000				
26-JUN-2006 05:29	CHK		57.0000				
27-JUN-2006 05:00	CHK		57.0000				
28-JUN-2006 06:29	CHK		57.4000				
29-JUN-2006 05:43	CHK		56.8000				
30-JUN-2006 05:08	CHK		55.9000				
1-JUL-2006 08:16	CHK		56.1000				
2-JUL-2006 08:51	CHK		56.9000				
3-JUL-2006 05:15	CHK		56.3000				
5-JUL-2006 05:15	CHK		56.8000				
6-JUL-2006 05:31	CHK		56.4000				

7-JUL-2006 05:44	CHK	56.8000			
8-JUL-2006 07:09	CHK	57.0000			
10-JUL-2006 05:34	CHK	57.3000			
11-JUL-2006 05:58	CHK	57.0000			
12-JUL-2006 05:45	CHK	57.0000			
13-JUL-2006 06:40	CHK	56.5000			
14-JUL-2006 05:44	CHK	56.4000			
17-JUL-2006 04:59	CHK	56.2000			
18-JUL-2006 06:15	CHK	57.0000			
19-JUL-2006 05:40	CHK	57.2000			
20-JUL-2006 05:37	CHK	56.7000			
21-JUL-2006 05:50	CHK	56.7000			
24-JUL-2006 05:37	CHK	56.9000			
25-JUL-2006 05:50	CHK	57.3000			
26-JUL-2006 05:40	CHK	56.2000			

Quality Assurance Report. Generated 27-JUL-2006 10:29:47.64

QA Filename : $DISK1:[QUAD27.QA]BKG_15.QAF;2

-- Multi-Test Full Report --

Description : Quad 27a Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.117419 Std Deviation : 0.104425

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:56	BKG		1.0800				
2-JUN-2006 05:49	BKG		1.1100				
3-JUN-2006 04:14	BKG		1.0300				
3-JUN-2006 23:25	BKG		1.0500				
5-JUN-2006 00:12	BKG		1.0600				
6-JUN-2006 05:28	BKG		1.1600				
7-JUN-2006 05:29	BKG		1.2000				
8-JUN-2006 06:14	BKG		1.2000				
9-JUN-2006 04:39	BKG		1.1100				

10-JUN-2006 04:12	BKG	1.1200				
10-JUN-2006 22:16	BKG	1.1500				
12-JUN-2006 00:35	BKG	1.1000				
13-JUN-2006 04:52	BKG	1.2300				
14-JUN-2006 04:55	BKG	1.0300				
15-JUN-2006 04:50	BKG	1.0600				
16-JUN-2006 05:10	BKG	1.0800				
17-JUN-2006 03:16	BKG	1.0800				
17-JUN-2006 23:54	BKG	1.0700				
18-JUN-2006 22:50	BKG	1.0700				
20-JUN-2006 05:53	BKG	1.0700				
21-JUN-2006 04:48	BKG	1.0900				
22-JUN-2006 05:05	BKG	1.1400				
23-JUN-2006 05:30	BKG	1.0100				
24-JUN-2006 04:09	BKG	1.0800				
24-JUN-2006 21:06	BKG	1.0700				
26-JUN-2006 02:27	BKG	1.1700				
27-JUN-2006 02:17	BKG	1.1000				
28-JUN-2006 05:59	BKG	1.2100				
29-JUN-2006 05:18	BKG	1.1100				
30-JUN-2006 04:49	BKG	1.0500				
1-JUL-2006 05:24	BKG	1.1000				
2-JUL-2006 00:55	BKG	1.0700				
2-JUL-2006 23:01	BKG	1.0900				
4-JUL-2006 04:05	BKG	1.1600				
4-JUL-2006 20:04	BKG	1.1200				
6-JUL-2006 04:52	BKG	1.0900				
7-JUL-2006 04:50	BKG	1.0900				
8-JUL-2006 03:59	BKG	1.0200				
8-JUL-2006 23:11	BKG	1.0900				
10-JUL-2006 00:05	BKG	1.1200				
11-JUL-2006 05:42	BKG	1.1700				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUL-2006 05:03	BKG		1.1200				
13-JUL-2006 05:56	BKG		1.1000				
14-JUL-2006 05:18	BKG		1.1100				
15-JUL-2006 03:53	BKG		1.0800				
16-JUL-2006 00:47	BKG		1.1400				
16-JUL-2006 23:38	BKG		1.1900				
18-JUL-2006 05:53	BKG		1.1100				

19-JUL-2006 05:05	BKG	1.0100			
20-JUL-2006 04:53	BKG	1.1300			
21-JUL-2006 05:34	BKG	1.0500			
22-JUL-2006 01:20	BKG	1.0000			
22-JUL-2006 23:30	BKG	1.2000			
23-JUL-2006 19:18	BKG	1.1800			
25-JUL-2006 05:35	BKG	1.1300			
26-JUL-2006 05:02	BKG	1.1800			

-- Multi-Test Full Report --

Description : Quad 27b Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.125484 Std Deviation : 0.053444

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:56	BKG		1.1800				
2-JUN-2006 05:49	BKG		1.1600				
3-JUN-2006 04:14	BKG		1.2000				
3-JUN-2006 23:25	BKG		1.1000				
5-JUN-2006 00:12	BKG		1.0800				
6-JUN-2006 05:28	BKG		1.0500				
7-JUN-2006 05:29	BKG		1.0700				
8-JUN-2006 06:14	BKG		1.1100				
9-JUN-2006 04:39	BKG		1.1300				
10-JUN-2006 04:12	BKG		1.1200				
10-JUN-2006 22:16	BKG		1.1000				
12-JUN-2006 00:35	BKG		1.2300				
13-JUN-2006 04:52	BKG		1.2200				
14-JUN-2006 04:55	BKG		1.1900				
15-JUN-2006 04:50	BKG		1.1900				
16-JUN-2006 05:10	BKG		1.1800				
17-JUN-2006 03:16	BKG		1.1900				
17-JUN-2006 23:54	BKG		1.1800				
18-JUN-2006 22:50	BKG		1.1700				
20-JUN-2006 05:53	BKG		1.0800				
21-JUN-2006 04:48	BKG		1.1700				

22-JUN-2006 05:05	BKG	1.0800				
23-JUN-2006 05:30	BKG	1.1500				
24-JUN-2006 04:09	BKG	1.1100				
24-JUN-2006 21:06	BKG	1.0600				
26-JUN-2006 02:27	BKG	1.1100				

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
27-JUN-2006 02:17	BKG		1.1600				
28-JUN-2006 05:59	BKG		1.0700				
29-JUN-2006 05:18	BKG		1.1500				
30-JUN-2006 04:49	BKG		1.0900				
1-JUL-2006 05:24	BKG		1.1300				
2-JUL-2006 00:55	BKG		1.2200				
2-JUL-2006 23:01	BKG		1.1700				
4-JUL-2006 04:05	BKG		1.1300				
4-JUL-2006 20:04	BKG		1.0400				
6-JUL-2006 04:52	BKG		1.1300				
7-JUL-2006 04:50	BKG		1.2200				
8-JUL-2006 03:59	BKG		1.1100				
8-JUL-2006 23:11	BKG		3.6700	Ac			
10-JUL-2006 00:05	BKG		1.5300	Ac			
11-JUL-2006 05:42	BKG		1.4300	Ac			
12-JUL-2006 05:03	BKG		1.4200	Ac			
13-JUL-2006 05:56	BKG		1.5000	Ac			
14-JUL-2006 05:18	BKG		1.3400	Ac			
15-JUL-2006 03:53	BKG		1.4300	Ac			
16-JUL-2006 00:47	BKG		1.3200	Ac			
16-JUL-2006 23:38	BKG		1.4000	Ac			
18-JUL-2006 05:53	BKG		1.3800	Ac			
19-JUL-2006 05:05	BKG		1.3400	Ac			
20-JUL-2006 04:53	BKG		1.2300				
21-JUL-2006 05:34	BKG		1.3200	Ac			
22-JUL-2006 01:20	BKG		1.4100	Ac			
22-JUL-2006 23:30	BKG		1.3400	Ac			
23-JUL-2006 19:18	BKG		1.4000	Ac			
25-JUL-2006 05:35	BKG		1.4200	Ac			
26-JUL-2006 05:02	BKG		1.3900	Ac			

-- Multi-Test Full Report --

Description : Quad 27c Beta Bkg

Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.089409 Std Deviation : 0.055636

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:56	BKG		1.1000				
2-JUN-2006 05:49	BKG		1.1200				
3-JUN-2006 04:14	BKG		1.0900				
3-JUN-2006 23:25	BKG		1.0900				
5-JUN-2006 00:12	BKG		1.1200				
6-JUN-2006 05:28	BKG		1.1300				
7-JUN-2006 05:29	BKG		1.0300				
8-JUN-2006 06:14	BKG		1.0900				
9-JUN-2006 04:39	BKG		1.0200				
10-JUN-2006 04:12	BKG		1.0200				
10-JUN-2006 22:16	BKG		1.1100				

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 00:35	BKG		1.0800				
13-JUN-2006 04:52	BKG		1.0600				
14-JUN-2006 04:55	BKG		1.1200				
15-JUN-2006 04:50	BKG		1.0500				
16-JUN-2006 05:10	BKG		1.0900				
17-JUN-2006 03:16	BKG		1.0900				
17-JUN-2006 23:54	BKG		1.0600				
18-JUN-2006 22:50	BKG		1.1600				
20-JUN-2006 05:53	BKG		1.1100				
21-JUN-2006 04:48	BKG		1.1000				
22-JUN-2006 05:05	BKG		1.0500				
23-JUN-2006 05:30	BKG		1.0500				
24-JUN-2006 04:09	BKG		1.0700				
24-JUN-2006 21:06	BKG		1.0900				
26-JUN-2006 02:27	BKG		1.0900				
27-JUN-2006 02:17	BKG		1.0900				
28-JUN-2006 05:59	BKG		1.0600				
29-JUN-2006 05:18	BKG		1.1000				

30-JUN-2006 04:49	BKG	1.0100			
1-JUL-2006 05:24	BKG	1.0600			
2-JUL-2006 00:55	BKG	1.0300			
2-JUL-2006 23:01	BKG	1.1500			
4-JUL-2006 04:05	BKG	1.0700			
4-JUL-2006 20:04	BKG	1.1200			
6-JUL-2006 04:52	BKG	1.0500			
7-JUL-2006 04:50	BKG	1.0300			
8-JUL-2006 03:59	BKG	0.9900			
8-JUL-2006 23:11	BKG	1.0300			
10-JUL-2006 00:05	BKG	1.0300			
11-JUL-2006 05:42	BKG	1.1200			
12-JUL-2006 05:03	BKG	1.1600			
13-JUL-2006 05:56	BKG	1.0300			
14-JUL-2006 05:18	BKG	1.1300			
15-JUL-2006 03:53	BKG	1.0400			
16-JUL-2006 00:47	BKG	1.0800			
16-JUL-2006 23:38	BKG	1.0600			
18-JUL-2006 05:53	BKG	1.1600			
19-JUL-2006 05:05	BKG	0.9900			
20-JUL-2006 04:53	BKG	1.0700			
21-JUL-2006 05:34	BKG	1.0500			
22-JUL-2006 01:20	BKG	1.0900			
22-JUL-2006 23:30	BKG	1.1400			
23-JUL-2006 19:18	BKG	1.0600			
25-JUL-2006 05:35	BKG	1.0900			
26-JUL-2006 05:02	BKG	1.0900			

-- Multi-Test Full Report --

Description : Quad 27d Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.086667 Std Deviation : 0.052067

Measurement Time Sample ID Sample Analyst Value LU|SD|UD|BS Rej
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Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:56	BKG		1.1500				
2-JUN-2006 05:49	BKG		1.1200				
3-JUN-2006 04:14	BKG		1.1100				
3-JUN-2006 23:25	BKG		1.0500				
5-JUN-2006 00:12	BKG		1.1600				
6-JUN-2006 05:28	BKG		1.1000				
7-JUN-2006 05:29	BKG		1.2200	In			
8-JUN-2006 06:14	BKG		1.1800				
9-JUN-2006 04:39	BKG		1.1500				
10-JUN-2006 04:12	BKG		1.0400				
10-JUN-2006 22:16	BKG		1.0500				
12-JUN-2006 00:35	BKG		1.2000	In			
13-JUN-2006 04:52	BKG		1.0900				
14-JUN-2006 04:55	BKG		1.1600				
15-JUN-2006 04:50	BKG		1.1300				
16-JUN-2006 05:10	BKG		1.1400				
17-JUN-2006 03:16	BKG		1.2300	In			
17-JUN-2006 23:54	BKG		1.0500				
18-JUN-2006 22:50	BKG		1.1000				
20-JUN-2006 05:53	BKG		1.0400				
21-JUN-2006 04:48	BKG		1.0800				
22-JUN-2006 05:05	BKG		1.1000				
23-JUN-2006 05:30	BKG		1.1200				
24-JUN-2006 04:09	BKG		1.0900				
24-JUN-2006 21:06	BKG		1.0100				
26-JUN-2006 02:27	BKG		1.1800				
27-JUN-2006 02:17	BKG		1.1600				
28-JUN-2006 05:59	BKG		1.1500				
29-JUN-2006 05:18	BKG		1.0500				
30-JUN-2006 04:49	BKG		1.1000				
1-JUL-2006 05:24	BKG		1.0300				
2-JUL-2006 00:55	BKG		1.1200				
2-JUL-2006 23:01	BKG		1.0700				
4-JUL-2006 04:05	BKG		1.0700				
4-JUL-2006 20:04	BKG		1.0700				
6-JUL-2006 04:52	BKG		1.0900				
7-JUL-2006 04:50	BKG		1.1700				
8-JUL-2006 03:59	BKG		1.1300				
8-JUL-2006 23:11	BKG		1.5700	Ac			
10-JUL-2006 00:05	BKG		1.1400				
11-JUL-2006 05:42	BKG		1.1700				

12-JUL-2006 05:03	BKG	1.1300				
13-JUL-2006 05:56	BKG	1.1700				
14-JUL-2006 05:18	BKG	1.2100	In			
15-JUL-2006 03:53	BKG	1.2100	In			
16-JUL-2006 00:47	BKG	1.1700				
16-JUL-2006 23:38	BKG	1.1600				
18-JUL-2006 05:53	BKG	1.1200				
19-JUL-2006 05:05	BKG	1.2100	In			
20-JUL-2006 04:53	BKG	1.0700				
21-JUL-2006 05:34	BKG	1.1300				
22-JUL-2006 01:20	BKG	1.1400				
22-JUL-2006 23:30	BKG	1.0900				
23-JUL-2006 19:18	BKG	1.1500				
25-JUL-2006 05:35	BKG	1.1200				

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Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUL-2006 05:02	BKG		1.1300				

Quality Assurance Report. Generated 27-JUL-2006 10:29:37.07

QA Filename : $DISK1:[QUAD26.QA]CHK.QAF;2

-- Multi-Test Full Report --

Description : Quad 26a Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 57.400002 Upper Bound : 59.869999

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 58.635849 Std Deviation : 0.412047

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:39	CHK		58.3000				
2-JUN-2006 06:07	CHK		58.2000				
5-JUN-2006 05:47	CHK		58.1000				
6-JUN-2006 05:47	CHK		58.4000				
7-JUN-2006 05:50	CHK		58.2000				
8-JUN-2006 06:35	CHK		58.6000				
9-JUN-2006 05:54	CHK		58.1000				
10-JUN-2006 05:57	CHK		58.7000				
12-JUN-2006 05:35	CHK		58.2000				
13-JUN-2006 05:37	CHK		58.7000				
14-JUN-2006 05:48	CHK		59.2000				
15-JUN-2006 05:21	CHK		58.5000				
16-JUN-2006 05:41	CHK		59.2000				
17-JUN-2006 09:47	CHK		71.0000	Ab	Ac		R
17-JUN-2006 10:00	CHK		59.0000				
18-JUN-2006 05:46	CHK		59.0000				
19-JUN-2006 05:33	CHK		58.4000				
19-JUN-2006 05:51	CHK		No Value				
20-JUN-2006 06:10	CHK		58.2000				
21-JUN-2006 05:34	CHK		58.5000				
22-JUN-2006 05:41	CHK		58.7000				

23-JUN-2006 05:51	CHK	57.3000	Be	Ac		
23-JUN-2006 06:06	CHK	57.8000		In		
24-JUN-2006 06:00	CHK	58.4000				
26-JUN-2006 05:30	CHK	58.5000				
27-JUN-2006 05:01	CHK	58.3000				
28-JUN-2006 06:30	CHK	58.2000				
29-JUN-2006 05:44	CHK	58.0000				
30-JUN-2006 05:09	CHK	58.3000				
1-JUL-2006 08:32	CHK	57.9000				
3-JUL-2006 05:16	CHK	59.2000				
5-JUL-2006 05:16	CHK	58.8000				
6-JUL-2006 05:32	CHK	58.3000				
7-JUL-2006 05:45	CHK	57.4000		In		
7-JUL-2006 06:00	CHK	No Value				
8-JUL-2006 07:10	CHK	58.6000				
10-JUL-2006 05:35	CHK	59.2000				
11-JUL-2006 05:59	CHK	59.6000		In		

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUL-2006 05:46	CHK		59.0000				
13-JUL-2006 06:41	CHK		58.9000				
14-JUL-2006 05:45	CHK		58.6000				
16-JUL-2006 10:05	CHK		58.6000				
17-JUL-2006 04:59	CHK		58.5000				
18-JUL-2006 06:16	CHK		58.5000				
19-JUL-2006 05:41	CHK		59.5000		In		
20-JUL-2006 05:38	CHK		52.3000	Be	Ac		
20-JUL-2006 05:51	CHK		58.7000				
21-JUL-2006 05:51	CHK		58.8000				
24-JUL-2006 05:38	CHK		58.8000				
25-JUL-2006 05:51	CHK		59.4000				
26-JUL-2006 05:41	CHK		59.5000		In		

-- Multi-Test Full Report --

Description : Quad 26b Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 52.200001 Upper Bound : 55.799999

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 54.008984 Std Deviation : 0.593116

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:39	CHK		54.5000				
2-JUN-2006 06:07	CHK		54.1000				
5-JUN-2006 05:47	CHK		53.8000				
6-JUN-2006 05:47	CHK		54.4000				
7-JUN-2006 05:50	CHK		54.4000				
8-JUN-2006 06:35	CHK		54.5000				
9-JUN-2006 05:54	CHK		54.1000				
10-JUN-2006 05:57	CHK		54.5000				
12-JUN-2006 05:35	CHK		55.1000				
13-JUN-2006 05:37	CHK		54.2000				
14-JUN-2006 05:48	CHK		54.6000				
15-JUN-2006 05:21	CHK		54.2000				
16-JUN-2006 05:41	CHK		54.5000				
17-JUN-2006 09:47	CHK		66.1000	Ab	Ac		R
17-JUN-2006 10:00	CHK		54.7000				
18-JUN-2006 05:46	CHK		54.1000				
19-JUN-2006 05:33	CHK		54.3000				
19-JUN-2006 05:51	CHK		No Value				
20-JUN-2006 06:10	CHK		53.9000				
21-JUN-2006 05:34	CHK		54.1000				
22-JUN-2006 05:41	CHK		53.9000				
23-JUN-2006 05:51	CHK		54.4000				
23-JUN-2006 06:06	CHK		No Value				
24-JUN-2006 06:00	CHK		54.4000				
26-JUN-2006 05:30	CHK		54.7000				

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
27-JUN-2006 05:01	CHK		54.6000				
28-JUN-2006 06:30	CHK		54.0000				
29-JUN-2006 05:44	CHK		54.4000				
30-JUN-2006 05:09	CHK		54.4000				
1-JUL-2006 08:32	CHK		53.7000				
3-JUL-2006 05:16	CHK		54.3000				

5-JUL-2006 05:16	CHK	54.8000				
6-JUL-2006 05:32	CHK	54.7000				
7-JUL-2006 05:45	CHK	52.2000		Ac		
7-JUL-2006 06:00	CHK	54.0000				
8-JUL-2006 07:10	CHK	54.1000				
10-JUL-2006 05:35	CHK	54.7000				
11-JUL-2006 05:59	CHK	54.7000				
12-JUL-2006 05:46	CHK	55.0000				
13-JUL-2006 06:41	CHK	54.6000				
14-JUL-2006 05:45	CHK	53.5000				
16-JUL-2006 10:05	CHK	54.2000				
17-JUL-2006 04:59	CHK	54.7000				
18-JUL-2006 06:16	CHK	54.0000				
19-JUL-2006 05:41	CHK	54.4000				
20-JUL-2006 05:38	CHK	48.0000	Be	Ac		
20-JUL-2006 05:51	CHK	53.9000				
21-JUL-2006 05:51	CHK	54.4000				
24-JUL-2006 05:38	CHK	54.4000				
25-JUL-2006 05:51	CHK	54.8000				
26-JUL-2006 05:41	CHK	54.5000				

-- Multi-Test Full Report --

Description : Quad 26c Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 52.130001 Upper Bound : 55.400002

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 53.755695 Std Deviation : 0.540287

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:39	CHK		53.7000				
2-JUN-2006 06:07	CHK		53.4000				
5-JUN-2006 05:47	CHK		54.0000				
6-JUN-2006 05:47	CHK		53.1000				
7-JUN-2006 05:50	CHK		53.2000				
8-JUN-2006 06:35	CHK		53.5000				

9-JUN-2006 05:54	CHK	52.6000		In			
10-JUN-2006 05:57	CHK	52.9000					
12-JUN-2006 05:35	CHK	54.1000					
13-JUN-2006 05:37	CHK	52.6000		In			
14-JUN-2006 05:48	CHK	52.4000		In			
15-JUN-2006 05:21	CHK	53.2000					

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
16-JUN-2006 05:41	CHK	52.7000					
17-JUN-2006 09:47	CHK	62.4000	Ab	Ac			R
17-JUN-2006 10:00	CHK	53.2000					
18-JUN-2006 05:46	CHK	53.5000					
19-JUN-2006 05:33	CHK	52.1000	Be	Ac			
19-JUN-2006 05:51	CHK	52.5000		In			
20-JUN-2006 06:10	CHK	53.4000					
21-JUN-2006 05:34	CHK	53.9000					
22-JUN-2006 05:41	CHK	53.0000					
23-JUN-2006 05:51	CHK	52.9000					
23-JUN-2006 06:06	CHK	No Value					
24-JUN-2006 06:00	CHK	52.4000		In			
26-JUN-2006 05:30	CHK	53.9000					
27-JUN-2006 05:01	CHK	54.1000					
28-JUN-2006 06:30	CHK	52.3000		In			
29-JUN-2006 05:44	CHK	53.7000					
30-JUN-2006 05:09	CHK	54.0000					
1-JUL-2006 08:32	CHK	53.7000					
3-JUL-2006 05:16	CHK	54.1000					
5-JUL-2006 05:16	CHK	53.9000					
6-JUL-2006 05:32	CHK	52.6000		In			
7-JUL-2006 05:45	CHK	52.1000	Be	Ac			
7-JUL-2006 06:00	CHK	53.0000					
8-JUL-2006 07:10	CHK	53.6000					
10-JUL-2006 05:35	CHK	53.7000					
11-JUL-2006 05:59	CHK	53.1000					
12-JUL-2006 05:46	CHK	53.3000					
13-JUL-2006 06:41	CHK	53.1000					
14-JUL-2006 05:45	CHK	52.8000					
16-JUL-2006 10:05	CHK	53.9000					
17-JUL-2006 04:59	CHK	53.4000					
18-JUL-2006 06:16	CHK	52.5000		In			
19-JUL-2006 05:41	CHK	54.1000					

20-JUL-2006 05:38	CHK	45.5000	Be	Ac		
20-JUL-2006 05:51	CHK	52.8000				
21-JUL-2006 05:51	CHK	52.2000	In			
24-JUL-2006 05:38	CHK	52.4000	In			
25-JUL-2006 05:51	CHK	54.2000				
26-JUL-2006 05:41	CHK	52.8000				

-- Multi-Test Full Report --

Description : Quad 26d Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 51.480000 Upper Bound : 55.419998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 53.450954 Std Deviation : 0.656781

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:39	CHK		53.5000				
2-JUN-2006 06:07	CHK		54.0000				
5-JUN-2006 05:47	CHK		52.9000				
6-JUN-2006 05:47	CHK		52.9000				
7-JUN-2006 05:50	CHK		54.0000				
8-JUN-2006 06:35	CHK		53.3000				
9-JUN-2006 05:54	CHK		54.0000				
10-JUN-2006 05:57	CHK		53.3000				
12-JUN-2006 05:35	CHK		53.8000				
13-JUN-2006 05:37	CHK		53.8000				
14-JUN-2006 05:48	CHK		54.1000				
15-JUN-2006 05:21	CHK		53.1000				
16-JUN-2006 05:41	CHK		53.6000				
17-JUN-2006 09:47	CHK		58.1000	Ab	Ac		R
17-JUN-2006 10:00	CHK		53.0000				
18-JUN-2006 05:46	CHK		54.1000				

19-JUN-2006 05:33	CHK	54.3000			
19-JUN-2006 05:51	CHK	No Value			
20-JUN-2006 06:10	CHK	52.3000			
21-JUN-2006 05:34	CHK	53.3000			
22-JUN-2006 05:41	CHK	53.5000			
23-JUN-2006 05:51	CHK	54.0000			
23-JUN-2006 06:06	CHK	No Value			
24-JUN-2006 06:00	CHK	53.8000			
26-JUN-2006 05:30	CHK	54.6000			
27-JUN-2006 05:01	CHK	54.0000			
28-JUN-2006 06:30	CHK	53.6000			
29-JUN-2006 05:44	CHK	54.1000			
30-JUN-2006 05:09	CHK	53.9000			
1-JUL-2006 08:32	CHK	53.7000			
3-JUL-2006 05:16	CHK	53.6000			
5-JUL-2006 05:16	CHK	54.0000			
6-JUL-2006 05:32	CHK	53.4000			
7-JUL-2006 05:45	CHK	53.1000			
7-JUL-2006 06:00	CHK	No Value			
8-JUL-2006 07:10	CHK	52.9000			
10-JUL-2006 05:35	CHK	54.8000	In		
11-JUL-2006 05:59	CHK	54.5000			
12-JUL-2006 05:46	CHK	53.5000			
13-JUL-2006 06:41	CHK	53.5000			
14-JUL-2006 05:45	CHK	53.7000			
16-JUL-2006 10:05	CHK	53.5000			
17-JUL-2006 04:59	CHK	53.8000			
18-JUL-2006 06:16	CHK	53.4000			
19-JUL-2006 05:41	CHK	53.6000			
20-JUL-2006 05:38	CHK	46.7000	Be	Ac	
20-JUL-2006 05:51	CHK	53.2000			
21-JUL-2006 05:51	CHK	53.6000			
24-JUL-2006 05:38	CHK	53.8000			
25-JUL-2006 05:51	CHK	53.4000			
26-JUL-2006 05:41	CHK	53.2000			

Quality Assurance Report. Generated 27-JUL-2006 10:30:18.35

QA Filename : $DISK1:[QUAD32.QA]CHK.QAF;2

-- Multi-Test Full Report --

Description : QUAD 32A BETA %EFF
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 52.900002 Upper Bound : 58.599998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 55.764473 Std Deviation : 0.950525

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:26	CHK		57.1000				
2-JUN-2006 06:59	CHK		54.1000				
5-JUN-2006 06:36	CHK		57.4000				
6-JUN-2006 06:35	CHK		55.6000				
7-JUN-2006 06:43	CHK		56.0000				
8-JUN-2006 07:23	CHK		56.5000				
9-JUN-2006 06:38	CHK		56.7000				
12-JUN-2006 06:22	CHK		55.5000				
13-JUN-2006 06:22	CHK		57.1000				
14-JUN-2006 06:34	CHK		55.3000				
15-JUN-2006 06:24	CHK		56.1000				
16-JUN-2006 06:24	CHK		56.0000				
17-JUN-2006 08:09	CHK		57.5000				
19-JUN-2006 06:44	CHK		56.9000				
20-JUN-2006 06:53	CHK		55.8000				
21-JUN-2006 06:34	CHK		56.5000				
22-JUN-2006 06:25	CHK		56.2000				
23-JUN-2006 06:49	CHK		56.6000				
26-JUN-2006 06:16	CHK		56.7000				
27-JUN-2006 05:45	CHK		57.0000				
28-JUN-2006 07:17	CHK		56.2000				

29-JUN-2006 06:39	CHK	56.2000			
30-JUN-2006 06:04	CHK	56.3000			
1-JUL-2006 08:17	CHK	56.9000			
3-JUL-2006 06:16	CHK	56.6000			
5-JUL-2006 06:12	CHK	55.1000			
6-JUL-2006 06:19	CHK	55.9000			
7-JUL-2006 06:48	CHK	55.5000			
8-JUL-2006 07:43	CHK	55.4000			
10-JUL-2006 06:27	CHK	56.6000			
11-JUL-2006 05:39	CHK	56.3000			
12-JUL-2006 06:49	CHK	57.5000			
13-JUL-2006 06:27	CHK	55.6000			
14-JUL-2006 06:57	CHK	57.3000			
16-JUL-2006 09:51	CHK	56.1000			
17-JUL-2006 05:54	CHK	56.3000			
18-JUL-2006 07:05	CHK	55.4000			
19-JUL-2006 06:30	CHK	55.3000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
20-JUL-2006 06:40	CHK		54.2000				
21-JUL-2006 06:57	CHK		55.6000				
24-JUL-2006 06:21	CHK		54.3000				
24-JUL-2006 06:37	CHK		No Value				
25-JUL-2006 06:43	CHK		55.7000				
26-JUL-2006 06:49	CHK		57.3000				

-- Multi-Test Full Report --

Description : QUAD 32B BETA %EFF
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 48.599998 Upper Bound : 55.099998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 51.870121 Std Deviation : 1.082158

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

1-JUN-2006 06:26	CHK	51.4000				
2-JUN-2006 06:59	CHK	51.2000				
5-JUN-2006 06:36	CHK	52.7000				
6-JUN-2006 06:35	CHK	52.1000				
7-JUN-2006 06:43	CHK	51.9000				
8-JUN-2006 07:23	CHK	51.4000				
9-JUN-2006 06:38	CHK	51.3000				
12-JUN-2006 06:22	CHK	50.4000				
13-JUN-2006 06:22	CHK	52.1000				
14-JUN-2006 06:34	CHK	51.2000				
15-JUN-2006 06:24	CHK	51.2000				
16-JUN-2006 06:24	CHK	51.7000				
17-JUN-2006 08:09	CHK	52.4000				
19-JUN-2006 06:44	CHK	51.1000				
20-JUN-2006 06:53	CHK	51.4000				
21-JUN-2006 06:34	CHK	51.2000				
22-JUN-2006 06:25	CHK	51.2000				
23-JUN-2006 06:49	CHK	51.2000				
26-JUN-2006 06:16	CHK	51.7000				
27-JUN-2006 05:45	CHK	52.7000				
28-JUN-2006 07:17	CHK	51.5000				
29-JUN-2006 06:39	CHK	51.4000				
30-JUN-2006 06:04	CHK	50.6000				
1-JUL-2006 08:17	CHK	52.2000				
3-JUL-2006 06:16	CHK	51.3000				
5-JUL-2006 06:12	CHK	51.2000				
6-JUL-2006 06:19	CHK	50.8000				
7-JUL-2006 06:48	CHK	50.8000				
8-JUL-2006 07:43	CHK	50.4000				
10-JUL-2006 06:27	CHK	51.6000				
11-JUL-2006 05:39	CHK	52.1000				
12-JUL-2006 06:49	CHK	52.2000				

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
13-JUL-2006 06:27	CHK		52.2000				
14-JUL-2006 06:57	CHK		52.6000				
16-JUL-2006 09:51	CHK		51.5000				
17-JUL-2006 05:54	CHK		51.5000				
18-JUL-2006 07:05	CHK		51.0000				
19-JUL-2006 06:30	CHK		50.9000				

20-JUL-2006 06:40	CHK	50.6000			
21-JUL-2006 06:57	CHK	50.9000			
24-JUL-2006 06:21	CHK	50.5000			
24-JUL-2006 06:37	CHK	No Value			
25-JUL-2006 06:43	CHK	51.7000			
26-JUL-2006 06:49	CHK	51.9000			

-- Multi-Test Full Report --

Description : QUAD 32C BETA %EFF
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 51.599998 Upper Bound : 57.400002

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 54.507454 Std Deviation : 0.976125

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:26	CHK		54.6000				
2-JUN-2006 06:59	CHK		53.7000				
5-JUN-2006 06:36	CHK		55.4000				
6-JUN-2006 06:35	CHK		54.0000				
7-JUN-2006 06:43	CHK		55.1000				
8-JUN-2006 07:23	CHK		54.6000				
9-JUN-2006 06:38	CHK		54.0000				
12-JUN-2006 06:22	CHK		53.2000				
13-JUN-2006 06:22	CHK		55.3000				
14-JUN-2006 06:34	CHK		53.6000				
15-JUN-2006 06:24	CHK		54.4000				
16-JUN-2006 06:24	CHK		54.5000				
17-JUN-2006 08:09	CHK		55.4000				
19-JUN-2006 06:44	CHK		54.0000				
20-JUN-2006 06:53	CHK		53.5000				
21-JUN-2006 06:34	CHK		54.5000				
22-JUN-2006 06:25	CHK		55.1000				
23-JUN-2006 06:49	CHK		54.5000				
26-JUN-2006 06:16	CHK		55.3000				
27-JUN-2006 05:45	CHK		55.4000				

28-JUN-2006 07:17	CHK	54.8000				
29-JUN-2006 06:39	CHK	53.6000				
30-JUN-2006 06:04	CHK	53.6000				
1-JUL-2006 08:17	CHK	55.4000				
3-JUL-2006 06:16	CHK	54.4000				
5-JUL-2006 06:12	CHK	54.1000				

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
6-JUL-2006 06:19	CHK		53.0000				
7-JUL-2006 06:48	CHK		55.0000				
8-JUL-2006 07:43	CHK		54.5000				
10-JUL-2006 06:27	CHK		54.5000				
11-JUL-2006 05:39	CHK		54.1000				
12-JUL-2006 06:49	CHK		55.6000				
13-JUL-2006 06:27	CHK		54.8000				
14-JUL-2006 06:57	CHK		55.9000				
16-JUL-2006 09:51	CHK		53.8000				
17-JUL-2006 05:54	CHK		53.5000				
18-JUL-2006 07:05	CHK		54.0000				
19-JUL-2006 06:30	CHK		54.4000				
20-JUL-2006 06:40	CHK		53.6000				
21-JUL-2006 06:57	CHK		54.7000				
24-JUL-2006 06:21	CHK		53.4000				
24-JUL-2006 06:37	CHK		No Value				
25-JUL-2006 06:43	CHK		53.2000				
26-JUL-2006 06:49	CHK		54.9000				

-- Multi-Test Full Report --

Description : QUAD 32D BETA %EFF
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 50.599998 Upper Bound : 55.700001

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 53.184967 Std Deviation : 0.861438

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:26	CHK		53.6000				
2-JUN-2006 06:59	CHK		52.3000				
5-JUN-2006 06:36	CHK		53.7000				
6-JUN-2006 06:35	CHK		52.7000				
7-JUN-2006 06:43	CHK		53.4000				
8-JUN-2006 07:23	CHK		53.0000				
9-JUN-2006 06:38	CHK		53.5000				
12-JUN-2006 06:22	CHK		51.9000				
13-JUN-2006 06:22	CHK		54.0000				
14-JUN-2006 06:34	CHK		52.0000				
15-JUN-2006 06:24	CHK		53.2000				
16-JUN-2006 06:24	CHK		53.6000				
17-JUN-2006 08:09	CHK		53.7000				
19-JUN-2006 06:44	CHK		53.2000				
20-JUN-2006 06:53	CHK		52.1000				
21-JUN-2006 06:34	CHK		53.1000				
22-JUN-2006 06:25	CHK		53.6000				
23-JUN-2006 06:49	CHK		52.9000				
26-JUN-2006 06:16	CHK		54.0000				
27-JUN-2006 05:45	CHK		54.5000				

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
28-JUN-2006 07:17	CHK		53.3000				
29-JUN-2006 06:39	CHK		52.3000				
30-JUN-2006 06:04	CHK		53.4000				
1-JUL-2006 08:17	CHK		54.7000				
3-JUL-2006 06:16	CHK		53.2000				
5-JUL-2006 06:12	CHK		53.6000				
6-JUL-2006 06:19	CHK		50.7000	In			
7-JUL-2006 06:48	CHK		53.6000				
8-JUL-2006 07:43	CHK		52.5000				
10-JUL-2006 06:27	CHK		53.4000				
11-JUL-2006 05:39	CHK		52.5000				
12-JUL-2006 06:49	CHK		53.3000				
13-JUL-2006 06:27	CHK		52.6000				
14-JUL-2006 06:57	CHK		54.2000				
16-JUL-2006 09:51	CHK		53.4000				
17-JUL-2006 05:54	CHK		53.1000				
18-JUL-2006 07:05	CHK		52.7000				

19-JUL-2006 06:30	CHK	52.9000				
20-JUL-2006 06:40	CHK	51.7000				
21-JUL-2006 06:57	CHK	53.1000				
24-JUL-2006 06:21	CHK	50.5000	Be	Ac		
24-JUL-2006 06:37	CHK	54.2000				
25-JUL-2006 06:43	CHK	52.6000				
26-JUL-2006 06:49	CHK	53.7000				

Quality Assurance Report. Generated 27-JUL-2006 10:30:19.49

QA Filename : $DISK1:[QUAD32.QA]BKG_15.QAF;2

-- Multi-Test Full Report --

Description : QUAD 32A BETA BKG
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.098022 Std Deviation : 0.123487

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:58	BKG		1.1900				
2-JUN-2006 05:50	BKG		1.0900				
3-JUN-2006 04:06	BKG		1.1400				
3-JUN-2006 23:25	BKG		1.1300				
5-JUN-2006 00:10	BKG		1.0600				
6-JUN-2006 04:48	BKG		1.0800				
7-JUN-2006 05:19	BKG		1.1200				
8-JUN-2006 06:17	BKG		1.1000				
9-JUN-2006 05:58	BKG		1.2000				
10-JUN-2006 03:57	BKG		1.0600				
10-JUN-2006 22:16	BKG		1.1300				
12-JUN-2006 00:15	BKG		1.0700				
13-JUN-2006 04:34	BKG		1.1800				
14-JUN-2006 05:04	BKG		1.1100				
15-JUN-2006 04:37	BKG		1.0900				
16-JUN-2006 04:59	BKG		1.1900				
17-JUN-2006 03:53	BKG		1.0200				

18-JUN-2006 00:23	BKG	1.1000				
18-JUN-2006 22:50	BKG	1.0900				
20-JUN-2006 05:50	BKG	1.0000				
21-JUN-2006 04:19	BKG	1.0700				
22-JUN-2006 05:08	BKG	1.1000				
23-JUN-2006 05:23	BKG	1.2100				
24-JUN-2006 03:52	BKG	1.0600				
24-JUN-2006 21:06	BKG	1.1800				
26-JUN-2006 01:57	BKG	1.0800				
27-JUN-2006 02:17	BKG	1.1900				
28-JUN-2006 06:04	BKG	1.1700				
29-JUN-2006 05:14	BKG	1.0600				
30-JUN-2006 05:02	BKG	1.0700				
1-JUL-2006 05:59	BKG	1.1400				
2-JUL-2006 01:31	BKG	1.1000				
2-JUL-2006 23:01	BKG	1.1500				
4-JUL-2006 03:37	BKG	1.0900				
4-JUL-2006 20:03	BKG	1.1200				
6-JUL-2006 04:49	BKG	1.1200				
7-JUL-2006 04:58	BKG	1.1200				
8-JUL-2006 03:54	BKG	1.1300				
8-JUL-2006 23:12	BKG	1.2100				
9-JUL-2006 22:11	BKG	1.1900				
11-JUL-2006 04:57	BKG	1.1500				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUL-2006 04:52	BKG		1.0800				
13-JUL-2006 05:45	BKG		1.1000				
14-JUL-2006 04:54	BKG		1.0900				
15-JUL-2006 04:07	BKG		1.1300				
16-JUL-2006 00:38	BKG		1.0900				
16-JUL-2006 23:20	BKG		1.1000				
18-JUL-2006 05:57	BKG		1.1100				
19-JUL-2006 05:34	BKG		1.0600				
20-JUL-2006 05:26	BKG		1.1100				
21-JUL-2006 05:35	BKG		1.1500				
22-JUL-2006 01:20	BKG		1.1100				
22-JUL-2006 23:30	BKG		1.0000				
23-JUL-2006 19:18	BKG		1.0900				
25-JUL-2006 05:34	BKG		1.1600				
26-JUL-2006 05:25	BKG		1.2600				

-- Multi-Test Full Report --

Description : QUAD 32B BETA BKG
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.108626 Std Deviation : 0.173035

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:58	BKG		1.1300				
2-JUN-2006 05:50	BKG		1.0800				
3-JUN-2006 04:06	BKG		1.0500				
3-JUN-2006 23:25	BKG		1.1100				
5-JUN-2006 00:10	BKG		1.0400				
6-JUN-2006 04:48	BKG		1.0900				
7-JUN-2006 05:19	BKG		1.1300				
8-JUN-2006 06:17	BKG		1.0900				
9-JUN-2006 05:58	BKG		1.0300				
10-JUN-2006 03:57	BKG		1.0100				
10-JUN-2006 22:16	BKG		1.1000				
12-JUN-2006 00:15	BKG		1.0600				
13-JUN-2006 04:34	BKG		1.1500				
14-JUN-2006 05:04	BKG		1.1500				
15-JUN-2006 04:37	BKG		1.0400				
16-JUN-2006 04:59	BKG		1.0100				
17-JUN-2006 03:53	BKG		1.0200				
18-JUN-2006 00:23	BKG		1.1200				
18-JUN-2006 22:50	BKG		1.1200				
20-JUN-2006 05:50	BKG		1.0400				
21-JUN-2006 04:19	BKG		1.1600				
22-JUN-2006 05:08	BKG		1.1100				
23-JUN-2006 05:23	BKG		1.1100				
24-JUN-2006 03:52	BKG		1.1000				
24-JUN-2006 21:06	BKG		1.0500				
26-JUN-2006 01:57	BKG		1.0500				

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

---

27-JUN-2006 02:17	BKG	1.0800			
28-JUN-2006 06:04	BKG	1.1000			
29-JUN-2006 05:14	BKG	1.1400			
30-JUN-2006 05:02	BKG	1.0600			
1-JUL-2006 05:59	BKG	1.0700			
2-JUL-2006 01:31	BKG	1.1400			
2-JUL-2006 23:01	BKG	1.1700			
4-JUL-2006 03:37	BKG	1.0800			
4-JUL-2006 20:03	BKG	1.0700			
6-JUL-2006 04:49	BKG	1.0500			
7-JUL-2006 04:58	BKG	1.0900			
8-JUL-2006 03:54	BKG	1.1400			
8-JUL-2006 23:12	BKG	1.0800			
9-JUL-2006 22:11	BKG	1.0700			
11-JUL-2006 04:57	BKG	1.1200			
12-JUL-2006 04:52	BKG	1.0500			
13-JUL-2006 05:45	BKG	1.1000			
14-JUL-2006 04:54	BKG	1.1000			
15-JUL-2006 04:07	BKG	1.0400			
16-JUL-2006 00:38	BKG	1.0200			
16-JUL-2006 23:20	BKG	1.1100			
18-JUL-2006 05:57	BKG	1.0800			
19-JUL-2006 05:34	BKG	1.0400			
20-JUL-2006 05:26	BKG	1.0800			
21-JUL-2006 05:35	BKG	1.0900			
22-JUL-2006 01:20	BKG	1.1100			
22-JUL-2006 23:30	BKG	1.1500			
23-JUL-2006 19:18	BKG	1.1400			
25-JUL-2006 05:34	BKG	1.1000			
26-JUL-2006 05:25	BKG	1.1200			

-- Multi-Test Full Report --

Description : QUAD 32C BETA BKG
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.055604 Std Deviation : 0.060160

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:58	BKG		1.0400				
2-JUN-2006 05:50	BKG		1.0100				
3-JUN-2006 04:06	BKG		0.9600				
3-JUN-2006 23:25	BKG		0.9700				
5-JUN-2006 00:10	BKG		0.9400				
6-JUN-2006 04:48	BKG		1.0200				
7-JUN-2006 05:19	BKG		0.9900				
8-JUN-2006 06:17	BKG		1.0500				
9-JUN-2006 05:58	BKG		1.0400				
10-JUN-2006 03:57	BKG		1.0000				
10-JUN-2006 22:16	BKG		0.9600				

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUN-2006 00:15	BKG		0.9800				
13-JUN-2006 04:34	BKG		1.0300				
14-JUN-2006 05:04	BKG		0.9400				
15-JUN-2006 04:37	BKG		0.9700				
16-JUN-2006 04:59	BKG		1.0900				
17-JUN-2006 03:53	BKG		0.9300	In			
18-JUN-2006 00:23	BKG		1.0400				
18-JUN-2006 22:50	BKG		1.0100				
20-JUN-2006 05:50	BKG		1.0100				
21-JUN-2006 04:19	BKG		1.1000				
22-JUN-2006 05:08	BKG		1.0700				
23-JUN-2006 05:23	BKG		1.0200				
24-JUN-2006 03:52	BKG		1.0900				
24-JUN-2006 21:06	BKG		1.0400				
26-JUN-2006 01:57	BKG		1.0200				
27-JUN-2006 02:17	BKG		1.1300				
28-JUN-2006 06:04	BKG		1.1000				
29-JUN-2006 05:14	BKG		1.1200				
30-JUN-2006 05:02	BKG		0.9600				
1-JUL-2006 05:59	BKG		0.9900				
2-JUL-2006 01:31	BKG		1.0200				
2-JUL-2006 23:01	BKG		1.0700				
4-JUL-2006 03:37	BKG		1.0700				
4-JUL-2006 20:03	BKG		1.0600				
6-JUL-2006 04:49	BKG		1.1800	In			
7-JUL-2006 04:58	BKG		1.1200				

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8-JUL-2006 03:54	BKG	1.0500			
8-JUL-2006 23:12	BKG	1.0300			
9-JUL-2006 22:11	BKG	1.1500			
11-JUL-2006 04:57	BKG	1.0400			
12-JUL-2006 04:52	BKG	1.0700			
13-JUL-2006 05:45	BKG	1.0300			
14-JUL-2006 04:54	BKG	1.0800			
15-JUL-2006 04:07	BKG	0.9500			
16-JUL-2006 00:38	BKG	1.0500			
16-JUL-2006 23:20	BKG	1.0100			
18-JUL-2006 05:57	BKG	1.1300			
19-JUL-2006 05:34	BKG	1.0500			
20-JUL-2006 05:26	BKG	1.0800			
21-JUL-2006 05:35	BKG	1.2800	Ac		
22-JUL-2006 01:20	BKG	1.0400			
22-JUL-2006 23:30	BKG	1.0300			
23-JUL-2006 19:18	BKG	1.0500			
25-JUL-2006 05:34	BKG	1.0500			
26-JUL-2006 05:25	BKG	1.1600			

-- Multi-Test Full Report --

Description : QUAD 32D BETA BKG
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.328407 Std Deviation : 0.077139

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 04:58	BKG		1.3000				
2-JUN-2006 05:50	BKG		1.3900				
3-JUN-2006 04:06	BKG		1.2900				
3-JUN-2006 23:25	BKG		1.2300				
5-JUN-2006 00:10	BKG		1.2400				
6-JUN-2006 04:48	BKG		1.3200				

7-JUN-2006 05:19	BKG	1.2900			
8-JUN-2006 06:17	BKG	1.3100			
9-JUN-2006 05:58	BKG	1.2900			
10-JUN-2006 03:57	BKG	1.2800			
10-JUN-2006 22:16	BKG	1.2300			
12-JUN-2006 00:15	BKG	1.2900			
13-JUN-2006 04:34	BKG	1.2900			
14-JUN-2006 05:04	BKG	1.3600			
15-JUN-2006 04:37	BKG	1.3500			
16-JUN-2006 04:59	BKG	1.2600			
17-JUN-2006 03:53	BKG	1.3200			
18-JUN-2006 00:23	BKG	1.3400			
18-JUN-2006 22:50	BKG	1.2300			
20-JUN-2006 05:50	BKG	1.3000			
21-JUN-2006 04:19	BKG	1.3100			
22-JUN-2006 05:08	BKG	1.3700			
23-JUN-2006 05:23	BKG	1.3000			
24-JUN-2006 03:52	BKG	1.4000			
24-JUN-2006 21:06	BKG	1.2700			
26-JUN-2006 01:57	BKG	1.2400			
27-JUN-2006 02:17	BKG	1.3700			
28-JUN-2006 06:04	BKG	1.3100			
29-JUN-2006 05:14	BKG	1.2100			
30-JUN-2006 05:02	BKG	1.3100			
1-JUL-2006 05:59	BKG	1.2600			
2-JUL-2006 01:31	BKG	1.3000			
2-JUL-2006 23:01	BKG	1.2900			
4-JUL-2006 03:37	BKG	1.2700			
4-JUL-2006 20:03	BKG	1.3300			
6-JUL-2006 04:49	BKG	1.2500			
7-JUL-2006 04:58	BKG	1.2100			
8-JUL-2006 03:54	BKG	1.2700			
8-JUL-2006 23:12	BKG	1.3100			
9-JUL-2006 22:11	BKG	1.3500			
11-JUL-2006 04:57	BKG	1.3300			
12-JUL-2006 04:52	BKG	1.3100			
13-JUL-2006 05:45	BKG	1.2700			
14-JUL-2006 04:54	BKG	1.2800			
15-JUL-2006 04:07	BKG	1.2900			
16-JUL-2006 00:38	BKG	1.2800			
16-JUL-2006 23:20	BKG	1.3400			
18-JUL-2006 05:57	BKG	1.3000			
19-JUL-2006 05:34	BKG	1.2700			

STLRICHLAND

20-JUL-2006 05:26	BKG	1.3500				
21-JUL-2006 05:35	BKG	1.3500				
22-JUL-2006 01:20	BKG	1.2600				
22-JUL-2006 23:30	BKG	1.2300				
23-JUL-2006 19:18	BKG	1.3200				
25-JUL-2006 05:34	BKG	1.3100				

Quality Assurance Multi-Test Full Report (continued) Page : 6

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUL-2006 05:25	BKG		1.4100				

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/25/2006 3:45:26 PM

Lot No., Due Date: J6F270218,J6F140270; 07/25/2006,07/12/2006

Client, Site: 536403; AIR MONITORING Yerington Mine

QC Batch No., Method Test: 6179357; RRA228 Ra-228 by GPC

SDG, Matrix: 31999,31902; FILTER

1.0 COC

	Yes	No	N/A
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		

2.0 QC Batch

	Yes	No	N/A
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		

3.0 QC & Samples

	Yes	No	N/A
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?			✓
3.5 Are the sample yields and MDAs within contract limits?	✓		

4.0 Raw Data

	Yes	No	N/A
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		

5.0 Other

	Yes	No	N/A
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 7-25-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6179257

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?			✓
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review: Sherryl A Adam Date: 7-26-06

STL RICHLAND

7/14/2006 9:34:27 AM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

536403, Brown and Caldwell , Brown & Caldwell

BX Ra-226/228 PrpRC5016, SepRC5005
TF Radium-228 by GPC
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech: 7/17/06 AL 1512

Batch: 6179357 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech: 7:35 M 7-24-6

SEQ Batch, Test: 6179354, BXTE

Prep Tech: HansenM,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H7DWT-1-AD J6F140270-1-SAMP	0.833g	501.65g	152.92g,in 1.0489	0.2539g	RATA23244 07/12/06	in 31.2 3x5D	7A	1341	7/24/06	
06/24/2006 07:40		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
2 H796F-1-AD J6F270218-1-SAMP	0.833g	501.59g	152.13g,in 0.9828	0.2526g	RATA23245 07/12/06	30.9	7B	1341	7/24/06	
06/07/2006 10:00		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
3 H796L-1-AD J6F270218-2-SAMP	0.833g	501.03g	150.93g,in 1.0534	0.2509g	RATA23246 07/12/06	30.9	7C	1341	7/24/06	
06/07/2006 10:25		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
4 H796N-1-AD J6F270218-3-SAMP	0.833g	500.85g	153.24g,in 1.0515	0.2549g	RATA23247 07/12/06	31.1	1A	1341	7/24/06	
06/07/2006 10:35		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:

945

7/14/2006 9:34:27 AM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

536403, Brown and Caldwell , Brown & Caldwell

BX Ra-226/228 PrpRC5016, SepRC5005
TF Radium-228 by GPC
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179357 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech:

SEQ Batch, Test: 6179354, BXTE

Prep Tech: HansenM,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 H796P-1-AD J6F270218-4-SAMP	0.833g	501.24g	151.48g,in 0.9500	0.2517g	RATA23248 07/12/06	in	31.6	3xD	IC 1341 7/24/06 IC 7/26	
06/07/2006 10:50		AmtRec: FILTER	#Containers: 1				Scr:		Alpha:	Beta:
6 H796Q-1-AD J6F270218-5-SAMP	0.833g	517.56g	150.67g,in 1.0021	0.2425g	RATA23249 07/12/06		30.7		ID 1341 7/24/06 ID 7/26	
06/07/2006 11:00		AmtRec: FILTER	#Containers: 1				Scr:		Alpha:	Beta:
7 H796R-1-AD J6F270218-6-SAMP	0.833g	502.44g	153.56g,in 1.0220	0.2546g	RATA23250 07/12/06		30.6		DA 1341 7/24/06 DA 7/26	
06/07/2006 11:20		AmtRec: FILTER	#Containers: 1				Scr:		Alpha:	Beta:
8 H796T-1-AD J6F270218-7-SAMP	0.833g	500.22g	151.86g,in 1.0859	0.2529g	RATA23251 07/12/06		29.7		2B 1341 7/24/06 2B 7/26	
06/07/2006 10:10		AmtRec: FILTER	#Containers: 1				Scr:		Alpha:	Beta:

STL RICHLAND

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STL RICHLAND

7/14/2006 9:34:28 AM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

536403, Brown and Caldwell , Brown & Caldwell

BX Ra-226/228 PrpRC5016, SepRC5005
TF Radium-228 by GPC
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179357 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech:

SEQ Batch, Test: 6179354, BXTE

Prep Tech: HansenM,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
9 H796W-1-AD J6F270218-8-SAMP	0.833g	501.87g	151.54g,in 0.9979	0.2515g	RATA23252 07/12/06	in 30.1		3D 3A 2D	1341 7/14/06 Ch05 7/14/06	
06/07/2006 09:55		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
10 H797D-1-AD J6F270218-9-SAMP	0.833g	500.74g	154.70g,in 0.9621	0.2573g	RATA23253 07/12/06	30.8		7M 2D 3B 3D	1341 7/14/06 Ch05 7/14/06	
06/07/2006 10:20		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
11 H797E-1-AD J6F270218-10-SAMP	0.833g	503.68g	152.19g,in 0.9740	0.2517g	RATA23254 07/12/06	31.3		3A 3A	1341 7/14/06 Ch05 7/14/06	
06/07/2006 10:30		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
12 H797F-1-AD J6F270218-11-SAMP	0.833g	513.46g	150.13g,in 0.9903	0.2435g	RATA23255 07/12/06	31.3		3B 3B	1341 7/14/06 Ch05 7/14/06	
06/07/2006 10:45		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:

STLRICHLAND

7/14/2006 9:34:28 AM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

536403, Brown and Caldwell , Brown & Caldwell

BX Ra-226/228 PrpRC5016, SepRC5005
TF Radium-228 by GPC
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179357 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech:

SEQ Batch, Test: 6179354, BXTE

Prep Tech: HansenM,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
13H797H-1-AD J6F270218-12-SAMP	0.833g	501.88g	150.22g,in 0.9593	0.2493g	RATA23256 07/12/06	In	30.9	3450	3C 1341 7/24/06 3C 0605 7/25/06	
06/07/2006 11:05		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
14H797J-1-AD J6F270218-13-SAMP	0.833g	521.25g	154.34g,in 0.9363	0.2466g	RATA23257 07/12/06		31.0		3D 1341 7/24/06 3D 0605 7/25/06	
06/07/2006 11:10		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
15H797K-1-AD J6F270218-14-SAMP	0.833g	506.13g	153.17g,in 0.9581	0.2521g	RATA23258 07/12/06		30.7		4R 1341 7/24/06 4R 0605 7/25/06	
06/07/2006 10:05		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:
16H797M-1-AD J6F270218-15-SAMP	0.833g	500.73g	150.39g,in 0.9542	0.2502g	RATA23259 07/12/06		31.1		4 7/24/06 ~~3B~~ 1341 7/24/06 4B 0605 7/25/06	
06/07/2006 11:15		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:		Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 4 ISV - Insufficient Volume for Analysis WO Cnt: 16

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.24

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STLRICHLAND

7/14/2006 9:34:28 AM

Sample Preparation/Analysis

BX Ra-226/228 PrpRC5016, SepRC5005
TF Radium-228 by GPC
01 STANDARD TEST SET

Balance Id:1120373922,1120373922,1120

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179357 pCi/sampl

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
17H8DPD-1-AA-B J6F280000-357-BLK			1.00sa,in 0.9361	1.00sa	RATA23260 07/12/06	in	30.6	3x50 4 7/24/06 3C 4C	1341 0605	7/24/06 7/25/06
06/07/2006 10:00		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:
18H8DPD-1-AC-C J6F280000-357-LCS			1.00sa,in 0.9549	1.00sa	RASC4140 06/13/06		31.2	4 7/24/06 3D 4D	1341 0605	7/24/06 7/25/06
06/07/2006 10:00		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:

Comments:

All Clients for Batch:
536403, Brown and Caldwell Brown & Caldwell , SA , 63174

H7DWT1AD-SAMP Constituent List:

Ba-133	RDL:	pCi/sam	LCL:70	UCL:130	RPD:20	RA-228	RDL:3.10E+00	pCi/sam	LCL:	UCL:	RPD:
RA-228DA	RDL:3.10E+00	pCi/sam	LCL:	UCL:	RPD:						

H8DPD1AA-BLK:

Ba-133	RDL:	pCi/sam	LCL:70	UCL:130	RPD:20	RA-228	RDL:3.10E+00	pCi/sam	LCL:	UCL:	RPD:
RA-228DA	RDL:3.10E+00	pCi/sam	LCL:	UCL:	RPD:						

H8DPD1AC-LCS:

Ba-133	RDL:	pCi/sam	LCL:70	UCL:130	RPD:20	Ra-226	RDL:	pCi/sam	LCL:70	UCL:130	RPD:20
RA-228	RDL:1	pCi/sam	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:1	pCi/sam	LCL:70	UCL:130	RPD:20

H7DWT1AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

7/25/2006 3:22:32 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/25/2005, 7/30/2006, Batch: '6179357', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6179357						
AC		CalcC	HansenM	7/14/2006 8:47:24		
SC			wagarr	IsBatched	6/28/2006 1:36:13 PM	ICOC_RADCALC v4.8.24
SC			HansenM	InPrep2	7/14/2006 8:47:24 AM	RICH-RC-5016 REVISION 5
SC			HansenM	Prep2C	7/14/2006 8:47:55 AM	RICH-RC-5016 REVISION 5
SC			LongA	Sep1C	7/17/2006 5:26:27 PM	RICH-RC-5005 REVISION 5
SC			TamosaitisM	Sep2C	7/24/2006 7:53:21 AM	RICH-RC-5005 REVISION 4
SC			BlackCL	InCnt2	7/24/2006 11:05:52 AM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	7/25/2006 7:05:43 AM	RICH-RD-0003 REVISION 4
AC			HansenM	7/14/2006 8:47:55		
AC			LongA	7/17/2006 5:26:27 PM		
AC			TamosaitisM	7/24/2006 7:53:21		
AC			BlackCL	7/24/2006 11:05:52		
AC			BlackCL	7/25/2006 7:05:43		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.18

7/25/2006 3:22:32 PM

Rpt DB Transfer log (Batch Results)

STL

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot uncert	mda	Sample Date / Units	expected	Yield	Volumes
31999	**9H796F10**		**J6F2702181**	000487	FILTER	6/26/2006 9:00:00		6/7/2006 10:00:00 AM			
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**5.2157E+00**	1.623E+00	1.71E+00	4.523E+00	PCI/SA	1.0	1.0E+0	2.088E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.5369E+01**	1.72E+00	2.03E+00	5.537E+00	PCI/SA	1.0	1.0E+0	3.365E-2
RA-226	BXTE	0	7/21/2006 4:44:00 PM	**9.8826E-02**	2.063E-01	2.065E-01	7.875E-01	PCI/SA	0.983	1.0E+0	2.526E-1
RA-228	BXTF	0	7/25/2006 6:10:02 AM	**8.1159E-01**	5.566E-01	5.645E-01	2.513E+00	PCI/SA	0.883	1.0E+0	2.526E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.8822E-01**	1.16E-01	1.172E-01	4.052E-01	PCI/SA	1.079	1.0E+0	3.387E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**6.2836E-01**	1.534E-01	1.629E-01	2.154E-01	PCI/SA	1.079	1.0E+0	3.387E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**-3.5906E-02**	2.539E-02	2.558E-02	2.643E-01	PCI/SA	1.079	1.0E+0	3.387E-2
U-234	7YSR	0	7/18/2006 6:21:43 PM	**2.7995E-01**	1.743E-01	1.758E-01	4.788E-01	PCI/SA	0.975	1.0E+0	3.258E-2
U-235	7YSR	0	7/18/2006 6:21:43 PM	**9.9979E-02**	9.998E-02	1.003E-01	2.709E-01	PCI/SA	0.975	1.0E+0	3.258E-2
U-238	7YSR	0	7/18/2006 6:21:43 PM	**-1.9991E-02**	1.999E-02	2.006E-02	4.788E-01	PCI/SA	0.975	1.0E+0	3.258E-2
31999	**9H796L10**		**J6F2702182**	000488	FILTER	6/26/2006 9:00:00		6/7/2006 10:25:00 AM			
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**5.4966E+00**	1.672E+00	1.766E+00	4.546E+00	PCI/SA	1.0	1.0E+0	2.088E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.7536E+01**	1.725E+00	2.106E+00	5.209E+00	PCI/SA	1.0	1.0E+0	3.479E-2
RA-226	BXTE	0	7/21/2006 4:42:00 PM	**2.7938E-01**	1.9E-01	1.923E-01	6.492E-01	PCI/SA	1.053	1.0E+0	2.509E-1
RA-228	BXTF	0	7/25/2006 6:10:02 AM	**9.0018E-01**	6.015E-01	6.015E-01	2.666E+00	PCI/SA	0.946	1.0E+0	2.509E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**5.5304E-02**	1.237E-01	1.238E-01	6.634E-01	PCI/SA	0.396	1.0E+0	3.517E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**3.165E-01**	1.827E-01	1.857E-01	2.859E-01	PCI/SA	0.396	1.0E+0	3.517E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**0.0E+00**	0.0E+00	1.292E-01	2.859E-01	PCI/SA	0.396	1.0E+0	3.517E-2
U-234	7YSR	0	7/18/2006 6:21:54 PM	**2.8598E-01**	1.651E-01	1.667E-01	2.583E-01	PCI/SA	0.926	1.0E+0	3.23E-2
U-235	7YSR	0	7/18/2006 6:21:54 PM	**2.6691E-01**	1.662E-01	1.676E-01	4.566E-01	PCI/SA	0.926	1.0E+0	3.23E-2
U-238	7YSR	0	7/18/2006 6:21:54 PM	**-3.8129E-02**	2.696E-02	2.713E-02	5.387E-01	PCI/SA	0.926	1.0E+0	3.23E-2
31999	**9H796N10**		**J6F2702183**	000489	FILTER	6/26/2006 9:00:00		6/7/2006 10:35:00 AM			
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**6.4647E+00**	1.658E+00	1.785E+00	3.867E+00	PCI/SA	1.0	1.0E+0	2.107E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.57E+01**	1.626E+00	1.941E+00	4.99E+00	PCI/SA	1.0	1.0E+0	3.648E-2
RA-226	BXTE	0	7/21/2006 4:42:00 PM	**1.8126E-01**	2.109E-01	2.119E-01	7.714E-01	PCI/SA	1.052	1.0E+0	2.549E-1
RA-228	BXTF	0	7/25/2006 5:35:01 AM	**-1.2509E-01**	4.687E-01	4.687E-01	2.257E+00	PCI/SA	0.951	1.0E+0	2.549E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.7654E-01**	8.827E-02	8.968E-02	1.196E-01	PCI/SA	1.023	1.0E+0	3.634E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.5259E-01**	1.031E-01	1.056E-01	1.141E-01	PCI/SA	1.023	1.0E+0	3.634E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**0.0E+00**	0.0E+00	5.156E-02	1.141E-01	PCI/SA	1.023	1.0E+0	3.634E-2
U-234	7YSR	0	7/18/2006 6:22:08 PM	**2.0632E-01**	1.459E-01	1.468E-01	2.796E-01	PCI/SA	0.951	1.0E+0	3.249E-2
U-235	7YSR	0	7/18/2006 6:22:08 PM	**0.0E+00**	0.0E+00	1.363E-01	2.796E-01	PCI/SA	0.951	1.0E+0	3.249E-2
U-238	7YSR	0	7/18/2006 6:22:08 PM	**8.2533E-02**	1.052E-01	1.054E-01	4.941E-01	PCI/SA	0.951	1.0E+0	3.249E-2
31999	**9H796P10**		**J6F2702184**	000490	FILTER	6/26/2006 9:00:00		6/7/2006 10:50:00 AM			
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**3.1E+00**	1.521E+00	1.554E+00	5.409E+00	PCI/SA	1.0	1.0E+0	2.116E-2
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.905E+01**	1.708E+00	2.143E+00	5.03E+00	PCI/SA	1.0	1.0E+0	3.489E-2
RA-226	BXTE	0	7/21/2006 4:43:01 PM	**4.7177E-01**	2.98E-01	3.016E-01	1.016E+00	PCI/SA	0.95	1.0E+0	2.517E-1
RA-228	BXTF	0	7/25/2006 5:35:01 AM	**7.6026E-01**	5.176E-01	5.333E-01	2.387E+00	PCI/SA	0.873	1.0E+0	2.517E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.3187E-01**	7.755E-02	7.84E-02	2.256E-01	PCI/SA	1.107	1.0E+0	3.56E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.8707E-01**	1.015E-01	1.045E-01	9.724E-02	PCI/SA	1.107	1.0E+0	3.56E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**1.7942E-02**	4.012E-02	4.015E-02	2.152E-01	PCI/SA	1.107	1.0E+0	3.56E-2
U-234	7YSR	0	7/18/2006 6:22:38 PM	**-3.0904E-02**	1.545E-02	1.565E-02	5.153E-01	PCI/SA	1.056	1.0E+0	3.234E-2
U-235	7YSR	0	7/18/2006 6:22:38 PM	**8.1011E-02**	9.708E-02	9.729E-02	4.409E-01	PCI/SA	1.056	1.0E+0	3.234E-2
U-238	7YSR	0	7/18/2006 6:22:38 PM	**-4.6356E-02**	1.892E-02	1.928E-02	5.724E-01	PCI/SA	1.056	1.0E+0	3.234E-2
31999	**9H796Q10**		**J6F2702185**	000491	FILTER	6/26/2006 9:00:00		6/7/2006 11:00:00 AM			
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	**5.8528E+00**	1.861E+00	1.958E+00	5.57E+00	PCI/SA	1.0	1.0E+0	2.042E-2
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.5815E+01**	1.678E+00	1.993E+00	5.248E+00	PCI/SA	1.0	1.0E+0	3.123E-2
RA-226	BXTE	0	7/21/2006 4:41:00 PM	**9.1334E-01**	3.044E-01	3.184E-01	8.549E-01	PCI/SA	1.002	1.0E+0	2.429E-1
RA-228	BXTF	0	7/25/2006 5:35:01 AM	**1.0228E+00**	5.394E-01	5.41E-01	2.355E+00	PCI/SA	0.894	1.0E+0	2.429E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.7989E-01**	1.039E-01	1.051E-01	3.36E-01	PCI/SA	1.017	1.0E+0	3.115E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.0972E-01**	9.533E-02	9.71E-02	2.287E-01	PCI/SA	1.017	1.0E+0	3.115E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**3.0505E-01**	1.175E-01	1.206E-01	2.806E-01	PCI/SA	1.017	1.0E+0	3.115E-2

6179357, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0.
**Diff RptDb | Qtims => *wo:H8DPD1AA=> , mat:FILTER | Air *wo:H8DPD1AC=> , mat:FILTER | Air.

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	Sample Date / mda	Units	Expected	Yield	Volumes	
U-234	7YSR	0	7/18/2006 6:22:53 PM	7.0218E-01	2.752E-01	2.809E-01	5.183E-01	PCI/SA	0.981	1.0E+0	3.04E-2	
U-235	7YSR	0	7/18/2006 6:22:53 PM	7.8919E-02	1.049E-01	1.051E-01	5.183E-01	PCI/SA	0.981	1.0E+0	3.04E-2	
U-238	7YSR	0	7/18/2006 6:22:53 PM	4.861E-01	2.329E-01	2.361E-01	5.549E-01	PCI/SA	0.981	1.0E+0	3.04E-2	
31999	**9H796R10**		**J6F2702186**	000492	FILTER	6/26/2006 9:00:00	6/7/2006 11:20:00 AM					
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	4.1775E+00	1.513E+00	1.574E+00	4.588E+00	PCI/SA	1.0	1.0E+0	3.069E-2	
BETA	BDS8	0	7/18/2006 1:34:35 PM	1.7615E+01	1.668E+00	2.065E+00	5.009E+00	PCI/SA	1.0	1.0E+0	3.434E-2	
RA-226	BXTE	0	7/21/2006 4:44:01 PM	2.2045E-01	2.549E-01	2.559E-01	9.301E-01	PCI/SA	1.022	1.0E+0	2.546E-1	
RA-228	BXTF	0	7/25/2006 6:05:42 AM	1.3411E-02	3.597E-01	3.682E-01	1.851E+00	PCI/SA	0.909	1.0E+0	2.546E-1	
TH-228	9NS1	0	7/19/2006 12:16:34	1.9618E-01	9.989E-02	1.014E-01	2.815E-01	PCI/SA	0.997	1.0E+0	3.321E-2	
TH-230	9NS1	0	7/19/2006 12:16:34	4.8901E-01	1.441E-01	1.508E-01	1.127E-01	PCI/SA	0.997	1.0E+0	3.321E-2	
TH-232	9NS1	0	7/19/2006 12:16:34	1.2475E-01	7.203E-02	7.289E-02	1.127E-01	PCI/SA	0.997	1.0E+0	3.321E-2	
U-234	7YSR	0	7/18/2006 6:23:10 PM	-3.3198E-02	1.66E-02	1.681E-02	5.536E-01	PCI/SA	1.009	1.0E+0	3.244E-2	
U-235	7YSR	0	7/18/2006 6:23:10 PM	-8.2994E-03	8.299E-03	8.326E-03	4.172E-01	PCI/SA	1.009	1.0E+0	3.244E-2	
U-238	7YSR	0	7/18/2006 6:23:10 PM	-3.3198E-02	1.66E-02	1.681E-02	5.536E-01	PCI/SA	1.009	1.0E+0	3.244E-2	
31999	**9H796T10**		**J6F2702187**	000493	FILTER	6/26/2006 9:00:00	6/7/2006 10:10:00 AM					
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	-7.4933E-02	8.593E-01	8.593E-01	4.586E+00	PCI/SA	1.0	1.0E+0	3.117E-2	
BETA	BDS8	0	7/18/2006 1:34:32 PM	1.0747E+00	1.22E+00	1.222E+00	5.046E+00	PCI/SA	1.0	1.0E+0	3.395E-2	
RA-226	BXTE	0	7/21/2006 4:43:01 PM	4.3349E-01	2.053E-01	2.098E-01	6.313E-01	PCI/SA	1.086	1.0E+0	2.529E-1	
RA-228	BXTF	0	7/25/2006 6:05:42 AM	1.3017E+00	4.285E-01	4.418E-01	1.773E+00	PCI/SA	0.938	1.0E+0	2.529E-1	
TH-228	9NS1	0	7/19/2006 12:16:34	1.9076E-02	4.265E-02	4.289E-02	2.288E-01	PCI/SA	0.936	1.0E+0	3.453E-2	
TH-230	9NS1	0	7/19/2006 12:16:34	2.7293E-01	1.045E-01	1.073E-01	2.183E-01	PCI/SA	0.936	1.0E+0	3.453E-2	
TH-232	9NS1	0	7/19/2006 12:16:34	-3.639E-02	2.573E-02	2.593E-02	2.678E-01	PCI/SA	0.936	1.0E+0	3.453E-2	
U-234	7YSR	0	7/18/2006 6:23:32 PM	-2.801E-02	1.617E-02	1.633E-02	5.817E-01	PCI/SA	0.885	1.0E+0	3.256E-2	
U-235	7YSR	0	7/18/2006 6:23:32 PM	-1.8673E-02	1.32E-02	1.329E-02	5.33E-01	PCI/SA	0.885	1.0E+0	3.256E-2	
U-238	7YSR	0	7/18/2006 6:23:32 PM	1.166E-01	1.168E-01	1.17E-01	3.16E-01	PCI/SA	0.885	1.0E+0	3.256E-2	
31999	**9H796W10**		**J6F2702188**	P-0660	FILTER	6/26/2006 9:00:00	6/7/2006 9:56:00 AM					
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	3.8436E+00	1.391E+00	1.445E+00	4.008E+00	PCI/SA	1.0	1.0E+0	3.088E-2	
BETA	BDS8	0	7/18/2006 1:34:32 PM	1.3482E+01	1.585E+00	1.923E+00	5.061E+00	PCI/SA	1.0	1.0E+0	3.329E-2	
RA-226	BXTE	0	7/21/2006 5:11:01 PM	-3.0368E-01	2.048E-01	2.07E-01	8.759E-01	PCI/SA	0.998	1.0E+0	2.515E-1	
RA-228	BXTF	0	7/25/2006 6:05:42 AM	8.4367E-01	4.011E-01	4.182E-01	1.816E+00	PCI/SA	0.873	1.0E+0	2.515E-1	
TH-228	9NS1	0	7/19/2006 12:17:22	-5.5508E-02	5.549E-02	5.57E-02	3.722E-01	PCI/SA	0.916	1.0E+0	3.475E-2	
TH-230	9NS1	0	7/19/2006 12:17:22	2.6634E+00	3.08E-01	3.872E-01	2.116E-01	PCI/SA	0.916	1.0E+0	3.475E-2	
TH-232	9NS1	0	7/19/2006 12:17:22	3.5277E-02	3.528E-02	3.541E-02	9.56E-02	PCI/SA	0.916	1.0E+0	3.475E-2	
U-234	7YSR	0	7/18/2006 6:24:30 PM	1.5756E-01	1.422E-01	1.427E-01	5.571E-01	PCI/SA	1.006	1.0E+0	3.241E-2	
U-235	7YSR	0	7/18/2006 6:24:30 PM	-3.9462E-02	2.79E-02	2.808E-02	5.571E-01	PCI/SA	1.006	1.0E+0	3.241E-2	
U-238	7YSR	0	7/18/2006 6:24:30 PM	-5.9194E-02	3.418E-02	3.45E-02	6.223E-01	PCI/SA	1.006	1.0E+0	3.241E-2	
31999	**9H797D10**		**J6F2702189**	P-0661	FILTER	6/26/2006 9:00:00	6/7/2006 10:20:00 AM					
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	2.4154E+00	1.481E+00	1.482E+00	5.531E+00	PCI/SA	1.0	1.0E+0	2.966E-2	
BETA	BDS8	0	7/18/2006 1:34:32 PM	1.2452E+01	1.549E+00	1.861E+00	5.002E+00	PCI/SA	1.0	1.0E+0	3.541E-2	
RA-226	BXTE	0	7/21/2006 5:12:00 PM	3.5851E-01	2.991E-01	3.013E-01	1.056E+00	PCI/SA	0.962	1.0E+0	3.573E-1	
RA-228	BXTF	0	7/25/2006 6:05:42 AM	6.4114E-01	4.448E-01	4.448E-01	1.994E+00	PCI/SA	0.861	1.0E+0	2.573E-1	
TH-228	9NS1	0	7/19/2006 12:17:33	1.1088E-01	9.667E-02	9.717E-02	3.728E-01	PCI/SA	1.071	1.0E+0	3.341E-2	
TH-230	9NS1	0	7/19/2006 12:17:33	8.4816E-02	5.983E-02	6.03E-02	1.147E-01	PCI/SA	1.071	1.0E+0	3.341E-2	
TH-232	9NS1	0	7/19/2006 12:17:33	0.0E+00	0.0E+00	5.182E-02	1.147E-01	PCI/SA	1.071	1.0E+0	3.341E-2	
U-234	7YSR	0	7/18/2006 6:24:37 PM	0.0E+00	0.0E+00	1.219E-01	2.697E-01	PCI/SA	1.029	1.0E+0	3.248E-2	
U-235	7YSR	0	7/18/2006 6:24:37 PM	-5.9728E-02	3.448E-02	3.481E-02	6.282E-01	PCI/SA	1.029	1.0E+0	3.248E-2	
U-238	7YSR	0	7/18/2006 6:24:37 PM	3.9782E-02	1.053E-01	1.054E-01	6.282E-01	PCI/SA	1.029	1.0E+0	3.248E-2	
31999	**9H797E10**		**J6F27021810**	P-0662	FILTER	6/26/2006 9:00:00	6/7/2006 10:30:00 AM					
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	6.44E+00	1.887E+00	2.002E+00	5.424E+00	PCI/SA	1.0	1.0E+0	2.672E-2	
BETA	BDS8	0	7/18/2006 1:34:19 PM	1.046E+01	1.699E+00	1.853E+00	6.064E+00	PCI/SA	1.0	1.0E+0	3.603E-2	
RA-226	BXTE	0	7/21/2006 5:10:00 PM	6.216E-02	1.618E-01	1.62E-01	6.4E-01	PCI/SA	0.974	1.0E+0	3.517E-1	
RA-228	BXTF	0	7/25/2006 6:05:44 AM	1.0269E+00	3.808E-01	3.935E-01	1.616E+00	PCI/SA	0.886	1.0E+0	2.517E-1	
TH-228	9NS1	0	7/19/2006 12:17:45	8.8776E-02	8.399E-02	8.438E-02	3.305E-01	PCI/SA	0.991	1.0E+0	3.433E-2	
TH-230	9NS1	0	7/19/2006 12:17:45	1.7129E-01	8.565E-02	8.702E-02	1.16E-01	PCI/SA	0.991	1.0E+0	3.433E-2	

6179357, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0.
**Diff RptDb | Qtims => *wo:H8DPD1AA=> , mat:FILTER | Air *wo:H8DPD1AC=> , mat:FILTER | Air.

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot uncert	mda	Sample Date / Units	expected	Yield	Volumes
TH-232	9NS1	0	7/19/2006 12:17:45	**0.0E+00**	0.0E+00	5.245E-02	1.16E-01	PCI/SA	0.991	1.0E+0	3.433E-2
U-234	7YSR	0	7/18/2006 6:24:49 PM	**-1.4874E-01**	5.622E-02	5.748E-02	8.732E-01	PCI/SA	0.906	1.0E+0	3.215E-2
U-235	7YSR	0	7/18/2006 6:24:49 PM	**-6.3746E-02**	3.68E-02	3.716E-02	6.704E-01	PCI/SA	0.906	1.0E+0	3.215E-2
U-238	7YSR	0	7/18/2006 6:24:49 PM	**-2.1298E-02**	1.183E-01	1.183E-01	6.288E-01	PCI/SA	0.906	1.0E+0	3.215E-2
31999	**9H797F10**		**J6F27021811**	P-0663	FILTER	6/26/2006 9:00:00		6/7/2006 10:45:00 AM			
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	**3.9003E+00**	1.502E+00	1.558E+00	4.871E+00	PCI/SA	1.0	1.0E+0	2.03E-2
BETA	BDS8	0	7/18/2006 1:34:19 PM	**1.6067E+01**	1.616E+00	2.113E+00	4.858E+00	PCI/SA	1.0	1.0E+0	3.166E-2
RA-226	BXTE	0	7/21/2006 5:11:03 PM	**2.4592E-01**	1.489E-01	1.512E-01	4.86E-01	PCI/SA	0.99	1.0E+0	2.436E-1
RA-228	BXTF	0	7/25/2006 6:05:44 AM	**1.8999E+00**	4.472E-01	4.63E-01	1.65E+00	PCI/SA	0.901	1.0E+0	2.436E-1
TH-228	9NS1	0	7/19/2006 12:17:53	**-1.7532E-05**	8.33E-02	8.33E-02	4.486E-01	PCI/SA	0.992	1.0E+0	3.219E-2
TH-230	9NS1	0	7/19/2006 12:17:53	**1.1467E-01**	8.27E-02	8.334E-02	2.751E-01	PCI/SA	0.992	1.0E+0	3.219E-2
TH-232	9NS1	0	7/19/2006 12:17:53	**0.0E+00**	0.0E+00	5.618E-02	1.243E-01	PCI/SA	0.992	1.0E+0	3.219E-2
U-234	7YSR	0	7/18/2006 6:25:00 PM	**7.7955E-02**	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	3.092E-2
U-235	7YSR	0	7/18/2006 6:25:00 PM	**-1.9478E-02**	1.948E-02	1.954E-02	4.665E-01	PCI/SA	1.011	1.0E+0	3.092E-2
U-238	7YSR	0	7/18/2006 6:25:00 PM	**7.7955E-02**	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	3.092E-2
31999	**9H797H10**		**J6F27021812**	P-0664	FILTER	6/26/2006 9:00:00		6/7/2006 11:05:00 AM			
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	**3.7E+00**	1.475E+00	1.524E+00	4.621E+00	PCI/SA	1.0	1.0E+0	2.075E-2
BETA	BDS8	0	7/18/2006 1:34:19 PM	**1.3205E+01**	1.591E+00	1.827E+00	5.143E+00	PCI/SA	1.0	1.0E+0	3.304E-2
RA-226	BXTE	0	7/21/2006 5:11:01 PM	**1.0716E-01**	1.676E-01	1.68E-01	6.35E-01	PCI/SA	0.959	1.0E+0	2.493E-1
RA-228	BXTF	0	7/25/2006 6:05:44 AM	**1.4284E+00**	4.773E-01	4.865E-01	1.956E+00	PCI/SA	0.862	1.0E+0	2.493E-1
TH-228	9NS1	0	7/19/2006 10:14:05	**1.9535E-06**	8.279E-02	8.279E-02	4.201E-01	PCI/SA	1.047	1.0E+0	3.332E-2
TH-230	9NS1	0	7/19/2006 10:14:05	**1.3025E-01**	7.672E-02	7.757E-02	2.232E-01	PCI/SA	1.047	1.0E+0	3.332E-2
TH-232	9NS1	0	7/19/2006 10:14:05	**3.7213E-02**	3.721E-02	3.736E-02	1.008E-01	PCI/SA	1.047	1.0E+0	3.332E-2
U-234	7YSR	0	7/18/2006 6:25:11 PM	**5.5292E-02**	1.392E-01	1.392E-01	7.569E-01	PCI/SA	1.009	1.0E+0	3.232E-2
U-235	7YSR	0	7/18/2006 6:25:11 PM	**-1.8434E-02**	1.843E-02	1.849E-02	4.414E-01	PCI/SA	1.009	1.0E+0	3.232E-2
U-238	7YSR	0	7/18/2006 6:25:11 PM	**7.3726E-02**	1.379E-01	1.381E-01	7.192E-01	PCI/SA	1.009	1.0E+0	3.232E-2
31999	**9H797J10**		**J6F27021813**	P-0665	FILTER	6/26/2006 9:00:00		6/7/2006 11:10:00 AM			
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	**5.0222E+00**	1.555E+00	1.638E+00	4.09E+00	PCI/SA	1.0	1.0E+0	2.002E-2
BETA	BDS8	0	7/18/2006 1:34:38 PM	**1.2848E+01**	1.59E+00	1.818E+00	5.167E+00	PCI/SA	1.0	1.0E+0	3.455E-2
RA-226	BXTE	0	7/21/2006 5:10:00 PM	**2.4633E-01**	2.038E-01	2.055E-01	7.196E-01	PCI/SA	0.936	1.0E+0	2.466E-1
RA-228	BXTF	0	7/25/2006 6:05:44 AM	**1.5253E+00**	4.63E-01	4.732E-01	1.84E+00	PCI/SA	0.844	1.0E+0	2.466E-1
TH-228	9NS1	0	7/19/2006 10:14:05	**-7.7987E-02**	6.166E-02	6.204E-02	4.197E-01	PCI/SA	1.004	1.0E+0	3.099E-2
TH-230	9NS1	0	7/19/2006 10:14:05	**5.0194E-01**	1.404E-01	1.472E-01	2.23E-01	PCI/SA	1.004	1.0E+0	3.099E-2
TH-232	9NS1	0	7/19/2006 10:14:05	**6.2033E-07**	4.554E-02	4.554E-02	2.737E-01	PCI/SA	1.004	1.0E+0	3.099E-2
U-234	7YSR	0	7/18/2006 6:25:24 PM	**0.0E+00**	0.0E+00	1.219E-01	2.898E-01	PCI/SA	1.091	1.0E+0	3.015E-2
U-235	7YSR	0	7/18/2006 6:25:24 PM	**-1.9916E-02**	1.992E-02	1.998E-02	4.789E-01	PCI/SA	1.091	1.0E+0	3.015E-2
U-238	7YSR	0	7/18/2006 6:25:24 PM	**1.5928E-01**	1.436E-01	1.441E-01	5.628E-01	PCI/SA	1.091	1.0E+0	3.015E-2
31999	**9H797K10**		**J6F27021814**	P-0666	FILTER	6/26/2006 9:00:00		6/7/2006 10:05:00 AM			
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	**-6.0243E-01**	9.947E-01	9.967E-01	5.518E+00	PCI/SA	1.0	1.0E+0	3.066E-2
BETA	BDS8	0	7/18/2006 1:34:38 PM	**1.2862E+01**	1.583E+00	1.813E+00	5.122E+00	PCI/SA	1.0	1.0E+0	3.229E-2
RA-226	BXTE	0	7/21/2006 5:26:00 PM	**3.8954E-01**	1.827E-01	1.889E-01	5.73E-01	PCI/SA	0.958	1.0E+0	2.521E-1
RA-228	BXTF	0	7/25/2006 6:05:54 AM	**9.5959E-01**	5.366E-01	5.368E-01	2.345E+00	PCI/SA	0.855	1.0E+0	2.521E-1
TH-228	9NS1	0	7/19/2006 10:14:05	**2.4133E-01**	1.097E-01	1.118E-01	2.632E-01	PCI/SA	1.024	1.0E+0	3.496E-2
TH-230	9NS1	0	7/19/2006 10:14:05	**3.7652E-01**	1.255E-01	1.3E-01	1.134E-01	PCI/SA	1.024	1.0E+0	3.496E-2
TH-232	9NS1	0	7/19/2006 10:14:05	**0.0E+00**	0.0E+00	5.124E-02	1.134E-01	PCI/SA	1.024	1.0E+0	3.496E-2
U-234	7YSR	0	7/18/2006 6:25:43 PM	**-2.1922E-02**	2.192E-02	2.199E-02	5.248E-01	PCI/SA	0.914	1.0E+0	3.187E-2
U-235	7YSR	0	7/18/2006 6:25:43 PM	**1.0956E-01**	1.096E-01	1.099E-01	2.969E-01	PCI/SA	0.914	1.0E+0	3.187E-2
U-238	7YSR	0	7/18/2006 6:25:43 PM	**-2.1922E-02**	2.192E-02	2.199E-02	5.248E-01	PCI/SA	0.914	1.0E+0	3.187E-2
31999	**9H797M10**		**J6F27021815**	P-0667	FILTER	6/26/2006 9:00:00		6/7/2006 11:15:00 AM			
ALPHA	BAS7	0	7/19/2006 8:30:44 AM	**-2.1818E+00**	8.681E-01	8.973E-01	6.058E+00	PCI/SA	1.0	1.0E+0	2.064E-2
BETA	BDS8	0	7/18/2006 1:34:38 PM	**1.6716E+00**	1.229E+00	1.238E+00	5.002E+00	PCI/SA	1.0	1.0E+0	3.539E-2
RA-226	BXTE	0	7/21/2006 5:26:00 PM	**1.2237E-02**	8.758E-02	8.759E-02	3.199E-01	PCI/SA	0.954	1.0E+0	2.502E-1
RA-228	BXTF	0	7/25/2006 6:05:54 AM	**8.3849E-01**	4.109E-01	4.16E-01	1.796E+00	PCI/SA	0.853	1.0E+0	2.502E-1
TH-228	9NS1	0	7/19/2006 10:14:05	**1.3121E-01**	7.575E-02	7.667E-02	1.185E-01	PCI/SA	1.011	1.0E+0	3.715E-2

6179357, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0.
**Diff RptDb | Qtims => *wo:H8DPD1AA=> , mat:FILTER | Air *wo:H8DPD1AC=> , mat:FILTER | Air.

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc		LotSample / Analysis Date	Client Id / Result	Matrix / Crit Uncert	Received Date / Tot Uncert	mda	Sample Date / Units	expected	Yield	Volumes	
TH-230	9NS1	0		7/19/2006 10:14:05	**2.0851E-01**	9.325E-02	9.511E-02	1.13E-01	PCI/SA		1.011	1.0E+0	3.715E-2
TH-232	9NS1	0		7/19/2006 10:14:05	**4.1702E-02**	4.17E-02	4.187E-02	1.13E-01	PCI/SA		1.011	1.0E+0	3.715E-2
U-234	7YSR	0		7/18/2006 6:25:53 PM	**0.0E+00**	0.0E+00	1.38E-01	3.054E-01	PCI/SA		0.816	1.0E+0	3.267E-2
U-235	7YSR	0		7/18/2006 6:25:53 PM	**-2.2549E-02**	2.255E-02	2.262E-02	5.399E-01	PCI/SA		0.816	1.0E+0	3.267E-2
U-238	7YSR	0		7/18/2006 6:25:53 PM	**-2.2549E-02**	2.255E-02	2.262E-02	5.399E-01	PCI/SA		0.816	1.0E+0	3.267E-2
31902	**9H7DWT10**			**J6F1402701**	000473	FILTER	6/14/2006 10:00:00	5/24/2006 7:40:00 AM					
ALPHA	BAS7	0		7/18/2006 1:26:23 PM	**3.4147E+00**	1.54E+00	1.581E+00	5.324E+00	PCI/SA		1.0	1.0E+0	3.096E-2
BETA	BDS8	0		7/18/2006 1:34:31 PM	**1.2455E+01**	1.665E+00	1.896E+00	5.665E+00	PCI/SA		1.0	1.0E+0	3.326E-2
RA-226	BXTE	0		7/21/2006 4:43:00 PM	**5.0869E-01**	2.598E-01	2.651E-01	8.594E-01	PCI/SA		1.049	1.0E+0	2.539E-1
RA-228	BXTF	0		7/25/2006 6:10:02 AM	**1.3688E+00**	5.661E-01	5.681E-01	2.379E+00	PCI/SA		0.951	1.0E+0	2.539E-1
TH-228	9NS1	0		7/19/2006 12:16:34	**-3.9324E-02**	7.357E-02	7.365E-02	4.233E-01	PCI/SA		1.057	1.0E+0	3.382E-2
TH-230	9NS1	0		7/19/2006 12:16:34	**2.0344E-01**	9.247E-02	9.419E-02	2.219E-01	PCI/SA		1.057	1.0E+0	3.382E-2
TH-232	9NS1	0		7/19/2006 12:16:34	**0.0E+00**	0.0E+00	4.53E-02	1.002E-01	PCI/SA		1.057	1.0E+0	3.382E-2
U-234	7YSR	0		7/18/2006 6:21:38 PM	**8.4174E-02**	1.073E-01	1.075E-01	5.042E-01	PCI/SA		0.936	1.0E+0	3.232E-2
U-235	7YSR	0		7/18/2006 6:21:38 PM	**0.0E+00**	0.0E+00	1.289E-01	2.852E-01	PCI/SA		0.936	1.0E+0	3.232E-2
U-238	7YSR	0		7/18/2006 6:21:38 PM	**-4.2133E-02**	2.979E-02	2.999E-02	5.948E-01	PCI/SA		0.936	1.0E+0	3.232E-2
31999	**H8DPD1AB**			**J6F280000357**	INTRA-LAB BLANK	FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM					
RA-228	BXTF	0	B	7/25/2006 6:05:54 AM	**1.135E-01**	8.948E-02	9.668E-02	4.61E-01	PCI/SA		0.833	1.0E+0	1.0E+0
31989	**H8DPD1CS**			**J6F280000357**	INTRA-LAB CHECK	FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM					
RA-228	BXTF	0	S	7/25/2006 6:05:54 AM	**3.948E+00**	2.483E-01	3.358E-01	4.439E-01	PCI/SA	5.0742E+00	0.866	1.0E+0	1.0E+0

6179357, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0,
**Diff RptDb | Qtlms => *wo:H8DPD1AA=> , mat:FILTER | Air *wo:H8DPD1AC=> , mat:FILTER | Air.

Batch Nbr: 5179357

Alpha Beta, Ra-228 by GPC , Results

7/25/2006 7:03:09 AM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	ILcC	IDC	QC	Yield	RYld
Ra-228 by GPC				Ra-226/Ra-228 Deem With Out Blk Subt.										
Calc	TF	FILTER	H7DWT1AD	RA-228	0.00E+00	(7.72E-01)	U4	PCI/SA	R	1.69E+00	3.70E+00		95%	
Calc	TF	FILTER	H7DWT1AD	RA-228	1.81E+00	(1.00E+00)		PCI/SA	R	1.88E+00	4.11E+00		95%	
Calc	TF	FILTER	H7DWT1AD	RA-228	2.30E+00	(1.13E+00)		PCI/SA	R	2.08E+00	4.56E+00		95%	
Calc	TF	FILTER	H7DWT1AD	RA-228	1.37E+00	(5.66E-01)		PCI/SA	A	1.09E+00	2.38E+00		95%	
Calc	TF	FILTER	H7DWT1AD	RA-228	9.27E+00	(6.55E+00)	U4	PCI/SA	R	1.27E+01	2.79E+01		95%	
Calc	TF	FILTER	H796F1AD	RA-228	1.32E+00	(9.20E-01)	U4	PCI/SA	R	1.79E+00	3.91E+00		88%	
Calc	TF	FILTER	H796F1AD	RA-228	-3.48E-01	(8.77E-01)	U4	PCI/SA	R	1.98E+00	4.34E+00		88%	
Calc	TF	FILTER	H796F1AD	RA-228	1.47E+00	(1.12E+00)	U4	PCI/SA	R	2.20E+00	4.81E+00		88%	
Calc	TF	FILTER	H796F1AD	RA-228	8.12E-01	(5.64E-01)	U4	PCI/SA	A	1.15E+00	2.51E+00		88%	
Calc	TF	FILTER	H796F1AD	RA-228	3.24E+00	(6.34E+00)	U4	PCI/SA	R	1.33E+01	2.93E+01		88%	
Calc	TF	FILTER	H796L1AD	RA-228	3.32E-01	(8.95E-01)	U4	PCI/SA	R	1.91E+00	4.15E+00		95%	
Calc	TF	FILTER	H796L1AD	RA-228	7.70E-01	(1.02E+00)	U4	PCI/SA	R	2.12E+00	4.60E+00		95%	
Calc	TF	FILTER	H796L1AD	RA-228	1.60E+00	(1.19E+00)	U4	PCI/SA	R	2.35E+00	5.10E+00		95%	
Calc	TF	FILTER	H796L1AD	RA-228	9.00E-01	(6.02E-01)	U4	PCI/SA	A	1.23E+00	2.67E+00		95%	
Calc	TF	FILTER	H796L1AD	RA-228	2.08E+00	(6.50E+00)	U4	PCI/SA	R	1.39E+01	3.03E+01		95%	
Calc	TF	FILTER	H796N1AD	RA-228	1.13E+00	(8.22E-01)	U4	PCI/SA	R	1.60E+00	3.51E+00		95%	
Calc	TF	FILTER	H796N1AD	RA-228	-1.51E+00	(7.01E-01)	U4	PCI/SA	R	1.78E+00	3.90E+00		95%	
Calc	TF	FILTER	H796N1AD	RA-228	0.00E+00	(9.00E-01)	U4	PCI/SA	R	1.97E+00	4.32E+00		95%	
Calc	TF	FILTER	H796N1AD	RA-228	-1.25E-01	(4.69E-01)	U4	PCI/SA	A	1.03E+00	2.26E+00		95%	
Calc	TF	FILTER	H796N1AD	RA-228	1.42E+00	(4.86E+00)	U4	PCI/SA	R	1.04E+01	2.30E+01		95%	
Calc	TF	FILTER	H796P1AD	RA-228	1.33E+00	(8.82E-01)	U4	PCI/SA	R	1.69E+00	3.71E+00		87%	
Calc	TF	FILTER	H796P1AD	RA-228	-7.05E-02	(8.47E-01)	U4	PCI/SA	R	1.87E+00	4.12E+00		87%	
Calc	TF	FILTER	H796P1AD	RA-228	1.02E+00	(1.03E+00)	U4	PCI/SA	R	2.07E+00	4.57E+00		87%	
Calc	TF	FILTER	H796P1AD	RA-228	7.60E-01	(5.33E-01)	U4	PCI/SA	A	1.08E+00	2.39E+00		87%	
Calc	TF	FILTER	H796P1AD	RA-228	-4.33E+00	(4.81E+00)	U4	PCI/SA	R	1.14E+01	2.52E+01		87%	
Calc	TF	FILTER	H796Q1AD	RA-228	1.12E+00	(8.53E-01)	U4	PCI/SA	R	1.66E+00	3.66E+00		89%	
Calc	TF	FILTER	H796Q1AD	RA-228	2.62E-01	(8.63E-01)	U4	PCI/SA	R	1.84E+00	4.07E+00		89%	
Calc	TF	FILTER	H796Q1AD	RA-228	1.69E+00	(1.08E+00)	U4	PCI/SA	R	2.05E+00	4.51E+00		89%	
Calc	TF	FILTER	H796Q1AD	RA-228	1.02E+00	(5.41E-01)		PCI/SA	A	1.07E+00	2.36E+00		89%	
Calc	TF	FILTER	H796Q1AD	RA-228	8.14E+00	(5.97E+00)	U4	PCI/SA	R	1.15E+01	2.55E+01		89%	
Calc	TF	FILTER	H796R1AD	RA-228	-3.67E-02	(5.61E-01)	U4	PCI/SA	R	1.24E+00	2.88E+00		91%	
Calc	TF	FILTER	H796R1AD	RA-228	1.22E-01	(6.44E-01)	U4	PCI/SA	R	1.38E+00	3.19E+00		91%	
Calc	TF	FILTER	H796R1AD	RA-228	-4.51E-02	(6.91E-01)	U4	PCI/SA	R	1.53E+00	3.54E+00		91%	
Calc	TF	FILTER	H796R1AD	RA-228	1.34E-02	(3.66E-01)	U4	PCI/SA	A	7.98E-01	1.85E+00		91%	
Calc	TF	FILTER	H796R1AD	RA-228	-4.73E+00	(3.27E+00)	U4	PCI/SA	R	8.69E+00	2.04E+01		91%	
Calc	TF	FILTER	H796T1AD	RA-228	1.23E+00	(6.94E-01)		PCI/SA	R	1.19E+00	2.76E+00		94%	
Calc	TF	FILTER	H796T1AD	RA-228	1.83E+00	(8.23E-01)		PCI/SA	R	1.32E+00	3.06E+00		94%	
Calc	TF	FILTER	H796T1AD	RA-228	8.44E-01	(7.74E-01)	U4	PCI/SA	R	1.47E+00	3.40E+00		94%	

() - (1s Uncertainties)
IDC - Instrument Detection Level in Conc Units
MLcC - Method Decision Level in Conc Units
MDC - Minimum Detectable Concentration
*Std - Lc, MDC using StdDev for Set of Blanks

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Regardless of Significants
Date/Time - mm/dd/yy hh.mm, 24hr Time

RecCnt:39
RADCALC v4.8.24
STL Richland

Batch Nbr: 6179357

Alpha Beta, Ra-228 by GPC , Results

7/25/2006 7:03:09 AM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	ILcC	IDC	QC	Yield	RYld
Calc	TF	FILTER	H796T1AD	RA-228	1.30E+00	(4.42E-01)		PCI/SA	A	7.68E-01	1.77E+00		94%	
Calc	TF	FILTER	H796T1AD	RA-228	-1.58E+00	(3.70E+00)	U4	PCI/SA	R	8.57E+00	2.00E+01		94%	
Calc	TF	FILTER	H796W1AD	RA-228	1.15E+00	(7.01E-01)	U4	PCI/SA	R	1.21E+00	2.82E+00		87%	
Calc	TF	FILTER	H796W1AD	RA-228	1.10E+00	(7.56E-01)	U4	PCI/SA	R	1.34E+00	3.13E+00		87%	
Calc	TF	FILTER	H796W1AD	RA-228	2.82E-01	(7.15E-01)	U4	PCI/SA	R	1.48E+00	3.48E+00		87%	
Calc	TF	FILTER	H796W1AD	RA-228	8.44E-01	(4.18E-01)		PCI/SA	A	7.75E-01	1.82E+00		87%	
Calc	TF	FILTER	H796W1AD	RA-228	3.92E+00	(4.88E+00)	U4	PCI/SA	R	9.60E+00	2.23E+01		87%	
Calc	TF	FILTER	H797D1AD	RA-228	4.49E-01	(6.69E-01)	U4	PCI/SA	R	1.35E+00	3.10E+00		86%	
Calc	TF	FILTER	H797D1AD	RA-228	0.00E+00	(6.82E-01)	U4	PCI/SA	R	1.50E+00	3.44E+00		86%	
Calc	TF	FILTER	H797D1AD	RA-228	1.47E+00	(9.31E-01)	U4	PCI/SA	R	1.66E+00	3.82E+00		86%	
Calc	TF	FILTER	H797D1AD	RA-228	6.41E-01	(4.45E-01)	U4	PCI/SA	A	8.67E-01	1.99E+00		86%	
Calc	TF	FILTER	H797D1AD	RA-228	3.27E+00	(4.31E+00)	U4	PCI/SA	R	8.42E+00	1.99E+01		86%	
Calc	TF	FILTER	H797E1AD	RA-228	1.27E+00	(6.57E-01)		PCI/SA	R	1.07E+00	2.51E+00		89%	
Calc	TF	FILTER	H797E1AD	RA-228	1.10E+00	(6.89E-01)	U4	PCI/SA	R	1.19E+00	2.79E+00		89%	
Calc	TF	FILTER	H797E1AD	RA-228	7.07E-01	(6.97E-01)	U4	PCI/SA	R	1.32E+00	3.09E+00		89%	
Calc	TF	FILTER	H797E1AD	RA-228	1.03E+00	(3.93E-01)		PCI/SA	A	6.87E-01	1.62E+00		89%	
Calc	TF	FILTER	H797E1AD	RA-228	-4.10E+00	(2.65E+00)	U4	PCI/SA	R	7.33E+00	1.75E+01		89%	
Calc	TF	FILTER	H797F1AD	RA-228	1.71E+00	(7.19E-01)		PCI/SA	R	1.10E+00	2.57E+00		90%	
Calc	TF	FILTER	H797F1AD	RA-228	2.05E+00	(8.16E-01)		PCI/SA	R	1.22E+00	2.85E+00		90%	
Calc	TF	FILTER	H797F1AD	RA-228	1.94E+00	(8.64E-01)		PCI/SA	R	1.35E+00	3.16E+00		90%	
Calc	TF	FILTER	H797F1AD	RA-228	1.90E+00	(4.63E-01)		PCI/SA	A	7.05E-01	1.65E+00		90%	
Calc	TF	FILTER	H797F1AD	RA-228	1.26E+01	(5.45E+00)		PCI/SA	R	8.46E+00	1.98E+01		90%	
Calc	TF	FILTER	H797H1AD	RA-228	1.47E+00	(7.75E-01)		PCI/SA	R	1.33E+00	3.04E+00		86%	
Calc	TF	FILTER	H797H1AD	RA-228	9.97E-01	(7.88E-01)	U4	PCI/SA	R	1.47E+00	3.38E+00		86%	
Calc	TF	FILTER	H797H1AD	RA-228	1.81E+00	(9.54E-01)		PCI/SA	R	1.63E+00	3.75E+00		86%	
Calc	TF	FILTER	H797H1AD	RA-228	1.43E+00	(4.87E-01)		PCI/SA	A	8.53E-01	1.96E+00		86%	
Calc	TF	FILTER	H797H1AD	RA-228	-3.14E+00	(3.91E+00)	U4	PCI/SA	R	9.46E+00	2.19E+01		86%	
Calc	TF	FILTER	H797J1AD	RA-228	1.42E+00	(7.39E-01)		PCI/SA	R	1.23E+00	2.86E+00		84%	
Calc	TF	FILTER	H797J1AD	RA-228	1.41E+00	(8.00E-01)		PCI/SA	R	1.36E+00	3.17E+00		84%	
Calc	TF	FILTER	H797J1AD	RA-228	1.75E+00	(9.10E-01)		PCI/SA	R	1.51E+00	3.52E+00		84%	
Calc	TF	FILTER	H797J1AD	RA-228	1.53E+00	(4.73E-01)		PCI/SA	A	7.90E-01	1.84E+00		84%	
Calc	TF	FILTER	H797J1AD	RA-228	-5.96E+00	(3.58E+00)	U4	PCI/SA	R	9.61E+00	2.23E+01		84%	
Calc	TF	FILTER	H797K1AD	RA-228	1.23E-01	(7.57E-01)	U4	PCI/SA	R	1.63E+00	3.65E+00		86%	
Calc	TF	FILTER	H797K1AD	RA-228	1.22E+00	(9.43E-01)	U4	PCI/SA	R	1.81E+00	4.05E+00		86%	
Calc	TF	FILTER	H797K1AD	RA-228	1.53E+00	(1.06E+00)	U4	PCI/SA	R	2.01E+00	4.49E+00		86%	
Calc	TF	FILTER	H797K1AD	RA-228	9.60E-01	(5.37E-01)		PCI/SA	A	1.05E+00	2.34E+00		86%	
Calc	TF	FILTER	H797K1AD	RA-228	-5.32E-01	(5.42E+00)	U4	PCI/SA	R	1.20E+01	2.69E+01		86%	
Calc	TF	FILTER	H797M1AD	RA-228	5.11E-01	(6.14E-01)	U4	PCI/SA	R	1.20E+00	2.79E+00		86%	
Calc	TF	FILTER	H797M1AD	RA-228	1.38E+00	(7.81E-01)		PCI/SA	R	1.33E+00	3.10E+00		86%	

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MDC - Minimum Detectable Concentration
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Date/Time - mmddyy hhmm, 24hr Time

RecCnt:78
RADCALC v4.8.24
STL Richland

Batch Nbr: 6179357

Alpha Beta, Ra-228 by GPC , Results

7/25/2006 7:03:09 AM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	ILcC	IDC	QC	Yield	RYld
Calc	TF	FILTER	H797M1AD	RA-228	6.29E-01	(7.55E-01)	U4	PCI/SA	R	1.48E+00	3.44E+00		86%	
Calc	TF	FILTER	H797M1AD	RA-228	8.38E-01	(4.16E-01)		PCI/SA	A	7.72E-01	1.80E+00		86%	
Calc	TF	FILTER	H797M1AD	RA-228	1.01E+01	(5.48E+00)		PCI/SA	R	9.25E+00	2.15E+01		86%	
Calc	TF	FILTER	H8DPD1AA	RA-228	3.12E-01	(1.80E-01)		PCI/SA	R	3.08E-01	7.17E-01	B	83%	
Calc	TF	FILTER	H8DPD1AA	RA-228	5.69E-02	(1.63E-01)	U4	PCI/SA	R	3.42E-01	7.96E-01	B	83%	
Calc	TF	FILTER	H8DPD1AA	RA-228	-2.87E-02	(1.69E-01)	U4	PCI/SA	R	3.79E-01	8.83E-01	B	83%	
Calc	TF	FILTER	H8DPD1AA	RA-228	1.14E-01	(9.87E-02)	U4	PCI/SA	A	1.98E-01	4.61E-01	B	83%	
Calc	TF	FILTER	H8DPD1AA	RA-228	-8.49E-01	(9.21E-01)	U4	PCI/SA	R	2.28E+00	5.33E+00	B	83%	
Calc	TF	FILTER	H8DPD1AC	RA-228	3.86E+00	(5.52E-01)		PCI/SA	R	2.95E-01	6.91E-01	S	87%	76%
Calc	TF	FILTER	H8DPD1AC	RA-228	3.48E+00	(5.29E-01)		PCI/SA	R	3.28E-01	7.66E-01	S	87%	68%
Calc	TF	FILTER	H8DPD1AC	RA-228	4.52E+00	(6.56E-01)		PCI/SA	R	3.63E-01	8.50E-01	S	87%	89%
Calc	TF	FILTER	H8DPD1AC	RA-228	3.95E+00	(3.36E-01)		PCI/SA	A	1.90E-01	4.44E-01	S	87%	78%
Calc	TF	FILTER	H8DPD1AC	RA-228	5.06E+00	(1.71E+00)		PCI/SA	R	2.45E+00	5.65E+00	S	87%	100%

P Anderson
7-25-06

() - (1s Uncertainities)
IDC - Instrument Detection Level in Conc Units
MLcC- Method Decision Level in Conc Units
MDC - Minimum Detectable Concentration
*Std - Lc, MDC using StdDev for Set of Blanks

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Reguardless of Significants
Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:90
RADCALC v4.6.24
STL Richland

STLRICHLAND

Batch Nbr: 6179357

Alpha Beta, Ra-228 by GPC , Calculated Results

Detailed Report

7/25/2006 7:03:10 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
1	Calc	TF	FILTER	*STLE	Ra228WoBS	H7DWT1AD	PCI/SA		05/24/06 07:40	07/25/06 06:10	07/17/06 15:12	RATA23244	1	1.00 SA	
536403,000473					J6F140270-1 v4.6.24		FILTER			31.2	07/24/06 07:35	RATA23244 Alq	105%	0.253927 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:05	RA-228	39	312	GPC7A	1	N	N	5.1841E-01	1.0000E+00	N	95%	N		1.5918E+00	4.5045E-01	1.0181E+00	
			50	400			Y		(1.198E-02)	(0.000E+00)		8%			(0.000E+00)	3.938143		
1	07/24/06 13:01	RA-228	53	312	GPC7A	1	N	N	5.1841E-01	1.0000E+00	N	95%	N		1.7660E+00	4.5045E-01	1.0181E+00	
			50	400			Y		(1.198E-02)	(0.000E+00)		8%			(0.000E+00)	3.938143		
2	07/24/06 13:56	RA-228	55	312	GPC7A	1	N	N	5.1841E-01	1.0000E+00	N	95%	N		1.9592E+00	4.5045E-01	1.0181E+00	
			50	400			Y		(1.198E-02)	(0.000E+00)		8%			(0.000E+00)	3.938143		
3	07/25/06 06:10	RA-228	48	301	GPC7A	1	N	N	5.1841E-01	1.0000E+00	N	95%	N		1.2198E+01	4.5045E-01	1.0181E+00	
			50	400			N		(1.198E-02)	(0.000E+00)		8%			(0.000E+00)	3.938143		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 SA	95%		3.701409		
				(0.772222)		(1.3248E-01)	(0.427595)	(0.427595)	(0.027062)			1.693741		
	07/25/06	RA-228	R	1.810707		2.80000E-01	1.002625	1.002625	1.00 SA	95%		4.106328		
				(1.000728)		(1.5215E-01)	(0.551184)	(0.551184)	(0.027062)			1.879029		
	07/25/06	RA-228	R	2.295761		3.20000E-01	1.271209	1.271209	1.00 SA	95%		4.555543		
				(1.134146)		(1.5476E-01)	(0.623827)	(0.623827)	(0.027062)			2.084587		
	07/25/06	RA-228	R	1.368823		2.00000E-01	0.757945	0.757945	1.00 SA	95%		2.379314		
				(0.586085)		(8.4755E-02)	(0.311947)	(0.311947)	(0.015624)			1.088759		
	07/25/06	RA-228	R	9.268649	U4	2.07500E-01	5.132237	5.132237	1.00 SA	95%		27.902195		
				(6.552532)		(1.4519E-01)	(3.616517)	(3.616517)	(0.027062)			12.748159		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
2	Calc	TF	FILTER	*STLE	Ra228WoBS	H796F1AD	PCI/SA		06/07/06 10:00	07/25/06 06:10	07/17/06 15:12	RATA23245	1	1.00 SA	
536403,000487					J6F270218-1 v4.8.24		FILTER			30.9	07/24/06 07:35	RATA23245 Alq	98%	0.252645 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:05	RA-228	48	300	GPC7B	1	N	N	5.1966E-01	1.0000E+00	N	88%	N		1.5918E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.258E-02)	(0.000E+00)		7%			(0.000E+00)	3.95812		
1	07/24/06 13:01	RA-228	35	300	GPC7B	1	N	N	5.1966E-01	1.0000E+00	N	88%	N		1.7660E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.258E-02)	(0.000E+00)		7%			(0.000E+00)	3.95812		
2	07/24/06 13:56	RA-228	47	300	GPC7B	1	N	N	5.1966E-01	1.0000E+00	N	88%	N		1.9592E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.258E-02)	(0.000E+00)		7%			(0.000E+00)	3.95812		

() - (1s Uncertainities). Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:2

RADCALC v4.8.24

STL Richland

958

Batch Nbr: 6179357

Alpha Beta, Ra-228 by GPC , Calculated Results

7/25/2006 7:03:10 AM

3	07/25/06 06:10	RA-228	39	269	GPC7B	1	N	N	5.1965E-01	1.0000E+00	N	88%	N		1.2198E+01	4.5045E-01	1.0133E+00
			50	400			N		(1.258E-02)	(0.000E+00)		7%			(0.000E+00)	3.95812	

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.316514	U4	2.10000E-01	0.728677	0.728677	1.00 SA	88%		3.910085		
				(0.91978)		(1.4517E-01)	(0.507401)	(0.507401)	(0.027062)			1.78621		
	07/25/06	RA-228	R	-0.347746	U4	-5.00000E-02	-0.192474	-0.192474	1.00 SA	88%		4.337832		
				(0.876998)		(1.2600E-01)	(0.485286)	(0.485286)	(0.027062)			1.981614		
	07/25/06	RA-228	R	1.465996	U4	1.90000E-01	0.811414	0.811414	1.00 SA	88%		4.812373		
				(1.119288)		(1.4379E-01)	(0.617795)	(0.617795)	(0.027062)			2.198394		
	07/25/06	RA-228	A	0.811588	U4	1.16667E-01	0.449206	0.449206	1.00 SA	88%		2.513454		
				(0.564498)		(8.0017E-02)	(0.311739)	(0.311739)	(0.015624)			1.148199		
	07/25/06	RA-228	R	3.242682	U4	6.75000E-02	1.794793	1.794793	1.00 SA	88%		29.269945		
				(6.341938)		(1.3184E-01)	(3.508717)	(3.508717)	(0.027062)			13.341017		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
3	Calc	TF	FILTER	*STLE	Ra228WoBS	H796L1AD	PCI/SA		06/07/06 10:25	07/25/06 06:10	07/17/06 15:12	RATA23246	1	1.00 SA	
536403.000488					JBF27021B-2 v4.8.24		FILTER			30.9	07/24/06 07:35	RATA23246 Aliq	105%	0.250932 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:05	RA-228	49	370	GPC7C	1	N	N	5.0675E-01	1.0000E+00	N	95%	N		1.6918E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.091E-02)	(0.000E+00)		8%			(0.000E+00)	3.985136		
1	07/24/06 13:01	RA-228	53	370	GPC7C	1	N	N	5.0675E-01	1.0000E+00	N	95%	N		1.7660E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.091E-02)	(0.000E+00)		8%			(0.000E+00)	3.985136		
2	07/24/06 13:56	RA-228	57	370	GPC7C	1	N	N	5.0675E-01	1.0000E+00	N	95%	N		1.9692E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.091E-02)	(0.000E+00)		8%			(0.000E+00)	3.985136		
3	07/25/06 06:10	RA-228	44	334	GPC7C	1	N	N	5.0675E-01	1.0000E+00	N	95%	N		1.2198E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.091E-02)	(0.000E+00)		8%			(0.000E+00)	3.985136		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	0.332139	U4	5.50000E-02	0.18259	0.18259	1.00 SA	95%		4.146715		
				(0.894552)		(1.4803E-01)	(0.491662)	(0.491662)	(0.027062)			1.910838		
	07/25/06	RA-228	R	0.770445	U4	1.15000E-01	0.423545	0.423545	1.00 SA	95%		4.600348		
				(1.021452)		(1.5203E-01)	(0.561018)	(0.561018)	(0.027062)			2.119876		
	07/25/06	RA-228	R	1.59797	U4	2.15000E-01	0.87847	0.87847	1.00 SA	95%		5.103606		
				(1.188703)		(1.5847E-01)	(0.651568)	(0.651568)	(0.027062)			2.351781		
	07/25/06	RA-228	A	0.900184	U4	1.28333E-01	0.494869	0.494869	1.00 SA	95%		2.665562		
				(0.601535)		(8.8278E-02)	(0.330154)	(0.330154)	(0.015624)			1.228312		
	07/25/06	RA-228	R	2.0624	U4	4.50000E-02	1.144781	1.144781	1.00 SA	95%		30.315694		
				(6.496394)		(1.4031E-01)	(3.570742)	(3.570742)	(0.027062)			13.91204		

() - (1s Uncertainties). Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants. Date/Time - mm/dd/yy hh:mm. 24hr Time

RecCnt.4

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179357 — Alpha Beta, Ra-228 by GPC , Calculated Results — 7/25/2006 7:03:10 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
4	Calc	TF	FILTER	*STLE	Ra228WoBS	H796N1AD	PCI/SA		06/07/06 10:35	07/25/06 05:35	07/17/06 15:12	RATA23247	1	1.00 SA	
536403,000489					J6F270218-3 v4.8.24		FILTER			31.1	07/24/06 07:35	RATA23247 Alq	105%	0.254965 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	47	296	GPC1A	1	N	N	5.2958E-01	1.0000E+00	N	95%	N		1.5924E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.445E-02)	(0.000E+00)		8%			(0.000E+00)	3.923652		
1	07/24/06 13:01	RA-228	25	296	GPC1A	1	N	N	5.2958E-01	1.0000E+00	N	95%	N		1.7665E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.445E-02)	(0.000E+00)		8%			(0.000E+00)	3.923652		
2	07/24/06 13:56	RA-228	37	296	GPC1A	1	N	N	5.2958E-01	1.0000E+00	N	95%	N		1.9598E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.445E-02)	(0.000E+00)		8%			(0.000E+00)	3.923652		
3	07/25/06 05:35	RA-228	32	242	GPC1A	1	N	N	5.2958E-01	1.0000E+00	N	95%	N		1.1422E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.445E-02)	(0.000E+00)		8%			(0.000E+00)	3.923652		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	iDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.13299	U4	2.00000E-01	0.632613	0.632613	1.00 SA	95%		3.511665		
				(0.8222)		(1.4370E-01)	(0.45767)	(0.45767)	(0.027062)			1.603274		
	07/25/06	RA-228	R	-1.508274	U4	-2.40000E-01	-0.842155	-0.842155	1.00 SA	95%		3.895727		
				(0.701155)		(1.0886E-01)	(0.388556)	(0.388556)	(0.027062)			1.77661		
	07/25/06	RA-228	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 SA	95%		4.321903		
				(0.899627)		(1.2903E-01)	(0.502313)	(0.502313)	(0.027062)			1.973183		
	07/25/06	RA-228	A	-0.125095	U4	-1.33333E-02	-0.069847	-0.069847	1.00 SA	95%		2.257308		
				(0.468681)		(7.3899E-02)	(0.260929)	(0.260929)	(0.015624)			1.030583		
	07/25/06	RA-228	R	1.422141	U4	3.50000E-02	0.794062	0.794062	1.00 SA	95%		22.985858		
				(4.863233)		(1.1963E-01)	(2.715044)	(2.715044)	(0.027062)			10.39796		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
5	Calc	TF	FILTER	*STLE	Ra228WoBS	H796P1AD	PCI/SA		06/07/06 10:50	07/25/06 05:35	07/17/06 15:12	RATA23248	1	1.00 SA	
536403,000490					J6F270218-4 v4.8.24		FILTER			31.6	07/24/06 07:35	RATA23248 Alq	95%	0.251741 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	43	260	GPC1C	1	N	N	5.2063E-01	1.0000E+00	N	87%	N		1.5924E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.165E-02)	(0.000E+00)		7%			(0.000E+00)	3.972331		
1	07/24/06 13:01	RA-228	32	260	GPC1C	1	N	N	5.2063E-01	1.0000E+00	N	87%	N		1.7665E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.165E-02)	(0.000E+00)		7%			(0.000E+00)	3.972331		
2	07/24/06 13:56	RA-228	39	260	GPC1C	1	N	N	5.2063E-01	1.0000E+00	N	87%	N		1.9598E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.165E-02)	(0.000E+00)		7%			(0.000E+00)	3.972331		
3	07/25/06 05:35	RA-228	24	230	GPC1C	1	N	N	5.2063E-01	1.0000E+00	N	87%	N		1.1422E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.165E-02)	(0.000E+00)		7%			(0.000E+00)	3.972331		

0 - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:5 — RADCALC v4.6.24 — STL Richland

STLRICHLAND

Batch Nbr: 6179357

Alpha Beta, Ra-228 by GPC , Calculated Results

7/25/2006 7:03:10 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.334541	U4	2.10000E-01	0.736021	0.736021	1.00 SA	87%		3.71372		
				(0.882215)		(1.3720E-01)	(0.484754)	(0.484754)	(0.027062)			1.685641		
	07/25/06	RA-228	R	-0.070499	U4	-1.00000E-02	-0.038882	-0.038882	1.00 SA	87%		4.119856		
				(0.846757)		(1.2010E-01)	(0.466995)	(0.466995)	(0.027062)			1.869985		
	07/25/06	RA-228	R	1.016753	U4	1.30000E-01	0.560756	0.560756	1.00 SA	87%		4.570551		
				(1.031573)		(1.3124E-01)	(0.568035)	(0.568035)	(0.027062)			2.074553		
	07/25/06	RA-228	A	0.760265	U4	1.10000E-01	0.419299	0.419299	1.00 SA	87%		2.387175		
				(0.533275)		(7.4889E-02)	(0.293586)	(0.293586)	(0.015624)			1.083529		
	07/25/06	RA-228	R	-4.330267	U4	-9.60000E-02	-2.388214	-2.388214	1.00 SA	87%		25.20019		
				(4.808595)		(1.0506E-01)	(2.646541)	(2.646541)	(0.027062)			11.371581		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
6	Calc	TF	FILTER	*STLE	Ra228WoBS	H796Q1AD	PCI/SA		06/07/06 11:00	07/25/06 05:35	07/17/06 15:12	RATA23249	1	1.00 SA	
S36403,000491					,J6F270218-6 v4.8.24		FILTER			36.7	07/24/06 07:35	RATA23249 Alq	100%	0.2425 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	41	257	GPC1D	1	N	N	5.3169E-01	1.0000E+00	N	89%	N		1.5924E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.368E-02)	(0.000E+00)		7%			(0.000E+00)	4.123718		
1	07/24/06 13:01	RA-228	34	257	GPC1D	1	N	N	5.3169E-01	1.0000E+00	N	89%	N		1.7665E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.368E-02)	(0.000E+00)		7%			(0.000E+00)	4.123718		
2	07/24/06 13:56	RA-228	43	257	GPC1D	1	N	N	5.3169E-01	1.0000E+00	N	89%	N		1.9596E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.368E-02)	(0.000E+00)		7%			(0.000E+00)	4.123718		
3	07/25/06 05:35	RA-228	39	240	GPC1D	1	N	N	5.3169E-01	1.0000E+00	N	89%	N		1.1422E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.368E-02)	(0.000E+00)		7%			(0.000E+00)	4.123718		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.11888	U4	1.77500E-01	0.594428	0.594428	1.00 SA	89%		3.664342		
				(0.853441)		(1.3419E-01)	(0.452147)	(0.452147)	(0.027062)			1.362332		
	07/25/06	RA-228	R	0.262234	U4	3.75000E-02	0.139317	0.139317	1.00 SA	89%		4.065078		
				(0.862732)		(1.2331E-01)	(0.458276)	(0.458276)	(0.027062)			1.844126		
	07/25/06	RA-228	R	1.687345	U4	2.17500E-01	0.896437	0.896437	1.00 SA	89%		4.50978		
				(1.077574)		(1.3714E-01)	(0.570211)	(0.570211)	(0.027062)			2.045866		
	07/25/06	RA-228	A	1.02282		1.44167E-01	0.543394	0.543394	1.00 SA	89%		2.355435		
				(0.54097)		(7.6025E-02)	(0.286665)	(0.286665)	(0.015624)			1.068545		
	07/25/06	RA-228	R	8.138346	U4	1.80000E-01	4.323666	4.323666	1.00 SA	89%		25.461251		
				(5.969754)		(1.3077E-01)	(3.162016)	(3.162016)	(0.027062)			11.562194		

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:7

RADCALC v4 8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179357 — **Alpha Beta, Ra-228 by GPC , Calculated Results** — 7/25/2006 7:03:10 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BS	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
7	Calc	TF	FILTER	*STLE	Ra228WoBS	H796R1AD	PCI/SA		06/07/06 11:20	07/25/06 06:05	07/17/06 15:12	RATA23250	1	1.00 SA	
536403,000432					J6F270218-6 v4.8.24		FILTER			30.6	07/24/06 07:35	RATA23250 Alq	102%	0.254589 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	13	108	GPC2A	1	N	N	4.2847E-01	1.0000E+00	N	91%	N		1.5930E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.186E-02)	(0.000E+00)		7%			(0.000E+00)	3.927906		
1	07/24/06 13:01	RA-228	14	106	GPC2A	1	N	N	4.2847E-01	1.0000E+00	N	91%	N		1.7673E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.186E-02)	(0.000E+00)		7%			(0.000E+00)	3.927906		
2	07/24/06 13:56	RA-228	13	106	GPC2A	1	N	N	4.2847E-01	1.0000E+00	N	91%	N		1.9606E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.186E-02)	(0.000E+00)		7%			(0.000E+00)	3.927906		
3	07/25/06 06:05	RA-228	7	90	GPC2A	1	N	N	4.2847E-01	1.0000E+00	N	91%	N		1.2099E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.186E-02)	(0.000E+00)		7%			(0.000E+00)	3.927906		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	-0.036661	U4	-5.00000E-03	-0.020448	-0.020448	1.00 SA	91%		2.879516		
				(0.561412)		(7.6567E-02)	(0.31313)	(0.31313)	(0.027062)			1.241794		
	07/25/06	RA-228	R	0.122014	U4	1.50000E-02	0.068054	0.068054	1.00 SA	91%		3.194523		
				(0.843832)		(7.9136E-02)	(0.359081)	(0.359081)	(0.027062)			1.377642		
	07/25/06	RA-228	R	-0.045121	U4	-5.00000E-03	-0.025166	-0.025166	1.00 SA	91%		3.543991		
				(0.590963)		(7.6567E-02)	(0.385388)	(0.385388)	(0.027062)			1.52835		
	07/25/06	RA-228	A	0.013411	U4	1.66667E-03	0.00748	0.00748	1.00 SA	91%		1.850991		
				(0.366232)		(4.4706E-02)	(0.204264)	(0.204264)	(0.015624)			0.798242		
	07/25/06	RA-228	R	-4.733654	U4	-8.50000E-02	-2.640234	-2.640234	1.00 SA	91%		20.38988		
				(3.26518)		(5.7987E-02)	(1.814984)	(1.814984)	(0.027062)			8.6909		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BS	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
8	Calc	TF	FILTER	*STLE	Ra228WoBS	H796T1AD	PCI/SA		06/07/06 10:10	07/25/06 06:05	07/17/06 15:12	RATA23251	1	1.00 SA	
536403,000433					J6F270218-7 v4.8.24		FILTER			29.7	07/24/06 07:35	RATA23251 Alq	109%	0.252887 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	23	112	GPC2B	1	N	N	4.4711E-01	1.0000E+00	N	94%	N		1.5930E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.055E-02)	(0.000E+00)		8%			(0.000E+00)	3.954328		
1	07/24/06 13:01	RA-228	26	112	GPC2B	1	N	N	4.4711E-01	1.0000E+00	N	94%	N		1.7673E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.055E-02)	(0.000E+00)		8%			(0.000E+00)	3.954328		
2	07/24/06 13:56	RA-228	19	112	GPC2B	1	N	N	4.4711E-01	1.0000E+00	N	94%	N		1.9606E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.055E-02)	(0.000E+00)		8%			(0.000E+00)	3.954328		
3	07/25/06 06:05	RA-228	11	100	GPC2B	1	N	N	4.4711E-01	1.0000E+00	N	94%	N		1.2099E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.055E-02)	(0.000E+00)		8%			(0.000E+00)	3.954328		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:8 RADCALC v4.8.24 STL Richland

STLRICHLAND

Batch Nbr: 6179357

Alpha Beta, Ra-228 by GPC , Calculated Results

7/25/2006 7:03:10 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.234674		1.80000E-01	0.684037	0.684037	1.00 SA	94%		2.758603		
				(0.693777)		(9.9499E-02)	(0.382396)	(0.382396)	(0.027062)			1.194138		
	07/25/06	RA-228	R	1.828323		2.40000E-01	1.011824	1.011824	1.00 SA	94%		3.060416		
				(0.822651)		(1.0536E-01)	(0.452122)	(0.452122)	(0.027062)			1.324772		
	07/25/06	RA-228	R	0.844214	U4	1.00000E-01	0.467714	0.467714	1.00 SA	94%		3.395212		
				(0.773822)		(9.1104E-02)	(0.427889)	(0.427889)	(0.027062)			1.469697		
	07/25/06	RA-228	A	1.301737		1.73333E-01	0.721191	0.721191	1.00 SA	94%		1.773285		
				(0.441825)		(5.7057E-02)	(0.243523)	(0.243523)	(0.015624)			0.767608		
	07/25/06	RA-228	R	-1.56296	U4	-3.00000E-02	-0.865915	-0.865915	1.00 SA	94%		19.954027		
				(3.696498)		(7.0887E-02)	(2.047351)	(2.047351)	(0.027062)			8.570228		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
9	Calc	TF	FILTER	*STLE	Ra228WoBS	H796W1AD	PCI/SA		06/07/06 09:58	07/25/06 08:05	07/17/06 15:12	RATA23252	1	1.00 SA	
536403.P-0660					J6F270618-8 v4.8.24		FILTER			30 1	07/24/06 07:35	RATA23252 Alq	100%	0.251525 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	19	92	GPC2C	1	N	N	4.3317E-01	1.0000E+00	N	87%	N		1.5930E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(9.422E-03)	(0.000E+00)		7%			(0.000E+00)	3.975749		
1	07/24/06 13:01	RA-228	18	92	GPC2C	1	N	N	4.3317E-01	1.0000E+00	N	87%	N		1.7573E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(9.422E-03)	(0.000E+00)		7%			(0.000E+00)	3.975749		
2	07/24/06 13:58	RA-228	13	92	GPC2C	1	N	N	4.3317E-01	1.0000E+00	N	87%	N		1.9606E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(9.422E-03)	(0.000E+00)		7%			(0.000E+00)	3.975749		
3	07/25/06 06:05	RA-228	16	101	GPC2C	1	N	N	4.3317E-01	1.0000E+00	N	87%	N		1.2099E+01	4.5045E-01	1.0133E+00	
			50	400			N		(9.422E-03)	(0.000E+00)		7%			(0.000E+00)	3.975749		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.146468	U4	1.50000E-01	0.631755	0.631755	1.00 SA	87%		2.82478		
				(0.700614)		(9.0416E-02)	(0.384389)	(0.384389)	(0.027062)			1.205974		
	07/25/06	RA-228	R	1.102321	U4	1.30000E-01	0.607418	0.607418	1.00 SA	87%		3.133799		
				(0.755845)		(8.8176E-02)	(0.415063)	(0.415063)	(0.027062)			1.337903		
	07/25/06	RA-228	R	0.28221	U4	3.00000E-02	0.155508	0.155508	1.00 SA	87%		3.476624		
				(0.715433)		(7.5993E-02)	(0.39413)	(0.39413)	(0.027062)			1.484254		
	07/25/06	RA-228	A	0.843673		1.03333E-01	0.464894	0.464894	1.00 SA	87%		1.815806		
				(0.418198)		(4.9131E-02)	(0.229624)	(0.229624)	(0.015624)			0.775216		
	07/25/06	RA-228	R	3.91858	U4	6.75000E-02	2.159276	2.159276	1.00 SA	87%		22.329784		
				(4.883807)		(8.3853E-02)	(2.688349)	(2.688349)	(0.027062)			9.597353		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:10

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179357 — **Alpha Beta, Ra-228 by GPC , Calculated Results** — 7/25/2006 7:03:10 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
10	Calc	TF	FILTER	*STLE	Ra228WoBS	H797D1AD	PCI/SA		06/07/06 10:20	07/25/06 06:05	07/17/06 15:12	RATA23253	1	1.00 SA	
536403,P-0661					J6F270218-9 v4.8.24		FILTER			30.8	07/24/06 07:35	RATA23253 Alq	96%	0.257349 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	18	120	GPC2D	1	N	N	4.3813E-01	1.0000E+00	N	86%	N		1.5930E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.310E-02)	(0.000E+00)		7%			(0.000E+00)	3.885769		
1	07/24/06 13:01	RA-228	15	120	GPC2D	1	N	N	4.3813E-01	1.0000E+00	N	86%	N		1.7673E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.310E-02)	(0.000E+00)		7%			(0.000E+00)	3.885769		
2	07/24/06 13:56	RA-228	23	120	GPC2D	1	N	N	4.3813E-01	1.0000E+00	N	86%	N		1.9608E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.310E-02)	(0.000E+00)		7%			(0.000E+00)	3.885769		
3	07/25/06 06:05	RA-228	13	81	GPC2D	1	N	N	4.3813E-01	1.0000E+00	N	86%	N		1.2099E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.310E-02)	(0.000E+00)		7%			(0.000E+00)	3.885769		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/ILcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	0.449183	U4	6.00000E-02	0.253248	0.253248	1.00 SA	86%		3.10228		
				(0.669095)		(8.9163E-02)	(0.37696)	(0.37696)	(0.027062)			1.34905		
	07/25/06	RA-228	R	0.00E00	U4	0.00000E+00	0.00E00	0.00E00	1.00 SA	86%		3.441634		
				(0.682354)		(8.2158E-02)	(0.38471)	(0.38471)	(0.027062)			1.496631		
	07/25/06	RA-228	R	1.474228	U4	1.60000E-01	0.831168	0.831168	1.00 SA	86%		3.818135		
				(0.931448)		(9.9750E-02)	(0.523019)	(0.523019)	(0.027062)			1.660356		
	07/25/06	RA-228	A	0.641137	U4	7.33333E-02	0.361472	0.361472	1.00 SA	86%		1.994173		
				(0.444833)		(5.2334E-02)	(0.250256)	(0.250256)	(0.015624)			0.867187		
	07/25/06	RA-228	R	3.269536	U4	5.75000E-02	1.84336	1.84336	1.00 SA	86%		19.908567		
				(4.30836)		(7.5540E-02)	(2.426797)	(2.426797)	(0.027062)			8.418346		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
11	Calc	TF	FILTER	*STLE	Ra228WoBS	H797E1AD	PCI/SA		06/07/06 10:30	07/25/06 06:05	07/17/06 15:12	RATA23254	1	1.00 SA	
536403,P-0662					J6F270218-10 v4.8.24		FILTER			31.3	07/24/06 07:35	RATA23254 Alq	97%	0.251696 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	20	87	GPC3A	1	N	N	4.6800E-01	1.0000E+00	N	89%	N		1.5935E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.324E-02)	(0.000E+00)		7%			(0.000E+00)	3.973046		
1	07/24/06 13:01	RA-228	18	87	GPC3A	1	N	N	4.6800E-01	1.0000E+00	N	89%	N		1.7679E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.324E-02)	(0.000E+00)		7%			(0.000E+00)	3.973046		
2	07/24/06 13:57	RA-228	15	87	GPC3A	1	N	N	4.6800E-01	1.0000E+00	N	89%	N		1.9613E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.324E-02)	(0.000E+00)		7%			(0.000E+00)	3.973046		
3	07/25/06 06:05	RA-228	5	71	GPC3A	1	N	N	4.6800E-01	1.0000E+00	N	89%	N		1.2100E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.324E-02)	(0.000E+00)		7%			(0.000E+00)	3.973046		

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:11 RADCALC v4.8.24 STL Richland

STLRICHLAND

Batch Nbr: 6179357

Alpha Beta, Ra-228 by GPC , Calculated Results

7/25/2006 7:03:11 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.271619		1.82500E-01	0.701189	0.701189	1.00 SA	89%		2.51459		
				(0.657015)		(9.2432E-02)	(0.360088)	(0.360088)	(0.027062)			1.069103		
	07/25/06	RA-228	R	1.101528	U4	1.42500E-01	0.607399	0.607399	1.00 SA	89%		2.789676		
				(0.589473)		(8.7999E-02)	(0.378614)	(0.378614)	(0.027062)			1.186059		
	07/25/06	RA-228	R	0.707491	U4	8.25000E-02	0.390121	0.390121	1.00 SA	89%		3.094855		
				(0.597468)		(6.0893E-02)	(0.383954)	(0.383954)	(0.027062)			1.315809		
	07/25/06	RA-228	A	1.026879		1.35833E-01	0.566236	0.566236	1.00 SA	89%		1.616412		
				(0.393489)		(5.0367E-02)	(0.216136)	(0.216136)	(0.015624)			0.687234		
	07/25/06	RA-228	R	-4.100343	U4	-7.75000E-02	-2.26099	-2.26099	1.00 SA	89%		17.525963		
				(2.648774)		(4.9434E-02)	(1.454905)	(1.454905)	(0.027062)			7.333538		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/FptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
12	Calc	TF	FILTER	*STLE	Ra228WoBS	H797F1AD	PCI/SA		06/07/06 10:45	07/25/06 06:05	07/17/06 15:12	RATA23255	1	1.00 SA	
536403,P-0663					J8F270218-11 v4.8.24		FILTER			31.3	07/24/06 07:35	RATA23255 Aliq	99%	0.24356 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Tro/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	24	93	GPC3B	1	N	N	4.7930E-01	1.0000E+00	N	90%	N		1.5936E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.181E-02)	(0.000E+00)		7%			(0.000E+00)	4.105765		
1	07/24/06 13:01	RA-228	25	93	GPC3B	1	N	N	4.7930E-01	1.0000E+00	N	90%	N		1.7679E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.181E-02)	(0.000E+00)		7%			(0.000E+00)	4.105765		
2	07/24/06 13:57	RA-228	23	93	GPC3B	1	N	N	4.7930E-01	1.0000E+00	N	90%	N		1.9613E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.181E-02)	(0.000E+00)		7%			(0.000E+00)	4.105765		
3	07/25/06 06:05	RA-228	24	96	GPC3B	1	N	N	4.7930E-01	1.0000E+00	N	90%	N		1.2100E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.181E-02)	(0.000E+00)		7%			(0.000E+00)	4.105765		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.711469		2.47500E-01	0.913226	0.913226	1.00 SA	90%		2.567464		
				(0.718912)		(1.0090E-01)	(0.380076)	(0.380076)	(0.027062)			1.096986		
	07/25/06	RA-228	R	2.052126		2.67500E-01	1.094998	1.094998	1.00 SA	90%		2.848334		
				(0.815994)		(1.0287E-01)	(0.430934)	(0.430934)	(0.027062)			1.216992		
	07/25/06	RA-228	R	1.936191		2.27500E-01	1.033136	1.033136	1.00 SA	90%		3.15993		
				(0.864214)		(9.8900E-02)	(0.457381)	(0.457381)	(0.027062)			1.350126		
	07/25/06	RA-228	A	1.899929		2.47500E-01	1.013787	1.013787	1.00 SA	90%		1.6504		
				(0.463027)		(5.8256E-02)	(0.244804)	(0.244804)	(0.015624)			0.705157		
	07/25/06	RA-228	R	12.601707		2.40000E-01	6.72417	6.72417	1.00 SA	90%		19.761664		
				(5.454113)		(1.0100E-01)	(2.885053)	(2.885053)	(0.027062)			8.462909		

0 - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:13

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179357 — Alpha Beta, Ra-228 by GPC , Calculated Results — 7/25/2006 7:03:11 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
13	Calc	TF	FILTER	*STLE	Ra228WoBS	H797H1AD	PCI/SA		06/07/06 11:05	07/25/06 06:05	07/17/06 15:12	RATA23256	1	1.00 SA	
536403,P-0664					J6F270218-12 v4.8.24		FILTER			30.9	07/24/06 07:35	RATA23256 Alq	96%	0.248329 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	26	126	GPC3C	1	N	N	4.7085E-01	1.0000E+00	N	86%	N		1.5935E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.100E-02)	(0.000E+00)		7%			(0.000E+00)	4.010764		
1	07/24/06 13:01	RA-228	22	126	GPC3C	1	N	N	4.7085E-01	1.0000E+00	N	86%	N		1.7679E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.100E-02)	(0.000E+00)		7%			(0.000E+00)	4.010764		
2	07/24/06 13:57	RA-228	26	126	GPC3C	1	N	N	4.7085E-01	1.0000E+00	N	86%	N		1.9613E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.100E-02)	(0.000E+00)		7%			(0.000E+00)	4.010764		
3	07/25/06 06:05	RA-228	11	111	GPC3C	1	N	N	4.7085E-01	1.0000E+00	N	86%	N		1.2100E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.100E-02)	(0.000E+00)		7%			(0.000E+00)	4.010764		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFctU	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.474025		2.05000E-01	0.805162	0.805162	1.00 SA	86%		3.043556		
				(0.774935)		(1.0577E-01)	(0.420813)	(0.420813)	(0.027062)			1.327707		
	07/25/06	RA-228	R	0.99712	U4	1.25000E-01	0.544661	0.544661	1.00 SA	86%		3.376508		
				(0.787522)		(9.7916E-02)	(0.429055)	(0.429055)	(0.027062)			1.472953		
	07/25/06	RA-228	R	1.81417		2.05000E-01	0.99096	0.99096	1.00 SA	86%		3.745883		
				(0.953758)		(1.0577E-01)	(0.517919)	(0.517919)	(0.027062)			1.634086		
	07/25/06	RA-228	A	1.428439		1.78333E-01	0.780261	0.780261	1.00 SA	86%		1.956437		
				(0.486526)		(5.9594E-02)	(0.264452)	(0.264452)	(0.015624)			0.853468		
	07/25/06	RA-228	R	-3.139376	U4	-5.75000E-02	-1.714832	-1.714832	1.00 SA	86%		21.872834		
				(3.909526)		(7.1371E-02)	(2.133287)	(2.133287)	(0.027062)			9.482434		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	Analysis Date/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
14	Calc	TF	FILTER	*STLE	Ra228WoBS	H797J1AD	PCI/SA		06/07/06 11:10	07/25/06 06:05	07/17/06 15:12	RATA23257	1	1.00 SA	
536403,P-0665					J6F270218-13 v4.8.24		FILTER			31.0	07/24/06 07:35	RATA23257 Alq	94%	0.246648 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	22	100	GPC3D	1	N	N	4.6779E-01	1.0000E+00	N	84%	N		1.5935E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.145E-02)	(0.000E+00)		7%			(0.000E+00)	4.054362		
1	07/24/06 13:01	RA-228	21	100	GPC3D	1	N	N	4.6779E-01	1.0000E+00	N	84%	N		1.7679E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.145E-02)	(0.000E+00)		7%			(0.000E+00)	4.054362		
2	07/24/06 13:57	RA-228	22	100	GPC3D	1	N	N	4.6779E-01	1.0000E+00	N	84%	N		1.9613E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.145E-02)	(0.000E+00)		7%			(0.000E+00)	4.054362		
3	07/25/06 06:05	RA-228	8	106	GPC3D	1	N	N	4.6779E-01	1.0000E+00	N	84%	N		1.2100E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.145E-02)	(0.000E+00)		7%			(0.000E+00)	4.054362		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:14 RADCALC v4.8.24 STL Richland

STLRICHLAND

Batch Nbr: 6179357

Alpha Beta, Ra-228 by GPC , Calculated Results

7/25/2006 7:03:11 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	1.419586		1.90000E-01	0.767094	0.767094	1.00 SA	84%		2.861646		
				(0.739434)		(9.7082E-02)	(0.397174)	(0.397174)	(0.027062)			1.229073		
	07/25/06	RA-228	R	1.409118		1.70000E-01	0.761431	0.761431	1.00 SA	84%		3.174698		
				(0.800244)		(9.5000E-02)	(0.430247)	(0.430247)	(0.027062)			1.363629		
	07/25/06	RA-228	R	1.747184		1.90000E-01	0.944108	0.944108	1.00 SA	84%		3.521997		
				(0.910068)		(9.7082E-02)	(0.488825)	(0.488825)	(0.027062)			1.512693		
	07/25/06	RA-228	A	1.5253		1.83333E-01	0.824211	0.824211	1.00 SA	84%		1.839504		
				(0.473213)		(5.5653E-02)	(0.254255)	(0.254255)	(0.015624)			0.790064		
	07/25/06	RA-228	R	-5.956972	U4	-1.05000E-01	-3.21891	-3.21891	1.00 SA	84%		22.280499		
				(3.577018)		(6.2149E-02)	(1.924195)	(1.924195)	(0.027062)			9.606489		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep3 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
15	Calc	TF	FILTER	*STLE	Ra228WoBS	H797K1AD	PCI/SA		06/07/06 10:05	07/25/06 06:05	07/17/06 15:12	RATA23258	1	1.00 SA	
536403,F-0666					J6F270218-14 v4.8.24		FILTER			30.7	07/24/06 07:35	RATA23258 Alq	86%	0.252091 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrmd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	28	201	GPC4A	1	N	N	4.8160E-01	1.0000E+00	N	86%	N		1.5942E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.103E-02)	(0.000E+00)		7%			(0.000E+00)	3.966828		
1	07/24/06 13:01	RA-228	33	201	GPC4A	1	N	N	4.8160E-01	1.0000E+00	N	86%	N		1.7685E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.103E-02)	(0.000E+00)		7%			(0.000E+00)	3.966828		
2	07/24/06 13:57	RA-228	34	201	GPC4A	1	N	N	4.8160E-01	1.0000E+00	N	86%	N		1.9620E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.103E-02)	(0.000E+00)		7%			(0.000E+00)	3.966828		
3	07/25/06 06:05	RA-228	23	186	GPC4A	1	N	N	4.8160E-01	1.0000E+00	N	86%	N		1.2104E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.103E-02)	(0.000E+00)		7%			(0.000E+00)	3.966828		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	0.122672	U4	1.75000E-02	0.067749	0.067749	1.00 SA	86%		3.647635		
				(0.758911)		(1.0796E-01)	(0.418005)	(0.418005)	(0.027062)			1.634822		
	07/25/06	RA-228	R	1.224786	U4	1.57500E-01	0.67642	0.67642	1.00 SA	86%		4.046544		
				(0.943103)		(1.2023E-01)	(0.519432)	(0.519432)	(0.027062)			1.813608		
	07/25/06	RA-228	R	1.531315	U4	1.77500E-01	0.845708	0.845708	1.00 SA	86%		4.489219		
				(1.062793)		(1.2189E-01)	(0.584982)	(0.584982)	(0.027062)			2.012009		
	07/25/06	RA-228	A	0.959591		1.17500E-01	0.529959	0.529959	1.00 SA	86%		2.344698		
				(0.536844)		(6.7469E-02)	(0.295661)	(0.295661)	(0.015624)			1.050662		
	07/25/06	RA-228	R	-0.532219	U4	-1.00000E-02	-0.293932	-0.293932	1.00 SA	86%		28.876869		
				(5.421326)		(1.0186E-01)	(2.994021)	(2.994021)	(0.027062)			12.004249		

0 - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:18

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179357 — Alpha Beta, Ra-228 by GPC , Calculated Results — 7/25/2006 7:03:11 AM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
16	Calc	TF	FILTER	*STLE	Ra228WoBS	H797M1AD	PCI/SA		06/07/06 11:15	07/25/06 06:05	07/17/06 15:12	RATA23259	1	1.00 SA	
536403,P-0667					J6F270218-15 v4 8.24		FILTER			31.1	07/24/06 07:35	RATA23259 Alq	95%	0.250184 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	16	100	GPC4B	1	N	N	4.6207E-01	1.0000E+00	N	86%	N		1.5942E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.048E-02)	(0.000E+00)		7%			(0.000E+00)	3.997051		
1	07/24/06 13:01	RA-228	21	100	GPC4B	1	N	N	4.6207E-01	1.0000E+00	N	86%	N		1.7685E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.048E-02)	(0.000E+00)		7%			(0.000E+00)	3.997051		
2	07/24/06 13:57	RA-228	18	100	GPC4B	1	N	N	4.6207E-01	1.0000E+00	N	86%	N		1.9620E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.048E-02)	(0.000E+00)		7%			(0.000E+00)	3.997051		
3	07/25/06 06:05	RA-228	22	103	GPC4B	1	N	N	4.6207E-01	1.0000E+00	N	86%	N		1.2104E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.048E-02)	(0.000E+00)		7%			(0.000E+00)	3.997051		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	**0.510769**	U4	7.00000E-02	0.279957	0.279957	1.00 SA	86%		2.794668		
				(0.613732)		(8.3815E-02)	(0.336017)	(0.336017)	(0.027062)			1.200306		
	07/25/06	RA-228	R	**1.376094**		1.70000E-01	0.754249	0.754249	1.00 SA	86%		3.100296		
				(0.781386)		(9.5000E-02)	(0.426132)	(0.426132)	(0.027062)			1.331573		
	07/25/06	RA-228	R	**0.628613**	U4	7.00000E-02	0.344549	0.344549	1.00 SA	86%		3.438455		
				(0.755336)		(8.3815E-02)	(0.413543)	(0.413543)	(0.027062)			1.477242		
	07/25/06	RA-228	A	**0.838492**		1.03333E-01	0.459585	0.459585	1.00 SA	86%		1.79641		
				(0.416035)		(5.0635E-02)	(0.227429)	(0.227429)	(0.015624)			0.771558		
	07/25/06	RA-228	R	**10.110499**		1.82500E-01	5.541654	5.541654	1.00 SA	86%		21.489674		
				(5.479193)		(9.7179E-02)	(2.986621)	(2.986621)	(0.027062)			9.248989		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
17	Calc	TF	FILTER	*STLE	Ra228WoBS	H8DPD1AA	PCI/SA	B	06/07/06 10:00	07/25/06 06:05	07/17/06 15:12	RATA23260	1	1.00 SA	
0,INTRA-LAB BLANK					J6F280000-357		FILTER			30.6	07/24/06 07:35	RATA23260 Alq	94%	1.00 SA	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	21	101	GPC4C	1	N	N	4.6870E-01	1.0000E+00	N	83%	N		1.5942E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.147E-02)	(0.000E+00)		7%			(0.000E+00)	1.00		
1	07/24/06 13:01	RA-228	14	101	GPC4C	1	N	N	4.6870E-01	1.0000E+00	N	83%	N		1.7685E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.147E-02)	(0.000E+00)		7%			(0.000E+00)	1.00		
2	07/24/06 13:57	RA-228	12	101	GPC4C	1	N	N	4.6870E-01	1.0000E+00	N	83%	N		1.9620E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(1.147E-02)	(0.000E+00)		7%			(0.000E+00)	1.00		
3	07/25/06 06:05	RA-228	9	98	GPC4C	1	N	N	4.6870E-01	1.0000E+00	N	83%	N		1.2104E+01	4.5045E-01	1.0133E+00	
			50	400			N		(1.147E-02)	(0.000E+00)		7%			(0.000E+00)	1.00		

() - (1s Uncertainities), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt.17 RADCALC v4.8.24 STL Richland

STLRICHLAND

Batch Nbr: 6179357

Alpha Beta, Ra-228 by GPC , Calculated Results

7/25/2006 7:03:11 AM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	0.312303		1.67500E-01	0.684187	0.684187	1.00 SA	83%		0.717167		
				(0.179865)		(9.5033E-02)	(0.392378)	(0.392378)	(0.017321)			0.308239		
	07/25/06	RA-228	R	0.056881	U4	2.75000E-02	0.124614	0.124614	1.00 SA	83%		0.795597		
				(0.163373)		(7.8938E-02)	(0.357853)	(0.357853)	(0.017321)			0.341948		
	07/25/06	RA-228	R	-0.028683	U4	-1.25000E-02	-0.062839	-0.062839	1.00 SA	83%		0.882832		
				(0.169134)		(7.3897E-02)	(0.370521)	(0.370521)	(0.017321)			0.379356		
	07/25/06	RA-228	A	0.1135	U4	6.08333E-02	0.248654	0.248654	1.00 SA	83%		0.460994		
				(0.098685)		(4.7951E-02)	(0.215846)	(0.215846)	(0.01)			0.198136		
	07/25/06	RA-228	R	-0.849367	U4	-6.00000E-02	-1.860778	-1.860778	1.00 SA	83%		5.32782		
				(0.921267)		(6.4807E-02)	(2.01589)	(2.01589)	(0.017321)			2.281634		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
18	Calc	TF	FILTER	*STLE	Ra228WoBS	H8DPD1AC	PCI/SA	S	06/07/06 10:00	07/25/06 06:05	07/17/06 15:12	RASC4140	1	1.00 SA	
0,INTRA-LAB CHECK					J6F280000-357		FILTER			31.2	07/24/06 07:35	RASC4140 Alq	95%	1.00 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgmnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
0	07/24/06 12:06	RA-228	115	94	GPC4D	1	N	N	4.5382E-01	1.0000E+00	N	87%	N		1.5942E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(9.344E-03)	(0.000E+00)		7%			(0.000E+00)	1.00		
1	07/24/06 13:01	RA-228	96	94	GPC4D	1	N	N	4.5382E-01	1.0000E+00	N	87%	N		1.7685E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(9.344E-03)	(0.000E+00)		7%			(0.000E+00)	1.00		
2	07/24/06 13:57	RA-228	111	94	GPC4D	1	N	N	4.5382E-01	1.0000E+00	N	87%	N		1.9620E+00	4.5045E-01	1.0133E+00	
			50	400			Y		(9.344E-03)	(0.000E+00)		7%			(0.000E+00)	1.00		
3	07/25/06 06:05	RA-228	32	112	GPC4D	1	N	N	4.5382E-01	1.0000E+00	N	87%	N		1.2104E+01	4.5045E-01	1.0133E+00	
			50	400			N		(9.344E-03)	(0.000E+00)		7%			(0.000E+00)	1.00		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/25/06	RA-228	R	3.860211		2.08500E+00	8.456878	8.456878	1.00 Sa	87%	76%	0.690557		
				(0.551788)		(2.1677E-01)	(1.122969)	(1.122969)	(0.017321)			0.295281		
	07/25/06	RA-228	R	3.480811		1.68500E+00	7.561879	7.561879	1.00 Sa	87%	68%	0.766078		
				(0.528901)		(1.9745E-01)	(1.087033)	(1.087033)	(0.017321)			0.327573		
	07/25/06	RA-228	R	4.522983		1.98500E+00	9.908866	9.908866	1.00 Sa	87%	89%	0.849883		
				(0.656089)		(2.1210E-01)	(1.3383)	(1.3383)	(0.017321)			0.363408		
	07/25/06	RA-228	A	3.948002		1.91833E+00	8.649207	8.649207	1.00 Sa	87%	78%	0.44389		
				(0.335768)		(1.2063E-01)	(0.665888)	(0.665888)	(0.01)			0.189806		
	07/25/06	RA-228	R	5.060473		3.60000E-01	11.086388	11.086388	1.00 Sa	87%	100%	5.653309		
				(1.707042)		(1.1619E-01)	(3.693458)	(3.693458)	(0.017321)			2.447166		

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

RecCnt: 18

RADCALC v4.8.24

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

STL Richland

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ESI-Calculated Values

RAD-228

sample		smp count	smp time	bkg count	bkg time	NCR_S	CR Uncertainty	Efficiency	Yield	Ingrowth Factor
H7DWT	Count #1	39	50	312	400	0	0.132476413	0.51841	0.95	1.5918
	Count #2	53	50	312	400	0.28	0.152151241	0.51841	0.95	1.766
	Count #3	55	50	312	400	0.32	0.154757875	0.51841	0.95	1.9592
	Count #4	48	50	301	400	0.2075	0.145193836	0.51841	0.95	12.198
H796F	Count #1	48	50	300	400	0.21	0.145172311	0.51966	0.88	1.5918
	Count #2	35	50	300	400	-0.05	0.125996032	0.51966	0.88	1.766
	Count #3	47	50	300	400	0.19	0.143788038	0.51966	0.88	1.9592
	Count #4	39	50	285	400	0.0675	0.131837969	0.51966	0.88	12.198
H796L	Count #1	49	50	370	400	0.055	0.148028713	0.50675	0.95	1.5918
	Count #2	52	50	370	400	0.115	0.152027958	0.50675	0.95	1.766
	Count #3	57	50	370	400	0.215	0.15846924	0.50675	0.95	1.9592
	Count #4	44	50	334	400	0.045	0.140312152	0.50675	0.95	12.198
H796N	Count #1	47	50	296	400	0.2	0.143701079	0.52958	0.95	1.5924
	Count #2	25	50	296	400	-0.24	0.108857705	0.52958	0.95	1.7665
	Count #3	37	50	296	400	0	0.129034879	0.52958	0.95	1.9598
	Count #4	32	50	242	400	0.035	0.119634861	0.52958	0.95	11.422
H796P	Count #1	43	50	260	400	0.21	0.137204227	0.52063	0.87	1.5924
	Count #2	32	50	260	400	-0.01	0.120104121	0.52063	0.87	1.7665
	Count #3	39	50	260	400	0.13	0.131244047	0.52063	0.87	1.9598
	Count #4	24	50	230	400	-0.095	0.105059507	0.52063	0.87	11.422
H796Q	Count #1	41	50	257	400	0.1775	0.134187369	0.53169	0.89	1.5924
	Count #2	34	50	257	400	0.0375	0.123313625	0.53169	0.89	1.7665
	Count #3	43	50	257	400	0.2175	0.137135882	0.53169	0.89	1.9598
	Count #4	39	50	240	400	0.18	0.130766968	0.53169	0.89	11.422
H796R	Count #1	13	50	106	400	-0.005	0.076566964	0.42847	0.91	1.593
	Count #2	14	50	106	400	0.015	0.079135959	0.42847	0.91	1.7673
	Count #3	13	50	106	400	-0.005	0.076566964	0.42847	0.91	1.9606
	Count #4	7	50	90	400	-0.085	0.057987068	0.42847	0.91	12.099
H796T	Count #1	23	50	112	400	0.18	0.099498744	0.44711	0.94	1.593
	Count #2	26	50	112	400	0.24	0.105356538	0.44711	0.94	1.7673
	Count #3	19	50	112	400	0.1	0.091104336	0.44711	0.94	1.9606

ESI-Calculated Values

RAD-228

sample		smp count	smp time	bkg count	bkg time	NCR_S	CR Uncertainty	Efficiency	Yield	Ingrowth Factor
	Count #4	11	50	100	400	-0.03	0.070887234	0.44711	0.94	12.099
H796W	Count #1	19	50	92	400	0.15	0.090415707	0.43317	0.87	1.593
	Count #2	18	50	92	400	0.13	0.08817596	0.43317	0.87	1.7673
	Count #3	13	50	92	400	0.03	0.075993421	0.43317	0.87	1.9606
	Count #4	16	50	101	400	0.0675	0.083852549	0.43317	0.87	12.099
H797D	Count #1	18	50	120	400	0.06	0.089162773	0.43813	0.86	1.593
	Count #2	15	50	120	400	0	0.082158384	0.43813	0.86	1.7673
	Count #3	23	50	120	400	0.16	0.099749687	0.43813	0.86	1.9606
	Count #4	13	50	81	400	0.0575	0.075539725	0.43813	0.86	12.099
H797E	Count #1	20	50	87	400	0.1825	0.092432408	0.468	0.89	1.5935
	Count #2	18	50	87	400	0.1425	0.08799858	0.468	0.89	1.7679
	Count #3	15	50	87	400	0.0825	0.080893448	0.468	0.89	1.9613
	Count #4	5	50	71	400	-0.0775	0.0494343	0.468	0.89	12.1
H797F	Count #1	24	50	93	400	0.2475	0.10090218	0.4793	0.9	1.5935
	Count #2	25	50	93	400	0.2675	0.102865203	0.4793	0.9	1.7679
	Count #3	23	50	93	400	0.2275	0.098900202	0.4793	0.9	1.9613
	Count #4	24	50	96	400	0.24	0.100995049	0.4793	0.9	12.1
H797H	Count #1	26	50	126	400	0.205	0.105770979	0.47085	0.86	1.5935
	Count #2	22	50	126	400	0.125	0.09791578	0.47085	0.86	1.7679
	Count #3	26	50	126	400	0.205	0.105770979	0.47085	0.86	1.9613
	Count #4	11	50	111	400	-0.0575	0.071370512	0.47085	0.86	12.1
H797J	Count #1	22	50	100	400	0.19	0.097082439	0.46779	0.84	1.5935
	Count #2	21	50	100	400	0.17	0.095	0.46779	0.84	1.7679
	Count #3	22	50	100	400	0.19	0.097082439	0.46779	0.84	1.9613
	Count #4	8	50	106	400	-0.105	0.062149014	0.46779	0.84	12.1
H797K	Count #1	26	50	201	400	0.0175	0.107964114	0.4816	0.86	1.5942
	Count #2	33	50	201	400	0.1575	0.120234147	0.4816	0.86	1.7685
	Count #3	34	50	201	400	0.1775	0.121886217	0.4816	0.86	1.962
	Count #4	23	50	188	400	-0.01	0.101857744	0.4816	0.86	12.104
H797M	Count #1	16	50	100	400	0.07	0.083815273	0.46207	0.86	1.5942
	Count #2	21	50	100	400	0.17	0.095	0.46207	0.86	1.7685

ESI-Calculated Values

RAD-228

sample		smp count	smp time	bkg count	bkg time	NCR_S	CR Uncertainty	Efficiency	Yield	Ingrowth Factor
	Count #3	16	50	100	400	0.07	0.083815273	0.46207	0.86	1.962
	Count #4	22	50	103	400	0.1825	0.097178959	0.46207	0.86	12.104
H8DPD1AA	Count #1	21	50	101	400	0.1675	0.095032889	0.4687	0.83	1.5942
	Count #2	14	50	101	400	0.0275	0.078938267	0.4687	0.83	1.7685
	Count #3	12	50	101	400	-0.0125	0.073697015	0.4687	0.83	1.962
	Count #4	9	50	96	400	-0.06	0.064807407	0.4687	0.83	12.104
H8DPD1AC	Count #1	116	50	94	400	2.085	0.216766003	0.45382	0.87	1.5942
	Count #2	96	50	94	400	1.685	0.197452526	0.45382	0.87	1.7685
	Count #3	111	50	94	400	1.985	0.21210257	0.45382	0.87	1.962
	Count #4	32	50	112	400	0.36	0.1161895	0.45382	0.87	12.104

sample		$NDPM_S$	Total Vol	Analytical Vol	Decay	Sample Activity	Average
H7DWT	Count #1	0	1	0.253927	1.0181	0	
	Count #2	1.004042	1	0.253927	1.0181	1.81334457	
	Count #3	1.27301	1	0.253927	1.0181	2.299113206	
	Count #4	5.139368	1	0.253927	1.0181	9.281931	1.370819
H796F	Count #1	0.730981	1	0.252645	1.0133	1.320627068	
	Count #2	-0.19309	1	0.252645	1.0133	-0.348845482	
	Count #3	0.814011	1	0.252645	1.0133	1.470634576	
	Count #4	1.800489	1	0.252645	1.0133	3.252855724	0.814139
H796L	Count #1	0.181859	1	0.250932	1.0133	0.330797979	
	Count #2	0.421863	1	0.250932	1.0133	0.767361838	
	Count #3	0.874984	1	0.250932	1.0133	1.591581526	
	Count #4	1.140207	1	0.250932	1.0133	2.074019333	0.896584
H796N	Count #1	0.633034	1	0.254865	1.0133	1.133709676	
	Count #2	-0.842694	1	0.254865	1.0133	-1.50919227	
	Count #3	0	1	0.254865	1.0133	0	
	Count #4	0.794612	1	0.254865	1.0133	1.42308188	-0.125161
H796P	Count #1	0.738283	1	0.251741	1.0133	1.33861022	
	Count #2	-0.039	1	0.251741	1.0133	-0.07071252	
	Count #3	0.562479	1	0.251741	1.0133	1.019853472	
	Count #4	-2.395617	1	0.251741	1.0133	-4.343586094	0.762584
H796Q	Count #1	0.597313	1	0.2425	1.0133	1.124282246	
	Count #2	0.13999	1	0.2425	1.0133	0.263493397	
	Count #3	0.900788	1	0.2425	1.0133	1.695492375	
	Count #4	4.344764	1	0.2425	1.0133	8.177856534	1.027756
H796R	Count #1	-0.020428	1	0.254589	1.0133	-0.036624306	
	Count #2	0.067989	1	0.254589	1.0133	0.121894794	
	Count #3	-0.025142	1	0.254589	1.0133	-0.045075715	
	Count #4	-2.637586	1	0.254589	1.0133	-4.728811703	0.013398
H796T	Count #1	0.682254	1	0.252887	1.0133	1.231415477	
	Count #2	1.009205	1	0.252887	1.0133	1.821536365	
	Count #3	0.466495	1	0.252887	1.0133	0.841986882	

sample		$NDPM_S$	Total Vol	Analytical Vol	Decay	Sample Activity	Average
	Count #4	-0.863632	1	0.252887	1.0133	-1.558788010	1.298313
H796W	Count #1	0.634059	1	0.251525	1.0133	1.150623717	
	Count #2	0.609644	1	0.251525	1.0133	1.106317842	
	Count #3	0.156075	1	0.251525	1.0133	0.283228231	
	Count #4	2.167083	1	0.251525	1.0133	3.932597844	0.846723
H797D	Count #1	0.253668	1	0.257349	1.0133	0.449912611	
	Count #2	0	1	0.257349	1.0133	0	
	Count #3	0.832545	1	0.257349	1.0133	1.476624675	
	Count #4	1.846358	1	0.257349	1.0133	3.274752345	0.842179
H797E	Count #1	0.698199	1	0.251696	1.0133	1.26615779	
	Count #2	0.604835	1	0.251696	1.0133	1.096845493	
	Count #3	0.388474	1	0.251696	1.0133	0.704483574	
	Count #4	-2.251392	1	0.251696	1.0133	-4.0828175	1.022496
H797F	Count #1	0.914276	1	0.24356	1.0133	1.713390819	
	Count #2	1.096305	1	0.24356	1.0133	2.054521293	
	Count #3	1.034369	1	0.24356	1.0133	1.938449957	
	Count #4	6.73204	1	0.24356	1.0133	12.61611899	1.902121
H797H	Count #1	0.806724	1	0.249329	1.0133	1.476852682	
	Count #2	0.545741	1	0.249329	1.0133	0.999076988	
	Count #3	0.992926	1	0.249329	1.0133	1.817729002	
	Count #4	-1.718194	1	0.249329	1.0133	-3.145462139	1.43122
H797J	Count #1	0.770505	1	0.246648	1.0133	1.425879808	
	Count #2	0.76485	1	0.246648	1.0133	1.41541524	
	Count #3	0.948347	1	0.246648	1.0133	1.754990943	
	Count #4	-3.233288	1	0.246648	1.0133	-5.983453492	1.532095
H797K	Count #1	0.067359	1	0.252091	1.0133	0.121961751	
	Count #2	0.672513	1	0.252091	1.0133	1.217666674	
	Count #3	0.840838	1	0.252091	1.0133	1.522439903	
	Count #4	-0.292243	1	0.252091	1.0133	-0.529141364	0.964083
H797M	Count #1	0.280824	1	0.250184	1.0133	0.512342233	
	Count #2	0.756568	1	0.250184	1.0133	1.380299396	

sample		$NDPM_s$	Total Vol	Analytical Vol	Decay	Sample Activity	Average
	Count #3	0.345614	1	0.250184	1.0133	0.630545391	
	Count #4	5.558858	1	0.250184	1.0133	10.14170786	0.841062
H8DPD1AA	Count #1	0.686412	1	1	1.0133	0.313306668	
	Count #2	0.125016	1	1	1.0133	0.057062367	
	Count #3	-0.063043	1	1	1.0133	-0.028775378	
	Count #4	-1.86684	1	1	1.0133	-0.852103183	0.113866
H8DPD1AC	Count #1	8.418718	1	1	1.0133	3.842651936	
	Count #2	7.547482	1	1	1.0133	3.444983558	
	Count #3	9.864081	1	1	1.0133	4.502375352	
	Count #4	11.03643	1	1	1.0133	5.037483074	3.930004

7/14/2006 9:34:29 AM

Sample Preparation/Analysis

BX Ra-226/228 PrpRC5016, SepRC5005
TF Radium-228 by GPC
01 STANDARD TEST SET

Balance Id:1120373922,1120373922,1120

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179357 pCi/sampl
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

H8DPD1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H8DPD1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep,Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	RA22806A000		Ref: 12/15/2003			4.4881E+02	±		DPM/G	
RASC4140	RA-228	**1.1268E+01**	**± 4.701E-02**	DPM	0.0339	g	6/13/2006	6/13/2006	Armstron 3.3238E+02	± 0.000E+00	DPM/G
		1.1268E+001	± 1.127E+001	(1)			1.1268E+001 , 1.1268E+001				

* - Isotope is an impurity

Ra22806A000

Ra22806A000
Ref. 6076
448.81 ± 14.82
dpm/g
4/11/2007 DVF

SEVERN TRENT SERVICES

ISOTOPE RECORD FORM

1) Isotope RA-228 2) Reference Number 6076

3) Half Life 5.75 yrs 4) Storage Location QCLAB

5) Source Identification Number RA22806A000

****

CALIBRATION DATA

6) Activity as Received Units 3797

7) Overall Uncertainty Percent 3.30%

8) Reference Date / Time 15-Dec-03

9) Activity dpm/g 45507 ± 1502

10) Volume or Mass (ml/g) 5.0063

11) Calibrated by Analytics

12) Certificate Solution Number 67328-288

****

SURVEY DATA

13) Date Received 3/30/2006

14) Surveyed by tda

15) Survey Reading (Beta/Gamma) cpm >200 cpm

16) Survey Reading (Alpha) cpm background

****

17) Activity Conversion 3797 dps * 60 s/m / 5.0063g =

45507 ± 1501 dpm/g

18) Remarks From STL Denver

19) Isotope File Updated by tda

20) QC Approved

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

67328-288

Ra-228 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Ra-228
ACTIVITY (dps):	3.797 E3
HALF-LIFE:	5.75 years
CALIBRATION DATE:	December 15, 2003 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.3%

Impurities: Ra-226 <0.1%
γ-impurities (other than decay products) <0.1%

5.00630 grams 0.8M HCl solution with 20 µg/g Ba carrier.

P O NUMBER 2037799/280260, Item 1

SOURCE PREPARED BY: M. D. Currie
M. D. Currie, Radiochemist

Q A APPROVED: 12-17-03

^{228}Ra Preparation Page

Source ID	67328-288
Vendor	Analytics
Activity	3797.00 dps
Uncertainty	3.30%
Certification Date	7/1/04 12:00 EST

Target Concentration	25 pCi/mL
Total pCi	102621.62 (Activity / .037dps/pCi)
25 pCi/ml gives	4104.8649 total mL 4.1048649 total L

Prepare a 'Parent'

Target Concentration	250 pCi/mL
Parent Volume	410.48649 Total mL
Prepared Volume	500 mL
Prepared Concentration	205.24324 pCi/mL

7/7/04 RA Henderson
Entire Ampoule → 500ml Volumetric

Daughter' Preparation

Target Concentration	25 pCi/mL
Target Volume	250 mL
Parent Volume Needed	30.451672 mL
Parent Volume Used	30 mL
Daughter Concentration	24.629189 pCi/mL

7/7/04 RA Henderson
2x15ml (Class A glass pipet) into
250ml Volumetric.

Master Standard Report Sheet

Standard ID: 57328-288 STL ID: RA22804AL

Element: Ra-228

Concentration 3797 +/- 62.7 dps

Amount: 1

Creation Date 12/15/2003 Certification Date 12/15/2003

Expiration Date 12/15/2013

Preparer: Roger Henderson

Comments: Standard as received from Analytics.

Roger A. Henderson 7/7/04

Approval Signature Date

7/7/2004

Master Standard Report Sheet

Standard ID: RA22804ALA1

Element: Ra-228

Concentration 205.2432 +/- 3.73 pCi/mL

Amount: 500

Creation Date 7/7/2004 Certification Date 12/15/2003

Expiration Date 12/15/2013

Preparer: Roger Henderson

Comments: Initial Preparation from the Analytics primary 67328-288.

Roger A Henderson 7/7/04

Approval Signature Date

7/7/2004

Derived Standard Report Sheet

Standard ID:	RA22804ALA2	Element:	Ra-228
Parent Standard ID	RA22804ALA1	Expiration:	2/15/2013
Parent Standard ID 2		Expiration:	
Parent Standard ID 3		Expiration:	
Concentration	24.629 +/- 0.488 pCi/mL		
Amount:	250		
Creation Date	7/7/2004	Certification Date	12/15/2003
Expiration Date	12/15/2013		
Preparer:	Roger Henderson		
Comments:	Working standard		

Roger A Henderson 7/7/04

Approval Signature Date

7/7/2004

Quality Assurance Report. Generated 27-JUL-2006 10:33:33.67

QA Filename : $DISK1:[SCINT3.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-3
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 249674.000000 Upper Bound : 270464.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 260069.015625 Std Deviation : 3465.084961

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:37	count		259067.0000				
2-JUN-2006 08:18	count		265453.0000				
4-JUN-2006 08:33	count		269601.0000		In		
4-JUN-2006 08:44	count		272207.0000	Ab		Ac	
5-JUN-2006 12:55	count		257831.0000				
6-JUN-2006 07:07	count		260975.0000				
7-JUN-2006 08:35	count		265428.0000				
8-JUN-2006 08:39	count		264665.0000				
10-JUN-2006 07:33	count		265925.0000				
11-JUN-2006 08:46	count		264656.0000				
12-JUN-2006 10:36	count		262323.0000				
13-JUN-2006 07:27	count		260538.0000				
14-JUN-2006 07:52	count		263930.0000				
15-JUN-2006 07:15	count		267032.0000		In		
16-JUN-2006 07:29	count		266508.0000				
17-JUN-2006 06:55	count		265832.0000				
18-JUN-2006 07:19	count		265901.0000				
20-JUN-2006 08:17	count		259994.0000				
21-JUN-2006 07:33	count		257564.0000				
22-JUN-2006 08:54	count		257442.0000				
23-JUN-2006 07:43	count		261602.0000				

24-JUN-2006 07:49	count	264036.0000			
25-JUN-2006 07:41	count	265612.0000			
27-JUN-2006 06:52	count	261343.0000			
28-JUN-2006 07:42	count	259593.0000			
29-JUN-2006 07:44	count	262556.0000			
30-JUN-2006 07:04	count	262799.0000			
1-JUL-2006 11:27	count	266375.0000			
5-JUL-2006 07:37	count	265156.0000			
6-JUL-2006 07:42	count	266420.0000			
7-JUL-2006 07:51	count	263639.0000			
8-JUL-2006 08:30	count	263692.0000			
9-JUL-2006 08:26	count	265838.0000			
12-JUL-2006 07:23	count	260317.0000			
19-JUL-2006 07:34	count	265091.0000			
20-JUL-2006 07:44	count	268011.0000	In		
20-JUL-2006 07:57	count	262506.0000			
21-JUL-2006 08:06	count	266396.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
22-JUL-2006 07:20	count		266726.0000				
23-JUL-2006 07:04	count		267354.0000	In			
26-JUL-2006 07:49	count		265628.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:34.05

QA Filename : $DISK1:[SCINT3.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-3
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		0.0000				
17-JUL-2006 13:58	count		0.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:28.05

QA Filename : $DISK1:[SCINT2.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-2
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 251285.000000 Upper Bound : 270455.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 260869.906250 Std Deviation : 3195.420410

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:24	count		260174.0000				
2-JUN-2006 08:05	count		265219.0000				
4-JUN-2006 08:10	count		272384.0000	Ab	Ac		
4-JUN-2006 08:21	count		270532.0000	Ab	Ac		
6-JUN-2006 09:20	count		261704.0000				
7-JUN-2006 08:22	count		264499.0000				
8-JUN-2006 08:11	count		264045.0000				
10-JUN-2006 07:20	count		266002.0000				
11-JUN-2006 08:34	count		264441.0000				
12-JUN-2006 10:23	count		261034.0000				
13-JUN-2006 07:02	count		261353.0000				
14-JUN-2006 07:39	count		263776.0000				
15-JUN-2006 07:02	count		264666.0000				
16-JUN-2006 07:16	count		265490.0000				
17-JUN-2006 06:42	count		263338.0000				
18-JUN-2006 07:06	count		263172.0000				
21-JUN-2006 07:16	count		263645.0000				
22-JUN-2006 08:22	count		258496.0000				
23-JUN-2006 07:25	count		258143.0000				
24-JUN-2006 07:35	count		264827.0000				
25-JUN-2006 07:22	count		264071.0000				

28-JUN-2006 07:24	count	260343.0000			
29-JUN-2006 07:31	count	263785.0000			
30-JUN-2006 06:51	count	265375.0000			
1-JUL-2006 11:14	count	265237.0000			
5-JUL-2006 07:24	count	264932.0000			
6-JUL-2006 07:29	count	267632.0000	In		
7-JUL-2006 07:39	count	263271.0000			
8-JUL-2006 08:17	count	266012.0000			
9-JUL-2006 08:11	count	264043.0000			
12-JUL-2006 07:10	count	260655.0000			
14-JUL-2006 07:14	count	261760.0000			
16-JUL-2006 07:26	count	265471.0000			
19-JUL-2006 07:19	count	264178.0000			
20-JUL-2006 07:32	count	266718.0000			
21-JUL-2006 07:53	count	264394.0000			
22-JUL-2006 07:08	count	266889.0000			
23-JUL-2006 06:51	count	266468.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUL-2006 07:37	count		263953.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:28.83

QA Filename : $DISK1:[SCINT2.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-2
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

---

26-JUN-2006 10:31	count	0.0000	|	|
17-JUL-2006 13:58	count	0.0000	|	|

Quality Assurance Report. Generated 27-JUL-2006 10:33:21.26

QA Filename : $DISK1:[SCINT1.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-1
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 255404.000000 Upper Bound : 273401.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 264402.875000 Std Deviation : 2999.418945

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:07	count		268303.0000				
2-JUN-2006 07:52	count		270937.0000	In			
4-JUN-2006 07:14	count		270422.0000	In			
6-JUN-2006 06:47	count		265256.0000				
8-JUN-2006 07:44	count		271268.0000	In			
10-JUN-2006 07:05	count		268296.0000				
11-JUN-2006 08:23	count		267544.0000				
12-JUN-2006 09:52	count		267325.0000				
13-JUN-2006 06:42	count		266628.0000				
14-JUN-2006 07:23	count		266189.0000				
15-JUN-2006 06:44	count		266390.0000				
16-JUN-2006 07:04	count		267445.0000				
17-JUN-2006 06:28	count		265772.0000				
18-JUN-2006 06:53	count		267331.0000				
20-JUN-2006 07:14	count		263176.0000				
21-JUN-2006 06:54	count		264164.0000				
22-JUN-2006 07:46	count		266686.0000				
23-JUN-2006 06:55	count		264370.0000				
24-JUN-2006 07:21	count		266232.0000				
25-JUN-2006 07:09	count		267822.0000				
27-JUN-2006 06:38	count		268659.0000				

28-JUN-2006 06:44	count	266914.0000			
29-JUN-2006 07:19	count	267141.0000			
30-JUN-2006 06:38	count	263787.0000			
1-JUL-2006 11:02	count	267848.0000			
5-JUL-2006 07:11	count	267984.0000			
6-JUL-2006 07:16	count	266808.0000			
7-JUL-2006 07:26	count	264826.0000			
8-JUL-2006 08:04	count	265739.0000			
9-JUL-2006 07:58	count	266970.0000			
12-JUL-2006 06:56	count	267194.0000			
14-JUL-2006 06:48	count	265990.0000			
16-JUL-2006 07:13	count	266483.0000			
19-JUL-2006 07:04	count	268472.0000			
20-JUL-2006 07:19	count	265293.0000			
21-JUL-2006 07:40	count	266878.0000			
22-JUL-2006 06:55	count	269434.0000			
23-JUL-2006 06:38	count	268585.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUL-2006 07:24	count		268113.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:21.63

QA Filename : $DISK1:[SCINT1.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000min bkg, ascint-1
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

---

26-JUN-2006 10:31	count	0.0000	| | |	
17-JUL-2006 15:14	count	0.0000	| | |	

Quality Assurance Report. Generated 27-JUL-2006 10:33:58.28

QA Filename : $DISK1:[SCINT9.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-9
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 249129.000000 Upper Bound : 273681.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 261404.609375 Std Deviation : 4092.428467

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:55	count		264797.0000				
2-JUN-2006 07:26	count		0.0000	Be	Ac		R
2-JUN-2006 07:38	count		263154.0000				
4-JUN-2006 08:55	count		269062.0000				
6-JUN-2006 07:19	count		264032.0000				
7-JUN-2006 08:48	count		264666.0000				
8-JUN-2006 07:32	count		261938.0000				
10-JUN-2006 07:46	count		267744.0000				
11-JUN-2006 08:57	count		269029.0000				
12-JUN-2006 12:20	count		260005.0000				
13-JUN-2006 08:12	count		262117.0000				
14-JUN-2006 08:06	count		266854.0000				
15-JUN-2006 07:28	count		266787.0000				
16-JUN-2006 07:42	count		267285.0000				
17-JUN-2006 07:08	count		266456.0000				
18-JUN-2006 07:30	count		267969.0000				
20-JUN-2006 09:27	count		263789.0000				
21-JUN-2006 08:38	count		264645.0000				
22-JUN-2006 09:49	count		259908.0000				
23-JUN-2006 07:57	count		264730.0000				
24-JUN-2006 08:03	count		268394.0000				

25-JUN-2006 07:55	count	268182.0000	| | |
28-JUN-2006 07:54	count	260380.0000	| | |
29-JUN-2006 07:57	count	264736.0000	| | |
30-JUN-2006 07:16	count	266562.0000	| | |
1-JUL-2006 11:41	count	267394.0000	| | |
5-JUL-2006 07:50	count	267258.0000	| | |
6-JUL-2006 07:55	count	266792.0000	| | |
7-JUL-2006 12:00	count	259212.0000	| | |
12-JUL-2006 07:37	count	260409.0000	| | |
19-JUL-2006 07:49	count	266885.0000	| | |
20-JUL-2006 08:10	count	266432.0000	| | |
21-JUL-2006 08:20	count	266355.0000	| | |
22-JUL-2006 07:35	count	267463.0000	| | |
23-JUL-2006 07:17	count	268721.0000	| | |
26-JUL-2006 08:09	count	268677.0000	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:33:58.66

QA Filename : $DISK1:[SCINT9.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-9
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
26-JUN-2006 10:31	count		0.0000	| | |
17-JUL-2006 13:58	count		0.0000	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:33:52.31

QA Filename : $DISK1:[SCINT8.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-8
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 367661.000000 Upper Bound : 440843.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 404252.281250 Std Deviation : 12197.020508

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:09	count		422196.0000				
2-JUN-2006 08:05	count		409346.0000				
4-JUN-2006 08:54	count		416484.0000				
6-JUN-2006 09:35	count		403598.0000				
7-JUN-2006 08:37	count		417372.0000				
8-JUN-2006 07:32	count		415666.0000				
10-JUN-2006 07:46	count		415257.0000				
11-JUN-2006 09:09	count		415443.0000				
12-JUN-2006 10:36	count		406495.0000				
13-JUN-2006 08:12	count		406791.0000				
14-JUN-2006 08:19	count		426152.0000				
15-JUN-2006 07:28	count		422822.0000				
16-JUN-2006 07:42	count		431273.0000	In			
17-JUN-2006 07:32	count		431767.0000	In			
18-JUN-2006 07:41	count		437655.0000	In			
18-JUN-2006 07:52	count		419039.0000				
21-JUN-2006 08:25	count		425055.0000				
22-JUN-2006 07:46	count		406495.0000				
23-JUN-2006 08:11	count		433714.0000	In			
24-JUN-2006 08:03	count		432361.0000	In			
25-JUN-2006 07:41	count		412884.0000				

28-JUN-2006 07:54	count	398101.0000	| | |
29-JUN-2006 08:09	count	413014.0000	| | |
30-JUN-2006 07:04	count	408770.0000	| | |
1-JUL-2006 11:27	count	420921.0000	| | |
5-JUL-2006 07:37	count	415033.0000	| | |
6-JUL-2006 07:42	count	411624.0000	| | |
7-JUL-2006 07:51	count	408460.0000	| | |
8-JUL-2006 08:30	count	419081.0000	| | |
9-JUL-2006 08:26	count	419039.0000	| | |
12-JUL-2006 07:50	count	413597.0000	| | |
19-JUL-2006 07:34	count	425198.0000	| | |
20-JUL-2006 07:44	count	425225.0000	| | |
21-JUL-2006 08:07	count	414889.0000	| | |
22-JUL-2006 07:20	count	417697.0000	| | |
23-JUL-2006 07:17	count	421236.0000	| | |
26-JUL-2006 07:49	count	426244.0000	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:33:52.73

QA Filename : $DISK1:[SCINT8.QAJBKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-8
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
26-JUN-2006 10:31	count		0.0000	| | |
17-JUL-2006 13:58	count		0.0000	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:33:45.75

QA Filename : $DISK1:[SCINT7.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-7
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 383153.000000 Upper Bound : 456017.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 419584.593750 Std Deviation : 12144.413086

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:55	count		419353.0000				
2-JUN-2006 07:52	count		427567.0000				
4-JUN-2006 08:43	count		430698.0000				
6-JUN-2006 09:20	count		415402.0000				
7-JUN-2006 08:08	count		418940.0000				
8-JUN-2006 07:44	count		409473.0000				
10-JUN-2006 07:33	count		423675.0000				
11-JUN-2006 08:57	count		439495.0000				
12-JUN-2006 10:21	count		422308.0000				
13-JUN-2006 07:27	count		431705.0000				
14-JUN-2006 08:05	count		444162.0000	In			
15-JUN-2006 07:15	count		445069.0000	In			
16-JUN-2006 07:29	count		446726.0000	In			
17-JUN-2006 07:07	count		450058.0000	In			
17-JUN-2006 07:19	count		452600.0000	In			
18-JUN-2006 07:29	count		438333.0000				
21-JUN-2006 08:06	count		429133.0000				
22-JUN-2006 06:48	count		416236.0000				
23-JUN-2006 07:57	count		432901.0000				
24-JUN-2006 07:49	count		447735.0000	In			
25-JUN-2006 07:22	count		432837.0000				

28-JUN-2006 07:42	count	420386.0000			
29-JUN-2006 07:57	count	422721.0000			
30-JUN-2006 06:51	count	436119.0000			
1-JUL-2006 11:14	count	442615.0000			
5-JUL-2006 07:24	count	429733.0000			
6-JUL-2006 07:30	count	434344.0000			
7-JUL-2006 07:39	count	427278.0000			
8-JUL-2006 08:17	count	432436.0000			
9-JUL-2006 08:12	count	436028.0000			
12-JUL-2006 07:37	count	417634.0000			
19-JUL-2006 07:19	count	430541.0000			
20-JUL-2006 07:32	count	442178.0000			
21-JUL-2006 07:53	count	432109.0000			
22-JUL-2006 07:08	count	434363.0000			
23-JUL-2006 07:04	count	440858.0000			
26-JUL-2006 07:37	count	444522.0000	In		

Quality Assurance Report. Generated 27-JUL-2006 10:33:46.10

QA Filename : $DISK1:[SCINT7.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-7
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.857143 Std Deviation : 2.267787

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		0.0000				
17-JUL-2006 13:58	count		0.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:39.94

QA Filename : $DISK1:[SCINT4.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-4
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 481172.000000 Upper Bound : 547004.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 514087.500000 Std Deviation : 10971.993164

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:08	count		513383.0000				
2-JUN-2006 07:26	count		511150.0000				
4-JUN-2006 08:08	count		507507.0000				
5-JUN-2006 12:55	count		506577.0000				
6-JUN-2006 07:48	count		509143.0000				
7-JUN-2006 06:46	count		525405.0000				
8-JUN-2006 09:18	count		508088.0000				
10-JUN-2006 07:05	count		522774.0000				
11-JUN-2006 08:23	count		519230.0000				
12-JUN-2006 09:53	count		508542.0000				
13-JUN-2006 06:42	count		530145.0000				
14-JUN-2006 07:23	count		523701.0000				
15-JUN-2006 06:44	count		528129.0000				
16-JUN-2006 07:04	count		527963.0000				
17-JUN-2006 06:28	count		541666.0000	In			
17-JUN-2006 06:42	count		541474.0000	In			
18-JUN-2006 06:53	count		527616.0000				
20-JUN-2006 07:14	count		521348.0000				
21-JUN-2006 06:54	count		513996.0000				
22-JUN-2006 10:33	count		516039.0000				
23-JUN-2006 06:55	count		513383.0000				

24-JUN-2006 07:21	count	532038.0000			
25-JUN-2006 07:10	count	521788.0000			
27-JUN-2006 06:38	count	519236.0000			
28-JUN-2006 06:44	count	512670.0000			
29-JUN-2006 07:19	count	526411.0000			
30-JUN-2006 06:38	count	528885.0000			
1-JUL-2006 11:02	count	528178.0000			
5-JUL-2006 07:11	count	527959.0000			
6-JUL-2006 07:16	count	512691.0000			
7-JUL-2006 07:26	count	509510.0000			
8-JUL-2006 08:04	count	520313.0000			
9-JUL-2006 07:58	count	519049.0000			
12-JUL-2006 06:56	count	510924.0000			
14-JUL-2006 06:48	count	517189.0000			
16-JUL-2006 07:14	count	521259.0000			
19-JUL-2006 07:05	count	520306.0000			
20-JUL-2006 07:19	count	525366.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
21-JUL-2006 07:40	count		519242.0000				
22-JUL-2006 06:55	count		518868.0000				
23-JUL-2006 06:38	count		546092.0000	In			
23-JUL-2006 06:51	count		543646.0000	In			
26-JUL-2006 07:24	count		527893.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:40.33

QA Filename : $DISK1:[SCINT4.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-4
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : ---------- End Date : ----------
Mean : 5.174603 Std Deviation : 17.676794

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		1.0000				
17-JUL-2006 15:14	count		1.0000				

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/25/2006 8:47:51 AM

Lot No., Due Date: J6F270218,J6F140270; 07/25/2006,07/12/2006

Client, Site: 536403; AIR MONITORING Yerington Mine

QC Batch No., Method Test: 6179354; RRA2267 Ra-226 by ASC-7

SDG, Matrix: 31999,31902; FILTER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes ✓ No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes ✓ No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes ✓ No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes ✓ No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes ✓ No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes ✓ No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes ✓ No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A ✓

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A ✓

3.5 Are the sample yields and MDAs within contract limits? Yes ✓ No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes ✓ No N/A

4.2 Were analysis volumes entered correctly? Yes ✓ No N/A

4.3 Were yields entered correctly? Yes ✓ No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes ✓ No N/A

4.5 Were raw counts reviewed for anomalies? Yes ✓ No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A ✓

5.2 Are all required forms filled out? Yes ✓ No N/A

5.3 Was the correct methodology used? Yes ✓ No N/A

5.4 Was transcription checked? Yes ✓ No N/A

5.5 Were all calculations checked at a minimum frequency? Yes ✓ No N/A

5.6 Are worksheet entries complete and correct? Yes ✓ No N/A

6.0 Comments on any No response:

First Level Review Pam Anderson Date 7-25-06

STL Richland

DAS_RADC_LCv4.8.15

STLRICHLAND

1036

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6179354

Review Item	Yes (√)	No (√)	N/A (√)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?			✓
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodolgy used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review: Sherryl R Adam Date: 7-25-06

7/14/2006 9:34:23 AM

Sample Preparation/Analysis

Balance Id:1120373922,1120403183

536403, Brown and Caldwell , Brown & Caldwell

BX Ra-226/228 PrpRC5016, SepRC5005
TE Ba-133 by NaI & Ra-226 by Alpha Scint 7 day ingrow
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech: 7/17/06 AL 1512

Batch: 6179354 FILTER pCi/sampl PM, Quote: SA , 63174

Sep2 DT/Tm Tech:

SEQ Batch, Test: 6179357, BXTF All Tests: 6167169 7YSR, 6167182 9NS1, 6167184 BAS7, 6167185 BDS8, 6167188 BXTE, 6167192 BXTF, 6179343 7YSR, 6179344 9NS1, 6179346 BAS7, 6179351 BDS8, 6179354 BXTF, 6179357 BXTE

Prep Tech: HansenM,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst. Init/Date	Comments:
1 H7DWT-1-AC J6F140270-1-SAMP	0.833g	501.65g	152.92g,in 7.5759 7.946 0.9534	0.2539g	RATA23244 07/12/06		G13	2013	7/17/06	
05/24/2006 07:40		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	
2 H796F-1-AC J6F270218-1-SAMP	0.833g	501.59g	152.13g,in 7.5562 7.426 1.0175	0.2586g	RATA23245 07/12/06		G6	2013	7/17/06	
06/07/2006 10:00		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	
3 H796L-1-AC J6F270218-2-SAMP	0.833g	501.03g	150.93g,in 7.5661 7.970 0.9493	0.2509g	RATA23246 07/12/06		G8	2013	7/17/06	
06/07/2006 10:25		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	
4 H796N-1-AC J6F270218-3-SAMP	0.833g	500.85g	153.24g,in 7.5464 7.935 0.9510	0.2549g	RATA23247 07/12/06		G7	2013	7/17/06	
06/07/2006 10:35		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	

7-18-6 M 13:40
1 IHB 7/21/06 1343 R

7-18-6 M 13:40
2 2RC 7/21/06 1344 R

7-18-6 M 13:40
3 3RA 7/21/06 1342 R

7-18-6 M 13:40
4 4UA 7/21/06 1342 R

STL Richland Key: in - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 4
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.24

1038

STLRICHLAND

7/14/2006 9:34:25 AM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

536403, Brown and Caldwell , Brown & Caldwell

BX Ra-226/228 PrpRC5016, SepRC5005
TE Ba-133 by NaI & Ra-226 by Alpha Scint 7 day ingrow
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179354 FILTER pCi/sampl PM, Quote: SA , 63174

SEQ Batch, Test: 6179357, BXTF

Sep2 DT/Tm Tech:

Prep Tech: HansenM,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst. Init/Date	Comments:
5 H796P-1-AC J6F270218-4-SAMP	0.833g	501.24g	151.48g,in 7.5365 7.16 1.0526	0.2517g	RATA23248 07/12/06	7	9 11 7RH	2017 7-18-6 M 13:40 7/21/06 1343 R	7/17/06 OP	
06/07/2006 10:50		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	
6 H796Q-1-AC J6F270218-5-SAMP	0.833g	517.56g	150.67g,in 7.5464 7.562 0.9979	0.2425g	RATA23249 07/12/06	8	G 13 8RD	2053 7-18-6 M 13:40 7/21/06 1341 R	7/17/06 OP	
06/07/2006 11:00		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	
7 H796R-1-AC J6F270218-6-SAMP	0.833g	502.44g	153.56g,in 7.5365 7.702 0.9785	0.2546g	RATA23250 07/12/06	9	G6 9RC	2053 7-18-6 M 13:40 7/21/06 1344 R	7/17/06 OP	
06/07/2006 11:20		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	
8 H796T-1-AC J6F270218-7-SAMP	0.833g	500.22g	151.86g,in 7.5562 8.205 0.9209	0.2529g	RATA23251 07/12/06	13	G 8 DSA	2053 7-18-6 M 13:40 7/21/06 1343 R	7/17/06 OP	
06/07/2006 10:10		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 8

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.6.24

1039

STLRICHLAND

7/14/2006 9:34:25 AM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

536403, Brown and Caldwell , Brown & Caldwell

BX Ra-226/228 PrpRC5016, SepRC5005
TE Ba-133 by NaI & Ra-226 by Alpha Scint 7 day ingrow
01 STANDARD TEST SET

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179354 FILTER pCi/sampl PM, Quote: SA , 63174

SEQ Batch, Test: 6179357, BXTF

Sep2 DT/Tm Tech:

Prep Tech: HansenM,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
9 H796W-1-AC J6F270218-8-SAMP	0.833g	501.87g	151.54g,in 7.5365 7.521 1.0021	0.2515g	RATA23252 07/12/06	14	G7 EHB	2053 7-18-6 M 14:07 7/21/06 1411 R	7/17/06 OD	
06/07/2006 09:55		AmtRec: FILTER		#Containers: 1			Scr:	Alpha:	Beta:	
10H797D-1-AC J6F270218-9-SAMP	0.833g	500.74g	154.70g,in 7.5562 7.27 1.0394	0.2573g	RATA23253 07/12/06	15	9* FSA	2053 7-18-6 M 14:07 7/21/06 1412 R	7/17/06 OD	
06/07/2006 10:20		AmtRec: FILTER		#Containers: 1			Scr:	Alpha:	Beta:	
11H797E-1-AC J6F270218-10-SAMP	0.833g	503.68g	152.19g,in 7.5562 7.36 1.0267	0.2517g	RATA23254 07/12/06	16	G9 GSA	2135 7-18-6 M 1407 7/21/06 1410 R	7/17/06 OD	
06/07/2006 10:30		AmtRec: FILTER		#Containers: 1			Scr:	Alpha:	Beta:	
12H797F-1-AC J6F270218-11-SAMP	0.833g	513.46g	150.13g,in 7.5464 7.473 1.0098	0.2436g	RATA23255 07/12/06	18	G13 JSB	2135 7-18-6 M 14:07 7/21/06 1411 R	7/17/06 OD	
06/07/2006 10:45		AmtRec: FILTER		#Containers: 1			Scr:	Alpha:	Beta:	

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 3 ISV - Insufficient Volume for Analysis WO Cnt: 12
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.24

1040

STLRICHLAND

7/14/2006 9:34:26 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown & Caldwell

BX Ra-226/228 PrpRC5016, SepRC5005
TE Ba-133 by NaI & Ra-226 by Alpha Scint 7 day ingrow
01 STANDARD TEST SET

Balance Id:1120373922,1120373922,1120

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179354 FILTER pCi/sampl PM, Quote: SA , 63174

SEQ Batch, Test: 6179357, BXTF

Sep2 DT/Tm Tech:

Prep Tech: HansenM,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
13H797H-1-AC J6F270218-12-SAMP	0.833g	501.88g	150.22g,in 7.5267 7.22 1.0425	0.2493g	RATA23256 07/12/06		G 4	2209	7/17/06 OP	
06/07/2006 11:05		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	
14H797J-1-AC J6F270218-13-SAMP	0.833g	521.25g	154.34g,in 7.5768 7.038 1.0680	0.2466g	RATA23257 07/12/06		G 13	2210	7/17/06 OP	
06/07/2006 11:10		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	
15H797K-1-AC J6F270218-14-SAMP	0.833g	506.13g	153.17g,in 7.5464 7.23 1.0438	0.2521g	RATA23258 07/12/06		9	0519	7/18	
06/07/2006 10:05		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	
16H797M-1-AC J6F270218-15-SAMP	0.833g	500.73g	150.39g,in 7.5562 7.21 1.0480	0.2502g	RATA23259 07/12/06		9	0551	7/18	
06/07/2006 11:15		AmtRec: FILTER	#Containers: 1				Scr:	Alpha:	Beta:	

20 LMC 7-18-6M 14:07 7/21/06 1411 R

21 MRA 7-18-6M 14:07 7/21/06 1410 R

22 NMA 7-18-6M 14:07 7/21/06 1426 R

24 QMC 7-18-6M 14:07 7/21/06 1426 R

1041

STLRICHLAND

7/14/2006 9:34:26 AM

Sample Preparation/Analysis

BX Ra-226/228 PrpRC5016, SepRC5005
TE Ba-133 by NaI & Ra-226 by Alpha Scint 7 day ingrow
01 STANDARD TEST SET

Balance Id:1120373922,1120373922,1120

Pipet #:

AnalyDueDate: 07/11/2006

Sep1 DT/Tm Tech:

Batch: 6179354 pCi/sampl
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,AntonsonL

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
17H8DN7-1-AA-B J6F280000-354-BLK			1.00sa,in	1.00sa 74675 6.99 1.0683	RATA23260 07/12/06		9	0624	7/18	
06/07/2006 10:00		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:
18H8DN7-1-AC-C J6F280000-354-LCS			1.00sa,in	1.00sa 7.4669 7.13 1.0473	RASC4140 06/13/06		9	0658	7/18	
06/07/2006 10:00		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:

7-18-06 M 14:25
9 KME ✓ 7-21-06 1428 R
7 PMA ✓ 7-21-06 1428 R

Comments:

All Clients for Batch:
536403, Brown and Caldwell Brown & Caldwell , SA , 63174

H7DWT1AC-SAMP Constituent List:

Ba-133	RDL:	pCi/sam	LCL:20	UCL:115	RPD:20	Ra-226	RDL:1.00E+00	pCi/sam	LCL:	UCL:	RPD:

H8DN71AA-BLK:

Ba-133	RDL:	pCi/sam	LCL:20	UCL:115	RPD:20	Ra-226	RDL:1.00E+00	pCi/sam	LCL:	UCL:	RPD:

H8DN71AC-LCS:

Ba-133	RDL:	pCi/sam	LCL:20	UCL:115	RPD:20	Ra-226	RDL:1	pCi/sam	LCL:70	UCL:130	RPD:20

H7DWT1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H8DN71AA-BLK:

10 43

7/25/2006 8:59:32 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/25/2005, 7/30/2006, Batch: '6179354', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6179354						
AC		CalcC	HansenM	7/14/2006 8:47:17		
SC			wagarr	IsBatched	8/28/2006 1:38:13 PM	ICOC_RADCALC v4.8.24
SC			HansenM	InPrep2	7/14/2006 8:47:17 AM	RICH-RC-5016 REVISION 5
SC			HansenM	Prep2C	7/14/2006 8:47:47 AM	RICH-RC-5016 REVISION 5
SC			AntonsonL	InPrep	7/14/2006 9:12:14 AM	RICH-RC-5005 Revision 5
SC			LongA	Sep1C	7/17/2006 5:26:18 PM	RICH-RC-5005 REVISION 5
SC			DAWKINSO	InCnt1	7/17/2006 10:09:36 PM	RICH-RD-0007 REVISION 5
SC			BlackCL	Cnt1C	7/18/2006 7:12:54 AM	RICH-RD-0007 REVISION 5
SC			TamosaitisM	InSep2	7/18/2006 2:15:45 PM	RICH-RC-5005 REVISION 4
SC			StringerR	CalcC	7/21/2006 9:40:15 PM	RICH-RC-5005 REVISION 5
AC			HansenM	7/14/2006 8:47:47		
AC			AntonsonL	7/14/2006 9:12:14		
AC			LongA	7/17/2006 5:26:18 PM		
AC			DAWKINSO	7/17/2006 10:09:36		
AC			BlackCL	7/18/2006 7:12:54		
AC			TamosaitisM	7/18/2006 2:15:45 PM		
AC			StringerR	7/21/2006 9:40:15 PM		

AC: Accepting Entry, SC: Status Change

7/25/2006 8:59:31 AM

Rpt DB Transfer log (Batch Results)

STL

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	Sample Date / MDA	Units	expected	Yield	Volumes
31999	**9H796F10**		**J6F2702181**	000487	FILTER	6/26/2006 9:00:00	6/7/2006 10:00:00 AM				
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**5.2157E+00**	1.623E+00	1.71E+00	4.523E+00	PCI/SA	1.0	1.0E+0	2.068E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.5369E+01**	1.72E+00	2.03E+00	5.537E+00	PCI/SA	1.0	1.0E+0	3.385E-2
RA-226	BXTE	0	7/21/2006 4:44:00 PM	**9.8826E-02**	2.063E-01	2.065E-01	7.675E-01	PCI/SA	0.983	1.0E+0	2.526E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.8822E-01**	1.16E-01	1.172E-01	4.052E-01	PCI/SA	1.079	1.0E+0	3.387E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**6.2836E-01**	1.534E-01	1.629E-01	2.154E-01	PCI/SA	1.079	1.0E+0	3.387E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**-3.5906E-02**	2.539E-02	2.558E-02	2.643E-01	PCI/SA	1.079	1.0E+0	3.387E-2
U-234	7YSR	0	7/18/2006 6:21:43 PM	**2.7996E-01**	1.743E-01	1.758E-01	4.788E-01	PCI/SA	0.975	1.0E+0	3.258E-2
U-235	7YSR	0	7/18/2006 6:21:43 PM	**9.9979E-02**	9.998E-02	1.003E-01	2.709E-01	PCI/SA	0.975	1.0E+0	3.258E-2
U-238	7YSR	0	7/18/2006 6:21:43 PM	**-1.9991E-02**	1.999E-02	2.006E-02	4.768E-01	PCI/SA	0.975	1.0E+0	3.258E-2
31999	**9H796L10**		**J6F2702182**	000488	FILTER	6/26/2006 9:00:00	6/7/2006 10:25:00 AM				
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**5.4966E+00**	1.672E+00	1.766E+00	4.546E+00	PCI/SA	1.0	1.0E+0	2.086E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.7538E+01**	1.725E+00	2.106E+00	5.209E+00	PCI/SA	1.0	1.0E+0	3.479E-2
RA-226	BXTE	0	7/21/2006 4:42:00 PM	**2.7938E-01**	1.9E-01	1.923E-01	6.492E-01	PCI/SA	1.053	1.0E+0	2.508E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**5.5304E-02**	1.237E-01	1.238E-01	6.634E-01	PCI/SA	0.396	1.0E+0	3.517E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**3.165E-01**	1.827E-01	1.857E-01	2.859E-01	PCI/SA	0.396	1.0E+0	3.517E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**0.0E+00**	0.0E+00	1.292E-01	2.859E-01	PCI/SA	0.396	1.0E+0	3.517E-2
U-234	7YSR	0	7/18/2006 6:21:54 PM	**2.8598E-01**	1.651E-01	1.667E-01	2.583E-01	PCI/SA	0.926	1.0E+0	3.23E-2
U-235	7YSR	0	7/18/2006 6:21:54 PM	**2.6691E-01**	1.662E-01	1.676E-01	4.566E-01	PCI/SA	0.926	1.0E+0	3.23E-2
U-238	7YSR	0	7/18/2006 6:21:54 PM	**-3.8129E-02**	2.696E-02	2.713E-02	5.387E-01	PCI/SA	0.926	1.0E+0	3.23E-2
31999	**9H796N10**		**J6F2702183**	000489	FILTER	6/26/2006 9:00:00	6/7/2006 10:35:00 AM				
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**6.4647E+00**	1.658E+00	1.785E+00	3.857E+00	PCI/SA	1.0	1.0E+0	2.107E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.67E+01**	1.626E+00	1.941E+00	4.99E+00	PCI/SA	1.0	1.0E+0	3.648E-2
RA-226	BXTE	0	7/21/2006 4:42:00 PM	**1.8126E-01**	2.109E-01	2.119E-01	7.714E-01	PCI/SA	1.052	1.0E+0	2.649E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.7654E-01**	8.827E-02	8.968E-02	1.196E-01	PCI/SA	1.023	1.0E+0	3.634E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.5259E-01**	1.031E-01	1.056E-01	1.141E-01	PCI/SA	1.023	1.0E+0	3.634E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**0.0E+00**	0.0E+00	5.156E-02	1.141E-01	PCI/SA	1.023	1.0E+0	3.634E-2
U-234	7YSR	0	7/18/2006 6:22:08 PM	**2.0632E-01**	1.459E-01	1.468E-01	2.796E-01	PCI/SA	0.951	1.0E+0	3.249E-2
U-235	7YSR	0	7/18/2006 6:22:08 PM	**0.0E+00**	0.0E+00	1.263E-01	2.796E-01	PCI/SA	0.951	1.0E+0	3.249E-2
U-238	7YSR	0	7/18/2006 6:22:08 PM	**8.2533E-02**	1.052E-01	1.054E-01	4.941E-01	PCI/SA	0.951	1.0E+0	3.249E-2
31999	**9H796P10**		**J6F2702184**	000490	FILTER	6/26/2006 9:00:00	6/7/2006 10:50:00 AM				
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**3.1E+00**	1.521E+00	1.554E+00	5.409E+00	PCI/SA	1.0	1.0E+0	2.116E-2
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.905E+01**	1.706E+00	2.143E+00	5.03E+00	PCI/SA	1.0	1.0E+0	3.499E-2
RA-226	BXTE	0	7/21/2006 4:43:01 PM	**4.7177E-01**	2.98E-01	3.016E-01	1.016E+00	PCI/SA	0.95	1.0E+0	2.517E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.3167E-01**	7.755E-02	7.84E-02	2.256E-01	PCI/SA	1.107	1.0E+0	3.56E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.8707E-01**	1.015E-01	1.045E-01	9.724E-02	PCI/SA	1.107	1.0E+0	3.56E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**1.7942E-02**	4.013E-02	4.015E-02	2.152E-01	PCI/SA	1.107	1.0E+0	3.56E-2
U-234	7YSR	0	7/18/2006 6:22:38 PM	**-3.0904E-02**	1.546E-02	1.565E-02	5.153E-01	PCI/SA	1.056	1.0E+0	3.234E-2
U-235	7YSR	0	7/18/2006 6:22:38 PM	**8.1011E-02**	9.708E-02	9.729E-02	4.409E-01	PCI/SA	1.056	1.0E+0	3.234E-2
U-238	7YSR	0	7/18/2006 6:22:38 PM	**-4.6356E-02**	1.892E-02	1.928E-02	5.724E-01	PCI/SA	1.056	1.0E+0	3.234E-2
31999	**9H796Q10**		**J6F2702185**	000491	FILTER	6/26/2006 9:00:00	6/7/2006 11:00:00 AM				
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	**5.8528E+00**	1.661E+00	1.958E+00	5.67E+00	PCI/SA	1.0	1.0E+0	3.042E-2
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.5815E+01**	1.678E+00	1.993E+00	5.248E+00	PCI/SA	1.0	1.0E+0	3.123E-2
RA-226	BXTE	0	7/21/2006 4:41:00 PM	**9.1334E-01**	3.044E-01	3.184E-01	8.549E-01	PCI/SA	1.002	1.0E+0	2.425E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.7989E-01**	1.039E-01	1.051E-01	3.36E-01	PCI/SA	1.017	1.0E+0	3.115E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.0972E-01**	9.533E-02	9.71E-02	2.287E-01	PCI/SA	1.017	1.0E+0	3.115E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**3.0505E-01**	1.175E-01	1.206E-01	2.808E-01	PCI/SA	1.017	1.0E+0	3.115E-2
U-234	7YSR	0	7/18/2006 6:22:53 PM	**7.0218E-01**	2.752E-01	2.809E-01	5.183E-01	PCI/SA	0.981	1.0E+0	3.04E-2
U-235	7YSR	0	7/18/2006 6:22:53 PM	**7.8919E-02**	1.049E-01	1.051E-01	5.183E-01	PCI/SA	0.981	1.0E+0	3.04E-2
U-238	7YSR	0	7/18/2006 6:22:53 PM	**4.861E-01**	2.329E-01	2.361E-01	5.549E-01	PCI/SA	0.981	1.0E+0	3.04E-2
31999	**9H796R10**		**J6F2702186**	000492	FILTER	6/26/2006 9:00:00	6/7/2006 11:20:00 AM				
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	**4.1775E+00**	1.513E+00	1.574E+00	4.566E+00	PCI/SA	1.0	1.0E+0	2.069E-2

5179354, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0,
**Diff RptDb | Qtims => .

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	Sample Date / MDA	Units	Expected	Yield	Volumes
BETA	BDS8	0	7/18/2006 1:34:35 PM	**1.7615E+01**	1.668E+00	2.065E+00	5.009E+00	PCI/SA	1.0	1.0E+0	9.434E-2
RA-226	BXTE	0	7/21/2006 4:44:01 PM	**2.2045E-01**	2.549E-01	2.559E-01	9.301E-01	PCI/SA	1.022	1.0E+0	3.546E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.9618E-01**	9.989E-02	1.014E-01	2.615E-01	PCI/SA	0.997	1.0E+0	3.321E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**4.9901E-01**	1.441E-01	1.508E-01	1.127E-01	PCI/SA	0.997	1.0E+0	3.321E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**1.2475E-01**	7.203E-02	7.289E-02	1.127E-01	PCI/SA	0.997	1.0E+0	3.321E-2
U-234	7YSR	0	7/18/2006 6:23:10 PM	**-3.3198E-02**	1.66E-02	1.681E-02	5.536E-01	PCI/SA	1.009	1.0E+0	3.244E-2
U-235	7YSR	0	7/18/2006 6:23:10 PM	**-8.2994E-03**	8.299E-03	8.328E-03	4.172E-01	PCI/SA	1.009	1.0E+0	3.244E-2
U-238	7YSR	0	7/18/2006 6:23:10 PM	**-3.3198E-02**	1.66E-02	1.681E-02	5.536E-01	PCI/SA	1.009	1.0E+0	3.244E-2
31999	**9H796T10**		**J6F2702187**	000493	FILTER	6/26/2006 9:00:00	6/7/2006 10:10:00 AM				
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	**-7.4933E-02**	8.593E-01	8.593E-01	4.586E+00	PCI/SA	1.0	1.0E+0	2.117E-2
BETA	BDS8	0	7/18/2006 1:34:32 PM	**1.0747E+00**	1.22E+00	1.222E+00	5.046E+00	PCI/SA	1.0	1.0E+0	3.395E-2
RA-226	BXTE	0	7/21/2006 4:43:01 PM	**4.3349E-01**	2.053E-01	2.098E-01	6.313E-01	PCI/SA	1.086	1.0E+0	2.529E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**1.9076E-02**	4.265E-02	4.269E-02	2.288E-01	PCI/SA	0.936	1.0E+0	3.453E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.7293E-01**	1.045E-01	1.073E-01	2.183E-01	PCI/SA	0.936	1.0E+0	3.453E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**-3.639E-02**	2.573E-02	2.593E-02	2.678E-01	PCI/SA	0.936	1.0E+0	3.453E-2
U-234	7YSR	0	7/18/2006 6:23:32 PM	**-2.801E-02**	1.617E-02	1.633E-02	5.617E-01	PCI/SA	0.885	1.0E+0	3.256E-2
U-235	7YSR	0	7/18/2006 6:23:32 PM	**-1.8673E-02**	1.32E-02	1.329E-02	5.33E-01	PCI/SA	0.885	1.0E+0	3.256E-2
U-238	7YSR	0	7/18/2006 6:23:32 PM	**1.166E-01**	1.166E-01	1.17E-01	3.16E-01	PCI/SA	0.885	1.0E+0	3.256E-2
31999	**9H796W10**		**J6F2702188**	P-0660	FILTER	6/26/2006 9:00:00	6/7/2006 9:55:00 AM				
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	**3.8436E+00**	1.391E+00	1.445E+00	4.068E+00	PCI/SA	1.0	1.0E+0	2.088E-2
BETA	BDS8	0	7/18/2006 1:34:32 PM	**1.3482E+01**	1.585E+00	1.923E+00	5.061E+00	PCI/SA	1.0	1.0E+0	3.329E-2
RA-226	BXTE	0	7/21/2006 5:11:01 PM	**-3.0368E-01**	2.048E-01	2.07E-01	6.759E-01	PCI/SA	0.996	1.0E+0	2.518E-1
TH-228	9NS1	0	7/19/2006 12:17:22	**-5.5508E-02**	5.549E-02	5.57E-02	3.722E-01	PCI/SA	0.916	1.0E+0	3.475E-2
TH-230	9NS1	0	7/19/2006 12:17:22	**2.6634E+00**	3.08E-01	3.872E-01	2.116E-01	PCI/SA	0.916	1.0E+0	3.475E-2
TH-232	9NS1	0	7/19/2006 12:17:22	**3.5277E-02**	3.528E-02	3.541E-02	9.56E-02	PCI/SA	0.916	1.0E+0	3.475E-2
U-234	7YSR	0	7/18/2006 6:24:30 PM	**1.5766E-01**	1.422E-01	1.427E-01	5.571E-01	PCI/SA	1.006	1.0E+0	3.241E-2
U-235	7YSR	0	7/18/2006 6:24:30 PM	**-3.9462E-02**	2.79E-02	2.808E-02	5.571E-01	PCI/SA	1.006	1.0E+0	3.241E-2
U-238	7YSR	0	7/18/2006 6:24:30 PM	**-5.9194E-02**	3.418E-02	3.45E-02	6.223E-01	PCI/SA	1.006	1.0E+0	3.241E-2
31999	**9H797D10**		**J6F2702189**	P-0661	FILTER	6/26/2006 9:00:00	6/7/2006 10:20:00 AM				
ALPHA	BAS7	0	7/18/2006 4:13:36 PM	**2.4154E+00**	1.461E+00	1.462E+00	5.531E+00	PCI/SA	1.0	1.0E+0	2.066E-2
BETA	BDS8	0	7/18/2006 1:34:32 PM	**1.2452E+01**	1.549E+00	1.861E+00	5.002E+00	PCI/SA	1.0	1.0E+0	3.541E-2
RA-226	BXTE	0	7/21/2006 5:12:00 PM	**3.5851E-01**	2.991E-01	3.013E-01	1.056E+00	PCI/SA	0.962	1.0E+0	2.573E-1
TH-228	9NS1	0	7/19/2006 12:17:33	**1.1088E-01**	9.667E-02	9.717E-02	3.728E-01	PCI/SA	1.071	1.0E+0	3.341E-2
TH-230	9NS1	0	7/19/2006 12:17:33	**8.4616E-02**	5.983E-02	6.03E-02	1.147E-01	PCI/SA	1.071	1.0E+0	3.341E-2
TH-232	9NS1	0	7/19/2006 12:17:33	**0.0E+00**	0.0E+00	5.182E-02	1.147E-01	PCI/SA	1.071	1.0E+0	3.341E-2
U-234	7YSR	0	7/18/2006 6:24:37 PM	**0.0E+00**	0.0E+00	1.219E-01	2.697E-01	PCI/SA	1.029	1.0E+0	3.248E-2
U-235	7YSR	0	7/18/2006 6:24:37 PM	**-5.9728E-02**	3.448E-02	3.481E-02	6.282E-01	PCI/SA	1.029	1.0E+0	3.248E-2
U-238	7YSR	0	7/18/2006 6:24:37 PM	**3.9782E-02**	1.053E-01	1.054E-01	6.282E-01	PCI/SA	1.029	1.0E+0	3.248E-2
31999	**9H797E10**		**J6F27021810**	P-0662	FILTER	6/26/2006 9:00:00	6/7/2006 10:30:00 AM				
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	**6.44E+00**	1.887E+00	2.002E+00	5.424E+00	PCI/SA	1.0	1.0E+0	3.072E-2
BETA	BDS8	0	7/18/2006 1:34:19 PM	**1.046E+01**	1.699E+00	1.853E+00	6.064E+00	PCI/SA	1.0	1.0E+0	3.603E-2
RA-226	BXTE	0	7/21/2006 5:10:00 PM	**6.216E-02**	1.618E-01	1.62E-01	6.4E-01	PCI/SA	0.974	1.0E+0	2.517E-1
TH-228	9NS1	0	7/19/2006 12:17:45	**8.9776E-02**	8.399E-02	8.438E-02	3.305E-01	PCI/SA	0.991	1.0E+0	3.433E-2
TH-230	9NS1	0	7/19/2006 12:17:45	**1.7129E-01**	8.565E-02	8.702E-02	1.16E-01	PCI/SA	0.991	1.0E+0	3.433E-2
TH-232	9NS1	0	7/19/2006 12:17:45	**0.0E+00**	0.0E+00	5.245E-02	1.16E-01	PCI/SA	0.991	1.0E+0	3.433E-2
U-234	7YSR	0	7/18/2006 6:24:49 PM	**-1.4874E-01**	5.622E-02	5.748E-02	8.722E-01	PCI/SA	0.906	1.0E+0	3.215E-2
U-235	7YSR	0	7/18/2006 6:24:49 PM	**-6.3746E-02**	3.68E-02	3.716E-02	6.704E-01	PCI/SA	0.906	1.0E+0	3.215E-2
U-238	7YSR	0	7/18/2006 6:24:49 PM	**-2.1298E-02**	1.183E-01	1.183E-01	8.288E-01	PCI/SA	0.906	1.0E+0	3.215E-2
31999	**9H797F10**		**J6F27021811**	P-0663	FILTER	6/26/2006 9:00:00	6/7/2006 10:45:00 AM				
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	**3.9003E+00**	1.502E+00	1.556E+00	4.671E+00	PCI/SA	1.0	1.0E+0	2.035E-2
BETA	BDS8	0	7/18/2006 1:34:19 PM	**1.6067E+01**	1.616E+00	2.113E+00	4.858E+00	PCI/SA	1.0	1.0E+0	3.185E-2
RA-226	BXTE	0	7/21/2006 5:11:03 PM	**2.4592E-01**	1.489E-01	1.512E-01	4.66E-01	PCI/SA	0.99	1.0E+0	2.436E-1
TH-228	9NS1	0	7/19/2006 12:17:53	**-1.7632E-05**	8.33E-02	8.33E-02	4.466E-01	PCI/SA	0.992	1.0E+0	3.219E-2
TH-230	9NS1	0	7/19/2006 12:17:53	**1.1467E-01**	8.27E-02	8.334E-02	2.751E-01	PCI/SA	0.992	1.0E+0	3.219E-2

6179354, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0,
**Diff RptDb | Qtims => .

SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	MDA	Sample Date / Units	Expected	Yield	Volumes
TH-232	9NS1	0	7/19/2006 12:17:53	**0.0E+00**	0.0E+00	5.618E-02	1.243E-01	PCI/SA	0.992	1.0E+0	3.219E-2
U-234	7YSR	0	7/18/2006 6:25:00 PM	**7.7955E-02**	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	3.092E-2
U-235	7YSR	0	7/18/2006 6:25:00 PM	**-1.9478E-02**	1.948E-02	1.954E-02	4.665E-01	PCI/SA	1.011	1.0E+0	3.092E-2
U-238	7YSR	0	7/18/2006 6:25:00 PM	**7.7955E-02**	1.458E-01	1.459E-01	7.601E-01	PCI/SA	1.011	1.0E+0	3.092E-2
31999	**9H797H10**		**J6F27021812**	P-0664	FILTER	6/26/2006 9:00:00	6/7/2006 11:05:00 AM				
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	**3.7E+00**	1.475E+00	1.524E+00	4.621E+00	PCI/SA	1.0	1.0E+0	3.075E-2
BETA	BDS8	0	7/18/2006 1:34:19 PM	**1.3205E+01**	1.591E+00	1.627E+00	5.143E+00	PCI/SA	1.0	1.0E+0	3.304E-2
RA-226	BXTE	0	7/21/2006 5:11:01 PM	**1.0716E-01**	1.676E-01	1.66E-01	6.35E-01	PCI/SA	0.959	1.0E+0	2.493E-1
TH-228	9NS1	0	7/19/2006 10:14:05	**1.9535E-06**	8.279E-02	8.279E-02	4.201E-01	PCI/SA	1.047	1.0E+0	3.332E-2
TH-230	9NS1	0	7/19/2006 10:14:05	**1.3025E-01**	7.672E-02	7.757E-02	2.232E-01	PCI/SA	1.047	1.0E+0	3.332E-2
TH-232	9NS1	0	7/19/2006 10:14:05	**3.7213E-02**	3.721E-02	3.736E-02	1.008E-01	PCI/SA	1.047	1.0E+0	3.332E-2
U-234	7YSR	0	7/18/2006 6:25:11 PM	**5.5292E-02**	1.392E-01	1.392E-01	7.569E-01	PCI/SA	1.009	1.0E+0	3.232E-2
U-235	7YSR	0	7/18/2006 6:25:11 PM	**-1.8434E-02**	1.843E-02	1.849E-02	4.414E-01	PCI/SA	1.009	1.0E+0	3.232E-2
U-238	7YSR	0	7/18/2006 6:25:11 PM	**7.3726E-02**	1.379E-01	1.381E-01	7.192E-01	PCI/SA	1.009	1.0E+0	3.232E-2
31999	**9H797J10**		**J6F27021813**	P-0665	FILTER	6/26/2006 9:00:00	6/7/2006 11:10:00 AM				
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	**5.0222E+00**	1.555E+00	1.636E+00	4.09E+00	PCI/SA	1.0	1.0E+0	2.002E-2
BETA	BDS8	0	7/18/2006 1:34:38 PM	**1.2848E+01**	1.59E+00	1.816E+00	5.167E+00	PCI/SA	1.0	1.0E+0	3.465E-2
RA-226	BXTE	0	7/21/2006 5:10:00 PM	**2.4633E-01**	2.038E-01	2.055E-01	7.196E-01	PCI/SA	0.936	1.0E+0	3.466E-1
TH-228	9NS1	0	7/19/2006 10:14:05	**-7.7987E-02**	6.166E-02	6.204E-02	4.197E-01	PCI/SA	1.004	1.0E+0	3.099E-2
TH-230	9NS1	0	7/19/2006 10:14:05	**5.0194E-01**	1.404E-01	1.472E-01	2.23E-01	PCI/SA	1.004	1.0E+0	3.099E-2
TH-232	9NS1	0	7/19/2006 10:14:05	**6.2033E-07**	4.554E-02	4.554E-02	2.737E-01	PCI/SA	1.004	1.0E+0	3.099E-2
U-234	7YSR	0	7/18/2006 6:25:24 PM	**0.0E+00**	0.0E+00	1.219E-01	2.698E-01	PCI/SA	1.091	1.0E+0	3.015E-2
U-235	7YSR	0	7/18/2006 6:25:24 PM	**-1.9916E-02**	1.992E-02	1.996E-02	4.769E-01	PCI/SA	1.091	1.0E+0	3.015E-2
U-238	7YSR	0	7/18/2006 6:25:24 PM	**1.5928E-01**	1.436E-01	1.441E-01	5.636E-01	PCI/SA	1.091	1.0E+0	3.015E-2
31999	**9H797K10**		**J6F27021814**	P-0666	FILTER	6/26/2006 9:00:00	6/7/2006 10:05:00 AM				
ALPHA	BAS7	0	7/18/2006 7:02:47 PM	**-6.0243E-01**	9.947E-01	9.967E-01	5.518E+00	PCI/SA	1.0	1.0E+0	3.066E-2
BETA	BDS8	0	7/18/2006 1:34:38 PM	**1.2862E+01**	1.583E+00	1.813E+00	5.122E+00	PCI/SA	1.0	1.0E+0	3.229E-2
RA-226	BXTE	0	7/21/2006 5:26:00 PM	**3.8954E-01**	1.827E-01	1.869E-01	5.73E-01	PCI/SA	0.958	1.0E+0	2.521E-1
TH-228	9NS1	0	7/19/2006 10:14:05	**2.4133E-01**	1.097E-01	1.118E-01	2.632E-01	PCI/SA	1.024	1.0E+0	3.496E-2
TH-230	9NS1	0	7/19/2006 10:14:05	**3.7652E-01**	1.255E-01	1.3E-01	1.134E-01	PCI/SA	1.024	1.0E+0	3.496E-2
TH-232	9NS1	0	7/19/2006 10:14:05	**0.0E+00**	0.0E+00	5.124E-02	1.134E-01	PCI/SA	1.024	1.0E+0	3.496E-2
U-234	7YSR	0	7/18/2006 6:25:43 PM	**-2.1923E-02**	2.192E-02	2.199E-02	5.248E-01	PCI/SA	0.914	1.0E+0	3.187E-2
U-235	7YSR	0	7/18/2006 6:25:43 PM	**1.0956E-01**	1.096E-01	1.099E-01	2.969E-01	PCI/SA	0.914	1.0E+0	3.187E-2
U-238	7YSR	0	7/18/2006 6:25:43 PM	**-2.1923E-02**	2.192E-02	2.199E-02	5.248E-01	PCI/SA	0.914	1.0E+0	3.187E-2
31999	**9H797M10**		**J6F27021815**	P-0667	FILTER	6/26/2006 9:00:00	6/7/2006 11:15:00 AM				
ALPHA	BAS7	0	7/19/2006 8:30:44 AM	**-2.1818E+00**	8.661E-01	8.973E-01	6.058E+00	PCI/SA	1.0	1.0E+0	2.084E-2
BETA	BDS8	0	7/18/2006 1:34:38 PM	**1.6716E+00**	1.229E+00	1.238E+00	5.002E+00	PCI/SA	1.0	1.0E+0	3.539E-2
RA-226	BXTE	0	7/21/2006 5:26:00 PM	**1.2237E-02**	6.758E-02	6.759E-02	3.199E-01	PCI/SA	0.954	1.0E+0	2.502E-1
TH-228	9NS1	0	7/19/2006 10:14:05	**1.3121E-01**	7.575E-02	7.667E-02	1.185E-01	PCI/SA	1.011	1.0E+0	3.715E-2
TH-230	9NS1	0	7/19/2006 10:14:05	**2.0851E-01**	9.325E-02	9.511E-02	1.13E-01	PCI/SA	1.011	1.0E+0	3.715E-2
TH-232	9NS1	0	7/19/2006 10:14:05	**4.1702E-02**	4.17E-02	4.187E-02	1.13E-01	PCI/SA	1.011	1.0E+0	3.715E-2
U-234	7YSR	0	7/18/2006 6:25:53 PM	**0.0E+00**	0.0E+00	1.38E-01	3.054E-01	PCI/SA	0.816	1.0E+0	3.267E-2
U-235	7YSR	0	7/18/2006 6:25:53 PM	**-2.2549E-02**	2.255E-02	2.262E-02	5.399E-01	PCI/SA	0.816	1.0E+0	3.267E-2
U-238	7YSR	0	7/18/2006 6:25:53 PM	**-2.2549E-02**	2.255E-02	2.262E-02	5.399E-01	PCI/SA	0.816	1.0E+0	3.267E-2
31902	**9H7DWT10**		**J6F1402701**	000473	FILTER	6/14/2006 10:00:00	5/24/2006 7:40:00 AM				
ALPHA	BAS7	0	7/18/2006 1:26:23 PM	**3.4147E+00**	1.54E+00	1.581E+00	5.324E+00	PCI/SA	1.0	1.0E+0	2.096E-2
BETA	BDS8	0	7/18/2006 1:34:31 PM	**1.2465E+01**	1.555E+00	1.896E+00	5.665E+00	PCI/SA	1.0	1.0E+0	3.325E-2
RA-226	BXTE	0	7/21/2006 4:43:00 PM	**5.0869E-01**	2.598E-01	2.651E-01	8.594E-01	PCI/SA	1.049	1.0E+0	2.539E-1
TH-228	9NS1	0	7/19/2006 12:16:34	**-3.9324E-02**	7.357E-02	7.365E-02	4.233E-01	PCI/SA	1.057	1.0E+0	3.382E-2
TH-230	9NS1	0	7/19/2006 12:16:34	**2.0344E-01**	9.247E-02	9.419E-02	2.219E-01	PCI/SA	1.057	1.0E+0	3.382E-2
TH-232	9NS1	0	7/19/2006 12:16:34	**0.0E+00**	0.0E+00	4.53E-02	1.002E-01	PCI/SA	1.057	1.0E+0	3.382E-2
U-234	7YSR	0	7/18/2006 6:21:38 PM	**8.4174E-02**	1.073E-01	1.076E-01	5.042E-01	PCI/SA	0.936	1.0E+0	3.232E-2
U-235	7YSR	0	7/18/2006 6:21:38 PM	**0.0E+00**	0.0E+00	1.289E-01	2.852E-01	PCI/SA	0.936	1.0E+0	3.232E-2
U-238	7YSR	0	7/18/2006 6:21:38 PM	**-4.2133E-02**	2.979E-02	2.999E-02	5.948E-01	PCI/SA	0.936	1.0E+0	3.232E-2

6179354, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0.
**Diff RptDb | Qtims => .

SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	LotSample / Analysis Date	Client Id / Result	Cut Uncert	Tot Uncert	Matrix / mda	Received Date / Units	Sample Date / Expected	Yield	Volumes	
31999	H8DN71AB			J6F280000354	INTRA-LAB BLANK	FILTER		6/26/2006 9:00:00	6/7/2006 10:00:00 AM				
RA-226	BXTE	0	B	7/21/2006 5:28:00 PM	-3.2534E-02	6.443E-02	6.451E-02	2.647E-01	PCI/SA		0.936	1.0E+0	1.0E+0
31999	H8DN71CS			J6F280000354	INTRA-LAB CHECK	FILTER		6/26/2006 9:00:00	6/7/2006 10:00:00 AM				
RA-226	BXTE	0	S	7/21/2006 5:28:00 PM	1.3385E+00	1.174E-01	1.797E-01	1.451E-01	PCI/SA	1.3804E+00	0.965	1.0E+0	1.0E+0

6179354, **Samples Inserted | Updated | NotUpdated => 2 | 0 | 16,
**Results Inserted | ReTestInserted | Updated | NotInserted => 18 | 0 | 0 | 0.
**Diff RptDb | Qtims => .

Batch Nbr: 6179354

Alpha Beta, Ra-226 by ASC-7 , Results

7/24/2006 5:07:42 PM

Summary Report

Status	Meth	Matrix	Wrk Ord	Parameter	Sa Act	Uncert	Q	Units	Av	ILcC	IDC	QC	Yield	RYld
Ra-226 by ASC-7				Richland Standard Ra-226/Ra-228 Deem Wo Blk Subt.										
Calc	TE	FILTER	H7DWT1AC	RA-226	5.09E-01	(2.55E-01)		PCI/SA	R	3.81E-01	8.59E-01		105%	
Calc	TE	FILTER	H796F1AC	RA-226	9.88E-02	(2.07E-01)	U4	PCI/SA	R	3.37E-01	7.87E-01		98%	
Calc	TE	FILTER	H796L1AC	RA-226	2.79E-01	(1.92E-01)	U4	PCI/SA	R	2.65E-01	6.49E-01		105%	
Calc	TE	FILTER	H796N1AC	RA-226	1.81E-01	(2.12E-01)	U4	PCI/SA	R	3.31E-01	7.71E-01		105%	
Calc	TE	FILTER	H796P1AC	RA-226	4.72E-01	(3.02E-01)	U4	PCI/SA	R	4.53E-01	1.02E+00		95%	
Calc	TE	FILTER	H796Q1AC	RA-226	9.13E-01	(3.18E-01)		PCI/SA	R	3.53E-01	8.55E-01		100%	
Calc	TE	FILTER	H796R1AC	RA-226	2.20E-01	(2.56E-01)	U4	PCI/SA	R	4.01E-01	9.30E-01		102%	
Calc	TE	FILTER	H796T1AC	RA-226	4.33E-01	(2.10E-01)		PCI/SA	R	2.51E-01	6.31E-01		109%	
Calc	TE	FILTER	H796W1AC	RA-226	-3.04E-01	(2.07E-01)	U4	PCI/SA	R	3.92E-01	8.76E-01		100%	
Calc	TE	FILTER	H797D1AC	RA-226	3.59E-01	(3.01E-01)	U4	PCI/SA	R	4.54E-01	1.06E+00		96%	
Calc	TE	FILTER	H797E1AC	RA-226	6.22E-02	(1.62E-01)	U4	PCI/SA	R	2.64E-01	6.40E-01		97%	
Calc	TE	FILTER	H797F1AC	RA-226	2.46E-01	(1.51E-01)	U4	PCI/SA	R	1.84E-01	4.66E-01		99%	
Calc	TE	FILTER	H797H1AC	RA-226	1.07E-01	(1.68E-01)	U4	PCI/SA	R	2.66E-01	6.35E-01		96%	
Calc	TE	FILTER	H797J1AC	RA-226	2.46E-01	(2.06E-01)	U4	PCI/SA	R	3.06E-01	7.20E-01		94%	
Calc	TE	FILTER	H797K1AC	RA-226	3.90E-01	(1.87E-01)		PCI/SA	R	2.36E-01	5.73E-01		96%	
Calc	TE	FILTER	H797M1AC	RA-226	1.22E-02	(6.76E-02)	U4	PCI/SA	R	1.10E-01	3.20E-01		95%	
Calc	TE	FILTER	H8DN71AA	RA-226	-3.25E-02	(6.45E-02)	U4	PCI/SA	R	1.16E-01	2.65E-01	B	94%	
Calc	TE	FILTER	H8DN71AC	RA-226	1.34E+00	(1.80E-01)		PCI/SA	R	5.98E-02	1.45E-01	S	95%	97%

P Anderson
7-24-06

() - (1s Uncertainities)
IDC - Instrument Detection Level in Conc Units
MLcC - Method Decision Level in Conc Units
MDC - Minimum Detectable Concentration
*Std - i.e. MDC using StdDev for Set of Blanks

Q - Qualifier, U is Less Than Lc = 1.645*TPU
All Results Displayed to Three Digits Regardless of Significants
Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:16
RADCALC v4.8.24
STL Richland

STLRICHLAND

Batch Nbr: 6179354

Alpha Beta, Ra-226 by ASC-7 , Calculated Results

Detailed Report

7/24/2006 5:07:42 PM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
1	Calc	TE	FILTER	*STLE	Ra226WoBS	H7DWT1AC	PCI/SA		05/24/06 07:40	07/21/06 16:43	07/18/06 13:40	RATA23244	1	1.00 Sa	
CID:000478LOT:J6F1402701 v4.8.24							FILTER				07/21/06 13:43	RATA23244 Alq	105%	0.253927 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 16:43	RA-226	35	25	ASC1HB	ASC		N	2.4125E+00	1.0000E+00	N	105%	N		2.4416E+00	4.5045E-01	1.0001E+00	
			50	60			Y		(7.648E-02)	(0.000E+00)		8%			(0.000E+00)	3.938143		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.508692		2.83333E-01	0.28674	0.28674	1.00 Sa	105%		0.859423		
				(0.265075)		(1.4472E-01)	(0.148526)	(0.148526)	(0.027062)			0.381283		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
2	Calc	TE	FILTER	*STLE	Ra226WoBS	H796F1AC	PCI/SA		06/07/06 10:00	07/21/06 16:44	07/18/06 13:40	RATA23245	1	1.00 Sa	
CID:000487LOT:J6F2702181 v4.8.24							FILTER				07/21/06 13:44	RATA23245 Alq	98%	0.252645 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 16:44	RA-226	14	14	ASC2RC	ASC		N	2.0913E+00	1.0000E+00	N	98%	N		2.4411E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(6.618E-02)	(0.000E+00)		8%			(0.000E+00)	3.95812		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.098826	U4	4.68667E-02	0.055426	0.055426	1.00 Sa	98%		0.787477		
				(0.20654)		(9.7411E-02)	(0.115794)	(0.115794)	(0.027062)			0.336549		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
3	Calc	TE	FILTER	*STLE	Ra226WoBS	H796L1AC	PCI/SA		06/07/06 10:25	07/21/06 16:42	07/18/06 13:40	RATA23246	1	1.00 Sa	
CID:000488LOT:J6F2702182 v4.8.24							FILTER				07/21/06 13:42	RATA23246 Alq	105%	0.250932 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 16:42	RA-226	13	8	ASC3RA	ASC		N	1.9876E+00	1.0000E+00	N	105%	N		2.4420E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(7.811E-02)	(0.000E+00)		8%			(0.000E+00)	3.985136		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.27938	U4	1.26667E-01	0.155627	0.155627	1.00 Sa	105%		0.649172		
				(0.192302)		(8.6152E-02)	(0.106754)	(0.106754)	(0.027062)			0.264971		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
4	Calc	TE	FILTER	*STLE	Ra226WoBS	H796N1AC	PCI/SA		06/07/06 10:35	07/21/06 16:42	07/18/06 13:40	RATA23247	1	1.00 Sa	
CID:000489LOT:J6F2702183 v4.8.24							FILTER				07/21/06 13:42	RATA23247 Alq	105%	0.254865 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 16:42	RA-226	17	15	ASC4UA	ASC		N	2.1431E+00	1.0000E+00	N	105%	N		2.4420E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(1.060E-01)	(0.000E+00)		8%			(0.000E+00)	3.923652		

0 - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC - Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mmddyy hhmm, 24hr Time

RecCnt:4

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179354

Alpha Beta, Ra-226 by ASC-7 , Calculated Results

7/24/2006 5:07:42 PM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.181261	U4	9.00000E-02	0.102553	0.102553	1.00 Sa	105%		0.771378		
				(0.211858)		(1.0472E-01)	(0.119721)	(0.119721)	(0.027062)			0.331306		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
5	Calc	TE	FILTER	*STLE	Ra226WoBS	H796P1AC	PCI/SA		06/07/06 10:50	07/21/06 16:43	07/18/06 13:40	RATA23248	1	1.00 Sa	
CID:000490LOT:J6F2702184 v4.8.24							FILTER				07/21/06 13:43	RATA23248 Alq	95%	0.251741 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 16:43	RA-226	34	27	ASC7RH	ASC		N	2.2420E+00	1.0000E+00	N	95%	N		2.4418E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(3.946E-02)	(0.000E+00)		8%			(0.000E+00)	3.972331		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.471774	U4	2.30000E-01	0.263646	0.263646	1.00 Sa	95%		1.016033		
				(0.301644)		(1.4526E-01)	(0.167902)	(0.167902)	(0.027062)			0.452698		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
6	Calc	TE	FILTER	*STLE	Ra226WoBS	H796Q1AC	PCI/SA		06/07/06 11:00	07/21/06 16:41	07/18/06 13:40	RATA23249	1	1.00 Sa	
CID:000491LOT:J6F2702185 v4.8.24							FILTER				07/21/06 13:41	RATA23249 Alq	100%	0.2425 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 16:41	RA-226	24	9	ASC8RD	ASC		N	1.6380E+00	1.0000E+00	N	100%	N		2.4424E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(4.633E-02)	(0.000E+00)		8%			(0.000E+00)	4.123718		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.913338		3.30000E-01	0.491671	0.491671	1.00 Sa	100%		0.854915		
				(0.318412)		(1.1000E-01)	(0.169114)	(0.169114)	(0.027062)			0.352662		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
7	Calc	TE	FILTER	*STLE	Ra226WoBS	H796R1AC	PCI/SA		06/07/06 11:20	07/21/06 16:44	07/18/06 13:40	RATA23250	1	1.00 Sa	
CID:000492LOT:J6F2702186 v4.8.24							FILTER				07/21/06 13:44	RATA23250 Alq	102%	0.254569 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 16:44	RA-226	18	10	ASC9RC	ASC		N	1.8288E+00	1.0000E+00	N	102%	N		2.4411E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(5.139E-02)	(0.000E+00)		8%			(0.000E+00)	3.927906		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.220445	U4	9.33333E-02	0.124587	0.124587	1.00 Sa	102%		0.930092		
				(0.255864)		(1.0791E-01)	(0.14443)	(0.14443)	(0.027062)			0.401277		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
8	Calc	TE	FILTER	*STLE	Ra226WoBS	H796T1AC	PCI/SA		06/07/06 10:10	07/21/06 16:43	07/18/06 13:40	RATA23251	1	1.00 Sa	
CID:000493LOT:J6F2702187 v4.8.24							FILTER				07/21/06 13:43	RATA23251 Alq	109%	0.252887 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC - Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significant. Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:8

RADCALC v4.8.24

STL Richland

1050

STLRICHLAND

Batch Nbr: 6179354

Alpha Beta, Ra-226 by ASC-7 , Calculated Results

7/24/2006 5:07:42 PM

1	07/21/06 16:42	RA-226	14	5	ASCDSA	ASC	N	1.8059E+00	1.0000E+00	N	109%	N		2.4416E+00	4.5045E-01	1.0000E+00	
			50	60			Y	(3.449E-02)	(0.000E+00)		9%			(0.000E+00)	3.954308		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.433468		1.80000E-01	0.243353	0.243353	1.00 Sa	109%		0.631337		
				(0.209818)		(9.5245E-02)	(0.116973)	(0.116973)	(0.027062)			0.250553		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
9	Calc	TE	FILTER	*STLE	Ra226WoBS	H796W1AC	PCI/SA		06/07/06 09:55	07/21/06 17:11	07/18/06 14:07	RATA23252	1	1.00 Sa	
CID:P-0660LOT:J6F2702188 v4.8.24							FILTER				07/21/06 14:11	RATA23252 Alq	100%	0.291525 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:11	RA-226	16	30	ASCEHB	ASC		N	2.5969E+00	1.0000E+00	N	100%	N		2.4411E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(2.438E-02)	(0.000E+00)		8%			(0.000E+00)	3.975749		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	-0.303677	U4	-1.80000E-01	-0.169561	-0.169561	1.00 Sa	100%		0.875839		
				(0.206958)		(1.2138E-01)	(0.115154)	(0.115154)	(0.027062)			0.392482		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
10	Calc	TE	FILTER	*STLE	Ra226WoBS	H797D1AC	PCI/SA		06/07/06 10:20	07/21/06 17:12	07/18/06 14:07	RATA23253	1	1.00 Sa	
CID:P-0661LOT:J6F2702189 v4.8.24							FILTER				07/21/06 14:12	RATA23253 Alq	96%	0.257349 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:12	RA-226	19	15	ASCFSA	ASC		N	1.5102E+00	1.0000E+00	N	96%	N		2.4407E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(2.979E-02)	(0.000E+00)		8%			(0.000E+00)	3.885769		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.358507	U4	1.30000E-01	0.204811	0.204811	1.00 Sa	96%		1.05623		
				(0.30128)		(1.0847E-01)	(0.171723)	(0.171723)	(0.027062)			0.45365		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
11	Calc	TE	FILTER	*STLE	Ra226WoBS	H797E1AC	PCI/SA		06/07/06 10:30	07/21/06 17:10	07/18/06 14:07	RATA23254	1	1.00 Sa	
CID:P-0662LOT:J6F27021810 v4.8.24							FILTER				07/21/06 14:10	RATA23254 Alq	97%	0.251696 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:10	RA-226	9	9	ASCGSA	ASC		N	2.1653E+00	1.0000E+00	N	97%	N		2.4416E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(7.622E-02)	(0.000E+00)		8%			(0.000E+00)	3.973048		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.06216	U4	3.00000E-02	0.034731	0.034731	1.00 Sa	97%		0.540026		
				(0.161959)		(7.6102E-02)	(0.090471)	(0.090471)	(0.027062)			0.264018		

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:12

RADCALC v4.8.24
STL Richland

STLRICHLAND

Batch Nbr: 6179354

Alpha Beta, Ra-226 by ASC-7 , Calculated Results

7/24/2006 5:07:43 PM

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
12	Calc	TE	FILTER	*STLE	Ra226WoBS	H797F1AC	PCI/SA		06/07/06 10:45	07/21/06 17:11	07/18/06 14:07	RATA23255	1	1.00 Sa	
CID:P-0663LOT:J6F27021811 v4.8.24							FILTER				07/21/06 14:11	RATA23255 Alq	89%	0.24356 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:11	RA-226	9	4	ASCJSB	ASC		N	2.1011E+00	1.0000E+00	N	99%	N		2.4411E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(7.637E-02)	(0.000E+00)		8%			(0.000E+00)	4.105765		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.245918	U4	1.13333E-01	0.132962	0.132962	1.00 Sa	98%		0.486037		
				(0.151156)		(6.8638E-02)	(0.081376)	(0.081376)	(0.027062)			0.184324		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
13	Calc	TE	FILTER	*STLE	Ra226WoBS	H797H1AC	PCI/SA		06/07/06 11:05	07/21/06 17:11	07/18/06 14:07	RATA23256	1	1.00 Sa	
CID:P-0664LOT:J6F27021812 v4.8.24							FILTER				07/21/06 14:11	RATA23256 Alq	96%	0.249329 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:11	RA-226	12	11	ASCLMC	ASC		N	2.4319E+00	1.0000E+00	N	96%	N		2.4411E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(1.218E-01)	(0.000E+00)		8%			(0.000E+00)	4.010764		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.107164	U4	5.66667E-02	0.059313	0.059313	1.00 Sa	98%		0.634986		
				(0.166029)		(8.8632E-02)	(0.09294)	(0.09294)	(0.027062)			0.268402		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
14	Calc	TE	FILTER	*STLE	Ra226WoBS	H797J1AC	PCI/SA		06/07/06 11:10	07/21/06 17:10	07/18/06 14:07	RATA23257	1	1.00 Sa	
CID:P-0665LOT:J6F27021813 v4.8.24							FILTER				07/21/06 14:10	RATA23257 Alq	94%	0.246648 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:10	RA-226	17	13	ASCMRA	ASC		N	2.3844E+00	1.0000E+00	N	94%	N		2.4416E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(1.044E-01)	(0.000E+00)		7%			(0.000E+00)	4.054362		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	BlkLcC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.246335	U4	1.23333E-01	0.134876	0.134876	1.00 Sa	94%		0.719532		
				(0.205508)		(1.0203E-01)	(0.11226)	(0.11226)	(0.027062)			0.30687		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
15	Calc	TE	FILTER	*STLE	Ra226WoBS	H797K1AC	PCI/SA		06/07/06 10:05	07/21/06 17:26	07/18/06 14:07	RATA23258	1	1.00 Sa	
CID:P-0666LOT:J6F27021814 v4.8.24							FILTER				07/21/06 14:26	RATA23258 Alq	96%	0.252091 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:26	RA-226	18	9	ASCNMA	ASC		N	2.4482E+00	1.0000E+00	N	96%	N		2.4348E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(6.292E-02)	(0.000E+00)		8%			(0.000E+00)	3.966828		

() - (1s Uncertainties), Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU

IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration

Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count, All Result Digits May Not be Significants, Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:15

RADCALC v4.8.24

STL Richland

STLRICHLAND

Batch Nbr: 6179354

Alpha Beta, Ra-226 by ASC-7 , Calculated Results

7/24/2006 5:07:43 PM

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blkl.cC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.389544		2.10000E-01	0.217994	0.217994	1.00 Sa	96%		0.572084		
				(0.186919)		(9.8489E-02)	(0.103866)	(0.103866)	(0.027062)			0.236363		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
16	Calc	TE	FILTER	*STLE	Ra226WoBS	H797M1A0	PCI/SA		06/07/06 11:15	07/21/06 17:26	07/18/06 14:07	RATA23259	1	1.00 Sa	
CID:P-0067/LOT:J6F2/0E1316 v4.8.24							FILTER				07/21/06 14:20	RATA23259 Alq	95%	0.250184 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:26	RA-226	2	2	ASCOMB	ASC		N	2.5030E+00	1.0000E+00	N	95%	N		2.4348E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(1.307E-01)	(0.000E+00)		8%			(0.000E+00)	3.997051		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blkl.cC/MDC	StdDvMdC/LcC
	07/24/06	RA-226	R	0.012237	U4	6.66667E-03	0.006796	0.006796	1.00 Sa	95%		0.319868		
				(0.067595)		(3.6818E-02)	(0.037539)	(0.037539)	(0.027062)			0.110256		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
17	Calc	TE	FILTER	*STLE	Ra226WoBS	H8DN71AA	PCI/SA	B	06/07/06 10:00	07/21/06 17:28	07/18/06 14:25	RATA23260	1	1.00 Sa	
CID:INTRA-LAB BLANK:LOT:J6F280000354 v4.8.24							FILTER				07/21/06 14:28	RATA23260 Alq	94%	1.00 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:28	RA-226	14	20	ASCKME	ASC		N	1.9262E+00	1.0000E+00	N	94%	N		2.4416E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(2.562E-02)	(0.000E+00)		7%			(0.000E+00)	1.00		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blkl.cC/MDC	StdDvMdC/LcC
	07/21/06	RA-226	R	-0.032534	U4	-5.33333E-02	-0.072222	-0.072222	1.00 Sa	94%		0.264665		
				(0.064506)		(1.0562E-01)	(0.143146)	(0.143146)	(0.017321)			0.11587		

Sq	Status	Method	Matrix	Protocol	Equation Set	Wrk Ord	Units/Matrix	QC/BB	Sa/On Date	AnalysisDate/PptWt	Sep1/Sep2 Date	QC/Tracer Vial	Mult/EntYld	Total/Analy Vol	Final/Count Vol
18	Calc	TE	FILTER	*STLE	Ra226WoBS	H8DN71AQ	PCI/SA	S	06/07/06 10:00	07/21/06 17:28	07/18/06 14:25	RASC4140	1	1.00 Sa	
CID:INTRA-LAB CHECK:LOT:J6F280000354 v4.8.24							FILTER				07/21/06 14:26	RASC4140 Alq	95%	1.00 Sa	

Sq	Cnt Date	Parameter	Sample Cnt	Bkgrnd Cnt	Instr	Geom	Trc/Av	Ent	Efficiency1	Efficiency 2	Ent	Yld Fct	Ent	Blk Value	Ingr Fct	Conv Fct/VolAdj	Decay	Abn
1	07/21/06 17:28	RA-226	150	9	ASCPMA	ASC		N	2.4525E+00	1.0000E+00	N	95%	N		2.4416E+00	4.5045E-01	1.0000E+00	
			50	60			Y		(9.241E-02)	(0.000E+00)		8%			(0.000E+00)	1.00		

Sq	Calc Date	Parameter	Avg	Sa Act	Q	Net Cnt Rt	Dpm Wo Blk	Dpm-Blk	Vol Used	Yield,EnFct	Chem Yld,EFctU	IDC/LcC	Blkl.cC/MDC	StdDvMdC/LcC
	07/21/06	RA-226	R	1.336545		2.85000E+00	2.971427	2.971427	1.00 Sa	95%	97%	0.145075		
				(0.179703)		(2.5000E-01)	(0.366627)	(0.366627)	(0.017321)			0.059845		

0 - (1s Uncertainities) Q - Qualifier, U Result is Less Than Lc = 1.645 * TPU
IDC - Instrument Detection Level in Conc Units, MLcC - Method Decision Level in Conc Units, MDC- Minimum Detectable Concentration
Sr-89 Counts are Derived from the Combination of Each Sr-89/90 and Y-90 Count. All Result Digits May Not be Significants. Date/Time - mm/dd/yy hh:mm, 24hr Time

RecCnt:18 RADCALC v4.8.24
STL Richland

ESI-Calculated Values

RAD-226

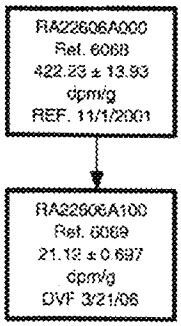
sample	smp count	smp time	bkg coun	bkg time	NCR_S	CR Uncertain	Efficiency	Ingrowth	$NDPM_S$	Total V	Analytical Vo	Sample Activity	Yield-Corre
H7DWT	35	50	25	60	0.283333	0.14472196	2.4125	2.4416	0.2868	1	0.253927	0.508678063	0.508678
H796F	14	50	14	60	0.046667	0.09741093	2.0913	2.4411	0.0545	1	0.252645	0.097120818	0.099103
H796L	13	50	8	60	0.126667	0.08615232	1.9876	2.442	0.1556	1	0.250932	0.279363711	0.279364
H796N	17	50	15	60	0.09	0.10472185	2.1431	2.442	0.1026	1	0.254865	0.181251896	0.181252
H796P	34	50	27	60	0.23	0.14525839	2.242	2.4416	0.2505	1	0.251741	0.448187579	0.471776
H796Q	24	50	9	60	0.33	0.11	1.6393	2.4424	0.4917	1	0.2425	0.913287629	0.913288
H796R	18	50	16	60	0.093333	0.10790943	1.8288	2.4411	0.1246	1	0.254589	0.220426358	0.220426
H796T	14	50	6	60	0.18	0.08524475	1.8059	2.4416	0.2434	1	0.252887	0.433484771	0.433485
H796W	16	50	30	60	-0.18	0.12138094	2.5969	2.4411	-0.1692	1	0.251525	-0.303018202	-0.303018
H797D	19	50	15	60	0.13	0.10847427	1.6102	2.4407	0.1971	1	0.257349	0.344907368	0.359279
H797E	9	50	9	60	0.03	0.0781025	2.1653	2.4416	0.0338	1	0.251696	0.060540835	0.062413
H797F	9	50	4	60	0.113333	0.06863753	2.1011	2.4411	0.1317	1	0.24356	0.243521646	0.245981
H797H	12	50	11	60	0.056667	0.08863157	2.4313	2.4411	0.0569	1	0.249329	0.102789539	0.107072
H797J	17	50	13	60	0.123333	0.10203485	2.3844	2.4416	0.1263	1	0.246648	0.230645667	0.245368
H797K	18	50	9	60	0.21	0.09848858	2.4482	2.4348	0.2089	1	0.252091	0.373186031	0.388735
H797M	2	50	2	60	0.006667	0.03681787	2.503	2.4348	0.0065	1	0.250184	0.011676123	0.012291
H8DN71AA	14	50	20	60	-0.053333	0.10561986	1.9262	2.4416	-0.0676	1	1	-0.030452215	-0.032396
H8DN71AC	150	50	9	60	2.85	0.25	2.4525	2.4416	2.8373	1	1	1.278078078	1.345345

Vial Identifier	Constituent	Prep Activity/Concentration			Std Wt Used		Prep.Decayed To Date	Prep by	Std Decayed Activity/Concentration		
	Parent Standard:	Ra22606A100		Ref: 11/1/2001			2.1060E+01	± 3.234E-01	DPM/G		
RASC4140	RA-225	**3.0644E+00**	± **4.715E-02**	DPM	0.1458	g	6/13/2006	6/13/2006	Armstron 2.1018E+01	± 3.228E-01	DPM/G
		3.0644E+000	± 3.064E+000	(1)			3.0644E+000 , 3.0644E+000				

STL Richland, SMFractions v4.8.12 Page 3 Record Count: 4

* - Isotope is an Impurity

RA22606A


RA22606A000
Ref. 6068
422.23 ± 13.93
dpm/g
REF. 11/1/2001
RA22606A100
Ref. 6069
21.13 ± 0.697
dpm/g
DVF 3/21/06

Isotope Products Laboratories
An Eckert & Ziegler Company

24937 Avenue Tibbitts
Valencia, California 91355

Tel 661-309-1010
Fax 661-257-8303

STL# RA22601AL
REC'D 10/25/01

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide:	Ra-226	**Customer:**	SEVERN TRENT LABORATORIES, INC.
Half-life:	1600 ± 7 years	**P.O. No.:**	1173413
Catalog No.:	7226	**Reference Date:**	1-Nov-01 12:00 PST
Source No.:	763-63-7	**Contained Radioactivity:**	0.09795 µCi 3.624 kBq

Physical Description:

A. Mass of solution: 1.15278 g in 1 mL V-Vial
B. Chemical form: $Ra(NO_3)_2$ in 1M HNO_3
C. Carrier content: 10 µg Ba/mL of solution
D. Density: 1.0318 g/mL @ 20°C.

Radioimpurities:

None detected (Daughters not in equilibrium as of 22 Oct 01)

Radionuclide Concentration: 0.08497 µCi/g, 3.144 kBq/g

Method of Calibration:

This source was prepared from a weighed aliquot of solution whose activity in µCi/g was determined using gamma ray spectrometry.
Peak energy used for integration: 186.0 keV
Branching ratio used: 0.0351 gammas per decay

Uncertainty of Measurement:

A. Type A (random) uncertainty: ± 1.3 %
B. Type B (systematic) uncertainty: ± 3.0 %
C. Uncertainty in aliquot weighing: ± 0.4 %
D. Total uncertainty at the 99% confidence level: ± 3.3 %

Notes:

- See reverse side for leak test(s) performed on this source.
- IPL participates in a NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).
- Nuclear data was taken from NCRP Report No. 58, 1985.
- This solution has a working life of 5 years.

Quality Control — Date Signed: 22-Oct-01 — IPL Ref. No.: 763-63

SEVERN TRENT SERVICES

STANDARD SOLUTION PREP SHEET

PARENT

STL# RA22601AL Isotope Ra^{226} Date received 10/25/01

1 Activity (pCi or Bq) 84,969 Per (gram or ml) GRAM

2 on 11 / 1 / 01 at 1300 MST

3 Half life (t 1/2) 1600 ± 7 y

SOLUTION

4 Weight of source and vial 13.7912g

5 Weight of vial 12.6466g

6 Weight of source (line 4 - line 5) 1.1446g

1.15278g FROM CERTIFICATE

7 Total Activity (line 1 X line 6) = 97,950 pCi

8 Total Activity pCi (Bq/0.037)

9 Diluted up to 500 mls in 1M HNO_3

10 Therefore making a solution of 195.9 pCi per 1 ml on the standard reference date

DECAY DATA

Decay = exp(- Lambda x t)

Lambda = (Natural log 2)/(t 1/2) ; t = decay duration Note: t and t 1/2 must be in the same units

11 Lambda = 0.6931 / t 1/2 $4.3322 \times 10^{-4} y^{-1}$

12 Date to decay 12 / 11 / 01

13 Reference Date 11 / 1 / 01

14 Decay duration (12 - 13) 41d

15 Decay duration in t 1/2 units 0.1123y

Decay = exp -(line 11 x line 15)

16 Decay = exp - (4.3322×10^{-4} x 0.1123) = 1.0000

17 Decayed activity = original activity x decay = 195.9 pCi/ml

NOTES:

Prepared by

12/11/01
Preparation date

Figure 3

SEVERN TRENT SERVICES

RADIOLOGICAL DAUGHTER SOLUTION LOG

STL PARENT # : RA22601AL
ISOTOPE: Ra 226
ACTIVITY: 196 pCi/ml

REF. DATE: 11/1/01 1300MST
HALF LIFE(t 1/2): 1600 years
DATE REC: 10/25/01

SOLUTION #	PARENT mls USED	VOLUME DILUTED UP TO	DATE PREPARED	PREPARED BY	REF. DATE ACTIVITY	DISPOSED OF DATE	COMMENTS
RA22601ALP1	2.0	PPT.	12/28/01	ACM	392	2/3/03	Barium sulfate
RA22601ALP2	2.0	PPT.	12/28/01	ACM	392		Barium sulfate
RA22601ALP3	2.0	PPT.	12/28/01	ACM	392		Barium sulfate
RA22601ALP4	2.0	PPT.	12/28/01	ACM	392		Barium sulfate
RA22601ALP5	2.0	PPT.	12/28/01	ACM	392		Barium sulfate
RA22601ALP6	2.0	PPT.	12/28/01	ACM	392		Barium sulfate
RA22601ALA1	25.0	500 ml	4/18/02	JCP	9.8		Matrix: 1 M HNO_3

REURIFIED 7/22/03
EXP. 7/22/04

RADIOCHEMISTRY LABORATORY
STANDARDS CALIBRATION CHECK WORKSHEET
MOTHER DAUGHTER

SEVERN TRENT SERVICES

STL Denver

Standard Information:

Isotope:	Ra 226	Activity/unit:	9.8	pCi/ml
STL#:	RA22601ALA1	Cert. TPU:	3.30%	
Cert#:	763-63-7	Ref. Date:	11/1/01	
Date Rec'd:	10/25/01	Date Prepared:	4/18/02	

Description of Mounting: Counted by gross alpha(GFPC)

Detector Efficiency: 15.9-16.5%

Determination of Acceptance Limit:

Acceptance Limit(pCi/ml) = 8.4 to 10.3

RESULT PASSES

SUMMARY OF RESULTS

Verification	Activity	2 sigma Error	Units
STD# 1	9.46	0.94	pCi/ml
STD# 2	9.04	0.95	pCi/ml
STD# 3	9.62	0.95	pCi/ml
MEAN	9.37	0.95	pCi/ml
STD. DEV.	0.30	0.01	pCi/ml

Date Performed: 11/29/04 Analyst

*Expires one year from date performed.

N:/QA/Forms/Rad/Standards Check Worksheet Daughter.XLS

ISOTOPE RECORD FORM

1) Isotope: Ra-226
2) Reference Number: 6068
3) Half Life: 1600 yrs.
4) Storage Location: qclab
5) Source Identification Number: Ra22606A000

****

CALIBRATION DATA

6) Activity as Received Units: 195.9 pCi/mL
7) Overall Uncertainty Percent: 3.30%
8) Reference Date / Time: 11/1/2001
9) Activity dpm/g: 422.23 dpm/g
10) Volume or Mass (ml/g): 100 mL
11) Calibrated by: IPL
12) Certificate Solution Number: 763-63-7

****

SURVEY DATA

13) Date Received: 3/21/2006 from Denver Lab
14) Surveyed by: tda
15) Survey Reading (Beta/Gamma) cpm: <300 cpm
16) Survey Reading (Alpha) cpm: 0

****

17) Activity Conversion: 195.9 pCi/mL x 2.22 dpm/pCi / 1.025 g/mL = 422.23 dpm/g
18) Remarks: From STL Denver #RA22601AL
19) Isotope File Updated by: tda 3/21/2006
20) QC Approved: _____

Form No.: CC-008, 3/95, Rev. 2

ISOTOPE DILUTION RECORD

1) Prepared by	tda	2) Date Prepared	10/14/2005
3) Source Identification Number / Ref. Number	***RA22606A000***		***6068***
4) Source Activity (dpm ± dpm/g)	4.2223E+02	±	1.393E+01
5) Percent error of Source Activity	3.3 %		
6) Weight of Source Material used (g)	50		
7) (% Error) of Weight of Source Material used	0.0096 %		
8) Diluent	1 M HNO3		
9) Total Weight of the Dilution (g)	approx. 750 g		
10) (% Error) of Total Weight of the Dilution	0.0400 %		
11) Specific Activity of Diluted Solution dpm/g	***2.1120E+01***	±	***6.970E-01***
12) Total Uncertainty	3.300 %		
13) Dilution Identification Number / Ref. Number	***RA22606A100***		***6069***
14) Calibration Reference Date	11/1/2001		
15) Isotope Inventory File update by/date	tda		3/21/2006
16) Reviewed by/date			
17) Location QCLAB	18) Exhausted		

****

CALCULATIONS

*7) % Error of Wt. used = (0.0048 / Weight of Source Material used * 100)*

*10) % error of Dilution Wt. = (0.3 / Total Weight of Dilution * 100)*

*11) Specific Activity = Source Activity * Wt. of Source Material used / Total Wt. of the Dilution*

12) % Total Uncertainty = √(% error of Source Activity ^2 + % error of Wt. Used^2 + % error of Dilution Wt.^2)

Form: CC-006, 7/15/99, Rev 3

Quality Assurance Report. Generated 27-JUL-2006 10:35:05.74

QA Filename : $DISK1:[SCINT23.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-23
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 77893.000000 Upper Bound : 82471.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 80182.328125 Std Deviation : 763.039856

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:08	count		79898.0000				
2-JUN-2006 07:27	count		78825.0000				
2-JUN-2006 07:39	count		79589.0000				
4-JUN-2006 08:57	count		79207.0000				
4-JUN-2006 09:08	count		78988.0000				
5-JUN-2006 12:55	count		80132.0000				
6-JUN-2006 09:20	count		79699.0000				
7-JUN-2006 08:05	count		78879.0000				
7-JUN-2006 08:18	count		79812.0000				
8-JUN-2006 06:23	count		79676.0000				
10-JUN-2006 07:21	count		78954.0000				
10-JUN-2006 07:33	count		79212.0000				
11-JUN-2006 08:47	count		79017.0000				
11-JUN-2006 08:59	count		79299.0000				
13-JUN-2006 06:42	count		80061.0000				
14-JUN-2006 07:27	count		79429.0000				
15-JUN-2006 08:17	count		79273.0000				
15-JUN-2006 08:33	count		79834.0000				
16-JUN-2006 07:04	count		79541.0000				
17-JUN-2006 07:45	count		79805.0000				
18-JUN-2006 08:08	count		78968.0000				

18-JUN-2006 08:22	count	79176.0000					
21-JUN-2006 06:54	count	79794.0000					
22-JUN-2006 07:45	count	80510.0000					
23-JUN-2006 08:41	count	79705.0000					
24-JUN-2006 07:35	count	79159.0000					
24-JUN-2006 07:49	count	79760.0000					
25-JUN-2006 07:10	count	80038.0000					
28-JUN-2006 06:44	count	81771.0000		In			
29-JUN-2006 07:57	count	81320.0000					
30-JUN-2006 10:51	count	0.0000	Be	Ac			R
30-JUN-2006 11:19	count	80303.0000					
1-JUL-2006 11:02	count	80340.0000					
5-JUL-2006 07:11	count	81219.0000					
6-JUL-2006 07:16	count	81220.0000					
7-JUL-2006 07:26	count	81003.0000					
8-JUL-2006 08:04	count	80208.0000					
9-JUL-2006 07:59	count	80225.0000					

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUL-2006 06:56	count	80427.0000					
14-JUL-2006 06:49	count	79910.0000					
16-JUL-2006 07:14	count	80187.0000					
19-JUL-2006 07:05	count	80056.0000					
20-JUL-2006 07:19	count	79903.0000					
21-JUL-2006 07:40	count	80457.0000					
22-JUL-2006 06:55	count	80099.0000					
23-JUL-2006 06:38	count	80733.0000					
26-JUL-2006 07:24	count	80513.0000					

Quality Assurance Report. Generated 27-JUL-2006 10:35:06.14

QA Filename : $DISK1:[SCINT23.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-23
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 4.428571 Std Deviation : 3.631365

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:32	count		1.0000				
17-JUL-2006 15:14	count		0.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:34:47.13

QA Filename : $DISK1:[SCINT22.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-22
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 75770.000000 Upper Bound : 80044.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:36	count		77293.0000				
2-JUN-2006 07:10	count		77049.0000				
4-JUN-2006 08:45	count		77135.0000				
6-JUN-2006 07:34	count		76672.0000				
7-JUN-2006 07:35	count		77859.0000				
8-JUN-2006 09:18	count		268070.0000	Ab			R
8-JUN-2006 09:45	count		76707.0000				
12-JUN-2006 13:15	count		78077.0000				
13-JUN-2006 10:13	count		77797.0000				
14-JUN-2006 08:49	count		77065.0000				
15-JUN-2006 07:58	count		77003.0000				
16-JUN-2006 08:28	count		76936.0000				
17-JUN-2006 07:32	count		77584.0000				
18-JUN-2006 07:55	count		76812.0000				
20-JUN-2006 10:24	count		76750.0000				
21-JUN-2006 08:38	count		78142.0000				
22-JUN-2006 10:33	count		77530.0000				
23-JUN-2006 08:24	count		77720.0000				
24-JUN-2006 09:03	count		77402.0000				
25-JUN-2006 08:21	count		77959.0000				
27-JUN-2006 07:07	count		78471.0000				
28-JUN-2006 08:24	count		79325.0000				
29-JUN-2006 07:44	count		78352.0000				
30-JUN-2006 11:08	count		77881.0000				
1-JUL-2006 11:54	count		77421.0000				
5-JUL-2006 08:32	count		78277.0000				
6-JUL-2006 08:34	count		78137.0000				

7-JUL-2006 08:26	count	78690.0000	|	|	|
8-JUL-2006 08:42	count	77646.0000	|	|	|
9-JUL-2006 08:47	count	77853.0000	|	|	|
12-JUL-2006 08:19	count	77636.0000	|	|	|
19-JUL-2006 08:18	count	77454.0000	|	|	|
20-JUL-2006 08:21	count	78015.0000	|	|	|
21-JUL-2006 08:47	count	78229.0000	|	|	|
22-JUL-2006 07:59	count	78297.0000	|	|	|
26-JUL-2006 08:35	count	78574.0000	|	|	|

Quality Assurance Report. Generated 27-JUL-2006 10:34:47.47

QA Filename : $DISK1:[SCINT22.QAJBKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-22
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.250000 Std Deviation : 0.462910

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:32	count		0.0000	|	|	|	
17-JUL-2006 13:59	count		1.0000	|	|	|	

Quality Assurance Report. Generated 27-JUL-2006 10:34:40.65

QA Filename : $DISK1:[SCINT21.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-21
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 75978.000000 Upper Bound : 79693.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:23	count		77895.0000				
2-JUN-2006 06:58	count		77581.0000				
4-JUN-2006 07:47	count		76765.0000				
6-JUN-2006 07:19	count		77207.0000				
7-JUN-2006 09:18	count		77794.0000				
8-JUN-2006 08:39	count		77417.0000				
12-JUN-2006 12:50	count		77358.0000				
13-JUN-2006 09:59	count		77549.0000				
14-JUN-2006 08:35	count		77608.0000				
15-JUN-2006 07:42	count		77148.0000				
16-JUN-2006 08:16	count		77225.0000				
17-JUN-2006 07:20	count		77174.0000				
18-JUN-2006 07:43	count		77201.0000				
20-JUN-2006 09:27	count		77607.0000				
21-JUN-2006 08:25	count		77088.0000				
22-JUN-2006 10:16	count		77386.0000				
23-JUN-2006 08:11	count		77895.0000				
24-JUN-2006 08:49	count		77498.0000				
25-JUN-2006 08:09	count		78291.0000				
27-JUN-2006 06:52	count		77993.0000				
28-JUN-2006 10:15	count		78466.0000				
29-JUN-2006 07:31	count		79161.0000				
30-JUN-2006 07:28	count		78094.0000				
5-JUL-2006 08:17	count		78122.0000				
6-JUL-2006 08:21	count		78183.0000				
7-JUL-2006 08:15	count		78137.0000				
12-JUL-2006 08:05	count		78026.0000				

19-JUL-2006 08:04	count	77614.0000	|	|	|
20-JUL-2006 08:10	count	77587.0000	|	|	|
21-JUL-2006 08:34	count	77343.0000	|	|	|
22-JUL-2006 07:48	count	77882.0000	|	|	|
23-JUL-2006 07:28	count	78500.0000	|	|	|
26-JUL-2006 08:24	count	78625.0000	|	|	|

Quality Assurance Report. Generated 27-JUL-2006 10:34:40.97

QA Filename : $DISK1:[SCINT21.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-21
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:32	count		0.0000	|	|	|	
17-JUL-2006 13:59	count		0.0000	|	|	|	

Quality Assurance Report. Generated 27-JUL-2006 10:34:33.57

QA Filename : $DISK1:[SCINT20.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-20
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 77646.000000 Upper Bound : 81172.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:10	count		78948.0000				
2-JUN-2006 06:15	count		77942.0000				
4-JUN-2006 07:34	count		78686.0000				
4-JUN-2006 08:34	count		79094.0000				
6-JUN-2006 09:35	count		79179.0000				
7-JUN-2006 07:14	count		78832.0000				
8-JUN-2006 08:11	count		78071.0000				
10-JUN-2006 07:05	count		78938.0000				
11-JUN-2006 08:25	count		78394.0000				
12-JUN-2006 12:24	count		78594.0000				
13-JUN-2006 08:29	count		79181.0000				
14-JUN-2006 08:20	count		78533.0000				
15-JUN-2006 07:28	count		78737.0000				
16-JUN-2006 08:05	count		79011.0000				
17-JUN-2006 07:08	count		78977.0000				
18-JUN-2006 07:31	count		78550.0000				
21-JUN-2006 08:06	count		78654.0000				
22-JUN-2006 09:52	count		78453.0000				
23-JUN-2006 07:57	count		79035.0000				
24-JUN-2006 08:34	count		78800.0000				
25-JUN-2006 07:55	count		79372.0000				
28-JUN-2006 08:13	count		80032.0000				
29-JUN-2006 07:19	count		80367.0000				
30-JUN-2006 07:16	count		79535.0000				
1-JUL-2006 11:41	count		79070.0000				
5-JUL-2006 08:04	count		79896.0000				
6-JUL-2006 08:09	count		79765.0000				

7-JUL-2006 08:04	count	79330.0000			
12-JUL-2006 07:50	count	78550.0000			
19-JUL-2006 07:49	count	78659.0000			
20-JUL-2006 07:57	count	79211.0000			
21-JUL-2006 08:20	count	78957.0000			
22-JUL-2006 07:36	count	79181.0000			
23-JUL-2006 07:17	count	79099.0000			
26-JUL-2006 08:09	count	79666.0000			

Quality Assurance Report. Generated 27-JUL-2006 10:34:33.85

QA Filename : $DISK1:[SCINT20.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-20
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:32	count		0.0000				
17-JUL-2006 13:59	count		0.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:35:00.27

QA Filename : $DISK1:[SCINT19.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-19
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 17298.000000 Upper Bound : 18610.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 17954.429688 Std Deviation : 218.645645

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:08	count		17666.0000				
2-JUN-2006 06:15	count		17646.0000				
4-JUN-2006 08:32	count		17923.0000				
6-JUN-2006 06:47	count		17719.0000				
7-JUN-2006 08:23	count		17702.0000				
8-JUN-2006 06:23	count		17547.0000				
12-JUN-2006 09:53	count		17838.0000				
13-JUN-2006 06:42	count		17770.0000				
14-JUN-2006 07:23	count		17820.0000				
15-JUN-2006 06:47	count		17725.0000				
16-JUN-2006 07:22	count		17864.0000				
17-JUN-2006 07:00	count		17993.0000				
18-JUN-2006 07:15	count		17985.0000				
20-JUN-2006 07:14	count		18081.0000				
21-JUN-2006 06:54	count		18382.0000				
21-JUN-2006 07:13	count		18226.0000				
22-JUN-2006 06:56	count		17901.0000				
23-JUN-2006 06:55	count		17873.0000				
24-JUN-2006 07:55	count		18226.0000				
25-JUN-2006 07:58	count		18236.0000				
27-JUN-2006 06:38	count		18294.0000				

28-JUN-2006 06:44	count	18515.0000		In		
28-JUN-2006 07:07	count	18287.0000				
29-JUN-2006 07:46	count	18247.0000				
30-JUN-2006 06:54	count	18299.0000				
1-JUL-2006 11:30	count	18271.0000				
5-JUL-2006 07:39	count	18671.0000	Ab	Ac		
5-JUL-2006 07:52	count	18532.0000		In		
6-JUL-2006 07:45	count	18371.0000				
6-JUL-2006 07:57	count	18440.0000		In		
7-JUL-2006 07:44	count	18315.0000				
8-JUL-2006 08:19	count	18142.0000				
9-JUL-2006 08:17	count	18187.0000				
12-JUL-2006 06:56	count	18262.0000				
14-JUL-2006 06:49	count	18004.0000				
19-JUL-2006 07:27	count	18037.0000				
20-JUL-2006 07:46	count	17979.0000				
21-JUL-2006 08:10	count	17970.0000				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
22-JUL-2006 07:11	count		18148.0000				
23-JUL-2006 06:46	count		18130.0000				
26-JUL-2006 07:44	count		18384.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:35:00.65

QA Filename : $DISK1:[SCINT19.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-19
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : ---------- End Date : ----------
Mean : 0.522727 Std Deviation : 1.248043

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
26-JUN-2006 10:32	count		0.0000	| | |
17-JUL-2006 13:59	count		0.0000	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:34:27.57

QA Filename : $DISK1:[SCINT18.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-18
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 77523.000000 Upper Bound : 81128.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 79325.437500 Std Deviation : 600.792603

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:55	count		78514.0000				
2-JUN-2006 07:52	count		78399.0000				
4-JUN-2006 08:23	count		78465.0000				
6-JUN-2006 07:07	count		78671.0000				
7-JUN-2006 08:48	count		79199.0000				
8-JUN-2006 07:45	count		79108.0000				
10-JUN-2006 07:46	count		79148.0000				
11-JUN-2006 08:36	count		78318.0000				
12-JUN-2006 10:37	count		79440.0000				
13-JUN-2006 08:12	count		79224.0000				
14-JUN-2006 08:06	count		78338.0000				
15-JUN-2006 07:15	count		78911.0000				
16-JUN-2006 07:42	count		77829.0000	In			
16-JUN-2006 07:54	count		78576.0000				
17-JUN-2006 06:55	count		78897.0000				
18-JUN-2006 07:19	count		78845.0000				
20-JUN-2006 07:14	count		79611.0000				
21-JUN-2006 07:52	count		79011.0000				
22-JUN-2006 09:28	count		79284.0000				
23-JUN-2006 07:43	count		79278.0000				
24-JUN-2006 08:16	count		78828.0000				

25-JUN-2006 07:41	count	79892.0000			
27-JUN-2006 06:38	count	80441.0000			
28-JUN-2006 07:54	count	80814.0000	In		
29-JUN-2006 08:35	count	80595.0000	In		
30-JUN-2006 07:04	count	79713.0000			
1-JUL-2006 11:28	count	79281.0000			
5-JUL-2006 07:51	count	79976.0000			
6-JUL-2006 07:55	count	79998.0000			
7-JUL-2006 07:51	count	79847.0000			
8-JUL-2006 08:30	count	79022.0000			
9-JUL-2006 08:26	count	79404.0000			
12-JUL-2006 07:37	count	79513.0000			
19-JUL-2006 07:34	count	79187.0000			
20-JUL-2006 07:44	count	79288.0000			
21-JUL-2006 08:07	count	79159.0000			
22-JUL-2006 07:20	count	79534.0000			
23-JUL-2006 07:05	count	79595.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUL-2006 07:49	count		81115.0000	In			

Quality Assurance Report. Generated 27-JUL-2006 10:34:27.93

QA Filename : $DISK1:[SCINT18.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-18
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.428571 Std Deviation : 0.786796

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

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26-JUN-2006 10:31	count	1.0000
17-JUL-2006 13:58	count	0.0000

Quality Assurance Report. Generated 27-JUL-2006 10:34:22.38

QA Filename : $DISK1:[SCINT16.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-16
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 79747.000000 Upper Bound : 83612.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 81679.578125 Std Deviation : 644.155701

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:24	count		81106.0000				
2-JUN-2006 08:18	count		80710.0000				
4-JUN-2006 08:11	count		80537.0000				
6-JUN-2006 06:47	count		81138.0000				
7-JUN-2006 08:32	count		81417.0000				
8-JUN-2006 06:56	count		81189.0000				
10-JUN-2006 08:02	count		81006.0000				
12-JUN-2006 09:53	count		81340.0000				
13-JUN-2006 07:02	count		81048.0000				
14-JUN-2006 07:39	count		80906.0000				
15-JUN-2006 06:44	count		81171.0000				
16-JUN-2006 07:17	count		81123.0000				
17-JUN-2006 06:29	count		80621.0000				
18-JUN-2006 06:53	count		81160.0000				
21-JUN-2006 07:16	count		81789.0000				
22-JUN-2006 08:22	count		81291.0000				
23-JUN-2006 06:55	count		81830.0000				
24-JUN-2006 07:21	count		81318.0000				
25-JUN-2006 07:22	count		81547.0000				
28-JUN-2006 07:24	count		83281.0000	In			
29-JUN-2006 08:09	count		82514.0000				

30-JUN-2006 06:38	count	82501.0000			
1-JUL-2006 11:15	count	81361.0000			
5-JUL-2006 07:24	count	82329.0000			
6-JUL-2006 07:30	count	81982.0000			
7-JUL-2006 07:39	count	81613.0000			
8-JUL-2006 08:17	count	81536.0000			
9-JUL-2006 08:12	count	81822.0000			
12-JUL-2006 07:10	count	82322.0000			
14-JUL-2006 07:32	count	81071.0000			
16-JUL-2006 07:26	count	81299.0000			
19-JUL-2006 07:19	count	81564.0000			
20-JUL-2006 07:32	count	80920.0000			
21-JUL-2006 07:53	count	81663.0000			
22-JUL-2006 07:08	count	81433.0000			
23-JUL-2006 06:52	count	81796.0000			
26-JUL-2006 07:37	count	82189.0000			

Quality Assurance Report. Generated 27-JUL-2006 10:34:23.08

QA Filename : $DISK1:[SCINT16.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-16
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 2.250000 Std Deviation : 1.035098

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		1.0000				
17-JUL-2006 13:58	count		1.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:34:17.20

QA Filename : $DISK1:[SCINT15.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-15
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 486292.000000 Upper Bound : 544969.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 515630.937500 Std Deviation : 9779.443359

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:36	count		501018.0000				
2-JUN-2006 08:30	count		507542.0000				
4-JUN-2006 09:18	count		502049.0000				
6-JUN-2006 09:47	count		507224.0000				
7-JUN-2006 09:18	count		506471.0000				
8-JUN-2006 06:57	count		504063.0000				
10-JUN-2006 08:15	count		505297.0000				
11-JUN-2006 09:33	count		511923.0000				
12-JUN-2006 12:49	count		504277.0000				
13-JUN-2006 09:59	count		509445.0000				
14-JUN-2006 08:49	count		521891.0000				
14-JUN-2006 09:02	count		523918.0000				
15-JUN-2006 08:18	count		523401.0000				
15-JUN-2006 08:34	count		522979.0000				
16-JUN-2006 08:08	count		527705.0000				
16-JUN-2006 08:21	count		528387.0000				
17-JUN-2006 07:57	count		522496.0000				
17-JUN-2006 08:10	count		521693.0000				
18-JUN-2006 08:27	count		528282.0000				
18-JUN-2006 08:40	count		522176.0000				
21-JUN-2006 08:50	count		511695.0000				

22-JUN-2006 10:16	count	503363.0000				
23-JUN-2006 08:41	count	518724.0000				
23-JUN-2006 08:57	count	518769.0000				
24-JUN-2006 08:34	count	523884.0000				
24-JUN-2006 08:49	count	523507.0000				
28-JUN-2006 08:46	count	501435.0000				
29-JUN-2006 08:35	count	529734.0000				
29-JUN-2006 08:47	count	527566.0000				
30-JUN-2006 07:28	count	508014.0000				
1-JUL-2006 12:05	count	536721.0000	In			
1-JUL-2006 12:24	count	532428.0000				
5-JUL-2006 08:03	count	525221.0000				
5-JUL-2006 08:17	count	506887.0000				
6-JUL-2006 08:08	count	511056.0000				
7-JUL-2006 08:15	count	502569.0000				
8-JUL-2006 08:54	count	511634.0000				
9-JUL-2006 09:13	count	509172.0000				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
12-JUL-2006 08:19	count	515675.0000					
19-JUL-2006 08:32	count	523573.0000					
19-JUL-2006 08:46	count	523841.0000					
20-JUL-2006 08:10	count	515310.0000					
21-JUL-2006 08:34	count	511460.0000					
22-JUL-2006 07:48	count	509741.0000					
23-JUL-2006 07:39	count	510967.0000					
26-JUL-2006 08:24	count	519163.0000					

Quality Assurance Report. Generated 27-JUL-2006 10:34:17.53

QA Filename : $DISK1:[SCINT15.QAJBKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-15
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

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Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.428571 Std Deviation : 0.534522

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		0.0000				
17-JUL-2006 13:58	count		4.0000		Ac		

Quality Assurance Report. Generated 27-JUL-2006 10:34:11.53

QA Filename : $DISK1:[SCINT14.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-14
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 433401.000000 Upper Bound : 487911.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 460656.093750 Std Deviation : 9085.378906

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:22	count		462376.0000				
2-JUN-2006 08:18	count		460341.0000				
4-JUN-2006 09:05	count		470707.0000				
7-JUN-2006 08:48	count		465966.0000				
8-JUN-2006 06:23	count		467719.0000				
10-JUN-2006 08:02	count		463248.0000				
11-JUN-2006 09:21	count		461104.0000				
12-JUN-2006 12:19	count		464466.0000				
13-JUN-2006 08:29	count		468332.0000				
14-JUN-2006 08:35	count		471256.0000				
15-JUN-2006 07:42	count		481297.0000	In			
15-JUN-2006 07:58	count		482907.0000	In			
16-JUN-2006 07:55	count		477176.0000				
17-JUN-2006 07:45	count		477543.0000				
18-JUN-2006 08:04	count		481061.0000	In			
18-JUN-2006 08:15	count		482298.0000	In			
21-JUN-2006 08:38	count		472627.0000				
22-JUN-2006 09:51	count		463702.0000				
23-JUN-2006 08:24	count		470697.0000				
24-JUN-2006 08:16	count		476803.0000				
25-JUN-2006 07:55	count		474229.0000				

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28-JUN-2006 08:22	count	461406.0000			
29-JUN-2006 08:22	count	466282.0000			
30-JUN-2006 07:16	count	466579.0000			
1-JUL-2006 11:41	count	482747.0000	In		
1-JUL-2006 11:54	count	484342.0000	In		
5-JUL-2006 07:50	count	464956.0000			
6-JUL-2006 07:55	count	468362.0000			
7-JUL-2006 08:04	count	463148.0000			
8-JUL-2006 08:42	count	465490.0000			
9-JUL-2006 08:47	count	467398.0000			
12-JUL-2006 08:05	count	473864.0000			
19-JUL-2006 08:04	count	481741.0000	In		
19-JUL-2006 08:18	count	479929.0000	In		
20-JUL-2006 07:57	count	474903.0000			
21-JUL-2006 08:20	count	471917.0000			
22-JUL-2006 07:36	count	467960.0000			
23-JUL-2006 07:28	count	471979.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUL-2006 08:09	count		477221.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:34:11.93

QA Filename : $DISK1:[SCINT14.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-14
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

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26-JUN-2006 10:31 count	1.0000	|Ac|	|
17-JUL-2006 13:58 count	0.0000	| |	|

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Quality Assurance Report. Generated 27-JUL-2006 10:34:05.09

QA Filename : $DISK1:[SCINT13.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-13
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 18583.000000 Upper Bound : 21550.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 20066.408203 Std Deviation : 494.447632

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:08	count		19430.0000				
2-JUN-2006 06:15	count		19743.0000				
4-JUN-2006 08:31	count		19874.0000				
5-JUN-2006 12:55	count		20032.0000				
6-JUN-2006 06:47	count		19638.0000				
7-JUN-2006 08:07	count		19731.0000				
7-JUN-2006 08:22	count		20145.0000				
8-JUN-2006 06:23	count		19842.0000				
10-JUN-2006 07:22	count		20009.0000				
11-JUN-2006 08:31	count		19896.0000				
12-JUN-2006 09:53	count		20301.0000				
13-JUN-2006 06:42	count		19980.0000				
14-JUN-2006 07:23	count		20263.0000				
15-JUN-2006 06:47	count		19489.0000				
16-JUN-2006 07:22	count		19755.0000				
17-JUN-2006 07:00	count		20207.0000				
18-JUN-2006 07:15	count		20286.0000				
20-JUN-2006 07:14	count		19969.0000				
21-JUN-2006 06:54	count		20181.0000				
22-JUN-2006 06:56	count		20152.0000				
23-JUN-2006 06:55	count		19984.0000				

24-JUN-2006 07:55	count	19806.0000			
25-JUN-2006 07:58	count	20284.0000			
27-JUN-2006 06:38	count	20343.0000			
28-JUN-2006 06:44	count	20163.0000			
29-JUN-2006 07:46	count	20382.0000			
30-JUN-2006 06:54	count	20161.0000			
1-JUL-2006 11:30	count	19963.0000			
5-JUL-2006 07:39	count	20617.0000			
6-JUL-2006 07:45	count	20513.0000			
7-JUL-2006 07:44	count	19927.0000			
8-JUL-2006 08:19	count	20230.0000			
9-JUL-2006 08:17	count	19918.0000			
12-JUL-2006 06:56	count	19992.0000			
14-JUL-2006 06:49	count	20118.0000			
14-JUL-2006 07:14	count	No Value			
14-JUL-2006 07:32	count	19858.0000			
16-JUL-2006 07:14	count	20088.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
19-JUL-2006 07:33	count		20113.0000				
20-JUL-2006 07:46	count		19768.0000				
21-JUL-2006 08:10	count		20048.0000				
22-JUL-2006 07:11	count		20015.0000				
23-JUL-2006 06:46	count		20203.0000				
26-JUL-2006 07:44	count		20234.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:34:05.50

QA Filename : $DISK1:[SCINT13.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-13
Parameter Units : counts Parameter Type :

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		1.0000				
17-JUL-2006 15:14	count		1.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:58.28

QA Filename : $DISK1:[SCINT9.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-9
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 249129.000000 Upper Bound : 273681.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 261404.609375 Std Deviation : 4092.428467

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:55	count		264797.0000				
2-JUN-2006 07:26	count		0.0000	Be	Ac		R
2-JUN-2006 07:38	count		263154.0000				
4-JUN-2006 08:55	count		269062.0000				
6-JUN-2006 07:19	count		264032.0000				
7-JUN-2006 08:48	count		264666.0000				
8-JUN-2006 07:32	count		261938.0000				
10-JUN-2006 07:46	count		267744.0000				
11-JUN-2006 08:57	count		269029.0000				
12-JUN-2006 12:20	count		260005.0000				
13-JUN-2006 08:12	count		262117.0000				
14-JUN-2006 08:06	count		266854.0000				
15-JUN-2006 07:28	count		266787.0000				
16-JUN-2006 07:42	count		267285.0000				
17-JUN-2006 07:08	count		266456.0000				
18-JUN-2006 07:30	count		267969.0000				
20-JUN-2006 09:27	count		263789.0000				
21-JUN-2006 08:38	count		264645.0000				
22-JUN-2006 09:49	count		259908.0000				
23-JUN-2006 07:57	count		264730.0000				
24-JUN-2006 08:03	count		268394.0000				

25-JUN-2006 07:55	count	268182.0000			
28-JUN-2006 07:54	count	260380.0000			
29-JUN-2006 07:57	count	264736.0000			
30-JUN-2006 07:16	count	266562.0000			
1-JUL-2006 11:41	count	267394.0000			
5-JUL-2006 07:50	count	267258.0000			
6-JUL-2006 07:55	count	266792.0000			
7-JUL-2006 12:00	count	259212.0000			
12-JUL-2006 07:37	count	260409.0000			
19-JUL-2006 07:49	count	266885.0000			
20-JUL-2006 08:10	count	266432.0000			
21-JUL-2006 08:20	count	266355.0000			
22-JUL-2006 07:35	count	267463.0000			
23-JUL-2006 07:17	count	268721.0000			
26-JUL-2006 08:09	count	268677.0000			

Quality Assurance Report. Generated 27-JUL-2006 10:33:58.66

QA Filename : $DISK1:[SCINT9.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-9
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		0.0000				
17-JUL-2006 13:58	count		0.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:52.31

QA Filename : $DISK1:[SCINT8.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-8
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 367661.000000 Upper Bound : 440843.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 404252.281250 Std Deviation : 12197.020508

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 07:09	count		422196.0000				
2-JUN-2006 08:05	count		409346.0000				
4-JUN-2006 08:54	count		416484.0000				
6-JUN-2006 09:35	count		403598.0000				
7-JUN-2006 08:37	count		417372.0000				
8-JUN-2006 07:32	count		415666.0000				
10-JUN-2006 07:46	count		415257.0000				
11-JUN-2006 09:09	count		415443.0000				
12-JUN-2006 10:36	count		406495.0000				
13-JUN-2006 08:12	count		406791.0000				
14-JUN-2006 08:19	count		426152.0000				
15-JUN-2006 07:28	count		422822.0000				
16-JUN-2006 07:42	count		431273.0000	In			
17-JUN-2006 07:32	count		431767.0000	In			
18-JUN-2006 07:41	count		437655.0000	In			
18-JUN-2006 07:52	count		419039.0000				
21-JUN-2006 08:25	count		425055.0000				
22-JUN-2006 07:46	count		406495.0000				
23-JUN-2006 08:11	count		433714.0000	In			
24-JUN-2006 08:03	count		432361.0000	In			
25-JUN-2006 07:41	count		412884.0000				

28-JUN-2006 07:54	count	398101.0000			
29-JUN-2006 08:09	count	413014.0000			
30-JUN-2006 07:04	count	408770.0000			
1-JUL-2006 11:27	count	420921.0000			
5-JUL-2006 07:37	count	415033.0000			
6-JUL-2006 07:42	count	411624.0000			
7-JUL-2006 07:51	count	408460.0000			
8-JUL-2006 08:30	count	419081.0000			
9-JUL-2006 08:26	count	419039.0000			
12-JUL-2006 07:50	count	413597.0000			
19-JUL-2006 07:34	count	425198.0000			
20-JUL-2006 07:44	count	425225.0000			
21-JUL-2006 08:07	count	414889.0000			
22-JUL-2006 07:20	count	417697.0000			
23-JUL-2006 07:17	count	421236.0000			
26-JUL-2006 07:49	count	426244.0000			

Quality Assurance Report. Generated 27-JUL-2006 10:33:52.73

QA Filename : $DISK1:[SCINT8.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-8
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		0.0000				
17-JUL-2006 13:58	count		0.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:45.75

QA Filename : $DISK1:[SCINT7.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-7
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 383153.000000 Upper Bound : 456017.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 419584.593750 Std Deviation : 12144.413086

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:55	count		419353.0000				
2-JUN-2006 07:52	count		427567.0000				
4-JUN-2006 08:43	count		430698.0000				
6-JUN-2006 09:20	count		415402.0000				
7-JUN-2006 08:08	count		418940.0000				
8-JUN-2006 07:44	count		409473.0000				
10-JUN-2006 07:33	count		423675.0000				
11-JUN-2006 08:57	count		439495.0000				
12-JUN-2006 10:21	count		422308.0000				
13-JUN-2006 07:27	count		431705.0000				
14-JUN-2006 08:05	count		444162.0000	In			
15-JUN-2006 07:15	count		445069.0000	In			
16-JUN-2006 07:29	count		446726.0000	In			
17-JUN-2006 07:07	count		450058.0000	In			
17-JUN-2006 07:19	count		452600.0000	In			
18-JUN-2006 07:29	count		438333.0000				
21-JUN-2006 08:06	count		429133.0000				
22-JUN-2006 06:48	count		416236.0000				
23-JUN-2006 07:57	count		432901.0000				
24-JUN-2006 07:49	count		447735.0000	In			
25-JUN-2006 07:22	count		432837.0000				

28-JUN-2006 07:42	count	420386.0000			
29-JUN-2006 07:57	count	422721.0000			
30-JUN-2006 06:51	count	436119.0000			
1-JUL-2006 11:14	count	442615.0000			
5-JUL-2006 07:24	count	429733.0000			
6-JUL-2006 07:30	count	434344.0000			
7-JUL-2006 07:39	count	427278.0000			
8-JUL-2006 08:17	count	432436.0000			
9-JUL-2006 08:12	count	436028.0000			
12-JUL-2006 07:37	count	417634.0000			
19-JUL-2006 07:19	count	430541.0000			
20-JUL-2006 07:32	count	442178.0000			
21-JUL-2006 07:53	count	432109.0000			
22-JUL-2006 07:08	count	434363.0000			
23-JUL-2006 07:04	count	440858.0000			
26-JUL-2006 07:37	count	444522.0000	In		

Quality Assurance Report. Generated 27-JUL-2006 10:33:46.10

QA Filename : $DISK1:[SCINT7.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-7
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.857143 Std Deviation : 2.267787

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		0.0000				
17-JUL-2006 13:58	count		0.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:39.94

QA Filename : $DISK1:[SCINT4.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-4
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 481172.000000 Upper Bound : 547004.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 514087.500000 Std Deviation : 10971.993164

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:08	count		513383.0000				
2-JUN-2006 07:26	count		511150.0000				
4-JUN-2006 08:08	count		507507.0000				
5-JUN-2006 12:55	count		506577.0000				
6-JUN-2006 07:48	count		509143.0000				
7-JUN-2006 06:46	count		525405.0000				
8-JUN-2006 09:18	count		508088.0000				
10-JUN-2006 07:05	count		522774.0000				
11-JUN-2006 08:23	count		519230.0000				
12-JUN-2006 09:53	count		508542.0000				
13-JUN-2006 06:42	count		530145.0000				
14-JUN-2006 07:23	count		523701.0000				
15-JUN-2006 06:44	count		528129.0000				
16-JUN-2006 07:04	count		527963.0000				
17-JUN-2006 06:28	count		541666.0000	In			
17-JUN-2006 06:42	count		541474.0000	In			
18-JUN-2006 06:53	count		527616.0000				
20-JUN-2006 07:14	count		521348.0000				
21-JUN-2006 06:54	count		513996.0000				
22-JUN-2006 10:33	count		516039.0000				
23-JUN-2006 06:55	count		513383.0000				

STLRICHLAND

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24-JUN-2006 07:21	count	532038.0000			
25-JUN-2006 07:10	count	521788.0000			
27-JUN-2006 06:38	count	519236.0000			
28-JUN-2006 06:44	count	512670.0000			
29-JUN-2006 07:19	count	526411.0000			
30-JUN-2006 06:38	count	528885.0000			
1-JUL-2006 11:02	count	528178.0000			
5-JUL-2006 07:11	count	527959.0000			
6-JUL-2006 07:16	count	512691.0000			
7-JUL-2006 07:26	count	509510.0000			
8-JUL-2006 08:04	count	520313.0000			
9-JUL-2006 07:58	count	519049.0000			
12-JUL-2006 06:56	count	510924.0000			
14-JUL-2006 06:48	count	517189.0000			
16-JUL-2006 07:14	count	521259.0000			
19-JUL-2006 07:05	count	520306.0000			
20-JUL-2006 07:19	count	525366.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
21-JUL-2006 07:40	count		519242.0000				
22-JUL-2006 06:55	count		518868.0000				
23-JUL-2006 06:38	count		546092.0000	In			
23-JUL-2006 06:51	count		543646.0000	In			
26-JUL-2006 07:24	count		527893.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:40.33

QA Filename : $DISK1:[SCINT4.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-4
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : ---------- End Date : ----------
Mean : 5.174603 Std Deviation : 17.676794

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:31	count		1.0000				
17-JUL-2006 15:14	count		1.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:33.67

QA Filename : $DISK1:[SCINT3.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-3
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 249674.000000 Upper Bound : 270464.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 260069.015625 Std Deviation : 3465.084961

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:37	count		259067.0000				
2-JUN-2006 08:18	count		265453.0000				
4-JUN-2006 08:33	count		269601.0000		In		
4-JUN-2006 08:44	count		272207.0000	Ab	Ac		
5-JUN-2006 12:55	count		257831.0000				
6-JUN-2006 07:07	count		260975.0000				
7-JUN-2006 08:35	count		265428.0000				
8-JUN-2006 08:39	count		264665.0000				
10-JUN-2006 07:33	count		265925.0000				
11-JUN-2006 08:46	count		264656.0000				
12-JUN-2006 10:36	count		262323.0000				
13-JUN-2006 07:27	count		260538.0000				
14-JUN-2006 07:52	count		263930.0000				
15-JUN-2006 07:15	count		267032.0000		In		
16-JUN-2006 07:29	count		266508.0000				
17-JUN-2006 06:55	count		265832.0000				
18-JUN-2006 07:19	count		265901.0000				
20-JUN-2006 08:17	count		259994.0000				
21-JUN-2006 07:33	count		257564.0000				
22-JUN-2006 08:54	count		257442.0000				
23-JUN-2006 07:43	count		261602.0000				

24-JUN-2006 07:49	count	264036.0000				
25-JUN-2006 07:41	count	265612.0000				
27-JUN-2006 06:52	count	261343.0000				
28-JUN-2006 07:42	count	259593.0000				
29-JUN-2006 07:44	count	262556.0000				
30-JUN-2006 07:04	count	262799.0000				
1-JUL-2006 11:27	count	266375.0000				
5-JUL-2006 07:37	count	265156.0000				
6-JUL-2006 07:42	count	266420.0000				
7-JUL-2006 07:51	count	263639.0000				
8-JUL-2006 08:30	count	263692.0000				
9-JUL-2006 08:26	count	265838.0000				
12-JUL-2006 07:23	count	260317.0000				
19-JUL-2006 07:34	count	265091.0000				
20-JUL-2006 07:44	count	268011.0000	In			
20-JUL-2006 07:57	count	262506.0000				
21-JUL-2006 08:06	count	266396.0000				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
22-JUL-2006 07:20	count		266726.0000				
23-JUL-2006 07:04	count		267354.0000	In			
26-JUL-2006 07:49	count		265628.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:34.05

QA Filename : $DISK1:[SCINT3.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-3
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
26-JUN-2006 10:31	count		0.0000	| | |
17-JUL-2006 13:58	count		0.0000	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:33:28.05

QA Filename : $DISK1:[SCINT2.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-2
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 251285.000000 Upper Bound : 270455.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 260869.906250 Std Deviation : 3195.420410

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:24	count		260174.0000				
2-JUN-2006 08:05	count		265219.0000				
4-JUN-2006 08:10	count		272384.0000	Ab	Ac		
4-JUN-2006 08:21	count		270532.0000	Ab	Ac		
6-JUN-2006 09:20	count		261704.0000				
7-JUN-2006 08:22	count		264499.0000				
8-JUN-2006 08:11	count		264045.0000				
10-JUN-2006 07:20	count		266002.0000				
11-JUN-2006 08:34	count		264441.0000				
12-JUN-2006 10:23	count		261034.0000				
13-JUN-2006 07:02	count		261353.0000				
14-JUN-2006 07:39	count		263776.0000				
15-JUN-2006 07:02	count		264666.0000				
16-JUN-2006 07:16	count		265490.0000				
17-JUN-2006 06:42	count		263338.0000				
18-JUN-2006 07:06	count		263172.0000				
21-JUN-2006 07:16	count		263645.0000				
22-JUN-2006 08:22	count		258496.0000				
23-JUN-2006 07:25	count		258143.0000				
24-JUN-2006 07:35	count		264827.0000				
25-JUN-2006 07:22	count		264071.0000				

28-JUN-2006 07:24	count	260343.0000			
29-JUN-2006 07:31	count	263785.0000			
30-JUN-2006 06:51	count	265375.0000			
1-JUL-2006 11:14	count	265237.0000			
5-JUL-2006 07:24	count	264932.0000			
6-JUL-2006 07:29	count	267632.0000	In		
7-JUL-2006 07:39	count	263271.0000			
8-JUL-2006 08:17	count	266012.0000			
9-JUL-2006 08:11	count	264043.0000			
12-JUL-2006 07:10	count	260655.0000			
14-JUL-2006 07:14	count	261760.0000			
16-JUL-2006 07:26	count	265471.0000			
19-JUL-2006 07:19	count	264178.0000			
20-JUL-2006 07:32	count	266718.0000			
21-JUL-2006 07:53	count	264394.0000			
22-JUL-2006 07:08	count	266889.0000			
23-JUL-2006 06:51	count	266468.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUL-2006 07:37	count		263953.0000				

Quality Assurance Report. Generated 27-JUL-2006 10:33:28.83

QA Filename : $DISK1:[SCINT2.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-2
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej

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26-JUN-2006 10:31 count 0.0000 | | |
17-JUL-2006 13:58 count 0.0000 | | |

Quality Assurance Report. Generated 27-JUL-2006 10:33:21.26

QA Filename : $DISK1:[SCINT1.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-1
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 255404.000000 Upper Bound : 273401.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 264402.875000 Std Deviation : 2999.418945

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:07	count		268303.0000				
2-JUN-2006 07:52	count		270937.0000	In			
4-JUN-2006 07:14	count		270422.0000	In			
6-JUN-2006 06:47	count		265256.0000				
8-JUN-2006 07:44	count		271268.0000	In			
10-JUN-2006 07:05	count		268296.0000				
11-JUN-2006 08:23	count		267544.0000				
12-JUN-2006 09:52	count		267325.0000				
13-JUN-2006 06:42	count		266628.0000				
14-JUN-2006 07:23	count		266189.0000				
15-JUN-2006 06:44	count		266390.0000				
16-JUN-2006 07:04	count		267445.0000				
17-JUN-2006 06:28	count		265772.0000				
18-JUN-2006 06:53	count		267331.0000				
20-JUN-2006 07:14	count		263176.0000				
21-JUN-2006 06:54	count		264164.0000				
22-JUN-2006 07:46	count		266686.0000				
23-JUN-2006 06:55	count		264370.0000				
24-JUN-2006 07:21	count		266232.0000				
25-JUN-2006 07:09	count		267822.0000				
27-JUN-2006 06:38	count		268659.0000				

28-JUN-2006 06:44	count	266914.0000			
29-JUN-2006 07:19	count	267141.0000			
30-JUN-2006 06:38	count	263787.0000			
1-JUL-2006 11:02	count	267848.0000			
5-JUL-2006 07:11	count	267984.0000			
6-JUL-2006 07:16	count	266808.0000			
7-JUL-2006 07:26	count	264826.0000			
8-JUL-2006 08:04	count	265739.0000			
9-JUL-2006 07:58	count	266970.0000			
12-JUL-2006 06:56	count	267194.0000			
14-JUL-2006 06:48	count	265990.0000			
16-JUL-2006 07:13	count	266483.0000			
19-JUL-2006 07:04	count	268472.0000			
20-JUL-2006 07:19	count	265293.0000			
21-JUL-2006 07:40	count	266878.0000			
22-JUL-2006 06:55	count	269434.0000			
23-JUL-2006 06:38	count	268585.0000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
26-JUL-2006 07:24	count		268113.0000	| | |

Quality Assurance Report. Generated 27-JUL-2006 10:33:21.63

QA Filename : $DISK1:[SCINT1.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000min bkg, ascint-1
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.000000 Std Deviation : 0.000000

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

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26-JUN-2006 10:31	count	0.0000
17-JUL-2006 15:14	count	0.0000

Quality Assurance Report. Generated 27-JUL-2006 10:34:53.87

QA Filename : $DISK1:[SCINT24.QA]CHK.QAF;1

-- Multi-Test Full Report --

Description : 10 min check, ascint-24
Parameter Units : counts Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 44810.000000 Upper Bound : 47071.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 45940.640625 Std Deviation : 376.874664

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 06:08	count		45832.0000				
2-JUN-2006 06:15	count		46135.0000				
4-JUN-2006 08:32	count		45868.0000				
5-JUN-2006 12:55	count		45807.0000				
6-JUN-2006 09:20	count		45898.0000				
7-JUN-2006 08:07	count		45868.0000				
8-JUN-2006 06:23	count		46115.0000				
10-JUN-2006 07:22	count		45603.0000				
11-JUN-2006 08:31	count		45692.0000				
12-JUN-2006 09:53	count		45511.0000				
12-JUN-2006 10:19	count		45828.0000				
13-JUN-2006 06:42	count		45958.0000				
14-JUN-2006 07:23	count		45937.0000				
15-JUN-2006 06:47	count		46055.0000				
16-JUN-2006 07:22	count		45492.0000				
16-JUN-2006 07:34	count		46182.0000				
17-JUN-2006 07:00	count		45702.0000				
18-JUN-2006 07:15	count		46174.0000				
21-JUN-2006 06:54	count		45921.0000				
22-JUN-2006 06:56	count		46027.0000				
23-JUN-2006 06:55	count		46113.0000				

24-JUN-2006 07:55	count	45946.0000				
25-JUN-2006 07:58	count	46280.0000				
28-JUN-2006 06:44	count	47188.0000	Ab	Ac		
28-JUN-2006 07:07	count	46977.0000	In			
29-JUN-2006 07:46	count	46897.0000	In			
30-JUN-2006 06:54	count	46252.0000				
1-JUL-2006 11:30	count	46458.0000				
5-JUL-2006 07:39	count	46711.0000	In			
6-JUL-2006 07:45	count	46293.0000				
7-JUL-2006 07:44	count	46339.0000				
8-JUL-2006 08:19	count	46203.0000				
9-JUL-2006 08:17	count	46352.0000				
12-JUL-2006 06:56	count	46113.0000				
14-JUL-2006 06:49	count	45578.0000				
16-JUL-2006 07:14	count	45721.0000				
19-JUL-2006 07:27	count	45585.0000				
20-JUL-2006 07:46	count	45873.0000				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
21-JUL-2006 08:10	count	45842.0000					
22-JUL-2006 07:11	count	46097.0000					
23-JUL-2006 06:46	count	46521.0000					
26-JUL-2006 07:44	count	46772.0000	In				

Quality Assurance Report. Generated 27-JUL-2006 10:34:54.24

QA Filename : $DISK1:[SCINT24.QA]BKG.QAF;1

-- Multi-Test Full Report --

Description : 1000 min bkg, ascint-24
Parameter Units : counts Parameter Type : Manual

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 0.000000 Upper Bound : 5.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUN-2005 00:00 End Date : 1-JAN-2006 00:00

Mean : 0.142857 Std Deviation : 0.377964

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 10:32	count		0.0000				
17-JUL-2006 13:59	count		0.0000				

SEVERN TRENT STL

STL Richland
2800 George Washington Way
Richland, WA 99354

Tel: 509 375 3131 Fax: 509 375 5590
www.stl-inc.com

Certificate of Analysis

July 26, 2006

Brown & Caldwell
2701 Prospect Park Drive
Rancho Cordova, CA 95670

Attention: Guy Graening

Date Received at Lab	:	June 26, 2006
Project Name	:	Air Quality Monitoring Yerington Mine
Project Number	:	121243
Event Number	:	83
PO Number	:	129682.001
Sample Type	:	Fifteen (15) Filters
SDG Number	:	31999

CASE NARRATIVE

I. Introduction

On June 26, 2006, fifteen filter samples were received at the STL Richland (STLR) laboratory for radiochemical analysis. Upon receipt, the samples were assigned the STLR identification numbers as described on the cover page of the Analytical Data Package report form. The samples were assigned to Lot Number J6F270218.

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analysis requested was:

Alpha Spectroscopy
Thorium-228, -230, -232 by method RICH-RC-5087
Uranium-234, -235, -238 by method RICH-RC-5067
Gas Proportional Counters
Gross Alpha by method STL-RICHRC5016/5014
Gross Beta by method STL-RICHRC5016/5014
Radium-228 by method STL RICH-RC-5005
Alpha Scintillation Counter
Radium-226 by method STL RICH-RC-5005

IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

V. Comments

Thorium-228, -230, -232:

The LCS, batch blank and sample results are within analytical requirements.

Uranium-234, -235, -238:

The LCS, batch blank and sample results are within analytical requirements.

Gross Alpha Analysis:

The LCS, batch blank and sample results are within analytical requirements.

Gross Beta Analysis:

Samples 000487, 000488, 000491, P-0662, P-0664, P0665 and P-0666 do not meet CRDL but their results >MDA>CRDL. Except as noted, the LCS, batch blank and sample results are within acceptance limits.

Radium-228 Analysis:

The LCS, batch blank and sample results are within analytical requirements.

Radium-226 Analysis:

The LCS, batch blank and sample results are within analytical requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Sherryl A. Adam
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**STL Richland's SOP number**
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,..). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value ($S/\sqrt{n}$), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) *u_c - Combined Uncertainty.*	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, *u_c the combined uncertainty.* The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

BROWN AND CALDWELL 3/1999

CHAIN OF CUSTODY RECORD

COC No. _____

Event 83 VTRA000166

☒ 3264 Goni Road / Suite 153, Carson City, NV 89706, 775-883-4118 / FAX 775-883-5108 — due 7-25-06

☐ 4425 W. Spring Mountain Road / Suite 225, Las Vegas, NV 89102, 702-938-4080 / FAX 702-938-4082

☐ 201 East Washington Street / Suite 300, Phoenix, AZ 85004, 602-567-4000 / FAX 602-567-4001

PROJECT NAME: Yerington Air QPY

PROJECT NUMBER: 121283

LABORATORY NAME & ADDRESS: SEVERN TRENT LABS., WEST SACRAMENTO, SACRAMENTO

1/6 OF THE METALS EXPOSED FILTER WAS UTILIZED FOR THE METALS ANALYSIS. Lot # 66F090224

LINE NO.	SAMPLE - I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	FIELD FILTERED	QC - REQ	TAT	SAMPLING METHOD	DEPTH (FT.) BEGIN / END	PID READING (ppm)
01	000487	5/26/06	0:00	MS	1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H796F			0.26		---- / ----	
02	000488		0:25		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H796L			0.30		---- / ----	
03	000489		0:35		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H796N			0.24		---- / ----	
04	000490		1:05		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H796P			0.24		---- / ----	
05	000491		1:00		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H796Q			0.30		---- / ----	
06	000492		1:20		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H796R			0.28		---- / ----	
07	000493		10:10		1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H796T			0.24		---- / ----	
08					1	8x10 Filter	NONE	A	TSP, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List)					---- / ----	
09														---- / ----	
10														---- / ----	

COLLECTED & RELEASED BY: [illegible]	DATE: 6/26/06	TIME: 1600	COOLER I.D.:			COMMENTS (see note on back):	
RECEIVED BY: [illegible]	DATE: 6/26/06	TIME: 1050	RELINQUISHED BY: [illegible]	DATE: 6/26/06	TIME: 1:00		RECEIVED IN GOOD CONDITION UNDER COC JUN - 9 2006
L. Weiss	6-26-06	0900					
RECORD RETURNED BY:	DATE: / /	TIME: :					
COURIER: FED EX			SHIPPING NUMBER: 7927 6446 9552				

DISTRIBUTION: WHITE - PROJECT FILE • CANARY - LAB RECEIPT • PINK - DATA MANAGEMENT • GOLDENROD - FIELD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK.

BROWN AND CALDWELL J6F 31999 CHAIN OF CUSTODY RECORD COC No.

Event 83 YERA000165

☒ 3264 Goni Road / Suite 153
Carson City, NV 89706
775-883-4118 / FAX 775-883-5108

☐ 4425 W. Spring Mountain Road / Suite 225
Las Vegas, NV 89102
702-938-4080 / FAX 702-938-4082

☐ 201 East Washington Street / Suite 500
Phoenix, AZ 85004
602-567-4000 / FAX 602-567-4001

due 7.25.06

PROJECT NAME: Yerington Air Qlty

PROJECT NUMBER: 121243

LABORATORY NAME & ADDRESS: SEVERN TRENT LABS., WEST SACRAMENTO,

1/6 OF THE EXPOSED FILTER WAS UTILIZED FOR THE METALS ANALYSIS. SACRAMENTO LOT # G6F090224

LINE NO.	SAMPLE – I.D.	COLLECTION DATE	COLLECTION TIME	SAMPLER'S INITIALS	NUMBER OF CONTAINERS	CONTAINER SIZE AND TYPE	PRESERVATIVE	MATRIX CODE	ANALYSES REQUESTED	FIELD FILTERED	QC – REQ	TAT	SAMPLING METHOD	DEPTH (FT.) BEGIN END	PID READING (ppm)
01	P-0660	6/7/06	9:55	MS	1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H796W			0.21		----	
02	P-0661		10:20		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H797D			0.24		----	
03	P-0662		10:30		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H797E			0.25		----	
04	P-0663		10:45		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H797F			0.36		----	
05	P-0664		11:05		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H797H			0.25		----	
06	P-0665		11:10		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H797J			0.25		----	
07	P-0666		10:05		1	8x10 Filter	NONE	A	PM-10, Gross Alpha/Beta, Th(228,230,232), Ra(226,228), U (234,235,238), Metals(Client List) H797K			0.23		----	
08	P-0667		11:15		1	8x10	"	"	" " H797M			0.23		----	
09														----	
10														----	

COLLECTED & RELEASED BY:	DATE	TIME	COOLER I.D.:	DATE	TIME
[signature]	6/8/06	16:00			
RECEIVED BY: [signature]	6/9/06	10:50	RELINQUISHED BY: Steve Valmore	6/26/06	10:00
S. Welch	6/26/06	09:00			
RECORD RETURNED BY:	DATE / /	TIME :			
COURIER: FEDEX			SHIPPING NUMBER: 792764469552		

COMMENTS (see note on back):

RECEIVED IN GOOD CONDITION UNDER COC
JUN - 9 2006
IND [signature]

DISTRIBUTION: WHITE – PROJECT FILE • CANARY – LAB RECEIPT • PINK – DATA MANAGEMENT • GOLDENROD – FIELD

USE A BALLPOINT PEN, BLACK INK, AND PRESS FIRMLY. INSTRUCTIONS ARE ON THE BACK.

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 6-26-06 09:00

Client: BRN + Caldwell SDG #: 31999 NA [ ] SAF #: _____ NA [✓]

Work Order Number: J6F270218 Chain of Custody # N/A

Shipping Container ID: N/A Air Bill # N/A

1. Custody Seals on shipping container intact? NA [✓] Yes [ ] No [ ]
2. Custody Seals dated and signed? NA [✓] Yes [ ] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 15
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? FLT NA [✓] pH<2 [ ] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [✓] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: A. Walsh Date: 6-26-06 09:00

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

Don Lancaster

From: Don Lancaster

Sent: Tuesday, August 15, 2006 11:09 AM

To: Eric Lahr

Subject: STL Report 32815 (SDG 31999)

Hi Eric - the following items were not included in the data package submitted for validation for STL Report 32815 (SDG 31999):

(1) The background readings for all detectors (10A, 10B, 10C, 10D, and 10E) for the gross alpha analysis.

(2) The background readings for detectors 26A, 26B, 26C, and 26D for the gross beta analysis.

I don't think there will be any more issues with the data package, all I have to do is check some transcriptions and finish writing the report. - Don

Don Lancaster

From: Eric Lahr

Sent: Tuesday, August 15, 2006 11:15 AM

To: 'Jordan, Erika'

Subject: Deliverable Request

Good morning Erika,
Could you please provide the following for Report Number 32815 (SDG 31999):

1.) The background readings for all detectors (10A, 10B, 10C, 10D, and 10E) for the gross alpha analysis.

2.) The background readings for detectors 26A, 26B, 26C, and 26D for the gross beta analysis.

Thanks!
-Eric

Don Lancaster

From: Eric Lahr
Sent: Thursday, August 17, 2006 5:04 PM
To: Don Lancaster
Subject: FW: Deliverable Request

-----Original Message-----
From: Jordan, Erika [mailto:EJordan@stl-inc.com]
Sent: Thursday, August 17, 2006 5:01 PM
To: Eric Lahr
Subject: RE: Deliverable Request

Eric,

Here are the backgrounds you requested.

Thank you
Erika

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Tuesday, August 15, 2006 8:15 AM
To: Jordan, Erika
Subject: Deliverable Request

Good morning Erika,
Could you please provide the following for Report Number 32815 (SDG 31999):

1.) The background readings for all detectors (10A, 10B, 10C, 10D, and 10E) for the gross alpha analysis.

2.) The background readings for detectors 26A, 26B, 26C, and 26D for the gross beta analysis.

Thanks!
-Eric

Confidentiality Notice: The information contained in this message is intended only for the use of the addressee, and may be confidential and/or privileged. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

Quality Assurance Report. Generated 17-AUG-2006 13:51:21.65

QA Filename : $DISK1:[QUAD26.QA]CHK.QAF;2

-- Multi-Test Full Report --

Description : Quad 26a Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 57.400002 Upper Bound : 59.869999

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 58.635849 Std Deviation : 0.412047

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:39	CHK		58.3000				
2-JUN-2006 06:07	CHK		58.2000				
5-JUN-2006 05:47	CHK		58.1000				
6-JUN-2006 05:47	CHK		58.4000				
7-JUN-2006 05:50	CHK		58.2000				
8-JUN-2006 06:35	CHK		58.6000				
9-JUN-2006 05:54	CHK		58.1000				
10-JUN-2006 05:57	CHK		58.7000				
12-JUN-2006 05:35	CHK		58.2000				
13-JUN-2006 05:37	CHK		58.7000				
14-JUN-2006 05:48	CHK		59.2000				
15-JUN-2006 05:21	CHK		58.5000				
16-JUN-2006 05:41	CHK		59.2000				
17-JUN-2006 09:47	CHK		71.0000	Ab	Ac		R
17-JUN-2006 10:00	CHK		59.0000				
18-JUN-2006 05:46	CHK		59.0000				
19-JUN-2006 05:33	CHK		58.4000				
19-JUN-2006 05:51	CHK		No Value				
20-JUN-2006 06:10	CHK		58.2000				
21-JUN-2006 05:34	CHK		58.5000				
22-JUN-2006 05:41	CHK		58.7000				

23-JUN-2006 05:51	CHK	57.3000	Be|Ac|	|
23-JUN-2006 06:06	CHK	57.8000	|In|	|
24-JUN-2006 06:00	CHK	58.4000	|	|
26-JUN-2006 05:30	CHK	58.5000	|	|
27-JUN-2006 05:01	CHK	58.3000	|	|
28-JUN-2006 06:30	CHK	58.2000	|	|
29-JUN-2006 05:44	CHK	58.0000	|	|
30-JUN-2006 05:09	CHK	58.3000	|	|
1-JUL-2006 08:32	CHK	57.9000	|	|
3-JUL-2006 05:16	CHK	59.2000	|	|
5-JUL-2006 05:16	CHK	58.8000	|	|
6-JUL-2006 05:32	CHK	58.3000	|	|
7-JUL-2006 05:45	CHK	57.4000	|In|	|
7-JUL-2006 06:00	CHK	No Value	|	|
8-JUL-2006 07:10	CHK	58.6000	|	|
10-JUL-2006 05:35	CHK	59.2000	|	|
11-JUL-2006 05:59	CHK	59.6000	|In|	|

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
12-JUL-2006 05:46	CHK		59.0000	| | |
13-JUL-2006 06:41	CHK		58.9000	| | |
14-JUL-2006 05:45	CHK		58.6000	| | |
16-JUL-2006 10:05	CHK		58.6000	| | |
17-JUL-2006 04:59	CHK		58.5000	| | |

-- Multi-Test Full Report --

Description : Quad 26b Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 52.200001 Upper Bound : 55.799999

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 54.008984 Std Deviation : 0.593116

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej

1-JUN-2006 05:39	CHK	54.5000					
2-JUN-2006 06:07	CHK	54.1000					
5-JUN-2006 05:47	CHK	53.8000					
6-JUN-2006 05:47	CHK	54.4000					
7-JUN-2006 05:50	CHK	54.4000					
8-JUN-2006 06:35	CHK	54.5000					
9-JUN-2006 05:54	CHK	54.1000					
10-JUN-2006 05:57	CHK	54.5000					
12-JUN-2006 05:35	CHK	55.1000					
13-JUN-2006 05:37	CHK	54.2000					
14-JUN-2006 05:48	CHK	54.6000					
15-JUN-2006 05:21	CHK	54.2000					
16-JUN-2006 05:41	CHK	54.5000					
17-JUN-2006 09:47	CHK	66.1000	Ab	Ac			R
17-JUN-2006 10:00	CHK	54.7000					
18-JUN-2006 05:46	CHK	54.1000					
19-JUN-2006 05:33	CHK	54.3000					
19-JUN-2006 05:51	CHK	No Value					
20-JUN-2006 06:10	CHK	53.9000					
21-JUN-2006 05:34	CHK	54.1000					
22-JUN-2006 05:41	CHK	53.9000					
23-JUN-2006 05:51	CHK	54.4000					
23-JUN-2006 06:06	CHK	No Value					
24-JUN-2006 06:00	CHK	54.4000					
26-JUN-2006 05:30	CHK	54.7000					
27-JUN-2006 05:01	CHK	54.6000					
28-JUN-2006 06:30	CHK	54.0000					
29-JUN-2006 05:44	CHK	54.4000					
30-JUN-2006 05:09	CHK	54.4000					
1-JUL-2006 08:32	CHK	53.7000					
3-JUL-2006 05:16	CHK	54.3000					
5-JUL-2006 05:16	CHK	54.8000					
6-JUL-2006 05:32	CHK	54.7000					

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
7-JUL-2006 05:45	CHK		52.2000	Ac			
7-JUL-2006 06:00	CHK		54.0000				
8-JUL-2006 07:10	CHK		54.1000				
10-JUL-2006 05:35	CHK		54.7000				
11-JUL-2006 05:59	CHK		54.7000				
12-JUL-2006 05:46	CHK		55.0000				

13-JUL-2006 06:41	CHK		54.6000			
14-JUL-2006 05:45	CHK		53.5000			
16-JUL-2006 10:05	CHK		54.2000			
17-JUL-2006 04:59	CHK		54.7000			

-- Multi-Test Full Report --

Description : Quad 26c Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 52.130001 Upper Bound : 55.400002

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 53.755695 Std Deviation : 0.540287

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS	Rej
1-JUN-2006 05:39	CHK		53.7000					
2-JUN-2006 06:07	CHK		53.4000					
5-JUN-2006 05:47	CHK		54.0000					
6-JUN-2006 05:47	CHK		53.1000					
7-JUN-2006 05:50	CHK		53.2000					
8-JUN-2006 06:35	CHK		53.5000					
9-JUN-2006 05:54	CHK		52.6000		In			
10-JUN-2006 05:57	CHK		52.9000					
12-JUN-2006 05:35	CHK		54.1000					
13-JUN-2006 05:37	CHK		52.6000		In			
14-JUN-2006 05:48	CHK		52.4000		In			
15-JUN-2006 05:21	CHK		53.2000					
16-JUN-2006 05:41	CHK		52.7000					
17-JUN-2006 09:47	CHK		62.4000	Ab	Ac			R
17-JUN-2006 10:00	CHK		53.2000					
18-JUN-2006 05:46	CHK		53.5000					
19-JUN-2006 05:33	CHK		52.1000	Be	Ac			
19-JUN-2006 05:51	CHK		52.5000		In			
20-JUN-2006 06:10	CHK		53.4000					
21-JUN-2006 05:34	CHK		53.9000					
22-JUN-2006 05:41	CHK		53.0000					
23-JUN-2006 05:51	CHK		52.9000					

23-JUN-2006 06:06	CHK	No Value				
24-JUN-2006 06:00	CHK	52.4000		In		
26-JUN-2006 05:30	CHK	53.9000				
27-JUN-2006 05:01	CHK	54.1000				
28-JUN-2006 06:30	CHK	52.3000		In		
29-JUN-2006 05:44	CHK	53.7000				

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
30-JUN-2006 05:09	CHK		54.0000				
1-JUL-2006 08:32	CHK		53.7000				
3-JUL-2006 05:16	CHK		54.1000				
5-JUL-2006 05:16	CHK		53.9000				
6-JUL-2006 05:32	CHK		52.6000		In		
7-JUL-2006 05:45	CHK		52.1000	Be	Ac		
7-JUL-2006 06:00	CHK		53.0000				
8-JUL-2006 07:10	CHK		53.6000				
10-JUL-2006 05:35	CHK		53.7000				
11-JUL-2006 05:59	CHK		53.1000				
12-JUL-2006 05:46	CHK		53.3000				
13-JUL-2006 06:41	CHK		53.1000				
14-JUL-2006 05:45	CHK		52.8000				
16-JUL-2006 10:05	CHK		53.9000				
17-JUL-2006 04:59	CHK		53.4000				

-- Multi-Test Full Report --

Description : Quad 26d Beta %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 51.480000 Upper Bound : 55.419998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 53.450954 Std Deviation : 0.656781

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:39	CHK		53.5000				

2-JUN-2006 06:07	CHK	54.0000					
5-JUN-2006 05:47	CHK	52.9000					
6-JUN-2006 05:47	CHK	52.9000					
7-JUN-2006 05:50	CHK	54.0000					
8-JUN-2006 06:35	CHK	53.3000					
9-JUN-2006 05:54	CHK	54.0000					
10-JUN-2006 05:57	CHK	53.3000					
12-JUN-2006 05:35	CHK	53.8000					
13-JUN-2006 05:37	CHK	53.8000					
14-JUN-2006 05:48	CHK	54.1000					
15-JUN-2006 05:21	CHK	53.1000					
16-JUN-2006 05:41	CHK	53.6000					
17-JUN-2006 09:47	CHK	58.1000	Ab	Ac			R
17-JUN-2006 10:00	CHK	53.0000					
18-JUN-2006 05:46	CHK	54.1000					
19-JUN-2006 05:33	CHK	54.3000					
19-JUN-2006 05:51	CHK	No Value					
20-JUN-2006 06:10	CHK	52.3000					
21-JUN-2006 05:34	CHK	53.3000					
22-JUN-2006 05:41	CHK	53.5000					
23-JUN-2006 05:51	CHK	54.0000					
23-JUN-2006 06:06	CHK	No Value					

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
24-JUN-2006 06:00	CHK	53.8000					
26-JUN-2006 05:30	CHK	54.6000					
27-JUN-2006 05:01	CHK	54.0000					
28-JUN-2006 06:30	CHK	53.6000					
29-JUN-2006 05:44	CHK	54.1000					
30-JUN-2006 05:09	CHK	53.9000					
1-JUL-2006 08:32	CHK	53.7000					
3-JUL-2006 05:16	CHK	53.6000					
5-JUL-2006 05:16	CHK	54.0000					
6-JUL-2006 05:32	CHK	53.4000					
7-JUL-2006 05:45	CHK	53.1000					
7-JUL-2006 06:00	CHK	No Value					
8-JUL-2006 07:10	CHK	52.9000					
10-JUL-2006 05:35	CHK	54.8000	In				
11-JUL-2006 05:59	CHK	54.5000					
12-JUL-2006 05:46	CHK	53.5000					
13-JUL-2006 06:41	CHK	53.5000					

14-JUL-2006 05:45	CHK	53.7000	| | |
16-JUL-2006 10:05	CHK	53.5000	| | |
17-JUL-2006 04:59	CHK	53.8000	| | |

Quality Assurance Report. Generated 17-AUG-2006 13:51:22.79

QA Filename : $DISK1:[QUAD26.QA]BKG_15.QAF;2

-- Multi-Test Full Report --

Description : Quad 26a Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.440544 Std Deviation : 0.079278

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 04:56	BKG		1.4200	| | |
2-JUN-2006 05:49	BKG		1.3800	| | |
3-JUN-2006 04:14	BKG		1.4300	| | |
3-JUN-2006 23:25	BKG		1.4000	| | |
5-JUN-2006 00:12	BKG		1.4400	| | |
6-JUN-2006 05:23	BKG		1.4000	| | |
7-JUN-2006 05:29	BKG		1.4600	| | |
8-JUN-2006 06:14	BKG		1.4800	| | |
9-JUN-2006 04:39	BKG		1.4200	| | |
10-JUN-2006 04:12	BKG		1.4900	| | |
10-JUN-2006 22:16	BKG		1.4100	| | |
12-JUN-2006 00:35	BKG		1.4500	| | |
13-JUN-2006 04:52	BKG		1.3800	| | |
14-JUN-2006 04:55	BKG		1.4500	| | |
15-JUN-2006 04:50	BKG		1.3300	| | |
16-JUN-2006 05:10	BKG		1.4200	| | |
17-JUN-2006 03:16	BKG		1.4600	| | |
17-JUN-2006 23:53	BKG		1.4500	| | |
18-JUN-2006 22:49	BKG		1.3800	| | |
20-JUN-2006 05:53	BKG		1.3500	| | |
21-JUN-2006 04:48	BKG		1.4900	| | |

22-JUN-2006 05:05	BKG	1.5300	|	|	|
23-JUN-2006 05:30	BKG	1.4300	|	|	|
24-JUN-2006 04:09	BKG	1.5500	|	|	|
24-JUN-2006 21:05	BKG	1.5000	|	|	|
26-JUN-2006 02:27	BKG	1.5000	|	|	|
27-JUN-2006 02:17	BKG	1.4500	|	|	|
28-JUN-2006 05:59	BKG	1.5000	|	|	|
29-JUN-2006 05:18	BKG	1.4200	|	|	|
30-JUN-2006 04:49	BKG	1.4700	|	|	|
1-JUL-2006 05:24	BKG	1.4300	|	|	|
2-JUL-2006 00:55	BKG	1.4800	|	|	|
2-JUL-2006 23:01	BKG	1.4800	|	|	|
4-JUL-2006 04:05	BKG	1.4200	|	|	|
4-JUL-2006 20:04	BKG	1.5800	|	|	|
6-JUL-2006 04:52	BKG	1.4500	|	|	|
7-JUL-2006 04:50	BKG	1.5100	|	|	|
8-JUL-2006 03:59	BKG	1.4200	|	|	|
8-JUL-2006 23:12	BKG	1.4800	|	|	|
10-JUL-2006 00:05	BKG	1.3900	|	|	|
11-JUL-2006 05:42	BKG	1.5500	|	|	|

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU|	SD|	UD|	BS Rej
12-JUL-2006 05:02	BKG		1.3900	|	|	|	
13-JUL-2006 05:56	BKG		1.3400	|	|	|	
14-JUL-2006 05:19	BKG		1.4300	|	|	|	
15-JUL-2006 03:53	BKG		1.4000	|	|	|	
16-JUL-2006 00:47	BKG		1.4100	|	|	|	
16-JUL-2006 23:38	BKG		1.4800	|	|	|	

-- Multi-Test Full Report --

Description : Quad 26b Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.168207 Std Deviation : 0.059713

Measurement Time	Sample ID	Sample Analyst	Value	LU|	SD|	UD|	BS Rej

1-JUN-2006 04:56	BKG		1.2200			
2-JUN-2006 05:49	BKG		1.1900			
3-JUN-2006 04:14	BKG		1.1700			
3-JUN-2006 23:25	BKG		1.1500			
5-JUN-2006 00:12	BKG		1.2000			
6-JUN-2006 05:23	BKG		1.1200			
7-JUN-2006 05:29	BKG		1.1500			
8-JUN-2006 06:14	BKG		1.1400			
9-JUN-2006 04:39	BKG		1.1300			
10-JUN-2006 04:12	BKG		1.1500			
10-JUN-2006 22:16	BKG		1.2100			
12-JUN-2006 00:35	BKG		1.1900			
13-JUN-2006 04:52	BKG		1.2200			
14-JUN-2006 04:55	BKG		1.2300			
15-JUN-2006 04:50	BKG		1.1000			
16-JUN-2006 05:10	BKG		1.1700			
17-JUN-2006 03:16	BKG		1.2900	In		
17-JUN-2006 23:53	BKG		1.1800			
18-JUN-2006 22:49	BKG		1.1600			
20-JUN-2006 05:53	BKG		1.1900			
21-JUN-2006 04:48	BKG		1.1900			
22-JUN-2006 05:05	BKG		1.1300			
23-JUN-2006 05:30	BKG		1.1700			
24-JUN-2006 04:09	BKG		1.1900			
24-JUN-2006 21:05	BKG		1.1800			
26-JUN-2006 02:27	BKG		1.0600			
27-JUN-2006 02:17	BKG		1.1300			
28-JUN-2006 05:59	BKG		1.0900			
29-JUN-2006 05:18	BKG		1.1400			
30-JUN-2006 04:49	BKG		1.1600			
1-JUL-2006 05:24	BKG		1.2000			
2-JUL-2006 00:55	BKG		1.2700			
2-JUL-2006 23:01	BKG		1.2300			
4-JUL-2006 04:05	BKG		1.2000			
4-JUL-2006 20:04	BKG		1.1400			

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
6-JUL-2006 04:52	BKG		1.1900				
7-JUL-2006 04:50	BKG		1.1400				
8-JUL-2006 03:59	BKG		1.2300				

8-JUL-2006 23:12	BKG	2.4800	|Ac|	|	
10-JUL-2006 00:05	BKG	1.2700	|	|	|
11-JUL-2006 05:42	BKG	1.8100	|Ac|	|	
12-JUL-2006 05:02	BKG	1.3000	|In|	|	
13-JUL-2006 05:56	BKG	1.2400	|	|	|
14-JUL-2006 05:19	BKG	1.2300	|	|	|
15-JUL-2006 03:53	BKG	1.2900	|In|	|	
16-JUL-2006 00:47	BKG	1.2600	|	|	|
16-JUL-2006 23:38	BKG	1.2300	|	|	|

-- Multi-Test Full Report --

Description : Quad 26c Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.076141 Std Deviation : 0.054450

Measurement Time	Sample ID	Sample Analyst	Value	LU|	SD|	UD|	BS Rej
1-JUN-2006 04:56	BKG		1.1000	|	|	|	
2-JUN-2006 05:49	BKG		1.0400	|	|	|	
3-JUN-2006 04:14	BKG		1.0500	|	|	|	
3-JUN-2006 23:25	BKG		1.0900	|	|	|	
5-JUN-2006 00:12	BKG		1.0700	|	|	|	
6-JUN-2006 05:23	BKG		1.1000	|	|	|	
7-JUN-2006 05:29	BKG		1.1200	|	|	|	
8-JUN-2006 06:14	BKG		1.0100	|	|	|	
9-JUN-2006 04:39	BKG		0.9900	|	|	|	
10-JUN-2006 04:12	BKG		1.0700	|	|	|	
10-JUN-2006 22:16	BKG		1.0700	|	|	|	
12-JUN-2006 00:35	BKG		1.1200	|	|	|	
13-JUN-2006 04:52	BKG		1.1100	|	|	|	
14-JUN-2006 04:55	BKG		1.1000	|	|	|	
15-JUN-2006 04:50	BKG		1.1300	|	|	|	
16-JUN-2006 05:10	BKG		1.0800	|	|	|	
17-JUN-2006 03:16	BKG		1.1200	|	|	|	
17-JUN-2006 23:53	BKG		1.1000	|	|	|	
18-JUN-2006 22:49	BKG		0.9600	|In|	|		
20-JUN-2006 05:53	BKG		1.0900	|	|	|	

21-JUN-2006 04:48	BKG		1.0600	|	|	|
22-JUN-2006 05:05	BKG		1.0400	|	|	|
23-JUN-2006 05:30	BKG		1.1000	|	|	|
24-JUN-2006 04:09	BKG		1.0800	|	|	|
24-JUN-2006 21:05	BKG		1.1300	|	|	|
26-JUN-2006 02:27	BKG		1.0500	|	|	|
27-JUN-2006 02:17	BKG		1.0600	|	|	|
28-JUN-2006 05:59	BKG		1.0200	|	|	|
29-JUN-2006 05:18	BKG		1.1100	|	|	|

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU|	SD|	UD|	BS Rej
30-JUN-2006 04:49	BKG		1.1800	|	|	|	
1-JUL-2006 05:24	BKG		1.1700	|	|	|	
2-JUL-2006 00:55	BKG		1.0300	|	|	|	
2-JUL-2006 23:01	BKG		1.0900	|	|	|	
4-JUL-2006 04:05	BKG		1.0800	|	|	|	
4-JUL-2006 20:04	BKG		1.0900	|	|	|	
6-JUL-2006 04:52	BKG		1.0800	|	|	|	
7-JUL-2006 04:50	BKG		0.9900	|	|	|	
8-JUL-2006 03:59	BKG		0.9700	|	|	|	
8-JUL-2006 23:12	BKG		1.0900	|	|	|	
10-JUL-2006 00:05	BKG		1.0900	|	|	|	
11-JUL-2006 05:42	BKG		1.0900	|	|	|	
12-JUL-2006 05:02	BKG		1.0100	|	|	|	
13-JUL-2006 05:56	BKG		1.0400	|	|	|	
14-JUL-2006 05:19	BKG		1.1800	|	|	|	
15-JUL-2006 03:53	BKG		1.0400	|	|	|	
16-JUL-2006 00:47	BKG		1.0400	|	|	|	
16-JUL-2006 23:38	BKG		0.9800	|	|	|	

-- Multi-Test Full Report --

Description : Quad 26d Beta Bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 1.028478 Std Deviation : 0.051965

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 04:56	BKG		1.0500	| | |
2-JUN-2006 05:49	BKG		1.1100	| | |
3-JUN-2006 04:14	BKG		1.0800	| | |
3-JUN-2006 23:25	BKG		1.0000	| | |
5-JUN-2006 00:12	BKG		1.0000	| | |
6-JUN-2006 05:23	BKG		1.0200	| | |
7-JUN-2006 05:29	BKG		1.0700	| | |
8-JUN-2006 06:14	BKG		1.0100	| | |
9-JUN-2006 04:39	BKG		1.0400	| | |
10-JUN-2006 04:12	BKG		1.0400	| | |
10-JUN-2006 22:16	BKG		1.0800	| | |
12-JUN-2006 00:35	BKG		1.0400	| | |
13-JUN-2006 04:52	BKG		1.0600	| | |
14-JUN-2006 04:55	BKG		1.1200	| | |
15-JUN-2006 04:50	BKG		1.0000	| | |
16-JUN-2006 05:10	BKG		1.0300	| | |
17-JUN-2006 03:16	BKG		1.0700	| | |
17-JUN-2006 23:53	BKG		1.0300	| | |
18-JUN-2006 22:49	BKG		1.1500	|In| |
20-JUN-2006 05:53	BKG		1.0400	| | |
21-JUN-2006 04:48	BKG		1.0400	| | |
22-JUN-2006 05:05	BKG		1.0100	| | |
23-JUN-2006 05:30	BKG		1.0800	| | |

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
24-JUN-2006 04:09	BKG		1.0200	| | |
24-JUN-2006 21:05	BKG		1.0300	| | |
26-JUN-2006 02:27	BKG		1.0700	| | |
27-JUN-2006 02:17	BKG		0.9900	| | |
28-JUN-2006 05:59	BKG		1.0400	| | |
29-JUN-2006 05:18	BKG		1.0200	| | |
30-JUN-2006 04:49	BKG		1.0900	| | |
1-JUL-2006 05:24	BKG		1.0600	| | |
2-JUL-2006 00:55	BKG		1.1200	| | |
2-JUL-2006 23:01	BKG		1.1500	|In| |
4-JUL-2006 04:05	BKG		1.1000	| | |
4-JUL-2006 20:04	BKG		1.0000	| | |
6-JUL-2006 04:52	BKG		1.0400	| | |
7-JUL-2006 04:50	BKG		0.9900	| | |

8-JUL-2006 03:59	BKG	1.0100			
8-JUL-2006 23:12	BKG	1.2500	Ac		
10-JUL-2006 00:05	BKG	1.0700			
11-JUL-2006 05:42	BKG	1.1600	In		
12-JUL-2006 05:02	BKG	1.0300			
13-JUL-2006 05:56	BKG	1.1500	In		
14-JUL-2006 05:19	BKG	1.1000			
15-JUL-2006 03:53	BKG	1.0300			
16-JUL-2006 00:47	BKG	1.0300			
16-JUL-2006 23:38	BKG	0.9800			

Quality Assurance Report. Generated 17-AUG-2006 13:53:16.56

QA Filename : $DISK1:[QUAD10.QA]CHK.QAF;2

-- Multi-Test Full Report --

Description : Quad10A (Hex 1) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 47.599998 Upper Bound : 50.500000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 49.065498 Std Deviation : 0.463531

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 05:33	CHK		48.9000	| | |
2-JUN-2006 05:44	CHK		49.6000	| | |
3-JUN-2006 07:49	CHK		48.8000	| | |
4-JUN-2006 07:55	CHK		48.7000	| | |
5-JUN-2006 05:30	CHK		49.1000	| | |
6-JUN-2006 06:10	CHK		49.2000	| | |
7-JUN-2006 06:24	CHK		48.6000	| | |
8-JUN-2006 06:35	CHK		49.4000	| | |
9-JUN-2006 05:30	CHK		49.4000	| | |
10-JUN-2006 05:57	CHK		49.3000	| | |
11-JUN-2006 09:00	CHK		49.1000	| | |
12-JUN-2006 05:27	CHK		49.3000	| | |
13-JUN-2006 06:10	CHK		49.0000	| | |
14-JUN-2006 05:26	CHK		49.0000	| | |
15-JUN-2006 05:45	CHK		49.3000	| | |
16-JUN-2006 05:23	CHK		49.2000	| | |
17-JUN-2006 07:25	CHK		49.0000	| | |
18-JUN-2006 05:48	CHK		49.2000	| | |
19-JUN-2006 05:27	CHK		48.7000	| | |
20-JUN-2006 05:55	CHK		48.8000	| | |
21-JUN-2006 05:30	CHK		49.3000	| | |

22-JUN-2006 05:53	CHK		48.9000			
23-JUN-2006 05:23	CHK		48.9000			
24-JUN-2006 06:04	CHK		49.0000			
26-JUN-2006 05:27	CHK		48.7000			
27-JUN-2006 04:56	CHK		48.7000			
28-JUN-2006 05:43	CHK		49.1000			
29-JUN-2006 06:05	CHK		48.7000			
30-JUN-2006 05:45	CHK		49.6000			
1-JUL-2006 08:03	CHK		49.6000			
2-JUL-2006 06:36	CHK		48.9000			
3-JUL-2006 05:06	CHK		49.4000			
4-JUL-2006 07:50	CHK		49.1000			
5-JUL-2006 05:23	CHK		49.2000			
6-JUL-2006 05:36	CHK		48.4000			
7-JUL-2006 05:31	CHK		49.4000			
8-JUL-2006 11:41	CHK		48.9000			
10-JUL-2006 05:29	CHK		48.8000			

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
11-JUL-2006 06:25	CHK		49.1000				
12-JUL-2006 06:05	CHK		49.8000				
13-JUL-2006 05:57	CHK		48.7000				
14-JUL-2006 05:39	CHK		48.6000				
15-JUL-2006 06:32	CHK		49.3000				
15-JUL-2006 07:13	CHK		No Value				
17-JUL-2006 05:01	CHK		48.8000				

-- Multi-Test Full Report --

Description : Quad10B (Hex 2) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 40.400002 Upper Bound : 43.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JAN-2006 00:00 End Date : 1-JUL-2006 00:00
Mean : 41.726315 Std Deviation : 0.416509

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 05:33	CHK		41.7000	| | |
2-JUN-2006 05:44	CHK		41.1000	| | |
3-JUN-2006 07:49	CHK		41.8000	| | |
4-JUN-2006 07:55	CHK		42.2000	| | |
5-JUN-2006 05:30	CHK		42.0000	| | |
6-JUN-2006 06:10	CHK		42.1000	| | |
7-JUN-2006 06:24	CHK		41.6000	| | |
8-JUN-2006 06:35	CHK		42.2000	| | |
9-JUN-2006 05:30	CHK		41.7000	| | |
10-JUN-2006 05:57	CHK		42.1000	| | |
11-JUN-2006 09:00	CHK		41.9000	| | |
12-JUN-2006 05:27	CHK		41.6000	| | |
13-JUN-2006 06:10	CHK		41.4000	| | |
14-JUN-2006 05:26	CHK		41.7000	| | |
15-JUN-2006 05:45	CHK		42.0000	| | |
16-JUN-2006 05:23	CHK		41.9000	| | |
17-JUN-2006 07:25	CHK		41.7000	| | |
18-JUN-2006 05:48	CHK		41.7000	| | |
19-JUN-2006 05:27	CHK		42.1000	| | |
20-JUN-2006 05:55	CHK		42.2000	| | |
21-JUN-2006 05:30	CHK		41.6000	| | |
22-JUN-2006 05:53	CHK		41.5000	| | |
23-JUN-2006 05:23	CHK		41.6000	| | |
24-JUN-2006 06:04	CHK		41.7000	| | |
26-JUN-2006 05:27	CHK		42.4000	| | |
27-JUN-2006 04:56	CHK		41.7000	| | |
28-JUN-2006 05:43	CHK		41.7000	| | |
29-JUN-2006 06:05	CHK		41.4000	| | |
30-JUN-2006 05:45	CHK		41.2000	| | |
1-JUL-2006 08:03	CHK		42.3000	| | |
2-JUL-2006 06:36	CHK		40.9000	| | |

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
3-JUL-2006 05:06	CHK		41.9000	| | |
4-JUL-2006 07:50	CHK		41.7000	| | |
5-JUL-2006 05:23	CHK		41.7000	| | |
6-JUL-2006 05:36	CHK		42.3000	| | |
7-JUL-2006 05:31	CHK		41.5000	| | |
8-JUL-2006 11:41	CHK		41.9000	| | |

10-JUL-2006 05:29	CHK	41.7000	| | |
11-JUL-2006 06:25	CHK	41.8000	| | |
12-JUL-2006 06:05	CHK	41.7000	| | |
13-JUL-2006 05:57	CHK	41.8000	| | |
14-JUL-2006 05:39	CHK	41.4000	| | |
15-JUL-2006 06:32	CHK	41.8000	| | |
15-JUL-2006 07:13	CHK	No Value	| | |
17-JUL-2006 05:01	CHK	41.3000	| | |

-- Multi-Test Full Report --

Description : Quad10C (Hex 3) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 44.900002 Upper Bound : 49.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 46.962921 Std Deviation : 0.670843

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 05:33	CHK		47.0000	| | |
2-JUN-2006 05:44	CHK		47.4000	| | |
3-JUN-2006 07:49	CHK		47.5000	| | |
4-JUN-2006 07:55	CHK		47.3000	| | |
5-JUN-2006 05:30	CHK		47.5000	| | |
6-JUN-2006 06:10	CHK		47.6000	| | |
7-JUN-2006 06:24	CHK		47.1000	| | |
8-JUN-2006 06:35	CHK		46.5000	| | |
9-JUN-2006 05:30	CHK		46.9000	| | |
10-JUN-2006 05:57	CHK		46.8000	| | |
11-JUN-2006 09:00	CHK		47.4000	| | |
12-JUN-2006 05:27	CHK		46.6000	| | |
13-JUN-2006 06:10	CHK		46.9000	| | |
14-JUN-2006 05:26	CHK		47.7000	| | |
15-JUN-2006 05:45	CHK		46.9000	| | |
16-JUN-2006 05:23	CHK		46.9000	| | |
17-JUN-2006 07:25	CHK		46.4000	| | |
18-JUN-2006 05:48	CHK		47.2000	| | |

19-JUN-2006 05:27	CHK	46.5000				
20-JUN-2006 05:55	CHK	47.3000				
21-JUN-2006 05:30	CHK	47.2000				
22-JUN-2006 05:53	CHK	46.8000				
23-JUN-2006 05:23	CHK	47.6000				
24-JUN-2006 06:04	CHK	47.2000				

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
26-JUN-2006 05:27	CHK		47.7000				
27-JUN-2006 04:56	CHK		47.1000				
28-JUN-2006 05:43	CHK		46.0000				
29-JUN-2006 06:05	CHK		46.9000				
30-JUN-2006 05:45	CHK		46.8000				
1-JUL-2006 08:03	CHK		47.2000				
2-JUL-2006 06:36	CHK		47.4000				
3-JUL-2006 05:06	CHK		46.6000				
4-JUL-2006 07:50	CHK		47.2000				
5-JUL-2006 05:23	CHK		47.2000				
6-JUL-2006 05:36	CHK		46.9000				
7-JUL-2006 05:31	CHK		47.2000				
8-JUL-2006 11:41	CHK		47.5000				
10-JUL-2006 05:29	CHK		47.2000				
11-JUL-2006 06:25	CHK		46.7000				
12-JUL-2006 06:05	CHK		47.9000				
13-JUL-2006 05:57	CHK		47.1000				
14-JUL-2006 05:39	CHK		47.6000				
15-JUL-2006 06:32	CHK		44.7000	Be	Ac		
15-JUL-2006 07:13	CHK		47.5000				
17-JUL-2006 05:01	CHK		47.2000				

-- Multi-Test Full Report --

Description : Quad10D (Hex 4) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 46.299999 Upper Bound : 50.000000

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----

Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 48.150002 Std Deviation : 0.600698

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 05:33	CHK		47.5000	| | |
2-JUN-2006 05:44	CHK		48.2000	| | |
3-JUN-2006 07:49	CHK		48.1000	| | |
4-JUN-2006 07:55	CHK		48.7000	| | |
5-JUN-2006 05:30	CHK		47.9000	| | |
6-JUN-2006 06:10	CHK		48.2000	| | |
7-JUN-2006 06:24	CHK		48.5000	| | |
8-JUN-2006 06:35	CHK		47.8000	| | |
9-JUN-2006 05:30	CHK		48.6000	| | |
10-JUN-2006 05:57	CHK		48.4000	| | |
11-JUN-2006 09:00	CHK		47.6000	| | |
12-JUN-2006 05:27	CHK		48.3000	| | |
13-JUN-2006 06:10	CHK		48.0000	| | |
14-JUN-2006 05:26	CHK		48.4000	| | |
15-JUN-2006 05:45	CHK		47.6000	| | |
16-JUN-2006 05:23	CHK		48.1000	| | |
17-JUN-2006 07:25	CHK		47.6000	| | |

Quality Assurance Multi-Test Full Report (continued) Page : 5

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
18-JUN-2006 05:48	CHK		48.5000	| | |
19-JUN-2006 05:27	CHK		48.3000	| | |
20-JUN-2006 05:55	CHK		47.6000	| | |
21-JUN-2006 05:30	CHK		48.3000	| | |
22-JUN-2006 05:53	CHK		48.3000	| | |
23-JUN-2006 05:23	CHK		48.7000	| | |
24-JUN-2006 06:04	CHK		48.3000	| | |
26-JUN-2006 05:27	CHK		47.9000	| | |
27-JUN-2006 04:56	CHK		47.6000	| | |
28-JUN-2006 05:43	CHK		48.0000	| | |
29-JUN-2006 06:05	CHK		48.7000	| | |
30-JUN-2006 05:45	CHK		48.3000	| | |
1-JUL-2006 08:03	CHK		48.4000	| | |
2-JUL-2006 06:36	CHK		48.3000	| | |
3-JUL-2006 05:06	CHK		47.9000	| | |
4-JUL-2006 07:50	CHK		48.2000	| | |
5-JUL-2006 05:23	CHK		48.0000	| | |

6-JUL-2006 05:36	CHK	48.0000	| | |
7-JUL-2006 05:31	CHK	48.7000	| | |
8-JUL-2006 11:41	CHK	48.4000	| | |
10-JUL-2006 05:29	CHK	48.1000	| | |
11-JUL-2006 06:25	CHK	47.8000	| | |
12-JUL-2006 06:05	CHK	48.1000	| | |
13-JUL-2006 05:57	CHK	48.0000	| | |
14-JUL-2006 05:39	CHK	48.1000	| | |
15-JUL-2006 06:32	CHK	48.2000	| | |
15-JUL-2006 07:13	CHK	No Value	| | |
17-JUL-2006 05:01	CHK	48.3000	| | |

-- Multi-Test Full Report --

Description : Quad10E (Hex 5) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 44.799999 Upper Bound : 48.599998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 46.425556 Std Deviation : 0.531481

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 05:33	CHK		46.0000	| | |
2-JUN-2006 05:44	CHK		46.5000	| | |
3-JUN-2006 07:49	CHK		46.4000	| | |
4-JUN-2006 07:55	CHK		46.1000	| | |
5-JUN-2006 05:30	CHK		46.5000	| | |
6-JUN-2006 06:10	CHK		46.1000	| | |
7-JUN-2006 06:24	CHK		46.0000	| | |
8-JUN-2006 06:35	CHK		45.6000	| | |
9-JUN-2006 05:30	CHK		46.3000	| | |
10-JUN-2006 05:57	CHK		47.1000	| | |

Quality Assurance Multi-Test Full Report (continued) Page : 6

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
11-JUN-2006 09:00	CHK		46.1000	| | |

12-JUN-2006 05:27	CHK	46.6000			
13-JUN-2006 06:10	CHK	46.3000			
14-JUN-2006 05:26	CHK	46.2000			
15-JUN-2006 05:45	CHK	46.1000			
16-JUN-2006 05:23	CHK	46.4000			
17-JUN-2006 07:25	CHK	46.6000			
18-JUN-2006 05:48	CHK	46.8000			
19-JUN-2006 05:27	CHK	46.4000			
20-JUN-2006 05:55	CHK	46.4000			
21-JUN-2006 05:30	CHK	46.8000			
22-JUN-2006 05:53	CHK	46.2000			
23-JUN-2006 05:23	CHK	45.9000			
24-JUN-2006 06:04	CHK	46.3000			
26-JUN-2006 05:27	CHK	46.4000			
27-JUN-2006 04:56	CHK	46.9000			
28-JUN-2006 05:43	CHK	46.5000			
29-JUN-2006 06:05	CHK	47.1000			
30-JUN-2006 05:45	CHK	46.4000			
1-JUL-2006 08:03	CHK	46.1000			
2-JUL-2006 06:36	CHK	46.1000			
3-JUL-2006 05:06	CHK	46.9000			
4-JUL-2006 07:50	CHK	45.5000			
5-JUL-2006 05:23	CHK	46.7000			
6-JUL-2006 05:36	CHK	45.6000			
7-JUL-2006 05:31	CHK	46.0000			
8-JUL-2006 11:41	CHK	46.1000			
10-JUL-2006 05:29	CHK	46.0000			
11-JUL-2006 06:25	CHK	45.9000			
12-JUL-2006 06:05	CHK	46.6000			
13-JUL-2006 05:57	CHK	46.7000			
14-JUL-2006 05:39	CHK	46.6000			
15-JUL-2006 06:32	CHK	46.7000			
15-JUL-2006 07:13	CHK	No Value			
17-JUL-2006 05:01	CHK	46.9000			

-- Multi-Test Full Report --

Description : Quad10F (Hex 6) alpha %Eff
Parameter Units : Parameter Type : Generic

---- Lower/Upper Bounds Test Parameters ----
Lower Bound : 46.700001 Upper Bound : 50.099998

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 10-JAN-2006 00:00 End Date : 1-MAR-2006 00:00
Mean : 48.417023 Std Deviation : 0.513860

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 05:33	CHK		48.8000	| | |
2-JUN-2006 05:44	CHK		48.2000	| | |
3-JUN-2006 07:49	CHK		48.6000	| | |

Quality Assurance Multi-Test Full Report (continued) Page : 7

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
4-JUN-2006 07:55	CHK		48.7000	| | |
5-JUN-2006 05:30	CHK		48.8000	| | |
6-JUN-2006 06:10	CHK		48.5000	| | |
7-JUN-2006 06:24	CHK		48.2000	| | |
8-JUN-2006 06:35	CHK		48.5000	| | |
9-JUN-2006 05:30	CHK		48.6000	| | |
10-JUN-2006 05:57	CHK		49.0000	| | |
11-JUN-2006 09:00	CHK		48.1000	| | |
12-JUN-2006 05:27	CHK		48.7000	| | |
13-JUN-2006 06:10	CHK		48.5000	| | |
14-JUN-2006 05:26	CHK		48.2000	| | |
15-JUN-2006 05:45	CHK		48.7000	| | |
16-JUN-2006 05:23	CHK		48.8000	| | |
17-JUN-2006 07:25	CHK		48.2000	| | |
18-JUN-2006 05:48	CHK		48.6000	| | |
19-JUN-2006 05:27	CHK		48.5000	| | |
20-JUN-2006 05:55	CHK		48.6000	| | |
21-JUN-2006 05:30	CHK		48.8000	| | |
22-JUN-2006 05:53	CHK		49.3000	| | |
23-JUN-2006 05:23	CHK		48.3000	| | |
24-JUN-2006 06:04	CHK		49.0000	| | |
26-JUN-2006 05:27	CHK		49.3000	| | |
27-JUN-2006 04:56	CHK		48.5000	| | |
28-JUN-2006 05:43	CHK		48.1000	| | |
29-JUN-2006 06:05	CHK		48.2000	| | |
30-JUN-2006 05:45	CHK		48.8000	| | |
1-JUL-2006 08:03	CHK		48.5000	| | |
2-JUL-2006 06:36	CHK		48.2000	| | |

3-JUL-2006 05:06	CHK	49.0000				
4-JUL-2006 07:50	CHK	48.4000				
5-JUL-2006 05:23	CHK	48.7000				
6-JUL-2006 05:36	CHK	48.5000				
7-JUL-2006 05:31	CHK	48.5000				
8-JUL-2006 11:41	CHK	48.4000				
10-JUL-2006 05:29	CHK	48.5000				
11-JUL-2006 06:25	CHK	49.0000				
12-JUL-2006 06:05	CHK	48.2000				
13-JUL-2006 05:57	CHK	45.8000	Be	Ac		
14-JUL-2006 05:39	CHK	48.1000				
15-JUL-2006 06:32	CHK	49.2000				
15-JUL-2006 07:13	CHK	No Value				
17-JUL-2006 05:01	CHK	49.1000				

Quality Assurance Report. Generated 17-AUG-2006 13:53:18.22

QA Filename : $DISK1:[QUAD10.QA]BKG_15.QAF;2

-- Multi-Test Full Report --

Description : Quad10A (Hex 1) alph bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.046053 Std Deviation : 0.013942

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:07	BKG		0.0600				
2-JUN-2006 05:21	BKG		0.0300				
3-JUN-2006 04:14	BKG		0.0400				
3-JUN-2006 23:49	BKG		0.0500				
5-JUN-2006 00:41	BKG		0.0400				
6-JUN-2006 05:47	BKG		0.0400				
7-JUN-2006 06:01	BKG		0.0500				
8-JUN-2006 06:12	BKG		0.0500				
9-JUN-2006 03:18	BKG		0.0500				
10-JUN-2006 04:56	BKG		0.0600				

10-JUN-2006 22:14	BKG	0.0700				
12-JUN-2006 00:44	BKG	0.0500				
13-JUN-2006 05:43	BKG	0.1700		Ac		
13-JUN-2006 09:43	BKG	0.1100		Ac		
14-JUN-2006 04:02	BKG	0.0400				
15-JUN-2006 05:13	BKG	0.0600				
16-JUN-2006 04:06	BKG	0.0700				
17-JUN-2006 04:55	BKG	0.0400				
17-JUN-2006 23:55	BKG	0.0500				
18-JUN-2006 23:00	BKG	0.0800		In		
20-JUN-2006 05:30	BKG	0.0500				
21-JUN-2006 04:34	BKG	0.0700				
22-JUN-2006 05:29	BKG	0.0500				
23-JUN-2006 03:34	BKG	0.0600				
24-JUN-2006 03:00	BKG	0.0500				
24-JUN-2006 21:12	BKG	0.0600				
26-JUN-2006 02:04	BKG	0.0500				
27-JUN-2006 02:26	BKG	0.0700				
28-JUN-2006 05:21	BKG	0.0500				
29-JUN-2006 05:44	BKG	0.0300				
30-JUN-2006 05:16	BKG	0.0600				
1-JUL-2006 05:53	BKG	0.0300				
2-JUL-2006 01:47	BKG	0.0500				
2-JUL-2006 23:08	BKG	0.0500				
4-JUL-2006 05:50	BKG	0.0600				
4-JUL-2006 20:26	BKG	0.0500				
6-JUL-2006 05:10	BKG	0.0400				
7-JUL-2006 05:07	BKG	0.0300				
8-JUL-2006 10:29	BKG	0.0600				
8-JUL-2006 23:18	BKG	0.0400				
9-JUL-2006 22:44	BKG	0.0400				

Quality Assurance Multi-Test Full Report (continued) Page : 2

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
11-JUL-2006 06:03	BKG		0.0400				
12-JUL-2006 05:42	BKG		0.0600				
13-JUL-2006 05:35	BKG		0.0300				
14-JUL-2006 05:09	BKG		0.0400				
15-JUL-2006 03:53	BKG		0.0400				
16-JUL-2006 00:59	BKG		0.0600				
17-JUL-2006 00:00	BKG		0.0500				

-- Multi-Test Full Report --

Description : Quad10B (Hex 2) alpha bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.033122 Std Deviation : 0.010930

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:07	BKG		0.0400				
2-JUN-2006 05:21	BKG		0.0300				
3-JUN-2006 04:14	BKG		0.0300				
3-JUN-2006 23:49	BKG		0.0300				
5-JUN-2006 00:41	BKG		0.0300				
6-JUN-2006 05:47	BKG		0.0300				
7-JUN-2006 06:01	BKG		0.0300				
8-JUN-2006 06:12	BKG		0.0300				
9-JUN-2006 03:18	BKG		0.0400				
10-JUN-2006 04:56	BKG		0.0300				
10-JUN-2006 22:14	BKG		0.0200				
12-JUN-2006 00:44	BKG		0.0500				
13-JUN-2006 05:43	BKG		0.0700	Ac			
13-JUN-2006 09:43	BKG		0.0300				
14-JUN-2006 04:02	BKG		0.0100	In			
15-JUN-2006 05:13	BKG		0.0400				
16-JUN-2006 04:06	BKG		0.0200				
17-JUN-2006 04:55	BKG		0.0300				
17-JUN-2006 23:55	BKG		0.0300				
18-JUN-2006 23:00	BKG		0.0300				
20-JUN-2006 05:30	BKG		0.0300				
21-JUN-2006 04:34	BKG		0.0400				
22-JUN-2006 05:29	BKG		0.0300				
23-JUN-2006 03:34	BKG		0.0200				
24-JUN-2006 03:00	BKG		0.0300				
24-JUN-2006 21:12	BKG		0.0300				
26-JUN-2006 02:04	BKG		0.0400				
27-JUN-2006 02:26	BKG		0.0300				
28-JUN-2006 05:21	BKG		0.0200				
29-JUN-2006 05:44	BKG		0.0400				

30-JUN-2006 05:16	BKG		0.0500			
1-JUL-2006 05:53	BKG		0.0200			
2-JUL-2006 01:47	BKG		0.0300			
2-JUL-2006 23:08	BKG		0.0300			

Quality Assurance Multi-Test Full Report (continued) Page : 3

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
4-JUL-2006 05:50	BKG		0.0300				
4-JUL-2006 20:26	BKG		0.0300				
6-JUL-2006 05:10	BKG		0.0400				
7-JUL-2006 05:07	BKG		0.0300				
8-JUL-2006 10:29	BKG		0.0000	Ac			
8-JUL-2006 23:18	BKG		0.0300				
9-JUL-2006 22:44	BKG		0.0400				
11-JUL-2006 06:03	BKG		0.0400				
12-JUL-2006 05:42	BKG		0.0400				
13-JUL-2006 05:35	BKG		0.0100	In			
14-JUL-2006 05:09	BKG		0.0300				
15-JUL-2006 03:53	BKG		0.0400				
16-JUL-2006 00:59	BKG		0.0500				
17-JUL-2006 00:00	BKG		0.0300				

-- Multi-Test Full Report --

Description : Quad10C (Hex 3) alpha bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.036349 Std Deviation : 0.011573

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:07	BKG		0.0300				
2-JUN-2006 05:21	BKG		0.0300				
3-JUN-2006 04:14	BKG		0.0400				
3-JUN-2006 23:49	BKG		0.0300				
5-JUN-2006 00:41	BKG		0.0300				
6-JUN-2006 05:47	BKG		0.0200				
7-JUN-2006 06:01	BKG		0.0500				

8-JUN-2006 06:12	BKG	0.0300				
9-JUN-2006 03:18	BKG	0.0600	In			
10-JUN-2006 04:56	BKG	0.0300				
10-JUN-2006 22:14	BKG	0.0300				
12-JUN-2006 00:44	BKG	0.0500				
13-JUN-2006 05:43	BKG	0.0900	Ac			
13-JUN-2006 09:43	BKG	0.0200				
14-JUN-2006 04:02	BKG	0.0400				
15-JUN-2006 05:13	BKG	0.0400				
16-JUN-2006 04:06	BKG	0.0300				
17-JUN-2006 04:55	BKG	0.0400				
17-JUN-2006 23:55	BKG	0.0400				
18-JUN-2006 23:00	BKG	0.0400				
20-JUN-2006 05:30	BKG	0.0400				
21-JUN-2006 04:34	BKG	0.0400				
22-JUN-2006 05:29	BKG	0.0400				
23-JUN-2006 03:34	BKG	0.0200				
24-JUN-2006 03:00	BKG	0.0300				
24-JUN-2006 21:12	BKG	0.0300				
26-JUN-2006 02:04	BKG	0.0300				

Quality Assurance Multi-Test Full Report (continued) Page : 4

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
27-JUN-2006 02:26	BKG		0.0300				
28-JUN-2006 05:21	BKG		0.0400				
29-JUN-2006 05:44	BKG		0.0400				
30-JUN-2006 05:16	BKG		0.0400				
1-JUL-2006 05:53	BKG		0.0400				
2-JUL-2006 01:47	BKG		0.0200				
2-JUL-2006 23:08	BKG		0.0400				
4-JUL-2006 05:50	BKG		0.0300				
4-JUL-2006 20:26	BKG		0.0300				
6-JUL-2006 05:10	BKG		0.0500				
7-JUL-2006 05:07	BKG		0.0300				
8-JUL-2006 10:29	BKG		0.0200				
8-JUL-2006 23:18	BKG		0.0200				
9-JUL-2006 22:44	BKG		0.0500				
11-JUL-2006 06:03	BKG		0.0400				
12-JUL-2006 05:42	BKG		0.0300				
13-JUL-2006 05:35	BKG		0.0500				
14-JUL-2006 05:09	BKG		0.0300				
15-JUL-2006 03:53	BKG		0.0500				

16-JUL-2006 00:59	BKG	0.0300			
17-JUL-2006 00:00	BKG	0.0200			

-- Multi-Test Full Report --

Description : Quad10D (Hex 4) alpha bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.041587 Std Deviation : 0.010848

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:07	BKG		0.0600				
2-JUN-2006 05:21	BKG		0.0400				
3-JUN-2006 04:14	BKG		0.0300				
3-JUN-2006 23:49	BKG		0.0600				
5-JUN-2006 00:41	BKG		0.0300				
6-JUN-2006 05:47	BKG		0.0600				
7-JUN-2006 06:01	BKG		0.0400				
8-JUN-2006 06:12	BKG		0.0300				
9-JUN-2006 03:18	BKG		0.0400				
10-JUN-2006 04:56	BKG		0.0700	In			
10-JUN-2006 22:14	BKG		0.0600				
12-JUN-2006 00:44	BKG		0.0500				
13-JUN-2006 05:43	BKG		0.0700	In			
13-JUN-2006 09:43	BKG		0.0500				
14-JUN-2006 04:02	BKG		0.0400				
15-JUN-2006 05:13	BKG		0.0600				
16-JUN-2006 04:06	BKG		0.0600				
17-JUN-2006 04:55	BKG		0.0400				
17-JUN-2006 23:55	BKG		0.0400				
18-JUN-2006 23:00	BKG		0.0700	In			

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Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
20-JUN-2006 05:30	BKG		0.0600				
21-JUN-2006 04:34	BKG		0.0400				
22-JUN-2006 05:29	BKG		0.0400				

23-JUN-2006 03:34	BKG	0.0500			
24-JUN-2006 03:00	BKG	0.0400			
24-JUN-2006 21:12	BKG	0.0500			
26-JUN-2006 02:04	BKG	0.0300			
27-JUN-2006 02:26	BKG	0.0400			
28-JUN-2006 05:21	BKG	0.0400			
29-JUN-2006 05:44	BKG	0.0500			
30-JUN-2006 05:16	BKG	0.0600			
1-JUL-2006 05:53	BKG	0.0400			
2-JUL-2006 01:47	BKG	0.0500			
2-JUL-2006 23:08	BKG	0.0500			
4-JUL-2006 05:50	BKG	0.0400			
4-JUL-2006 20:26	BKG	0.0300			
6-JUL-2006 05:10	BKG	0.0500			
7-JUL-2006 05:07	BKG	0.0500			
8-JUL-2006 10:29	BKG	0.0500			
8-JUL-2006 23:18	BKG	0.0400			
9-JUL-2006 22:44	BKG	0.0600			
11-JUL-2006 06:03	BKG	0.0400			
12-JUL-2006 05:42	BKG	0.0400			
13-JUL-2006 05:35	BKG	0.0400			
14-JUL-2006 05:09	BKG	0.0500			
15-JUL-2006 03:53	BKG	0.0300			
16-JUL-2006 00:59	BKG	0.0600			
17-JUL-2006 00:00	BKG	0.0600			

-- Multi-Test Full Report --

Description : Quad10E (Hex 5) alpha bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.028421 Std Deviation : 0.011712

Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
1-JUN-2006 05:07	BKG		0.0300				
2-JUN-2006 05:21	BKG		0.0400				
3-JUN-2006 04:14	BKG		0.0300				
3-JUN-2006 23:49	BKG		0.0200				

5-JUN-2006 00:41	BKG		0.0300			
6-JUN-2006 05:47	BKG		0.0200			
7-JUN-2006 06:01	BKG		0.0400			
8-JUN-2006 06:12	BKG		0.0400			
9-JUN-2006 03:18	BKG		0.0200			
10-JUN-2006 04:56	BKG		0.0400			
10-JUN-2006 22:14	BKG		0.0300			
12-JUN-2006 00:44	BKG		0.0300			
13-JUN-2006 05:43	BKG		0.1100	Ac		

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Measurement Time	Sample ID	Sample Analyst	Value	LU	SD	UD	BS Rej
13-JUN-2006 09:43	BKG		0.0400				
14-JUN-2006 04:02	BKG		0.0300				
15-JUN-2006 05:13	BKG		0.0500				
16-JUN-2006 04:06	BKG		0.0300				
17-JUN-2006 04:55	BKG		0.0300				
17-JUN-2006 23:55	BKG		0.0200				
18-JUN-2006 23:00	BKG		0.0400				
20-JUN-2006 05:30	BKG		0.0200				
21-JUN-2006 04:34	BKG		0.0200				
22-JUN-2006 05:29	BKG		0.0300				
23-JUN-2006 03:34	BKG		0.0200				
24-JUN-2006 03:00	BKG		0.0300				
24-JUN-2006 21:12	BKG		0.0200				
26-JUN-2006 02:04	BKG		0.0300				
27-JUN-2006 02:26	BKG		0.0300				
28-JUN-2006 05:21	BKG		0.0300				
29-JUN-2006 05:44	BKG		0.0200				
30-JUN-2006 05:16	BKG		0.0400				
1-JUL-2006 05:53	BKG		0.0300				
2-JUL-2006 01:47	BKG		0.0400				
2-JUL-2006 23:08	BKG		0.0200				
4-JUL-2006 05:50	BKG		0.0200				
4-JUL-2006 20:26	BKG		0.0400				
6-JUL-2006 05:10	BKG		0.0200				
7-JUL-2006 05:07	BKG		0.0200				
8-JUL-2006 10:29	BKG		0.0200				
8-JUL-2006 23:18	BKG		0.0400				
9-JUL-2006 22:44	BKG		0.0300				
11-JUL-2006 06:03	BKG		0.0300				
12-JUL-2006 05:42	BKG		0.0300				

13-JUL-2006 05:35	BKG	0.0400	| |	
14-JUL-2006 05:09	BKG	0.0500	| |	
15-JUL-2006 03:53	BKG	0.0200	| |	
16-JUL-2006 00:59	BKG	0.0300	| |	
17-JUL-2006 00:00	BKG	0.0400	| |	

-- Multi-Test Full Report --

Description : Quad10F (Hex 6) alpha bkg
Parameter Units : cpm Parameter Type : Generic

Investigate Level : 2.000000 Action Level : 3.000000

---- Sample Driven N-Sigma Test Parameters ----
Start Date : 1-JUL-2005 00:00 End Date : 1-JAN-2006 00:00
Mean : 0.013053 Std Deviation : 0.032288

Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
1-JUN-2006 05:07	BKG		0.0400	| | |
2-JUN-2006 05:21	BKG		0.0400	| | |
3-JUN-2006 04:14	BKG		0.0500	| | |
3-JUN-2006 23:49	BKG		0.0500	| | |
5-JUN-2006 00:41	BKG		0.0500	| | |
6-JUN-2006 05:47	BKG		0.0400	| | |

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Measurement Time	Sample ID	Sample Analyst	Value	LU|SD|UD|BS Rej
7-JUN-2006 06:01	BKG		0.0400	| | |
8-JUN-2006 06:12	BKG		0.0500	| | |
9-JUN-2006 03:18	BKG		0.0600	| | |
10-JUN-2006 04:56	BKG		0.0400	| | |
10-JUN-2006 22:14	BKG		0.0300	| | |
12-JUN-2006 00:44	BKG		0.0400	| | |
13-JUN-2006 05:43	BKG		0.2600	|Ac| |
13-JUN-2006 09:43	BKG		0.0400	| | |
14-JUN-2006 04:02	BKG		0.0500	| | |
15-JUN-2006 05:13	BKG		0.0500	| | |
16-JUN-2006 04:06	BKG		0.0400	| | |
17-JUN-2006 04:55	BKG		0.0600	| | |
17-JUN-2006 23:55	BKG		0.0400	| | |
18-JUN-2006 23:00	BKG		0.0400	| | |

20-JUN-2006 05:30	BKG	0.0500			
21-JUN-2006 04:34	BKG	0.0600			
22-JUN-2006 05:29	BKG	0.0500			
23-JUN-2006 03:34	BKG	0.0500			
24-JUN-2006 03:00	BKG	0.0400			
24-JUN-2006 21:12	BKG	0.0600			
26-JUN-2006 02:04	BKG	0.0300			
27-JUN-2006 02:26	BKG	0.0500			
28-JUN-2006 05:21	BKG	0.0500			
29-JUN-2006 05:44	BKG	0.0400			
30-JUN-2006 05:16	BKG	0.0400			
1-JUL-2006 05:53	BKG	0.0400			
2-JUL-2006 01:47	BKG	0.0200			
2-JUL-2006 23:08	BKG	0.0600			
4-JUL-2006 05:50	BKG	0.0600			
4-JUL-2006 20:26	BKG	0.0300			
6-JUL-2006 05:10	BKG	0.0600			
7-JUL-2006 05:07	BKG	0.0500			
8-JUL-2006 10:29	BKG	0.0400			
8-JUL-2006 23:18	BKG	0.0400			
9-JUL-2006 22:44	BKG	0.0300			
11-JUL-2006 06:03	BKG	0.0400			
12-JUL-2006 05:42	BKG	0.0400			
13-JUL-2006 05:35	BKG	0.0400			
14-JUL-2006 05:09	BKG	0.0300			
15-JUL-2006 03:53	BKG	0.0300			
16-JUL-2006 00:59	BKG	0.0500			
17-JUL-2006 00:00	BKG	0.0500			