SC&A S. COHEN & ASSOCIATES
AN EMPLOYEE-OWNED COMPANY

December 20, 2007

Greg Miller
Cabrera Services, Inc.
5301 Montano Plaza Drive NW
Albuquerque, NM 87120

Dear Mr. Miller:

Enclosed is a Sample Data Package for the Schofield Barracks soil samples that SC&A subcontracted to General Engineering Laboratories in Charleston, South Carolina, for gamma spectroscopy, and to GPL Laboratories, in Frederick, Maryland, for the elemental lead analysis. SC&A has combined their reports and included them in this Sample Data Package.

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

Sincerely,

Cynthia White

Cynthia White
Laboratory Director

cc: Tony Mason, Cabrera Services

1000 MONTICELLO COURT • MONTGOMERY, ALABAMA • 36117 • 334.272.2234 • FAX 334.213.0407

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Case Narrative

Case Narrative
for
Sanford Cohen and Associates, Inc.
SDG: 198689

December 10, 2007

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample Receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 04, 2007 for analysis. All sample containers arrived without any visible signs of tampering or breakage. Shipping container temperature was within specification. There are no additional comments concerning sample receipt.

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
198689001	SB-CZ-SS-2143-BA
198689002	SB-CZ-SS-2144-BA
198689003	SB-CZ-SS-2145-BA
198689004	SB-CZ-SS-2146-BA
198689005	SB-CZ-SS-2147-BA
198689006	SB-CZ-SS-2148-BA
198689007	SB-CZ-SS-2149-BA
198689008	SB-CZ-SS-2143-BD
198689009	SB-CZ-SS-2144-BD
198689010	SB-CZ-SS-2145-BD
198689011	SB-CZ-SS-2146-BD
198689012	SB-CZ-SS-2147-BD
198689013	SB-CZ-SS-2148-BD
198689014	SB-CZ-SS-2149-BD

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: General Narrative, Chain of Custody and Supporting Documentation, and data from the following fractions: Radiochemistry.

Amanda Rasco

Project Manager

Chain of Custody and Supporting Documentation

198689

SC & A 1000 MONTICELLO COURT
CHAIN OF CUSTODY RECORD MONTGOMERY, AL 36117 (334) 272-2234 (334)213-0407 FAX

WORK ASIGNMENT #	PROJECT NAME:	ANALYSIS REQUESTED	FOR LABORATORY USE
08-3040.01	Schofield CZ		

Client Name: JMC

Project Manager: Greg Miller Cabrera Services

Requested Comp. Date

Notify Upon Receipt?

COC# 44

Laboratory Prefix

Study I.D.

Pg 1 of 1

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Lead					04207	8040	Laboratory	Comments
1	10/18/2007		Soil	SB-CZ-SS-2143-BA	1		X						01		
2	10/18/2007		Soil	SB-CZ-SS-2144-BA	1		X						02		
3	10/18/2007		Soil	SB-CZ-SS-2145-BA	1		X						03		
4	10/18/2007		Soil	SB-CZ-SS-2146-BA	1		X						04		
5	10/18/2007		Soil	SB-CZ-SS-2147-BA	1		X						05		
6	10/18/2007		Soil	SB-CZ-SS-2148-BA	1		X						06		
7	10/18/2007		Soil	SB-CZ-SS-2149-BA	1		X						07		
8	10/18/2007		Soil	SB-CZ-SS-2143-BD	1		X					04207	8041 - 01		
9	10/18/2007		Soil	SB-CZ-SS-2144-BD	1		X						02		
10	10/18/2007		Soil	SB-CZ-SS-2145-BD	1		X						03		
11	10/18/2007		Soil	SB-CZ-SS-2146-BD	1		X						04		
12	10/18/2007		Soil	SB-CZ-SS-2147-BD	1		X						05		
13	10/18/2007		Soil	SB-CZ-SS-2148-BD	1		X						06		
14	10/18/2007		Soil	SB-CZ-SS-2149-BD	1		X						07		

Sampled by and Title Alfred Craig FSP	Date/Time 10-18-07	Relinquished by: Alfred Craig FSP	Date/Time	QC Level 1 2 3
Received by: [illegible]	Date/Time) 2-24-07 950	Relinquished by:	Date/Time	COC / ICE
Received by: C. Owens SC'A	Date/Time 10/22/07 8:40	Relinquished by: C. Owens SC'A	Date/Time 10/22/07 15:30	ANA REQ / TEMP
		Sample shipped via UPS FED-EX HAND OTHER	Air Bill #	Cust Seal / pH / Sample

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: SCAN	**SDG/ARCOC/Work Order:** 198681, 198683, 198686, 198[illegible]
Received By: Ricky Albee	**Date Received:** 12/4/07

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
Marked as radioactive?		✓	Maximum Counts Observed*: 80CPM
Classified Radioactive II by RSO?		✓	
Marked containing PCBs?		✓	
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
Identified as Foreign Soil?		✓	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)?		✓		Preservation Method: ice bags blue ice dry ice none other (describe) 17°, 18°
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Are Encore containers present?			✓	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	✓			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
10	Date & time on COC match date & ~~time on bottles?~~			✓	Sample ID's affected: no times on chain or samples
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	✓			

Comments:
8416 9069 7819 - 18°
7830 - 17°

PM (or PMA) review: Initials RAA Date 12/4

List of current GEL Certifications as of 10 December 2007

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas NELAP	T104704235-07-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

RADIOLOGICAL ANALYSIS

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	708128
Prep Batch Number:	707919

Sample ID	Client ID
198689001	SB-CZ-SS-2143-BA
198689002	SB-CZ-SS-2144-BA
198689003	SB-CZ-SS-2145-BA
198689004	SB-CZ-SS-2146-BA
198689005	SB-CZ-SS-2147-BA
198689006	SB-CZ-SS-2148-BA
198689007	SB-CZ-SS-2149-BA
198689008	SB-CZ-SS-2143-BD
198689009	SB-CZ-SS-2144-BD
198689010	SB-CZ-SS-2145-BD
1201473833	Method Blank (MB)
1201473834	198686005(SB-CZ-SS-2140-BA) Sample Duplicate (DUP)
1201473835	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 198686005 (SB-CZ-SS-2140-BA).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
The sample and the duplicate 1201473834 (SB-CZ-SS-2140-BA) did not meet the relative percent difference requirements for Bi-214, Cs-137, Tl-208, and Th-234, however they do meet the relative error ratio requirements with values of 2.29, 2.90, 1.57, and 2.18, respectively.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to a high counting uncertainty.	Bismuth-212	198689004
UI	Data rejected due to high peak-width.		198689007
		Neptunium-236	198689004
		Uranium-235	198689010
UI	Data rejected due to interference.	Americium-243	198689001

			198689002
			198689003
			198689004
			198689005
			198689006
			198689007
			198689008
			198689009
			198689010
			1201473834
		Europium-155	198689004
		Neptunium-236	198689002
		Neptunium-237	198689001
			198689003
			198689004
			198689006
			198689007
			198689008
			198689009
			198689010
		Radium-223	198689001
			198689002
			198689003
			198689004
			198689006
			198689008
			198689010
UI	Data rejected due to low abundance.	Americium-241	198689001
			198689006
		Bismuth-214	198689005

		Cobalt-60	198689001
UI	Data rejected due to no valid peak.	Bismuth-212	198689002
		Uranium-235	198689001

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	708130
Prep Batch Number:	707920

Sample ID	Client ID
198689011	SB-CZ-SS-2146-BD
198689012	SB-CZ-SS-2147-BD
198689013	SB-CZ-SS-2148-BD
198689014	SB-CZ-SS-2149-BD
1201473840	Method Blank (MB)
1201473841	198689011(SB-CZ-SS-2146-BD) Sample Duplicate (DUP)
1201473842	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 198689011 (SB-CZ-SS-2146-BD).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high peak-width.	Americium-243	198689012
UI	Data rejected due to interference.		198689011
			198689013
			198689014
			1201473841
		Neptunium-237	198689011
			198689012
			198689013
			198689014
			1201473841
		Radium-223	198689011
			198689013
			198689014
			1201473841
UI	Data rejected due to low abundance.	Bismuth-214	198689012
		Cobalt-60	1201473841
		Thallium-208	198689012
		Thorium-234	1201473841
UI	Data rejected due to no valid peak.	Bismuth-212	198689012
		Cesium-137	198689013
		Protactinium-234m	198689013

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date:_____ Pamela Williams 12/17/07 _____

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

SCAN001 Sanford Cohen and Associates, Inc.

Client SDG: 198689 GEL Work Order: 198689

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

ND The analyte concentration is not detected above the detection limit.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Amanda Rasco.

Reviewed by

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID:	SB−CZ−SS−2143−BA	Project:	SCAN00101
Sample ID:	198689001	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	18−OCT−07		
Receive Date:	04−DEC−07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.769	+/−0.157	0.124	+/−0.157	0.800	pCi/g		MJH1	12/10/07	0918	708128	1
Americium−241	UI	0.0391	+/−0.0241	0.0389	+/−0.0241	0.200	pCi/g						
Americium−243	UI	0.131	+/−0.0232	0.0215	+/−0.0232		pCi/g						
Americium−246	U	−0.0311	+/−0.0812	0.124	+/−0.0812		pCi/g						
Antimony−125	U	−0.0309	+/−0.0506	0.0828	+/−0.0506	0.200	pCi/g						
Bismuth−211	U	−0.213	+/−0.573	0.948	+/−0.573		pCi/g						
Bismuth−212	U	0.255	+/−0.261	0.263	+/−0.261	0.500	pCi/g						
Bismuth−214		0.474	+/−0.0891	0.0687	+/−0.0891	0.200	pCi/g						
Californium−249	U	−0.0141	+/−0.0211	0.0346	+/−0.0211		pCi/g						
Cesium−137		0.294	+/−0.0493	0.0365	+/−0.0493	0.100	pCi/g						
Cobalt−60	UI	0.0394	+/−0.032	0.039	+/−0.032	0.100	pCi/g						
Curium−243	U	0.0509	+/−0.0478	0.061	+/−0.0478		pCi/g						
Europium−155	U	0.0562	+/−0.0527	0.0642	+/−0.0527	0.500	pCi/g						
Lead−212		0.686	+/−0.0652	0.045	+/−0.0652	0.100	pCi/g						
Lead−214		0.532	+/−0.0763	0.0594	+/−0.0763	0.100	pCi/g						
Neptunium−236	U	0.0228	+/−0.0237	0.0366	+/−0.0237		pCi/g						
Neptunium−237	UI	0.406	+/−0.0945	0.110	+/−0.0945		pCi/g						
Neptunium−239	U	0.00352	+/−0.124	0.187	+/−0.124	2.00	pCi/g						
Polonium−209	U	−2.13	+/−4.16	6.75	+/−4.16		pCi/g						
Potassium−40		5.04	+/−0.751	0.292	+/−0.751	1.00	pCi/g						
Protactinium−233	U	0.043	+/−0.0449	0.0519	+/−0.0449		pCi/g						
Protactinium−234m	U	1.48	+/−2.58	4.54	+/−2.58		pCi/g						
Radium−223	UI	0.213	+/−0.118	0.139	+/−0.118		pCi/g						
Rhodium−101	U	0.00575	+/−0.0173	0.0274	+/−0.0173		pCi/g						
Thallium−208		0.183	+/−0.0531	0.0344	+/−0.0531	0.080	pCi/g						
Thorium−234		0.987	+/−0.261	0.255	+/−0.261	0.500	pCi/g						
Uranium−235	UI	0.186	+/−0.115	0.144	+/−0.115	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2143−BA Project: SCAN00101
Sample ID: 198689001 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2144−BA
Sample ID: 198689002
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.646	+/−0.161	0.123	+/−0.161	0.800	pCi/g		MJH1	12/10/07	0918	708128	1
Americium−241	U	0.00251	+/−0.0873	0.130	+/−0.0873	0.200	pCi/g						
Americium−243	UI	0.148	+/−0.0339	0.0391	+/−0.0339		pCi/g						
Americium−246	U	−0.018	+/−0.073	0.121	+/−0.073		pCi/g						
Antimony−125	U	0.0119	+/−0.0547	0.092	+/−0.0547	0.200	pCi/g						
Bismuth−211	U	0.659	+/−0.741	1.10	+/−0.741		pCi/g						
Bismuth−212	UI	0.296	+/−0.176	0.274	+/−0.176	0.500	pCi/g						
Bismuth−214		0.409	+/−0.0947	0.0735	+/−0.0947	0.200	pCi/g						
Californium−249	U	0.0228	+/−0.0226	0.0396	+/−0.0226		pCi/g						
Cesium−137		0.141	+/−0.0434	0.0386	+/−0.0434	0.100	pCi/g						
Cobalt−60	U	0.00227	+/−0.0211	0.0357	+/−0.0211	0.100	pCi/g						
Curium−243	U	0.0523	+/−0.0681	0.0685	+/−0.0681		pCi/g						
Europium−155	U	0.0577	+/−0.0751	0.0771	+/−0.0751	0.500	pCi/g						
Lead−212		0.730	+/−0.0699	0.0466	+/−0.0699	0.100	pCi/g						
Lead−214		0.500	+/−0.087	0.0654	+/−0.087	0.100	pCi/g						
Neptunium−236	UI	0.000551	+/−0.0279	0.0484	+/−0.0279		pCi/g						
Neptunium−237		0.396	+/−0.131	0.169	+/−0.131		pCi/g						
Neptunium−239	U	−0.0732	+/−0.119	0.188	+/−0.119	2.00	pCi/g						
Polonium−209	U	1.61	+/−3.92	6.66	+/−3.92		pCi/g						
Potassium−40		6.29	+/−0.740	0.292	+/−0.740	1.00	pCi/g						
Protactinium−233	U	0.0193	+/−0.0354	0.0618	+/−0.0354		pCi/g						
Protactinium−234m	U	−1.82	+/−3.29	4.40	+/−3.29		pCi/g						
Radium−223	UI	0.183	+/−0.130	0.147	+/−0.130		pCi/g						
Rhodium−101	U	0.000657	+/−0.021	0.0283	+/−0.021		pCi/g						
Thallium−208		0.205	+/−0.0479	0.0355	+/−0.0479	0.080	pCi/g						
Thorium−234		0.996	+/−0.382	0.361	+/−0.382	0.500	pCi/g						
Uranium−235	U	−0.01	+/−0.126	0.167	+/−0.126	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2144−BA Project: SCAN00101
Sample ID: 198689002 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2145−BA
Sample ID: 198689003
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.602	+/−0.158	0.0906	+/−0.158	0.800	pCi/g		MJH1	12/10/07	1558	708128	1
Americium−241	U	0.0589	+/−0.052	0.0823	+/−0.052	0.200	pCi/g						
Americium−243	UI	0.090	+/−0.0305	0.0312	+/−0.0305		pCi/g						
Americium−246	U	0.0159	+/−0.0528	0.0895	+/−0.0528		pCi/g						
Antimony−125	U	−0.0355	+/−0.039	0.0637	+/−0.039	0.200	pCi/g						
Bismuth−211	U	−0.0502	+/−0.437	0.738	+/−0.437		pCi/g						
Bismuth−212		0.338	+/−0.260	0.178	+/−0.260	0.500	pCi/g						
Bismuth−214		0.317	+/−0.0782	0.0509	+/−0.0782	0.200	pCi/g						
Californium−249	U	0.00513	+/−0.0193	0.0289	+/−0.0193		pCi/g						
Cesium−137	U	0.0111	+/−0.0214	0.0251	+/−0.0214	0.100	pCi/g						
Cobalt−60	U	0.00221	+/−0.0157	0.0262	+/−0.0157	0.100	pCi/g						
Curium−243	U	0.0259	+/−0.0453	0.0693	+/−0.0453		pCi/g						
Europium−155	U	0.0615	+/−0.0562	0.0739	+/−0.0562	0.500	pCi/g						
Lead−212		0.625	+/−0.0703	0.0422	+/−0.0703	0.100	pCi/g						
Lead−214		0.401	+/−0.0717	0.0505	+/−0.0717	0.100	pCi/g						
Neptunium−236	U	0.0323	+/−0.0276	0.0429	+/−0.0276		pCi/g						
Neptunium−237	UI	0.429	+/−0.125	0.136	+/−0.125		pCi/g						
Neptunium−239	U	0.0414	+/−0.143	0.168	+/−0.143	2.00	pCi/g						
Polonium−209	U	−0.678	+/−2.97	4.96	+/−2.97		pCi/g						
Potassium−40		4.53	+/−0.545	0.210	+/−0.545	1.00	pCi/g						
Protactinium−233	U	−0.0206	+/−0.028	0.0472	+/−0.028		pCi/g						
Protactinium−234m	U	1.49	+/−3.12	2.70	+/−3.12		pCi/g						
Radium−223	UI	0.227	+/−0.134	0.134	+/−0.134		pCi/g						
Rhodium−101	U	0.00268	+/−0.0212	0.0255	+/−0.0212		pCi/g						
Thallium−208		0.216	+/−0.0366	0.0241	+/−0.0366	0.080	pCi/g						
Thorium−234		0.551	+/−0.406	0.301	+/−0.406	0.500	pCi/g						
Uranium−235	U	0.0361	+/−0.134	0.155	+/−0.134	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

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2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2145−BA Project: SCAN00101
Sample ID: 198689003 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2146−BA
Sample ID: 198689004
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.710	+/−0.156	0.0954	+/−0.156	0.800	pCi/g		MJH1	12/11/07	0403	708128	1
Americium−241	U	0.0413	+/−0.0575	0.0901	+/−0.0575	0.200	pCi/g						
Americium−243	UI	0.0987	+/−0.0337	0.0339	+/−0.0337		pCi/g						
Americium−246	U	0.0293	+/−0.0619	0.0925	+/−0.0619		pCi/g						
Antimony−125	U	0.0221	+/−0.0467	0.0801	+/−0.0467	0.200	pCi/g						
Bismuth−211	U	0.180	+/−0.485	0.729	+/−0.485		pCi/g						
Bismuth−212	UI	0.223	+/−0.229	0.203	+/−0.229	0.500	pCi/g						
Bismuth−214		0.439	+/−0.0878	0.0539	+/−0.0878	0.200	pCi/g						
Californium−249	U	0.0176	+/−0.0194	0.0339	+/−0.0194		pCi/g						
Cesium−137		0.403	+/−0.0473	0.0288	+/−0.0473	0.100	pCi/g						
Cobalt−60	U	−0.0106	+/−0.0214	0.029	+/−0.0214	0.100	pCi/g						
Curium−243	U	0.043	+/−0.0662	0.0748	+/−0.0662		pCi/g						
Europium−155	UI	0.0792	+/−0.0621	0.0773	+/−0.0621	0.500	pCi/g						
Lead−212		0.627	+/−0.0751	0.0475	+/−0.0751	0.100	pCi/g						
Lead−214		0.486	+/−0.0769	0.0559	+/−0.0769	0.100	pCi/g						
Neptunium−236	UI	0.0635	+/−0.0556	0.0442	+/−0.0556		pCi/g						
Neptunium−237	UI	0.473	+/−0.143	0.161	+/−0.143		pCi/g						
Neptunium−239	U	−0.00981	+/−0.117	0.193	+/−0.117	2.00	pCi/g						
Polonium−209	U	−0.127	+/−3.37	5.41	+/−3.37		pCi/g						
Potassium−40		4.27	+/−0.563	0.250	+/−0.563	1.00	pCi/g						
Protactinium−233	U	−0.0225	+/−0.0314	0.0526	+/−0.0314		pCi/g						
Protactinium−234m	U	2.15	+/−3.41	3.23	+/−3.41		pCi/g						
Radium−223	UI	0.213	+/−0.127	0.157	+/−0.127		pCi/g						
Rhodium−101	U	−0.00176	+/−0.0212	0.0296	+/−0.0212		pCi/g						
Thallium−208		0.140	+/−0.0419	0.0268	+/−0.0419	0.080	pCi/g						
Thorium−234		0.442	+/−0.429	0.357	+/−0.429	0.500	pCi/g						
Uranium−235	U	0.00329	+/−0.157	0.176	+/−0.157	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2146−BA Project: SCAN00101
Sample ID: 198689004 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2147−BA
Sample ID: 198689005
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Solid												
Actinium−228		0.196	+/−0.124	0.111	+/−0.124	0.800	pCi/g		MJH1	12/11/07 0859	708128	1
Americium−241	U	0.0909	+/−0.0667	0.111	+/−0.0667	0.200	pCi/g					
Americium−243	UI	0.0546	+/−0.0313	0.035	+/−0.0313		pCi/g					
Americium−246	U	0.0801	+/−0.072	0.131	+/−0.072		pCi/g					
Antimony−125	U	0.0228	+/−0.0477	0.084	+/−0.0477	0.200	pCi/g					
Bismuth−211	U	0.249	+/−0.537	0.926	+/−0.537		pCi/g					
Bismuth−212	U	0.242	+/−0.197	0.244	+/−0.197	0.500	pCi/g					
Bismuth−214	UI	0.108	+/−0.063	0.0923	+/−0.063	0.200	pCi/g					
Californium−249	U	0.00764	+/−0.0199	0.0349	+/−0.0199		pCi/g					
Cesium−137		0.370	+/−0.055	0.0285	+/−0.055	0.100	pCi/g					
Cobalt−60	U	0.0191	+/−0.0202	0.0376	+/−0.0202	0.100	pCi/g					
Curium−243	U	0.00234	+/−0.0423	0.0722	+/−0.0423		pCi/g					
Europium−155	U	−0.0091	+/−0.0474	0.080	+/−0.0474	0.500	pCi/g					
Lead−212		0.212	+/−0.0623	0.0544	+/−0.0623	0.100	pCi/g					
Lead−214		0.114	+/−0.0605	0.0636	+/−0.0605	0.100	pCi/g					
Neptunium−236	U	−0.00151	+/−0.0318	0.0458	+/−0.0318		pCi/g					
Neptunium−237	U	0.113	+/−0.0993	0.170	+/−0.0993		pCi/g					
Neptunium−239	U	−0.018	+/−0.111	0.182	+/−0.111	2.00	pCi/g					
Polonium−209	U	0.433	+/−4.40	6.32	+/−4.40		pCi/g					
Potassium−40		2.57	+/−0.523	0.287	+/−0.523	1.00	pCi/g					
Protactinium−233	U	−0.0137	+/−0.034	0.0541	+/−0.034		pCi/g					
Protactinium−234m	U	1.07	+/−2.63	4.24	+/−2.63		pCi/g					
Radium−223	U	−0.0387	+/−0.0956	0.153	+/−0.0956		pCi/g					
Rhodium−101	U	0.0184	+/−0.0269	0.026	+/−0.0269		pCi/g					
Thallium−208		0.0734	+/−0.0325	0.0278	+/−0.0325	0.080	pCi/g					
Thorium−234	U	0.330	+/−0.401	0.381	+/−0.401	0.500	pCi/g					
Uranium−235	U	0.0678	+/−0.126	0.149	+/−0.126	0.500	pCi/g					

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2147−BA Project: SCAN00101
Sample ID: 198689005 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2148−BA
Sample ID: 198689006
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.629	+/−0.138	0.116	+/−0.138	0.800	pCi/g		MJH1	12/11/07	0903	708128	1
Americium−241	UI	0.108	+/−0.0697	0.104	+/−0.0697	0.200	pCi/g						
Americium−243	UI	0.109	+/−0.0369	0.0367	+/−0.0369		pCi/g						
Americium−246	U	0.0367	+/−0.0652	0.116	+/−0.0652		pCi/g						
Antimony−125	U	0.0283	+/−0.0489	0.0854	+/−0.0489	0.200	pCi/g						
Bismuth−211	U	0.0444	+/−0.511	0.879	+/−0.511		pCi/g						
Bismuth−212		0.446	+/−0.243	0.230	+/−0.243	0.500	pCi/g						
Bismuth−214		0.308	+/−0.0793	0.0595	+/−0.0793	0.200	pCi/g						
Californium−249	U	0.00687	+/−0.0214	0.0369	+/−0.0214		pCi/g						
Cesium−137		0.271	+/−0.0472	0.0292	+/−0.0472	0.100	pCi/g						
Cobalt−60	U	−0.0243	+/−0.0238	0.0342	+/−0.0238	0.100	pCi/g						
Curium−243	U	−0.0327	+/−0.0525	0.0743	+/−0.0525		pCi/g						
Europium−155	U	−0.00637	+/−0.0574	0.0838	+/−0.0574	0.500	pCi/g						
Lead−212		0.504	+/−0.0701	0.0551	+/−0.0701	0.100	pCi/g						
Lead−214		0.292	+/−0.0785	0.0612	+/−0.0785	0.100	pCi/g						
Neptunium−236	U	−0.00116	+/−0.0297	0.0481	+/−0.0297		pCi/g						
Neptunium−237	UI	0.227	+/−0.108	0.201	+/−0.108		pCi/g						
Neptunium−239	U	0.0439	+/−0.116	0.204	+/−0.116	2.00	pCi/g						
Polonium−209	U	0.693	+/−3.67	6.34	+/−3.67		pCi/g						
Potassium−40		5.27	+/−0.683	0.310	+/−0.683	1.00	pCi/g						
Protactinium−233	U	−0.0145	+/−0.0325	0.0543	+/−0.0325		pCi/g						
Protactinium−234m	U	1.72	+/−2.59	3.56	+/−2.59		pCi/g						
Radium−223	UI	0.209	+/−0.125	0.149	+/−0.125		pCi/g						
Rhodium−101	U	−0.00284	+/−0.0191	0.0287	+/−0.0191		pCi/g						
Thallium−208		0.165	+/−0.0422	0.0298	+/−0.0422	0.080	pCi/g						
Thorium−234		0.548	+/−0.360	0.397	+/−0.360	0.500	pCi/g						
Uranium−235	U	0.133	+/−0.115	0.182	+/−0.115	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2148−BA Project: SCAN00101
Sample ID: 198689006 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2149−BA
Sample ID: 198689007
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.450	+/−0.148	0.139	+/−0.148	0.800	pCi/g		MJH1	12/11/07	1141	708128	1
Americium−241	U	0.0207	+/−0.0962	0.142	+/−0.0962	0.200	pCi/g						
Americium−243	UI	0.105	+/−0.0415	0.048	+/−0.0415		pCi/g						
Americium−246	U	0.0256	+/−0.0805	0.138	+/−0.0805		pCi/g						
Antimony−125	U	0.00348	+/−0.0602	0.0999	+/−0.0602	0.200	pCi/g						
Bismuth−211	U	0.0311	+/−0.661	1.09	+/−0.661		pCi/g						
Bismuth−212	UI	0.350	+/−0.250	0.288	+/−0.250	0.500	pCi/g						
Bismuth−214		0.199	+/−0.0776	0.0757	+/−0.0776	0.200	pCi/g						
Californium−249	U	−0.0132	+/−0.0257	0.0413	+/−0.0257		pCi/g						
Cesium−137		0.265	+/−0.0553	0.0373	+/−0.0553	0.100	pCi/g						
Cobalt−60	U	0.0235	+/−0.0377	0.0327	+/−0.0377	0.100	pCi/g						
Curium−243	U	0.0207	+/−0.0557	0.098	+/−0.0557		pCi/g						
Europium−155	U	0.0029	+/−0.0607	0.106	+/−0.0607	0.500	pCi/g						
Lead−212		0.525	+/−0.0721	0.056	+/−0.0721	0.100	pCi/g						
Lead−214		0.234	+/−0.0714	0.0701	+/−0.0714	0.100	pCi/g						
Neptunium−236	U	0.007	+/−0.0396	0.0606	+/−0.0396		pCi/g						
Neptunium−237	UI	0.256	+/−0.125	0.216	+/−0.125		pCi/g						
Neptunium−239	U	−0.0532	+/−0.134	0.223	+/−0.134	2.00	pCi/g						
Polonium−209	U	−0.222	+/−4.26	7.07	+/−4.26		pCi/g						
Potassium−40		3.53	+/−0.686	0.296	+/−0.686	1.00	pCi/g						
Protactinium−233	U	−0.00252	+/−0.0411	0.0685	+/−0.0411		pCi/g						
Protactinium−234m	U	−0.885	+/−2.84	4.56	+/−2.84		pCi/g						
Radium−223	U	0.0729	+/−0.124	0.214	+/−0.124		pCi/g						
Rhodium−101	U	0.0113	+/−0.0233	0.0369	+/−0.0233		pCi/g						
Thallium−208		0.130	+/−0.0483	0.0361	+/−0.0483	0.080	pCi/g						
Thorium−234		0.580	+/−0.416	0.461	+/−0.416	0.500	pCi/g						
Uranium−235	U	0.151	+/−0.117	0.210	+/−0.117	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2149−BA Project: SCAN00101
Sample ID: 198689007 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2143−BD
Sample ID: 198689008
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.841	+/−0.161	0.111	+/−0.161	0.800	pCi/g		MJH1	12/11/07	1207	708128	1
Americium−241	U	0.028	+/−0.0454	0.0743	+/−0.0454	0.200	pCi/g						
Americium−243	UI	0.112	+/−0.0261	0.0324	+/−0.0261		pCi/g						
Americium−246	U	0.0394	+/−0.0617	0.113	+/−0.0617		pCi/g						
Antimony−125	U	−0.0268	+/−0.0472	0.076	+/−0.0472	0.200	pCi/g						
Bismuth−211	U	−0.0725	+/−0.526	0.873	+/−0.526		pCi/g						
Bismuth−212		0.679	+/−0.247	0.245	+/−0.247	0.500	pCi/g						
Bismuth−214		0.403	+/−0.084	0.0598	+/−0.084	0.200	pCi/g						
Californium−249	U	−0.00667	+/−0.0219	0.0338	+/−0.0219		pCi/g						
Cesium−137		0.0335	+/−0.0329	0.0306	+/−0.0329	0.100	pCi/g						
Cobalt−60	U	−0.0309	+/−0.0273	0.0263	+/−0.0273	0.100	pCi/g						
Curium−243	U	0.0474	+/−0.0424	0.0759	+/−0.0424		pCi/g						
Europium−155	U	−0.00595	+/−0.0519	0.0835	+/−0.0519	0.500	pCi/g						
Lead−212		0.792	+/−0.0745	0.0437	+/−0.0745	0.100	pCi/g						
Lead−214		0.378	+/−0.0793	0.0597	+/−0.0793	0.100	pCi/g						
Neptunium−236	U	0.0103	+/−0.0278	0.0437	+/−0.0278		pCi/g						
Neptunium−237	UI	0.463	+/−0.143	0.152	+/−0.143		pCi/g						
Neptunium−239	U	0.0202	+/−0.106	0.187	+/−0.106	2.00	pCi/g						
Polonium−209	U	−1.26	+/−3.68	5.93	+/−3.68		pCi/g						
Potassium−40		3.13	+/−0.548	0.306	+/−0.548	1.00	pCi/g						
Protactinium−233	U	0.00676	+/−0.0316	0.0549	+/−0.0316		pCi/g						
Protactinium−234m	U	−0.187	+/−2.02	3.31	+/−2.02		pCi/g						
Radium−223	UI	0.211	+/−0.112	0.145	+/−0.112		pCi/g						
Rhodium−101	U	−0.0019	+/−0.0176	0.0287	+/−0.0176		pCi/g						
Thallium−208		0.236	+/−0.0457	0.0303	+/−0.0457	0.080	pCi/g						
Thorium−234		1.16	+/−0.360	0.340	+/−0.360	0.500	pCi/g						
Uranium−235	U	−0.0334	+/−0.108	0.172	+/−0.108	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2143−BD Project: SCAN00101
Sample ID: 198689008 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2144−BD
Sample ID: 198689009
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.657	+/−0.174	0.109	+/−0.174	0.800	pCi/g		MJH1	12/11/07	1208	708128	1
Americium−241	U	0.0369	+/−0.058	0.0891	+/−0.058	0.200	pCi/g						
Americium−243	UI	0.103	+/−0.0249	0.0352	+/−0.0249		pCi/g						
Americium−246	U	−0.0301	+/−0.0616	0.0967	+/−0.0616		pCi/g						
Antimony−125	U	−0.0289	+/−0.0401	0.0644	+/−0.0401	0.200	pCi/g						
Bismuth−211	U	−0.199	+/−0.484	0.794	+/−0.484		pCi/g						
Bismuth−212		0.355	+/−0.253	0.221	+/−0.253	0.500	pCi/g						
Bismuth−214		0.372	+/−0.0905	0.0616	+/−0.0905	0.200	pCi/g						
Californium−249	U	−0.00147	+/−0.0183	0.0312	+/−0.0183		pCi/g						
Cesium−137		0.0712	+/−0.027	0.0286	+/−0.027	0.100	pCi/g						
Cobalt−60	U	0.0179	+/−0.0221	0.0396	+/−0.0221	0.100	pCi/g						
Curium−243	U	0.018	+/−0.0394	0.0695	+/−0.0394		pCi/g						
Europium−155	U	0.0138	+/−0.0443	0.0778	+/−0.0443	0.500	pCi/g						
Lead−212		0.675	+/−0.067	0.0446	+/−0.067	0.100	pCi/g						
Lead−214		0.307	+/−0.0742	0.0534	+/−0.0742	0.100	pCi/g						
Neptunium−236	U	0.00535	+/−0.0277	0.0441	+/−0.0277		pCi/g						
Neptunium−237	UI	0.338	+/−0.126	0.160	+/−0.126		pCi/g						
Neptunium−239	U	−0.00292	+/−0.0976	0.161	+/−0.0976	2.00	pCi/g						
Polonium−209	U	−2.58	+/−4.12	5.60	+/−4.12		pCi/g						
Potassium−40		6.07	+/−0.774	0.281	+/−0.774	1.00	pCi/g						
Protactinium−233	U	0.00983	+/−0.0311	0.0515	+/−0.0311		pCi/g						
Protactinium−234m	U	2.18	+/−2.95	3.24	+/−2.95		pCi/g						
Radium−223	U	0.117	+/−0.0901	0.130	+/−0.0901		pCi/g						
Rhodium−101	U	0.00243	+/−0.0165	0.026	+/−0.0165		pCi/g						
Thallium−208		0.173	+/−0.0424	0.0312	+/−0.0424	0.080	pCi/g						
Thorium−234		0.705	+/−0.338	0.356	+/−0.338	0.500	pCi/g						
Uranium−235	U	−0.0372	+/−0.0966	0.148	+/−0.0966	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2144−BD Project: SCAN00101
Sample ID: 198689009 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2145−BD
Sample ID: 198689010
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.654	+/−0.148	0.113	+/−0.148	0.800	pCi/g		MJH1	12/11/07	1224	708128	1
Americium−241	U	0.0669	+/−0.065	0.101	+/−0.065	0.200	pCi/g						
Americium−243	UI	0.113	+/−0.0326	0.0355	+/−0.0326		pCi/g						
Americium−246	U	−0.0302	+/−0.0582	0.092	+/−0.0582		pCi/g						
Antimony−125	U	−0.00207	+/−0.0449	0.0695	+/−0.0449	0.200	pCi/g						
Bismuth−211	U	−0.0594	+/−0.482	0.812	+/−0.482		pCi/g						
Bismuth−212		0.344	+/−0.219	0.210	+/−0.219	0.500	pCi/g						
Bismuth−214		0.260	+/−0.0864	0.0592	+/−0.0864	0.200	pCi/g						
Californium−249	U	−0.0226	+/−0.0217	0.0286	+/−0.0217		pCi/g						
Cesium−137	U	0.027	+/−0.0196	0.0348	+/−0.0196	0.100	pCi/g						
Cobalt−60	U	0.0193	+/−0.019	0.0337	+/−0.019	0.100	pCi/g						
Curium−243	U	−0.0239	+/−0.0521	0.0773	+/−0.0521		pCi/g						
Europium−155	U	0.0176	+/−0.054	0.0874	+/−0.054	0.500	pCi/g						
Lead−212		0.655	+/−0.0646	0.0449	+/−0.0646	0.100	pCi/g						
Lead−214		0.308	+/−0.0641	0.0551	+/−0.0641	0.100	pCi/g						
Neptunium−236	U	0.0187	+/−0.050	0.0478	+/−0.050		pCi/g						
Neptunium−237	UI	0.438	+/−0.147	0.155	+/−0.147		pCi/g						
Neptunium−239	U	−0.0213	+/−0.127	0.186	+/−0.127	2.00	pCi/g						
Polonium−209	U	4.44	+/−3.47	6.29	+/−3.47		pCi/g						
Potassium−40		4.77	+/−0.576	0.288	+/−0.576	1.00	pCi/g						
Protactinium−233	U	0.0294	+/−0.0307	0.054	+/−0.0307		pCi/g						
Protactinium−234m	U	−0.612	+/−2.98	3.14	+/−2.98		pCi/g						
Radium−223	UI	0.273	+/−0.161	0.139	+/−0.161		pCi/g						
Rhodium−101	U	−0.00227	+/−0.0201	0.0297	+/−0.0201		pCi/g						
Thallium−208		0.193	+/−0.036	0.027	+/−0.036	0.080	pCi/g						
Thorium−234		0.707	+/−0.331	0.339	+/−0.331	0.500	pCi/g						
Uranium−235	UI	0.182	+/−0.240	0.162	+/−0.240	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2145−BD Project: SCAN00101
Sample ID: 198689010 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID:	SB−CZ−SS−2146−BD	Project:	SCAN00101
Sample ID:	198689011	Client ID:	SCAN001
Matrix:	Soil		
Collect Date:	18−OCT−07		
Receive Date:	04−DEC−07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.587	+/−0.220	0.163	+/−0.220	0.800	pCi/g		MJH1	12/12/07	1221	708130	1
Americium−241	U	0.0171	+/−0.0328	0.0532	+/−0.0328	0.200	pCi/g						
Americium−243	UI	0.101	+/−0.0264	0.0306	+/−0.0264		pCi/g						
Americium−246	U	0.0225	+/−0.095	0.162	+/−0.095		pCi/g						
Antimony−125	U	0.0177	+/−0.0633	0.109	+/−0.0633	0.200	pCi/g						
Bismuth−211	U	−0.738	+/−0.806	1.25	+/−0.806		pCi/g						
Bismuth−212	U	0.274	+/−0.229	0.423	+/−0.229	0.500	pCi/g						
Bismuth−214		0.370	+/−0.104	0.0831	+/−0.104	0.200	pCi/g						
Californium−249	U	−0.000185	+/−0.026	0.0441	+/−0.026		pCi/g						
Cesium−137		0.111	+/−0.0493	0.0435	+/−0.0493	0.100	pCi/g						
Cobalt−60	U	0.00709	+/−0.0312	0.0526	+/−0.0312	0.100	pCi/g						
Curium−243	U	−0.0542	+/−0.0521	0.0764	+/−0.0521		pCi/g						
Europium−155	U	0.0436	+/−0.0586	0.0943	+/−0.0586	0.500	pCi/g						
Lead−212		0.543	+/−0.0758	0.0568	+/−0.0758	0.100	pCi/g						
Lead−214		0.381	+/−0.0756	0.0705	+/−0.0756	0.100	pCi/g						
Neptunium−236	U	0.0168	+/−0.0344	0.050	+/−0.0344		pCi/g						
Neptunium−237	UI	0.346	+/−0.138	0.150	+/−0.138		pCi/g						
Neptunium−239	U	0.113	+/−0.147	0.226	+/−0.147	2.00	pCi/g						
Polonium−209	U	1.82	+/−5.70	9.87	+/−5.70		pCi/g						
Potassium−40		4.15	+/−0.691	0.435	+/−0.691	1.00	pCi/g						
Protactinium−233	U	−0.0155	+/−0.0381	0.0639	+/−0.0381		pCi/g						
Protactinium−234m	U	−1.63	+/−3.98	5.79	+/−3.98		pCi/g						
Radium−223	UI	0.294	+/−0.144	0.171	+/−0.144		pCi/g						
Rhodium−101	U	−0.0135	+/−0.0217	0.0315	+/−0.0217		pCi/g						
Thallium−208		0.137	+/−0.0421	0.0442	+/−0.0421	0.080	pCi/g						
Thorium−234		0.781	+/−0.377	0.348	+/−0.377	0.500	pCi/g						
Uranium−235	U	0.0562	+/−0.142	0.185	+/−0.142	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2146−BD Project: SCAN00101
Sample ID: 198689011 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2147−BD
Sample ID: 198689012
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.354	+/−0.130	0.102	+/−0.130	0.800	pCi/g		MJH1	12/12/07	1237	708130	1
Americium−241	U	0.060	+/−0.0666	0.118	+/−0.0666	0.200	pCi/g						
Americium−243	UI	0.142	+/−0.048	0.0345	+/−0.048		pCi/g						
Americium−246	U	0.00536	+/−0.0813	0.120	+/−0.0813		pCi/g						
Antimony−125	U	0.00719	+/−0.0467	0.0778	+/−0.0467	0.200	pCi/g						
Bismuth−211	U	−0.0934	+/−0.479	0.778	+/−0.479		pCi/g						
Bismuth−212	UI	0.324	+/−0.172	0.207	+/−0.172	0.500	pCi/g						
Bismuth−214	UI	0.184	+/−0.077	0.0995	+/−0.077	0.200	pCi/g						
Californium−249	U	0.0145	+/−0.0197	0.0342	+/−0.0197		pCi/g						
Cesium−137		0.157	+/−0.0389	0.0297	+/−0.0389	0.100	pCi/g						
Cobalt−60	U	−0.0283	+/−0.0269	0.0318	+/−0.0269	0.100	pCi/g						
Curium−243	U	0.0266	+/−0.0398	0.0686	+/−0.0398		pCi/g						
Europium−155	U	0.0582	+/−0.0446	0.0786	+/−0.0446	0.500	pCi/g						
Lead−212		0.277	+/−0.051	0.0452	+/−0.051	0.100	pCi/g						
Lead−214		0.221	+/−0.0694	0.0541	+/−0.0694	0.100	pCi/g						
Neptunium−236	U	0.00882	+/−0.0283	0.044	+/−0.0283		pCi/g						
Neptunium−237	UI	0.177	+/−0.0917	0.148	+/−0.0917		pCi/g						
Neptunium−239	U	−0.0693	+/−0.109	0.182	+/−0.109	2.00	pCi/g						
Polonium−209	U	0.487	+/−3.45	5.75	+/−3.45		pCi/g						
Potassium−40		2.50	+/−0.523	0.269	+/−0.523	1.00	pCi/g						
Protactinium−233	U	0.0146	+/−0.033	0.0569	+/−0.033		pCi/g						
Protactinium−234m	U	0.923	+/−3.36	3.72	+/−3.36		pCi/g						
Radium−223	U	0.0928	+/−0.102	0.152	+/−0.102		pCi/g						
Rhodium−101	U	0.0225	+/−0.0161	0.0292	+/−0.0161		pCi/g						
Thallium−208	UI	0.0796	+/−0.0346	0.0479	+/−0.0346	0.080	pCi/g						
Thorium−234	U	0.437	+/−0.346	0.440	+/−0.346	0.500	pCi/g						
Uranium−235	U	0.111	+/−0.104	0.142	+/−0.104	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2147−BD Project: SCAN00101
Sample ID: 198689012 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
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M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
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UI Gamma Spectroscopy−−Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2148−BD
Sample ID: 198689013
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.432	+/−0.225	0.208	+/−0.225	0.800	pCi/g		MJH1	12/12/07	1238	708130	1
Americium−241	U	0.00369	+/−0.0427	0.0634	+/−0.0427	0.200	pCi/g						
Americium−243	UI	0.123	+/−0.0315	0.0367	+/−0.0315		pCi/g						
Americium−246	U	−0.0397	+/−0.136	0.222	+/−0.136		pCi/g						
Antimony−125	U	0.0213	+/−0.0802	0.134	+/−0.0802	0.200	pCi/g						
Bismuth−211	U	−1.28	+/−0.994	1.46	+/−0.994		pCi/g						
Bismuth−212	U	0.441	+/−0.528	0.456	+/−0.528	0.500	pCi/g						
Bismuth−214		0.569	+/−0.121	0.110	+/−0.121	0.200	pCi/g						
Californium−249	U	−0.000387	+/−0.035	0.0581	+/−0.035		pCi/g						
Cesium−137	UI	0.0923	+/−0.0568	0.0591	+/−0.0568	0.100	pCi/g						
Cobalt−60	U	0.0442	+/−0.0394	0.0706	+/−0.0394	0.100	pCi/g						
Curium−243	U	−0.0441	+/−0.0642	0.0956	+/−0.0642		pCi/g						
Europium−155	U	0.00906	+/−0.0634	0.109	+/−0.0634	0.500	pCi/g						
Lead−212		0.643	+/−0.0832	0.0688	+/−0.0832	0.100	pCi/g						
Lead−214		0.506	+/−0.113	0.109	+/−0.113	0.100	pCi/g						
Neptunium−236	U	0.0418	+/−0.0604	0.0584	+/−0.0604		pCi/g						
Neptunium−237	UI	0.455	+/−0.150	0.197	+/−0.150		pCi/g						
Neptunium−239	U	0.0142	+/−0.174	0.281	+/−0.174	2.00	pCi/g						
Polonium−209	U	1.04	+/−8.00	11.3	+/−8.00		pCi/g						
Potassium−40		5.97	+/−0.989	0.509	+/−0.989	1.00	pCi/g						
Protactinium−233	U	−0.00393	+/−0.0525	0.0885	+/−0.0525		pCi/g						
Protactinium−234m	UI	8.67	+/−6.36	6.29	+/−6.36		pCi/g						
Radium−223	UI	0.328	+/−0.235	0.223	+/−0.235		pCi/g						
Rhodium−101	U	0.0127	+/−0.0349	0.0408	+/−0.0349		pCi/g						
Thallium−208		0.215	+/−0.0728	0.0592	+/−0.0728	0.080	pCi/g						
Thorium−234	U	0.243	+/−0.489	0.435	+/−0.489	0.500	pCi/g						
Uranium−235	U	0.0305	+/−0.216	0.230	+/−0.216	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

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2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2148−BD Project: SCAN00101
Sample ID: 198689013 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
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A The TIC is a suspected aldol−condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117
Contact: Cindy White
Project: SC&A (GELP07−0971)

Report Date: December 17, 2007

Client Sample ID: SB−CZ−SS−2149−BD
Sample ID: 198689014
Matrix: Soil
Collect Date: 18−OCT−07
Receive Date: 04−DEC−07
Collector: Client

Project: SCAN00101
Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Solid													
Actinium−228		0.309	+/−0.160	0.122	+/−0.160	0.800	pCi/g		MJH1	12/12/07	1238	708130	1
Americium−241	U	0.0431	+/−0.0661	0.0998	+/−0.0661	0.200	pCi/g						
Americium−243	UI	0.122	+/−0.035	0.0352	+/−0.035		pCi/g						
Americium−246	U	0.0194	+/−0.0783	0.116	+/−0.0783		pCi/g						
Antimony−125	U	0.0416	+/−0.0516	0.0839	+/−0.0516	0.200	pCi/g						
Bismuth−211	U	−0.457	+/−0.676	0.888	+/−0.676		pCi/g						
Bismuth−212		0.255	+/−0.201	0.252	+/−0.201	0.500	pCi/g						
Bismuth−214		0.375	+/−0.0841	0.0597	+/−0.0841	0.200	pCi/g						
Californium−249	U	−0.00507	+/−0.0227	0.0368	+/−0.0227		pCi/g						
Cesium−137		0.220	+/−0.043	0.0308	+/−0.043	0.100	pCi/g						
Cobalt−60	U	0.0132	+/−0.0195	0.0345	+/−0.0195	0.100	pCi/g						
Curium−243	U	−0.00282	+/−0.0428	0.0739	+/−0.0428		pCi/g						
Europium−155	U	0.0102	+/−0.0487	0.0848	+/−0.0487	0.500	pCi/g						
Lead−212		0.454	+/−0.0591	0.047	+/−0.0591	0.100	pCi/g						
Lead−214		0.413	+/−0.0786	0.0612	+/−0.0786	0.100	pCi/g						
Neptunium−236	U	−0.00507	+/−0.033	0.0448	+/−0.033		pCi/g						
Neptunium−237	UI	0.343	+/−0.149	0.190	+/−0.149		pCi/g						
Neptunium−239	U	−0.0291	+/−0.120	0.199	+/−0.120	2.00	pCi/g						
Polonium−209	U	1.08	+/−3.74	6.40	+/−3.74		pCi/g						
Potassium−40		3.25	+/−0.574	0.246	+/−0.574	1.00	pCi/g						
Protactinium−233	U	−0.0131	+/−0.0356	0.0578	+/−0.0356		pCi/g						
Protactinium−234m	U	−2.3	+/−2.60	3.59	+/−2.60		pCi/g						
Radium−223	UI	0.235	+/−0.169	0.164	+/−0.169		pCi/g						
Rhodium−101	U	−0.00196	+/−0.0198	0.0313	+/−0.0198		pCi/g						
Thallium−208		0.145	+/−0.0325	0.0274	+/−0.0325	0.080	pCi/g						
Thorium−234		0.891	+/−0.458	0.381	+/−0.458	0.500	pCi/g						
Uranium−235	U	0.00199	+/−0.164	0.158	+/−0.164	0.500	pCi/g						

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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Certificate of Analysis

Company : SC&A
Address : 1000 Monticello Court

Montgomery, Alabama 36117 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID: SB−CZ−SS−2149−BD Project: SCAN00101
Sample ID: 198689014 Client ID: SCAN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd

** Analyte is a surrogate compound
< Result is less than value reported
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A The TIC is a suspected aldol−condensation product
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^ RPD of sample and duplicate evaluated using +/−RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

QC Summary

Report Date: December 17, 2007

Client : **SC&A**
1000 Monticello Court

Montgomery, Alabama
Contact: **Cindy White**

Workorder: **198689**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708128										
QC1201473834 198686005 DUP										
Actinium-228		0.481		0.460	pCi/g	5		(0% - 100%)	MJH1	12/11/0712:54
	Uncert:	+/-0.110		+/-0.186						
	TPU:	+/-0.110		+/-0.186						
Americium-241	U	0.014	U	-0.0159	pCi/g	3230		N/A		
	Uncert:	+/-0.0474		+/-0.0873						
	TPU:	+/-0.0474		+/-0.0873						
Americium-243	UI	0.107	UI	0.139	pCi/g	26		(0% - 100%)		
	Uncert:	+/-0.0247		+/-0.0386						
	TPU:	+/-0.0247		+/-0.0386						
Americium-246	U	0.0566	U	-0.00471	pCi/g	236		N/A		
	Uncert:	+/-0.0598		+/-0.0729						
	TPU:	+/-0.0598		+/-0.0729						
Antimony-125	U	-0.0178	U	-0.00884	pCi/g	67		N/A		
	Uncert:	+/-0.0299		+/-0.0545						
	TPU:	+/-0.0299		+/-0.0545						
Bismuth-211	U	-0.318	U	-0.158	pCi/g	67		N/A		
	Uncert:	+/-0.326		+/-0.611						
	TPU:	+/-0.326		+/-0.611						
Bismuth-212		0.456		0.479	pCi/g	5		(0% - 100%)		
	Uncert:	+/-0.155		+/-0.258						
	TPU:	+/-0.155		+/-0.258						
Bismuth-214		0.308		0.444	pCi/g	36*		(0% - 20%)		
	Uncert:	+/-0.0578		+/-0.101						
	TPU:	+/-0.0578		+/-0.101						
Californium-249	U	0.0132	U	-0.0214	pCi/g	851		N/A		
	Uncert:	+/-0.0127		+/-0.0245						
	TPU:	+/-0.0127		+/-0.0245						
Cesium-137		0.126		0.206	pCi/g	48*		(0% - 20%)		
	Uncert:	+/-0.0218		+/-0.0493						
	TPU:	+/-0.0218		+/-0.0493						
Cobalt-60	U	-0.0149	U	-0.00939	pCi/g	45		N/A		
	Uncert:	+/-0.0184		+/-0.0228						
	TPU:	+/-0.0184		+/-0.0228						
Curium-243	U	0.0225	U	0.00376	pCi/g	143		N/A		
	Uncert:	+/-0.0331		+/-0.0519						
	TPU:	+/-0.0331		+/-0.0519						
Europium-155	U	0.0248	U	0.0261	pCi/g	5		N/A		
	Uncert:	+/-0.0366		+/-0.057						
	TPU:	+/-0.0366		+/-0.057						
Lead-212		0.552		0.587	pCi/g	6		(0% - 20%)		
	Uncert:	+/-0.0501		+/-0.0716						
	TPU:	+/-0.0501		+/-0.0716						

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708128										
Lead-214		0.405		0.493	pCi/g	20		(0% - 20%)		
	Uncert:	+/-0.0563		+/-0.0926						
	TPU:	+/-0.0563		+/-0.0926						
Neptunium-236	U	0.0051	U	-0.00911	pCi/g	708		N/A		
	Uncert:	+/-0.0215		+/-0.0412						
	TPU:	+/-0.0215		+/-0.0412						
Neptunium-237	UI	0.389	U	0.217	pCi/g	57		(0% - 100%)		
	Uncert:	+/-0.091		+/-0.200						
	TPU:	+/-0.091		+/-0.200						
Neptunium-239	U	-0.0146	U	-0.00346	pCi/g	123		N/A		
	Uncert:	+/-0.067		+/-0.126						
	TPU:	+/-0.067		+/-0.126						
Polonium-209	U	0.457	U	3.75	pCi/g	157		N/A		
	Uncert:	+/-2.17		+/-4.78						
	TPU:	+/-2.17		+/-4.78						
Potassium-40		4.20		4.36	pCi/g	4		(0% - 20%)		
	Uncert:	+/-0.487		+/-0.626						
	TPU:	+/-0.487		+/-0.626						
Protactinium-233	U	0.00857	U	0.0419	pCi/g	132		N/A		
	Uncert:	+/-0.0204		+/-0.0372						
	TPU:	+/-0.0204		+/-0.0372						
Protactinium-234m	UI	2.50	U	3.67	pCi/g	38		(0% - 100%)		
	Uncert:	+/-2.52		+/-2.74						
	TPU:	+/-2.52		+/-2.74						
Radium-223	UI	0.253	U	0.135	pCi/g	61		(0% - 100%)		
	Uncert:	+/-0.107		+/-0.149						
	TPU:	+/-0.107		+/-0.149						
Rhodium-101	UI	0.0182	U	0.00448	pCi/g	121*		(0% - 100%)		
	Uncert:	+/-0.0101		+/-0.0216						
	TPU:	+/-0.0101		+/-0.0216						
Thallium-208		0.156		0.200	pCi/g	25*		(0% - 20%)		
	Uncert:	+/-0.0288		+/-0.0467						
	TPU:	+/-0.0288		+/-0.0467						
Thorium-234		1.08	U	0.459	pCi/g	80		(0% - 100%)		
	Uncert:	+/-0.290		+/-0.474						
	TPU:	+/-0.290		+/-0.474						
Uranium-235	U	0.0533	U	0.0124	pCi/g	125		N/A		
	Uncert:	+/-0.0706		+/-0.135						
	TPU:	+/-0.0706		+/-0.135						
QC1201473835 LCS										
Actinium-228				1.30	pCi/g					12/11/0712:54
	Uncert:			+/-0.659						
	TPU:			+/-0.659						
Americium-241	16.0			13.5	pCi/g		84	(75%-125%)		
	Uncert:			+/-0.931						
	TPU:			+/-0.931						
Americium-243				0.212	pCi/g					
	Uncert:			+/-0.0777						

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708128											
	TPU:			+/-0.0777							
Americium-246			U	0.0245	pCi/g						
	Uncert:			+/-0.416							
	TPU:			+/-0.416							
Antimony-125			U	-0.0198	pCi/g						
	Uncert:			+/-0.219							
	TPU:			+/-0.219							
Bismuth-211			U	-0.333	pCi/g						
	Uncert:			+/-2.74							
	TPU:			+/-2.74							
Bismuth-212			U	0.257	pCi/g						
	Uncert:			+/-0.716							
	TPU:			+/-0.716							
Bismuth-214				0.790	pCi/g						
	Uncert:			+/-0.297							
	TPU:			+/-0.297							
Californium-249			U	0.0179	pCi/g						
	Uncert:			+/-0.0902							
	TPU:			+/-0.0902							
Cesium-137	6.10			5.63	pCi/g		92	(75%-125%)			
	Uncert:			+/-0.504							
	TPU:			+/-0.504							
Cobalt-60	8.52			8.39	pCi/g		99	(75%-125%)			
	Uncert:			+/-0.635							
	TPU:			+/-0.635							
Curium-243			U	-0.0788	pCi/g						
	Uncert:			+/-0.150							
	TPU:			+/-0.150							
Europium-155			U	0.0371	pCi/g						
	Uncert:			+/-0.162							
	TPU:			+/-0.162							
Lead-212				0.900	pCi/g						
	Uncert:			+/-0.152							
	TPU:			+/-0.152							
Lead-214				0.803	pCi/g						
	Uncert:			+/-0.244							
	TPU:			+/-0.244							
Neptunium-236			U	-0.00791	pCi/g						
	Uncert:			+/-0.0889							
	TPU:			+/-0.0889							
Neptunium-237				31.6	pCi/g						
	Uncert:			+/-2.27							
	TPU:			+/-2.27							
Neptunium-239			U	0.191	pCi/g						
	Uncert:			+/-0.415							
	TPU:			+/-0.415							
Polonium-209				247	pCi/g						
	Uncert:			+/-48.9							

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708128										
	TPU:			+/-48.9						
Potassium-40				1.29	pCi/g					
	Uncert:			+/-0.959						
	TPU:			+/-0.959						
Protactinium-233			U	0.0021	pCi/g					
	Uncert:			+/-0.120						
	TPU:			+/-0.120						
Protactinium-234m			U	0.345	pCi/g					
	Uncert:			+/-13.8						
	TPU:			+/-13.8						
Radium-223			U	0.299	pCi/g					
	Uncert:			+/-0.362						
	TPU:			+/-0.362						
Rhodium-101			U	0.0597	pCi/g					
	Uncert:			+/-0.058						
	TPU:			+/-0.058						
Thallium-208				0.204	pCi/g					
	Uncert:			+/-0.127						
	TPU:			+/-0.127						
Thorium-234			U	0.132	pCi/g					
	Uncert:			+/-1.14						
	TPU:			+/-1.14						
Uranium-235			U	-0.361	pCi/g					
	Uncert:			+/-0.325						
	TPU:			+/-0.325						
QC1201473833 MB										
Actinium-228			U	0.0151	pCi/g					12/11/0712:53
	Uncert:			+/-0.0599						
	TPU:			+/-0.0599						
Americium-241			U	0.00767	pCi/g					
	Uncert:			+/-0.0658						
	TPU:			+/-0.0658						
Americium-243			U	-0.0193	pCi/g					
	Uncert:			+/-0.0242						
	TPU:			+/-0.0242						
Americium-246			U	-0.0091	pCi/g					
	Uncert:			+/-0.0489						
	TPU:			+/-0.0489						
Antimony-125			U	0.0136	pCi/g					
	Uncert:			+/-0.0362						
	TPU:			+/-0.0362						
Bismuth-211			U	0.0524	pCi/g					
	Uncert:			+/-0.392						
	TPU:			+/-0.392						
Bismuth-212			U	-0.107	pCi/g					
	Uncert:			+/-0.111						
	TPU:			+/-0.111						
Bismuth-214			U	0.00368	pCi/g					

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708128											
	Uncert:			+/-0.0372							
	TPU:			+/-0.0372							
Californium-249			U	-0.00115	pCi/g						
	Uncert:			+/-0.0144							
	TPU:			+/-0.0144							
Cesium-137			U	0.0217	pCi/g						
	Uncert:			+/-0.0159							
	TPU:			+/-0.0159							
Cobalt-60			U	-0.000747	pCi/g						
	Uncert:			+/-0.0139							
	TPU:			+/-0.0139							
Curium-243			U	0.00268	pCi/g						
	Uncert:			+/-0.0301							
	TPU:			+/-0.0301							
Europium-155			U	0.0101	pCi/g						
	Uncert:			+/-0.0332							
	TPU:			+/-0.0332							
Lead-212			U	0.00709	pCi/g						
	Uncert:			+/-0.0341							
	TPU:			+/-0.0341							
Lead-214			U	0.00338	pCi/g						
	Uncert:			+/-0.0342							
	TPU:			+/-0.0342							
Neptunium-236			U	-0.011	pCi/g						
	Uncert:			+/-0.0275							
	TPU:			+/-0.0275							
Neptunium-237			U	-0.107	pCi/g						
	Uncert:			+/-0.0715							
	TPU:			+/-0.0715							
Neptunium-239			U	0.0834	pCi/g						
	Uncert:			+/-0.0873							
	TPU:			+/-0.0873							
Polonium-209			U	1.14	pCi/g						
	Uncert:			+/-3.00							
	TPU:			+/-3.00							
Potassium-40			U	0.144	pCi/g						
	Uncert:			+/-0.229							
	TPU:			+/-0.229							
Protactinium-233			U	0.0316	pCi/g						
	Uncert:			+/-0.0324							
	TPU:			+/-0.0324							
Protactinium-234m			U	0.754	pCi/g						
	Uncert:			+/-3.47							
	TPU:			+/-3.47							
Radium-223			U	-0.00587	pCi/g						
	Uncert:			+/-0.0596							
	TPU:			+/-0.0596							
Rhodium-101			U	0.0182	pCi/g						

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708128										
	Uncert:			+/-0.0217						
	TPU:			+/-0.0217						
Thallium-208			U	-0.0101	pCi/g					
	Uncert:			+/-0.0228						
	TPU:			+/-0.0228						
Thorium-234			U	0.145	pCi/g					
	Uncert:			+/-0.377						
	TPU:			+/-0.377						
Uranium-235			U	0.0705	pCi/g					
	Uncert:			+/-0.106						
	TPU:			+/-0.106						
Batch 708130										
QC1201473841 198689011 DUP										
Actinium-228		0.587		0.607	pCi/g	3		(0% - 100%)	MJH1	12/13/0712:53
	Uncert:	+/-0.220		+/-0.168						
	TPU:	+/-0.220		+/-0.168						
Americium-241	U	0.0171	U	0.0295	pCi/g	53		N/A		
	Uncert:	+/-0.0328		+/-0.0939						
	TPU:	+/-0.0328		+/-0.0939						
Americium-243	UI	0.101	UI	0.114	pCi/g	13		(0% - 100%)		
	Uncert:	+/-0.0264		+/-0.0375						
	TPU:	+/-0.0264		+/-0.0375						
Americium-246	U	0.0225	U	-0.0217	pCi/g	11800		N/A		
	Uncert:	+/-0.095		+/-0.0837						
	TPU:	+/-0.095		+/-0.0837						
Antimony-125	U	0.0177	U	-0.00702	pCi/g	462		N/A		
	Uncert:	+/-0.0633		+/-0.0607						
	TPU:	+/-0.0633		+/-0.0607						
Bismuth-211	U	-0.738	U	0.484	pCi/g	964		N/A		
	Uncert:	+/-0.806		+/-0.744						
	TPU:	+/-0.806		+/-0.744						
Bismuth-212	U	0.274	U	0.185	pCi/g	39		N/A		
	Uncert:	+/-0.229		+/-0.291						
	TPU:	+/-0.229		+/-0.291						
Bismuth-214		0.370		0.356	pCi/g	4		(0% - 100%)		
	Uncert:	+/-0.104		+/-0.101						
	TPU:	+/-0.104		+/-0.101						
Californium-249	U	-0.000185	U	0.00313	pCi/g	225		N/A		
	Uncert:	+/-0.026		+/-0.0264						
	TPU:	+/-0.026		+/-0.0264						
Cesium-137		0.111		0.119	pCi/g	6		(0% - 100%)		
	Uncert:	+/-0.0493		+/-0.0366						
	TPU:	+/-0.0493		+/-0.0366						
Cobalt-60	U	0.00709	UI	0.0702	pCi/g	163*		(0% - 100%)		
	Uncert:	+/-0.0312		+/-0.0204						
	TPU:	+/-0.0312		+/-0.0204						
Curium-243	U	-0.0542	U	0.000884	pCi/g	207		N/A		
	Uncert:	+/-0.0521		+/-0.0509						

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708130										
	TPU:	+/-0.0521		+/-0.0509						
Europium-155	U	0.0436	U	0.039	pCi/g	11		N/A		
	Uncert:	+/-0.0586		+/-0.0621						
	TPU:	+/-0.0586		+/-0.0621						
Lead-212		0.543		0.546	pCi/g	1		(0% - 20%)		
	Uncert:	+/-0.0758		+/-0.0675						
	TPU:	+/-0.0758		+/-0.0675						
Lead-214		0.381		0.422	pCi/g	10		(0% - 20%)		
	Uncert:	+/-0.0756		+/-0.0878						
	TPU:	+/-0.0756		+/-0.0878						
Neptunium-236	U	0.0168	U	-0.016	pCi/g	8190		N/A		
	Uncert:	+/-0.0344		+/-0.0329						
	TPU:	+/-0.0344		+/-0.0329						
Neptunium-237	UI	0.346	UI	0.386	pCi/g	11		(0% - 100%)		
	Uncert:	+/-0.138		+/-0.170						
	TPU:	+/-0.138		+/-0.170						
Neptunium-239	U	0.113	U	-0.00772	pCi/g	229		N/A		
	Uncert:	+/-0.147		+/-0.129						
	TPU:	+/-0.147		+/-0.129						
Polonium-209	U	1.82	U	-0.32	pCi/g	285		N/A		
	Uncert:	+/-5.70		+/-5.04						
	TPU:	+/-5.70		+/-5.04						
Potassium-40		4.15		4.30	pCi/g	4		(0% - 20%)		
	Uncert:	+/-0.691		+/-0.711						
	TPU:	+/-0.691		+/-0.711						
Protactinium-233	U	-0.0155	U	0.0319	pCi/g	579		N/A		
	Uncert:	+/-0.0381		+/-0.0389						
	TPU:	+/-0.0381		+/-0.0389						
Protactinium-234m	U	-1.63	U	-2.26	pCi/g	32		N/A		
	Uncert:	+/-3.98		+/-3.46						
	TPU:	+/-3.98		+/-3.46						
Radium-223	UI	0.294	UI	0.206	pCi/g	35		(0% - 100%)		
	Uncert:	+/-0.144		+/-0.160						
	TPU:	+/-0.144		+/-0.160						
Rhodium-101	U	-0.0135	U	0.0207	pCi/g	946		N/A		
	Uncert:	+/-0.0217		+/-0.0232						
	TPU:	+/-0.0217		+/-0.0232						
Thallium-208		0.137		0.160	pCi/g	16		(0% - 100%)		
	Uncert:	+/-0.0421		+/-0.041						
	TPU:	+/-0.0421		+/-0.041						
Thorium-234		0.781	UI	0.628	pCi/g	22		(0% - 100%)		
	Uncert:	+/-0.377		+/-0.518						
	TPU:	+/-0.377		+/-0.518						
Uranium-235	U	0.0562	U	0.143	pCi/g	87		N/A		
	Uncert:	+/-0.142		+/-0.118						
	TPU:	+/-0.142		+/-0.118						
QC1201473842 LCS										
Actinium-228				1.08	pCi/g					12/14/0704:50

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708130										
	Uncert:			+/-0.710						
	TPU:			+/-0.710						
Americium-241	16.0			15.0	pCi/g		94	(75%-125%)		
	Uncert:			+/-1.19						
	TPU:			+/-1.19						
Americium-243				0.577	pCi/g					
	Uncert:			+/-0.149						
	TPU:			+/-0.149						
Americium-246			U	-0.0231	pCi/g					
	Uncert:			+/-0.445						
	TPU:			+/-0.445						
Antimony-125			U	-0.11	pCi/g					
	Uncert:			+/-0.244						
	TPU:			+/-0.244						
Bismuth-211			U	1.48	pCi/g					
	Uncert:			+/-3.40						
	TPU:			+/-3.40						
Bismuth-212			U	0.623	pCi/g					
	Uncert:			+/-0.940						
	TPU:			+/-0.940						
Bismuth-214				1.00	pCi/g					
	Uncert:			+/-0.336						
	TPU:			+/-0.336						
Californium-249			U	-0.0218	pCi/g					
	Uncert:			+/-0.113						
	TPU:			+/-0.113						
Cesium-137	6.10			6.06	pCi/g		99	(75%-125%)		
	Uncert:			+/-0.586						
	TPU:			+/-0.586						
Cobalt-60	8.52			8.87	pCi/g		104	(75%-125%)		
	Uncert:			+/-0.632						
	TPU:			+/-0.632						
Curium-243			U	0.164	pCi/g					
	Uncert:			+/-0.187						
	TPU:			+/-0.187						
Europium-155			U	0.178	pCi/g					
	Uncert:			+/-0.203						
	TPU:			+/-0.203						
Lead-212				1.24	pCi/g					
	Uncert:			+/-0.199						
	TPU:			+/-0.199						
Lead-214				0.999	pCi/g					
	Uncert:			+/-0.259						
	TPU:			+/-0.259						
Neptunium-236			U	-0.053	pCi/g					
	Uncert:			+/-0.107						
	TPU:			+/-0.107						
Neptunium-237				35.9	pCi/g					

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708130										
	Uncert:			+/-3.31						
	TPU:			+/-3.31						
Neptunium-239			U	-0.172	pCi/g					
	Uncert:			+/-0.507						
	TPU:			+/-0.507						
Polonium-209				261	pCi/g					
	Uncert:			+/-46.8						
	TPU:			+/-46.8						
Potassium-40				1.29	pCi/g					
	Uncert:			+/-0.818						
	TPU:			+/-0.818						
Protactinium-233			U	0.0429	pCi/g					
	Uncert:			+/-0.144						
	TPU:			+/-0.144						
Protactinium-234m			U	-2.14	pCi/g					
	Uncert:			+/-14.4						
	TPU:			+/-14.4						
Radium-223			U	0.588	pCi/g					
	Uncert:			+/-0.474						
	TPU:			+/-0.474						
Rhodium-101			U	0.026	pCi/g					
	Uncert:			+/-0.0687						
	TPU:			+/-0.0687						
Thallium-208				0.355	pCi/g					
	Uncert:			+/-0.149						
	TPU:			+/-0.149						
Thorium-234			U	0.969	pCi/g					
	Uncert:			+/-0.999						
	TPU:			+/-0.999						
Uranium-235			U	-0.0901	pCi/g					
	Uncert:			+/-0.369						
	TPU:			+/-0.369						
QC1201473840 MB										
Actinium-228			U	-0.00459	pCi/g					12/13/0712:52
	Uncert:			+/-0.0713						
	TPU:			+/-0.0713						
Americium-241			U	-0.0132	pCi/g					
	Uncert:			+/-0.014						
	TPU:			+/-0.014						
Americium-243			U	-0.00337	pCi/g					
	Uncert:			+/-0.00814						
	TPU:			+/-0.00814						
Americium-246			U	0.0289	pCi/g					
	Uncert:			+/-0.0657						
	TPU:			+/-0.0657						
Antimony-125			U	-0.00299	pCi/g					
	Uncert:			+/-0.0485						
	TPU:			+/-0.0485						

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708130											
Bismuth-211			U	0.177	pCi/g						
	Uncert:			+/-0.537							
	TPU:			+/-0.537							
Bismuth-212			U	0.135	pCi/g						
	Uncert:			+/-0.135							
	TPU:			+/-0.135							
Bismuth-214			U	0.0623	pCi/g						
	Uncert:			+/-0.0814							
	TPU:			+/-0.0814							
Californium-249			U	0.00159	pCi/g						
	Uncert:			+/-0.0172							
	TPU:			+/-0.0172							
Cesium-137			U	-0.000644	pCi/g						
	Uncert:			+/-0.0181							
	TPU:			+/-0.0181							
Cobalt-60			U	0.0117	pCi/g						
	Uncert:			+/-0.0206							
	TPU:			+/-0.0206							
Curium-243			U	-0.00079	pCi/g						
	Uncert:			+/-0.0251							
	TPU:			+/-0.0251							
Europium-155			U	-0.0305	pCi/g						
	Uncert:			+/-0.0281							
	TPU:			+/-0.0281							
Lead-212			U	0.00536	pCi/g						
	Uncert:			+/-0.0424							
	TPU:			+/-0.0424							
Lead-214			U	0.0404	pCi/g						
	Uncert:			+/-0.0636							
	TPU:			+/-0.0636							
Neptunium-236			U	-0.0151	pCi/g						
	Uncert:			+/-0.0152							
	TPU:			+/-0.0152							
Neptunium-237			U	-0.0258	pCi/g						
	Uncert:			+/-0.0446							
	TPU:			+/-0.0446							
Neptunium-239			U	-0.00126	pCi/g						
	Uncert:			+/-0.0866							
	TPU:			+/-0.0866							
Polonium-209			U	1.37	pCi/g						
	Uncert:			+/-3.99							
	TPU:			+/-3.99							
Potassium-40			U	-0.151	pCi/g						
	Uncert:			+/-0.288							
	TPU:			+/-0.288							
Protactinium-233			U	-0.000221	pCi/g						
	Uncert:			+/-0.0277							
	TPU:			+/-0.0277							

QC Summary

Workorder: 198689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708130											
Protactinium-234m			U	-2.28	pCi/g						
	Uncert:			+/-2.42							
	TPU:			+/-2.42							
Radium-223			U	0.075	pCi/g						
	Uncert:			+/-0.081							
	TPU:			+/-0.081							
Rhodium-101			U	-0.0033	pCi/g						
	Uncert:			+/-0.015							
	TPU:			+/-0.015							
Thallium-208			U	-0.00571	pCi/g						
	Uncert:			+/-0.0208							
	TPU:			+/-0.0208							
Thorium-234			U	-0.13	pCi/g						
	Uncert:			+/-0.125							
	TPU:			+/-0.125							
Uranium-235			U	-0.0208	pCi/g						
	Uncert:			+/-0.0649							
	TPU:			+/-0.0649							

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

QC Summary

Workorder: **198689**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 6

Batch# 708128 Product: 8S SCAN Date: 12/13/07

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
If activity less 10* MDA, error is 150% or less of sample activity. If greater 10* MDA, error is 40% or less. If below the MDA, error is okay.	✓		
Instrument source check is within limits. Instument bkg check is within limits.	✓		
Method RDL has been met.	✓		
If duplicate activities are less 5* MDA, then rpd is 100% or less. If greater 5* MDA, then rpd 20% or less. If below the MDA, the rpd is 0%. Or meets the client's required RER acceptance criteria.		✓	Case Narrative
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time. Special requirements page checked	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All lineouts initialed and dated. No transcription errors are apparent.	✓		
QC data entered into QC database. Batch entered into Case Narrative.	✓		
Batch non-conformances completed If applicable.			NA
Aliquot Correction completed if required.			NA

GEL Laboratories, LLC

1/2/2007

Primary Review Performed By: S. Eulard 12/13/07

Secondary Review Performed By: KDat 12/14/07

Gamma Spec Que Sheet

12/05/2007

Batch #:708128 Analyst: MJH1 First Client DueDate:12/18/2007 Internal Due Date: 12/09/2007

Gamma Spike Isotope: Mixed Gamma Spike Code: N/A Expiration Date: N/A Vol: N/A Nominal Concentration: N/A

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/3/08 Vol: 1.0 ml Nominal Concentration: Am241: 15.96 Cs137: 6.103 Co60: 8.520

Initials: MR Prep Date: 12/5/07 Witness: N/A ✓

Sample ID	Client Description / Container ID	Type	Hazard Code	RDL	Client	Matrix	Collect Date	Wet/Dry Aliquot (1/g) F)	Detector	Sealing Date/Time (if Applicable)
198686005-1	SB-CZ-SS-2140-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	107.06	6	
198686006-1	SB-CZ-SS-2141-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	122.76	7	
198686007-1	SB-CZ-SS-2142-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	123.12	11	
198686008-1	SB-CZ-SS-2136-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	115.18	12	
198686009-1	SB-CZ-SS-2137-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	121.03	16	
198686010-1	SB-CZ-SS-2138-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	112.54	17	
198686011-1	SB-CZ-SS-2139-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	119.35	19	
198686012-1	SB-CZ-SS-2140-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	120.76	20	
198686013-1	SB-CZ-SS-2141-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MR	107.73	5	
198686014-1	SB-CZ-SS-2142-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MR	134.89	13	
198689001-1	SB-CZ-SS-2143-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MR	122.31	21	
198689002-1	SB-CZ-SS-2144-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MR	99.08	23	
198689003-1	SB-CZ-SS-2145-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MR	104.96	gaman	
198689004-1	SB-CZ-SS-2146-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MR	102.78	gaman	
198689005-1	SB-CZ-SS-2147-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 LL	106.63	19	
198689006-1	SB-CZ-SS-2148-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 LL	113.32	14	
198689007-1	SB-CZ-SS-2149-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 LL	109.20	1	
198689008-1	SB-CZ-SS-2143-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 LL	124.53	7	
198689009-1	SB-CZ-SS-2144-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 LL	104.36	11	
198689010-1	SB-CZ-SS-2145-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 LL	105.08	22	
1201473833-1	MB for batch 708128	MB		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07 MR	135.00	2	
1201473834-1	SB-CZ-SS-2140-BA(198686005DUP	DUP		.08 pCi/g	QC ACCOUNT	SOIL	18-OCT-07 00:00:00 MR	106.99	3	MR 12/11/07
1201473835-1	LCS for batch 708128	LCS		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07 MR	155.44	17 ~~5~~	

✓ ✓ ✓ MJH 12/9/07

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: Heather A Cesar 12/11/07

S. Eulam 12/13/07 MR 12/14/07

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
708128	198686005	SAMPLE	09-DEC-07				
708128	198686006	SAMPLE	09-DEC-07				
708128	198686007	SAMPLE	09-DEC-07				
708128	198686008	SAMPLE	09-DEC-07				
708128	198686009	SAMPLE	09-DEC-07				
708128	198686010	SAMPLE	09-DEC-07				
708128	198686011	SAMPLE	09-DEC-07				
708128	198686012	SAMPLE	09-DEC-07				
708128	198686013	SAMPLE	10-DEC-07				
708128	198686014	SAMPLE	10-DEC-07				
708128	198689001	SAMPLE	10-DEC-07				
708128	198689002	SAMPLE	10-DEC-07				
708128	198689003	SAMPLE	10-DEC-07				
708128	198689004	SAMPLE	11-DEC-07				
708128	198689005	SAMPLE	11-DEC-07				
708128	198689006	SAMPLE	11-DEC-07				
708128	198689007	SAMPLE	11-DEC-07				
708128	198689008	SAMPLE	11-DEC-07				
708128	198689009	SAMPLE	11-DEC-07				
708128	198689010	SAMPLE	11-DEC-07				
708128	1201473833	MB	11-DEC-07				
708128	1201473834	DUP	11-DEC-07	Thorium-234	0.4593	0.5227	0.500
708128	1201473835	LCS	11-DEC-07	Antimony-125	-0.01979	0.3835	0.200
				Bismuth-212	0.257	1.293	0.500
				Thorium-234	0.1324	1.227	0.500
				Uranium-235	-0.3613	0.5511	0.500

GEL QUALS

Batch ID: 708128

Report run on: December 13, 2007 1:23 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198686005-1 09-DEC-2007 15:02	Americium-243	UI	UI	UI	Data rejected due to interference.		.1068			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3885			
	Protactinium-234m	UI	UI	UI	Data rejected due to a high counting uncertainty.		2.498			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.253			
	Rhodium-101	UI	UI	UI	Data rejected due to low abundance.		.01817			
198686006-1 09-DEC-2007 15:03	Americium-243	UI	UI	UI	Data rejected due to interference.		.1284			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.495			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3189			
198686007-1 09-DEC-2007 15:03	Americium-243	UI	UI	UI	Data rejected due to interference.		.1218			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.04482			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.04944		.5	.5
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.02439			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3489			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.209			
198686008-1 09-DEC-2007 15:03	Americium-243	UI	UI	UI	Data rejected due to interference.		.1226			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.07633			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.0842		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3529			
	Protactinium-234m	UI	UI	UI	Data rejected due to a high counting uncertainty.		1.815			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2147			

GEL QUALS

Batch ID: 708128

Report run on: December 13, 2007 1:23 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198686009-1 09-DEC-2007 15:04	Americium-243	UI	UI	UI	Data rejected due to interference.		.1161			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2703			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1767			
198686010-1 09-DEC-2007 15:05	Americium-243	UI	UI	UI	Data rejected due to interference.		.06353			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.1816			
198686011-1 09-DEC-2007 15:05	Americium-243	UI	UI	UI	Data rejected due to interference.		.2013			
	Cesium-137	UI	UI	UI	Data rejected due to no valid peak.		.0194		.1	.1
	Curium-243	UI	UI	UI	Data rejected due to interference.		.05396			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.05953		.5	.5
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.04348			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4794			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4023			
198686012-1 09-DEC-2007 15:06	Americium-243	UI	UI	UI	Data rejected due to interference.		.08957			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.04454			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.04914		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2328			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.211			
198686013-1 10-DEC-2007 09:17	Americium-243	UI	UI	UI	Data rejected due to interference.		.1595			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4756			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.361			

GEL QUALS

Batch ID: 708128

Report run on: December 13, 2007 1:23 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198686014-1 10-DEC-2007 09:17	Americium-243	UI	UI	UI	Data rejected due to interference.		.1055			
	~~Bismuth-212~~	~~UI~~	~~UI~~	~~UI~~	~~Data rejected due to no valid peak.~~		~~.462~~		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3296			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2684			
198689001-1 10-DEC-2007 09:18	Americium-241	UI	UI	UI	Data rejected due to low abundance.		.03906		.2	.2
	Americium-243	UI	UI	UI	Data rejected due to interference.		.1313			
	Cobalt-60	UI	UI	UI	Data rejected due to low abundance.		.03944		.1	.1
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4056			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2126			
	Uranium-235	UI	UI	UI	Data rejected due to no valid peak.		.1856		.5	.5
198689002-1 10-DEC-2007 09:18	Americium-243	UI	UI	UI	Data rejected due to interference.		.148			
	Bismuth-212	UI	UI	UI	Data rejected due to no valid peak.		.2956		.5	.5
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.0005512			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1834			
198689003-1 10-DEC-2007 15:58	Americium-243	UI	UI	UI	Data rejected due to interference.		.08995			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4288			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2266			
198689004-1 11-DEC-2007 04:03	Americium-243	UI	UI	UI	Data rejected due to interference.		.0987			
	Bismuth-212	UI	UI	UI	Data rejected due to a high counting uncertainty.		.2226		.5	.5
	Europium-155	UI	UI	UI	Data rejected due to interference.		.07924		.5	.5

GEL QUALS

Batch ID: 708128

Report run on: December 13, 2007 1:23 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198689004-1 11-DEC-2007 04:03	Neptunium-236	UI	UI	UI	Data rejected due to high peak-width.		.06353			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.473			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2134			
198689005-1 11-DEC-2007 08:59	Americium-243	UI	UI	UI	Data rejected due to interference.		.05464			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.1075		.2	.2
198689006-1 11-DEC-2007 09:03	Americium-241	UI	UI	UI	Data rejected due to low abundance.		.1076		.2	.2
	Americium-243	UI	UI	UI	Data rejected due to interference.		.1087			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2273			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.209			
198689007-1 11-DEC-2007 11:41	Americium-243	UI	UI	UI	Data rejected due to interference.		.1046			
	Bismuth-212	UI	UI	UI	Data rejected due to high peak-width.		.3498		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2559			
198689008-1 11-DEC-2007 12:07	Americium-243	UI	UI	UI	Data rejected due to interference.		.1121			
KO 12/14/07	~~Cesium-137~~	~~UI~~	~~UI~~	~~UI~~	~~Data rejected due to a high counting uncertainty.~~		~~.03352~~		.1	.1
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4634			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2109			
198689009-1 11-DEC-2007 12:08	Americium-243	UI	UI	UI	Data rejected due to interference.		.1033			
KO 12/14/07	~~Bismuth-212~~	~~UI~~	~~UI~~	~~UI~~	~~Data rejected due to no valid peak.~~		~~.3548~~		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3382			

GEL QUALS

Batch ID: 708128

Report run on: December 13, 2007 1:23 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
1198689010-1 01-DEC-2007 12:24	Americium-243	UI	UI	UI	Data rejected due to interference.		.1129			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.438			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2732			
	Uranium-235	UI	UI	UI	Data rejected due to high peak-width.		.1824		.5	.5
1201473834-1 DUP 11-DEC-2007 12:54	Americium-243	UI	UI	UI	Data rejected due to interference.		.1389			

Gamma Review Report based on Result > MDA for Batch:708128

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686005	18-OCT-07 00:00	09-DEC-07 15:02	52.6	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.4809	0.1095	pCi/g	0.06623	0.800	910.8	1	1.775	IDENTIFIED	10.45	☐	
Americium-243 INT	0.1068	0.02469	pCi/g	0.02393	Y	74.39	1	1.09	IDENTIFIED	11.05	☑ UI	
Bismuth-212 ✓	0.4561	0.1552	pCi/g	0.1364	0.500	727.1	1	1.501	IDENTIFIED	16.93	☐	
Bismuth-214 ✓	0.3079	0.05781	pCi/g	0.03558	0.200	609.1	1	1.515	IDENTIFIED	8.973	☐	
Cesium-137 ✓	0.1264	0.02181	pCi/g	0.01842	0.100	661.3	1	1.529	IDENTIFIED	8.133	☐	
Lead-212 ✓	0.5515	0.05013	pCi/g	0.02949	0.100	238.3	1	1.07	IDENTIFIED	3.43	☐	
Lead-214 ✓	0.4046	0.05633	pCi/g	0.03729	0.100	351.5	1	1.184	IDENTIFIED	6.377	☐	
Neptunium-237 INT	0.3885	0.09098	pCi/g	0.09328	Y	86.78	1	1.332	IDENTIFIED	11.12	☑ UI	
Potassium-40 ✓	4.197	0.4868	pCi/g	0.1662	1.00	1460	2	2.065	IDENTIFIED	4.977	☐	
Protactinium-234m NUNC	2.498	2.523	pCi/g	2.222	Y	1002	1	1.823	IDENTIFIED	51.33	☑ UI	
Radium-223 INT	0.253	0.1068	pCi/g	0.09359	Y	269.4	1	1.684	IDENTIFIED	21.31	☑ UI	
Rhodium-101 LA	0.01817	0.01005	pCi/g	0.01803	Y	1460	2	2.065	NOT_IDENTI	4.977	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓	0.1557	0.02883	pCi/g	0.01734	0.080	582.8	1	1.388	IDENTIFIED	8.836	☐	
Thorium-234 ✓	1.076	0.2903	pCi/g	0.2013	0.500	92.33	1	1.462	IDENTIFIED	13.12	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686006	18-OCT-07 00:00	09-DEC-07 15:03	52.6	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.6906	0.1012	pCi/g	0.05307	0.800	911.4	1	1.668	IDENTIFIED	6.665	☐	
Americium-243 INT	0.1284	0.01629	pCi/g	0.01651	Y	74.91	1	1.035	IDENTIFIED	5.506	☑ UI	
Bismuth-212 ✓	0.417	0.1379	pCi/g	0.1137	0.500	727.5	1	1.455	IDENTIFIED	16.48	☐	
Bismuth-214 ✓	0.5091	0.0569	pCi/g	0.0297	0.200	609.5	1	1.452	IDENTIFIED	4.539	☐	
Cesium-137 ✓	0.3615	0.03369	pCi/g	0.01532	0.100	661.8	1	1.484	IDENTIFIED	3.042	☐	
Lead-212 ✓	0.676	0.05084	pCi/g	0.02402	0.100	238.8	1	1.095	IDENTIFIED	2.406	☐	
Lead-214 ✓	0.54	0.05261	pCi/g	0.02908	0.100	352.1	1	1.265	IDENTIFIED	4.104	☐	
Neptunium-237 INT	0.495	0.0746	pCi/g	0.07372	Y	87.36	1	1.351	IDENTIFIED	6.614	☑ UI	
Potassium-40 ✓	5.641	0.4457	pCi/g	0.1465	1.00	1461	1	2.157	IDENTIFIED	2.975	☐	
Radium-223 INT	0.3189	0.07926	pCi/g	0.07482	Y	270.6	1	1.3	IDENTIFIED	12.3	☑ UI	
Thallium-208 ✓	0.2144	0.02771	pCi/g	0.01446	0.080	583.4	1	1.392	IDENTIFIED	5.681	☐	
Thorium-234 ✓	1.048	0.2081	pCi/g	0.1655	0.500	92.81	1	1.365	IDENTIFIED	9.387	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686007	18-OCT-07 00:00	09-DEC-07 15:03	52.6	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.6841	0.09669	pCi/g	0.04828	0.800	911.3	1	1.564	IDENTIFIED	5.721	☐	
Americium-243 INT	0.1218	0.01595	pCi/g	0.01504	Y	74.8	1	0.9323	IDENTIFIED	5.813	☑ UI	
Bismuth-212 ✓	0.4269	0.1152	pCi/g	0.1023	0.500	727.1	1	1.261	IDENTIFIED	13.17	☐	
Bismuth-214 ✓	0.4721	0.05264	pCi/g	0.02435	0.200	609.3	1	1.263	IDENTIFIED	4.449	☐	
Cesium-137 ✓	0.1129	0.0168	pCi/g	0.01398	0.100	661.6	1	1.339	IDENTIFIED	6.565	☐	
Curium-243 INT	0.04482	0.02352	pCi/g	0.02875	Y	105.3	2	1.448	IDENTIFIED	26.58	☑ UI	
Europium-155 INT	0.04944	0.02594	pCi/g	0.03388	0.500	105.3	2	1.448	IDENTIFIED	26.58	☑ UI	
Lead-212 ✓	0.6875	0.048	pCi/g	0.02014	0.100	238.6	1	0.9561	IDENTIFIED	2.013	☐	
Lead-214 ✓	0.5166	0.04564	pCi/g	0.02426	0.100	351.8	1	1.157	IDENTIFIED	3.566	☐	
Neptunium-236 INT	0.02439	0.02039	pCi/g	0.01823	Y	99.21	1	2.189	IDENTIFIED	42.53	☑ UI	
Neptunium-237 INT	0.3489	0.07066	pCi/g	0.06925	Y	87.14	1	1.105	IDENTIFIED	9.638	☑ UI	
Potassium-40 ✓	4.176	0.3947	pCi/g	0.1222	1.00	1461	1	1.921	IDENTIFIED	3.306	☐	
Radium-223 INT	0.209	0.0643	pCi/g	0.06127	Y	270.1	1	1.551	IDENTIFIED	15.4	☑ UI	
Thallium-208 ✓	0.1836	0.02599	pCi/g	0.01217	0.080	583.2	1	1.221	IDENTIFIED	6.362	☐	

Thorium-234 ✓	**0.8046**	0.1813	pCi/g	**0.1529**	**0.500**	92.65	1	1.166	IDENTIFIED	10.95	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686008	18-OCT-07 00:00	09-DEC-07 15:03	52.6	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.5216**	0.1036	pCi/g	**0.06351**	**0.800**	910.8	1	1.778	IDENTIFIED	8.698	☐	
Americium-243 INT	**0.1226**	0.02101	pCi/g	**0.02275**	**Y**	74.92	1	1.053	IDENTIFIED	7.956	☑ UI	
Bismuth-212 ✓	**0.5202**	0.1697	pCi/g	**0.1152**	**0.500**	727	1	1.763	IDENTIFIED	15.98	☐	
Bismuth-214 ✓	**0.2724**	0.05255	pCi/g	**0.03215**	**0.200**	609.1	1	1.465	IDENTIFIED	8.95	☐	
Cesium-137 ✓	**0.06459**	0.02171	pCi/g	**0.0175**	**0.100**	661.4	1	1.414	IDENTIFIED	16.57	☐	
Curium-243 INT	**0.07633**	0.03413	pCi/g	**0.0404**	**Y**	105.6	2	1.784	IDENTIFIED	22.54	☑ UI	
Europium-155 INT	**0.0842**	0.03765	pCi/g	**0.04607**	**0.500**	105.6	2	1.784	IDENTIFIED	22.54	☑ UI	
Lead-212 ✓	**0.5608**	0.04717	pCi/g	**0.02652**	**0.100**	238.6	1	1.107	IDENTIFIED	2.992	☐	
Lead-214 ✓	**0.3459**	0.04469	pCi/g	**0.03092**	**0.100**	351.8	1	1.372	IDENTIFIED	5.9	☐	
Neptunium-237 INT	**0.3529**	0.07437	pCi/g	**0.09543**	**Y**	87.21	1	1.174	IDENTIFIED	9.988	☑ UI	
Potassium-40 ✓	**5.006**	0.4518	pCi/g	**0.1491**	**1.00**	1460	1	2.09	IDENTIFIED	3.45	☐	
Protactinium-234m MUNC	**1.815**	2.568	pCi/g	**1.794**	**Y**	1001	1	1.529	IDENTIFIED	72.02	☑ UI	Data rejected due to high counting unc
Radium-223 INT	**0.2147**	0.1067	pCi/g	**0.07837**	**Y**	269.7	1	1.198	IDENTIFIED	25.17	☑ UI	
Thallium-208 ✓	**0.1886**	0.02752	pCi/g	**0.01642**	**0.080**	582.9	1	1.464	IDENTIFIED	6.324	☐	
Thorium-234 ✓	**0.7625**	0.2747	pCi/g	**0.2066**	**0.500**	92.73	1	1.385	IDENTIFIED	17.98	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686009	18-OCT-07 00:00	09-DEC-07 15:04	52.6	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.467**	0.09026	pCi/g	**0.04735**	**0.800**	911.1	1	1.548	IDENTIFIED	8.937	☐	
Americium-243 INT	**0.1161**	0.01988	pCi/g	**0.01764**	**Y**	74.66	1	1.523	IDENTIFIED	8.079	☑ UI	
Bismuth-212 ✓	**0.359**	0.1243	pCi/g	**0.107**	**0.500**	727	1	1.727	IDENTIFIED	17.14	☐	
Bismuth-214 ✓	**0.3604**	0.04725	pCi/g	**0.02862**	**0.200**	609.2	1	1.342	IDENTIFIED	5.47	☐	
Cesium-137 ✓	**0.1504**	0.0192	pCi/g	**0.01451**	**0.100**	661.6	1	1.415	IDENTIFIED	4.96	☐	
Lead-212 ✓	**0.528**	0.03923	pCi/g	**0.0213**	**0.100**	238.6	1	1.108	IDENTIFIED	2.556	☐	
Lead-214 ✓	**0.3941**	0.04549	pCi/g	**0.02703**	**0.100**	351.9	1	1.315	IDENTIFIED	5.281	☐	
Neptunium-237 INT	**0.2703**	0.06185	pCi/g	**0.07612**	**Y**	87.12	1	1.077	IDENTIFIED	11.08	☑ UI	
Potassium-40 ✓	**3.666**	0.3451	pCi/g	**0.1282**	**1.00**	1460	1	2.083	IDENTIFIED	3.723	☐	
Radium-223 INT	**0.1767**	0.05262	pCi/g	**0.06648**	**Y**	270.2	1	1.436	IDENTIFIED	14.93	☑ UI	
Thallium-208 ✓	**0.1444**	0.02112	pCi/g	**0.01379**	**0.080**	583.1	1	1.321	IDENTIFIED	6.497	☐	
Thorium-234 ✓	**0.7225**	0.1786	pCi/g	**0.1673**	**0.500**	92.68	1	1.174	IDENTIFIED	12.08	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686010	18-OCT-07 00:00	09-DEC-07 15:05	52.6	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.2714**	0.1034	pCi/g	**0.07225**	**0.800**	911.1	1	1.259	IDENTIFIED	19.15	☐	
Americium-243 INT	**0.06353**	0.01248	pCi/g	**0.01267**	**Y**	74.87	1	0.955	IDENTIFIED	9.488	☑ UI	
Bismuth-212 ✓	**0.2494**	0.1501	pCi/g	**0.1441**	**0.500**	727.5	1	1.791	IDENTIFIED	30.47	☐	
Bismuth-214 ✓	**0.2207**	0.05715	pCi/g	**0.03752**	**0.200**	609.3	1	1.335	IDENTIFIED	12.72	☐	
Cesium-137 ✓	**0.05785**	0.0238	pCi/g	**0.02025**	**0.100**	661.8	1	1.481	IDENTIFIED	20.66	☐	
Lead-212 ✓	**0.2766**	0.03708	pCi/g	**0.02318**	**0.100**	238.7	1	0.9499	IDENTIFIED	5.564	☐	
Lead-214 ✓	**0.1807**	0.04553	pCi/g	**0.03156**	**0.100**	352	1	1.125	IDENTIFIED	12.43	☐	
Neptunium-237 INT	**0.1816**	0.06358	pCi/g	**0.06502**	**Y**	87.34	1	1.203	IDENTIFIED	17.54	☑ UI	
Potassium-40 ✓	**1.74**	0.3133	pCi/g	**0.1725**	**1.00**	1461	1	2.012	IDENTIFIED	8.775	☐	
Thallium-208 ✓	**0.1064**	0.02492	pCi/g	**0.01821**	**0.080**	583.4	1	1.558	IDENTIFIED	11.44	☐	
Thorium-234 ✓	**0.4888**	0.2114	pCi/g	**0.1512**	**0.500**	92.65	1	1.117	IDENTIFIED	21.78	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686011	18-OCT-07 00:00	09-DEC-07 15:05	52.6	SAMPLE	LOAD	1	SCAN	SCAN00101\GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	1.077	0.1486	pCi/g	0.06347	0.800	910.6	1	1.842	IDENTIFIED	4.724	☐	
Americium-243 INT	0.2013	0.02626	pCi/g	0.02401	Y	74.9	1	1.449	IDENTIFIED	5.833	☑ UI	
Bismuth-212 ✓	0.7107	0.1592	pCi/g	0.1299	0.500	726.6	1	1.705	IDENTIFIED	10.56	☐	
Bismuth-214 ✓	0.5459	0.06319	pCi/g	0.03281	0.200	608.8	1	1.703	IDENTIFIED	4.513	☐	
Cesium-137 N✓P	0.0194	0.01149	pCi/g	0.0163	0.100	660.9	1	1.216	IDENTIFIED	29.93	☑ UI	
Curium-243 INT	0.05396	0.03222	pCi/g	0.04203	Y	105.4	2	1.176	IDENTIFIED	30.3	☑ UI	
Europium-155 INT	0.05953	0.03554	pCi/g	0.04978	0.500	105.4	2	1.176	IDENTIFIED	30.3	☑ UI	
Lead-212 ✓	1.024	0.0742	pCi/g	0.0265	0.100	238.4	1	1.314	IDENTIFIED	1.943	☐	
Lead-214 ✓	0.66	0.0622	pCi/g	0.0328	0.100	351.4	1	1.4	IDENTIFIED	3.754	☐	
Neptunium-236 INT	0.04348	0.02491	pCi/g	0.02744	Y	99.19	1	1.515	IDENTIFIED	29.06	☑ UI	
Neptunium-237 INT	0.4794	0.08725	pCi/g	0.1036	Y	87.34	1	1.278	IDENTIFIED	8.633	☑ UI	
Potassium-40 ✓	6.571	0.5286	pCi/g	0.1415	1.00	1460	1	1.961	IDENTIFIED	2.677	☐	
Radium-223 INT	0.4023	0.08095	pCi/g	0.08477	Y	269.9	1	1.967	IDENTIFIED	9.765	☑ UI	
Thallium-208 ✓	0.3185	0.03572	pCi/g	0.01602	0.080	582.6	1	1.612	IDENTIFIED	4.368	☐	
Thorium-234 ✓	1.409	0.2636	pCi/g	0.2248	0.500	92.74	1	1.583	IDENTIFIED	8.956	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686012	18-OCT-07 00:00	09-DEC-07 15:06	52.6	SAMPLE	LOAD	1	SCAN	SCAN00101\GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.5377	0.08391	pCi/g	0.04576	0.800	911.5	1	1.712	IDENTIFIED	6.433	☐	
Americium-243 INT	0.08957	0.01726	pCi/g	0.01576	Y	74.94	1	1.137	IDENTIFIED	8.195	☑ UI	
Bismuth-212 ✓	0.2564	0.1356	pCi/g	0.1007	0.500	728	1	1.388	IDENTIFIED	26.71	☐	
Bismuth-214 ✓	0.2142	0.04323	pCi/g	0.02619	0.200	609.3	1	1.372	IDENTIFIED	9.769	☐	
Cesium-137 ✓	0.0609	0.0155	pCi/g	0.01311	0.100	661.6	1	1.524	IDENTIFIED	12.53	☐	
Curium-243 INT	0.04454	0.02501	pCi/g	0.03247	Y	105.6	2	2.041	IDENTIFIED	28.34	☑ UI	
Europium-155 INT	0.04914	0.02759	pCi/g	0.0349	0.500	105.6	2	2.041	IDENTIFIED	28.34	☑ UI	
Lead-212 ✓	0.5304	0.0411	pCi/g	0.02078	0.100	238.6	1	1.158	IDENTIFIED	2.673	☐	
Lead-214 ✓	0.2488	0.03769	pCi/g	0.02524	0.100	352	1	1.172	IDENTIFIED	7.216	☐	
Neptunium-237 INT	0.2328	0.06548	pCi/g	0.07159	Y	87.28	1	1.204	IDENTIFIED	13.09	☑ UI	
Potassium-40 ✓	3.686	0.3899	pCi/g	0.112	1.00	1461	1	1.889	IDENTIFIED	3.385	☐	
Radium-223 INT	0.211	0.0903	pCi/g	0.06616	Y	269.7	1	1.797	IDENTIFIED	21.62	☑ UI	
Thallium-208 ✓	0.1494	0.02126	pCi/g	0.01235	0.080	583.2	1	1.314	IDENTIFIED	6.535	☐	
Thorium-234 ✓	0.6856	0.2007	pCi/g	0.1582	0.500	92.81	1	1.257	IDENTIFIED	13.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686013	18-OCT-07 00:00	10-DEC-07 09:17	53.4	SAMPLE	LOAD	1	SCAN	SCAN00101\GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.735	0.2022	pCi/g	0.1392	0.800	911.5	1	1.436	IDENTIFIED	13.26	☐	
Americium-243 INT	0.1595	0.02744	pCi/g	0.02765	Y	74.58	1	1.123	IDENTIFIED	7.78	☑ UI	
Bismuth-212 ✓	0.6092	0.2954	pCi/g	0.3023	0.500	727.2	1	1.179	IDENTIFIED	24.37	☐	
Bismuth-214 ✓	0.5216	0.09286	pCi/g	0.06701	0.200	609.2	1	1.584	IDENTIFIED	8.273	☐	
Cesium-137 ✓	0.1855	0.04034	pCi/g	0.03595	0.100	661.7	1	2.106	IDENTIFIED	10.32	☐	
Lead-212 ✓	0.8665	0.09322	pCi/g	0.05226	0.100	238.6	1	1.228	IDENTIFIED	3.519	☐	
Lead-214 ✓	0.4992	0.09417	pCi/g	0.07056	0.100	351.8	1	1.486	IDENTIFIED	9.209	☐	
Neptunium-237 INT	0.4756	0.1249	pCi/g	0.1434	Y	87.04	1	1.199	IDENTIFIED	12.67	☑ UI	
Potassium-40 ✓	5.548	0.7857	pCi/g	0.3554	1.00	1461	1	1.923	IDENTIFIED	6.035	☐	
Radium-223 INT	0.361	0.1637	pCi/g	0.1737	Y	270.7	1	1.493	IDENTIFIED	22.88	☑ UI	
Thallium-208 ✓	0.244	0.05001	pCi/g	0.03642	0.080	583.2	1	1.385	IDENTIFIED	9.821	☐	
Thorium-234 ✓	1.157	0.3365	pCi/g	0.3346	0.500	92.57	1	1.502	IDENTIFIED	14.15	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198686014	18-OCT-07 00:00	10-DEC-07 09:17	53.4	SAMPLE	LOAD	1	SCAN	SCAN00101\GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.8201	0.1808	pCi/g	0.1315	0.800	911	1	1.578	IDENTIFIED	10.82	☐	
Americium-243 INT	0.1055	0.01823	pCi/g	0.02391	Y	74.92	1	0.8898	IDENTIFIED	7.884	☑ UI	
Bismuth-212 NVP ✓	0.462	0.2992	pCi/g	0.3023	0.500	727.8	1	1.729	IDENTIFIED	32.82	~~☑ UI~~ KP 12/14/07	
Bismuth-214 ✓	0.5914	0.1013	pCi/g	0.06775	0.200	608.8	1	1.512	IDENTIFIED	7.903	☐	
Cesium-137 ✓	0.202	0.04249	pCi/g	0.03727	0.100	661.2	1	1.376	IDENTIFIED	9.948	☐	
Lead-212 ✓	0.6293	0.06315	pCi/g	0.04506	0.100	238.5	1	1.01	IDENTIFIED	3.87	☐	
Lead-214 ✓	0.5266	0.07496	pCi/g	0.05792	0.100	351.7	1	1.113	IDENTIFIED	6.771	☐	
Neptunium-237 INT	0.3296	0.09355	pCi/g	0.1192	Y	87.23	1	1.036	IDENTIFIED	13.93	☑ UI	
Potassium-40 ✓	5.37	0.6357	pCi/g	0.3526	1.00	1460	1	2.404	IDENTIFIED	5.361	☐	
Radium-223 INT	0.2684	0.1318	pCi/g	0.1462	Y	270.5	1	1.087	IDENTIFIED	24.91	☑ UI	
Thallium-208 ✓	0.2403	0.04056	pCi/g	0.03351	0.080	582.9	1	1.6	IDENTIFIED	7.827	☐	
Thorium-234 ✓	0.6752	0.345	pCi/g	0.2896	0.500	92.71	1	1.095	IDENTIFIED	25.74	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689001	18-OCT-07 00:00	10-DEC-07 09:18	53.4	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.7686	0.1574	pCi/g	0.1235	0.800	910.8	1	1.696	IDENTIFIED	9.886	☐	
Americium-241 LA	0.03906	0.0241	pCi/g	0.0389	0.200	87.32	2	1.575	NOT_IDENTI	11.3	☑ UI	Data rejected due to low abundance.
Americium-243 INT	0.1313	0.02319	pCi/g	0.02154	Y	74.78	1	1.691	IDENTIFIED	8.317	☑ UI	
Bismuth-214 ✓	0.4735	0.08913	pCi/g	0.06868	0.200	609.1	1	1.539	IDENTIFIED	8.823	☐	
Cesium-137 ✓	0.2941	0.04931	pCi/g	0.03647	0.100	661.4	1	1.388	IDENTIFIED	7.514	☐	
Cobalt-60 LA	0.03944	0.03199	pCi/g	0.03899	0.100	1171	1	4.678	FAIL_ABUND	41.3	☑ UI	Data rejected due to low abundance.
Lead-212 ✓	0.6862	0.06524	pCi/g	0.04503	0.100	238.5	1	1.479	IDENTIFIED	3.761	☐	
Lead-214 ✓	0.5317	0.07625	pCi/g	0.05939	0.100	351.9	1	1.49	IDENTIFIED	6.842	☐	
Neptunium-237 INT	0.4056	0.09449	pCi/g	0.1097	Y	87.32	2	1.575	IDENTIFIED	11.3	☑ UI	
Potassium-40 ✓	5.037	0.7512	pCi/g	0.2924	1.00	1460	1	2.196	IDENTIFIED	7.09	☐	
Radium-223 INT	0.2126	0.1184	pCi/g	0.1387	Y	270.2	1	1.667	IDENTIFIED	28.29	☑ UI	
Thallium-208 ✓	0.1826	0.05305	pCi/g	0.03437	0.080	583	1	1.934	IDENTIFIED	14.37	☐	
Thorium-234 ✓	0.9874	0.2608	pCi/g	0.2551	0.500	93.18	1	1.896	IDENTIFIED	12.93	☐	
Uranium-235 NVP	0.1856	0.1151	pCi/g	0.1441	0.500	144.3	1	1.373	IDENTIFIED	31.38	☑ UI	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689002	18-OCT-07 00:00	10-DEC-07 09:18	53.4	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.6457	0.1611	pCi/g	0.1232	0.800	911	1	1.782	IDENTIFIED	12.09	☐	
Americium-243 INT	0.148	0.03392	pCi/g	0.03912	Y	74.85	1	0.9789	IDENTIFIED	11.15	☑ UI	
Bismuth-212 NVP	0.2956	0.1756	pCi/g	0.2742	0.500	726.8	1	1.761	IDENTIFIED	30.13	☑ UI	
Bismuth-214 ✓	0.4088	0.09469	pCi/g	0.07349	0.200	608.9	1	1.479	IDENTIFIED	11.46	☐	
Cesium-137 ✓	0.1413	0.04341	pCi/g	0.0386	0.100	661.7	1	1.533	IDENTIFIED	15.4	☐	
Lead-212 ✓	0.7303	0.06986	pCi/g	0.04662	0.100	238.6	1	1.088	IDENTIFIED	3.985	☐	
Lead-214 ✓	0.5003	0.08696	pCi/g	0.0654	0.100	351.8	1	1.107	IDENTIFIED	8.449	☐	
Neptunium-237 INT	0.3957	0.1307	pCi/g	0.1688	Y	87.18	1	1.047	IDENTIFIED	16.44	☑ UI	
Potassium-40 ✓	6.29	0.7396	pCi/g	0.2923	1.00	1460	1	1.987	IDENTIFIED	4.823	☐	
Radium-223 INT	0.1834	0.1297	pCi/g	0.1465	Y	270	1	1.883	IDENTIFIED	35.96	☑ UI	
Thallium-208 ✓	0.2049	0.04794	pCi/g	0.0355	0.080	583.1	1	1.473	IDENTIFIED	11.59	☐	
Thorium-234 ✓	0.9959	0.382	pCi/g	0.3608	0.500	92.72	1	1.134	IDENTIFIED	19.24	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689003	15-OCT-07 00:00	10-DEC-07 15:58	53.7	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.6018	0.1581	pCi/g	0.09061	0.800	910.9	1	1.997	IDENTIFIED	12.39	☐	
Americium-243 INT	0.08995	0.03054	pCi/g	0.03116	Y	74.96	1	1.331	IDENTIFIED	16.86	☑ UI	
Bismuth-212 ✓	0.3382	0.26	pCi/g	0.1777	0.500	727.2	1	1.9	IDENTIFIED	38.98	☐	

Bismuth-214 ✓	**0.3168**	0.07821	pCi/g	**0.05086**	**0.200**	609.1	1	1.457	IDENTIFIED	12.01	☐
Lead-212 ✓	**0.6252**	0.07031	pCi/g	**0.0422**	**0.100**	238.6	1	1.305	IDENTIFIED	4.76	☐
Lead-214 ✓	**0.4014**	0.07173	pCi/g	**0.05051**	**0.100**	351.7	1	1.432	IDENTIFIED	8.592	☐
Neptunium-237 INT	**0.4288**	0.1254	pCi/g	**0.1356**	**Y**	87.3	1	1.472	IDENTIFIED	14.29	☑ UI
Potassium-40 ✓	**4.525**	0.5452	pCi/g	**0.21**	**1.00**	1461	1	2.19	IDENTIFIED	5.372	☐
Radium-223 INT	**0.2266**	0.1335	pCi/g	**0.1341**	**Y**	270.5	1	1.948	IDENTIFIED	29.88	☑ UI
Thallium-208 ✓	**0.2158**	0.03658	pCi/g	**0.02408**	**0.080**	583	1	1.482	IDENTIFIED	7.817	☐
Thorium-234 ✓	**0.5512**	0.4059	pCi/g	**0.3005**	**0.500**	92.67	1	1.331	IDENTIFIED	37.35	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689004	18-OCT-07 00:00	11-DEC-07 04:03	54.2	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.7102**	0.1561	pCi/g	**0.0954**	**0.800**	911	1	1.765	IDENTIFIED	9.977	☐	
Americium-243 INT	**0.0987**	0.03373	pCi/g	**0.03394**	**Y**	74.83	1	1.276	IDENTIFIED	16.98	☑ UI	
Bismuth-212 MUNC	**0.2226**	0.2289	pCi/g	**0.2029**	**0.500**	727.5	1	1.535	IDENTIFIED	52.26	☑ UI	
Bismuth-214 ✓	**0.4389**	0.0878	pCi/g	**0.05389**	**0.200**	609.1	1	1.512	IDENTIFIED	9.471	☐	
Cesium-137 ✓	**0.4025**	0.04733	pCi/g	**0.02883**	**0.100**	661.5	1	1.742	IDENTIFIED	4.457	☐	
Europium-155 INT	**0.07924**	0.06207	pCi/g	**0.07734**	**0.500**	106	1	2.04	IDENTIFIED	39.81	☑ UI	
Lead-212 ✓	**0.6265**	0.07514	pCi/g	**0.04745**	**0.100**	238.6	1	1.471	IDENTIFIED	5.212	☐	
Lead-214 ✓	**0.4861**	0.07686	pCi/g	**0.05594**	**0.100**	351.8	1	1.445	IDENTIFIED	7.47	☐	
Neptunium-236 INT HPW SUET 12/13/07	**0.06353**	0.05562	pCi/g	**0.04423**	**Y**	99.16	1	5.11	IDENTIFIED	44.51	☑ UI	Data rejected due to high peak-width.
Neptunium-237 INT	**0.473**	0.1426	pCi/g	**0.1609**	**Y**	87.18	1	1.49	IDENTIFIED	14.78	☑ UI
Potassium-40 ✓	**4.266**	0.5626	pCi/g	**0.2498**	**1.00**	1461	1	2.279	IDENTIFIED	6.029	☐
Radium-223 INT	**0.2134**	0.1271	pCi/g	**0.1567**	**Y**	270.4	1	1.255	IDENTIFIED	30.21	☑ UI
Thallium-208 ✓	**0.1395**	0.04186	pCi/g	**0.02677**	**0.080**	582.9	1	1.622	IDENTIFIED	14.86	☐
Thorium-234 ✓	**0.4421**	0.4286	pCi/g	**0.3567**	**0.500**	92.66	1	1.362	IDENTIFIED	49.3	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689005	18-OCT-07 00:00	11-DEC-07 08:59	54.4	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.1958**	0.1239	pCi/g	**0.1105**	**0.800**	911.7	1	1.159	IDENTIFIED	31.85	☐	
Americium-243 INT	**0.05464**	0.03133	pCi/g	**0.03499**	**Y**	74.92	1	1.521	IDENTIFIED	29.07	☑ UI	
Bismuth-214 LA	**0.1075**	0.06297	pCi/g	**0.09225**	**0.200**	609.3	1	1.857	FAIL_ABUND	29.63	☑ UI	Data rejected due to low abundance.
Cesium-137 ✓	**0.3697**	0.05496	pCi/g	**0.02854**	**0.100**	661.8	1	1.601	IDENTIFIED	6.42	☐	
Lead-212 ✓	**0.2115**	0.06232	pCi/g	**0.05444**	**0.100**	238.6	1	1.276	IDENTIFIED	14.7	☐	
Lead-214 ✓	**0.1141**	0.06047	pCi/g	**0.06364**	**0.100**	351.8	1	1.704	IDENTIFIED	26.87	☐	
Potassium-40 ✓	**2.571**	0.5228	pCi/g	**0.287**	**1.00**	1461	1	1.699	IDENTIFIED	9.897	☐	
Thallium-208 ✓	**0.07337**	0.03246	pCi/g	**0.0278**	**0.080**	583.4	1	1.692	IDENTIFIED	22.27	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689006	18-OCT-07 00:00	11-DEC-07 09:03	54.4	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.6288**	0.1379	pCi/g	**0.1163**	**0.800**	911.4	1	1.605	IDENTIFIED	10.28	☐	
Americium-241 LA	**0.1076**	0.06973	pCi/g	**0.1041**	**0.200**	87.22	2	1.066	NOT_IDENTI	23.86	☑ UI	Data rejected due to low abundance.
Americium-243 INT	**0.1087**	0.0369	pCi/g	**0.03671**	**Y**	74.76	1	1.678	IDENTIFIED	16.91	☑ UI
Bismuth-212 ✓	**0.4455**	0.2432	pCi/g	**0.2301**	**0.500**	727.1	1	1.886	IDENTIFIED	27.55	☐
Bismuth-214 ✓	**0.3081**	0.0793	pCi/g	**0.05945**	**0.200**	609.1	1	1.311	IDENTIFIED	12.6	☐
Cesium-137 ✓	**0.2707**	0.04721	pCi/g	**0.0292**	**0.100**	661.7	1	1.783	IDENTIFIED	8.002	☐
Lead-212 ✓	**0.5038**	0.07013	pCi/g	**0.05509**	**0.100**	238.4	1	1.169	IDENTIFIED	6.381	☐
Lead-214 ✓	**0.2919**	0.0785	pCi/g	**0.06124**	**0.100**	351.7	1	1.457	IDENTIFIED	13.4	☐
Neptunium-237 INT	**0.2273**	0.1079	pCi/g	**0.2006**	**Y**	87.22	2	1.066	IDENTIFIED	23.86	☑ UI
Potassium-40 ✓	**5.27**	0.6834	pCi/g	**0.3103**	**1.00**	1461	1	1.977	IDENTIFIED	6.003	☐
Radium-223 INT	**0.209**	0.1245	pCi/g	**0.1489**	**Y**	269.9	1	1.279	IDENTIFIED	30.23	☑ UI

Thallium-208 ✓	**0.1649**	0.04219	pCi/g	**0.02983**	**0.080**	583	1	1.317	IDENTIFIED	12.54	☐
Thorium-234 ✓	**0.548**	0.3598	pCi/g	**0.3973**	**0.500**	92.82	1	1.402	IDENTIFIED	33.26	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689007	18-OCT-07 00:00	11-DEC-07 11:41	54.5	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.45**	0.1479	pCi/g	**0.1393**	**0.800**	911.4	1	1.889	IDENTIFIED	16.06	☐	
Americium-243 INT	**0.1046**	0.04154	pCi/g	**0.04798**	**Y**	75.08	1	1.541	IDENTIFIED	19.88	☑ UI	
Bismuth-212 NPW	**0.3498**	0.2504	pCi/g	**0.2879**	**0.500**	728.1	1	3.178	IDENTIFIED	36.3	☑ UI	Data rejected due to high peak-width.
Bismuth-214 ✓	**0.1993**	0.07758	pCi/g	**0.07574**	**0.200**	609.5	1	1.695	IDENTIFIED	19.53	☐	
Cesium-137 ✓	**0.2652**	0.05534	pCi/g	**0.03732**	**0.100**	661.6	1	1.876	IDENTIFIED	9.948	☐	
Lead-212 ✓	**0.5252**	0.07214	pCi/g	**0.05602**	**0.100**	238.6	1	1.778	IDENTIFIED	6.104	☐	
Lead-214 ✓	**0.2344**	0.07135	pCi/g	**0.07014**	**0.100**	352	1	1.421	IDENTIFIED	15.21	☐	
Neptunium-237 INT	**0.2559**	0.125	pCi/g	**0.2156**	**Y**	87.12	1	1.4	IDENTIFIED	24.57	☑ UI	
Potassium-40 ✓	**3.533**	0.6856	pCi/g	**0.2959**	**1.00**	1461	1	1.395	IDENTIFIED	9.465	☐	
Thallium-208 ✓	**0.1295**	0.04827	pCi/g	**0.03605**	**0.080**	583.4	1	1.317	IDENTIFIED	18.67	☐	
Thorium-234 ✓	**0.5803**	0.4158	pCi/g	**0.461**	**0.500**	93.12	1	1.656	IDENTIFIED	36.35	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689008	18-OCT-07 00:00	11-DEC-07 12:07	54.5	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.8409**	0.1614	pCi/g	**0.1109**	**0.800**	911.6	1	1.7	IDENTIFIED	9.187	☐	
Americium-243 INT	**0.1121**	0.02607	pCi/g	**0.03237**	**Y**	74.94	1	1.017	IDENTIFIED	11.36	☑ UI	
Bismuth-212 ✓	**0.6789**	0.2466	pCi/g	**0.2446**	**0.500**	727.7	1	1.624	IDENTIFIED	18.17	☐	
Bismuth-214 ✓	**0.4029**	0.08397	pCi/g	**0.05975**	**0.200**	609.4	1	1.365	IDENTIFIED	10.06	☐	
Cesium-137 ~~NUNC~~ ✓ KO 12/14/07	**0.03352**	0.03287	pCi/g	**0.03056**	**0.100**	662.1	1	1.036	IDENTIFIED	49.9	~~☑ UI~~ KO 12/14/07	
Lead-212 ✓	**0.7922**	0.07454	pCi/g	**0.04368**	**0.100**	238.8	1	1.161	IDENTIFIED	3.756	☐	
Lead-214 ✓	**0.3782**	0.07925	pCi/g	**0.05973**	**0.100**	352.1	1	1.155	IDENTIFIED	10.32	☐	
Neptunium-237 INT	**0.4634**	0.1432	pCi/g	**0.1516**	**Y**	87.4	1	1.488	IDENTIFIED	15.26	☑ UI	
Potassium-40 ✓	**3.132**	0.5483	pCi/g	**0.3063**	**1.00**	1461	1	2.223	IDENTIFIED	8.509	☐	
Radium-223 INT	**0.2109**	0.1117	pCi/g	**0.145**	**Y**	270.4	1	1.525	IDENTIFIED	26.84	☑ UI	
Thallium-208 ✓	**0.2359**	0.04572	pCi/g	**0.03029**	**0.080**	583.5	1	1.286	IDENTIFIED	9.304	☐	
Thorium-234 ✓	**1.16**	0.3595	pCi/g	**0.3402**	**0.500**	93.03	1	1.503	IDENTIFIED	15.34	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689009	18-OCT-07 00:00	11-DEC-07 12:08	54.5	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.6571**	0.1741	pCi/g	**0.1086**	**0.800**	911.4	1	1.403	IDENTIFIED	12.79	☐	
Americium-243 INT	**0.1033**	0.02493	pCi/g	**0.03516**	**Y**	74.8	1	0.7393	IDENTIFIED	11.86	☑ UI	
Bismuth-212 ~~NUNC~~ ✓ KO 12/14/07	**0.3548**	0.2529	pCi/g	**0.2212**	**0.500**	727.8	1	1.417	IDENTIFIED	36.15	~~☑ UI~~ KO 12/14/07	
Bismuth-214 ✓	**0.3721**	0.09054	pCi/g	**0.0616**	**0.200**	609.5	1	1.515	IDENTIFIED	11.9	☐	
Cesium-137 ✓	**0.07119**	0.027	pCi/g	**0.02857**	**0.100**	661.8	1	1.317	IDENTIFIED	18.97	☐	
Lead-212 ✓	**0.6745**	0.06701	pCi/g	**0.04462**	**0.100**	238.6	1	0.9598	IDENTIFIED	4.13	☐	
Lead-214 ✓	**0.3066**	0.07419	pCi/g	**0.05335**	**0.100**	351.9	1	1.107	IDENTIFIED	12.03	☐	
Neptunium-237 INT	**0.3382**	0.1261	pCi/g	**0.1599**	**Y**	87.15	1	0.9528	IDENTIFIED	18.67	☑ UI	
Potassium-40 ✓	**6.071**	0.7742	pCi/g	**0.2806**	**1.00**	1461	1	1.981	IDENTIFIED	5.478	☐	
Thallium-208 ✓	**0.1726**	0.0424	pCi/g	**0.0417**	**0.080**	583.1	1	1.235	IDENTIFIED	12.06	☐	
Thorium-234 ✓	**0.7051**	0.3376	pCi/g	**0.3556**	**0.500**	92.62	1	1.303	IDENTIFIED	24.18	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689010	18-OCT-07 00:00	11-DEC-07 12:24	54.5	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.6543**	0.148	pCi/g	**0.1133**	**0.800**	910.5	1	2.014	IDENTIFIED		10.42	☐	
Americium-243 INT	**0.1129**	0.03255	pCi/g	**0.03552**	**Y**	74.53	1	1.393	IDENTIFIED		14.18	☑ UI	
Bismuth-212 ✓	**0.3441**	0.2187	pCi/g	**0.2095**	**0.500**	726.7	1	1.478	IDENTIFIED		32.11	☐	
Bismuth-214 ✓	**0.2599**	0.08635	pCi/g	**0.05915**	**0.200**	609.1	1	2.022	IDENTIFIED		16.46	☐	
Lead-212 ✓	**0.6546**	0.06459	pCi/g	**0.04491**	**0.100**	238.4	1	1.263	IDENTIFIED		4.05	☐	
Lead-214 ✓	**0.3076**	0.06405	pCi/g	**0.05514**	**0.100**	351.5	1	1.377	IDENTIFIED		10.23	☐	
Neptunium-237 INT	**0.438**	0.1469	pCi/g	**0.1545**	**Y**	87.06	1	1.438	IDENTIFIED		16.55	☑ UI	
Potassium-40 ✓	**4.773**	0.5761	pCi/g	**0.2878**	**1.00**	1460	1	2.841	IDENTIFIED		5.412	☐	
Radium-223 INT	**0.2732**	0.1614	pCi/g	**0.139**	**Y**	269.2	1	1.692	IDENTIFIED		29.99	☑ UI	
Thallium-208 ✓	**0.1927**	0.03601	pCi/g	**0.02703**	**0.080**	582.5	1	1.629	IDENTIFIED		8.711	☐	
Thorium-234 ✓	**0.7073**	0.3313	pCi/g	**0.3391**	**0.500**	92.37	1	1.204	IDENTIFIED		23.54	☐	
Uranium-235 ↑PW	**0.1824**	0.2402	pCi/g	**0.1619**	**0.500**	142.6	1	4.309	IDENTIFIED		67.11	☑ UI	Data rejected due to high peak-width.

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201473833		11-DEC-07 12:53	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201473834	18-OCT-07 00:00	11-DEC-07 12:54	54.5	DUP	LOAD	1		SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.4596**	0.186	pCi/g	**0.1422**	**0.800**	912.2	1	2.531	IDENTIFIED		19.88	☐	
Americium-243 INT	**0.1389**	0.03857	pCi/g	**0.04337**	**Y**	75.02	1	1.271	IDENTIFIED		13.63	☑ UI	
Bismuth-212 ✓	**0.479**	0.2581	pCi/g	**0.3009**	**0.500**	728.2	1	1.614	IDENTIFIED		27.2	☐	
Bismuth-214 ✓	**0.4441**	0.1012	pCi/g	**0.06753**	**0.200**	609.6	1	1.581	IDENTIFIED		11.12	☐	
Cesium-137 ✓	**0.2064**	0.04931	pCi/g	**0.03196**	**0.100**	662.6	1	2.686	IDENTIFIED		11.7	☐	
Lead-212 ✓	**0.5874**	0.07162	pCi/g	**0.05515**	**0.100**	238.7	1	1.565	IDENTIFIED		5.321	☐	
Lead-214 ✓	**0.4929**	0.09256	pCi/g	**0.06712**	**0.100**	352.2	1	1.798	IDENTIFIED		9.027	☐	
Potassium-40 ✓	**4.363**	0.626	pCi/g	**0.3218**	**1.00**	1462	1	2.777	IDENTIFIED		6.724	☐	
Thallium-208 ✓	**0.1996**	0.04668	pCi/g	**0.03403**	**0.080**	583.7	1	2.36	IDENTIFIED		11.44	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201473835		11-DEC-07 12:54	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	**1.303**	0.6591	pCi/g	**0.9694**	**0.800**	910.7	1	1.827	FAIL_ABUND		25.6	☐	
Americium-241	**13.47**	0.9309	pCi/g	**0.3009**	**0.200**	59.53	1	0.9892	IDENTIFIED		1.526	☐	
Americium-243	**0.2115**	0.07765	pCi/g	**0.126**	**Y**	74.73	1	0.8849	IDENTIFIED		18.45	☐	
Bismuth-214	**0.79**	0.2972	pCi/g	**0.4049**	**0.200**	609.2	1	1.367	FAIL_ABUND		18.86	☐	
Cesium-137	**5.625**	0.5038	pCi/g	**0.1547**	**0.100**	661.6	1	1.401	IDENTIFIED		2.7	☐	
Cobalt-60	**8.394**	0.635	pCi/g	**0.1503**	**0.100**	1173	1	1.84	IDENTIFIED		2.51	☐	
Gross Gamma	**39.23**	6.018	pCi/g	**6.271**	**N**		0					☐	
Lead-212	**0.8996**	0.1522	pCi/g	**0.1796**	**0.100**	238.6	1	0.9048	IDENTIFIED		7.657	☐	
Lead-214	**0.8033**	0.2443	pCi/g	**0.2437**	**0.100**	351.9	1	0.995	IDENTIFIED		15.16	☐	
Neptunium-237	**31.62**	2.274	pCi/g	**0.6482**	**Y**	88.01	1	0.8901	IDENTIFIED		1.43	☐	
Polonium-209	**246.7**	48.94	pCi/g	**39.52**	**Y**	897.9	1	1.926	IDENTIFIED		9.55	☐	
Potassium-40	**1.287**	0.9587	pCi/g	**1.134**	**1.00**	1461	1	3.979	IDENTIFIED		37.92	☐	
Thallium-208	**0.2038**	0.1272	pCi/g	**0.16**	**0.080**	583	1	1.176	IDENTIFIED		31.65	☐	

*** = Number of isotopes identified with a keyline at this energy.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:18:25.98

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198686005.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 9-DEC-2007 15:02:15.
Sample ID        : G198686005           Sample quantity  : 1.07060E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 16:40:00.00        Elapsed real time: 0 16:40:05.51  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.21*	19	1151	0.94	92.49	90	7	3.11E-04	386.0	
2	0	62.73*	178	1309	1.15	125.51	122	8	2.97E-03	46.3	
3	0	66.17*	98	1238	1.40	132.36	130	7	1.63E-03	72.6	
4	3	74.39*	712	1365	1.09	148.80	145	13	1.19E-02	11.1	1.65E+00
5	3	76.66*	1158	1067	0.97	153.34	145	13	1.93E-02	6.3	
6	0	79.89	120	994	0.63	159.79	158	6	2.00E-03	42.5	
7	5	83.72*	320	1154	1.53	167.44	164	31	5.33E-03	22.1	1.34E+00
8	5	86.78	594	1264	1.33	173.54	164	31	9.89E-03	11.1	
9	5	89.44	416	1071	1.16	178.87	164	31	6.94E-03	14.2	
10	5	92.33*	762	1309	1.46	184.65	164	31	1.27E-02	13.1	
11	0	98.39*	27	838	1.30	196.74	194	6	4.42E-04	214.9	
12	0	105.07	73	1062	0.91	210.10	208	7	1.21E-03	75.1	
13	0	128.61*	82	1223	1.28	257.13	254	8	1.37E-03	88.2	
14	0	143.69	82	1081	0.95	287.27	284	7	1.36E-03	67.5	
15	0	158.35	64	974	0.58	316.56	313	7	1.06E-03	82.3	
16	0	185.49*	375	1493	1.14	370.78	366	10	6.25E-03	26.0	
17	0	204.87	75	800	1.43	409.52	407	6	1.25E-03	60.8	
18	0	209.14	253	1106	1.30	418.04	414	9	4.21E-03	24.6	
19	0	215.19	84	773	0.58	430.13	427	7	1.39E-03	56.3	
20	4	238.26*	2496	679	1.07	476.23	471	17	4.16E-02	3.4	7.90E-01
21	4	241.17	586	1054	1.69	482.04	471	17	9.77E-03	12.6	
22	0	255.64	62	405	0.95	510.96	509	5	1.04E-03	50.3	
23	0	269.41	331	1095	1.68	538.49	532	13	5.52E-03	21.3	
24	0	277.01	124	692	1.15	553.66	550	8	2.06E-03	37.9	
25	0	294.89*	624	983	1.23	589.39	584	12	1.04E-02	13.6	
26	0	299.68	175	654	1.03	598.96	596	8	2.92E-03	26.5	
27	0	327.71	100	714	1.29	654.99	651	9	1.67E-03	49.2	
28	0	337.78*	507	742	1.34	675.11	670	10	8.45E-03	13.0	
29	0	351.49*	1191	728	1.18	702.50	696	12	1.98E-02	6.4	
30	0	409.55	123	436	0.89	818.53	814	9	2.06E-03	31.8	
31	0	435.60	28	360	1.37	870.61	866	8	4.61E-04	120.1	
32	0	462.44	132	466	0.99	924.25	919	10	2.20E-03	31.8	
33	0	496.60	38	235	1.43	992.52	990	7	6.38E-04	68.5	
34	0	510.70*	217	678	2.33	1020.70	1013	18	3.62E-03	44.9	
35	0	582.77*	689	465	1.39	1164.74	1157	15	1.15E-02	8.8	
36	0	609.08*	716	397	1.51	1217.33	1212	13	1.19E-02	9.0	
37	0	661.30	504	313	1.53	1321.70	1316	11	8.40E-03	8.1	
38	0	665.01	45	189	1.09	1329.12	1326	7	7.50E-04	52.7	

Sample ID : G198686005 Acquisition date : 9-DEC-2007 15:02:15

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	727.08	233	277	1.50	1453.20	1445	15	3.88E-03	16.9	
40	0	768.98	33	275	1.69	1536.96	1528	11	5.55E-04	98.4	
41	0	794.39	116	162	1.86	1587.77	1583	10	1.93E-03	22.6	
42	0	802.69*	5	248	2.08	1604.36	1597	12	9.02E-05	736.0	
43	0	859.89	87	243	0.78	1718.71	1714	15	1.45E-03	40.6	
44	0	875.88	31	114	0.68	1750.68	1747	8	5.24E-04	61.7	
45	0	910.81*	436	228	1.77	1820.50	1814	15	7.26E-03	10.5	
46	0	932.23	51	208	3.68	1863.34	1857	15	8.57E-04	62.5	
47	1	964.04	63	183	1.98	1926.92	1922	20	1.05E-03	41.2	2.79E+00
48	1	968.63*	268	182	1.77	1936.11	1922	20	4.47E-03	13.6	
49	0	1001.78*	67	112	1.82	2002.39	1997	12	1.12E-03	51.3	
50	0	1058.34	33	118	1.32	2115.47	2111	10	5.53E-04	64.4	
51	0	1078.91	47	140	3.67	2156.60	2150	13	7.85E-04	53.8	
52	0	1119.62*	133	253	1.89	2238.02	2232	17	2.22E-03	33.9	
53	0	1140.23	35	87	2.24	2279.22	2275	10	5.89E-04	51.7	
54	0	1155.49	48	92	2.04	2309.74	2306	9	8.01E-04	38.8	
55	0	1238.03	104	149	2.33	2474.79	2467	15	1.74E-03	27.4	
56	0	1260.97	32	76	0.91	2520.67	2515	10	5.35E-04	55.2	
57	0	1280.32	57	117	1.31	2559.36	2553	13	9.44E-04	41.6	
58	0	1303.95	7	114	0.85	2606.62	2601	11	1.23E-04	281.6	
59	0	1378.57	52	132	2.29	2755.85	2748	17	8.65E-04	53.2	
60	0	1460.43*	1021	135	2.07	2919.58	2909	22	1.70E-02	5.0	
61	0	1539.28	44	51	4.86	3077.30	3071	13	7.33E-04	37.0	
62	0	1560.83	40	48	0.90	3120.39	3111	16	6.75E-04	41.3	
63	1	1587.92	70	77	2.34	3174.57	3168	25	1.17E-03	28.0	8.47E-01
64	1	1592.41	36	59	2.35	3183.57	3168	25	5.94E-04	52.5	
65	0	1631.07	19	56	1.73	3260.91	3253	13	3.14E-04	84.7	
66	0	1720.52	11	44	0.64	3439.84	3429	12	1.89E-04	121.3	
67	0	1724.11	9	29	0.59	3447.01	3440	9	1.46E-04	116.4	
68	0	1729.93	61	71	1.22	3458.66	3450	16	1.01E-03	33.7	
69	0	1764.60*	94	72	2.04	3528.02	3517	18	1.56E-03	32.7	
70	0	1771.95	28	45	0.78	3542.72	3535	16	4.64E-04	58.5	
71	0	1780.58	45	52	5.96	3560.00	3550	23	7.42E-04	44.6	
72	0	1975.51	17	26	4.46	3950.00	3941	14	2.76E-04	71.6	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198686005       *
* Acquisition date :  9-DEC-2007 15:02:15 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 16:40:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 16:40:05.51     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198686005           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0706E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-FEB-2007 10:58:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.197E+00	4.868E-01	1.662E-01	0.000E+00
CS-137	1.264E-01	2.181E-02	1.842E-02	0.000E+00
EU-155	2.480E-02	3.655E-02	4.878E-02	0.000E+00
TL-208	1.557E-01	2.883E-02	1.734E-02	0.000E+00
BI-212	4.561E-01	1.552E-01	1.364E-01	0.000E+00
PB-212	5.515E-01	5.013E-02	2.949E-02	0.000E+00
BI-214	3.079E-01	5.781E-02	3.558E-02	0.000E+00
PB-214	4.046E-01	5.633E-02	3.729E-02	0.000E+00
RA-223	2.530E-01	1.068E-01	9.359E-02	0.000E+00
AC-228	4.809E-01	1.095E-01	6.623E-02	0.000E+00
PA-234M	2.498E+00	2.523E+00	2.222E+00	0.000E+00
TH-234	1.076E+00	2.903E-01	2.013E-01	0.000E+00
U-235	5.331E-02	7.060E-02	9.716E-02	0.000E+00
NP-236	5.100E-03	2.149E-02	2.729E-02	0.000E+00
NP-237	3.885E-01	9.098E-02	9.328E-02	0.000E+00
AM-243	1.068E-01	2.469E-02	2.393E-02	0.000E+00
CM-243	2.248E-02	3.313E-02	4.428E-02	0.000E+00
AM-246	5.659E-02	5.981E-02	6.779E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-1.490E-02	1.840E-02	2.121E-02	0.000E+00	NOT IDENT.
RH-101	0.000E+00	1.005E-02	1.803E-02	0.000E+00	NOT IDENT.
SB-125	-1.781E-02	2.985E-02	4.829E-02	0.000E+00	NOT IDENT.
PO-209	4.569E-01	2.173E+00	3.623E+00	0.000E+00	NOT IDENT.
BI-211	-3.176E-01	3.263E-01	5.132E-01	0.000E+00	NOT IDENT.
PA-233	8.573E-03	2.039E-02	3.489E-02	0.000E+00	NOT IDENT.
NP-239	-1.462E-02	6.695E-02	1.150E-01	0.000E+00	NOT IDENT.
AM-241	1.400E-02	4.737E-02	7.413E-02	0.000E+00	NOT IDENT.
CF-249	1.324E-02	1.266E-02	2.176E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:18:27.22

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198686005.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 9-DEC-2007 15:02:15.
Sample ID        : G198686005           Sample quantity  : 1.07060E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 16:40:00.00        Elapsed real time: 0 16:40:05.51  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	1021	10.66*	9.604E-01	4.197E+00	4.197E+00	11.84
CS-137	661.66	504	85.10*	1.977E+00	1.260E-01	1.264E-01	17.60
EU-155	105.31	73	21.20*	5.943E+00	2.430E-02	2.480E-02	150.38
TL-208	277.36	124	6.31	3.940E+00	2.091E-01	2.091E-01	76.10
	510.77	217	22.60	2.457E+00	1.644E-01	1.644E-01	90.03
	583.19	689	84.50*	2.203E+00	1.557E-01	1.557E-01	18.89
	763.13	------	1.81	1.741E+00	------	Line Not Found	------
	860.56	87	12.42	1.560E+00	1.886E-01	1.886E-01	81.82
BI-212	727.33	233	11.80*	1.818E+00	4.561E-01	4.561E-01	34.71
	785.37	------	1.10	1.696E+00	------	Line Not Found	------
	1620.50	------	1.49	8.878E-01	------	Line Not Found	------
PB-212	74.81	712	10.40	4.117E+00	7.001E-01	7.001E-01	23.60
	77.11	1158	17.50	4.351E+00	6.398E-01	6.398E-01	15.10
	87.30	594	7.81	5.185E+00	6.168E-01	6.168E-01	23.90
	238.63	2496	43.30*	4.398E+00	5.515E-01	5.515E-01	9.28
	300.09	175	3.28	3.716E+00	6.038E-01	6.038E-01	53.29
BI-214	609.31	716	46.10*	2.122E+00	3.078E-01	3.079E-01	19.16
	768.36	33	4.94	1.729E+00	1.640E-01	1.640E-01	196.88
	806.17	------	1.22	1.656E+00	------	Line Not Found	------
	934.06	51	3.03	1.446E+00	4.939E-01	4.940E-01	125.33
	1120.29	133	15.10	1.216E+00	3.046E-01	3.046E-01	68.17
	1155.19	48	1.63	1.181E+00	1.050E+00	1.050E+00	77.88
	1238.11	104	5.79	1.108E+00	6.838E-01	6.839E-01	55.14
	1280.96	57	1.43	1.075E+00	1.550E+00	1.550E+00	83.38
	1377.67	52	4.00	1.008E+00	5.417E-01	5.417E-01	106.59
	1401.50	------	1.27	9.936E-01	------	Line Not Found	------
	1407.98	------	2.15	9.898E-01	------	Line Not Found	------
	1509.23	------	2.11	9.357E-01	------	Line Not Found	------
	1729.60	61	2.92	8.508E-01	1.030E+00	1.030E+00	67.66
	1764.49	94	15.40	8.410E-01	3.048E-01	3.048E-01	65.59
PB-214	74.81	712	6.44	4.117E+00	1.131E+00	1.131E+00	23.60
	77.11	1158	10.80	4.351E+00	1.037E+00	1.037E+00	15.10

Sample ID : G198686005 Acquisition date : 9-DEC-2007 15:02:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	594	4.84	5.185E+00	9.952E-01	9.953E-01	23.90
	242.00	586	7.43	4.360E+00	7.616E-01	7.616E-01	25.90
	295.22	624	19.30	3.761E+00	3.618E-01	3.618E-01	27.91
	351.93	1191	37.60*	3.293E+00	4.046E-01	4.046E-01	14.21
RA-223	269.46	331	13.70*	4.022E+00	2.530E-01	2.530E-01	43.09
AC-228	129.07	82	2.42	6.054E+00	2.360E-01	2.360E-01	176.58
	209.25	253	3.89	4.815E+00	5.680E-01	5.680E-01	49.54
	270.25	331	3.46	4.022E+00	1.002E+00	1.002E+00	43.09
	338.32	507	11.27	3.394E+00	5.579E-01	5.579E-01	26.72
	409.46	123	1.92	2.927E+00	9.233E-01	9.233E-01	63.96
	463.00	132	4.40	2.660E+00	4.741E-01	4.741E-01	63.94
	794.95	116	4.25	1.678E+00	6.826E-01	6.826E-01	46.03
	911.20	436	25.80*	1.478E+00	4.809E-01	4.809E-01	23.24
	964.77	63	4.99	1.401E+00	3.798E-01	3.798E-01	82.98
	968.97	268	15.80	1.395E+00	5.125E-01	5.125E-01	28.84
	1588.20	70	3.22	9.007E-01	1.018E+00	1.018E+00	56.29
PA-234M	1001.03	67	0.84*	1.351E+00	2.498E+00	2.498E+00	103.07
TH-234	63.29	178	4.80	2.691E+00	5.814E-01	5.814E-01	92.91
	92.58	762	5.41*	5.506E+00	1.076E+00	1.076E+00	27.51
U-235	143.76	82	10.96*	5.891E+00	5.331E-02	5.331E-02	135.13
NP-236	98.44	27	38.00*	5.760E+00	5.100E-03	5.100E-03	429.90
NP-237	86.48	594	12.40*	5.185E+00	3.885E-01	3.885E-01	23.90
AM-243	74.66	712	68.20*	4.117E+00	1.068E-01	1.068E-01	23.60
CM-243	103.76	73	23.00*	5.943E+00	2.240E-02	2.248E-02	150.38
AM-246	1078.86	47	27.80*	1.260E+00	5.659E-02	5.659E-02	107.84

Flag: "*" = Keyline

Sample ID : G198686005 Acquisition date : 9-DEC-2007 15:02:15

Total number of lines in spectrum 72
Number of unidentified lines 29
Number of lines tentatively identified by NID 43 59.72%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.197E+00	4.197E+00	0.497E+00	11.84	
CS-137	9.47E+08S	1.00	1.260E-01	1.264E-01	0.223E-01	17.60	
EU-155	1.57E+08S	1.02	2.430E-02	2.480E-02	3.729E-02	150.38	
TL-208	4.43E+17S	1.00	1.557E-01	1.557E-01	0.294E-01	18.89	
BI-212	4.43E+17S	1.00	4.561E-01	4.561E-01	1.583E-01	34.71	
PB-212	4.43E+17S	1.00	5.515E-01	5.515E-01	0.512E-01	9.28	
BI-214	5.05E+10S	1.00	3.078E-01	3.079E-01	0.590E-01	19.16	
PB-214	5.05E+10S	1.00	4.046E-01	4.046E-01	0.575E-01	14.21	
RA-223	1.04E+12S	1.00	2.530E-01	2.530E-01	1.090E-01	43.09	
AC-228	4.43E+17S	1.00	4.809E-01	4.809E-01	1.117E-01	23.24	
PA-234M	1.41E+17S	1.00	2.498E+00	2.498E+00	2.575E+00	103.07	
TH-234	1.41E+17S	1.00	1.076E+00	1.076E+00	0.296E+00	27.51	
U-235	2.22E+16S	1.00	5.331E-02	5.331E-02	7.204E-02	135.13	
NP-236	4.89E+12S	1.00	5.100E-03	5.100E-03	21.93E-03	429.90	
NP-237	6.75E+13S	1.00	3.885E-01	3.885E-01	0.928E-01	23.90	
AM-243	2.33E+11S	1.00	1.068E-01	1.068E-01	0.252E-01	23.60	
CM-243	8.99E+08S	1.00	2.240E-02	2.248E-02	3.381E-02	150.38	
AM-246	2.18E+11S	1.00	5.659E-02	5.659E-02	6.103E-02	107.84	
			---	---			
	Total Activity :		1.116E+01	1.117E+01			

Grand Total Activity : 1.116E+01 1.117E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198686005 Acquisition date : 9-DEC-2007 15:02:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.21	19	1151	0.94	92.49	90	7	3.11E-04	****	6.69E-01	
0	66.17	98	1238	1.40	132.36	130	7	1.63E-03	****	3.14E+00	
0	79.89	120	994	0.63	159.79	158	6	2.00E-03	84.9	4.65E+00	
5	83.72	320	1154	1.53	167.44	164	31	5.33E-03	44.3	4.97E+00	
5	89.44	416	1071	1.16	178.87	164	31	6.94E-03	28.3	5.35E+00	
0	158.35	64	974	0.58	316.56	313	7	1.06E-03	****	5.66E+00	
0	185.49	375	1493	1.14	370.78	366	10	6.25E-03	52.0	5.20E+00	
0	204.87	75	800	1.43	409.52	407	6	1.25E-03	****	4.88E+00	
0	215.19	84	773	0.58	430.13	427	7	1.39E-03	****	4.72E+00	
0	255.64	62	405	0.95	510.96	509	5	1.04E-03	****	4.18E+00	
0	327.71	100	714	1.29	654.99	651	9	1.67E-03	98.3	3.47E+00	
0	435.60	28	360	1.37	870.61	866	8	4.61E-04	****	2.79E+00	
0	496.60	38	235	1.43	992.52	990	7	6.38E-04	****	2.51E+00	
0	665.01	45	189	1.09	1329.12	1326	7	7.50E-04	****	1.97E+00	
0	802.69	5	248	2.08	1604.36	1597	12	9.02E-05	****	1.66E+00	
0	875.88	31	114	0.68	1750.68	1747	8	5.24E-04	****	1.53E+00	
0	1058.34	33	118	1.32	2115.47	2111	10	5.53E-04	****	1.28E+00	
0	1140.23	35	87	2.24	2279.22	2275	10	5.89E-04	****	1.20E+00	
0	1260.97	32	76	0.91	2520.67	2515	10	5.35E-04	****	1.09E+00	
0	1303.95	7	114	0.85	2606.62	2601	11	1.23E-04	****	1.06E+00	
0	1539.28	44	51	4.86	3077.30	3071	13	7.33E-04	73.9	9.22E-01	
0	1560.83	40	48	0.90	3120.39	3111	16	6.75E-04	82.7	9.12E-01	
1	1592.41	36	59	2.35	3183.57	3168	25	5.94E-04	****	8.99E-01	
0	1631.07	19	56	1.73	3260.91	3253	13	3.14E-04	****	8.84E-01	
0	1720.52	11	44	0.64	3439.84	3429	12	1.89E-04	****	8.54E-01	
0	1724.11	9	29	0.59	3447.01	3440	9	1.46E-04	****	8.53E-01	
0	1771.95	28	45	0.78	3542.72	3535	16	4.64E-04	****	8.39E-01	
0	1780.58	45	52	5.96	3560.00	3550	23	7.42E-04	89.3	8.37E-01	
0	1975.51	17	26	4.46	3950.00	3941	14	2.76E-04	****	7.98E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198686005            *
* Acquisition date :  9-DEC-2007 15:02:15 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 16:40:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 16:40:05.51     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198686005           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0706E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 20-FEB-2007 10:58:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.197E+00	4.868E-01	8.314E-02	4.868E-01
CS-137	1.264E-01	2.181E-02	9.218E-03	2.181E-02
EU-155	2.480E-02	3.655E-02	2.441E-02	3.655E-02
TL-208	1.557E-01	2.883E-02	8.674E-03	2.883E-02
BI-212	4.561E-01	1.552E-01	6.824E-02	1.552E-01
PB-212	5.515E-01	5.013E-02	1.475E-02	5.013E-02
BI-214	3.079E-01	5.781E-02	1.780E-02	5.781E-02
PB-214	4.046E-01	5.633E-02	1.866E-02	5.633E-02
RA-223	2.530E-01	1.068E-01	4.682E-02	1.068E-01
AC-228	4.809E-01	1.095E-01	3.314E-02	1.095E-01
PA-234M	2.498E+00	2.523E+00	1.112E+00	2.523E+00
TH-234	1.076E+00	2.903E-01	1.007E-01	2.903E-01
U-235	5.331E-02	7.060E-02	4.861E-02	7.060E-02
NP-236	5.100E-03	2.149E-02	1.365E-02	2.149E-02
NP-237	3.885E-01	9.098E-02	4.667E-02	9.098E-02
AM-243	1.068E-01	2.469E-02	1.197E-02	2.469E-02
CM-243	2.248E-02	3.313E-02	2.215E-02	3.313E-02
AM-246	5.659E-02	5.981E-02	3.391E-02	5.981E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.490E-02	1.840E-02	1.061E-02	1.840E-02	NOT IDENT.
RH-101	1.817E-02	1.005E-02	9.021E-03	1.005E-02	NOT IDENT.
SB-125	-1.781E-02	2.985E-02	2.416E-02	2.985E-02	NOT IDENT.
PO-209	4.569E-01	2.173E+00	1.813E+00	2.173E+00	NOT IDENT.
BI-211	-3.176E-01	3.263E-01	2.568E-01	3.263E-01	NOT IDENT.
PA-233	8.573E-03	2.039E-02	1.746E-02	2.039E-02	NOT IDENT.
NP-239	-1.462E-02	6.695E-02	5.756E-02	6.695E-02	NOT IDENT.
AM-241	1.400E-02	4.737E-02	3.709E-02	4.737E-02	NOT IDENT.
CF-249	1.324E-02	1.266E-02	1.089E-02	1.266E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	895.1887
63.29	950.2590
74.66	1169.9738
74.81	1170.3688
74.81	1170.3688
77.11	1176.3558
77.11	1176.3558
86.48	913.6136
87.30	915.1317
87.30	915.1317
92.58	924.7473
98.44	915.3710
103.76	924.3145
105.31	932.5131
129.07	977.3465
143.76	1013.0722
198.00	897.2191
209.25	882.1360
228.18	832.8926
238.63	815.2145
242.00	817.9366
269.46	689.7823
270.25	690.2856
277.36	682.3718
295.22	623.7257
300.09	623.1938
312.17	583.7471
338.32	640.9525
351.93	553.7262
387.59	437.8970
409.46	462.2237
427.87	435.9663
463.00	364.2495
510.77	349.9297
583.19	272.3304
609.31	317.1391
661.66	250.0088
727.33	224.6225
763.13	195.8236
768.36	218.0420
785.37	219.8609
794.95	220.3536
806.17	207.6969
831.80	235.1806
860.56	168.8977
896.60	163.7150
911.20	167.7439
934.06	156.9469
964.77	179.4916
968.97	184.0740
1001.03	167.7832
1078.86	148.5773
1120.29	159.8885
1155.19	138.5866
1173.23	138.3457
1238.11	131.0775
1280.96	120.4316
1332.51	106.2933
1377.67	98.3814
1401.50	90.7998
1407.98	107.2943
1460.80	76.5805
1509.23	88.9636
1588.20	82.0318
1620.50	65.4479
1729.60	59.2822
1764.49	63.0210

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198686005

Total Uranium Activity	2.4667E-02	ug/g
Total Uranium Counting Unc.	3.2668E-02	ug/g
Total Uranium Tpu	3.2668E-08	ug/g
Total Uranium Mda	2.2492E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:24:34.08

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689001.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 10-DEC-2007 09:18:21
Sample ID        : G198689001           Sample quantity  : 1.22310E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:41.21  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.28	146	521	1.87	91.66	87	10	6.77E-03	30.3	
2	0	63.71	152	458	1.78	126.47	123	7	7.04E-03	24.7	
3	2	74.78	757	791	1.69	148.59	143	22	3.50E-02	8.3	4.42E+00
4	2	77.21*	1261	655	1.56	153.44	143	22	5.84E-02	5.0	
5	3	84.31	184	503	1.67	167.61	164	28	8.51E-03	22.2	5.36E-01
6	3	87.32	420	549	1.57	173.63	164	28	1.94E-02	11.3	
7	3	90.04	250	530	1.42	179.05	164	28	1.16E-02	18.6	
8	3	93.18*	440	624	1.90	185.32	164	28	2.04E-02	12.9	
9	0	105.04	93	536	1.18	209.01	205	10	4.30E-03	47.7	
10	0	109.67	42	380	1.67	218.26	215	7	1.97E-03	77.6	
11	0	144.31	139	504	1.37	287.46	283	10	6.43E-03	31.4	
12	0	185.93*	287	497	1.47	370.59	366	11	1.33E-02	17.6	
13	0	210.05	53	491	1.25	418.76	413	10	2.47E-03	79.5	
14	0	220.01	36	346	2.39	438.67	437	9	1.67E-03	94.3	
15	3	238.53*	1368	287	1.48	475.65	463	27	6.33E-02	3.8	1.77E+00
16	3	241.42	343	364	2.10	481.43	463	27	1.59E-02	16.7	
17	0	270.17	119	292	1.67	538.87	535	10	5.52E-03	28.3	
18	0	277.94	124	330	1.32	554.40	548	13	5.74E-03	31.6	
19	0	295.20*	377	311	1.30	588.88	584	12	1.75E-02	11.6	
20	0	300.55	43	311	1.07	599.56	595	11	2.00E-03	80.7	
21	0	310.62	59	249	2.26	619.68	615	11	2.74E-03	53.2	
22	0	328.23	77	185	1.05	654.86	651	9	3.59E-03	33.7	
23	0	338.07	198	236	1.30	674.53	670	9	9.15E-03	15.7	
24	0	345.82	22	196	1.43	690.02	684	9	1.03E-03	115.8	
25	0	351.88*	626	244	1.49	702.13	698	12	2.90E-02	6.8	
26	0	378.21	20	152	1.12	754.73	749	8	9.24E-04	110.3	
27	0	452.85	43	93	1.49	903.89	901	8	2.01E-03	41.3	
28	0	462.81	45	168	1.17	923.79	920	9	2.06E-03	54.7	
29	0	510.92*	156	227	1.94	1019.96	1011	20	7.22E-03	30.9	
30	0	566.25	76	110	1.98	1130.55	1126	10	3.50E-03	28.4	
31	0	583.01*	283	220	1.93	1164.04	1156	19	1.31E-02	14.4	
32	0	595.38	18	79	1.40	1188.77	1181	9	8.47E-04	90.5	
33	0	609.11*	382	146	1.54	1216.22	1211	12	1.77E-02	8.8	
34	0	661.38	400	113	1.39	1320.72	1313	14	1.85E-02	7.5	
35	0	727.63	44	106	2.30	1453.16	1447	14	2.03E-03	52.0	
36	0	772.70*	5	76	1.36	1543.28	1535	10	2.26E-04	418.4	
37	0	794.95	57	97	0.69	1587.77	1579	15	2.63E-03	40.2	
38	0	860.29	51	57	1.66	1718.44	1714	10	2.35E-03	31.2	

Sample ID : G198689001 Acquisition date : 10-DEC-2007 09:18:21

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	910.82	229	63	1.70	1819.52	1812	14	1.06E-02	9.9	
40	0	934.10	43	44	2.57	1866.07	1860	12	1.99E-03	34.7	
41	2	964.47	35	77	2.40	1926.83	1919	24	1.60E-03	55.4	2.56E+00
42	2	968.94	117	51	1.82	1935.75	1919	24	5.41E-03	15.5	
43	0	1070.61	58	96	13.39	2139.15	2115	31	2.67E-03	53.1	
44	3	1119.89*	84	28	2.72	2237.75	2228	23	3.89E-03	22.5	1.10E+00
45	3	1123.51	36	19	2.05	2245.00	2228	23	1.68E-03	33.6	
46	0	1171.45	35	37	4.68	2340.92	2333	14	1.61E-03	41.3	
47	0	1205.69	16	72	3.49	2409.45	2399	16	7.42E-04	121.0	
48	0	1373.91	15	27	3.32	2746.13	2737	12	6.96E-04	73.8	
49	0	1377.41*	29	9	2.14	2753.13	2749	10	1.35E-03	33.0	
50	0	1401.20	25	8	1.32	2800.76	2795	11	1.13E-03	30.2	
51	0	1460.35*	390	52	2.20	2919.18	2911	20	1.81E-02	7.1	
52	6	1558.37	9	6	1.98	3115.43	3113	18	3.94E-04	42.3	6.64E+00
53	6	1561.14*	32	15	2.42	3120.99	3113	18	1.49E-03	32.6	
54	4	1588.25	26	20	2.42	3175.27	3172	19	1.20E-03	29.0	3.01E+00
55	4	1591.61	28	38	2.21	3182.00	3172	19	1.32E-03	49.0	
56	0	1763.87	54	21	1.93	3527.02	3520	14	2.50E-03	22.6	
57	0	1826.57	8	10	4.84	3652.61	3644	13	3.67E-04	89.0	
58	0	1847.31	12	12	0.60	3694.18	3685	13	5.57E-04	67.6	
59	0	1851.49	10	9	1.33	3702.54	3698	10	4.82E-04	63.7	
60	0	1965.36	17	23	0.67	3930.71	3918	19	8.08E-04	70.8	
61	0	2021.80	5	17	0.61	4043.80	4033	13	2.53E-04	158.6	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689001       *
* Acquisition date : 10-DEC-2007 09:18:21 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:41.21     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689001           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.2231E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.037E+00	7.512E-01	2.924E-01	0.000E+00
CS-137	2.941E-01	4.931E-02	3.647E-02	0.000E+00
EU-155	5.617E-02	5.274E-02	6.418E-02	0.000E+00
TL-208	1.826E-01	5.305E-02	3.437E-02	0.000E+00
BI-212	2.553E-01	2.609E-01	2.629E-01	0.000E+00
PB-212	6.862E-01	6.524E-02	4.503E-02	0.000E+00
BI-214	4.735E-01	8.913E-02	6.868E-02	0.000E+00
PB-214	5.317E-01	7.625E-02	5.939E-02	0.000E+00
RA-223	2.126E-01	1.184E-01	1.387E-01	0.000E+00
AC-228	7.686E-01	1.574E-01	1.235E-01	0.000E+00
PA-233	4.300E-02	4.488E-02	5.192E-02	0.000E+00
TH-234	9.874E-01	2.608E-01	2.551E-01	0.000E+00
U-235	1.856E-01	1.151E-01	1.441E-01	0.000E+00
NP-237	4.056E-01	9.449E-02	1.097E-01	0.000E+00
AM-243	1.313E-01	2.319E-02	2.154E-02	0.000E+00
CM-243	5.091E-02	4.780E-02	6.104E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	0.000E+00	3.199E-02	3.899E-02	0.000E+00	FAIL ABUN
RH-101	5.746E-03	1.732E-02	2.743E-02	0.000E+00	NOT IDENT.
SB-125	-3.088E-02	5.063E-02	8.275E-02	0.000E+00	NOT IDENT.
PO-209	-2.130E+00	4.159E+00	6.748E+00	0.000E+00	NOT IDENT.
BI-211	-2.128E-01	5.733E-01	9.483E-01	0.000E+00	NOT IDENT.
PA-234M	1.482E+00	2.577E+00	4.543E+00	0.000E+00	NOT IDENT.
NP-236	2.284E-02	2.367E-02	3.662E-02	0.000E+00	NOT IDENT.
NP-239	3.518E-03	1.235E-01	1.873E-01	0.000E+00	NOT IDENT.
AM-241	0.000E+00	2.410E-02	3.890E-02	0.000E+00	NOT IDENT.
AM-246	-3.112E-02	8.116E-02	1.243E-01	0.000E+00	NOT IDENT.
CF-249	-1.411E-02	2.109E-02	3.463E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:24:36.20

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689001.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 10-DEC-2007 09:18:21
Sample ID        : G198689001           Sample quantity  : 1.22310E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:41.21  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	390	10.66*	7.436E-01	5.037E+00	5.037E+00	15.22
CS-137	661.66	400	85.10*	1.642E+00	2.931E-01	2.941E-01	17.11
EU-155	105.31	93	21.20*	8.146E+00	5.504E-02	5.617E-02	95.80
TL-208	277.36	124	6.31	4.071E+00	4.937E-01	4.937E-01	63.34
	510.77	156	22.60	2.159E+00	3.268E-01	3.268E-01	62.22
	583.19	283	84.50*	1.876E+00	1.826E-01	1.826E-01	29.65
	763.13	------	1.81	1.415E+00	------	Line Not Found	------
	860.56	51	12.42	1.252E+00	3.346E-01	3.346E-01	62.82
BI-212	727.33	44	11.80*	1.486E+00	2.553E-01	2.553E-01	104.28
	785.37	------	1.10	1.374E+00	------	Line Not Found	------
	1620.50	------	1.49	6.722E-01	------	Line Not Found	------
PB-212	74.81	757	10.40	8.644E+00	8.612E-01	8.612E-01	18.02
	77.11	1261	17.50	8.639E+00	8.534E-01	8.534E-01	12.21
	87.30	420	7.81	8.536E+00	6.440E-01	6.440E-01	23.77
	238.63	1368	43.30*	4.710E+00	6.862E-01	6.862E-01	9.70
	300.09	43	3.28	3.767E+00	3.576E-01	3.576E-01	161.57
BI-214	609.31	382	46.10*	1.791E+00	4.735E-01	4.735E-01	19.21
	768.36	------	4.94	1.405E+00	------	Line Not Found	------
	806.17	------	1.22	1.337E+00	------	Line Not Found	------
	934.06	43	3.03	1.152E+00	1.257E+00	1.257E+00	69.82
	1120.29	84	15.10	9.623E-01	5.920E-01	5.921E-01	45.46
	1155.19	------	1.63	9.335E-01	------	Line Not Found	------
	1238.11	------	5.79	8.725E-01	------	Line Not Found	------
	1280.96	------	1.43	8.442E-01	------	Line Not Found	------
	1377.67	29	4.00	7.869E-01	9.488E-01	9.489E-01	66.30
	1401.50	25	1.27	7.740E-01	2.550E+00	2.550E+00	60.61
	1407.98	------	2.15	7.704E-01	------	Line Not Found	------
	1509.23	------	2.11	7.203E-01	------	Line Not Found	------
	1729.60	------	2.92	6.308E-01	------	Line Not Found	------
	1764.49	54	15.40	6.187E-01	5.798E-01	5.798E-01	45.49
PB-214	74.81	757	6.44	8.644E+00	1.391E+00	1.391E+00	18.02
	77.11	1261	10.80	8.639E+00	1.383E+00	1.383E+00	12.21

Sample ID : G198689001 Acquisition date : 10-DEC-2007 09:18:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	420	4.84	8.536E+00	1.039E+00	1.039E+00	23.77
	242.00	343	7.43	4.658E+00	1.014E+00	1.015E+00	33.94
	295.22	377	19.30	3.835E+00	5.215E-01	5.215E-01	23.84
	351.93	626	37.60*	3.206E+00	5.317E-01	5.317E-01	14.63
RA-223	269.46	119	13.70*	4.186E+00	2.126E-01	2.126E-01	56.83
AC-228	129.07	------	2.42	7.445E+00	------	Line Not Found	------
	209.25	53	3.89	5.276E+00	2.655E-01	2.655E-01	159.17
	270.25	119	3.46	4.186E+00	8.417E-01	8.417E-01	56.83
	338.32	198	11.27	3.341E+00	5.369E-01	5.369E-01	31.88
	409.46	------	1.92	2.733E+00	------	Line Not Found	------
	463.00	45	4.40	2.399E+00	4.315E-01	4.315E-01	109.50
	794.95	57	4.25	1.357E+00	1.006E+00	1.006E+00	80.76
	911.20	229	25.80*	1.181E+00	7.686E-01	7.686E-01	20.90
	964.77	35	4.99	1.116E+00	6.369E-01	6.369E-01	111.06
	968.97	117	15.80	1.110E+00	6.818E-01	6.818E-01	31.69
	1588.20	26	3.22	6.855E-01	1.205E+00	1.205E+00	58.35
PA-233	312.17	59	38.60*	3.644E+00	4.300E-02	4.300E-02	106.48
TH-234	63.29	152	4.80	8.524E+00	3.802E-01	3.802E-01	49.93
	92.58	440	5.41*	8.430E+00	9.874E-01	9.874E-01	26.95
U-235	143.76	139	10.96*	6.983E+00	1.856E-01	1.856E-01	63.27
NP-237	86.48	420	12.40*	8.536E+00	4.056E-01	4.056E-01	23.77
AM-243	74.66	757	68.20*	8.644E+00	1.313E-01	1.313E-01	18.02
CM-243	103.76	93	23.00*	8.146E+00	5.073E-02	5.091E-02	95.80

Flag: "*" = Keyline

Sample ID : G198689001 Acquisition date : 10-DEC-2007 09:18:21

Total number of lines in spectrum 61
Number of unidentified lines 25
Number of lines tentatively identified by NID 36 59.02%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	5.037E+00	5.037E+00	0.767E+00	15.22	
CS-137	9.47E+08S	1.00	2.931E-01	2.941E-01	0.503E-01	17.11	
EU-155	1.57E+08S	1.02	5.504E-02	5.617E-02	5.381E-02	95.80	
TL-208	4.43E+17S	1.00	1.826E-01	1.826E-01	0.541E-01	29.65	
BI-212	4.43E+17S	1.00	2.553E-01	2.553E-01	2.662E-01	104.28	
PB-212	4.43E+17S	1.00	6.862E-01	6.862E-01	0.666E-01	9.70	
BI-214	5.05E+10S	1.00	4.735E-01	4.735E-01	0.910E-01	19.21	
PB-214	5.05E+10S	1.00	5.317E-01	5.317E-01	0.778E-01	14.63	
RA-223	1.04E+12S	1.00	2.126E-01	2.126E-01	1.208E-01	56.83	
AC-228	4.43E+17S	1.00	7.686E-01	7.686E-01	1.606E-01	20.90	
PA-233	6.75E+13S	1.00	4.300E-02	4.300E-02	4.579E-02	106.48	
TH-234	1.41E+17S	1.00	9.874E-01	9.874E-01	2.661E-01	26.95	
U-235	2.22E+16S	1.00	1.856E-01	1.856E-01	1.174E-01	63.27	
NP-237	6.75E+13S	1.00	4.056E-01	4.056E-01	0.964E-01	23.77	
AM-243	2.33E+11S	1.00	1.313E-01	1.313E-01	0.237E-01	18.02	
CM-243	8.99E+08S	1.00	5.073E-02	5.091E-02	4.877E-02	95.80	
			---	---			
	Total Activity :		1.030E+01	1.030E+01			

Grand Total Activity : 1.030E+01 1.030E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689001 Acquisition date : 10-DEC-2007 09:18:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.28	146	521	1.87	91.66	87	10	6.77E-03	60.5	7.63E+00	
3	84.31	184	503	1.67	167.61	164	28	8.51E-03	44.5	8.58E+00	
3	90.04	250	530	1.42	179.05	164	28	1.16E-02	37.2	8.49E+00	
0	109.67	42	380	1.67	218.26	215	7	1.97E-03	****	8.02E+00	
0	185.93	287	497	1.47	370.59	366	11	1.33E-02	35.2	5.84E+00	
0	220.01	36	346	2.39	438.67	437	9	1.67E-03	****	5.07E+00	
0	328.23	77	185	1.05	654.86	651	9	3.59E-03	67.4	3.44E+00	
0	345.82	22	196	1.43	690.02	684	9	1.03E-03	****	3.26E+00	
0	378.21	20	152	1.12	754.73	749	8	9.24E-04	****	2.97E+00	
0	452.85	43	93	1.49	903.89	901	8	2.01E-03	82.5	2.46E+00	
0	566.25	76	110	1.98	1130.55	1126	10	3.50E-03	56.8	1.93E+00	
0	595.38	18	79	1.40	1188.77	1181	9	8.47E-04	****	1.83E+00	
0	772.70	5	76	1.36	1543.28	1535	10	2.26E-04	****	1.40E+00	
0	1070.61	58	96	13.39	2139.15	2115	31	2.67E-03	****	1.01E+00	
3	1123.51	36	19	2.05	2245.00	2228	23	1.68E-03	67.1	9.59E-01	
0	1171.45	35	37	4.68	2340.92	2333	14	1.61E-03	82.6	9.21E-01	T
0	1205.69	16	72	3.49	2409.45	2399	16	7.42E-04	****	8.95E-01	
0	1373.91	15	27	3.32	2746.13	2737	12	6.96E-04	****	7.89E-01	
6	1558.37	9	6	1.98	3115.43	3113	18	3.94E-04	84.7	6.98E-01	
6	1561.14	32	15	2.42	3120.99	3113	18	1.49E-03	65.1	6.97E-01	
4	1591.61	28	38	2.21	3182.00	3172	19	1.32E-03	98.0	6.84E-01	
0	1826.57	8	10	4.84	3652.61	3644	13	3.67E-04	****	5.98E-01	
0	1847.31	12	12	0.60	3694.18	3685	13	5.57E-04	****	5.91E-01	
0	1851.49	10	9	1.33	3702.54	3698	10	4.82E-04	****	5.90E-01	
0	1965.36	17	23	0.67	3930.71	3918	19	8.08E-04	****	5.55E-01	
0	2021.80	5	17	0.61	4043.80	4033	13	2.53E-04	****	5.40E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689001            *
* Acquisition date : 10-DEC-2007 09:18:21 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:41.21     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689001           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.2231E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.037E+00	7.512E-01	1.463E-01	7.512E-01
CS-137	2.941E-01	4.931E-02	1.825E-02	4.931E-02
EU-155	5.617E-02	5.274E-02	3.211E-02	5.274E-02
TL-208	1.826E-01	5.305E-02	1.720E-02	5.305E-02
BI-212	2.553E-01	2.609E-01	1.315E-01	2.609E-01
PB-212	6.862E-01	6.524E-02	2.253E-02	6.524E-02
BI-214	4.735E-01	8.913E-02	3.436E-02	8.913E-02
PB-214	5.317E-01	7.625E-02	2.972E-02	7.625E-02
RA-223	2.126E-01	1.184E-01	6.941E-02	1.184E-01
AC-228	7.686E-01	1.574E-01	6.179E-02	1.574E-01
PA-233	4.300E-02	4.488E-02	2.598E-02	4.488E-02
TH-234	9.874E-01	2.608E-01	1.276E-01	2.608E-01
U-235	1.856E-01	1.151E-01	7.209E-02	1.151E-01
NP-237	4.056E-01	9.449E-02	5.486E-02	9.449E-02
AM-243	1.313E-01	2.319E-02	1.078E-02	2.319E-02
CM-243	5.091E-02	4.780E-02	3.054E-02	4.780E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	3.944E-02	3.199E-02	1.951E-02	3.199E-02	FAIL ABUN
RH-101	5.746E-03	1.732E-02	1.372E-02	1.732E-02	NOT IDENT.
SB-125	-3.088E-02	5.063E-02	4.140E-02	5.063E-02	NOT IDENT.
PO-209	-2.130E+00	4.159E+00	3.376E+00	4.159E+00	NOT IDENT.
BI-211	-2.128E-01	5.733E-01	4.744E-01	5.733E-01	NOT IDENT.
PA-234M	1.482E+00	2.577E+00	2.273E+00	2.577E+00	NOT IDENT.
NP-236	2.284E-02	2.367E-02	1.832E-02	2.367E-02	NOT IDENT.
NP-239	3.518E-03	1.235E-01	9.372E-02	1.235E-01	NOT IDENT.
AM-241	3.906E-02	2.410E-02	1.946E-02	2.410E-02	NOT IDENT.
AM-246	-3.112E-02	8.116E-02	6.216E-02	8.116E-02	NOT IDENT.
CF-249	-1.411E-02	2.109E-02	1.732E-02	2.109E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	447.7358
63.29	592.1768
74.66	663.2661
74.81	663.3725
74.81	663.3725
77.11	665.0015
77.11	665.0015
86.48	557.8060
87.30	558.2579
87.30	558.2579
92.58	561.1133
98.44	483.5911
103.76	542.7809
105.31	488.3097
129.07	513.6245
143.76	510.6757
198.00	449.0780
209.25	445.5732
228.18	411.2692
238.63	356.6775
242.00	357.3166
269.46	270.0280
270.25	296.1053
277.36	299.5477
295.22	237.8043
300.09	291.8481
312.17	224.9884
338.32	237.4834
351.93	218.9500
387.59	214.0548
409.46	190.4104
427.87	187.6197
463.00	172.3466
510.77	116.0620
583.19	128.4334
609.31	139.2125
661.66	111.9553
727.33	92.6655
763.13	106.5440
768.36	115.1150
785.37	80.9168
794.95	83.7712
806.17	83.0440
831.80	80.6692
860.56	83.1428
896.60	75.0496
911.20	62.0220
934.06	61.9105
964.77	70.2330
968.97	70.2951
1001.03	60.7990
1078.86	60.7422
1120.29	54.0869
1155.19	58.5516
1173.23	61.8384
1238.11	62.5684
1280.96	39.9250
1332.51	47.6953
1377.67	53.0884
1401.50	36.4487
1407.98	35.4143
1460.80	23.8083
1509.23	35.5150
1588.20	24.8273
1620.50	28.5080
1729.60	33.7793
1764.49	23.7592

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689001

Total Uranium Activity	8.5892E-02	ug/g
Total Uranium Counting Unc.	5.3255E-02	ug/g
Total Uranium Tpu	5.3255E-08	ug/g
Total Uranium Mda	3.3354E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:25:24.28

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689002.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 10-DEC-2007 09:18:47
Sample ID        : G198689002           Sample quantity  : 9.90800E+01 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:13.32  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.62*	43	470	0.86	93.18	89	9	1.98E-03	102.5	
2	0	63.09*	39	507	1.01	126.13	123	8	1.82E-03	115.5	
3	2	73.19	85	259	0.97	146.34	144	21	3.95E-03	28.8	1.34E+00
4	2	74.85	332	392	0.98	149.66	144	21	1.54E-02	11.1	
5	2	77.15*	500	398	0.99	154.26	144	21	2.31E-02	8.6	
6	3	84.30*	66	454	1.11	168.55	164	27	3.04E-03	63.2	1.57E+00
7	3	87.18	209	389	1.05	174.31	164	27	9.66E-03	16.4	
8	3	89.98	129	324	0.80	179.93	164	27	5.97E-03	22.4	
9	3	92.72*	245	452	1.13	185.39	164	27	1.14E-02	19.2	
10	0	104.97	60	466	1.44	209.90	207	9	2.76E-03	66.3	
11	0	173.27	69	264	1.31	346.52	344	6	3.19E-03	39.3	
12	0	185.87*	248	457	0.98	371.72	367	10	1.15E-02	19.9	
13	0	209.05	96	354	1.30	418.08	415	7	4.42E-03	34.2	
14	5	238.61*	1194	254	1.09	477.21	470	20	5.53E-02	4.0	1.49E+00
15	5	241.65	343	344	1.68	483.30	470	20	1.59E-02	13.2	
16	0	270.03	86	295	1.88	540.08	537	8	4.00E-03	36.0	
17	0	277.47	60	416	3.28	554.95	551	13	2.77E-03	71.7	
18	0	284.57	22	294	1.58	569.15	565	9	1.03E-03	140.4	
19	0	295.21*	274	259	1.05	590.44	586	9	1.27E-02	14.3	
20	0	300.18	100	281	1.42	600.38	596	10	4.61E-03	33.0	
21	0	320.48	19	199	0.76	641.00	639	7	8.99E-04	122.4	
22	0	327.89	33	247	0.81	655.82	652	8	1.54E-03	83.3	
23	0	338.37	220	253	1.13	676.78	672	10	1.02E-02	15.1	
24	0	351.84*	526	304	1.11	703.72	697	12	2.43E-02	8.4	
25	0	397.58	58	265	3.96	795.24	787	13	2.67E-03	60.6	
26	0	401.37	44	119	1.60	802.82	800	8	2.04E-03	45.3	
27	0	462.82	109	247	1.42	925.74	921	13	5.05E-03	31.1	
28	0	511.02*	145	258	2.24	1022.17	1015	16	6.69E-03	35.3	
29	0	556.67	41	113	2.38	1113.51	1110	9	1.87E-03	49.8	
30	0	569.41*	19	235	1.34	1138.99	1131	16	8.87E-04	254.5	
31	0	583.11*	321	181	1.47	1166.38	1161	13	1.49E-02	11.6	
32	0	608.87*	337	207	1.48	1217.92	1211	14	1.56E-02	11.5	
33	0	652.32	27	133	4.39	1304.86	1296	13	1.27E-03	89.0	
34	0	661.66*	199	159	1.53	1323.55	1319	12	9.23E-03	15.4	
35	3	726.81	53	81	1.76	1453.89	1440	18	2.48E-03	30.1	1.04E+00
36	1	762.98	28	109	1.82	1526.26	1521	20	1.30E-03	74.6	1.86E+00
37	1	767.68	46	117	1.82	1535.67	1521	20	2.14E-03	46.6	
38	0	775.97	35	181	2.46	1552.24	1541	20	1.64E-03	95.4	

Sample ID : G198689002 Acquisition date : 10-DEC-2007 09:18:47

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	787.63	28	123	4.28	1575.58	1568	14	1.27E-03	90.3	
40	1	794.22	50	56	1.85	1588.76	1585	16	2.31E-03	27.1	2.41E+00
41	1	797.34	28	79	1.85	1595.00	1585	16	1.30E-03	67.8	
42	0	824.66	45	74	4.36	1649.67	1642	13	2.09E-03	42.1	
43	0	838.75	63	217	6.45	1677.87	1666	23	2.90E-03	62.6	
44	0	847.89	53	72	1.22	1696.15	1691	12	2.45E-03	34.8	
45	0	861.92	36	165	1.99	1724.23	1715	17	1.65E-03	84.4	
46	0	910.99*	208	68	1.78	1822.41	1816	14	9.65E-03	12.1	
47	0	949.94	59	37	4.72	1900.34	1895	13	2.73E-03	25.9	
48	4	964.26	52	81	2.64	1929.00	1920	23	2.42E-03	41.5	8.79E-01
49	4	968.65	103	48	1.87	1937.78	1920	23	4.77E-03	17.1	
50	0	1018.16	42	29	1.85	2036.84	2032	12	1.95E-03	30.0	
51	0	1041.21	24	82	6.71	2082.97	2073	18	1.13E-03	88.9	
52	9	1102.30	31	12	2.01	2205.22	2202	19	1.44E-03	25.6	3.01E+00
53	9	1105.09	36	43	2.30	2210.80	2202	19	1.64E-03	43.7	
54	0	1120.10	128	39	1.90	2240.83	2235	14	5.91E-03	13.9	
55	0	1138.75	29	69	7.62	2278.15	2266	18	1.35E-03	70.6	
56	0	1237.65*	46	29	2.26	2476.07	2472	9	2.11E-03	29.2	
57	0	1269.61	14	29	0.84	2540.02	2534	9	6.55E-04	75.4	
58	0	1290.17	27	55	3.32	2581.16	2568	17	1.25E-03	65.9	
59	0	1329.50	69	78	9.36	2659.87	2640	39	3.19E-03	43.7	
60	0	1407.93	40	21	1.69	2816.83	2809	15	1.86E-03	30.1	
61	0	1417.29	16	14	3.39	2835.56	2830	10	7.22E-04	52.7	
62	0	1460.06*	551	20	1.99	2921.15	2914	18	2.55E-02	4.8	
63	0	1523.45	23	5	2.37	3048.03	3044	9	1.05E-03	29.1	
64	0	1586.70	41	7	3.06	3174.61	3168	14	1.90E-03	20.8	
65	0	1591.90	17	11	1.40	3185.03	3181	9	7.73E-04	43.7	
66	0	1729.37	26	14	2.99	3460.17	3454	11	1.22E-03	33.5	
67	0	1763.82	78	16	1.67	3529.13	3523	13	3.59E-03	15.6	
68	0	1769.89*	17	19	1.34	3541.27	3536	11	7.78E-04	88.3	
69	0	1797.26	9	12	0.79	3596.05	3589	10	4.27E-04	78.4	
70	0	1815.16	7	10	0.53	3631.88	3620	13	3.34E-04	96.8	
71	0	1889.84	7	9	3.79	3781.36	3773	12	3.18E-04	104.9	
72	0	1920.87	9	6	0.92	3843.47	3838	10	4.12E-04	65.3	
73	0	2008.64	12	8	0.96	4019.17	4010	16	5.56E-04	60.1	
74	0	2013.28	6	4	0.65	4028.45	4025	7	2.55E-04	70.7	
75	0	2016.63	8	3	1.48	4035.17	4031	9	3.91E-04	47.4	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689002       *
* Acquisition date : 10-DEC-2007 09:18:47 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:13.32     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689002           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 9.9080E+01 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.290E+00	7.396E-01	2.923E-01	0.000E+00
CS-137	1.413E-01	4.341E-02	3.860E-02	0.000E+00
EU-155	5.768E-02	7.510E-02	7.711E-02	0.000E+00
TL-208	2.049E-01	4.794E-02	3.550E-02	0.000E+00
BI-212	2.956E-01	1.756E-01	2.742E-01	0.000E+00
PB-212	7.303E-01	6.986E-02	4.662E-02	0.000E+00
BI-214	4.088E-01	9.469E-02	7.349E-02	0.000E+00
PB-214	5.003E-01	8.696E-02	6.540E-02	0.000E+00
RA-223	1.834E-01	1.297E-01	1.465E-01	0.000E+00
AC-228	6.457E-01	1.611E-01	1.232E-01	0.000E+00
TH-234	9.959E-01	3.820E-01	3.608E-01	0.000E+00
NP-237	3.957E-01	1.307E-01	1.688E-01	0.000E+00
AM-243	1.480E-01	3.392E-02	3.912E-02	0.000E+00
CM-243	5.227E-02	6.807E-02	6.849E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	2.272E-03		2.113E-02	3.572E-02	0.000E+00	NOT IDENT.
RH-101	6.566E-04		2.100E-02	2.831E-02	0.000E+00	NOT IDENT.
SB-125	1.185E-02		5.468E-02	9.196E-02	0.000E+00	NOT IDENT.
PO-209	1.608E+00		3.918E+00	6.655E+00	0.000E+00	NOT IDENT.
BI-211	6.585E-01		7.406E-01	1.097E+00	0.000E+00	NOT IDENT.
PA-233	1.927E-02		3.538E-02	6.175E-02	0.000E+00	NOT IDENT.
PA-234M	-1.824E+00		3.285E+00	4.403E+00	0.000E+00	NOT IDENT.
U-235	-1.004E-02		1.264E-01	1.669E-01	0.000E+00	NOT IDENT.
NP-236	5.512E-04		2.790E-02	4.835E-02	0.000E+00	NOT IDENT.
NP-239	-7.320E-02		1.187E-01	1.883E-01	0.000E+00	NOT IDENT.
AM-241	2.505E-03		8.732E-02	1.301E-01	0.000E+00	NOT IDENT.
AM-246	-1.804E-02		7.304E-02	1.207E-01	0.000E+00	NOT IDENT.
CF-249	2.282E-02		2.257E-02	3.964E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:25:25.30

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689002.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 10-DEC-2007 09:18:47
Sample ID        : G198689002           Sample quantity  : 9.90800E+01 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:13.32  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	551	10.66*	1.038E+00	6.290E+00	6.290E+00	12.00
CS-137	661.66	199	85.10*	2.102E+00	1.408E-01	1.413E-01	31.35
EU-155	105.31	60	21.20*	6.294E+00	5.651E-02	5.768E-02	132.87
TL-208	277.36	60	6.31	4.252E+00	2.814E-01	2.814E-01	143.58
	510.77	145	22.60	2.613E+00	3.091E-01	3.091E-01	70.89
	583.19	321	84.50*	2.341E+00	2.049E-01	2.049E-01	23.88
	763.13	28	1.81	1.855E+00	1.057E+00	1.057E+00	149.38
	860.56	36	12.42	1.661E+00	2.181E-01	2.181E-01	169.07
BI-212	727.33	53	11.80*	1.936E+00	2.956E-01	2.956E-01	60.61
	785.37	------	1.10	1.807E+00	------	Line Not Found	------
	1620.50	------	1.49	9.597E-01	------	Line Not Found	------
PB-212	74.81	332	10.40	4.153E+00	9.702E-01	9.702E-01	23.39
	77.11	500	17.50	4.417E+00	8.168E-01	8.168E-01	18.60
	87.30	209	7.81	5.368E+00	6.283E-01	6.283E-01	33.70
	238.63	1194	43.30*	4.767E+00	7.303E-01	7.303E-01	9.76
	300.09	100	3.28	4.000E+00	9.589E-01	9.589E-01	66.27
BI-214	609.31	337	46.10*	2.257E+00	4.088E-01	4.088E-01	23.63
	768.36	46	4.94	1.844E+00	6.398E-01	6.398E-01	93.39
	806.17	------	1.22	1.765E+00	------	Line Not Found	------
	934.06	------	3.03	1.544E+00	------	Line Not Found	------
	1120.29	128	15.10	1.306E+00	8.173E-01	8.174E-01	28.47
	1155.19	------	1.63	1.270E+00	------	Line Not Found	------
	1238.11	46	5.79	1.194E+00	8.342E-01	8.342E-01	58.67
	1280.96	------	1.43	1.158E+00	------	Line Not Found	------
	1377.67	------	4.00	1.088E+00	------	Line Not Found	------
	1401.50	------	1.27	1.073E+00	------	Line Not Found	------
	1407.98	40	2.15	1.069E+00	2.206E+00	2.206E+00	60.53
	1509.23	------	2.11	1.011E+00	------	Line Not Found	------
	1729.60	26	2.92	9.197E-01	1.239E+00	1.239E+00	67.26
	1764.49	78	15.40	9.089E-01	7.000E-01	7.001E-01	31.85
PB-214	74.81	332	6.44	4.153E+00	1.567E+00	1.567E+00	23.39
	77.11	500	10.80	4.417E+00	1.324E+00	1.324E+00	18.60

Sample ID : G198689002 Acquisition date : 10-DEC-2007 09:18:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	209	4.84	5.368E+00	1.014E+00	1.014E+00	33.70
	242.00	343	7.43	4.723E+00	1.234E+00	1.234E+00	27.02
	295.22	274	19.30	4.052E+00	4.425E-01	4.425E-01	29.19
	351.93	526	37.60*	3.530E+00	5.002E-01	5.003E-01	17.74
RA-223	269.46	86	13.70*	4.342E+00	1.834E-01	1.834E-01	72.16
AC-228	129.07	------	2.42	6.529E+00	------	Line Not Found	------
	209.25	96	3.89	5.240E+00	5.917E-01	5.917E-01	68.64
	270.25	86	3.46	4.342E+00	7.262E-01	7.262E-01	72.16
	338.32	220	11.27	3.641E+00	6.784E-01	6.784E-01	30.75
	409.46	------	1.92	3.128E+00	------	Line Not Found	------
	463.00	109	4.40	2.834E+00	1.105E+00	1.105E+00	62.32
	794.95	50	4.25	1.789E+00	8.297E-01	8.297E-01	54.60
	911.20	208	25.80*	1.579E+00	6.457E-01	6.457E-01	25.46
	964.77	52	4.99	1.499E+00	8.841E-01	8.841E-01	83.42
	968.97	103	15.80	1.493E+00	5.516E-01	5.516E-01	35.01
	1588.20	41	3.22	9.741E-01	1.651E+00	1.651E+00	42.10
TH-234	63.29	39	4.80	2.599E+00	3.969E-01	3.969E-01	231.12
	92.58	245	5.41*	5.752E+00	9.959E-01	9.959E-01	39.14
NP-237	86.48	209	12.40*	5.368E+00	3.957E-01	3.957E-01	33.70
AM-243	74.66	332	68.20*	4.153E+00	1.480E-01	1.480E-01	23.39
CM-243	103.76	60	23.00*	6.294E+00	5.209E-02	5.227E-02	132.87

Flag: "*" = Keyline

Sample ID : G198689002 Acquisition date : 10-DEC-2007 09:18:47

Total number of lines in spectrum 75
Number of unidentified lines 40
Number of lines tentatively identified by NID 35 46.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	6.290E+00	6.290E+00	0.755E+00	12.00	
CS-137	9.47E+08S	1.00	1.408E-01	1.413E-01	0.443E-01	31.35	
EU-155	1.57E+08S	1.02	5.651E-02	5.768E-02	7.663E-02	132.87	
TL-208	4.43E+17S	1.00	2.049E-01	2.049E-01	0.489E-01	23.88	
BI-212	4.43E+17S	1.00	2.956E-01	2.956E-01	1.792E-01	60.61	
PB-212	4.43E+17S	1.00	7.303E-01	7.303E-01	0.713E-01	9.76	
BI-214	5.05E+10S	1.00	4.088E-01	4.088E-01	0.966E-01	23.63	
PB-214	5.05E+10S	1.00	5.002E-01	5.003E-01	0.887E-01	17.74	
RA-223	1.04E+12S	1.00	1.834E-01	1.834E-01	1.323E-01	72.16	
AC-228	4.43E+17S	1.00	6.457E-01	6.457E-01	1.644E-01	25.46	
TH-234	1.41E+17S	1.00	9.959E-01	9.959E-01	3.898E-01	39.14	
NP-237	6.75E+13S	1.00	3.957E-01	3.957E-01	1.334E-01	33.70	
AM-243	2.33E+11S	1.00	1.480E-01	1.480E-01	0.346E-01	23.39	
CM-243	8.99E+08S	1.00	5.209E-02	5.227E-02	6.945E-02	132.87	
			---	---			
	Total Activity :		1.105E+01	1.105E+01			

Grand Total Activity : 1.105E+01 1.105E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689002 Acquisition date : 10-DEC-2007 09:18:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.62	43	470	0.86	93.18	89	9	1.98E-03	****	5.92E-01	
2	73.19	85	259	0.97	146.34	144	21	3.95E-03	57.6	3.95E+00	
3	84.30	66	454	1.11	168.55	164	27	3.04E-03	****	5.13E+00	
3	89.98	129	324	0.80	179.93	164	27	5.97E-03	44.8	5.57E+00	
0	173.27	69	264	1.31	346.52	344	6	3.19E-03	78.6	5.89E+00	
0	185.87	248	457	0.98	371.72	367	10	1.15E-02	39.9	5.66E+00	
0	284.57	22	294	1.58	569.15	565	9	1.03E-03	****	4.17E+00	
0	320.48	19	199	0.76	641.00	639	7	8.99E-04	****	3.80E+00	
0	327.89	33	247	0.81	655.82	652	8	1.54E-03	****	3.73E+00	
0	397.58	58	265	3.96	795.24	787	13	2.67E-03	****	3.20E+00	
0	401.37	44	119	1.60	802.82	800	8	2.04E-03	90.7	3.18E+00	
0	556.67	41	113	2.38	1113.51	1110	9	1.87E-03	99.5	2.43E+00	
0	569.41	19	235	1.34	1138.99	1131	16	8.87E-04	****	2.39E+00	
0	652.32	27	133	4.39	1304.86	1296	13	1.27E-03	****	2.13E+00	
0	775.97	35	181	2.46	1552.24	1541	20	1.64E-03	****	1.83E+00	
0	787.63	28	123	4.28	1575.58	1568	14	1.27E-03	****	1.80E+00	
1	797.34	28	79	1.85	1595.00	1585	16	1.30E-03	****	1.78E+00	
0	824.66	45	74	4.36	1649.67	1642	13	2.09E-03	84.1	1.73E+00	
0	838.75	63	217	6.45	1677.87	1666	23	2.90E-03	****	1.70E+00	
0	847.89	53	72	1.22	1696.15	1691	12	2.45E-03	69.7	1.69E+00	
0	949.94	59	37	4.72	1900.34	1895	13	2.73E-03	51.7	1.52E+00	
0	1018.16	42	29	1.85	2036.84	2032	12	1.95E-03	60.1	1.43E+00	
0	1041.21	24	82	6.71	2082.97	2073	18	1.13E-03	****	1.40E+00	
9	1102.30	31	12	2.01	2205.22	2202	19	1.44E-03	51.3	1.33E+00	
9	1105.09	36	43	2.30	2210.80	2202	19	1.64E-03	87.4	1.32E+00	
0	1138.75	29	69	7.62	2278.15	2266	18	1.35E-03	****	1.29E+00	
0	1269.61	14	29	0.84	2540.02	2534	9	6.55E-04	****	1.17E+00	
0	1290.17	27	55	3.32	2581.16	2568	17	1.25E-03	****	1.15E+00	
0	1329.50	69	78	9.36	2659.87	2640	39	3.19E-03	87.4	1.12E+00	
0	1417.29	16	14	3.39	2835.56	2830	10	7.22E-04	****	1.06E+00	
0	1523.45	23	5	2.37	3048.03	3044	9	1.05E-03	58.2	1.00E+00	
0	1591.90	17	11	1.40	3185.03	3181	9	7.73E-04	87.5	9.72E-01	
0	1769.89	17	19	1.34	3541.27	3536	11	7.78E-04	****	9.07E-01	
0	1797.26	9	12	0.79	3596.05	3589	10	4.27E-04	****	8.99E-01	
0	1815.16	7	10	0.53	3631.88	3620	13	3.34E-04	****	8.94E-01	
0	1889.84	7	9	3.79	3781.36	3773	12	3.18E-04	****	8.77E-01	
0	1920.87	9	6	0.92	3843.47	3838	10	4.12E-04	****	8.70E-01	
0	2008.64	12	8	0.96	4019.17	4010	16	5.56E-04	****	8.55E-01	
0	2013.28	6	4	0.65	4028.45	4025	7	2.55E-04	****	8.54E-01	
0	2016.63	8	3	1.48	4035.17	4031	9	3.91E-04	94.8	8.54E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689002            *
* Acquisition date : 10-DEC-2007 09:18:47 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:13.32     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689002           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 9.9080E+01 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.290E+00	7.396E-01	1.462E-01	7.396E-01
CS-137	1.413E-01	4.341E-02	1.931E-02	4.341E-02
EU-155	5.768E-02	7.510E-02	3.858E-02	7.510E-02
TL-208	2.049E-01	4.794E-02	1.776E-02	4.794E-02
BI-212	2.956E-01	1.756E-01	1.372E-01	1.756E-01
PB-212	7.303E-01	6.986E-02	2.332E-02	6.986E-02
BI-214	4.088E-01	9.469E-02	3.677E-02	9.469E-02
PB-214	5.003E-01	8.696E-02	3.272E-02	8.696E-02
RA-223	1.834E-01	1.297E-01	7.331E-02	1.297E-01
AC-228	6.457E-01	1.611E-01	6.165E-02	1.611E-01
TH-234	9.959E-01	3.820E-01	1.805E-01	3.820E-01
NP-237	3.957E-01	1.307E-01	8.443E-02	1.307E-01
AM-243	1.480E-01	3.392E-02	1.957E-02	3.392E-02
CM-243	5.227E-02	6.807E-02	3.426E-02	6.807E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.272E-03	2.113E-02	1.787E-02	2.113E-02	NOT IDENT.
RH-101	6.566E-04	2.100E-02	1.416E-02	2.100E-02	NOT IDENT.
SB-125	1.185E-02	5.468E-02	4.601E-02	5.468E-02	NOT IDENT.
PO-209	1.608E+00	3.918E+00	3.330E+00	3.918E+00	NOT IDENT.
BI-211	6.585E-01	7.406E-01	5.486E-01	7.406E-01	NOT IDENT.
PA-233	1.927E-02	3.538E-02	3.089E-02	3.538E-02	NOT IDENT.
PA-234M	-1.824E+00	3.285E+00	2.203E+00	3.285E+00	NOT IDENT.
U-235	-1.004E-02	1.264E-01	8.352E-02	1.264E-01	NOT IDENT.
NP-236	5.512E-04	2.790E-02	2.419E-02	2.790E-02	NOT IDENT.
NP-239	-7.320E-02	1.187E-01	9.418E-02	1.187E-01	NOT IDENT.
AM-241	2.505E-03	8.732E-02	6.507E-02	8.732E-02	NOT IDENT.
AM-246	-1.804E-02	7.304E-02	6.038E-02	7.304E-02	NOT IDENT.
CF-249	2.282E-02	2.257E-02	1.983E-02	2.257E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	279.1679
63.29	338.2579
74.66	353.9613
74.81	354.1306
74.81	354.1306
77.11	356.7060
77.11	356.7060
86.48	360.5389
87.30	361.3820
87.30	361.3820
92.58	366.7225
98.44	359.9269
103.76	281.5167
105.31	297.5671
129.07	349.4315
143.76	334.1211
198.00	321.3305
209.25	343.7890
228.18	322.2803
238.63	271.1889
242.00	272.3704
269.46	223.4037
270.25	272.7261
277.36	286.6346
295.22	211.1132
300.09	245.2113
312.17	227.8517
338.32	202.2455
351.93	220.9550
387.59	175.5450
409.46	193.7414
427.87	178.5206
463.00	187.5898
510.77	173.7602
583.19	145.0423
609.31	171.7933
661.66	139.3498
727.33	115.3577
763.13	125.7049
768.36	109.4414
785.37	108.6666
794.95	95.7260
806.17	110.4104
831.80	84.0420
860.56	97.5847
896.60	64.3166
911.20	74.2605
934.06	76.0355
964.77	71.5607
968.97	74.2141
1001.03	72.5807
1078.86	66.0323
1120.29	60.3058
1155.19	59.0938
1173.23	54.5804
1238.11	76.6491
1280.96	43.2390
1332.51	31.7682
1377.67	43.6150
1401.50	41.2254
1407.98	40.8535
1460.80	30.8278
1509.23	35.5419
1588.20	0.0000
1620.50	29.4517
1729.60	20.4851
1764.49	27.5371

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689002

Total Uranium Activity	-4.6444E-03	ug/g
Total Uranium Counting Unc.	5.8490E-02	ug/g
Total Uranium Tpu	5.8490E-08	ug/g
Total Uranium Mda	3.8646E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:25:59.52

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689003.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 10-DEC-2007 15:58:41
Sample ID        : G198689003           Sample quantity  : 1.04960E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:07.37  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.51*	119	928	1.59	92.98	89	8	2.77E-03	59.8	
2	0	63.34*	144	1316	1.44	126.62	122	9	3.33E-03	56.2	
3	1	74.96*	466	1276	1.33	149.85	142	24	1.08E-02	16.9	1.72E+00
4	1	77.15*	814	1060	1.14	154.23	142	24	1.88E-02	9.5	
5	2	84.22*	213	900	1.42	168.36	165	27	4.93E-03	30.3	1.61E+00
6	2	87.30	462	1166	1.47	174.52	165	27	1.07E-02	14.3	
7	2	90.07	356	1175	1.48	180.05	165	27	8.23E-03	19.0	
8	2	92.67*	267	1053	1.33	185.26	165	27	6.19E-03	37.3	
9	0	105.85	119	978	1.46	211.61	208	8	2.76E-03	46.5	
10	0	129.08	115	1011	1.13	258.05	255	8	2.65E-03	49.0	
11	0	143.49*	36	969	2.13	286.86	284	8	8.24E-04	188.8	
12	0	185.68*	364	1163	1.42	371.19	366	11	8.42E-03	24.9	
13	0	198.10*	15	791	1.15	396.03	393	8	3.42E-04	403.6	
14	0	209.47	259	778	1.37	418.76	415	9	6.00E-03	20.4	
15	0	217.58	22	729	1.34	434.97	434	8	5.19E-04	209.4	
16	0	228.11	32	899	4.52	456.02	449	10	7.42E-04	176.5	
17	5	238.63*	1895	716	1.30	477.04	471	20	4.39E-02	4.8	1.01E+00
18	5	241.47	493	1086	2.31	482.73	471	20	1.14E-02	18.4	
19	0	270.52	201	847	1.95	540.81	535	12	4.66E-03	29.9	
20	0	277.55	94	561	0.81	554.87	552	8	2.17E-03	45.0	
21	0	295.17*	428	649	1.14	590.09	585	10	9.91E-03	14.2	
22	0	299.92*	152	622	1.28	599.59	595	10	3.52E-03	37.6	
23	0	327.90	153	539	1.85	655.54	650	10	3.55E-03	29.6	
24	0	338.24*	406	513	1.48	676.22	672	9	9.40E-03	13.6	
25	0	351.71*	826	655	1.43	703.14	696	14	1.91E-02	8.6	
26	0	390.82	19	353	1.31	781.33	780	8	4.36E-04	174.1	
27	0	462.79	112	507	1.40	925.24	919	13	2.59E-03	42.6	
28	0	510.75*	234	544	2.41	1021.15	1012	18	5.42E-03	36.2	
29	0	582.99*	701	305	1.48	1165.59	1160	13	1.62E-02	7.8	
30	0	609.09*	543	489	1.46	1217.79	1211	15	1.26E-02	12.0	
31	0	661.10*	33	197	0.95	1321.81	1319	8	7.62E-04	98.3	
32	0	727.16*	130	310	1.90	1453.91	1445	17	3.00E-03	39.0	
33	0	785.07	68	244	1.33	1569.73	1563	14	1.56E-03	50.7	
34	0	794.81	43	181	1.53	1589.21	1585	9	9.84E-04	59.2	
35	0	803.78*	2	228	2.53	1607.15	1599	13	5.72E-05	*****	
36	0	824.70	19	123	1.33	1648.99	1643	8	4.31E-04	107.1	
37	0	848.77	19	140	1.46	1697.14	1691	8	4.40E-04	112.2	
38	0	860.32	114	125	1.56	1720.24	1716	9	2.64E-03	20.2	

Sample ID : G198689003 Acquisition date : 10-DEC-2007 15:58:41

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	875.74	38	129	1.25	1751.08	1747	10	8.89E-04	57.7	
40	0	910.90*	421	280	2.00	1821.40	1812	19	9.74E-03	12.4	
41	1	968.73	340	137	2.10	1937.06	1922	23	7.87E-03	9.3	1.21E+00
42	0	1001.62*	31	163	1.04	2002.84	1996	12	7.27E-04	106.7	
43	0	1120.21*	69	171	1.61	2240.07	2235	13	1.60E-03	58.7	
44	0	1238.08	74	110	1.64	2475.88	2471	11	1.71E-03	29.8	
45	0	1284.23	55	65	4.61	2568.20	2562	12	1.27E-03	32.5	
46	0	1323.65	33	90	2.78	2647.07	2641	13	7.74E-04	60.4	
47	0	1460.56*	901	154	2.19	2920.97	2910	22	2.09E-02	5.4	
48	0	1516.38	11	93	0.83	3032.67	3023	13	2.49E-04	190.5	
49	0	1594.23	55	181	12.07	3188.46	3170	35	1.27E-03	81.2	
50	0	1652.14	30	21	2.85	3304.32	3300	10	6.94E-04	33.5	
51	0	1764.39*	76	71	1.71	3528.96	3520	19	1.75E-03	40.0	
52	0	1791.91	42	69	10.51	3584.04	3571	25	9.75E-04	55.2	
53	0	1805.90	12	28	0.84	3612.03	3605	10	2.86E-04	89.3	
54	0	1847.20	64	20	4.12	3694.69	3689	13	1.47E-03	19.1	
55	0	1949.46	24	39	0.64	3899.35	3888	16	5.52E-04	62.6	
56	0	2012.89	28	15	5.43	4026.31	4017	17	6.45E-04	38.5	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689003       *
* Acquisition date : 10-DEC-2007 15:58:41 Detector SN#    :                 *
* Detector ID      : GAMAN                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 12:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 12:00:07.37     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689003           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0496E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-MAR-2007 16:23:53 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.525E+00	5.452E-01	2.100E-01	0.000E+00
RH-101	2.682E-03	2.122E-02	2.550E-02	0.000E+00
CS-137	1.110E-02	2.140E-02	2.506E-02	0.000E+00
EU-155	6.151E-02	5.616E-02	7.387E-02	0.000E+00
TL-208	2.158E-01	3.658E-02	2.408E-02	0.000E+00
BI-212	3.382E-01	2.600E-01	1.777E-01	0.000E+00
PB-212	6.252E-01	7.031E-02	4.220E-02	0.000E+00
BI-214	3.168E-01	7.821E-02	5.086E-02	0.000E+00
PB-214	4.014E-01	7.173E-02	5.051E-02	0.000E+00
RA-223	2.266E-01	1.335E-01	1.341E-01	0.000E+00
AC-228	6.018E-01	1.581E-01	9.061E-02	0.000E+00
PA-234M	1.491E+00	3.121E+00	2.704E+00	0.000E+00
TH-234	5.512E-01	4.059E-01	3.005E-01	0.000E+00
U-235	3.609E-02	1.336E-01	1.547E-01	0.000E+00
NP-237	4.288E-01	1.254E-01	1.356E-01	0.000E+00
NP-239	4.142E-02	1.434E-01	1.678E-01	0.000E+00
AM-243	8.995E-02	3.054E-02	3.116E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	2.209E-03	1.565E-02	2.616E-02	0.000E+00	NOT IDENT.
SB-125	-3.549E-02	3.895E-02	6.370E-02	0.000E+00	NOT IDENT.
PO-209	-6.783E-01	2.971E+00	4.964E+00	0.000E+00	NOT IDENT.
BI-211	-5.021E-02	4.365E-01	7.376E-01	0.000E+00	NOT IDENT.
PA-233	-2.059E-02	2.801E-02	4.717E-02	0.000E+00	NOT IDENT.
NP-236	3.229E-02	2.756E-02	4.288E-02	0.000E+00	NOT IDENT.
AM-241	5.893E-02	5.203E-02	8.229E-02	0.000E+00	NOT IDENT.
CM-243	2.590E-02	4.526E-02	6.926E-02	0.000E+00	NOT IDENT.
AM-246	1.588E-02	5.279E-02	8.949E-02	0.000E+00	NOT IDENT.
CF-249	5.126E-03	1.931E-02	2.891E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:26:00.55

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689003.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 10-DEC-2007 15:58:41
Sample ID        : G198689003           Sample quantity  : 1.04960E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:07.37  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	901	10.66*	1.114E+00	4.525E+00	4.525E+00	12.29
RH-101	198.00	15	73.00*	4.642E+00	2.600E-03	2.682E-03	807.21
CS-137	661.66	33	85.10*	2.084E+00	1.106E-02	1.110E-02	196.75
EU-155	105.31	119	21.20*	5.554E+00	6.025E-02	6.151E-02	93.17
TL-208	277.36	94	6.31	3.800E+00	2.334E-01	2.334E-01	90.27
	510.77	234	22.60	2.523E+00	2.448E-01	2.448E-01	72.80
	583.19	701	84.50*	2.291E+00	2.158E-01	2.158E-01	17.29
	763.13	------	1.81	1.863E+00	------	Line Not Found	------
	860.56	114	12.42	1.693E+00	3.229E-01	3.229E-01	41.55
BI-212	727.33	130	11.80*	1.936E+00	3.382E-01	3.382E-01	78.43
	785.37	68	1.10	1.822E+00	2.008E+00	2.008E+00	101.74
	1620.50	------	1.49	1.039E+00	------	Line Not Found	------
PB-212	74.81	466	10.40	4.531E+00	5.898E-01	5.898E-01	34.65
	77.11	814	17.50	4.675E+00	5.930E-01	5.930E-01	20.67
	87.30	462	7.81	5.176E+00	6.808E-01	6.808E-01	29.83
	238.63	1895	43.30*	4.171E+00	6.252E-01	6.252E-01	11.48
	300.09	152	3.28	3.618E+00	7.649E-01	7.649E-01	75.51
BI-214	609.31	543	46.10*	2.218E+00	3.167E-01	3.168E-01	25.19
	768.36	------	4.94	1.853E+00	------	Line Not Found	------
	806.17	------	1.22	1.784E+00	------	Line Not Found	------
	934.06	------	3.03	1.583E+00	------	Line Not Found	------
	1120.29	69	15.10	1.365E+00	1.996E-01	1.996E-01	117.55
	1155.19	------	1.63	1.332E+00	------	Line Not Found	------
	1238.11	74	5.79	1.261E+00	6.043E-01	6.044E-01	59.93
	1280.96	------	1.43	1.228E+00	------	Line Not Found	------
	1377.67	------	4.00	1.162E+00	------	Line Not Found	------
	1401.50	------	1.27	1.147E+00	------	Line Not Found	------
	1407.98	------	2.15	1.143E+00	------	Line Not Found	------
	1509.23	------	2.11	1.088E+00	------	Line Not Found	------
	1729.60	------	2.92	9.999E-01	------	Line Not Found	------
	1764.49	76	15.40	9.892E-01	2.966E-01	2.966E-01	80.19
PB-214	74.81	466	6.44	4.531E+00	9.525E-01	9.526E-01	34.65

Sample ID : G198689003 Acquisition date : 10-DEC-2007 15:58:41

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	814	10.80	4.675E+00	9.609E-01	9.609E-01	20.67
	87.30	462	4.84	5.176E+00	1.099E+00	1.099E+00	29.83
	242.00	493	7.43	4.142E+00	9.555E-01	9.555E-01	37.37
	295.22	428	19.30	3.655E+00	3.617E-01	3.617E-01	29.04
	351.93	826	37.60*	3.261E+00	4.014E-01	4.014E-01	18.23
RA-223	269.46	201	13.70*	3.862E+00	2.266E-01	2.266E-01	60.10
AC-228	129.07	115	2.42	5.511E+00	5.125E-01	5.125E-01	98.20
	209.25	259	3.89	4.501E+00	8.820E-01	8.820E-01	41.26
	270.25	201	3.46	3.862E+00	8.973E-01	8.973E-01	60.10
	338.32	406	11.27	3.346E+00	6.417E-01	6.417E-01	27.81
	409.46	------	1.92	2.944E+00	------	Line Not Found	------
	463.00	112	4.40	2.706E+00	5.608E-01	5.608E-01	85.46
	794.95	43	4.25	1.804E+00	3.305E-01	3.305E-01	118.83
	911.20	421	25.80*	1.616E+00	6.018E-01	6.018E-01	26.81
	964.77	------	4.99	1.542E+00	------	Line Not Found	------
	968.97	340	15.80	1.537E+00	8.346E-01	8.346E-01	20.92
	1588.20	------	3.22	1.052E+00	------	Line Not Found	------
PA-234M	1001.03	31	0.84*	1.496E+00	1.491E+00	1.491E+00	213.68
TH-234	63.29	144	4.80	3.514E+00	5.081E-01	5.081E-01	112.60
	92.58	267	5.41*	5.345E+00	5.512E-01	5.512E-01	75.13
U-235	143.76	36	10.96*	5.362E+00	3.609E-02	3.609E-02	377.68
NP-237	86.48	462	12.40*	5.176E+00	4.288E-01	4.288E-01	29.83
NP-239	228.18	32	10.76*	4.285E+00	4.142E-02	4.142E-02	353.15
AM-243	74.66	466	68.20*	4.531E+00	8.994E-02	8.995E-02	34.65

Flag: "*" = Keyline

Sample ID : G198689003 Acquisition date : 10-DEC-2007 15:58:41

Total number of lines in spectrum 56
Number of unidentified lines 21
Number of lines tentatively identified by NID 35 62.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.525E+00	4.525E+00	0.556E+00	12.29	
RH-101	1.04E+08S	1.03	2.600E-03	2.682E-03	21.65E-03	807.21	
CS-137	9.47E+08S	1.00	1.106E-02	1.110E-02	2.183E-02	196.75	
EU-155	1.57E+08S	1.02	6.025E-02	6.151E-02	5.731E-02	93.17	
TL-208	4.43E+17S	1.00	2.158E-01	2.158E-01	0.373E-01	17.29	
BI-212	4.43E+17S	1.00	3.382E-01	3.382E-01	2.653E-01	78.43	
PB-212	4.43E+17S	1.00	6.252E-01	6.252E-01	0.717E-01	11.48	
BI-214	5.05E+10S	1.00	3.167E-01	3.168E-01	0.798E-01	25.19	
PB-214	5.05E+10S	1.00	4.014E-01	4.014E-01	0.732E-01	18.23	
RA-223	1.04E+12S	1.00	2.266E-01	2.266E-01	1.362E-01	60.10	
AC-228	4.43E+17S	1.00	6.018E-01	6.018E-01	1.613E-01	26.81	
PA-234M	1.41E+17S	1.00	1.491E+00	1.491E+00	3.185E+00	213.68	
TH-234	1.41E+17S	1.00	5.512E-01	5.512E-01	4.142E-01	75.13	
U-235	2.22E+16S	1.00	3.609E-02	3.609E-02	13.63E-02	377.68	
NP-237	6.75E+13S	1.00	4.288E-01	4.288E-01	1.279E-01	29.83	
NP-239	2.33E+11S	1.00	4.142E-02	4.142E-02	14.63E-02	353.15	
AM-243	2.33E+11S	1.00	8.994E-02	8.995E-02	3.117E-02	34.65	
			---	---			
	Total Activity :		9.963E+00	9.965E+00			

Grand Total Activity : 9.963E+00 9.965E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689003 Acquisition date : 10-DEC-2007 15:58:41

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.51	119	928	1.59	92.98	89	8	2.77E-03	****	1.47E+00	
2	84.22	213	900	1.42	168.36	165	27	4.93E-03	60.5	5.05E+00	
2	90.07	356	1175	1.48	180.05	165	27	8.23E-03	37.9	5.27E+00	
0	185.68	364	1163	1.42	371.19	366	11	8.42E-03	49.8	4.80E+00	
0	217.58	22	729	1.34	434.97	434	8	5.19E-04	****	4.40E+00	
0	327.90	153	539	1.85	655.54	650	10	3.55E-03	59.1	3.41E+00	
0	390.82	19	353	1.31	781.33	780	8	4.36E-04	****	3.04E+00	
0	803.78	2	228	2.53	1607.15	1599	13	5.72E-05	****	1.79E+00	
0	824.70	19	123	1.33	1648.99	1643	8	4.31E-04	****	1.75E+00	
0	848.77	19	140	1.46	1697.14	1691	8	4.40E-04	****	1.71E+00	
0	875.74	38	129	1.25	1751.08	1747	10	8.89E-04	****	1.67E+00	
0	1284.23	55	65	4.61	2568.20	2562	12	1.27E-03	65.0	1.23E+00	
0	1323.65	33	90	2.78	2647.07	2641	13	7.74E-04	****	1.20E+00	
0	1516.38	11	93	0.83	3032.67	3023	13	2.49E-04	****	1.08E+00	
0	1594.23	55	181	12.07	3188.46	3170	35	1.27E-03	****	1.05E+00	
0	1652.14	30	21	2.85	3304.32	3300	10	6.94E-04	67.0	1.03E+00	
0	1791.91	42	69	10.51	3584.04	3571	25	9.75E-04	****	9.81E-01	
0	1805.90	12	28	0.84	3612.03	3605	10	2.86E-04	****	9.77E-01	
0	1847.20	64	20	4.12	3694.69	3689	13	1.47E-03	38.1	9.67E-01	
0	1949.46	24	39	0.64	3899.35	3888	16	5.52E-04	****	9.45E-01	
0	2012.89	28	15	5.43	4026.31	4017	17	6.45E-04	77.0	9.34E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689003            *
* Acquisition date : 10-DEC-2007 15:58:41 Detector SN#    :                 *
* Detector ID      : GAMAN                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 12:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 12:00:07.37     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689003           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0496E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-MAR-2007 16:23:53 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.525E+00	5.452E-01	1.051E-01	5.452E-01
RH-101	2.682E-03	2.122E-02	1.276E-02	2.122E-02
CS-137	1.110E-02	2.140E-02	1.254E-02	2.140E-02
EU-155	6.151E-02	5.616E-02	3.696E-02	5.616E-02
TL-208	2.158E-01	3.658E-02	1.205E-02	3.658E-02
BI-212	3.382E-01	2.600E-01	8.889E-02	2.600E-01
PB-212	6.252E-01	7.031E-02	2.111E-02	7.031E-02
BI-214	3.168E-01	7.821E-02	2.544E-02	7.821E-02
PB-214	4.014E-01	7.173E-02	2.527E-02	7.173E-02
RA-223	2.266E-01	1.335E-01	6.707E-02	1.335E-01
AC-228	6.018E-01	1.581E-01	4.533E-02	1.581E-01
PA-234M	1.491E+00	3.121E+00	1.353E+00	3.121E+00
TH-234	5.512E-01	4.059E-01	1.504E-01	4.059E-01
U-235	3.609E-02	1.336E-01	7.738E-02	1.336E-01
NP-237	4.288E-01	1.254E-01	6.784E-02	1.254E-01
NP-239	4.142E-02	1.434E-01	8.394E-02	1.434E-01
AM-243	8.995E-02	3.054E-02	1.559E-02	3.054E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.209E-03	1.565E-02	1.309E-02	1.565E-02	NOT IDENT.
SB-125	-3.549E-02	3.895E-02	3.187E-02	3.895E-02	NOT IDENT.
PO-209	-6.783E-01	2.971E+00	2.484E+00	2.971E+00	NOT IDENT.
BI-211	-5.021E-02	4.365E-01	3.690E-01	4.365E-01	NOT IDENT.
PA-233	-2.059E-02	2.801E-02	2.360E-02	2.801E-02	NOT IDENT.
NP-236	3.229E-02	2.756E-02	2.145E-02	2.756E-02	NOT IDENT.
AM-241	5.893E-02	5.203E-02	4.117E-02	5.203E-02	NOT IDENT.
CM-243	2.590E-02	4.526E-02	3.465E-02	4.526E-02	NOT IDENT.
AM-246	1.588E-02	5.279E-02	4.477E-02	5.279E-02	NOT IDENT.
CF-249	5.126E-03	1.931E-02	1.446E-02	1.931E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	957.5475
63.29	1131.0195
74.66	1177.9402
74.81	1178.2177
74.81	1178.2177
77.11	1182.4204
77.11	1182.4204
86.48	961.2104
87.30	962.3348
87.30	962.3348
92.58	969.4432
98.44	908.0613
103.76	938.5215
105.31	932.7979
129.07	996.7324
143.76	1064.9294
198.00	908.8141
209.25	863.7381
228.18	775.4606
238.63	753.6570
242.00	755.5262
269.46	656.6275
270.25	619.2158
277.36	621.5545
295.22	531.2656
300.09	587.5492
312.17	582.9692
338.32	560.9901
351.93	498.8738
387.59	425.4830
409.46	435.4219
427.87	404.8373
463.00	386.2870
510.77	335.7252
583.19	284.1601
609.31	353.6216
661.66	256.6228
727.33	215.8927
763.13	262.3632
768.36	263.9063
785.37	214.6689
794.95	214.3942
806.17	179.6405
831.80	240.2107
860.56	163.0956
896.60	200.0623
911.20	187.5063
934.06	161.7520
964.77	171.8577
968.97	172.0557
1001.03	151.9632
1078.86	151.0184
1120.29	176.6643
1155.19	158.9326
1173.23	145.2819
1238.11	159.9154
1280.96	106.0239
1332.51	114.4731
1377.67	104.8547
1401.50	113.9707
1407.98	95.8155
1460.80	82.0672
1509.23	107.0810
1588.20	89.8101
1620.50	72.0808
1729.60	67.6042
1764.49	59.1357

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689003

Total Uranium Activity	1.6697E-02	ug/g
Total Uranium Counting Unc.	6.1801E-02	ug/g
Total Uranium Tpu	6.1801E-08	ug/g
Total Uranium Mda	3.5805E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:26:36.39

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689004.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 04:03:47
Sample ID        : G198689004           Sample quantity  : 1.02780E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 10:00:00.00        Elapsed real time: 0 10:00:06.31  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.36*	177	1173	1.43	126.66	122	10	4.91E-03	43.1	
2	3	74.83*	417	1085	1.28	149.60	142	18	1.16E-02	17.0	9.54E-01
3	3	77.13*	636	941	1.16	154.19	142	18	1.77E-02	10.9	
4	2	84.33*	150	1060	1.49	168.58	164	28	4.18E-03	44.5	2.68E+00
5	2	87.18	415	1024	1.49	174.28	164	28	1.15E-02	14.8	
6	2	89.75	255	994	1.50	179.42	164	28	7.09E-03	23.8	
7	2	92.66*	175	848	1.36	185.24	164	28	4.86E-03	49.3	
8	0	99.16	181	1390	5.11	198.23	193	14	5.03E-03	44.5	
9	0	106.02	125	785	2.04	211.94	208	8	3.48E-03	39.8	
10	0	128.45	104	947	1.95	256.78	253	9	2.88E-03	54.4	
11	0	144.15*	3	927	1.07	288.16	284	9	7.33E-05	*****	
12	0	185.96*	357	1164	1.32	371.75	367	13	9.90E-03	24.8	
13	0	205.03*	42	706	1.66	409.88	407	8	1.17E-03	128.2	
14	0	209.54	218	798	1.37	418.90	414	10	6.07E-03	25.2	
15	3	238.56*	1550	602	1.47	476.91	470	19	4.30E-02	5.2	3.32E+00
16	3	241.63	433	719	1.91	483.05	470	19	1.20E-02	15.6	
17	0	270.44	155	577	1.26	540.66	536	10	4.30E-03	30.2	
18	0	278.10	48	509	1.22	555.98	550	8	1.34E-03	82.2	
19	0	295.16*	559	754	1.35	590.08	583	13	1.55E-02	11.9	
20	0	299.92*	68	458	1.40	599.59	596	8	1.89E-03	67.5	
21	0	328.54	51	411	1.59	656.82	653	8	1.41E-03	70.8	
22	0	338.11*	327	598	1.22	675.96	669	13	9.08E-03	18.2	
23	0	351.82*	816	500	1.45	703.37	698	12	2.27E-02	7.5	
24	0	375.40	73	251	1.49	750.50	748	7	2.02E-03	37.9	
25	0	379.08	49	367	2.25	757.86	755	9	1.35E-03	72.1	
26	0	450.96	40	303	0.99	901.59	897	10	1.12E-03	82.4	
27	0	462.60	107	366	1.41	924.87	920	12	2.98E-03	36.8	
28	0	510.74*	46	472	2.03	1021.13	1014	15	1.29E-03	156.2	
29	0	582.92*	370	362	1.62	1165.46	1156	17	1.03E-02	14.9	
30	0	609.08*	614	375	1.51	1217.78	1210	15	1.71E-02	9.5	
31	2	657.32	43	110	1.95	1314.24	1311	22	1.19E-03	40.9	1.55E+00
32	2	661.50*	973	178	1.74	1322.59	1311	22	2.70E-02	4.5	
33	0	727.54*	70	184	1.53	1454.67	1448	11	1.93E-03	52.3	
34	0	767.32*	66	239	3.72	1534.23	1528	14	1.83E-03	61.5	
35	0	804.01*	19	184	3.96	1607.60	1601	14	5.16E-04	229.9	
36	0	835.12	19	149	1.24	1669.82	1667	9	5.38E-04	115.0	
37	0	840.05	23	118	1.09	1679.68	1676	7	6.46E-04	80.7	
38	0	843.28	25	110	0.72	1686.15	1684	8	6.85E-04	76.8	

Sample ID : G198689004 Acquisition date : 11-DEC-2007 04:03:47

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	860.96	105	223	1.73	1721.51	1713	16	2.91E-03	33.4	
40	0	888.71	24	140	3.57	1777.01	1770	13	6.64E-04	103.9	
41	0	911.05*	405	133	1.76	1821.69	1813	18	1.13E-02	10.0	
42	2	968.72	241	133	2.00	1937.05	1921	33	6.69E-03	11.6	1.63E+00
43	0	1001.67*	37	122	4.22	2002.95	1997	14	1.03E-03	80.7	
44	0	1007.35	19	47	1.36	2014.31	2011	6	5.15E-04	63.4	
45	0	1045.96	76	201	7.06	2091.55	2075	23	2.11E-03	49.8	
46	0	1085.51	32	88	2.79	2170.66	2163	11	8.84E-04	59.8	
47	0	1119.72*	80	237	2.11	2239.10	2232	20	2.23E-03	57.2	
48	0	1178.24	25	122	2.40	2356.16	2344	15	7.02E-04	97.9	
49	1	1238.35	61	95	2.09	2476.42	2472	16	1.69E-03	30.7	6.29E+00
50	1	1241.14	41	116	2.08	2482.00	2472	16	1.15E-03	55.3	
51	0	1246.27	31	60	1.46	2492.26	2488	9	8.58E-04	49.4	
52	0	1369.38	18	63	3.26	2738.56	2731	11	5.13E-04	86.5	
53	0	1378.62*	18	101	1.66	2757.04	2749	13	5.02E-04	135.9	
54	0	1424.24	17	43	3.78	2848.32	2843	11	4.73E-04	79.1	
55	0	1460.58*	693	139	2.28	2921.03	2913	17	1.93E-02	6.0	
56	0	1592.84	38	72	1.75	3185.66	3180	15	1.06E-03	52.1	
57	0	1730.11*	15	75	2.45	3460.37	3448	20	4.20E-04	193.0	
58	0	1764.18*	91	42	1.27	3528.54	3519	16	2.54E-03	27.1	
59	0	1834.06	17	14	1.51	3668.38	3662	11	4.83E-04	47.8	
60	0	1838.71	46	17	1.58	3677.70	3672	13	1.28E-03	23.4	
61	0	1863.41	34	26	6.39	3727.12	3718	15	9.34E-04	37.4	
62	0	1971.30	25	50	7.30	3943.06	3927	20	6.95E-04	72.0	
63	0	2015.13	15	20	2.46	4030.79	4024	10	4.21E-04	65.2	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689004       *
* Acquisition date : 11-DEC-2007 04:03:47 Detector SN#    :                 *
* Detector ID      : GAMAN                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 10:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 10:00:06.31     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689004           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0278E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-MAR-2007 16:23:53 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.266E+00	5.626E-01	2.498E-01	0.000E+00
CS-137	4.025E-01	4.733E-02	2.883E-02	0.000E+00
EU-155	7.924E-02	6.207E-02	7.734E-02	0.000E+00
TL-208	1.395E-01	4.186E-02	2.677E-02	0.000E+00
BI-212	2.226E-01	2.289E-01	2.029E-01	0.000E+00
PB-212	6.265E-01	7.514E-02	4.745E-02	0.000E+00
BI-214	4.389E-01	8.780E-02	5.389E-02	0.000E+00
PB-214	4.861E-01	7.686E-02	5.594E-02	0.000E+00
RA-223	2.134E-01	1.271E-01	1.567E-01	0.000E+00
AC-228	7.102E-01	1.561E-01	9.540E-02	0.000E+00
PA-234M	2.151E+00	3.408E+00	3.228E+00	0.000E+00
TH-234	4.421E-01	4.286E-01	3.567E-01	0.000E+00
U-235	3.286E-03	1.565E-01	1.763E-01	0.000E+00
NP-236	6.353E-02	5.562E-02	4.423E-02	0.000E+00
NP-237	4.730E-01	1.426E-01	1.609E-01	0.000E+00
AM-243	9.870E-02	3.373E-02	3.394E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-1.064E-02	2.143E-02	2.903E-02	0.000E+00	NOT IDENT.
RH-101	-1.761E-03	2.116E-02	2.958E-02	0.000E+00	NOT IDENT.
SB-125	2.206E-02	4.666E-02	8.007E-02	0.000E+00	NOT IDENT.
PO-209	-1.271E-01	3.368E+00	5.413E+00	0.000E+00	NOT IDENT.
BI-211	1.796E-01	4.845E-01	7.290E-01	0.000E+00	NOT IDENT.
PA-233	-2.254E-02	3.136E-02	5.263E-02	0.000E+00	NOT IDENT.
NP-239	-9.812E-03	1.171E-01	1.928E-01	0.000E+00	NOT IDENT.
AM-241	4.133E-02	5.753E-02	9.005E-02	0.000E+00	NOT IDENT.
CM-243	4.303E-02	6.618E-02	7.483E-02	0.000E+00	NOT IDENT.
AM-246	2.934E-02	6.188E-02	9.253E-02	0.000E+00	NOT IDENT.
CF-249	1.755E-02	1.939E-02	3.387E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:26:37.40

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689004.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 04:03:47
Sample ID        : G198689004           Sample quantity  : 1.02780E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 10:00:00.00        Elapsed real time: 0 10:00:06.31  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	693	10.66*	1.114E+00	4.266E+00	4.266E+00	13.46
CS-137	661.66	973	85.10*	2.083E+00	4.011E-01	4.025E-01	12.00
EU-155	105.31	125	21.20*	5.555E+00	7.761E-02	7.924E-02	79.94
TL-208	277.36	48	6.31	3.796E+00	1.471E-01	1.471E-01	164.57
	510.77	46	22.60	2.523E+00	5.933E-02	5.933E-02	312.40
	583.19	370	84.50*	2.291E+00	1.395E-01	1.395E-01	30.63
	763.13	------	1.81	1.863E+00	------	Line Not Found	------
	860.56	105	12.42	1.692E+00	3.638E-01	3.638E-01	67.60
BI-212	727.33	70	11.80*	1.935E+00	2.226E-01	2.226E-01	104.88
	785.37	------	1.10	1.821E+00	------	Line Not Found	------
	1620.50	------	1.49	1.039E+00	------	Line Not Found	------
PB-212	74.81	417	10.40	4.522E+00	6.472E-01	6.472E-01	34.88
	77.11	636	17.50	4.674E+00	5.683E-01	5.683E-01	23.17
	87.30	415	7.81	5.171E+00	7.509E-01	7.509E-01	30.77
	238.63	1550	43.30*	4.172E+00	6.265E-01	6.265E-01	12.24
	300.09	68	3.28	3.618E+00	4.190E-01	4.190E-01	135.24
BI-214	609.31	614	46.10*	2.218E+00	4.389E-01	4.389E-01	20.41
	768.36	66	4.94	1.855E+00	5.248E-01	5.249E-01	123.36
	806.17	------	1.22	1.784E+00	------	Line Not Found	------
	934.06	------	3.03	1.583E+00	------	Line Not Found	------
	1120.29	80	15.10	1.366E+00	2.842E-01	2.842E-01	114.58
	1155.19	------	1.63	1.332E+00	------	Line Not Found	------
	1238.11	61	5.79	1.260E+00	6.088E-01	6.088E-01	61.79
	1280.96	------	1.43	1.228E+00	------	Line Not Found	------
	1377.67	18	4.00	1.161E+00	2.843E-01	2.843E-01	271.79
	1401.50	------	1.27	1.147E+00	------	Line Not Found	------
	1407.98	------	2.15	1.143E+00	------	Line Not Found	------
	1509.23	------	2.11	1.088E+00	------	Line Not Found	------
	1729.60	15	2.92	9.997E-01	3.782E-01	3.782E-01	386.11
	1764.49	91	15.40	9.892E-01	4.377E-01	4.377E-01	54.45
PB-214	74.81	417	6.44	4.522E+00	1.045E+00	1.045E+00	34.88
	77.11	636	10.80	4.674E+00	9.209E-01	9.209E-01	23.17

Sample ID : G198689004 Acquisition date : 11-DEC-2007 04:03:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	415	4.84	5.171E+00	1.212E+00	1.212E+00	30.77
	242.00	433	7.43	4.140E+00	1.027E+00	1.027E+00	31.92
	295.22	559	19.30	3.655E+00	5.789E-01	5.789E-01	24.69
	351.93	816	37.60*	3.260E+00	4.860E-01	4.861E-01	16.14
RA-223	269.46	155	13.70*	3.863E+00	2.134E-01	2.134E-01	60.76
AC-228	129.07	104	2.42	5.516E+00	5.667E-01	5.667E-01	109.04
	209.25	218	3.89	4.500E+00	9.117E-01	9.117E-01	50.77
	270.25	155	3.46	3.863E+00	8.451E-01	8.451E-01	60.76
	338.32	327	11.27	3.347E+00	6.330E-01	6.330E-01	36.92
	409.46	------	1.92	2.944E+00	------	Line Not Found	------
	463.00	107	4.40	2.706E+00	6.581E-01	6.581E-01	73.95
	794.95	------	4.25	1.804E+00	------	Line Not Found	------
	911.20	405	25.80*	1.616E+00	7.102E-01	7.102E-01	22.42
	964.77	------	4.99	1.542E+00	------	Line Not Found	------
	968.97	241	15.80	1.537E+00	7.246E-01	7.246E-01	25.06
	1588.20	------	3.22	1.052E+00	------	Line Not Found	------
PA-234M	1001.03	37	0.84*	1.496E+00	2.151E+00	2.151E+00	161.70
TH-234	63.29	177	4.80	3.516E+00	7.644E-01	7.644E-01	86.56
	92.58	175	5.41*	5.344E+00	4.421E-01	4.421E-01	98.94
U-235	143.76	3	10.96*	5.354E+00	3.286E-03	3.286E-03	4859.00
NP-236	98.44	181	38.00*	5.479E+00	6.353E-02	6.353E-02	89.33
NP-237	86.48	415	12.40*	5.171E+00	4.730E-01	4.730E-01	30.77
AM-243	74.66	417	68.20*	4.522E+00	9.870E-02	9.870E-02	34.88

Flag: "*" = Keyline

Sample ID : G198689004 Acquisition date : 11-DEC-2007 04:03:47

Total number of lines in spectrum 63
Number of unidentified lines 28
Number of lines tentatively identified by NID 35 55.56%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.266E+00	4.266E+00	0.574E+00	13.46	
CS-137	9.47E+08S	1.00	4.011E-01	4.025E-01	0.483E-01	12.00	
EU-155	1.57E+08S	1.02	7.761E-02	7.924E-02	6.334E-02	79.94	
TL-208	4.43E+17S	1.00	1.395E-01	1.395E-01	0.427E-01	30.63	
BI-212	4.43E+17S	1.00	2.226E-01	2.226E-01	2.335E-01	104.88	
PB-212	4.43E+17S	1.00	6.265E-01	6.265E-01	0.767E-01	12.24	
BI-214	5.05E+10S	1.00	4.389E-01	4.389E-01	0.896E-01	20.41	
PB-214	5.05E+10S	1.00	4.860E-01	4.861E-01	0.784E-01	16.14	
RA-223	1.04E+12S	1.00	2.134E-01	2.134E-01	1.297E-01	60.76	
AC-228	4.43E+17S	1.00	7.102E-01	7.102E-01	1.592E-01	22.42	
PA-234M	1.41E+17S	1.00	2.151E+00	2.151E+00	3.478E+00	161.70	
TH-234	1.41E+17S	1.00	4.421E-01	4.421E-01	4.374E-01	98.94	
U-235	2.22E+16S	1.00	3.286E-03	3.286E-03	159.7E-03	4859.00	
NP-236	4.89E+12S	1.00	6.353E-02	6.353E-02	5.676E-02	89.33	
NP-237	6.75E+13S	1.00	4.730E-01	4.730E-01	1.455E-01	30.77	
AM-243	2.33E+11S	1.00	9.870E-02	9.870E-02	3.442E-02	34.88	
			---	---			
	Total Activity :		1.081E+01	1.082E+01			

Grand Total Activity : 1.081E+01 1.082E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689004 Acquisition date : 11-DEC-2007 04:03:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	84.33	150	1060	1.49	168.58	164	28	4.18E-03	89.1	5.06E+00	
2	89.75	255	994	1.50	179.42	164	28	7.09E-03	47.7	5.26E+00	
0	185.96	357	1164	1.32	371.75	367	13	9.90E-03	49.6	4.80E+00	
0	205.03	42	706	1.66	409.88	407	8	1.17E-03	****	4.56E+00	
0	328.54	51	411	1.59	656.82	653	8	1.41E-03	****	3.41E+00	
0	375.40	73	251	1.49	750.50	748	7	2.02E-03	75.7	3.12E+00	
0	379.08	49	367	2.25	757.86	755	9	1.35E-03	****	3.10E+00	
0	450.96	40	303	0.99	901.59	897	10	1.12E-03	****	2.75E+00	
2	657.32	43	110	1.95	1314.24	1311	22	1.19E-03	81.9	2.09E+00	
0	804.01	19	184	3.96	1607.60	1601	14	5.16E-04	****	1.79E+00	
0	835.12	19	149	1.24	1669.82	1667	9	5.38E-04	****	1.73E+00	
0	840.05	23	118	1.09	1679.68	1676	7	6.46E-04	****	1.73E+00	
0	843.28	25	110	0.72	1686.15	1684	8	6.85E-04	****	1.72E+00	
0	888.71	24	140	3.57	1777.01	1770	13	6.64E-04	****	1.65E+00	
0	1007.35	19	47	1.36	2014.31	2011	6	5.15E-04	****	1.49E+00	
0	1045.96	76	201	7.06	2091.55	2075	23	2.11E-03	99.5	1.44E+00	
0	1085.51	32	88	2.79	2170.66	2163	11	8.84E-04	****	1.40E+00	
0	1178.24	25	122	2.40	2356.16	2344	15	7.02E-04	****	1.31E+00	
1	1241.14	41	116	2.08	2482.00	2472	16	1.15E-03	****	1.26E+00	
0	1246.27	31	60	1.46	2492.26	2488	9	8.58E-04	98.8	1.25E+00	
0	1369.38	18	63	3.26	2738.56	2731	11	5.13E-04	****	1.17E+00	
0	1424.24	17	43	3.78	2848.32	2843	11	4.73E-04	****	1.13E+00	
0	1592.84	38	72	1.75	3185.66	3180	15	1.06E-03	****	1.05E+00	
0	1834.06	17	14	1.51	3668.38	3662	11	4.83E-04	95.5	9.70E-01	
0	1838.71	46	17	1.58	3677.70	3672	13	1.28E-03	46.8	9.69E-01	
0	1863.41	34	26	6.39	3727.12	3718	15	9.34E-04	74.9	9.63E-01	
0	1971.30	25	50	7.30	3943.06	3927	20	6.95E-04	****	9.41E-01	
0	2015.13	15	20	2.46	4030.79	4024	10	4.21E-04	****	9.33E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689004            *
* Acquisition date : 11-DEC-2007 04:03:47 Detector SN#    :                 *
* Detector ID      : GAMAN                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 10:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 10:00:06.31     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689004           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0278E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-MAR-2007 16:23:53 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.266E+00	5.626E-01	1.250E-01	5.626E-01
CS-137	4.025E-01	4.733E-02	1.442E-02	4.733E-02
EU-155	7.924E-02	6.207E-02	3.869E-02	6.207E-02
TL-208	1.395E-01	4.186E-02	1.339E-02	4.186E-02
BI-212	2.226E-01	2.289E-01	1.015E-01	2.289E-01
PB-212	6.265E-01	7.514E-02	2.374E-02	7.514E-02
BI-214	4.389E-01	8.780E-02	2.696E-02	8.780E-02
PB-214	4.861E-01	7.686E-02	2.799E-02	7.686E-02
RA-223	2.134E-01	1.271E-01	7.841E-02	1.271E-01
AC-228	7.102E-01	1.561E-01	4.773E-02	1.561E-01
PA-234M	2.151E+00	3.408E+00	1.615E+00	3.408E+00
TH-234	4.421E-01	4.286E-01	1.785E-01	4.286E-01
U-235	3.286E-03	1.565E-01	8.821E-02	1.565E-01
NP-236	6.353E-02	5.562E-02	2.213E-02	5.562E-02
NP-237	4.730E-01	1.426E-01	8.052E-02	1.426E-01
AM-243	9.870E-02	3.373E-02	1.698E-02	3.373E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.064E-02	2.143E-02	1.452E-02	2.143E-02	NOT IDENT.
RH-101	-1.761E-03	2.116E-02	1.480E-02	2.116E-02	NOT IDENT.
SB-125	2.206E-02	4.666E-02	4.006E-02	4.666E-02	NOT IDENT.
PO-209	-1.271E-01	3.368E+00	2.708E+00	3.368E+00	NOT IDENT.
BI-211	1.796E-01	4.845E-01	3.647E-01	4.845E-01	NOT IDENT.
PA-233	-2.254E-02	3.136E-02	2.633E-02	3.136E-02	NOT IDENT.
NP-239	-9.812E-03	1.171E-01	9.643E-02	1.171E-01	NOT IDENT.
AM-241	4.133E-02	5.753E-02	4.505E-02	5.753E-02	NOT IDENT.
CM-243	4.303E-02	6.618E-02	3.744E-02	6.618E-02	NOT IDENT.
AM-246	2.934E-02	6.188E-02	4.629E-02	6.188E-02	NOT IDENT.
CF-249	1.755E-02	1.939E-02	1.695E-02	1.939E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	794.8918
63.29	873.8483
74.66	937.4924
74.81	937.7133
74.81	937.7133
77.11	941.0582
77.11	941.0582
86.48	908.0559
87.30	909.1182
87.30	909.1182
92.58	915.8335
98.44	727.9500
103.76	702.7576
105.31	685.2127
129.07	875.2557
143.76	927.0917
198.00	758.0383
209.25	703.5845
228.18	691.3104
238.63	637.7098
242.00	639.2914
269.46	600.4455
270.25	573.1040
277.36	486.4956
295.22	521.4438
300.09	562.4709
312.17	488.2142
338.32	450.0753
351.93	409.2613
387.59	357.9709
409.46	353.4825
427.87	350.9872
463.00	322.7208
510.77	320.7375
583.19	234.7409
609.31	265.2162
661.66	226.9309
727.33	188.0472
763.13	184.7886
768.36	186.9336
785.37	162.1533
794.95	165.3322
806.17	163.7431
831.80	139.3997
860.56	162.1528
896.60	153.1905
911.20	138.7164
934.06	139.6073
964.77	154.3806
968.97	154.5585
1001.03	144.5401
1078.86	99.4407
1120.29	163.6743
1155.19	146.7070
1173.23	142.0664
1238.11	133.5100
1280.96	94.3433
1332.51	82.6750
1377.67	94.1553
1401.50	106.4443
1407.98	82.8966
1460.80	77.4043
1509.23	74.3683
1588.20	73.5679
1620.50	75.9251
1729.60	65.6447
1764.49	50.0190

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689004

Total Uranium Activity	1.5206E-03	ug/g
Total Uranium Counting Unc.	7.2409E-02	ug/g
Total Uranium Tpu	7.2409E-08	ug/g
Total Uranium Mda	4.0815E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:27:11.26

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689005.CNF;2
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 08:59:19
Sample ID        : G198689005           Sample quantity  : 1.06630E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.46  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.80*	78	293	1.39	127.20	123	12	5.44E-03	50.0	
2	2	74.92*	107	233	1.52	149.42	142	18	7.46E-03	29.1	2.11E+00
3	2	77.44*	187	206	1.53	154.47	142	18	1.30E-02	17.7	
4	0	87.16	49	172	1.89	173.89	172	6	3.39E-03	44.9	
5	0	92.96*	66	332	1.67	185.48	181	10	4.57E-03	61.8	
6	0	143.31*	29	180	2.32	286.10	284	9	2.00E-03	94.5	
7	0	185.87*	44	245	1.09	371.15	367	9	3.07E-03	75.1	
8	0	198.27*	43	207	1.28	395.93	389	12	2.98E-03	74.5	
9	0	208.93	35	136	1.84	417.23	415	8	2.43E-03	60.1	
10	0	238.60*	267	272	1.28	476.52	472	10	1.86E-02	14.7	
11	0	241.91	40	123	1.09	483.14	481	6	2.79E-03	47.8	
12	0	295.05*	54	162	1.34	589.34	585	10	3.75E-03	49.8	
13	0	338.32	67	154	1.49	675.81	670	12	4.68E-03	38.7	
14	0	351.80*	94	121	1.70	702.75	698	9	6.56E-03	26.9	
15	0	369.52	52	106	3.28	738.17	731	14	3.65E-03	43.7	
16	0	408.42	32	85	3.28	815.92	809	11	2.25E-03	57.8	
17	0	478.33	32	78	0.88	955.66	949	12	2.20E-03	58.6	
18	0	511.40*	35	143	2.73	1021.75	1012	25	2.40E-03	116.3	
19	0	521.71	16	68	1.27	1042.36	1036	12	1.14E-03	102.2	
20	0	567.82*	83	71	3.94	1134.54	1128	14	5.77E-03	25.8	
21	0	583.44*	92	57	1.69	1165.76	1160	13	6.38E-03	22.3	
22	0	609.30*	71	64	1.86	1217.45	1211	11	4.93E-03	29.6	
23	0	626.07	12	70	2.55	1250.98	1242	13	8.27E-04	146.3	
24	0	661.81	419	65	1.60	1322.43	1316	15	2.91E-02	6.4	
25	0	694.76	41	86	6.91	1388.30	1379	18	2.85E-03	55.1	
26	0	703.29	23	32	1.34	1405.35	1401	8	1.61E-03	47.9	
27	0	728.08	35	42	1.48	1454.91	1450	12	2.44E-03	41.4	
28	4	794.74	33	19	2.56	1588.17	1583	43	2.30E-03	30.2	1.41E+00
29	4	798.96	17	28	2.10	1596.61	1583	43	1.17E-03	72.1	
30	4	803.24	21	32	2.33	1605.16	1583	43	1.43E-03	64.1	
31	0	861.20	22	24	1.96	1721.04	1718	8	1.51E-03	45.6	
32	0	898.95	20	33	0.84	1796.52	1787	15	1.38E-03	67.2	
33	0	911.73*	51	36	1.16	1822.07	1815	13	3.55E-03	31.9	
34	0	969.42	40	30	1.89	1937.43	1933	10	2.78E-03	30.1	
35	0	1088.12	11	23	1.36	2174.78	2167	13	7.35E-04	98.1	
36	0	1121.51	32	57	3.59	2241.56	2229	21	2.19E-03	62.7	
37	0	1126.64	11	18	0.73	2251.81	2249	7	7.29E-04	72.9	
38	0	1144.77	22	75	16.27	2288.06	2263	35	1.50E-03	130.0	

Sample ID : G198689005 Acquisition date : 11-DEC-2007 08:59:19

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1297.27	19	15	4.89	2593.04	2586	15	1.30E-03	50.6	
40	0	1380.03	12	11	1.38	2758.58	2753	11	8.33E-04	60.8	
41	0	1461.46*	185	22	1.70	2921.45	2912	17	1.29E-02	9.9	
42	0	1563.94	14	5	2.64	3126.45	3122	9	9.98E-04	37.6	
43	0	1632.24	13	6	4.17	3263.08	3256	12	9.03E-04	46.8	
44	0	1655.33	7	5	1.50	3309.27	3301	10	4.75E-04	72.4	
45	0	1730.02	13	15	4.70	3458.69	3450	15	9.03E-04	70.6	
46	0	1765.22	41	13	1.76	3529.11	3519	17	2.86E-03	25.2	
47	0	1792.89	16	4	1.17	3584.47	3576	15	1.13E-03	35.9	
48	0	1836.83	7	6	0.95	3672.38	3664	11	4.51E-04	80.1	
49	0	1851.50	10	2	2.34	3701.73	3698	8	6.83E-04	40.7	
50	0	1906.04	6	7	0.70	3810.85	3805	9	4.19E-04	87.9	
51	0	2033.21	13	7	2.29	4065.31	4056	14	9.10E-04	50.9	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689005       *
* Acquisition date : 11-DEC-2007 08:59:19 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.46     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689005           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0663E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2007 21:45:12 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.571E+00	5.228E-01	2.870E-01	0.000E+00
RH-101	1.840E-02	2.688E-02	2.602E-02	0.000E+00
CS-137	3.697E-01	5.496E-02	2.854E-02	0.000E+00
TL-208	7.337E-02	3.246E-02	2.780E-02	0.000E+00
BI-212	2.420E-01	1.974E-01	2.436E-01	0.000E+00
PB-212	2.115E-01	6.232E-02	5.444E-02	0.000E+00
PB-214	1.141E-01	6.047E-02	6.364E-02	0.000E+00
AC-228	1.958E-01	1.239E-01	1.105E-01	0.000E+00
TH-234	3.304E-01	4.011E-01	3.808E-01	0.000E+00
U-235	6.775E-02	1.256E-01	1.489E-01	0.000E+00
NP-237	1.126E-01	9.934E-02	1.700E-01	0.000E+00
AM-243	5.464E-02	3.133E-02	3.499E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.909E-02		2.024E-02	3.764E-02	0.000E+00	NOT IDENT.
SB-125	2.276E-02		4.773E-02	8.403E-02	0.000E+00	NOT IDENT.
EU-155	-9.101E-03		4.743E-02	8.002E-02	0.000E+00	NOT IDENT.
PO-209	4.329E-01		4.398E+00	6.319E+00	0.000E+00	NOT IDENT.
BI-211	2.485E-01		5.372E-01	9.262E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00		6.297E-02	9.225E-02	0.000E+00	FAIL ABUN
RA-223	-3.873E-02		9.555E-02	1.534E-01	0.000E+00	NOT IDENT.
PA-233	-1.373E-02		3.402E-02	5.410E-02	0.000E+00	NOT IDENT.
PA-234M	1.065E+00		2.634E+00	4.241E+00	0.000E+00	NOT IDENT.
NP-236	-1.506E-03		3.180E-02	4.583E-02	0.000E+00	NOT IDENT.
NP-239	-1.804E-02		1.110E-01	1.824E-01	0.000E+00	NOT IDENT.
AM-241	9.085E-02		6.672E-02	1.106E-01	0.000E+00	NOT IDENT.
CM-243	2.342E-03		4.226E-02	7.222E-02	0.000E+00	NOT IDENT.
AM-246	8.014E-02		7.202E-02	1.314E-01	0.000E+00	NOT IDENT.
CF-249	7.637E-03		1.987E-02	3.489E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:27:12.35

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689005.CNF;2
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 08:59:19
Sample ID        : G198689005           Sample quantity  : 1.06630E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.46  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	185	10.66*	1.188E+00	2.571E+00	2.571E+00	20.75
RH-101	198.00	43	73.00*	5.807E+00	1.783E-02	1.840E-02	149.07
CS-137	661.66	419	85.10*	2.351E+00	3.685E-01	3.697E-01	15.17
TL-208	277.36	------	6.31	4.619E+00	------	Line Not Found	------
	510.77	35	22.60	2.902E+00	9.292E-02	9.292E-02	232.74
	583.19	92	84.50*	2.610E+00	7.337E-02	7.337E-02	45.14
	763.13	------	1.81	2.083E+00	------	Line Not Found	------
	860.56	22	12.42	1.874E+00	1.641E-01	1.641E-01	91.82
BI-212	727.33	35	11.80*	2.169E+00	2.420E-01	2.420E-01	83.23
	785.37	------	1.10	2.031E+00	------	Line Not Found	------
	1620.50	------	1.49	1.102E+00	------	Line Not Found	------
PB-212	74.81	107	10.40	5.073E+00	3.583E-01	3.583E-01	58.50
	77.11	187	17.50	5.341E+00	3.527E-01	3.527E-01	36.02
	87.30	49	7.81	6.152E+00	1.788E-01	1.788E-01	89.99
	238.63	267	43.30*	5.140E+00	2.115E-01	2.115E-01	30.07
	300.09	------	3.28	4.361E+00	------	Line Not Found	------
PB-214	74.81	107	6.44	5.073E+00	5.787E-01	5.787E-01	58.50
	77.11	187	10.80	5.341E+00	5.716E-01	5.716E-01	36.02
	87.30	49	4.84	6.152E+00	2.886E-01	2.886E-01	89.99
	242.00	40	7.43	5.091E+00	1.872E-01	1.872E-01	95.84
	295.22	54	19.30	4.416E+00	1.116E-01	1.116E-01	99.72
	351.93	94	37.60*	3.874E+00	1.141E-01	1.141E-01	54.07
AC-228	129.07	------	2.42	6.984E+00	------	Line Not Found	------
	209.25	35	3.89	5.618E+00	2.819E-01	2.819E-01	120.43
	270.25	------	3.46	4.707E+00	------	Line Not Found	------
	338.32	67	11.27	3.990E+00	2.638E-01	2.638E-01	77.65
	409.46	32	1.92	3.459E+00	8.604E-01	8.604E-01	115.65
	463.00	------	4.40	3.139E+00	------	Line Not Found	------
	794.95	33	4.25	2.011E+00	6.830E-01	6.830E-01	61.22
	911.20	51	25.80*	1.782E+00	1.958E-01	1.958E-01	64.55
	964.77	------	4.99	1.695E+00	------	Line Not Found	------
	968.97	40	15.80	1.688E+00	2.641E-01	2.641E-01	60.99

Sample ID : G198689005 Acquisition date : 11-DEC-2007 08:59:19

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1588.20	------	3.22	1.118E+00	------	Line Not Found	------
TH-234	63.29	78	4.80	3.627E+00	7.920E-01	7.920E-01	100.21
	92.58	66	5.41*	6.486E+00	3.304E-01	3.304E-01	123.87
U-235	143.76	29	10.96*	6.811E+00	6.775E-02	6.775E-02	189.17
NP-237	86.48	49	12.40*	6.152E+00	1.126E-01	1.126E-01	89.99
AM-243	74.66	107	68.20*	5.073E+00	5.464E-02	5.464E-02	58.50

Flag: "*" = Keyline

Sample ID : G198689005 Acquisition date : 11-DEC-2007 08:59:19

Total number of lines in spectrum 51
Number of unidentified lines 24
Number of lines tentatively identified by NID 27 52.94%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	2.571E+00	2.571E+00	0.533E+00	20.75	
RH-101	1.04E+08S	1.03	1.783E-02	1.840E-02	2.743E-02	149.07	
CS-137	9.47E+08S	1.00	3.685E-01	3.697E-01	0.561E-01	15.17	
TL-208	4.43E+17S	1.00	7.337E-02	7.337E-02	3.312E-02	45.14	
BI-212	4.43E+17S	1.00	2.420E-01	2.420E-01	2.014E-01	83.23	
PB-212	4.43E+17S	1.00	2.115E-01	2.115E-01	0.636E-01	30.07	
PB-214	5.05E+10S	1.00	1.141E-01	1.141E-01	0.617E-01	54.07	
AC-228	4.43E+17S	1.00	1.958E-01	1.958E-01	1.264E-01	64.55	
TH-234	1.41E+17S	1.00	3.304E-01	3.304E-01	4.093E-01	123.87	
U-235	2.22E+16S	1.00	6.775E-02	6.775E-02	12.82E-02	189.17	
NP-237	6.75E+13S	1.00	1.126E-01	1.126E-01	1.014E-01	89.99	
AM-243	2.33E+11S	1.00	5.464E-02	5.464E-02	3.197E-02	58.50	
			---	---			
		Total Activity :	4.360E+00	4.361E+00			

Grand Total Activity : 4.360E+00 4.361E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689005 Acquisition date : 11-DEC-2007 08:59:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.87	44	245	1.09	371.15	367	9	3.07E-03	****	6.04E+00	
0	369.52	52	106	3.28	738.17	731	14	3.65E-03	87.3	3.73E+00	
0	478.33	32	78	0.88	955.66	949	12	2.20E-03	****	3.06E+00	
0	521.71	16	68	1.27	1042.36	1036	12	1.14E-03	****	2.86E+00	
0	567.82	83	71	3.94	1134.54	1128	14	5.77E-03	51.5	2.67E+00	
0	609.30	71	64	1.86	1217.45	1211	11	4.93E-03	59.3	2.52E+00	T
0	626.07	12	70	2.55	1250.98	1242	13	8.27E-04	****	2.46E+00	
0	694.76	41	86	6.91	1388.30	1379	18	2.85E-03	****	2.26E+00	
0	703.29	23	32	1.34	1405.35	1401	8	1.61E-03	95.8	2.23E+00	
4	798.96	17	28	2.10	1596.61	1583	43	1.17E-03	****	2.00E+00	
4	803.24	21	32	2.33	1605.16	1583	43	1.43E-03	****	1.99E+00	
0	898.95	20	33	0.84	1796.52	1787	15	1.38E-03	****	1.80E+00	
0	1088.12	11	23	1.36	2174.78	2167	13	7.35E-04	****	1.52E+00	
0	1121.51	32	57	3.59	2241.56	2229	21	2.19E-03	****	1.48E+00	T
0	1126.64	11	18	0.73	2251.81	2249	7	7.29E-04	****	1.48E+00	
0	1144.77	22	75	16.27	2288.06	2263	35	1.50E-03	****	1.46E+00	
0	1297.27	19	15	4.89	2593.04	2586	15	1.30E-03	****	1.31E+00	
0	1380.03	12	11	1.38	2758.58	2753	11	8.33E-04	****	1.24E+00	
0	1563.94	14	5	2.64	3126.45	3122	9	9.98E-04	75.1	1.13E+00	
0	1632.24	13	6	4.17	3263.08	3256	12	9.03E-04	93.6	1.10E+00	
0	1655.33	7	5	1.50	3309.27	3301	10	4.75E-04	****	1.09E+00	
0	1730.02	13	15	4.70	3458.69	3450	15	9.03E-04	****	1.06E+00	T
0	1765.22	41	13	1.76	3529.11	3519	17	2.86E-03	50.4	1.04E+00	T
0	1792.89	16	4	1.17	3584.47	3576	15	1.13E-03	71.7	1.04E+00	
0	1836.83	7	6	0.95	3672.38	3664	11	4.51E-04	****	1.02E+00	
0	1851.50	10	2	2.34	3701.73	3698	8	6.83E-04	81.4	1.02E+00	
0	1906.04	6	7	0.70	3810.85	3805	9	4.19E-04	****	1.00E+00	
0	2033.21	13	7	2.29	4065.31	4056	14	9.10E-04	****	9.78E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689005            *
* Acquisition date : 11-DEC-2007 08:59:19 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.46     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689005           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0663E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2007 21:45:12 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	2.571E+00	5.228E-01	1.436E-01	5.228E-01
RH-101	1.840E-02	2.688E-02	1.302E-02	2.688E-02
CS-137	3.697E-01	5.496E-02	1.428E-02	5.496E-02
TL-208	7.337E-02	3.246E-02	1.391E-02	3.246E-02
BI-212	2.420E-01	1.974E-01	1.218E-01	1.974E-01
PB-212	2.115E-01	6.232E-02	2.724E-02	6.232E-02
PB-214	1.141E-01	6.047E-02	3.184E-02	6.047E-02
AC-228	1.958E-01	1.239E-01	5.526E-02	1.239E-01
TH-234	3.304E-01	4.011E-01	1.905E-01	4.011E-01
U-235	6.775E-02	1.256E-01	7.451E-02	1.256E-01
NP-237	1.126E-01	9.934E-02	8.507E-02	9.934E-02
AM-243	5.464E-02	3.133E-02	1.751E-02	3.133E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.909E-02	2.024E-02	1.883E-02	2.024E-02	NOT IDENT.
SB-125	2.276E-02	4.773E-02	4.204E-02	4.773E-02	NOT IDENT.
EU-155	-9.101E-03	4.743E-02	4.004E-02	4.743E-02	NOT IDENT.
PO-209	4.329E-01	4.398E+00	3.161E+00	4.398E+00	NOT IDENT.
BI-211	2.485E-01	5.372E-01	4.634E-01	5.372E-01	NOT IDENT.
BI-214	1.075E-01	6.297E-02	4.615E-02	6.297E-02	FAIL ABUN
RA-223	-3.873E-02	9.555E-02	7.676E-02	9.555E-02	NOT IDENT.
PA-233	-1.373E-02	3.402E-02	2.707E-02	3.402E-02	NOT IDENT.
PA-234M	1.065E+00	2.634E+00	2.122E+00	2.634E+00	NOT IDENT.
NP-236	-1.506E-03	3.180E-02	2.293E-02	3.180E-02	NOT IDENT.
NP-239	-1.804E-02	1.110E-01	9.123E-02	1.110E-01	NOT IDENT.
AM-241	9.085E-02	6.672E-02	5.532E-02	6.672E-02	NOT IDENT.
CM-243	2.342E-03	4.226E-02	3.613E-02	4.226E-02	NOT IDENT.
AM-246	8.014E-02	7.202E-02	6.576E-02	7.202E-02	NOT IDENT.
CF-249	7.637E-03	1.987E-02	1.746E-02	1.987E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	149.4164
63.29	209.6099
74.66	211.9615
74.81	211.9984
74.81	211.9984
77.11	212.5588
77.11	212.5588
86.48	242.8214
87.30	309.5219
87.30	309.5219
92.58	260.1776
98.44	188.0925
103.76	187.4458
105.31	200.3664
129.07	182.7843
143.76	181.7518
198.00	169.2155
209.25	191.4616
228.18	165.9940
238.63	217.5294
242.00	260.8492
269.46	160.0500
270.25	147.0465
277.36	134.4749
295.22	145.6298
300.09	143.3261
312.17	129.0415
338.32	124.3230
351.93	127.8054
387.59	92.0435
409.46	109.8960
427.87	84.1948
463.00	82.4811
510.77	85.1890
583.19	56.3042
609.31	74.6906
661.66	48.5543
727.33	58.3877
763.13	62.4170
768.36	46.8765
785.37	53.3620
794.95	34.6129
806.17	34.7120
831.80	43.4043
860.56	28.7844
896.60	41.2186
911.20	38.8424
934.06	30.3693
964.77	30.9439
968.97	59.0309
1001.03	26.6046
1078.86	27.9773
1120.29	35.4676
1155.19	29.9577
1173.23	26.6077
1238.11	25.0129
1280.96	15.5143
1332.51	35.2295
1377.67	21.9810
1401.50	21.7878
1407.98	22.8025
1460.80	20.0041
1509.23	24.1943
1588.20	30.6226
1620.50	20.5159
1729.60	14.5964
1764.49	14.6699

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689005

Total Uranium Activity	3.1347E-02	ug/g
Total Uranium Counting Unc.	5.8113E-02	ug/g
Total Uranium Tpu	5.8113E-08	ug/g
Total Uranium Mda	3.4477E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:28:04.52

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689006.CNF;1
Sample date       : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 09:03:03
Sample ID         : G198689006           Sample quantity  : 1.13320E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:01.50  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708128               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.64*	22	367	1.31	93.25	89	10	1.53E-03	181.8	
2	0	63.47*	17	300	1.24	126.91	124	7	1.15E-03	198.3	
3	2	74.76*	286	444	1.68	149.47	142	18	1.99E-02	16.9	2.22E+00
4	2	77.17*	410	395	1.27	154.30	142	18	2.85E-02	10.7	
5	3	84.19	102	478	1.42	168.32	161	17	7.05E-03	39.7	1.18E+00
6	3	87.22	126	301	1.07	174.39	161	17	8.73E-03	23.9	
7	0	92.82*	137	470	1.40	185.59	181	9	9.51E-03	33.3	
8	0	108.86	36	328	1.45	217.65	213	9	2.48E-03	93.5	
9	0	128.81	115	281	1.46	257.54	253	9	7.98E-03	27.9	
10	0	174.52	47	200	1.56	348.93	346	8	3.27E-03	53.8	
11	0	185.73*	178	285	1.49	371.35	366	10	1.23E-02	21.9	
12	0	195.35	29	268	1.80	390.58	385	10	2.02E-03	107.3	
13	0	209.50	148	354	1.80	418.88	414	13	1.03E-02	27.5	
14	0	238.44*	744	379	1.17	476.74	472	9	5.17E-02	6.4	
15	0	241.78	107	231	1.36	483.43	481	7	7.42E-03	26.2	
16	0	269.89	89	183	1.28	539.62	535	10	6.20E-03	30.2	
17	0	295.42*	187	246	1.57	590.69	584	12	1.30E-02	18.9	
18	0	300.16	70	149	1.36	600.16	596	9	4.87E-03	33.6	
19	0	327.92	35	168	1.54	655.67	650	9	2.41E-03	69.7	
20	0	338.16	158	232	1.65	676.14	671	12	1.10E-02	20.8	
21	0	351.69*	280	213	1.46	703.20	698	13	1.95E-02	13.4	
22	0	370.61	34	114	2.27	741.03	737	9	2.38E-03	58.3	
23	0	462.36	30	138	1.57	924.51	921	13	2.08E-03	82.5	
24	0	510.43*	74	158	2.42	1020.65	1012	18	5.12E-03	52.2	
25	0	556.50	27	80	2.18	1112.79	1104	11	1.89E-03	67.1	
26	0	568.85*	54	140	2.56	1137.48	1131	15	3.78E-03	58.8	
27	0	582.95*	235	115	1.32	1165.70	1159	14	1.63E-02	12.5	
28	0	609.10*	231	109	1.31	1218.00	1211	15	1.60E-02	12.6	
29	0	661.72	347	80	1.78	1323.23	1316	17	2.41E-02	8.0	
30	0	727.08	73	78	1.89	1453.99	1447	13	5.07E-03	27.6	
31	2	768.52*	25	25	1.49	1536.87	1534	25	1.72E-03	50.3	1.17E+00
32	2	771.70	23	54	2.23	1543.23	1534	25	1.59E-03	73.3	
33	0	795.63	50	56	1.98	1591.10	1585	11	3.50E-03	32.8	
34	4	860.38	74	18	2.75	1720.63	1715	15	5.15E-03	15.7	4.88E-01
35	4	863.53	14	9	1.27	1726.94	1715	15	9.84E-04	46.7	
36	0	911.37*	183	28	1.60	1822.65	1817	14	1.27E-02	10.3	
37	0	934.13	28	17	1.34	1868.19	1863	10	1.91E-03	35.4	
38	0	938.89	21	11	2.79	1877.70	1873	10	1.49E-03	35.2	

Sample ID : G198689006 Acquisition date : 11-DEC-2007 09:03:03

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	3	964.53	38	36	2.55	1928.99	1922	27	2.62E-03	35.5	1.62E+00
40	3	969.08*	95	32	2.55	1938.10	1922	27	6.63E-03	19.1	
41	0	1001.50*	15	21	1.20	2002.96	1999	8	1.04E-03	76.6	
42	0	1046.93	32	28	5.52	2093.86	2087	14	2.20E-03	39.8	
43	0	1114.81	10	36	1.26	2229.67	2223	9	6.70E-04	116.8	
44	0	1120.54	68	32	1.57	2241.14	2235	13	4.74E-03	21.0	
45	0	1157.64	14	46	3.61	2315.37	2306	13	9.37E-04	106.5	
46	0	1322.89	24	10	6.23	2646.05	2638	15	1.65E-03	36.7	
47	3	1358.13	10	3	1.50	2716.58	2715	13	7.29E-04	32.0	1.24E+00
48	3	1361.45	16	10	2.62	2723.23	2715	13	1.12E-03	40.1	
49	0	1378.13	33	17	1.19	2756.60	2749	15	2.27E-03	33.6	
50	0	1385.86	18	11	3.20	2772.08	2764	15	1.23E-03	47.8	
51	0	1432.50	10	20	0.60	2865.42	2857	13	7.01E-04	95.7	
52	0	1461.03*	417	34	1.98	2922.53	2914	17	2.90E-02	6.0	
53	0	1588.13	25	19	5.59	3176.92	3168	15	1.76E-03	42.3	
54	0	1620.88*	9	12	2.25	3242.48	3231	14	5.93E-04	127.4	
55	0	1724.37	16	6	2.45	3449.65	3444	11	1.08E-03	38.8	
56	0	1764.86*	33	10	1.19	3530.71	3523	14	2.28E-03	33.4	
57	0	1849.21	7	10	1.37	3699.57	3692	10	4.86E-04	92.6	
58	0	1857.78	13	3	1.51	3716.73	3710	12	9.20E-04	37.7	
59	0	1904.47	5	10	0.58	3810.20	3806	10	3.47E-04	126.5	
60	0	1934.92	18	0	3.58	3871.17	3866	11	1.25E-03	23.6	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689006       *
* Acquisition date : 11-DEC-2007 09:03:03 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.50     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689006           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.1332E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-MAR-2007 18:40:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.270E+00	6.834E-01	3.103E-01	0.000E+00
CS-137	2.707E-01	4.721E-02	2.920E-02	0.000E+00
TL-208	1.649E-01	4.219E-02	2.983E-02	0.000E+00
BI-212	4.455E-01	2.432E-01	2.301E-01	0.000E+00
PB-212	5.038E-01	7.013E-02	5.509E-02	0.000E+00
BI-214	3.081E-01	7.930E-02	5.945E-02	0.000E+00
PB-214	2.919E-01	7.850E-02	6.124E-02	0.000E+00
RA-223	2.090E-01	1.245E-01	1.489E-01	0.000E+00
AC-228	6.288E-01	1.379E-01	1.163E-01	0.000E+00
PA-234M	1.724E+00	2.591E+00	3.562E+00	0.000E+00
TH-234	5.480E-01	3.598E-01	3.973E-01	0.000E+00
NP-237	2.273E-01	1.079E-01	2.006E-01	0.000E+00
AM-243	1.087E-01	3.690E-02	3.671E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-2.430E-02		2.377E-02	3.424E-02	0.000E+00	NOT IDENT.
RH-101	-2.838E-03		1.909E-02	2.869E-02	0.000E+00	NOT IDENT.
SB-125	2.831E-02		4.892E-02	8.543E-02	0.000E+00	NOT IDENT.
EU-155	-6.370E-03		5.743E-02	8.376E-02	0.000E+00	NOT IDENT.
PO-209	6.931E-01		3.665E+00	6.341E+00	0.000E+00	NOT IDENT.
BI-211	4.442E-02		5.110E-01	8.792E-01	0.000E+00	NOT IDENT.
PA-233	-1.451E-02		3.254E-02	5.430E-02	0.000E+00	NOT IDENT.
U-235	1.328E-01		1.151E-01	1.823E-01	0.000E+00	NOT IDENT.
NP-236	-1.163E-03		2.965E-02	4.809E-02	0.000E+00	NOT IDENT.
NP-239	4.385E-02		1.161E-01	2.039E-01	0.000E+00	NOT IDENT.
AM-241	0.000E+00		6.973E-02	1.041E-01	0.000E+00	NOT IDENT.
CM-243	-3.272E-02		5.252E-02	7.427E-02	0.000E+00	NOT IDENT.
AM-246	3.669E-02		6.524E-02	1.162E-01	0.000E+00	NOT IDENT.
CF-249	6.865E-03		2.139E-02	3.689E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:28:05.54

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689006.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 09:03:03
Sample ID        : G198689006           Sample quantity  : 1.13320E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.50  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	417	10.66*	1.230E+00	5.270E+00	5.270E+00	13.23
CS-137	661.66	347	85.10*	2.502E+00	2.697E-01	2.707E-01	17.80
TL-208	277.36	------	6.31	5.062E+00	------	Line Not Found	------
	510.77	74	22.60	3.131E+00	1.725E-01	1.725E-01	104.67
	583.19	235	84.50*	2.796E+00	1.649E-01	1.649E-01	26.10
	763.13	------	1.81	2.201E+00	------	Line Not Found	------
	860.56	74	12.42	1.971E+00	5.014E-01	5.014E-01	32.64
BI-212	727.33	73	11.80*	2.300E+00	4.455E-01	4.455E-01	55.70
	785.37	------	1.10	2.144E+00	------	Line Not Found	------
	1620.50	9	1.49	1.140E+00	8.327E-01	8.327E-01	254.83
PB-212	74.81	286	10.40	6.394E+00	7.131E-01	7.131E-01	34.63
	77.11	410	17.50	6.637E+00	5.847E-01	5.847E-01	22.67
	87.30	126	7.81	7.389E+00	3.608E-01	3.608E-01	48.43
	238.63	744	43.30*	5.647E+00	5.038E-01	5.038E-01	14.20
	300.09	70	3.28	4.773E+00	7.415E-01	7.415E-01	67.40
BI-214	609.31	231	46.10*	2.692E+00	3.081E-01	3.081E-01	26.26
	768.36	25	4.94	2.187E+00	3.798E-01	3.799E-01	100.91
	806.17	------	1.22	2.093E+00	------	Line Not Found	------
	934.06	28	3.03	1.826E+00	8.241E-01	8.242E-01	71.33
	1120.29	68	15.10	1.544E+00	4.846E-01	4.846E-01	42.64
	1155.19	------	1.63	1.502E+00	------	Line Not Found	------
	1238.11	------	5.79	1.412E+00	------	Line Not Found	------
	1280.96	------	1.43	1.371E+00	------	Line Not Found	------
	1377.67	33	4.00	1.289E+00	1.050E+00	1.050E+00	67.39
	1401.50	------	1.27	1.271E+00	------	Line Not Found	------
	1407.98	------	2.15	1.266E+00	------	Line Not Found	------
	1509.23	------	2.11	1.199E+00	------	Line Not Found	------
	1729.60	------	2.92	1.093E+00	------	Line Not Found	------
	1764.49	33	15.40	1.081E+00	3.275E-01	3.275E-01	67.01
PB-214	74.81	286	6.44	6.394E+00	1.152E+00	1.152E+00	34.63
	77.11	410	10.80	6.637E+00	9.474E-01	9.474E-01	22.67
	87.30	126	4.84	7.389E+00	5.822E-01	5.823E-01	48.43

Sample ID : G198689006 Acquisition date : 11-DEC-2007 09:03:03

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	107	7.43	5.591E+00	4.262E-01	4.263E-01	52.68
	295.22	187	19.30	4.830E+00	3.331E-01	3.331E-01	38.35
	351.93	280	37.60*	4.228E+00	2.918E-01	2.919E-01	27.45
RA-223	269.46	89	13.70*	5.165E+00	2.090E-01	2.090E-01	60.78
AC-228	129.07	115	2.42	7.839E+00	1.003E+00	1.003E+00	56.22
	209.25	148	3.89	6.168E+00	1.024E+00	1.024E+00	55.35
	270.25	89	3.46	5.165E+00	8.274E-01	8.274E-01	60.78
	338.32	158	11.27	4.358E+00	5.332E-01	5.332E-01	42.06
	409.46	------	1.92	3.750E+00	------	Line Not Found	------
	463.00	30	4.40	3.398E+00	3.321E-01	3.320E-01	165.12
	794.95	50	4.25	2.118E+00	9.266E-01	9.266E-01	66.08
	911.20	183	25.80*	1.869E+00	6.288E-01	6.288E-01	22.38
	964.77	38	4.99	1.773E+00	7.063E-01	7.063E-01	71.45
	968.97	95	15.80	1.765E+00	5.670E-01	5.670E-01	39.20
	1588.20	25	3.22	1.156E+00	1.126E+00	1.126E+00	84.72
PA-234M	1001.03	15	0.84*	1.712E+00	1.724E+00	1.724E+00	153.39
TH-234	63.29	17	4.80	4.900E+00	1.165E-01	1.165E-01	396.73
	92.58	137	5.41*	7.651E+00	5.480E-01	5.480E-01	67.00
NP-237	86.48	126	12.40*	7.389E+00	2.273E-01	2.273E-01	48.43
AM-243	74.66	286	68.20*	6.394E+00	1.087E-01	1.087E-01	34.63

Flag: "*" = Keyline

Sample ID : G198689006 Acquisition date : 11-DEC-2007 09:03:03

Total number of lines in spectrum	60	
Number of unidentified lines	26	
Number of lines tentatively identified by NID	34	56.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	5.270E+00	5.270E+00	0.697E+00	13.23	
CS-137	9.47E+08S	1.00	2.697E-01	2.707E-01	0.482E-01	17.80	
TL-208	4.43E+17S	1.00	1.649E-01	1.649E-01	0.431E-01	26.10	
BI-212	4.43E+17S	1.00	4.455E-01	4.455E-01	2.482E-01	55.70	
PB-212	4.43E+17S	1.00	5.038E-01	5.038E-01	0.716E-01	14.20	
BI-214	5.05E+10S	1.00	3.081E-01	3.081E-01	0.809E-01	26.26	
PB-214	5.05E+10S	1.00	2.918E-01	2.919E-01	0.801E-01	27.45	
RA-223	1.04E+12S	1.00	2.090E-01	2.090E-01	1.270E-01	60.78	
AC-228	4.43E+17S	1.00	6.288E-01	6.288E-01	1.407E-01	22.38	
PA-234M	1.41E+17S	1.00	1.724E+00	1.724E+00	2.644E+00	153.39	
TH-234	1.41E+17S	1.00	5.480E-01	5.480E-01	3.672E-01	67.00	
NP-237	6.75E+13S	1.00	2.273E-01	2.273E-01	1.101E-01	48.43	
AM-243	2.33E+11S	1.00	1.087E-01	1.087E-01	0.377E-01	34.63	
			---	---			
		Total Activity :	1.070E+01	1.070E+01			
		Grand Total Activity :	1.070E+01	1.070E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689006 Acquisition date : 11-DEC-2007 09:03:03

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.64	22	367	1.31	93.25	89	10	1.53E-03	****	1.92E+00	
3	84.19	102	478	1.42	168.32	161	17	7.05E-03	79.3	7.20E+00	
0	108.86	36	328	1.45	217.65	213	9	2.48E-03	****	7.97E+00	
0	174.52	47	200	1.56	348.93	346	8	3.27E-03	****	6.90E+00	
0	185.73	178	285	1.49	371.35	366	10	1.23E-02	43.7	6.66E+00	
0	195.35	29	268	1.80	390.58	385	10	2.02E-03	****	6.45E+00	
0	327.92	35	168	1.54	655.67	650	9	2.41E-03	****	4.46E+00	
0	370.61	34	114	2.27	741.03	737	9	2.38E-03	****	4.06E+00	
0	556.50	27	80	2.18	1112.79	1104	11	1.89E-03	****	2.91E+00	
0	568.85	54	140	2.56	1137.48	1131	15	3.78E-03	****	2.86E+00	
2	771.70	23	54	2.23	1543.23	1534	25	1.59E-03	****	2.18E+00	
4	863.53	14	9	1.27	1726.94	1715	15	9.84E-04	93.4	1.96E+00	
0	938.89	21	11	2.79	1877.70	1873	10	1.49E-03	70.3	1.82E+00	
0	1046.93	32	28	5.52	2093.86	2087	14	2.20E-03	79.5	1.64E+00	
0	1114.81	10	36	1.26	2229.67	2223	9	6.70E-04	****	1.55E+00	
0	1157.64	14	46	3.61	2315.37	2306	13	9.37E-04	****	1.50E+00	
0	1322.89	24	10	6.23	2646.05	2638	15	1.65E-03	73.5	1.33E+00	
3	1358.13	10	3	1.50	2716.58	2715	13	7.29E-04	63.9	1.30E+00	
3	1361.45	16	10	2.62	2723.23	2715	13	1.12E-03	80.2	1.30E+00	
0	1385.86	18	11	3.20	2772.08	2764	15	1.23E-03	95.6	1.28E+00	
0	1432.50	10	20	0.60	2865.42	2857	13	7.01E-04	****	1.25E+00	
0	1724.37	16	6	2.45	3449.65	3444	11	1.08E-03	77.6	1.10E+00	
0	1849.21	7	10	1.37	3699.57	3692	10	4.86E-04	****	1.05E+00	
0	1857.78	13	3	1.51	3716.73	3710	12	9.20E-04	75.5	1.05E+00	
0	1904.47	5	10	0.58	3810.20	3806	10	3.47E-04	****	1.04E+00	
0	1934.92	18	0	3.58	3871.17	3866	11	1.25E-03	47.1	1.03E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689006            *
* Acquisition date : 11-DEC-2007 09:03:03 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.50     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689006           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.1332E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  7-MAR-2007 18:40:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.270E+00	6.834E-01	1.552E-01	6.834E-01
CS-137	2.707E-01	4.721E-02	1.461E-02	4.721E-02
TL-208	1.649E-01	4.219E-02	1.492E-02	4.219E-02
BI-212	4.455E-01	2.432E-01	1.151E-01	2.432E-01
PB-212	5.038E-01	7.013E-02	2.756E-02	7.013E-02
BI-214	3.081E-01	7.930E-02	2.974E-02	7.930E-02
PB-214	2.919E-01	7.850E-02	3.064E-02	7.850E-02
RA-223	2.090E-01	1.245E-01	7.448E-02	1.245E-01
AC-228	6.288E-01	1.379E-01	5.819E-02	1.379E-01
PA-234M	1.724E+00	2.591E+00	1.782E+00	2.591E+00
TH-234	5.480E-01	3.598E-01	1.988E-01	3.598E-01
NP-237	2.273E-01	1.079E-01	1.003E-01	1.079E-01
AM-243	1.087E-01	3.690E-02	1.837E-02	3.690E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-2.430E-02	2.377E-02	1.713E-02	2.377E-02	NOT IDENT.
RH-101	-2.838E-03	1.909E-02	1.436E-02	1.909E-02	NOT IDENT.
SB-125	2.831E-02	4.892E-02	4.274E-02	4.892E-02	NOT IDENT.
EU-155	-6.370E-03	5.743E-02	4.190E-02	5.743E-02	NOT IDENT.
PO-209	6.931E-01	3.665E+00	3.172E+00	3.665E+00	NOT IDENT.
BI-211	4.442E-02	5.110E-01	4.399E-01	5.110E-01	NOT IDENT.
PA-233	-1.451E-02	3.254E-02	2.717E-02	3.254E-02	NOT IDENT.
U-235	1.328E-01	1.151E-01	9.118E-02	1.151E-01	NOT IDENT.
NP-236	-1.163E-03	2.965E-02	2.406E-02	2.965E-02	NOT IDENT.
NP-239	4.385E-02	1.161E-01	1.020E-01	1.161E-01	NOT IDENT.
AM-241	1.076E-01	6.973E-02	5.208E-02	6.973E-02	NOT IDENT.
CM-243	-3.272E-02	5.252E-02	3.716E-02	5.252E-02	NOT IDENT.
AM-246	3.669E-02	6.524E-02	5.812E-02	6.524E-02	NOT IDENT.
CF-249	6.865E-03	2.139E-02	1.846E-02	2.139E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	291.5429
63.29	419.3882
74.66	412.6875
74.81	412.7480
74.81	412.7480
77.11	413.6744
77.11	413.6744
86.48	540.5741
87.30	488.3502
87.30	488.3502
92.58	437.4645
98.44	333.9957
103.76	331.3192
105.31	316.3462
129.07	336.0325
143.76	291.3197
198.00	284.7979
209.25	311.8472
228.18	252.1351
238.63	298.6411
242.00	488.2269
269.46	183.7123
270.25	193.2035
277.36	189.0991
295.22	189.0074
300.09	200.5433
312.17	171.8155
338.32	168.8025
351.93	157.0261
387.59	140.3602
409.46	133.4913
427.87	113.2911
463.00	112.5948
510.77	102.9700
583.19	83.0792
609.31	91.0916
661.66	64.4341
727.33	65.4932
763.13	44.0342
768.36	66.1304
785.37	68.2338
794.95	69.3069
806.17	70.4089
831.80	56.8350
860.56	50.6283
896.60	50.0703
911.20	53.0651
934.06	44.0652
964.77	59.3902
968.97	59.4406
1001.03	44.3781
1078.86	35.2427
1120.29	35.5093
1155.19	52.7428
1173.23	54.7561
1238.11	55.3626
1280.96	32.4388
1332.51	27.5977
1377.67	22.9404
1401.50	20.6632
1407.98	19.6494
1460.80	28.1448
1509.23	26.2451
1588.20	32.7593
1620.50	10.9688
1729.60	9.2756
1764.49	16.7720

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689006

Total Uranium Activity	6.1430E-02	ug/g
Total Uranium Counting Unc.	5.3276E-02	ug/g
Total Uranium Tpu	5.3276E-08	ug/g
Total Uranium Mda	4.2190E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:28:41.53

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689007.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 11:41:12
Sample ID        : G198689007           Sample quantity  : 1.09200E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.33  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.45*	102	252	1.29	126.94	123	9	7.06E-03	33.0	
2	6	75.08	196	396	1.54	150.21	146	16	1.36E-02	19.9	3.47E+00
3	6	77.24	242	333	1.26	154.54	146	16	1.68E-02	14.9	
4	1	87.12	108	261	1.40	174.30	171	22	7.48E-03	24.6	3.10E+00
5	1	89.97	93	349	1.50	180.00	171	22	6.43E-03	37.6	
6	1	93.12*	113	331	1.66	186.30	171	22	7.86E-03	36.3	
7	0	185.75*	133	346	1.77	371.62	366	13	9.26E-03	32.3	
8	0	208.64	71	262	1.29	417.41	414	10	4.93E-03	44.1	
9	1	238.59*	644	180	1.78	477.33	472	31	4.47E-02	6.1	6.32E+00
10	1	242.26*	99	141	1.82	484.67	472	31	6.88E-03	30.8	
11	1	247.26	56	123	1.83	494.67	472	31	3.87E-03	45.9	
12	1	249.92	84	62	1.66	500.00	472	31	5.82E-03	18.9	
13	0	255.53	154	292	5.95	511.22	503	21	1.07E-02	28.8	
14	0	295.53*	96	245	1.15	591.24	586	12	6.65E-03	37.3	
15	3	327.37*	29	142	2.29	654.94	650	18	1.98E-03	87.3	4.99E-01
16	3	331.99	39	80	1.81	664.18	650	18	2.72E-03	42.8	
17	0	338.29	149	128	0.90	676.77	672	11	1.03E-02	16.8	
18	0	351.96*	184	127	1.42	704.12	698	11	1.28E-02	15.2	
19	0	376.19	20	106	0.94	752.59	746	9	1.39E-03	95.9	
20	0	464.07	26	112	1.72	928.38	919	12	1.79E-03	85.0	
21	0	511.03*	34	116	2.17	1022.33	1014	16	2.36E-03	100.2	
22	0	541.24	14	40	1.32	1082.76	1079	7	9.94E-04	77.0	
23	0	583.43*	150	118	1.32	1167.16	1160	15	1.04E-02	18.7	
24	0	609.50*	121	93	1.70	1219.30	1214	11	8.43E-03	19.5	
25	0	661.58*	276	72	1.88	1323.48	1314	18	1.92E-02	9.9	
26	0	728.09	47	59	3.18	1456.51	1450	12	3.24E-03	36.3	
27	0	771.32	25	68	3.50	1543.00	1534	15	1.70E-03	75.8	
28	0	843.52	14	48	4.29	1687.41	1676	13	9.49E-04	108.7	
29	0	861.20	25	54	2.01	1722.77	1716	12	1.72E-03	62.9	
30	0	911.43*	107	43	1.89	1823.23	1817	11	7.42E-03	16.1	
31	0	921.42	22	17	1.37	1843.22	1839	10	1.53E-03	41.2	
32	0	943.10	27	41	5.94	1886.59	1878	18	1.88E-03	58.3	
33	0	964.84	18	27	2.90	1930.06	1924	10	1.28E-03	56.5	
34	0	969.02*	88	26	2.22	1938.43	1934	11	6.14E-03	16.9	
35	1	1014.01	18	17	2.28	2028.42	2026	26	1.26E-03	36.5	1.48E+00
36	1	1018.95	24	34	2.29	2038.29	2026	26	1.69E-03	54.7	
37	0	1064.94	42	38	8.38	2130.29	2119	22	2.91E-03	40.8	
38	1	1114.75	19	38	2.33	2229.90	2222	45	1.33E-03	61.4	1.22E+00

Sample ID : G198689007 Acquisition date : 11-DEC-2007 11:41:12

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	1120.01*	36	29	2.33	2240.42	2222	45	2.51E-03	40.7	
40	0	1136.51	8	26	0.64	2273.42	2267	11	5.35E-04	131.1	
41	0	1155.25	22	29	1.53	2310.90	2303	13	1.52E-03	55.3	
42	0	1173.22	17	31	3.30	2346.84	2334	18	1.17E-03	81.8	
43	0	1178.66	20	16	3.53	2357.72	2352	11	1.41E-03	44.5	
44	0	1204.82	25	18	4.47	2410.05	2403	14	1.76E-03	40.3	
45	0	1246.56	14	16	2.32	2493.54	2487	11	9.81E-04	61.4	
46	0	1271.01	8	10	0.47	2542.42	2536	9	5.38E-04	84.9	
47	0	1273.93	15	9	1.33	2548.27	2544	9	1.04E-03	44.3	
48	0	1332.60	23	9	3.79	2665.60	2660	13	1.59E-03	34.9	
49	0	1390.48	15	5	4.25	2781.37	2775	12	1.02E-03	41.8	
50	0	1404.69	46	6	7.59	2809.78	2796	25	3.16E-03	21.0	
51	0	1418.37	15	2	2.51	2837.14	2831	11	1.01E-03	34.1	
52	0	1439.95	12	10	3.65	2880.29	2873	13	8.46E-04	60.1	
53	0	1460.97*	229	36	1.40	2922.33	2914	16	1.59E-02	9.5	
54	0	1476.64	11	6	2.19	2953.67	2949	9	7.31E-04	53.9	
55	0	1528.75	9	17	4.71	3057.89	3045	17	6.25E-04	110.1	
56	0	1729.58	12	5	1.44	3459.50	3455	10	8.33E-04	45.3	
57	0	1764.58*	17	15	1.43	3529.50	3522	13	1.21E-03	64.5	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689007       *
* Acquisition date : 11-DEC-2007 11:41:12 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.33     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689007           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0920E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-MAR-2007 03:44:30 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.533E+00	6.856E-01	2.959E-01	0.000E+00
CO-60	2.348E-02	3.769E-02	3.271E-02	0.000E+00
CS-137	2.652E-01	5.534E-02	3.732E-02	0.000E+00
TL-208	1.295E-01	4.827E-02	3.605E-02	0.000E+00
BI-212	3.498E-01	2.504E-01	2.879E-01	0.000E+00
PB-212	5.252E-01	7.214E-02	5.602E-02	0.000E+00
BI-214	1.993E-01	7.758E-02	7.574E-02	0.000E+00
PB-214	2.344E-01	7.135E-02	7.014E-02	0.000E+00
AC-228	4.500E-01	1.479E-01	1.393E-01	0.000E+00
TH-234	5.803E-01	4.158E-01	4.610E-01	0.000E+00
NP-237	2.559E-01	1.250E-01	2.156E-01	0.000E+00
AM-243	1.046E-01	4.154E-02	4.798E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
RH-101	1.130E-02		2.329E-02	3.693E-02	0.000E+00	NOT IDENT.
SB-125	3.482E-03		6.023E-02	9.989E-02	0.000E+00	NOT IDENT.
EU-155	2.899E-03		6.070E-02	1.056E-01	0.000E+00	NOT IDENT.
PO-209	-2.220E-01		4.260E+00	7.067E+00	0.000E+00	NOT IDENT.
BI-211	3.106E-02		6.613E-01	1.088E+00	0.000E+00	NOT IDENT.
RA-223	7.290E-02		1.237E-01	2.136E-01	0.000E+00	NOT IDENT.
PA-233	-2.522E-03		4.105E-02	6.851E-02	0.000E+00	NOT IDENT.
PA-234M	-8.845E-01		2.839E+00	4.557E+00	0.000E+00	NOT IDENT.
U-235	1.508E-01		1.169E-01	2.100E-01	0.000E+00	NOT IDENT.
NP-236	7.000E-03		3.962E-02	6.059E-02	0.000E+00	NOT IDENT.
NP-239	-5.318E-02		1.342E-01	2.233E-01	0.000E+00	NOT IDENT.
AM-241	2.068E-02		9.619E-02	1.418E-01	0.000E+00	NOT IDENT.
CM-243	2.068E-02		5.567E-02	9.795E-02	0.000E+00	NOT IDENT.
AM-246	2.558E-02		8.053E-02	1.376E-01	0.000E+00	NOT IDENT.
CF-249	-1.315E-02		2.572E-02	4.128E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:28:42.55

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689007.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 11:41:12
Sample ID        : G198689007           Sample quantity  : 1.09200E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.33  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	229	10.66*	1.047E+00	3.533E+00	3.533E+00	19.80
CO-60	1173.23	17	100.00*	1.257E+00	2.302E-02	2.348E-02	163.79
	1332.51	23	100.00	1.126E+00	3.488E-02	3.557E-02	70.05
CS-137	661.66	276	85.10*	2.113E+00	2.643E-01	2.652E-01	21.30
TL-208	277.36	------	6.31	4.337E+00	------	Line Not Found	------
	510.77	34	22.60	2.640E+00	9.773E-02	9.773E-02	200.53
	583.19	150	84.50*	2.358E+00	1.295E-01	1.295E-01	38.02
	763.13	------	1.81	1.860E+00	------	Line Not Found	------
	860.56	25	12.42	1.666E+00	2.051E-01	2.051E-01	126.07
BI-212	727.33	47	11.80*	1.940E+00	3.498E-01	3.498E-01	73.05
	785.37	------	1.10	1.812E+00	------	Line Not Found	------
	1620.50	------	1.49	9.727E-01	------	Line Not Found	------
PB-212	74.81	196	10.40	4.729E+00	6.856E-01	6.856E-01	40.55
	77.11	242	17.50	4.966E+00	4.787E-01	4.787E-01	30.76
	87.30	108	7.81	5.833E+00	4.063E-01	4.063E-01	49.85
	238.63	644	43.30*	4.865E+00	5.252E-01	5.252E-01	14.02
	300.09	------	3.28	4.077E+00	------	Line Not Found	------
BI-214	609.31	121	46.10*	2.270E+00	1.993E-01	1.993E-01	39.73
	768.36	------	4.94	1.848E+00	------	Line Not Found	------
	806.17	------	1.22	1.770E+00	------	Line Not Found	------
	934.06	------	3.03	1.546E+00	------	Line Not Found	------
	1120.29	36	15.10	1.310E+00	3.146E-01	3.146E-01	81.70
	1155.19	22	1.63	1.274E+00	1.808E+00	1.809E+00	110.82
	1238.11	------	5.79	1.199E+00	------	Line Not Found	------
	1280.96	------	1.43	1.164E+00	------	Line Not Found	------
	1377.67	------	4.00	1.096E+00	------	Line Not Found	------
	1401.50	------	1.27	1.081E+00	------	Line Not Found	------
	1407.98	------	2.15	1.077E+00	------	Line Not Found	------
	1509.23	------	2.11	1.022E+00	------	Line Not Found	------
	1729.60	12	2.92	9.349E-01	7.555E-01	7.556E-01	90.71
	1764.49	17	15.40	9.247E-01	2.108E-01	2.108E-01	129.06
PB-214	74.81	196	6.44	4.729E+00	1.107E+00	1.107E+00	40.55

Sample ID : G198689007 Acquisition date : 11-DEC-2007 11:41:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	242	10.80	4.966E+00	7.756E-01	7.757E-01	30.76
	87.30	108	4.84	5.833E+00	6.557E-01	6.557E-01	49.85
	242.00	99	7.43	4.810E+00	4.762E-01	4.762E-01	61.97
	295.22	96	19.30	4.127E+00	2.066E-01	2.066E-01	74.87
	351.93	184	37.60*	3.590E+00	2.343E-01	2.344E-01	31.06
AC-228	129.07	------	2.42	6.750E+00	------	Line Not Found	------
	209.25	71	3.89	5.358E+00	5.858E-01	5.858E-01	88.52
	270.25	------	3.46	4.425E+00	------	Line Not Found	------
	338.32	149	11.27	3.706E+00	6.133E-01	6.133E-01	34.16
	409.46	------	1.92	3.174E+00	------	Line Not Found	------
	463.00	26	4.40	2.863E+00	3.516E-01	3.516E-01	170.16
	794.95	------	4.25	1.792E+00	------	Line Not Found	------
	911.20	107	25.80*	1.581E+00	4.500E-01	4.500E-01	33.54
	964.77	18	4.99	1.501E+00	4.215E-01	4.215E-01	113.28
	968.97	88	15.80	1.495E+00	6.433E-01	6.433E-01	34.97
	1588.20	------	3.22	9.858E-01	------	Line Not Found	------
TH-234	63.29	102	4.80	3.200E+00	1.138E+00	1.138E+00	66.61
	92.58	113	5.41*	6.199E+00	5.803E-01	5.803E-01	73.12
NP-237	86.48	108	12.40*	5.833E+00	2.559E-01	2.559E-01	49.85
AM-243	74.66	196	68.20*	4.729E+00	1.046E-01	1.046E-01	40.55

Flag: "*" = Keyline

Sample ID : G198689007 Acquisition date : 11-DEC-2007 11:41:12

Total number of lines in spectrum 57
Number of unidentified lines 29
Number of lines tentatively identified by NID 28 49.12%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.533E+00	3.533E+00	0.700E+00	19.80	
CO-60	1.66E+08S	1.02	2.302E-02	2.348E-02	3.845E-02	163.79	
CS-137	9.47E+08S	1.00	2.643E-01	2.652E-01	0.565E-01	21.30	
TL-208	4.43E+17S	1.00	1.295E-01	1.295E-01	0.493E-01	38.02	
BI-212	4.43E+17S	1.00	3.498E-01	3.498E-01	2.555E-01	73.05	
PB-212	4.43E+17S	1.00	5.252E-01	5.252E-01	0.736E-01	14.02	
BI-214	5.05E+10S	1.00	1.993E-01	1.993E-01	0.792E-01	39.73	
PB-214	5.05E+10S	1.00	2.343E-01	2.344E-01	0.728E-01	31.06	
AC-228	4.43E+17S	1.00	4.500E-01	4.500E-01	1.509E-01	33.54	
TH-234	1.41E+17S	1.00	5.803E-01	5.803E-01	4.243E-01	73.12	
NP-237	6.75E+13S	1.00	2.559E-01	2.559E-01	1.276E-01	49.85	
AM-243	2.33E+11S	1.00	1.046E-01	1.046E-01	0.424E-01	40.55	
		Total Activity :	6.649E+00	6.650E+00			
		Grand Total Activity :	6.649E+00	6.650E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689007 Acquisition date : 11-DEC-2007 11:41:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	89.97	93	349	1.50	180.00	171	22	6.43E-03	75.1	6.02E+00	
0	185.75	133	346	1.77	371.62	366	13	9.26E-03	64.7	5.78E+00	
1	247.26	56	123	1.83	494.67	472	31	3.87E-03	91.7	4.74E+00	
1	249.92	84	62	1.66	500.00	472	31	5.82E-03	37.8	4.70E+00	
0	255.53	154	292	5.95	511.22	503	21	1.07E-02	57.6	4.62E+00	
3	327.37	29	142	2.29	654.94	650	18	1.98E-03	****	3.80E+00	
3	331.99	39	80	1.81	664.18	650	18	2.72E-03	85.6	3.76E+00	
0	376.19	20	106	0.94	752.59	746	9	1.39E-03	****	3.40E+00	
0	541.24	14	40	1.32	1082.76	1079	7	9.94E-04	****	2.51E+00	
0	771.32	25	68	3.50	1543.00	1534	15	1.70E-03	****	1.84E+00	
0	843.52	14	48	4.29	1687.41	1676	13	9.49E-04	****	1.70E+00	
0	921.42	22	17	1.37	1843.22	1839	10	1.53E-03	82.5	1.57E+00	
0	943.10	27	41	5.94	1886.59	1878	18	1.88E-03	****	1.53E+00	
1	1014.01	18	17	2.28	2028.42	2026	26	1.26E-03	72.9	1.43E+00	
1	1018.95	24	34	2.29	2038.29	2026	26	1.69E-03	****	1.43E+00	
0	1064.94	42	38	8.38	2130.29	2119	22	2.91E-03	81.6	1.37E+00	
1	1114.75	19	38	2.33	2229.90	2222	45	1.33E-03	****	1.32E+00	
0	1136.51	8	26	0.64	2273.42	2267	11	5.35E-04	****	1.29E+00	
0	1178.66	20	16	3.53	2357.72	2352	11	1.41E-03	89.1	1.25E+00	
0	1204.82	25	18	4.47	2410.05	2403	14	1.76E-03	80.5	1.23E+00	
0	1246.56	14	16	2.32	2493.54	2487	11	9.81E-04	****	1.19E+00	
0	1271.01	8	10	0.47	2542.42	2536	9	5.38E-04	****	1.17E+00	
0	1273.93	15	9	1.33	2548.27	2544	9	1.04E-03	88.7	1.17E+00	
0	1390.48	15	5	4.25	2781.37	2775	12	1.02E-03	83.6	1.09E+00	
0	1404.69	46	6	7.59	2809.78	2796	25	3.16E-03	41.9	1.08E+00	
0	1418.37	15	2	2.51	2837.14	2831	11	1.01E-03	68.2	1.07E+00	
0	1439.95	12	10	3.65	2880.29	2873	13	8.46E-04	****	1.06E+00	
0	1476.64	11	6	2.19	2953.67	2949	9	7.31E-04	****	1.04E+00	
0	1528.75	9	17	4.71	3057.89	3045	17	6.25E-04	****	1.01E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689007            *
* Acquisition date : 11-DEC-2007 11:41:12 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.33     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689007           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0920E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  7-MAR-2007 03:44:30 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.533E+00	6.856E-01	1.481E-01	6.856E-01
CO-60	2.348E-02	3.769E-02	1.636E-02	3.769E-02
CS-137	2.652E-01	5.534E-02	1.867E-02	5.534E-02
TL-208	1.295E-01	4.827E-02	1.804E-02	4.827E-02
BI-212	3.498E-01	2.504E-01	1.440E-01	2.504E-01
PB-212	5.252E-01	7.214E-02	2.803E-02	7.214E-02
BI-214	1.993E-01	7.758E-02	3.789E-02	7.758E-02
PB-214	2.344E-01	7.135E-02	3.509E-02	7.135E-02
AC-228	4.500E-01	1.479E-01	6.968E-02	1.479E-01
TH-234	5.803E-01	4.158E-01	2.306E-01	4.158E-01
NP-237	2.559E-01	1.250E-01	1.078E-01	1.250E-01
AM-243	1.046E-01	4.154E-02	2.401E-02	4.154E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
RH-101	1.130E-02	2.329E-02	1.848E-02	2.329E-02	NOT IDENT.
SB-125	3.482E-03	6.023E-02	4.997E-02	6.023E-02	NOT IDENT.
EU-155	2.899E-03	6.070E-02	5.283E-02	6.070E-02	NOT IDENT.
PO-209	-2.220E-01	4.260E+00	3.535E+00	4.260E+00	NOT IDENT.
BI-211	3.106E-02	6.613E-01	5.443E-01	6.613E-01	NOT IDENT.
RA-223	7.290E-02	1.237E-01	1.068E-01	1.237E-01	NOT IDENT.
PA-233	-2.522E-03	4.105E-02	3.427E-02	4.105E-02	NOT IDENT.
PA-234M	-8.845E-01	2.839E+00	2.280E+00	2.839E+00	NOT IDENT.
U-235	1.508E-01	1.169E-01	1.051E-01	1.169E-01	NOT IDENT.
NP-236	7.000E-03	3.962E-02	3.032E-02	3.962E-02	NOT IDENT.
NP-239	-5.318E-02	1.342E-01	1.117E-01	1.342E-01	NOT IDENT.
AM-241	2.068E-02	9.619E-02	7.094E-02	9.619E-02	NOT IDENT.
CM-243	2.068E-02	5.567E-02	4.901E-02	5.567E-02	NOT IDENT.
AM-246	2.558E-02	8.053E-02	6.885E-02	8.053E-02	NOT IDENT.
CF-249	-1.315E-02	2.572E-02	2.065E-02	2.572E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	258.5867
63.29	307.0529
74.66	356.9185
74.81	356.9725
74.81	356.9725
77.11	369.3611
77.11	369.3611
86.48	364.5946
87.30	395.4253
87.30	395.4253
92.58	361.1951
98.44	325.2273
103.76	317.2686
105.31	321.3268
129.07	321.7120
143.76	287.4876
198.00	278.8476
209.25	279.6146
228.18	241.9480
238.63	215.1102
242.00	215.4738
269.46	234.8032
270.25	238.9210
277.36	199.2485
295.22	225.3218
300.09	189.0198
312.17	171.5195
338.32	141.8918
351.93	139.1846
387.59	143.9140
409.46	123.7300
427.87	118.0929
463.00	94.1548
510.77	104.7946
583.19	80.7667
609.31	98.3866
661.66	70.0341
727.33	68.2768
763.13	48.9092
768.36	69.2333
785.37	46.4808
794.95	36.6718
806.17	48.6910
831.80	58.8767
860.56	37.2145
896.60	45.6125
911.20	50.8362
934.06	39.8411
964.77	56.3906
968.97	51.1475
1001.03	54.8762
1078.86	36.7816
1120.29	29.0446
1155.19	40.1881
1173.23	25.6553
1238.11	23.0608
1280.96	27.4364
1332.51	30.1138
1377.67	25.5912
1401.50	10.4648
1407.98	11.6655
1460.80	17.2793
1509.23	21.2718
1588.20	19.5585
1620.50	10.8063
1729.60	18.9443
1764.49	9.0151

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689007

Total Uranium Activity	6.9781E-02	ug/g
Total Uranium Counting Unc.	5.4109E-02	ug/g
Total Uranium Tpu	5.4109E-08	ug/g
Total Uranium Mda	4.8607E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:29:17.64

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689008.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 12:07:42
Sample ID        : G198689008           Sample quantity  : 1.24530E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.29  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.77*	73	411	0.81	93.06	88	10	5.09E-03	58.1	
2	0	51.39	22	202	0.84	102.28	100	5	1.55E-03	97.8	
3	0	63.84*	40	521	0.94	127.18	122	9	2.76E-03	111.9	
4	4	73.20*	39	364	1.36	145.89	143	17	2.67E-03	85.2	1.96E+00
5	4	74.94*	327	357	1.02	149.38	143	17	2.27E-02	11.4	
6	4	77.26*	570	395	1.12	154.02	143	17	3.96E-02	7.6	
7	4	84.44*	150	356	1.44	168.36	165	27	1.04E-02	23.4	1.32E+00
8	4	87.40	272	448	1.49	174.29	165	27	1.89E-02	15.3	
9	4	90.17	155	244	0.87	179.83	165	27	1.08E-02	17.3	
10	4	93.03*	304	428	1.50	185.55	165	27	2.11E-02	15.3	
11	2	128.93	63	249	1.31	257.32	254	9	4.36E-03	42.0	2.04E+00
12	2	130.05*	15	249	1.27	259.56	254	9	1.07E-03	177.5	
13	0	133.88	13	288	1.35	267.22	264	7	9.37E-04	209.6	
14	0	186.17*	94	265	1.32	371.78	368	7	6.55E-03	34.6	
15	0	209.33	115	240	0.74	418.08	415	8	8.01E-03	24.9	
16	2	238.83*	1182	174	1.16	477.05	470	19	8.21E-02	3.8	3.53E+00
17	2	241.05	105	158	1.22	481.49	470	19	7.31E-03	31.3	
18	2	242.20	144	177	1.34	483.80	470	19	1.00E-02	19.6	
19	0	270.38	91	168	1.52	540.15	536	8	6.33E-03	26.8	
20	0	295.59*	182	298	1.33	590.55	585	13	1.27E-02	21.9	
21	0	300.47	90	146	1.11	600.31	597	8	6.27E-03	25.4	
22	0	330.78*	110	305	7.20	660.91	652	19	7.62E-03	40.4	
23	0	338.48*	250	144	1.26	676.31	672	9	1.74E-02	11.4	
24	0	352.07*	368	213	1.15	703.48	696	13	2.56E-02	10.3	
25	0	462.22	71	117	0.85	923.73	918	10	4.95E-03	30.8	
26	0	486.38	50	89	4.33	972.04	966	11	3.45E-03	39.6	
27	0	511.13*	118	94	1.82	1021.52	1014	16	8.17E-03	29.4	
28	0	523.90	37	77	1.93	1047.05	1043	11	2.57E-03	48.8	
29	0	563.40	37	66	2.23	1126.03	1120	9	2.59E-03	43.2	
30	0	583.45*	343	130	1.29	1166.14	1160	13	2.38E-02	9.3	
31	0	609.38*	308	128	1.37	1217.97	1212	13	2.14E-02	10.1	
32	0	655.18	11	31	1.34	1309.56	1305	6	7.44E-04	88.2	
33	0	662.07*	44	96	1.04	1323.34	1317	12	3.05E-03	49.9	
34	0	727.66	114	70	1.62	1454.47	1447	14	7.92E-03	18.2	
35	3	765.91	18	17	1.22	1530.98	1529	29	1.23E-03	34.7	2.06E+00
36	3	768.22*	34	64	2.22	1535.60	1529	29	2.34E-03	54.3	
37	0	796.34	33	102	4.95	1591.82	1580	21	2.27E-03	80.1	
38	0	861.31*	22	82	1.32	1721.73	1717	13	1.50E-03	97.7	

Sample ID : G198689008 Acquisition date : 11-DEC-2007 12:07:42

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	911.57*	253	57	1.70	1822.23	1817	12	1.76E-02	9.2	
40	1	964.99*	40	52	1.96	1929.04	1925	18	2.76E-03	35.8	1.25E+00
41	1	969.35	114	52	1.66	1937.76	1925	18	7.92E-03	15.3	
42	0	1056.91	21	24	0.80	2112.86	2108	12	1.46E-03	51.5	
43	0	1120.67*	56	68	1.09	2240.36	2235	14	3.86E-03	35.2	
44	0	1137.87	30	62	10.12	2274.76	2256	28	2.10E-03	76.4	
45	0	1169.10	21	37	4.22	2337.20	2328	14	1.43E-03	67.5	
46	0	1220.25	43	17	6.34	2439.49	2431	17	2.99E-03	26.7	
47	0	1239.38	41	35	1.70	2477.73	2472	14	2.85E-03	34.4	
48	0	1326.28	18	8	3.44	2651.50	2646	11	1.25E-03	38.6	
49	0	1347.54	11	14	1.41	2694.02	2689	12	7.35E-04	79.1	
50	0	1377.24*	52	19	5.52	2753.42	2739	24	3.60E-03	27.2	
51	0	1409.97	24	17	5.23	2818.87	2812	14	1.66E-03	42.2	
52	0	1461.23*	258	34	2.22	2921.37	2914	17	1.79E-02	8.5	
53	0	1509.92	19	12	1.01	3018.74	3012	12	1.32E-03	43.1	
54	4	1617.50	16	1	2.42	3233.87	3231	14	1.13E-03	21.5	8.00E-01
55	4	1620.47	24	3	2.80	3239.81	3231	14	1.68E-03	24.3	
56	0	1659.70	17	3	4.55	3318.26	3311	13	1.19E-03	32.2	
57	0	1765.01*	48	15	1.97	3528.87	3519	15	3.30E-03	25.7	
58	0	1770.69	13	6	2.72	3540.23	3535	9	8.97E-04	45.3	
59	0	1803.73	9	3	0.62	3606.30	3599	12	6.57E-04	48.5	
60	0	1814.15	7	5	1.34	3627.14	3621	10	4.86E-04	70.7	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689008       *
* Acquisition date : 11-DEC-2007 12:07:42 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:27.29     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689008           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.2453E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 31-OCT-2007 13:07:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.132E+00	5.483E-01	3.063E-01	0.000E+00
CS-137	3.352E-02	3.287E-02	3.056E-02	0.000E+00
TL-208	2.359E-01	4.572E-02	3.029E-02	0.000E+00
BI-212	6.789E-01	2.466E-01	2.446E-01	0.000E+00
PB-212	7.922E-01	7.454E-02	4.368E-02	0.000E+00
BI-214	4.029E-01	8.397E-02	5.975E-02	0.000E+00
PB-214	3.782E-01	7.925E-02	5.973E-02	0.000E+00
RA-223	2.109E-01	1.117E-01	1.450E-01	0.000E+00
AC-228	8.409E-01	1.614E-01	1.109E-01	0.000E+00
TH-234	1.160E+00	3.595E-01	3.402E-01	0.000E+00
NP-237	4.634E-01	1.432E-01	1.516E-01	0.000E+00
AM-243	1.121E-01	2.607E-02	3.237E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-3.085E-02		2.733E-02	2.632E-02	0.000E+00	NOT IDENT.
RH-101	-1.897E-03		1.756E-02	2.866E-02	0.000E+00	NOT IDENT.
SB-125	-2.676E-02		4.716E-02	7.602E-02	0.000E+00	NOT IDENT.
EU-155	-5.945E-03		5.192E-02	8.351E-02	0.000E+00	NOT IDENT.
PO-209	-1.258E+00		3.683E+00	5.932E+00	0.000E+00	NOT IDENT.
BI-211	-7.254E-02		5.261E-01	8.725E-01	0.000E+00	NOT IDENT.
PA-233	6.756E-03		3.157E-02	5.492E-02	0.000E+00	NOT IDENT.
PA-234M	-1.874E-01		2.024E+00	3.305E+00	0.000E+00	NOT IDENT.
U-235	-3.337E-02		1.084E-01	1.716E-01	0.000E+00	NOT IDENT.
NP-236	1.031E-02		2.780E-02	4.367E-02	0.000E+00	NOT IDENT.
NP-239	2.015E-02		1.058E-01	1.874E-01	0.000E+00	NOT IDENT.
AM-241	2.799E-02		4.540E-02	7.430E-02	0.000E+00	NOT IDENT.
CM-243	4.735E-02		4.235E-02	7.589E-02	0.000E+00	NOT IDENT.
AM-246	3.937E-02		6.169E-02	1.125E-01	0.000E+00	NOT IDENT.
CF-249	-6.668E-03		2.190E-02	3.383E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:29:18.66

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689008.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 12:07:42
Sample ID        : G198689008           Sample quantity  : 1.24530E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.29  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	258	10.66*	1.166E+00	3.132E+00	3.132E+00	17.87
CS-137	661.66	44	85.10*	2.329E+00	3.341E-02	3.352E-02	100.06
TL-208	277.36	------	6.31	4.669E+00	------	Line Not Found	------
	510.77	118	22.60	2.898E+00	2.708E-01	2.708E-01	59.15
	583.19	343	84.50*	2.595E+00	2.359E-01	2.359E-01	19.78
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	22	12.42	1.847E+00	1.422E-01	1.422E-01	195.62
BI-212	727.33	114	11.80*	2.145E+00	6.789E-01	6.789E-01	37.06
	785.37	------	1.10	2.005E+00	------	Line Not Found	------
	1620.50	24	1.49	1.077E+00	2.272E+00	2.272E+00	48.90
PB-212	74.81	327	10.40	6.452E+00	7.353E-01	7.353E-01	23.73
	77.11	570	17.50	6.620E+00	7.416E-01	7.416E-01	16.69
	87.30	272	7.81	7.134E+00	7.358E-01	7.358E-01	31.52
	238.63	1182	43.30*	5.194E+00	7.922E-01	7.922E-01	9.60
	300.09	90	3.28	4.401E+00	9.426E-01	9.426E-01	51.26
BI-214	609.31	308	46.10*	2.501E+00	4.029E-01	4.029E-01	21.27
	768.36	34	4.94	2.045E+00	5.031E-01	5.031E-01	108.83
	806.17	------	1.22	1.959E+00	------	Line Not Found	------
	934.06	------	3.03	1.718E+00	------	Line Not Found	------
	1120.29	56	15.10	1.460E+00	3.797E-01	3.797E-01	70.55
	1155.19	------	1.63	1.422E+00	------	Line Not Found	------
	1238.11	41	5.79	1.337E+00	7.982E-01	7.983E-01	68.94
	1280.96	------	1.43	1.300E+00	------	Line Not Found	------
	1377.67	52	4.00	1.223E+00	1.597E+00	1.598E+00	54.60
	1401.50	------	1.27	1.206E+00	------	Line Not Found	------
	1407.98	24	2.15	1.200E+00	1.399E+00	1.399E+00	84.65
	1509.23	19	2.11	1.136E+00	1.195E+00	1.195E+00	86.34
	1729.60	------	2.92	1.029E+00	------	Line Not Found	------
	1764.49	48	15.40	1.016E+00	4.582E-01	4.583E-01	51.65
PB-214	74.81	327	6.44	6.452E+00	1.187E+00	1.188E+00	23.73
	77.11	570	10.80	6.620E+00	1.202E+00	1.202E+00	16.69
	87.30	272	4.84	7.134E+00	1.187E+00	1.187E+00	31.52

Sample ID : G198689008 Acquisition date : 11-DEC-2007 12:07:42

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	144	7.43	5.144E+00	5.698E-01	5.698E-01	39.71
	295.22	182	19.30	4.455E+00	3.194E-01	3.194E-01	44.19
	351.93	368	37.60*	3.903E+00	3.782E-01	3.782E-01	21.38
RA-223	269.46	91	13.70*	4.756E+00	2.109E-01	2.109E-01	54.03
AC-228	129.07	63	2.42	7.228E+00	5.414E-01	5.414E-01	84.27
	209.25	115	3.89	5.675E+00	7.875E-01	7.875E-01	50.19
	270.25	91	3.46	4.756E+00	8.351E-01	8.351E-01	54.03
	338.32	250	11.27	4.023E+00	8.319E-01	8.319E-01	23.48
	409.46	------	1.92	3.468E+00	------ Line Not Found		------
	463.00	71	4.40	3.147E+00	7.757E-01	7.757E-01	61.86
	794.95	33	4.25	1.981E+00	5.852E-01	5.852E-01	160.44
	911.20	253	25.80*	1.756E+00	8.409E-01	8.409E-01	19.59
	964.77	40	4.99	1.669E+00	7.184E-01	7.184E-01	71.87
	968.97	114	15.80	1.662E+00	6.545E-01	6.545E-01	31.37
	1588.20	------	3.22	1.093E+00	------ Line Not Found		------
TH-234	63.29	40	4.80	5.342E+00	2.335E-01	2.335E-01	223.90
	92.58	304	5.41*	7.296E+00	1.160E+00	1.160E+00	31.62
NP-237	86.48	272	12.40*	7.134E+00	4.634E-01	4.634E-01	31.52
AM-243	74.66	327	68.20*	6.452E+00	1.121E-01	1.121E-01	23.73

Flag: "*" = Keyline

Sample ID : G198689008 Acquisition date : 11-DEC-2007 12:07:42

Total number of lines in spectrum 60
Number of unidentified lines 26
Number of lines tentatively identified by NID 34 56.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.132E+00	3.132E+00	0.559E+00	17.87	
CS-137	9.47E+08S	1.00	3.341E-02	3.352E-02	3.354E-02	100.06	
TL-208	4.43E+17S	1.00	2.359E-01	2.359E-01	0.467E-01	19.78	
BI-212	4.43E+17S	1.00	6.789E-01	6.789E-01	2.516E-01	37.06	
PB-212	4.43E+17S	1.00	7.922E-01	7.922E-01	0.761E-01	9.60	
BI-214	5.05E+10S	1.00	4.029E-01	4.029E-01	0.857E-01	21.27	
PB-214	5.05E+10S	1.00	3.782E-01	3.782E-01	0.809E-01	21.38	
RA-223	1.04E+12S	1.00	2.109E-01	2.109E-01	1.140E-01	54.03	
AC-228	4.43E+17S	1.00	8.409E-01	8.409E-01	1.647E-01	19.59	
TH-234	1.41E+17S	1.00	1.160E+00	1.160E+00	0.367E+00	31.62	
NP-237	6.75E+13S	1.00	4.634E-01	4.634E-01	1.461E-01	31.52	
AM-243	2.33E+11S	1.00	1.121E-01	1.121E-01	0.266E-01	23.73	
			---	---			
		Total Activity :	8.441E+00	8.441E+00			

Grand Total Activity : 8.441E+00 8.441E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689008 Acquisition date : 11-DEC-2007 12:07:42

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.77	73	411	0.81	93.06	88	10	5.09E-03	****	2.65E+00	
0	51.39	22	202	0.84	102.28	100	5	1.55E-03	****	3.46E+00	
4	73.20	39	364	1.36	145.89	143	17	2.67E-03	****	6.31E+00	
4	84.44	150	356	1.44	168.36	165	27	1.04E-02	46.9	7.02E+00	
4	90.17	155	244	0.87	179.83	165	27	1.08E-02	34.6	7.22E+00	
2	130.05	15	249	1.27	259.56	254	9	1.07E-03	****	7.21E+00	
0	133.88	13	288	1.35	267.22	264	7	9.37E-04	****	7.15E+00	
0	186.17	94	265	1.32	371.78	368	7	6.55E-03	69.2	6.10E+00	
2	241.05	105	158	1.22	481.49	470	19	7.31E-03	62.6	5.16E+00	
0	330.78	110	305	7.20	660.91	652	19	7.62E-03	80.8	4.09E+00	
0	486.38	50	89	4.33	972.04	966	11	3.45E-03	79.3	3.02E+00	
0	523.90	37	77	1.93	1047.05	1043	11	2.57E-03	97.6	2.84E+00	
0	563.40	37	66	2.23	1126.03	1120	9	2.59E-03	86.5	2.67E+00	
0	655.18	11	31	1.34	1309.56	1305	6	7.44E-04	****	2.35E+00	
3	765.91	18	17	1.22	1530.98	1529	29	1.23E-03	69.4	2.05E+00	
0	1056.91	21	24	0.80	2112.86	2108	12	1.46E-03	****	1.54E+00	
0	1137.87	30	62	10.12	2274.76	2256	28	2.10E-03	****	1.44E+00	
0	1169.10	21	37	4.22	2337.20	2328	14	1.43E-03	****	1.41E+00	
0	1220.25	43	17	6.34	2439.49	2431	17	2.99E-03	53.5	1.36E+00	
0	1326.28	18	8	3.44	2651.50	2646	11	1.25E-03	77.3	1.26E+00	
0	1347.54	11	14	1.41	2694.02	2689	12	7.35E-04	****	1.25E+00	
4	1617.50	16	1	2.42	3233.87	3231	14	1.13E-03	43.0	1.08E+00	
0	1659.70	17	3	4.55	3318.26	3311	13	1.19E-03	64.5	1.06E+00	
0	1770.69	13	6	2.72	3540.23	3535	9	8.97E-04	90.5	1.01E+00	
0	1803.73	9	3	0.62	3606.30	3599	12	6.57E-04	96.9	1.00E+00	
0	1814.15	7	5	1.34	3627.14	3621	10	4.86E-04	****	9.98E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689008            *
* Acquisition date : 11-DEC-2007 12:07:42 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:27.29     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689008           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.2453E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 31-OCT-2007 13:07:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.132E+00	5.483E-01	1.532E-01	5.483E-01
CS-137	3.352E-02	3.287E-02	1.529E-02	3.287E-02
TL-208	2.359E-01	4.572E-02	1.515E-02	4.572E-02
BI-212	6.789E-01	2.466E-01	1.224E-01	2.466E-01
PB-212	7.922E-01	7.454E-02	2.185E-02	7.454E-02
BI-214	4.029E-01	8.397E-02	2.989E-02	8.397E-02
PB-214	3.782E-01	7.925E-02	2.988E-02	7.925E-02
RA-223	2.109E-01	1.117E-01	7.254E-02	1.117E-01
AC-228	8.409E-01	1.614E-01	5.549E-02	1.614E-01
TH-234	1.160E+00	3.595E-01	1.702E-01	3.595E-01
NP-237	4.634E-01	1.432E-01	7.584E-02	1.432E-01
AM-243	1.121E-01	2.607E-02	1.619E-02	2.607E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-3.085E-02	2.733E-02	1.317E-02	2.733E-02	NOT IDENT.
RH-101	-1.897E-03	1.756E-02	1.434E-02	1.756E-02	NOT IDENT.
SB-125	-2.676E-02	4.716E-02	3.803E-02	4.716E-02	NOT IDENT.
EU-155	-5.945E-03	5.192E-02	4.178E-02	5.192E-02	NOT IDENT.
PO-209	-1.258E+00	3.683E+00	2.968E+00	3.683E+00	NOT IDENT.
BI-211	-7.254E-02	5.261E-01	4.365E-01	5.261E-01	NOT IDENT.
PA-233	6.756E-03	3.157E-02	2.747E-02	3.157E-02	NOT IDENT.
PA-234M	-1.874E-01	2.024E+00	1.654E+00	2.024E+00	NOT IDENT.
U-235	-3.337E-02	1.084E-01	8.584E-02	1.084E-01	NOT IDENT.
NP-236	1.031E-02	2.780E-02	2.185E-02	2.780E-02	NOT IDENT.
NP-239	2.015E-02	1.058E-01	9.374E-02	1.058E-01	NOT IDENT.
AM-241	2.799E-02	4.540E-02	3.717E-02	4.540E-02	NOT IDENT.
CM-243	4.735E-02	4.235E-02	3.797E-02	4.235E-02	NOT IDENT.
AM-246	3.937E-02	6.169E-02	5.631E-02	6.169E-02	NOT IDENT.
CF-249	-6.668E-03	2.190E-02	1.692E-02	2.190E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	269.9445
63.29	335.1101
74.66	379.1799
74.81	379.2987
74.81	379.2987
77.11	381.0909
77.11	381.0909
86.48	336.4445
87.30	336.9629
87.30	336.9629
92.58	340.2405
98.44	265.5933
103.76	263.2985
105.31	310.0662
129.07	283.5724
143.76	310.4598
198.00	258.0995
209.25	233.3299
228.18	218.5521
238.63	187.4798
242.00	188.0652
269.46	174.6675
270.25	194.7337
277.36	180.6136
295.22	187.7272
300.09	140.1724
312.17	153.2864
338.32	155.4913
351.93	150.7325
387.59	130.5720
409.46	114.5435
427.87	122.2243
463.00	93.7406
510.77	80.1898
583.19	87.7753
609.31	94.4680
661.66	72.7641
727.33	76.7489
763.13	76.5057
768.36	53.9947
785.37	62.6202
794.95	67.6723
806.17	52.7401
831.80	63.4743
860.56	49.9901
896.60	56.5497
911.20	50.8656
934.06	40.2952
964.77	60.6898
968.97	62.2013
1001.03	42.2487
1078.86	34.1937
1120.29	43.2874
1155.19	38.7194
1173.23	39.0485
1238.11	39.7299
1280.96	41.9834
1332.51	20.3446
1377.67	24.9969
1401.50	33.5178
1407.98	36.2549
1460.80	29.5640
1509.23	27.8251
1588.20	30.4030
1620.50	14.4754
1729.60	11.8706
1764.49	19.5579

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689008

Total Uranium Activity	-1.5438E-02	ug/g
Total Uranium Counting Unc.	5.0172E-02	ug/g
Total Uranium Tpu	5.0172E-08	ug/g
Total Uranium Mda	3.9719E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:29:52.69

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689009.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 12:08:42
Sample ID        : G198689009           Sample quantity  : 1.04360E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.67  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.08*	60	370	1.00	91.61	87	10	4.14E-03	66.5	
2	0	63.30*	72	336	0.72	126.09	122	8	4.97E-03	50.3	
3	0	66.50*	20	329	0.99	132.50	130	7	1.41E-03	157.5	
4	3	74.80*	239	237	0.74	149.10	145	12	1.66E-02	11.9	1.09E+00
5	3	77.03*	400	257	0.91	153.58	145	12	2.78E-02	8.4	
6	1	84.19*	81	253	0.95	167.90	164	19	5.62E-03	37.7	2.36E+00
7	1	87.15*	165	274	0.95	173.83	164	19	1.15E-02	18.7	
8	1	89.82	96	243	0.86	179.17	164	19	6.70E-03	25.4	
9	0	92.62*	156	311	1.30	184.78	182	7	1.09E-02	24.2	
10	0	129.76	87	326	3.49	259.12	254	11	6.04E-03	41.5	
11	0	182.72	34	310	1.90	365.13	356	11	2.36E-03	102.0	
12	0	185.75*	200	256	1.27	371.21	367	10	1.39E-02	18.5	
13	0	209.24	81	178	0.89	418.21	415	7	5.64E-03	29.3	
14	5	238.58*	909	143	0.96	476.95	471	19	6.31E-02	4.1	7.56E-01
15	5	241.47	216	175	1.73	482.74	471	19	1.50E-02	15.9	
16	6	269.31	46	112	1.33	538.46	535	11	3.20E-03	39.0	2.99E+00
17	6	270.73*	44	153	1.79	541.30	535	11	3.03E-03	57.9	
18	0	278.25	20	194	1.29	556.36	550	9	1.35E-03	130.6	
19	0	289.39	54	147	2.85	578.65	572	11	3.72E-03	46.1	
20	1	293.13*	8	34	1.24	586.13	584	12	5.24E-04	186.3	2.83E+00
21	1	295.14*	227	85	1.24	590.15	584	12	1.58E-02	10.9	
22	0	299.82	87	132	0.67	599.53	596	10	6.04E-03	27.0	
23	0	327.69	57	130	1.41	655.31	651	9	3.95E-03	38.5	
24	0	338.27	168	146	1.07	676.48	672	10	1.17E-02	15.5	
25	0	351.88*	271	184	1.11	703.73	698	11	1.88E-02	12.0	
26	0	365.54	18	102	0.64	731.07	728	8	1.28E-03	98.5	
27	0	464.23	91	133	3.77	928.60	921	16	6.33E-03	30.4	
28	0	511.15*	122	168	2.36	1022.50	1015	20	8.46E-03	34.2	
29	0	570.24	22	71	0.99	1140.76	1137	8	1.50E-03	71.3	
30	0	583.13*	229	93	1.23	1166.57	1160	12	1.59E-02	12.1	
31	0	597.94	32	47	1.06	1196.20	1193	8	2.23E-03	40.7	
32	0	609.49*	259	127	1.51	1219.32	1214	14	1.80E-02	11.9	
33	0	636.97	31	38	1.05	1274.31	1270	9	2.15E-03	40.2	
34	0	661.78	85	50	1.32	1323.96	1320	10	5.90E-03	19.0	
35	0	679.17	25	80	2.53	1358.77	1350	15	1.72E-03	82.0	
36	0	727.81	54	77	1.42	1456.12	1451	13	3.77E-03	36.1	
37	0	768.55	33	46	1.09	1537.66	1532	10	2.30E-03	42.5	
38	0	786.46	15	55	1.44	1573.49	1569	9	1.07E-03	91.3	

Sample ID : G198689009 Acquisition date : 11-DEC-2007 12:08:42

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	794.60	43	44	1.61	1589.79	1584	11	2.99E-03	33.5	
40	0	816.50	19	26	2.62	1633.61	1628	9	1.28E-03	49.7	
41	0	840.82	26	44	1.32	1682.27	1677	11	1.81E-03	53.2	
42	0	861.32*	10	57	0.98	1723.31	1718	11	7.09E-04	163.0	
43	0	868.08	25	27	1.93	1736.84	1731	10	1.75E-03	43.5	
44	0	911.38*	180	64	1.40	1823.49	1816	15	1.25E-02	12.8	
45	6	964.14	53	51	2.81	1929.07	1920	24	3.66E-03	35.9	9.25E-01
46	6	969.14	113	27	1.49	1939.06	1920	24	7.83E-03	12.7	
47	0	980.15	15	28	4.16	1961.10	1955	11	1.03E-03	73.3	
48	0	1001.50*	18	25	1.79	2003.82	1998	11	1.24E-03	69.0	
49	0	1121.02*	37	59	1.16	2242.99	2237	13	2.59E-03	48.2	
50	0	1196.32	9	28	0.85	2393.66	2389	8	5.95E-04	112.6	
51	0	1269.87	4	22	0.49	2540.82	2535	8	3.07E-04	189.2	
52	0	1440.70	13	3	1.34	2882.63	2879	7	8.90E-04	36.7	
53	0	1460.99*	456	22	1.98	2923.22	2916	18	3.16E-02	5.5	
54	0	1479.98	6	11	0.95	2961.22	2954	9	4.08E-04	110.6	
55	0	1588.90	14	16	1.68	3179.13	3173	12	9.97E-04	60.4	
56	0	1620.85	19	7	2.53	3243.05	3235	14	1.34E-03	37.0	
57	0	1764.68	62	0	2.29	3530.79	3524	16	4.31E-03	12.7	
58	0	1927.27	10	3	1.56	3856.04	3851	10	6.60E-04	45.0	
59	0	1935.62	6	4	1.40	3872.75	3868	8	4.17E-04	70.7	
60	0	1943.26	6	2	0.97	3888.03	3882	10	3.86E-04	67.9	
61	0	2018.21	7	9	3.33	4037.96	4027	12	4.73E-04	96.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689009       *
* Acquisition date : 11-DEC-2007 12:08:42 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.67     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689009           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0436E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-OCT-2007 15:05:44 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.071E+00	7.742E-01	2.806E-01	0.000E+00
CS-137	7.119E-02	2.700E-02	2.857E-02	0.000E+00
TL-208	1.726E-01	4.240E-02	3.120E-02	0.000E+00
BI-212	3.548E-01	2.529E-01	2.212E-01	0.000E+00
PB-212	6.745E-01	6.701E-02	4.462E-02	0.000E+00
BI-214	3.721E-01	9.054E-02	6.160E-02	0.000E+00
PB-214	3.066E-01	7.419E-02	5.335E-02	0.000E+00
RA-223	1.174E-01	9.013E-02	1.296E-01	0.000E+00
AC-228	6.571E-01	1.741E-01	1.086E-01	0.000E+00
PA-234M	2.179E+00	2.952E+00	3.240E+00	0.000E+00
TH-234	7.051E-01	3.376E-01	3.556E-01	0.000E+00
NP-237	3.382E-01	1.261E-01	1.599E-01	0.000E+00
AM-243	1.033E-01	2.493E-02	3.516E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.790E-02		2.205E-02	3.962E-02	0.000E+00	NOT IDENT.
RH-101	2.426E-03		1.650E-02	2.602E-02	0.000E+00	NOT IDENT.
SB-125	-2.887E-02		4.011E-02	6.438E-02	0.000E+00	NOT IDENT.
EU-155	1.377E-02		4.433E-02	7.775E-02	0.000E+00	NOT IDENT.
PO-209	-2.578E+00		4.118E+00	5.603E+00	0.000E+00	NOT IDENT.
BI-211	-1.988E-01		4.844E-01	7.944E-01	0.000E+00	NOT IDENT.
PA-233	9.831E-03		3.111E-02	5.152E-02	0.000E+00	NOT IDENT.
U-235	-3.723E-02		9.655E-02	1.479E-01	0.000E+00	NOT IDENT.
NP-236	5.345E-03		2.766E-02	4.406E-02	0.000E+00	NOT IDENT.
NP-239	-2.923E-03		9.756E-02	1.612E-01	0.000E+00	NOT IDENT.
AM-241	3.688E-02		5.798E-02	8.906E-02	0.000E+00	NOT IDENT.
CM-243	1.797E-02		3.937E-02	6.953E-02	0.000E+00	NOT IDENT.
AM-246	-3.014E-02		6.164E-02	9.668E-02	0.000E+00	NOT IDENT.
CF-249	-1.468E-03		1.828E-02	3.118E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:29:53.69

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689009.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 12:08:42
Sample ID        : G198689009           Sample quantity  : 1.04360E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.67  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	456	10.66*	1.266E+00	6.071E+00	6.071E+00	13.01
CS-137	661.66	85	85.10*	2.532E+00	7.095E-02	7.119E-02	38.70
TL-208	277.36	20	6.31	5.025E+00	1.106E-01	1.106E-01	261.23
	510.77	122	22.60	3.146E+00	3.082E-01	3.082E-01	68.69
	583.19	229	84.50*	2.821E+00	1.726E-01	1.726E-01	25.06
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	10	12.42	2.005E+00	7.376E-02	7.376E-02	326.04
BI-212	727.33	54	11.80*	2.330E+00	3.548E-01	3.548E-01	72.74
	785.37	15	1.10	2.175E+00	1.154E+00	1.154E+00	182.78
	1620.50	19	1.49	1.175E+00	1.975E+00	1.975E+00	74.20
PB-212	74.81	239	10.40	6.097E+00	6.775E-01	6.775E-01	24.62
	77.11	400	17.50	6.323E+00	6.496E-01	6.496E-01	18.08
	87.30	165	7.81	7.096E+00	5.369E-01	5.369E-01	38.06
	238.63	909	43.30*	5.600E+00	6.745E-01	6.745E-01	10.14
	300.09	87	3.28	4.759E+00	1.002E+00	1.002E+00	54.29
BI-214	609.31	259	46.10*	2.717E+00	3.720E-01	3.721E-01	24.83
	768.36	33	4.94	2.221E+00	5.424E-01	5.424E-01	85.41
	806.17	------	1.22	2.128E+00	------	Line Not Found	------
	934.06	------	3.03	1.863E+00	------	Line Not Found	------
	1120.29	37	15.10	1.581E+00	2.805E-01	2.805E-01	96.55
	1155.19	------	1.63	1.540E+00	------	Line Not Found	------
	1238.11	------	5.79	1.450E+00	------	Line Not Found	------
	1280.96	------	1.43	1.408E+00	------	Line Not Found	------
	1377.67	------	4.00	1.326E+00	------	Line Not Found	------
	1401.50	------	1.27	1.308E+00	------	Line Not Found	------
	1407.98	------	2.15	1.303E+00	------	Line Not Found	------
	1509.23	------	2.11	1.236E+00	------	Line Not Found	------
	1729.60	------	2.92	1.128E+00	------	Line Not Found	------
	1764.49	62	15.40	1.115E+00	6.493E-01	6.493E-01	26.13
PB-214	74.81	239	6.44	6.097E+00	1.094E+00	1.094E+00	24.62
	77.11	400	10.80	6.323E+00	1.053E+00	1.053E+00	18.08
	87.30	165	4.84	7.096E+00	8.664E-01	8.664E-01	38.06

Sample ID : G198689009 Acquisition date : 11-DEC-2007 12:08:42

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	216	7.43	5.554E+00	9.425E-01	9.426E-01	32.43
	295.22	227	19.30	4.814E+00	4.402E-01	4.403E-01	22.61
	351.93	271	37.60*	4.222E+00	3.066E-01	3.066E-01	24.69
RA-223	269.46	46	13.70*	5.144E+00	1.174E-01	1.174E-01	78.31
AC-228	129.07	87	2.42	7.645E+00	8.458E-01	8.458E-01	83.24
	209.25	81	3.89	6.108E+00	6.152E-01	6.152E-01	58.93
	270.25	44	3.46	5.125E+00	4.429E-01	4.429E-01	115.98
	338.32	168	11.27	4.350E+00	6.155E-01	6.155E-01	31.52
	409.46	------	1.92	3.757E+00	------	Line Not Found	------
	463.00	91	4.40	3.401E+00	1.094E+00	1.094E+00	61.12
	794.95	43	4.25	2.156E+00	8.442E-01	8.442E-01	67.60
	911.20	180	25.80*	1.905E+00	6.571E-01	6.571E-01	27.04
	964.77	53	4.99	1.811E+00	1.049E+00	1.049E+00	72.25
	968.97	113	15.80	1.802E+00	7.121E-01	7.121E-01	26.74
	1588.20	14	3.22	1.191E+00	6.728E-01	6.728E-01	120.89
PA-234M	1001.03	18	0.84*	1.750E+00	2.179E+00	2.179E+00	138.24
TH-234	63.29	72	4.80	4.596E+00	5.840E-01	5.840E-01	100.72
	92.58	156	5.41*	7.367E+00	7.051E-01	7.051E-01	48.86
NP-237	86.48	165	12.40*	7.096E+00	3.382E-01	3.382E-01	38.06
AM-243	74.66	239	68.20*	6.097E+00	1.033E-01	1.033E-01	24.62

Flag: "*" = Keyline

Sample ID : G198689009 Acquisition date : 11-DEC-2007 12:08:42

Total number of lines in spectrum 61
Number of unidentified lines 26
Number of lines tentatively identified by NID 35 57.38%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	6.071E+00	6.071E+00	0.790E+00	13.01	
CS-137	9.47E+08S	1.00	7.095E-02	7.119E-02	2.755E-02	38.70	
TL-208	4.43E+17S	1.00	1.726E-01	1.726E-01	0.433E-01	25.06	
BI-212	4.43E+17S	1.00	3.548E-01	3.548E-01	2.581E-01	72.74	
PB-212	4.43E+17S	1.00	6.745E-01	6.745E-01	0.684E-01	10.14	
BI-214	5.05E+10S	1.00	3.720E-01	3.721E-01	0.924E-01	24.83	
PB-214	5.05E+10S	1.00	3.066E-01	3.066E-01	0.757E-01	24.69	
RA-223	1.04E+12S	1.00	1.174E-01	1.174E-01	0.920E-01	78.31	
AC-228	4.43E+17S	1.00	6.571E-01	6.571E-01	1.777E-01	27.04	
PA-234M	1.41E+17S	1.00	2.179E+00	2.179E+00	3.012E+00	138.24	
TH-234	1.41E+17S	1.00	7.051E-01	7.051E-01	3.445E-01	48.86	
NP-237	6.75E+13S	1.00	3.382E-01	3.382E-01	1.287E-01	38.06	
AM-243	2.33E+11S	1.00	1.033E-01	1.033E-01	0.254E-01	24.62	
			---	---			
		Total Activity :	1.212E+01	1.212E+01			

Grand Total Activity : 1.212E+01 1.212E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689009 Acquisition date : 11-DEC-2007 12:08:42

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.08	60	370	1.00	91.61	87	10	4.14E-03	****	1.68E+00	
0	66.50	20	329	0.99	132.50	130	7	1.41E-03	****	5.07E+00	
1	84.19	81	253	0.95	167.90	164	19	5.62E-03	75.4	6.91E+00	
1	89.82	96	243	0.86	179.17	164	19	6.70E-03	50.8	7.24E+00	
0	182.72	34	310	1.90	365.13	356	11	2.36E-03	****	6.63E+00	
0	185.75	200	256	1.27	371.21	367	10	1.39E-02	37.1	6.57E+00	
0	289.39	54	147	2.85	578.65	572	11	3.72E-03	92.1	4.88E+00	
1	293.13	8	34	1.24	586.13	584	12	5.24E-04	****	4.84E+00	
0	327.69	57	130	1.41	655.31	651	9	3.95E-03	77.0	4.46E+00	
0	365.54	18	102	0.64	731.07	728	8	1.28E-03	****	4.10E+00	
0	570.24	22	71	0.99	1140.76	1137	8	1.50E-03	****	2.87E+00	
0	597.94	32	47	1.06	1196.20	1193	8	2.23E-03	81.4	2.76E+00	
0	636.97	31	38	1.05	1274.31	1270	9	2.15E-03	80.3	2.62E+00	
0	679.17	25	80	2.53	1358.77	1350	15	1.72E-03	****	2.48E+00	
0	816.50	19	26	2.62	1633.61	1628	9	1.28E-03	99.4	2.10E+00	
0	840.82	26	44	1.32	1682.27	1677	11	1.81E-03	****	2.05E+00	
0	868.08	25	27	1.93	1736.84	1731	10	1.75E-03	87.0	1.99E+00	
0	980.15	15	28	4.16	1961.10	1955	11	1.03E-03	****	1.78E+00	
0	1196.32	9	28	0.85	2393.66	2389	8	5.95E-04	****	1.49E+00	
0	1269.87	4	22	0.49	2540.82	2535	8	3.07E-04	****	1.42E+00	
0	1440.70	13	3	1.34	2882.63	2879	7	8.90E-04	73.4	1.28E+00	
0	1479.98	6	11	0.95	2961.22	2954	9	4.08E-04	****	1.25E+00	
0	1927.27	10	3	1.56	3856.04	3851	10	6.60E-04	89.9	1.07E+00	
0	1935.62	6	4	1.40	3872.75	3868	8	4.17E-04	****	1.07E+00	
0	1943.26	6	2	0.97	3888.03	3882	10	3.86E-04	****	1.06E+00	
0	2018.21	7	9	3.33	4037.96	4027	12	4.73E-04	****	1.05E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689009            *
* Acquisition date : 11-DEC-2007 12:08:42 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.67     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689009           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0436E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-OCT-2007 15:05:44 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.071E+00	7.742E-01	1.404E-01	7.742E-01
CS-137	7.119E-02	2.700E-02	1.429E-02	2.700E-02
TL-208	1.726E-01	4.240E-02	1.561E-02	4.240E-02
BI-212	3.548E-01	2.529E-01	1.107E-01	2.529E-01
PB-212	6.745E-01	6.701E-02	2.232E-02	6.701E-02
BI-214	3.721E-01	9.054E-02	3.082E-02	9.054E-02
PB-214	3.066E-01	7.419E-02	2.669E-02	7.419E-02
RA-223	1.174E-01	9.013E-02	6.483E-02	9.013E-02
AC-228	6.571E-01	1.741E-01	5.433E-02	1.741E-01
PA-234M	2.179E+00	2.952E+00	1.621E+00	2.952E+00
TH-234	7.051E-01	3.376E-01	1.779E-01	3.376E-01
NP-237	3.382E-01	1.261E-01	7.998E-02	1.261E-01
AM-243	1.033E-01	2.493E-02	1.759E-02	2.493E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.790E-02	2.205E-02	1.982E-02	2.205E-02	NOT IDENT.
RH-101	2.426E-03	1.650E-02	1.302E-02	1.650E-02	NOT IDENT.
SB-125	-2.887E-02	4.011E-02	3.221E-02	4.011E-02	NOT IDENT.
EU-155	1.377E-02	4.433E-02	3.890E-02	4.433E-02	NOT IDENT.
PO-209	-2.578E+00	4.118E+00	2.803E+00	4.118E+00	NOT IDENT.
BI-211	-1.988E-01	4.844E-01	3.974E-01	4.844E-01	NOT IDENT.
PA-233	9.831E-03	3.111E-02	2.578E-02	3.111E-02	NOT IDENT.
U-235	-3.723E-02	9.655E-02	7.398E-02	9.655E-02	NOT IDENT.
NP-236	5.345E-03	2.766E-02	2.204E-02	2.766E-02	NOT IDENT.
NP-239	-2.923E-03	9.756E-02	8.066E-02	9.756E-02	NOT IDENT.
AM-241	3.688E-02	5.798E-02	4.456E-02	5.798E-02	NOT IDENT.
CM-243	1.797E-02	3.937E-02	3.479E-02	3.937E-02	NOT IDENT.
AM-246	-3.014E-02	6.164E-02	4.837E-02	6.164E-02	NOT IDENT.
CF-249	-1.468E-03	1.828E-02	1.560E-02	1.828E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	199.9817
63.29	233.1327
74.66	300.3460
74.81	300.4474
74.81	300.4474
77.11	302.0101
77.11	302.0101
86.48	276.5513
87.30	277.0177
87.30	277.0177
92.58	283.9186
98.44	199.4087
103.76	194.2270
105.31	206.4429
129.07	189.6248
143.76	185.2753
198.00	167.9722
209.25	170.1227
228.18	143.9715
238.63	166.9180
242.00	167.4813
269.46	119.0325
270.25	119.1204
277.36	127.6623
295.22	101.4880
300.09	100.2125
312.17	110.9505
338.32	120.8806
351.93	102.6700
387.59	95.3613
409.46	94.9531
427.87	81.1788
463.00	68.6766
510.77	66.6978
583.19	79.5187
609.31	85.7229
661.66	54.2062
727.33	53.3994
763.13	53.0947
768.36	72.7169
785.37	48.2150
794.95	41.2293
806.17	52.2142
831.80	50.0049
860.56	49.0156
896.60	43.7642
911.20	41.1845
934.06	43.4013
964.77	37.1843
968.97	37.2376
1001.03	32.8097
1078.86	35.6063
1120.29	44.0666
1155.19	25.2966
1173.23	35.5999
1238.11	33.1437
1280.96	28.2907
1332.51	23.3643
1377.67	22.5596
1401.50	27.0166
1407.98	21.6475
1460.80	20.8295
1509.23	17.5566
1588.20	16.1258
1620.50	14.2108
1729.60	13.5739
1764.49	12.6943

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689009

Total Uranium Activity	-1.7227E-02	ug/g
Total Uranium Counting Unc.	4.4672E-02	ug/g
Total Uranium Tpu	4.4672E-08	ug/g
Total Uranium Mda	3.4232E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:30:27.69

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689010.CNF;1
Sample date       : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 12:24:37
Sample ID         : G198689010           Sample quantity  : 1.05080E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:01.90  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708128               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.36*	43	363	2.53	92.17	88	9	3.01E-03	89.0	
2	0	63.00*	97	432	1.44	125.43	122	8	6.73E-03	43.8	
3	2	74.53*	299	407	1.39	148.48	141	23	2.08E-02	14.2	3.18E+00
4	2	76.91*	518	346	1.10	153.24	141	23	3.60E-02	8.0	
5	2	84.16*	104	336	1.43	167.73	164	27	7.21E-03	34.8	2.75E+00
6	2	87.06	252	432	1.44	173.53	164	27	1.75E-02	16.6	
7	2	89.69	139	432	1.45	178.79	164	27	9.65E-03	29.8	
8	2	92.37*	185	336	1.20	184.15	164	27	1.29E-02	23.5	
9	0	99.05*	36	549	2.94	197.50	193	11	2.47E-03	136.4	
10	0	128.84	84	299	1.62	257.06	254	7	5.85E-03	36.1	
11	0	142.61*	101	784	4.31	284.58	276	18	7.04E-03	67.1	
12	0	185.69*	163	590	1.41	370.72	365	14	1.14E-02	36.2	
13	0	209.08	75	328	1.18	417.46	414	8	5.21E-03	43.6	
14	4	238.37*	1155	224	1.26	476.03	468	20	8.02E-02	4.0	1.57E+00
15	4	241.22	271	347	2.12	481.73	468	20	1.89E-02	20.0	
16	0	269.21	143	358	1.69	537.68	531	15	9.93E-03	30.0	
17	0	277.61	73	203	2.08	554.47	551	9	5.06E-03	37.1	
18	0	294.99*	205	235	1.49	589.23	585	8	1.42E-02	15.8	
19	0	300.14	60	223	1.51	599.52	595	9	4.18E-03	46.9	
20	0	327.47	102	199	2.21	654.17	649	11	7.10E-03	28.6	
21	0	337.90*	250	270	1.62	675.02	668	13	1.74E-02	15.7	
22	0	351.55*	380	241	1.38	702.30	696	12	2.64E-02	10.2	
23	0	391.29	39	88	1.63	781.76	779	7	2.69E-03	43.5	
24	0	408.92	46	166	0.95	817.02	812	11	3.18E-03	56.3	
25	0	419.29*	13	221	4.77	837.74	832	15	9.19E-04	260.3	
26	1	462.61	105	137	1.99	924.36	917	18	7.32E-03	24.0	1.94E+00
27	1	465.50	48	105	2.00	930.15	917	18	3.33E-03	44.4	
28	0	510.68*	131	233	2.58	1020.49	1010	23	9.10E-03	40.0	
29	0	562.42	36	103	0.78	1123.94	1120	11	2.47E-03	57.6	
30	0	567.98*	2	95	2.04	1135.06	1133	9	1.36E-04	*****	
31	0	572.47	15	45	1.37	1144.04	1141	6	1.03E-03	74.6	
32	0	582.54*	385	131	1.63	1164.17	1157	13	2.67E-02	8.7	
33	0	609.14*	274	278	2.02	1217.36	1207	19	1.90E-02	16.5	
34	0	726.71	81	140	1.48	1452.48	1446	13	5.62E-03	32.1	
35	0	786.60	48	83	2.14	1572.27	1563	14	3.30E-03	44.6	
36	0	794.84	70	61	1.33	1588.75	1584	11	4.88E-03	24.9	
37	0	802.63*	10	76	1.84	1604.31	1600	11	7.23E-04	198.6	
38	0	910.53*	278	76	2.01	1820.12	1812	16	1.93E-02	10.4	

Sample ID : G198689010 Acquisition date : 11-DEC-2007 12:24:37

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	963.73	70	47	2.53	1926.54	1917	29	4.85E-03	26.4	1.53E+00
40	1	968.23*	167	52	2.54	1935.54	1917	29	1.16E-02	13.7	
41	0	1005.25	23	95	6.18	2009.58	1995	21	1.56E-03	110.1	
42	1	1010.96	38	34	2.34	2021.00	2017	17	2.67E-03	27.2	4.06E+00
43	1	1013.96	35	54	2.34	2027.00	2017	17	2.46E-03	47.2	
44	0	1021.97	20	51	2.69	2043.02	2034	15	1.38E-03	82.2	
45	0	1119.45*	46	48	2.18	2238.01	2233	12	3.20E-03	38.7	
46	0	1175.25	21	48	3.20	2349.64	2342	12	1.48E-03	68.6	
47	0	1213.72	65	48	9.34	2426.61	2414	22	4.50E-03	30.3	
48	0	1239.66	19	89	1.57	2478.50	2470	15	1.34E-03	109.3	
49	0	1345.43	34	41	3.73	2690.10	2681	18	2.37E-03	47.0	
50	0	1376.26	59	22	4.88	2751.80	2744	17	4.12E-03	22.0	
51	0	1460.08*	569	55	2.84	2919.50	2910	18	3.95E-02	5.4	
52	0	1508.53	33	23	4.74	3016.43	3008	16	2.27E-03	37.7	
53	0	1606.89	4	24	1.19	3213.25	3204	12	2.78E-04	250.0	
54	0	1619.67	31	32	8.58	3238.82	3228	21	2.17E-03	48.4	
55	0	1637.90	30	23	3.89	3275.31	3266	18	2.11E-03	40.9	
56	0	1646.38	14	22	4.75	3292.28	3283	15	9.72E-04	78.4	
57	2	1723.67	23	31	3.44	3446.94	3439	22	1.61E-03	58.6	1.29E+00
58	2	1726.98	31	25	3.12	3453.57	3439	22	2.13E-03	41.0	
59	0	1764.02	86	29	2.02	3527.69	3517	20	5.97E-03	18.9	
60	0	1770.74	11	9	1.33	3541.13	3536	11	7.93E-04	57.2	
61	0	1865.39	33	13	3.91	3730.57	3717	25	2.26E-03	34.1	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689010       *
* Acquisition date : 11-DEC-2007 12:24:37 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.90     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689010           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0508E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.773E+00	5.761E-01	2.878E-01	0.000E+00
TL-208	1.927E-01	3.601E-02	2.703E-02	0.000E+00
BI-212	3.441E-01	2.187E-01	2.095E-01	0.000E+00
PB-212	6.546E-01	6.459E-02	4.491E-02	0.000E+00
BI-214	2.599E-01	8.635E-02	5.915E-02	0.000E+00
PB-214	3.076E-01	6.405E-02	5.514E-02	0.000E+00
RA-223	2.732E-01	1.614E-01	1.390E-01	0.000E+00
AC-228	6.543E-01	1.480E-01	1.133E-01	0.000E+00
TH-234	7.073E-01	3.313E-01	3.391E-01	0.000E+00
U-235	1.824E-01	2.402E-01	1.619E-01	0.000E+00
NP-236	1.870E-02	5.002E-02	4.782E-02	0.000E+00
NP-237	4.380E-01	1.469E-01	1.545E-01	0.000E+00
AM-243	1.129E-01	3.255E-02	3.552E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.926E-02	1.898E-02	3.366E-02	0.000E+00	NOT IDENT.
RH-101	-2.269E-03	2.007E-02	2.970E-02	0.000E+00	NOT IDENT.
SB-125	-2.070E-03	4.485E-02	6.947E-02	0.000E+00	NOT IDENT.
CS-137	2.696E-02	1.960E-02	3.481E-02	0.000E+00	NOT IDENT.
EU-155	1.763E-02	5.402E-02	8.737E-02	0.000E+00	NOT IDENT.
PO-209	4.439E+00	3.467E+00	6.290E+00	0.000E+00	NOT IDENT.
BI-211	-5.942E-02	4.820E-01	8.115E-01	0.000E+00	NOT IDENT.
PA-233	2.941E-02	3.069E-02	5.402E-02	0.000E+00	NOT IDENT.
PA-234M	-6.123E-01	2.977E+00	3.140E+00	0.000E+00	NOT IDENT.
NP-239	-2.134E-02	1.265E-01	1.860E-01	0.000E+00	NOT IDENT.
AM-241	6.691E-02	6.497E-02	1.005E-01	0.000E+00	NOT IDENT.
CM-243	-2.390E-02	5.211E-02	7.726E-02	0.000E+00	NOT IDENT.
AM-246	-3.024E-02	5.818E-02	9.197E-02	0.000E+00	NOT IDENT.
CF-249	-2.261E-02	2.169E-02	2.862E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:30:28.73

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689010.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 12:24:37
Sample ID        : G198689010           Sample quantity  : 1.05080E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.90  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	569	10.66*	1.997E+00	4.773E+00	4.773E+00	12.32
TL-208	277.36	73	6.31	6.705E+00	3.077E-01	3.077E-01	74.46
	510.77	131	22.60	4.632E+00	2.237E-01	2.237E-01	80.32
	583.19	385	84.50*	4.221E+00	1.927E-01	1.927E-01	19.06
	763.13	------	1.81	3.420E+00	------	Line Not Found	------
	860.56	------	12.42	3.092E+00	------	Line Not Found	------
BI-212	727.33	81	11.80*	3.560E+00	3.441E-01	3.441E-01	64.86
	785.37	48	1.10	3.336E+00	2.313E+00	2.313E+00	89.75
	1620.50	31	1.49	1.873E+00	2.000E+00	2.000E+00	96.88
PB-212	74.81	299	10.40	6.943E+00	7.404E-01	7.404E-01	29.42
	77.11	518	17.50	7.256E+00	7.294E-01	7.294E-01	17.93
	87.30	252	7.81	8.280E+00	6.955E-01	6.955E-01	34.23
	238.63	1155	43.30*	7.279E+00	6.546E-01	6.546E-01	10.07
	300.09	60	3.28	6.420E+00	5.101E-01	5.101E-01	93.92
BI-214	609.31	274	46.10*	4.084E+00	2.599E-01	2.599E-01	33.90
	768.36	------	4.94	3.401E+00	------	Line Not Found	------
	806.17	------	1.22	3.268E+00	------	Line Not Found	------
	934.06	------	3.03	2.880E+00	------	Line Not Found	------
	1120.29	46	15.10	2.462E+00	2.215E-01	2.215E-01	77.67
	1155.19	------	1.63	2.397E+00	------	Line Not Found	------
	1238.11	19	5.79	2.260E+00	2.637E-01	2.637E-01	218.64
	1280.96	------	1.43	2.201E+00	------	Line Not Found	------
	1377.67	59	4.00	2.082E+00	1.273E+00	1.273E+00	44.48
	1401.50	------	1.27	2.055E+00	------	Line Not Found	------
	1407.98	------	2.15	2.048E+00	------	Line Not Found	------
	1509.23	33	2.11	1.954E+00	1.417E+00	1.417E+00	75.64
	1729.60	------	2.92	1.815E+00	------	Line Not Found	------
	1764.49	86	15.40	1.801E+00	5.533E-01	5.534E-01	38.31
PB-214	74.81	299	6.44	6.943E+00	1.196E+00	1.196E+00	29.42
	77.11	518	10.80	7.256E+00	1.182E+00	1.182E+00	17.93
	87.30	252	4.84	8.280E+00	1.122E+00	1.122E+00	34.23
	242.00	271	7.43	7.234E+00	9.021E-01	9.021E-01	40.43

Sample ID : G198689010 Acquisition date : 11-DEC-2007 12:24:37

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.22	205	19.30	6.483E+00	2.920E-01	2.920E-01	32.16
	351.93	380	37.60*	5.863E+00	3.076E-01	3.076E-01	21.25
RA-223	269.46	143	13.70*	6.819E+00	2.732E-01	2.732E-01	60.27
AC-228	129.07	84	2.42	9.240E+00	6.727E-01	6.727E-01	72.52
	209.25	75	3.89	7.784E+00	4.429E-01	4.429E-01	87.38
	270.25	143	3.46	6.819E+00	1.082E+00	1.082E+00	60.27
	338.32	250	11.27	6.000E+00	6.612E-01	6.612E-01	31.85
	409.46	46	1.92	5.352E+00	7.969E-01	7.969E-01	112.70
	463.00	105	4.40	4.948E+00	8.646E-01	8.646E-01	48.45
	794.95	70	4.25	3.307E+00	8.923E-01	8.923E-01	50.65
	911.20	278	25.80*	2.945E+00	6.543E-01	6.543E-01	23.09
	964.77	70	4.99	2.803E+00	8.911E-01	8.911E-01	53.65
	968.97	167	15.80	2.792E+00	6.759E-01	6.759E-01	29.03
	1588.20	------	3.22	1.894E+00	------ Line Not Found		------
TH-234	63.29	97	4.80	5.023E+00	7.183E-01	7.183E-01	87.90
	92.58	185	5.41*	8.641E+00	7.073E-01	7.073E-01	47.80
U-235	143.76	101	10.96*	9.063E+00	1.824E-01	1.824E-01	134.37
NP-236	98.44	36	38.00*	8.959E+00	1.870E-02	1.870E-02	273.00
NP-237	86.48	252	12.40*	8.280E+00	4.380E-01	4.380E-01	34.23
AM-243	74.66	299	68.20*	6.943E+00	1.129E-01	1.129E-01	29.42

Flag: "*" = Keyline

Sample ID : G198689010 Acquisition date : 11-DEC-2007 12:24:37

Total number of lines in spectrum 61
Number of unidentified lines 26
Number of lines tentatively identified by NID 35 57.38%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.773E+00	4.773E+00	0.588E+00	12.32	
TL-208	4.43E+17S	1.00	1.927E-01	1.927E-01	0.367E-01	19.06	
BI-212	4.43E+17S	1.00	3.441E-01	3.441E-01	2.232E-01	64.86	
PB-212	4.43E+17S	1.00	6.546E-01	6.546E-01	0.659E-01	10.07	
BI-214	5.05E+10S	1.00	2.599E-01	2.599E-01	0.881E-01	33.90	
PB-214	5.05E+10S	1.00	3.076E-01	3.076E-01	0.654E-01	21.25	
RA-223	1.04E+12S	1.00	2.732E-01	2.732E-01	1.647E-01	60.27	
AC-228	4.43E+17S	1.00	6.543E-01	6.543E-01	1.511E-01	23.09	
TH-234	1.41E+17S	1.00	7.073E-01	7.073E-01	3.381E-01	47.80	
U-235	2.22E+16S	1.00	1.824E-01	1.824E-01	2.451E-01	134.37	
NP-236	4.89E+12S	1.00	1.870E-02	1.870E-02	5.104E-02	273.00	
NP-237	6.75E+13S	1.00	4.380E-01	4.380E-01	1.499E-01	34.23	
AM-243	2.33E+11S	1.00	1.129E-01	1.129E-01	0.332E-01	29.42	
		Total Activity :	8.919E+00	8.919E+00			
		Grand Total Activity :	8.919E+00	8.919E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689010 Acquisition date : 11-DEC-2007 12:24:37

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.36	43	363	2.53	92.17	88	9	3.01E-03	****	1.67E+00	
2	84.16	104	336	1.43	167.73	164	27	7.21E-03	69.7	8.04E+00	
2	89.69	139	432	1.45	178.79	164	27	9.65E-03	59.5	8.47E+00	
0	185.69	163	590	1.41	370.72	365	14	1.14E-02	72.3	8.23E+00	
0	327.47	102	199	2.21	654.17	649	11	7.10E-03	57.1	6.11E+00	
0	391.29	39	88	1.63	781.76	779	7	2.69E-03	87.0	5.50E+00	
0	419.29	13	221	4.77	837.74	832	15	9.19E-04	****	5.27E+00	
1	465.50	48	105	2.00	930.15	917	18	3.33E-03	88.7	4.93E+00	
0	562.42	36	103	0.78	1123.94	1120	11	2.47E-03	****	4.33E+00	
0	567.98	2	95	2.04	1135.06	1133	9	1.36E-04	****	4.30E+00	
0	572.47	15	45	1.37	1144.04	1141	6	1.03E-03	****	4.27E+00	
0	802.63	10	76	1.84	1604.31	1600	11	7.23E-04	****	3.28E+00	
0	1005.25	23	95	6.18	2009.58	1995	21	1.56E-03	****	2.70E+00	
1	1010.96	38	34	2.34	2021.00	2017	17	2.67E-03	54.4	2.69E+00	
1	1013.96	35	54	2.34	2027.00	2017	17	2.46E-03	94.4	2.68E+00	
0	1021.97	20	51	2.69	2043.02	2034	15	1.38E-03	****	2.66E+00	
0	1175.25	21	48	3.20	2349.64	2342	12	1.48E-03	****	2.36E+00	
0	1213.72	65	48	9.34	2426.61	2414	22	4.50E-03	60.6	2.30E+00	
0	1345.43	34	41	3.73	2690.10	2681	18	2.37E-03	94.0	2.12E+00	
0	1606.89	4	24	1.19	3213.25	3204	12	2.78E-04	****	1.88E+00	
0	1637.90	30	23	3.89	3275.31	3266	18	2.11E-03	81.9	1.86E+00	
0	1646.38	14	22	4.75	3292.28	3283	15	9.72E-04	****	1.86E+00	
2	1723.67	23	31	3.44	3446.94	3439	22	1.61E-03	****	1.82E+00	
2	1726.98	31	25	3.12	3453.57	3439	22	2.13E-03	81.9	1.82E+00	
0	1770.74	11	9	1.33	3541.13	3536	11	7.93E-04	****	1.80E+00	
0	1865.39	33	13	3.91	3730.57	3717	25	2.26E-03	68.3	1.77E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689010            *
* Acquisition date : 11-DEC-2007 12:24:37 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:01.90     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689010           Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0508E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 22-FEB-2007 17:43:25 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.773E+00	5.761E-01	1.440E-01	5.761E-01
TL-208	1.927E-01	3.601E-02	1.352E-02	3.601E-02
BI-212	3.441E-01	2.187E-01	1.048E-01	2.187E-01
PB-212	6.546E-01	6.459E-02	2.247E-02	6.459E-02
BI-214	2.599E-01	8.635E-02	2.959E-02	8.635E-02
PB-214	3.076E-01	6.405E-02	2.758E-02	6.405E-02
RA-223	2.732E-01	1.614E-01	6.957E-02	1.614E-01
AC-228	6.543E-01	1.480E-01	5.668E-02	1.480E-01
TH-234	7.073E-01	3.313E-01	1.697E-01	3.313E-01
U-235	1.824E-01	2.402E-01	8.102E-02	2.402E-01
NP-236	1.870E-02	5.002E-02	2.393E-02	5.002E-02
NP-237	4.380E-01	1.469E-01	7.729E-02	1.469E-01
AM-243	1.129E-01	3.255E-02	1.777E-02	3.255E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.926E-02	1.898E-02	1.684E-02	1.898E-02	NOT IDENT.
RH-101	-2.269E-03	2.007E-02	1.486E-02	2.007E-02	NOT IDENT.
SB-125	-2.070E-03	4.485E-02	3.476E-02	4.485E-02	NOT IDENT.
CS-137	2.696E-02	1.960E-02	1.742E-02	1.960E-02	NOT IDENT.
EU-155	1.763E-02	5.402E-02	4.371E-02	5.402E-02	NOT IDENT.
PO-209	4.439E+00	3.467E+00	3.147E+00	3.467E+00	NOT IDENT.
BI-211	-5.942E-02	4.820E-01	4.060E-01	4.820E-01	NOT IDENT.
PA-233	2.941E-02	3.069E-02	2.703E-02	3.069E-02	NOT IDENT.
PA-234M	-6.123E-01	2.977E+00	1.571E+00	2.977E+00	NOT IDENT.
NP-239	-2.134E-02	1.265E-01	9.305E-02	1.265E-01	NOT IDENT.
AM-241	6.691E-02	6.497E-02	5.028E-02	6.497E-02	NOT IDENT.
CM-243	-2.390E-02	5.211E-02	3.866E-02	5.211E-02	NOT IDENT.
AM-246	-3.024E-02	5.818E-02	4.601E-02	5.818E-02	NOT IDENT.
CF-249	-2.261E-02	2.169E-02	1.432E-02	2.169E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	289.9252
63.29	424.3631
74.66	406.0344
74.81	406.1904
74.81	406.1904
77.11	408.5750
77.11	408.5750
86.48	355.6946
87.30	356.3705
87.30	356.3705
92.58	360.6537
98.44	377.4404
103.76	400.3585
105.31	375.4402
129.07	396.1181
143.76	370.2738
198.00	347.5624
209.25	350.2983
228.18	323.7362
238.63	289.0665
242.00	245.5496
269.46	243.7348
270.25	243.9299
277.36	256.6774
295.22	238.4674
300.09	240.9227
312.17	208.2996
338.32	234.5692
351.93	213.8464
387.59	204.4707
409.46	188.6023
427.87	157.9180
463.00	150.0396
510.77	126.9950
583.19	135.1761
609.31	180.6581
661.66	137.8815
727.33	112.9438
763.13	121.1366
768.36	118.2175
785.37	108.3564
794.95	87.6130
806.17	83.4914
831.80	109.6895
860.56	109.0639
896.60	78.8627
911.20	108.3125
934.06	89.7314
964.77	74.9583
968.97	75.0709
1001.03	71.6787
1078.86	73.8382
1120.29	76.9035
1155.19	73.5425
1173.23	64.4423
1238.11	85.4372
1280.96	56.2830
1332.51	58.0591
1377.67	52.2363
1401.50	38.4382
1407.98	50.3494
1460.80	55.1481
1509.23	45.0100
1588.20	42.3138
1620.50	51.7587
1729.60	34.0928
1764.49	0.0000

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689010

Total Uranium Activity	8.4402E-02	ug/g
Total Uranium Counting Unc.	1.1114E-01	ug/g
Total Uranium Tpu	1.1114E-07	ug/g
Total Uranium Mda	3.7489E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:31:04.66

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473833.CNF;1
Sample date       : 5-DEC-2007 00:00:00. Acquisition date : 11-DEC-2007 12:53:40
Sample ID         : G1201473833          Sample quantity  : 1.35000E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:03.22  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708128               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.27*	16	236	1.02	126.07	121	10	1.13E-03	212.5	
2	0	78.04*	21	216	1.52	155.60	150	8	1.47E-03	133.0	
3	0	92.52*	33	322	1.11	184.53	181	11	2.26E-03	132.4	
4	0	118.66	45	139	1.69	236.76	234	7	3.10E-03	46.5	
5	0	143.72*	36	173	1.06	286.83	283	8	2.50E-03	76.7	
6	0	197.95*	52	200	2.73	395.20	389	13	3.64E-03	60.8	
7	0	226.96	33	93	1.41	453.17	450	7	2.26E-03	53.3	
8	0	238.59*	11	152	0.89	476.39	472	9	7.46E-04	245.1	
9	0	311.46	35	86	1.50	622.02	617	10	2.43E-03	52.2	
10	0	348.12	24	61	1.36	695.27	691	8	1.68E-03	60.2	
11	0	351.98*	3	55	2.49	703.00	699	9	2.31E-04	515.7	
12	0	468.02	29	77	5.25	934.86	929	15	2.01E-03	67.9	
13	0	500.97	19	30	1.30	1000.72	997	6	1.35E-03	49.9	
14	0	511.06*	43	96	2.82	1020.88	1013	21	2.99E-03	80.3	
15	1	606.85	28	43	1.70	1212.31	1201	36	1.97E-03	47.3	1.68E+00
16	1	609.20*	3	34	1.55	1217.00	1201	36	1.98E-04	516.2	
17	1	613.25	23	29	1.71	1225.09	1201	36	1.63E-03	53.5	
18	0	661.89	29	25	2.77	1322.31	1318	10	2.01E-03	37.2	
19	4	686.73	12	4	1.49	1371.94	1370	18	8.14E-04	35.4	1.18E+00
20	4	690.28	25	30	1.95	1379.03	1370	18	1.71E-03	51.3	
21	0	706.02	36	21	2.59	1410.49	1405	13	2.53E-03	31.4	
22	0	802.92	31	35	2.28	1604.15	1597	14	2.15E-03	44.3	
23	0	982.19	21	8	4.26	1962.44	1956	12	1.44E-03	36.1	
24	0	1001.48*	7	37	1.50	2000.98	1993	15	4.73E-04	234.5	
25	0	1063.38	19	12	3.45	2124.70	2118	13	1.31E-03	45.5	
26	0	1238.78	16	6	2.54	2475.26	2470	11	1.08E-03	38.8	
27	0	1247.96	10	6	0.55	2493.62	2488	9	6.81E-04	56.9	
28	0	1263.96	18	8	4.34	2525.60	2518	15	1.22E-03	41.6	
29	0	1278.61	15	14	0.79	2554.87	2546	14	1.04E-03	58.9	
30	0	1282.06	7	5	1.03	2561.78	2559	6	5.01E-04	60.1	
31	0	1291.47	14	13	6.77	2580.57	2571	16	9.59E-04	69.1	
32	4	1335.97	12	12	2.97	2669.52	2664	17	8.59E-04	61.0	2.12E+00
33	4	1339.58	16	8	2.37	2676.75	2664	17	1.13E-03	34.7	
34	0	1460.39*	12	8	2.29	2918.22	2909	16	8.15E-04	81.1	
35	0	1502.03	7	6	1.23	3001.45	2997	8	5.13E-04	67.7	
36	0	1507.81	6	4	0.68	3013.00	3007	9	4.17E-04	74.8	
37	0	1531.00	20	0	4.71	3059.35	3052	15	1.39E-03	22.4	
38	0	1662.22	12	3	2.44	3321.65	3316	11	8.66E-04	38.1	

Sample ID : G1201473833 Acquisition date : 11-DEC-2007 12:53:40

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1749.70	6	5	0.85	3496.51	3491	9	3.95E-04	90.1	
40	0	1764.04*	3	6	1.74	3525.18	3519	12	1.98E-04	284.1	
41	0	1829.80	5	7	1.43	3656.65	3650	9	3.47E-04	104.3	
42	0	1861.85	6	6	1.16	3720.70	3710	13	4.11E-04	97.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473833      *
* Acquisition date : 11-DEC-2007 12:53:40 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473833          Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.3500E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 22-OCT-2007 15:13:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.437E-01	2.287E-01	2.418E-01	0.000E+00
RH-101	1.816E-02	2.165E-02	1.818E-02	0.000E+00
CS-137	2.173E-02	1.591E-02	2.245E-02	0.000E+00
PA-233	3.158E-02	3.238E-02	4.412E-02	0.000E+00
PA-234M	7.540E-01	3.466E+00	2.828E+00	0.000E+00
TH-234	1.451E-01	3.767E-01	2.888E-01	0.000E+00
U-235	7.054E-02	1.061E-01	1.180E-01	0.000E+00
NP-239	8.341E-02	8.728E-02	1.353E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-7.473E-04	1.390E-02	2.348E-02	0.000E+00	NOT IDENT.
SB-125	1.356E-02	3.624E-02	6.357E-02	0.000E+00	NOT IDENT.
EU-155	1.009E-02	3.320E-02	6.001E-02	0.000E+00	NOT IDENT.
TL-208	-1.008E-02	2.283E-02	2.781E-02	0.000E+00	FAIL ABUN
PO-209	1.139E+00	3.004E+00	5.250E+00	0.000E+00	NOT IDENT.
BI-211	5.241E-02	3.921E-01	6.717E-01	0.000E+00	NOT IDENT.
BI-212	-1.074E-01	1.113E-01	1.705E-01	0.000E+00	NOT IDENT.
PB-212	7.089E-03	3.406E-02	4.476E-02	0.000E+00	FAIL ABUN
BI-214	3.681E-03	3.724E-02	5.566E-02	0.000E+00	FAIL ABUN
PB-214	3.382E-03	3.419E-02	4.674E-02	0.000E+00	FAIL ABUN
RA-223	-5.866E-03	5.956E-02	1.049E-01	0.000E+00	NOT IDENT.
AC-228	1.505E-02	5.985E-02	1.027E-01	0.000E+00	NOT IDENT.
NP-236	-1.101E-02	2.751E-02	3.852E-02	0.000E+00	NOT IDENT.
NP-237	-1.066E-01	7.150E-02	1.171E-01	0.000E+00	NOT IDENT.
AM-241	7.670E-03	6.579E-02	1.101E-01	0.000E+00	NOT IDENT.
AM-243	-1.927E-02	2.424E-02	2.974E-02	0.000E+00	NOT IDENT.
CM-243	2.675E-03	3.007E-02	5.376E-02	0.000E+00	NOT IDENT.
AM-246	-9.098E-03	4.894E-02	8.195E-02	0.000E+00	NOT IDENT.
CF-249	-1.152E-03	1.442E-02	2.460E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:31:06.43

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473833.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 11-DEC-2007 12:53:40
Sample ID        : G1201473833          Sample quantity  : 1.35000E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.22  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	12	10.66*	1.065E+00	1.437E-01	1.437E-01	162.37
RH-101	198.00	52	73.00*	5.523E+00	1.810E-02	1.816E-02	121.65
CS-137	661.66	29	85.10*	2.181E+00	2.173E-02	2.173E-02	74.69
PA-233	312.17	35	38.60*	3.989E+00	3.158E-02	3.158E-02	104.61
PA-234M	1001.03	7	0.84*	1.495E+00	7.540E-01	7.540E-01	469.01
TH-234	63.29	16	4.80	2.597E+00	1.821E-01	1.821E-01	425.01
	92.58	33	5.41*	5.775E+00	1.451E-01	1.451E-01	265.01
U-235	143.76	36	10.96*	6.463E+00	7.054E-02	7.054E-02	153.44
NP-239	228.18	33	10.76*	5.038E+00	8.341E-02	8.341E-02	106.78

Flag: "*" = Keyline

Sample ID : G1201473833 Acquisition date : 11-DEC-2007 12:53:40

Total number of lines in spectrum	42	
Number of unidentified lines	24	
Number of lines tentatively identified by NID	18	42.86%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.437E-01	1.437E-01	2.334E-01	162.37	
RH-101	1.04E+08S	1.00	1.810E-02	1.816E-02	2.210E-02	121.65	
CS-137	9.47E+08S	1.00	2.173E-02	2.173E-02	1.623E-02	74.69	
PA-233	6.75E+13S	1.00	3.158E-02	3.158E-02	3.304E-02	104.61	
PA-234M	1.41E+17S	1.00	7.540E-01	7.540E-01	35.36E-01	469.01	
TH-234	1.41E+17S	1.00	1.451E-01	1.451E-01	3.844E-01	265.01	
U-235	2.22E+16S	1.00	7.054E-02	7.054E-02	10.82E-02	153.44	
NP-239	2.33E+11S	1.00	8.341E-02	8.341E-02	8.906E-02	106.78	
			---	---			
		Total Activity :	1.268E+00	1.268E+00			
		Grand Total Activity :	1.268E+00	1.268E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201473833 Acquisition date : 11-DEC-2007 12:53:40

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	78.04	21	216	1.52	155.60	150	8	1.47E-03	****	4.52E+00	T
0	118.66	45	139	1.69	236.76	234	7	3.10E-03	92.9	6.59E+00	
0	238.59	11	152	0.89	476.39	472	9	7.46E-04	****	4.86E+00	T
0	348.12	24	61	1.36	695.27	691	8	1.68E-03	****	3.66E+00	
0	351.98	3	55	2.49	703.00	699	9	2.31E-04	****	3.63E+00	T
0	468.02	29	77	5.25	934.86	929	15	2.01E-03	****	2.91E+00	
0	500.97	19	30	1.30	1000.72	997	6	1.35E-03	99.8	2.75E+00	
0	511.06	43	96	2.82	1020.88	1013	21	2.99E-03	****	2.71E+00	T
1	606.85	28	43	1.70	1212.31	1201	36	1.97E-03	94.5	2.35E+00	
1	609.20	3	34	1.55	1217.00	1201	36	1.98E-04	****	2.34E+00	T
1	613.25	23	29	1.71	1225.09	1201	36	1.63E-03	****	2.33E+00	
4	686.73	12	4	1.49	1371.94	1370	18	8.14E-04	70.8	2.11E+00	
4	690.28	25	30	1.95	1379.03	1370	18	1.71E-03	****	2.10E+00	
0	706.02	36	21	2.59	1410.49	1405	13	2.53E-03	62.8	2.06E+00	
0	802.92	31	35	2.28	1604.15	1597	14	2.15E-03	88.6	1.84E+00	
0	982.19	21	8	4.26	1962.44	1956	12	1.44E-03	72.2	1.52E+00	
0	1063.38	19	12	3.45	2124.70	2118	13	1.31E-03	90.9	1.41E+00	
0	1238.78	16	6	2.54	2475.26	2470	11	1.08E-03	77.6	1.23E+00	T
0	1247.96	10	6	0.55	2493.62	2488	9	6.81E-04	****	1.22E+00	
0	1263.96	18	8	4.34	2525.60	2518	15	1.22E-03	83.3	1.20E+00	
0	1278.61	15	14	0.79	2554.87	2546	14	1.04E-03	****	1.19E+00	
0	1282.06	7	5	1.03	2561.78	2559	6	5.01E-04	****	1.19E+00	T
0	1291.47	14	13	6.77	2580.57	2571	16	9.59E-04	****	1.18E+00	
4	1335.97	12	12	2.97	2669.52	2664	17	8.59E-04	****	1.15E+00	
4	1339.58	16	8	2.37	2676.75	2664	17	1.13E-03	69.5	1.14E+00	
0	1502.03	7	6	1.23	3001.45	2997	8	5.13E-04	****	1.04E+00	
0	1507.81	6	4	0.68	3013.00	3007	9	4.17E-04	****	1.04E+00	T
0	1531.00	20	0	4.71	3059.35	3052	15	1.39E-03	44.7	1.03E+00	
0	1662.22	12	3	2.44	3321.65	3316	11	8.66E-04	76.2	9.69E-01	
0	1749.70	6	5	0.85	3496.51	3491	9	3.95E-04	****	9.39E-01	
0	1764.04	3	6	1.74	3525.18	3519	12	1.98E-04	****	9.35E-01	T
0	1829.80	5	7	1.43	3656.65	3650	9	3.47E-04	****	9.17E-01	
0	1861.85	6	6	1.16	3720.70	3710	13	4.11E-04	****	9.10E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201473833           *
* Acquisition date : 11-DEC-2007 12:53:40 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473833          Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.3500E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 22-OCT-2007 15:13:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.437E-01	2.287E-01	1.210E-01	2.287E-01
RH-101	1.816E-02	2.165E-02	9.096E-03	2.165E-02
CS-137	2.173E-02	1.591E-02	1.123E-02	1.591E-02
PA-233	3.158E-02	3.238E-02	2.207E-02	3.238E-02
PA-234M	7.540E-01	3.466E+00	1.415E+00	3.466E+00
TH-234	1.451E-01	3.767E-01	1.445E-01	3.767E-01
U-235	7.054E-02	1.061E-01	5.904E-02	1.061E-01
NP-239	8.341E-02	8.728E-02	6.771E-02	8.728E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-7.473E-04	1.390E-02	1.175E-02	1.390E-02	NOT IDENT.
SB-125	1.356E-02	3.624E-02	3.180E-02	3.624E-02	NOT IDENT.
EU-155	1.009E-02	3.320E-02	3.002E-02	3.320E-02	NOT IDENT.
TL-208	-1.008E-02	2.283E-02	1.391E-02	2.283E-02	FAIL ABUN
PO-209	1.139E+00	3.004E+00	2.627E+00	3.004E+00	NOT IDENT.
BI-211	5.241E-02	3.921E-01	3.361E-01	3.921E-01	NOT IDENT.
BI-212	-1.074E-01	1.113E-01	8.531E-02	1.113E-01	NOT IDENT.
PB-212	7.089E-03	3.406E-02	2.239E-02	3.406E-02	FAIL ABUN
BI-214	3.681E-03	3.724E-02	2.785E-02	3.724E-02	FAIL ABUN
PB-214	3.382E-03	3.419E-02	2.338E-02	3.419E-02	FAIL ABUN
RA-223	-5.866E-03	5.956E-02	5.249E-02	5.956E-02	NOT IDENT.
AC-228	1.505E-02	5.985E-02	5.140E-02	5.985E-02	NOT IDENT.
NP-236	-1.101E-02	2.751E-02	1.927E-02	2.751E-02	NOT IDENT.
NP-237	-1.066E-01	7.150E-02	5.858E-02	7.150E-02	NOT IDENT.
AM-241	7.670E-03	6.579E-02	5.507E-02	6.579E-02	NOT IDENT.
AM-243	-1.927E-02	2.424E-02	1.488E-02	2.424E-02	NOT IDENT.
CM-243	2.675E-03	3.007E-02	2.690E-02	3.007E-02	NOT IDENT.
AM-246	-9.098E-03	4.894E-02	4.100E-02	4.894E-02	NOT IDENT.
CF-249	-1.152E-03	1.442E-02	1.231E-02	1.442E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	138.0903
63.29	151.9120
74.66	163.0115
74.81	163.0746
74.81	163.0746
77.11	142.1581
77.11	142.1581
86.48	179.8930
87.30	193.3076
87.30	193.3076
92.58	175.7761
98.44	160.7889
103.76	128.7051
105.31	131.0511
129.07	149.1888
143.76	152.9037
198.00	117.9947
209.25	118.5171
228.18	118.8610
238.63	132.6416
242.00	127.8083
269.46	94.0824
270.25	80.4456
277.36	103.1099
295.22	91.7793
300.09	84.6703
312.17	103.4875
338.32	80.7609
351.93	67.7030
387.59	69.8275
409.46	67.8812
427.87	69.8176
463.00	58.0523
510.77	68.1848
583.19	50.4426
609.31	58.5918
661.66	40.1123
727.33	56.1497
763.13	45.0406
768.36	39.1238
785.37	28.2946
794.95	27.9022
806.17	35.6793
831.80	33.9966
860.56	28.1371
896.60	32.7596
911.20	39.3170
934.06	27.8643
964.77	41.1803
968.97	26.0479
1001.03	29.6361
1078.86	26.2899
1120.29	28.5449
1155.19	15.3900
1173.23	22.2457
1238.11	16.7614
1280.96	21.5587
1332.51	13.8845
1377.67	8.1976
1401.50	13.4047
1407.98	29.9535
1460.80	17.9464
1509.23	12.7139
1588.20	18.3537
1620.50	18.6468
1729.60	14.3293
1764.49	10.5872

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473833

Total Uranium Activity	3.2641E-02	ug/g
Total Uranium Counting Unc.	4.9083E-02	ug/g
Total Uranium Tpu	4.9083E-08	ug/g
Total Uranium Mda	2.7316E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 12-DEC-2007 13:05:14.05

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473834.CNF;2
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 12:54:09
Sample ID        : G1201473834          Sample quantity  : 1.06990E+02 GRAM
Detector name    : GAM03                Detector geometry: CAN
Elapsed live time: 0 05:00:00.00        Elapsed real time: 0 05:00:02.11  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.32*	63	580	0.81	126.52	122	10	3.50E-03	79.6	
2	10	73.16*	58	440	2.64	146.18	142	19	3.21E-03	69.7	1.59E+00
3	10	75.02*	323	440	1.27	149.89	142	19	1.79E-02	13.6	
4	10	77.28*	469	605	1.78	154.41	142	19	2.61E-02	12.2	
5	0	87.44*	113	712	1.19	174.71	169	10	6.28E-03	46.7	
6	0	93.11*	110	600	1.37	186.04	182	10	6.12E-03	52.5	
7	0	129.01	123	398	2.00	257.75	253	9	6.86E-03	30.6	
8	0	134.36	105	540	4.82	268.44	262	14	5.85E-03	47.9	
9	0	144.32*	6	360	0.81	288.34	285	7	3.53E-04	555.9	
10	0	186.01*	173	448	1.87	371.63	367	12	9.59E-03	29.3	
11	0	209.74	94	348	1.53	419.05	413	10	5.20E-03	38.9	
12	4	238.73*	907	313	1.56	476.97	469	21	5.04E-02	5.3	9.99E-01
13	4	241.79	258	382	1.96	483.08	469	21	1.44E-02	19.2	
14	0	270.25	61	291	1.29	539.94	536	11	3.36E-03	56.3	
15	0	295.25*	320	283	1.72	589.91	583	13	1.78E-02	13.0	
16	0	338.80*	124	272	1.30	676.93	672	11	6.86E-03	29.1	
17	0	352.19*	499	266	1.80	703.69	697	15	2.77E-02	9.0	
18	0	370.21	66	399	8.25	739.69	723	26	3.66E-03	84.4	
19	2	453.82	54	83	2.30	906.80	902	36	3.01E-03	35.7	1.64E+00
20	2	463.02	72	131	2.32	925.20	902	36	3.98E-03	36.4	
21	0	511.43*	81	160	2.13	1021.96	1015	17	4.48E-03	52.0	
22	4	527.98	26	27	1.31	1055.03	1053	11	1.46E-03	32.7	1.02E+00
23	4	530.28	50	50	1.87	1059.64	1053	11	2.79E-03	30.5	
24	0	583.74*	304	126	2.36	1166.50	1158	17	1.69E-02	11.4	
25	0	609.64*	356	191	1.58	1218.27	1210	17	1.98E-02	11.1	
26	0	662.61	283	122	2.69	1324.18	1315	23	1.57E-02	11.7	
27	0	728.19	84	102	1.61	1455.31	1449	13	4.68E-03	27.2	
28	0	860.22	77	122	8.15	1719.32	1703	26	4.26E-03	41.3	
29	0	890.74	27	70	6.39	1780.37	1768	17	1.47E-03	75.7	
30	0	912.16*	144	104	2.53	1823.21	1816	18	7.98E-03	19.9	
31	0	970.33	106	101	2.27	1939.56	1930	16	5.89E-03	23.5	
32	0	1121.49	51	75	1.43	2241.96	2235	12	2.84E-03	36.6	
33	0	1134.12	14	35	1.53	2267.23	2263	9	7.97E-04	77.9	
34	0	1159.21	23	23	3.95	2317.42	2312	11	1.27E-03	46.7	
35	0	1239.76	71	82	3.00	2478.60	2465	30	3.96E-03	39.0	
36	0	1381.60	25	26	3.59	2762.47	2757	12	1.41E-03	46.7	
37	0	1461.82*	373	23	2.78	2923.03	2912	24	2.07E-02	6.7	
38	0	1534.78	10	19	1.32	3069.09	3057	15	5.59E-04	99.0	

Sample ID : G1201473834 Acquisition date : 11-DEC-2007 12:54:09

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1543.84	14	17	3.79	3087.22	3076	15	7.77E-04	72.0	
40	0	1557.47	20	35	6.69	3114.52	3095	28	1.12E-03	85.9	
41	0	1766.40	81	28	2.39	3532.87	3523	22	4.50E-03	19.9	
42	0	1847.95	31	18	2.03	3696.20	3686	21	1.74E-03	33.5	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473834      *
* Acquisition date : 11-DEC-2007 12:54:09 Detector SN#    :                 *
* Detector ID      : GAM03                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 05:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 05:00:02.11     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473834          Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0699E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-MAR-2007 19:01:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.363E+00	6.260E-01	3.218E-01	0.000E+00
CS-137	2.064E-01	4.931E-02	3.196E-02	0.000E+00
TL-208	1.996E-01	4.668E-02	3.403E-02	0.000E+00
BI-212	4.790E-01	2.581E-01	3.009E-01	0.000E+00
PB-212	5.874E-01	7.162E-02	5.515E-02	0.000E+00
BI-214	4.441E-01	1.012E-01	6.753E-02	0.000E+00
PB-214	4.929E-01	9.256E-02	6.712E-02	0.000E+00
RA-223	1.351E-01	1.494E-01	1.654E-01	0.000E+00
AC-228	4.596E-01	1.860E-01	1.422E-01	0.000E+00
TH-234	4.593E-01	4.738E-01	5.227E-01	0.000E+00
U-235	1.235E-02	1.345E-01	1.928E-01	0.000E+00
NP-237	2.174E-01	1.999E-01	2.217E-01	0.000E+00
AM-243	1.389E-01	3.857E-02	4.337E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-9.387E-03		2.282E-02	3.699E-02	0.000E+00	NOT IDENT.
RH-101	4.484E-03		2.162E-02	3.330E-02	0.000E+00	NOT IDENT.
SB-125	-8.844E-03		5.449E-02	9.228E-02	0.000E+00	NOT IDENT.
EU-155	2.613E-02		5.704E-02	9.821E-02	0.000E+00	NOT IDENT.
PO-209	3.754E+00		4.780E+00	7.398E+00	0.000E+00	NOT IDENT.
BI-211	-1.575E-01		6.113E-01	1.007E+00	0.000E+00	NOT IDENT.
PA-233	4.185E-02		3.719E-02	6.518E-02	0.000E+00	NOT IDENT.
PA-234M	3.671E+00		2.737E+00	4.937E+00	0.000E+00	NOT IDENT.
NP-236	-9.112E-03		4.116E-02	5.516E-02	0.000E+00	NOT IDENT.
NP-239	-3.464E-03		1.258E-01	2.146E-01	0.000E+00	NOT IDENT.
AM-241	-1.585E-02		8.730E-02	1.335E-01	0.000E+00	NOT IDENT.
CM-243	3.757E-03		5.188E-02	8.830E-02	0.000E+00	NOT IDENT.
AM-246	-4.707E-03		7.293E-02	1.230E-01	0.000E+00	NOT IDENT.
CF-249	-2.138E-02		2.446E-02	3.829E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-DEC-2007 13:05:14.93

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473834.CNF;2
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 11-DEC-2007 12:54:09
Sample ID        : G1201473834          Sample quantity  : 1.06990E+02 GRAM
Detector name    : GAM03                Detector geometry: CAN
Elapsed live time: 0 05:00:00.00        Elapsed real time: 0 05:00:02.11  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	373	10.66*	1.126E+00	4.363E+00	4.363E+00	14.64
CS-137	661.66	283	85.10*	2.271E+00	2.057E-01	2.064E-01	24.38
TL-208	277.36	------	6.31	4.504E+00	------	Line Not Found	------
	510.77	81	22.60	2.826E+00	1.772E-01	1.772E-01	104.29
	583.19	304	84.50*	2.533E+00	1.996E-01	1.996E-01	23.87
	763.13	------	1.81	2.003E+00	------	Line Not Found	------
	860.56	77	12.42	1.796E+00	4.820E-01	4.820E-01	83.31
BI-212	727.33	84	11.80*	2.090E+00	4.790E-01	4.790E-01	54.98
	785.37	------	1.10	1.952E+00	------	Line Not Found	------
	1620.50	------	1.49	1.050E+00	------	Line Not Found	------
PB-212	74.81	323	10.40	4.785E+00	9.107E-01	9.107E-01	28.34
	77.11	469	17.50	5.027E+00	7.490E-01	7.489E-01	25.65
	87.30	113	7.81	5.887E+00	3.451E-01	3.451E-01	93.87
	238.63	907	43.30*	5.003E+00	5.874E-01	5.874E-01	12.44
	300.09	------	3.28	4.255E+00	------	Line Not Found	------
BI-214	609.31	356	46.10*	2.441E+00	4.441E-01	4.441E-01	23.26
	768.36	------	4.94	1.991E+00	------	Line Not Found	------
	806.17	------	1.22	1.906E+00	------	Line Not Found	------
	934.06	------	3.03	1.664E+00	------	Line Not Found	------
	1120.29	51	15.10	1.406E+00	3.382E-01	3.382E-01	73.71
	1155.19	------	1.63	1.369E+00	------	Line Not Found	------
	1238.11	71	5.79	1.286E+00	1.344E+00	1.344E+00	78.20
	1280.96	------	1.43	1.251E+00	------	Line Not Found	------
	1377.67	------	4.00	1.178E+00	------	Line Not Found	------
	1401.50	------	1.27	1.162E+00	------	Line Not Found	------
	1407.98	------	2.15	1.158E+00	------	Line Not Found	------
	1509.23	------	2.11	1.100E+00	------	Line Not Found	------
	1729.60	------	2.92	1.013E+00	------	Line Not Found	------
	1764.49	81	15.40	1.002E+00	7.365E-01	7.365E-01	40.25
PB-214	74.81	323	6.44	4.785E+00	1.471E+00	1.471E+00	28.34
	77.11	469	10.80	5.027E+00	1.214E+00	1.214E+00	25.65
	87.30	113	4.84	5.887E+00	5.569E-01	5.569E-01	93.87

Sample ID : G1201473834 Acquisition date : 11-DEC-2007 12:54:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	258	7.43	4.960E+00	9.841E-01	9.842E-01	38.98
	295.22	320	19.30	4.306E+00	5.397E-01	5.397E-01	26.88
	351.93	499	37.60*	3.780E+00	4.929E-01	4.929E-01	19.16
RA-223	269.46	61	13.70*	4.589E+00	1.351E-01	1.351E-01	112.81
AC-228	129.07	123	2.42	6.757E+00	1.059E+00	1.059E+00	61.45
	209.25	94	3.89	5.450E+00	6.195E-01	6.195E-01	77.99
	270.25	61	3.46	4.589E+00	5.349E-01	5.349E-01	112.81
	338.32	124	11.27	3.891E+00	3.954E-01	3.954E-01	58.61
	409.46	------	1.92	3.370E+00	------	Line Not Found	------
	463.00	72	4.40	3.061E+00	7.460E-01	7.460E-01	73.09
	794.95	------	4.25	1.930E+00	------	Line Not Found	------
	911.20	144	25.80*	1.701E+00	4.596E-01	4.596E-01	41.31
	964.77	------	4.99	1.615E+00	------	Line Not Found	------
	968.97	106	15.80	1.606E+00	5.865E-01	5.865E-01	48.25
	1588.20	------	3.22	1.063E+00	------	Line Not Found	------
TH-234	63.29	63	4.80	3.265E+00	5.644E-01	5.644E-01	159.44
	92.58	110	5.41*	6.218E+00	4.593E-01	4.593E-01	105.27
U-235	143.76	6	10.96*	6.584E+00	1.235E-02	1.235E-02	1111.84
NP-237	86.48	113	12.40*	5.887E+00	2.174E-01	2.174E-01	93.87
AM-243	74.66	323	68.20*	4.785E+00	1.389E-01	1.389E-01	28.34

Flag: "*" = Keyline

Sample ID : G1201473834 Acquisition date : 11-DEC-2007 12:54:09

Total number of lines in spectrum	42	
Number of unidentified lines	15	
Number of lines tentatively identified by NID	27	64.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.363E+00	4.363E+00	0.639E+00	14.64	
CS-137	9.47E+08S	1.00	2.057E-01	2.064E-01	0.503E-01	24.38	
TL-208	4.43E+17S	1.00	1.996E-01	1.996E-01	0.476E-01	23.87	
BI-212	4.43E+17S	1.00	4.790E-01	4.790E-01	2.634E-01	54.98	
PB-212	4.43E+17S	1.00	5.874E-01	5.874E-01	0.731E-01	12.44	
BI-214	5.05E+10S	1.00	4.441E-01	4.441E-01	1.033E-01	23.26	
PB-214	5.05E+10S	1.00	4.929E-01	4.929E-01	0.944E-01	19.16	
RA-223	1.04E+12S	1.00	1.351E-01	1.351E-01	1.524E-01	112.81	
AC-228	4.43E+17S	1.00	4.596E-01	4.596E-01	1.898E-01	41.31	
TH-234	1.41E+17S	1.00	4.593E-01	4.593E-01	4.835E-01	105.27	
U-235	2.22E+16S	1.00	1.235E-02	1.235E-02	13.73E-02	1111.84	
NP-237	6.75E+13S	1.00	2.174E-01	2.174E-01	2.040E-01	93.87	
AM-243	2.33E+11S	1.00	1.389E-01	1.389E-01	0.394E-01	28.34	
			---	---			
	Total Activity :		8.194E+00	8.195E+00			

Grand Total Activity : 8.194E+00 8.195E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201473834 Acquisition date : 11-DEC-2007 12:54:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
10	73.16	58	440	2.64	146.18	142	19	3.21E-03	****	4.57E+00	
0	134.36	105	540	4.82	268.44	262	14	5.85E-03	95.8	6.71E+00	
0	186.01	173	448	1.87	371.63	367	12	9.59E-03	58.7	5.86E+00	
0	370.21	66	399	8.25	739.69	723	26	3.66E-03	****	3.64E+00	
2	453.82	54	83	2.30	906.80	902	36	3.01E-03	71.4	3.11E+00	
4	527.98	26	27	1.31	1055.03	1053	11	1.46E-03	65.4	2.75E+00	
4	530.28	50	50	1.87	1059.64	1053	11	2.79E-03	60.9	2.74E+00	
0	890.74	27	70	6.39	1780.37	1768	17	1.47E-03	****	1.74E+00	
0	1134.12	14	35	1.53	2267.23	2263	9	7.97E-04	****	1.39E+00	
0	1159.21	23	23	3.95	2317.42	2312	11	1.27E-03	93.4	1.36E+00	
0	1381.60	25	26	3.59	2762.47	2757	12	1.41E-03	93.5	1.18E+00	
0	1534.78	10	19	1.32	3069.09	3057	15	5.59E-04	****	1.09E+00	
0	1543.84	14	17	3.79	3087.22	3076	15	7.77E-04	****	1.08E+00	
0	1557.47	20	35	6.69	3114.52	3095	28	1.12E-03	****	1.08E+00	
0	1847.95	31	18	2.03	3696.20	3686	21	1.74E-03	67.0	9.84E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201473834           *
* Acquisition date : 11-DEC-2007 12:54:09 Detector SN#    :                 *
* Detector ID      : GAM03                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 05:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 05:00:02.11     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473834          Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.0699E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-MAR-2007 19:01:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.363E+00	6.260E-01	1.610E-01	6.260E-01
CS-137	2.064E-01	4.931E-02	1.599E-02	4.931E-02
TL-208	1.996E-01	4.668E-02	1.702E-02	4.668E-02
BI-212	4.790E-01	2.581E-01	1.506E-01	2.581E-01
PB-212	5.874E-01	7.162E-02	2.759E-02	7.162E-02
BI-214	4.441E-01	1.012E-01	3.378E-02	1.012E-01
PB-214	4.929E-01	9.256E-02	3.358E-02	9.256E-02
RA-223	1.351E-01	1.494E-01	8.275E-02	1.494E-01
AC-228	4.596E-01	1.860E-01	7.113E-02	1.860E-01
TH-234	4.593E-01	4.738E-01	2.615E-01	4.738E-01
U-235	1.235E-02	1.345E-01	9.644E-02	1.345E-01
NP-237	2.174E-01	1.999E-01	1.109E-01	1.999E-01
AM-243	1.389E-01	3.857E-02	2.170E-02	3.857E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-9.387E-03	2.282E-02	1.851E-02	2.282E-02	NOT IDENT.
RH-101	4.484E-03	2.162E-02	1.666E-02	2.162E-02	NOT IDENT.
SB-125	-8.844E-03	5.449E-02	4.617E-02	5.449E-02	NOT IDENT.
EU-155	2.613E-02	5.704E-02	4.913E-02	5.704E-02	NOT IDENT.
PO-209	3.754E+00	4.780E+00	3.701E+00	4.780E+00	NOT IDENT.
BI-211	-1.575E-01	6.113E-01	5.039E-01	6.113E-01	NOT IDENT.
PA-233	4.185E-02	3.719E-02	3.261E-02	3.719E-02	NOT IDENT.
PA-234M	3.671E+00	2.737E+00	2.470E+00	2.737E+00	NOT IDENT.
NP-236	-9.112E-03	4.116E-02	2.760E-02	4.116E-02	NOT IDENT.
NP-239	-3.464E-03	1.258E-01	1.074E-01	1.258E-01	NOT IDENT.
AM-241	-1.585E-02	8.730E-02	6.678E-02	8.730E-02	NOT IDENT.
CM-243	3.757E-03	5.188E-02	4.418E-02	5.188E-02	NOT IDENT.
AM-246	-4.707E-03	7.293E-02	6.152E-02	7.293E-02	NOT IDENT.
CF-249	-2.138E-02	2.446E-02	1.915E-02	2.446E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	396.3587
63.29	404.3234
74.66	452.5799
74.81	452.7455
74.81	452.7455
77.11	455.2773
77.11	455.2773
86.48	589.4167
87.30	590.4852
87.30	590.4852
92.58	705.8070
98.44	400.4906
103.76	408.1082
105.31	397.4450
129.07	339.2541
143.76	449.0314
198.00	379.6635
209.25	361.6917
228.18	331.7554
238.63	332.6603
242.00	333.8498
269.46	253.1607
270.25	261.5807
277.36	259.8202
295.22	273.8284
300.09	219.8907
312.17	205.1465
338.32	255.1406
351.93	213.0693
387.59	220.0178
409.46	198.2337
427.87	180.2248
463.00	149.0747
510.77	153.4998
583.19	124.9959
609.31	136.0532
661.66	89.5251
727.33	130.1639
763.13	128.1347
768.36	102.5442
785.37	96.5210
794.95	90.1197
806.17	82.7455
831.80	96.3867
860.56	79.5717
896.60	63.5219
911.20	92.2505
934.06	63.3764
964.77	68.7196
968.97	89.0009
1001.03	64.8749
1078.86	60.1152
1120.29	68.5129
1155.19	66.6800
1173.23	65.7505
1238.11	65.0292
1280.96	55.8394
1332.51	45.5013
1377.67	56.3893
1401.50	33.9728
1407.98	41.2476
1460.80	35.5263
1509.23	38.0599
1588.20	35.4192
1620.50	36.6445
1729.60	38.5165
1764.49	21.4898

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473834

Total Uranium Activity	5.7133E-03	ug/g
Total Uranium Counting Unc.	6.2252E-02	ug/g
Total Uranium Tpu	6.2252E-08	ug/g
Total Uranium Mda	4.4621E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:32:13.72

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473835.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 11-DEC-2007 12:54:38
Sample ID        : G1201473835          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:05.00  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	49.12	116	1044	1.74	98.72	96	7	3.23E-02	46.8	
2	0	59.53	6939	1286	0.99	119.52	115	9	1.93E+00	1.5	
3	0	63.00*	50	408	1.02	126.46	125	5	1.38E-02	65.4	
4	0	68.87	109	752	1.19	138.19	135	7	3.02E-02	43.0	
5	3	74.73*	212	590	0.88	149.90	146	13	5.88E-02	18.5	1.12E+00
6	3	77.12*	338	674	1.00	154.68	146	13	9.39E-02	13.4	
7	4	84.38*	123	807	1.33	169.19	165	15	3.43E-02	39.6	9.24E+00
8	4	88.01*	5703	415	0.89	176.44	165	15	1.58E+00	1.4	
9	0	92.70*	10	576	1.28	185.81	182	9	2.87E-03	437.1	
10	0	122.06*	1681	596	1.01	244.48	238	12	4.67E-01	3.8	
11	0	136.67	243	313	1.07	273.67	270	9	6.76E-02	14.7	
12	0	165.90	722	298	0.86	332.08	328	9	2.01E-01	5.7	
13	0	186.06*	96	308	1.05	372.36	368	10	2.66E-02	36.6	
14	6	238.61*	357	160	0.90	477.37	473	15	9.91E-02	7.7	3.33E+00
15	6	241.62	101	256	1.63	483.38	473	15	2.80E-02	28.7	
16	3	294.99*	145	147	1.57	590.05	583	26	4.01E-02	17.4	2.17E+00
17	3	298.49	37	140	1.57	597.03	583	26	1.03E-02	63.7	
18	3	300.37	73	137	1.58	600.78	583	26	2.03E-02	32.8	
19	3	302.40	42	133	1.58	604.84	583	26	1.16E-02	56.8	
20	0	338.60*	62	183	1.12	677.18	671	9	1.73E-02	41.9	
21	0	351.93*	201	189	0.99	703.83	699	11	5.58E-02	15.2	
22	0	391.63	405	180	1.11	783.16	778	11	1.13E-01	8.1	
23	0	510.17*	44	215	2.28	1020.07	1014	15	1.21E-02	77.7	
24	0	556.57	37	149	3.52	1112.81	1103	15	1.03E-02	73.7	
25	0	583.01*	72	125	1.18	1165.64	1160	10	2.00E-02	31.7	
26	0	609.17*	146	140	1.37	1217.94	1212	13	4.05E-02	18.9	
27	0	661.59*	1774	128	1.40	1322.70	1317	12	4.93E-01	2.7	
28	0	840.62	19	118	1.32	1680.55	1675	12	5.35E-03	114.6	
29	0	897.93	324	150	1.93	1795.11	1788	13	9.01E-02	9.5	
30	0	910.70*	93	126	1.83	1820.64	1816	11	2.58E-02	25.6	
31	0	925.13	12	109	0.95	1849.48	1840	11	3.47E-03	167.9	
32	0	1120.47*	40	64	2.51	2239.97	2234	10	1.11E-02	41.2	
33	0	1173.00	1854	59	1.84	2344.98	2336	17	5.15E-01	2.5	
34	0	1241.94	4	16	0.55	2482.81	2479	8	9.72E-04	195.9	
35	0	1312.11	12	5	0.68	2623.09	2619	7	3.35E-03	42.4	
36	0	1332.29	1676	37	1.74	2663.45	2655	18	4.66E-01	2.6	
37	0	1424.01	12	2	0.62	2846.82	2843	8	3.40E-03	34.6	
38	0	1461.22*	25	14	3.98	2921.22	2913	14	7.04E-03	37.9	

Sample ID : G1201473835 Acquisition date : 11-DEC-2007 12:54:38

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1607.17	11	17	1.54	3213.05	3204	14	3.00E-03	87.4	
40	0	1765.17*	11	15	1.90	3529.00	3522	11	3.10E-03	78.8	
41	0	1835.86	190	0	2.36	3670.37	3663	14	5.28E-02	7.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473835      *
* Acquisition date : 11-DEC-2007 12:54:38 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:05.00     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473835          Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.287E+00	9.587E-01	1.134E+00	0.000E+00
CO-60	8.394E+00	6.350E-01	1.503E-01	0.000E+00
CS-137	5.625E+00	5.038E-01	1.547E-01	0.000E+00
TL-208	2.038E-01	1.272E-01	1.600E-01	0.000E+00
PO-209	2.467E+02	4.894E+01	3.952E+01	0.000E+00
PB-212	8.996E-01	1.522E-01	1.796E-01	0.000E+00
PB-214	8.033E-01	2.443E-01	2.437E-01	0.000E+00
TH-234	1.324E-01	1.135E+00	1.227E+00	0.000E+00
NP-237	3.162E+01	2.274E+00	6.482E-01	0.000E+00
AM-241	1.347E+01	9.309E-01	3.009E-01	0.000E+00
AM-243	2.115E-01	7.765E-02	1.260E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
RH-101	5.973E-02		5.802E-02	1.062E-01	0.000E+00	NOT IDENT.
SB-125	-1.979E-02		2.187E-01	3.835E-01	0.000E+00	NOT IDENT.
EU-155	3.710E-02		1.624E-01	3.007E-01	0.000E+00	NOT IDENT.
BI-211	-3.325E-01		2.738E+00	4.735E+00	0.000E+00	NOT IDENT.
BI-212	2.570E-01		7.163E-01	1.293E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00		2.972E-01	4.049E-01	0.000E+00	FAIL ABUN
RA-223	2.994E-01		3.622E-01	6.439E-01	0.000E+00	NOT IDENT.
AC-228	0.000E+00		6.591E-01	9.694E-01	0.000E+00	FAIL ABUN
PA-233	2.100E-03		1.198E-01	2.173E-01	0.000E+00	NOT IDENT.
PA-234M	3.446E-01		1.375E+01	2.366E+01	0.000E+00	NOT IDENT.
U-235	-3.613E-01		3.248E-01	5.511E-01	0.000E+00	NOT IDENT.
NP-236	-7.907E-03		8.886E-02	1.630E-01	0.000E+00	NOT IDENT.
NP-239	1.905E-01		4.152E-01	7.353E-01	0.000E+00	NOT IDENT.
CM-243	-7.878E-02		1.498E-01	2.695E-01	0.000E+00	NOT IDENT.
AM-246	2.448E-02		4.157E-01	7.079E-01	0.000E+00	NOT IDENT.
CF-249	1.793E-02		9.017E-02	1.433E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 11-DEC-2007 19:32:14.65

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473835.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 11-DEC-2007 12:54:38
Sample ID        : G1201473835          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:05.00  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708128               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	25	10.66*	8.922E-01	1.287E+00	1.287E+00	76.03
CO-60	1173.23	1854	100.00*	1.069E+00	8.375E+00	8.394E+00	7.72
	1332.51	1676	100.00	9.616E-01	8.420E+00	8.440E+00	7.40
CS-137	661.66	1774	85.10*	1.790E+00	5.623E+00	5.625E+00	9.14
TL-208	277.36	------	6.31	3.932E+00	------	Line Not Found	------
	510.77	44	22.60	2.285E+00	4.070E-01	4.070E-01	155.53
	583.19	72	84.50*	2.016E+00	2.038E-01	2.038E-01	63.68
	763.13	------	1.81	1.568E+00	------	Line Not Found	------
	860.56	------	12.42	1.404E+00	------	Line Not Found	------
PO-209	896.60	324	0.47*	1.351E+00	2.467E+02	2.467E+02	20.24
PB-212	74.81	212	10.40	7.087E+00	1.387E+00	1.387E+00	37.46
	77.11	338	17.50	7.087E+00	1.316E+00	1.316E+00	27.62
	87.30	5703	7.81	7.026E+00	5.020E+01	5.020E+01	7.34
	238.63	357	43.30*	4.425E+00	8.996E-01	8.996E-01	17.26
	300.09	73	3.28	3.681E+00	2.930E+00	2.930E+00	66.01
PB-214	74.81	212	6.44	7.087E+00	2.240E+00	2.240E+00	37.46
	77.11	338	10.80	7.087E+00	2.132E+00	2.132E+00	27.62
	87.30	5703	4.84	7.026E+00	8.100E+01	8.100E+01	7.34
	242.00	101	7.43	4.383E+00	1.497E+00	1.497E+00	57.88
	295.22	145	19.30	3.737E+00	9.678E-01	9.678E-01	35.66
	351.93	201	37.60*	3.211E+00	8.033E-01	8.033E-01	31.03
TH-234	63.29	50	4.80	6.996E+00	7.148E-01	7.148E-01	130.94
	92.58	10	5.41*	6.976E+00	1.324E-01	1.324E-01	874.31
NP-237	86.48	5703	12.40*	7.026E+00	3.162E+01	3.162E+01	7.34
AM-241	59.54	6939	35.90*	6.931E+00	1.347E+01	1.347E+01	7.05
AM-243	74.66	212	68.20*	7.087E+00	2.115E-01	2.115E-01	37.46

Flag: "*" = Keyline

Sample ID : G1201473835 Acquisition date : 11-DEC-2007 12:54:38

Total number of lines in spectrum 41
Number of unidentified lines 18
Number of lines tentatively identified by NID 23 56.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.287E+00	1.287E+00	0.978E+00	76.03	
CO-60	1.66E+08S	1.00	8.375E+00	8.394E+00	0.648E+00	7.72	
CS-137	9.47E+08S	1.00	5.623E+00	5.625E+00	0.514E+00	9.14	
TL-208	4.43E+17S	1.00	2.038E-01	2.038E-01	1.298E-01	63.68	
PO-209	3.22E+09S	1.00	2.467E+02	2.467E+02	0.499E+02	20.24	
PB-212	4.43E+17S	1.00	8.996E-01	8.996E-01	1.553E-01	17.26	
PB-214	5.05E+10S	1.00	8.033E-01	8.033E-01	2.492E-01	31.03	
TH-234	1.41E+17S	1.00	1.324E-01	1.324E-01	11.58E-01	874.31	
NP-237	6.75E+13S	1.00	3.162E+01	3.162E+01	0.232E+01	7.34	
AM-241	1.36E+10S	1.00	1.347E+01	1.347E+01	0.095E+01	7.05	
AM-243	2.33E+11S	1.00	2.115E-01	2.115E-01	0.792E-01	37.46	
			---	---			
	Total Activity :		3.093E+02	3.094E+02			
	Grand Total Activity :		3.093E+02	3.094E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201473835 Acquisition date : 11-DEC-2007 12:54:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	49.12	116	1044	1.74	98.72	96	7	3.23E-02	93.6	6.60E+00	
0	68.87	109	752	1.19	138.19	135	7	3.02E-02	86.0	7.06E+00	
4	84.38	123	807	1.33	169.19	165	15	3.43E-02	79.2	7.06E+00	
0	122.06	1681	596	1.01	244.48	238	12	4.67E-01	7.6	6.49E+00	
0	136.67	243	313	1.07	273.67	270	9	6.76E-02	29.4	6.21E+00	
0	165.90	722	298	0.86	332.08	328	9	2.01E-01	11.4	5.63E+00	
0	186.06	96	308	1.05	372.36	368	10	2.66E-02	73.2	5.26E+00	
3	298.49	37	140	1.57	597.03	583	26	1.03E-02	****	3.70E+00	
3	302.40	42	133	1.58	604.84	583	26	1.16E-02	****	3.66E+00	
0	338.60	62	183	1.12	677.18	671	9	1.73E-02	83.8	3.32E+00	T
0	391.63	405	180	1.11	783.16	778	11	1.13E-01	16.2	2.92E+00	
0	556.57	37	149	3.52	1112.81	1103	15	1.03E-02	****	2.11E+00	
0	609.17	146	140	1.37	1217.94	1212	13	4.05E-02	37.7	1.93E+00	T
0	840.62	19	118	1.32	1680.55	1675	12	5.35E-03	****	1.43E+00	
0	910.70	93	126	1.83	1820.64	1816	11	2.58E-02	51.2	1.33E+00	T
0	925.13	12	109	0.95	1849.48	1840	11	3.47E-03	****	1.32E+00	
0	1120.47	40	64	2.51	2239.97	2234	10	1.11E-02	82.5	1.11E+00	T
0	1241.94	4	16	0.55	2482.81	2479	8	9.72E-04	****	1.02E+00	
0	1312.11	12	5	0.68	2623.09	2619	7	3.35E-03	84.9	9.74E-01	
0	1424.01	12	2	0.62	2846.82	2843	8	3.40E-03	69.3	9.11E-01	
0	1607.17	11	17	1.54	3213.05	3204	14	3.00E-03	****	8.28E-01	
0	1765.17	11	15	1.90	3529.00	3522	11	3.10E-03	****	7.70E-01	T
0	1835.86	190	0	2.36	3670.37	3663	14	5.28E-02	14.5	7.47E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201473835           *
* Acquisition date : 11-DEC-2007 12:54:38 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:05.00     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473835          Analyst initials: MJH1            *
* Batch Number     : 708128               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.287E+00	9.587E-01	5.674E-01	9.587E-01
CO-60	8.394E+00	6.350E-01	7.522E-02	6.350E-01
CS-137	5.625E+00	5.038E-01	7.738E-02	5.038E-01
TL-208	2.038E-01	1.272E-01	8.003E-02	1.272E-01
PO-209	2.467E+02	4.894E+01	1.977E+01	4.894E+01
PB-212	8.996E-01	1.522E-01	8.986E-02	1.522E-01
PB-214	8.033E-01	2.443E-01	1.219E-01	2.443E-01
TH-234	1.324E-01	1.135E+00	6.140E-01	1.135E+00
NP-237	3.162E+01	2.274E+00	3.243E-01	2.274E+00
AM-241	1.347E+01	9.309E-01	1.505E-01	9.309E-01
AM-243	2.115E-01	7.765E-02	6.303E-02	7.765E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
RH-101	5.973E-02	5.802E-02	5.315E-02	5.802E-02	NOT IDENT.
SB-125	-1.979E-02	2.187E-01	1.919E-01	2.187E-01	NOT IDENT.
EU-155	3.710E-02	1.624E-01	1.504E-01	1.624E-01	NOT IDENT.
BI-211	-3.325E-01	2.738E+00	2.369E+00	2.738E+00	NOT IDENT.
BI-212	2.570E-01	7.163E-01	6.467E-01	7.163E-01	NOT IDENT.
BI-214	7.900E-01	2.972E-01	2.026E-01	2.972E-01	FAIL ABUN
RA-223	2.994E-01	3.622E-01	3.221E-01	3.622E-01	NOT IDENT.
AC-228	1.303E+00	6.591E-01	4.850E-01	6.591E-01	FAIL ABUN
PA-233	2.100E-03	1.198E-01	1.087E-01	1.198E-01	NOT IDENT.
PA-234M	3.446E-01	1.375E+01	1.184E+01	1.375E+01	NOT IDENT.
U-235	-3.613E-01	3.248E-01	2.757E-01	3.248E-01	NOT IDENT.
NP-236	-7.907E-03	8.886E-02	8.157E-02	8.886E-02	NOT IDENT.
NP-239	1.905E-01	4.152E-01	3.679E-01	4.152E-01	NOT IDENT.
CM-243	-7.878E-02	1.498E-01	1.348E-01	1.498E-01	NOT IDENT.
AM-246	2.448E-02	4.157E-01	3.542E-01	4.157E-01	NOT IDENT.
CF-249	1.793E-02	9.017E-02	7.167E-02	9.017E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	924.8858
63.29	545.3724
74.66	618.6555
74.81	618.8590
74.81	618.8590
77.11	621.9707
77.11	621.9707
86.48	537.9659
87.30	538.8457
87.30	538.8457
92.58	361.8336
98.44	310.4430
103.76	323.7808
105.31	301.0679
129.07	222.6882
143.76	271.6258
198.00	214.5589
209.25	210.7133
228.18	211.5953
238.63	209.3307
242.00	205.5269
269.46	190.1099
270.25	192.5501
277.36	156.6376
295.22	145.7950
300.09	146.3866
312.17	159.4819
338.32	149.2273
351.93	156.1037
387.59	133.3728
409.46	141.2915
427.87	174.0945
463.00	155.0240
510.77	117.4417
583.19	137.4508
609.31	99.8995
661.66	103.4522
727.33	106.8799
763.13	82.7183
768.36	116.0486
785.37	100.1399
794.95	104.2371
806.17	109.3619
831.80	100.0427
860.56	105.8782
896.60	119.8102
911.20	110.7103
934.06	122.3480
964.77	185.9162
968.97	116.8534
1001.03	108.0712
1078.86	96.3684
1120.29	70.5766
1155.19	45.0807
1173.23	49.5267
1238.11	17.8792
1280.96	29.2953
1332.51	21.9902
1377.67	18.5327
1401.50	12.1166
1407.98	16.8032
1460.80	22.6885
1509.23	18.1635
1588.20	18.4867
1620.50	11.7578
1729.60	7.0165
1764.49	5.0472

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473835

Total Uranium Activity	-1.6719E-01	ug/g
Total Uranium Counting Unc.	1.5026E-01	ug/g
Total Uranium Tpu	1.5026E-07	ug/g
Total Uranium Mda	1.2758E-01	ug/g

Radiochemistry Batch Checklist, Rev 6

Batch# 708130 Product: γ-S Date: 12/17/07

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
If activity less 10* MDA, error is 150% or less of sample activity. If greater 10* MDA, error is 40% or less. If below the MDA, error is okay.	✓		
Instrument source check is within limits. Instument bkg check is within limits.	✓		
Method RDL has been met.	✓		
If duplicate activities are less 5* MDA, then rpd is 100% or less. If greater 5* MDA, then rpd 20% or less. If below the MDA, the rpd is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time. Special requirements page checked	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All lineouts initialed and dated. No transcription errors are apparent.	✓		
QC data entered into QC database. Batch entered into Case Narrative.	✓		
Batch non-conformances completed If applicable.			NA
Aliquot Correction completed if required.			NA

GEL Laboratories, LLC

1/2/2007

Primary Review Performed By: KDot 12/17/07

Secondary Review Performed By: S. Eulam 12/17/07

SCAN
12/9 - 12/18

Gamma Spec Que Sheet

12/05/2007

Batch #:708130 Analyst: MJH1 First Client DueDate:12/18/2007 Internal Due Date: 12/09/2007

Gamma Spike Isotope: Mixed Gamma Spike Code: N/A Expiration Date: N/A Vol: N/A Nominal Concentration: N/A Co-60 8.520

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: ~~12/2/08~~ 12/9/08 Vol: 1.0mL Nominal Concentration: Cs-137 6.103 Am-241 15.96

Initials: MGH Prep Date: 12/5/07 Witness: N/A

Sample ID	Client Description / Container ID	Type	Hazard Code	RDL	Client	Matrix	Collect Date	Wet/Dry Aliquot (1/(g)/F)	Detector	Sealing Date/Time (if Applicable)
198689011-1	SB-CZ-SS-2146-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 LL	103.21	17	
198689012-1	SB-CZ-SS-2147-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MF	104.61	6	
198689013-1	SB-CZ-SS-2148-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 LL	95.03	13	
198689014-1	SB-CZ-SS-2149-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00 MF	100.01	20	
198701001-1	SB-CZ-SS-2322-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 MF	104.86	21	
198701002-1	SB-CZ-SS-2323-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 MF	109.88	23	
198701003-1	SB-CZ-SS-2324-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	128.67	6	
198701004-1	SB-CZ-SS-2325-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	87.79	17	
198701005-1	SB-CZ-SS-2326-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	115.53	23	
198701006-1	SB-CZ-SS-2327-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	124.84	3	
198701007-1	SB-CZ-SS-2328-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	112.09	20	
198701008-1	SB-CZ-SS-2329-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	115.01	11	
198701009-1	SB-CZ-SS-2330-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	115.73	12	
198701010-1	SB-CZ-SS-2331-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	114.50	14	
198701011-1	SB-CZ-SS-2332-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	113.08	2	
198701012-1	SB-CZ-SS-2333-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	118.31	19	
198701013-1	SB-CZ-SS-2334-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	127.91	22	
198701014-1	SB-CZ-SS-2335-ST	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	106.19	5	
198701015-1	SB-CZ-SS-2322-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	118.48	20	
198701016-1	SB-CZ-SS-2323-SD	SAMPLE		.08 pCi/g	SCAN001	SOIL	28-SEP-07 00:00:00 LL	115.72	16	
1201473840-1	MB for batch 708130	MB		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07 MF	127.91	21	
1201473841-1	SB-CZ-SS-2146-BD(198689011DUP	DUP		.08 pCi/g	QC ACCOUNT	SOIL	18-OCT-07 00:00:00 MF	103.26	23	
1201473842-1	LCS for batch 708130	LCS		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07 LL	155.44	5	

MGH 12/11/07

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [signature] 12/17/07

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
708130	198689011	SAMPLE	12-DEC-07				
708130	198689012	SAMPLE	12-DEC-07				
708130	198689013	SAMPLE	12-DEC-07				
708130	198689014	SAMPLE	12-DEC-07				
708130	198701001	SAMPLE	12-DEC-07				
708130	198701002	SAMPLE	12-DEC-07				
708130	198701003	SAMPLE	13-DEC-07				
708130	198701004	SAMPLE	13-DEC-07				
708130	198701005	SAMPLE	13-DEC-07				
708130	198701006	SAMPLE	13-DEC-07				
708130	198701007	SAMPLE	13-DEC-07				
708130	198701008	SAMPLE	13-DEC-07				
708130	198701009	SAMPLE	13-DEC-07				
708130	198701010	SAMPLE	13-DEC-07				
708130	198701011	SAMPLE	13-DEC-07				
708130	198701012	SAMPLE	13-DEC-07				
708130	198701013	SAMPLE	13-DEC-07				
708130	198701014	SAMPLE	13-DEC-07				
708130	198701015	SAMPLE	13-DEC-07				
708130	198701016	SAMPLE	13-DEC-07				
708130	1201473840	MB	13-DEC-07				
708130	1201473841	DUP	13-DEC-07				
708130	1201473842	LCS	14-DEC-07	Antimony-125	-0.1103	0.4149	0.200
				Bismuth-212	0.6227	1.309	0.500
				Thorium-234	0.9686	1.556	0.500
				Uranium-235	-0.09008	0.6523	0.500

GEL QUALS

Batch ID: 708130

Report run on: December 17, 2007 10:03 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198689011-1 12-DEC-2007 12:21	Americium-243	UI	UI	UI	Data rejected due to interference.		.1008			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3458			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2935			
198689012-1 12-DEC-2007 12:37	Americium-243	UI	UI	UI	Data rejected due to high peak-width.		.1419			
	Bismuth-212	UI	UI	UI	Data rejected due to no valid peak.		.3241		.5	.5
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.1844		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.1772			
	Thallium-208	UI	UI	UI	Data rejected due to low abundance.		.0796		.08	.08
198689013-1 12-DEC-2007 12:38	Americium-243	UI	UI	UI	Data rejected due to interference.		.1233			
	Cesium-137	UI	UI	UI	Data rejected due to no valid peak.		.09229		.1	.1
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4552			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		8.673			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3277			
198689014-1 12-DEC-2007 12:38	Americium-243	UI	UI	UI	Data rejected due to interference.		.1217			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3433			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2351			
198701001-1 12-DEC-2007 12:39	Americium-243	UI	UI	UI	Data rejected due to interference.		.122			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2301			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3384			

GEL QUALS

Batch ID: 708130

Report run on: December 17, 2007 10:03 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198701002-1 12-DEC-2007 12:39	Americium-243	UI	UI	UI	Data rejected due to interference.		.127			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4227			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2756			
198701003-1 13-DEC-2007 05:36	Americium-243	UI	UI	UI	Data rejected due to interference.		.1556			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6241			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2299			
198701004-1 13-DEC-2007 05:36	Americium-243	UI	UI	UI	Data rejected due to interference.		.2764			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.7266			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3894			
198701005-1 13-DEC-2007 05:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.1788			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.7503			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3243			
	Thorium-234	UI	UI	UI	Data rejected due to low abundance.		.9921		.5	.5
198701006-1 13-DEC-2007 05:38	Americium-243	UI	UI	UI	Data rejected due to interference.		.1383			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2181			
198701007-1 13-DEC-2007 06:55	Americium-243	UI	UI	UI	Data rejected due to interference.		.2169			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5028			
	Radium-223	UI	UI	UI	Data rejected due to high peak-width.		.3818			
198701008-1	Americium-243	UI	UI	UI	Data rejected due to interference.		.1316			

GEL QUALS

Batch ID: 708130

Report run on: December 17, 2007 10:03 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198701008-1 13-DEC-2007 07:36	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.498			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2771			
198701009-1 13-DEC-2007 07:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.1825			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6613			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2577			
198701010-1 13-DEC-2007 07:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.2494			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.7035			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2316			
198701011-1 13-DEC-2007 07:39	Americium-243	UI	UI	UI	Data rejected due to interference.		.09072			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.1103			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1225		.5	.5
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2235			
198701012-1 13-DEC-2007 08:29	Americium-243	UI	UI	UI	Data rejected due to interference.		.1156			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.485		.2	.2
	Europium-155	UI	UI	UI	Data rejected due to high peak-width.		.1199		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3822			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3508			
198701013-1 13-DEC-2007 08:56	Americium-243	UI	UI	UI	Data rejected due to interference.		.1821			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5105			

GEL QUALS

Batch ID: 708130

Report run on: December 17, 2007 10:03 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198701013-1 13-DEC-2007 08:56	Radium-223	UI	UI	UI	Data rejected due to interference.		.4496			
198701014-1 13-DEC-2007 09:03	Americium-243	UI	UI	UI	Data rejected due to interference.		.2262			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.0658			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.8183			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		6.257			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4957			
198701015-1 13-DEC-2007 10:59	Americium-243	UI	UI	UI	Data rejected due to interference.		.1324			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3259			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2353			
198701016-1 13-DEC-2007 11:15	Americium-243	UI	UI	UI	Data rejected due to interference.		.1428			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3958			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4148			
1201473841-1 DUP 13-DEC-2007 12:53	Americium-243	UI	UI	UI	Data rejected due to interference.		.1143			
	Cobalt-60	UI	UI	UI	Data rejected due to low abundance.		.07021		.1	.1
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3858			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2059			
	Thorium-234	UI	UI	UI	Data rejected due to low abundance.		.6279		.5	.5

Gamma Review Report based on Result > MDA for Batch:708130

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689011	18-OCT-07 00:00	12-DEC-07 12:21	55.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.5866	0.2203	pCi/g	0.1633	0.800	911.6	1	1.827	IDENTIFIED	18.87	☐	
Americium-243 INT	0.1008	0.02639	pCi/g	0.03064	Y	74.87	1	0.9789	IDENTIFIED	12.96	☑ UI	
Bismuth-214 ✓	0.3703	0.1038	pCi/g	0.08309	0.200	609.3	1	1.278	IDENTIFIED	13.85	☐	
Cesium-137 ✓	0.1114	0.04929	pCi/g	0.04354	0.100	662.2	1	1.36	IDENTIFIED	22.28	☐	
Lead-212 ✓	0.5434	0.07584	pCi/g	0.0568	0.100	238.7	1	1.032	IDENTIFIED	5.904	☐	
Lead-214 ✓	0.3809	0.07564	pCi/g	0.07048	0.100	352	1	1.11	IDENTIFIED	9.586	☐	
Neptunium-237 INT	0.3458	0.1376	pCi/g	0.1495	Y	87.27	1	1.105	IDENTIFIED	20.02	☑ UI	
Potassium-40 ✓	4.146	0.6912	pCi/g	0.4349	1.00	1461	1	1.973	IDENTIFIED	8.061	☐	
Radium-223 INT	0.2935	0.1437	pCi/g	0.1709	Y	270.4	1	1.536	IDENTIFIED	24.67	☑ UI	
Thallium-208 ✓	0.137	0.04214	pCi/g	0.04418	0.080	583.4	1	1.201	IDENTIFIED	15.31	☐	
Thorium-234 ✓	0.7807	0.3773	pCi/g	0.3478	0.500	92.72	1	1.036	IDENTIFIED	24.39	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689012	18-OCT-07 00:00	12-DEC-07 12:37	55.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.3535	0.1303	pCi/g	0.1022	0.800	910.5	1	1.452	IDENTIFIED	18.1	☐	
Americium-243 NPW	0.1419	0.04798	pCi/g	0.03452	Y	75.72	1	3.206	IDENTIFIED	16.75	☑ UI	Data rejected due to high peak-width.
Bismuth-212 NUP	0.3241	0.1721	pCi/g	0.2072	0.500	727.1	1	1.353	IDENTIFIED	26.82	☑ UI	
Bismuth-214 NA	0.1844	0.07695	pCi/g	0.09952	0.200	609	1	1.253	FAIL_ABUND	21.02	☑ UI	Data rejected due to low abundance.
Cesium-137 ✓	0.1567	0.03888	pCi/g	0.02973	0.100	661.4	1	1.436	IDENTIFIED	12.2	☐	
Lead-212 ✓	0.2767	0.05098	pCi/g	0.04522	0.100	238.2	1	1.142	IDENTIFIED	8.867	☐	
Lead-214 ✓	0.2211	0.06936	pCi/g	0.05412	0.100	351.6	1	1.519	IDENTIFIED	15.7	☐	
Neptunium-237 INT	0.1772	0.09174	pCi/g	0.1475	Y	86.93	1	0.8758	IDENTIFIED	26.05	☑ UI	
Potassium-40 ✓	2.502	0.5234	pCi/g	0.2688	1.00	1460	1	1.95	IDENTIFIED	10.18	☐	
Thallium-208 NA	0.0796	0.03457	pCi/g	0.04789	0.080	583	1	1.294	FAIL_ABUND	21.91	☑ UI	Data rejected due to low abundance.

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689013	18-OCT-07 00:00	12-DEC-07 12:38	55.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.4315	0.2253	pCi/g	0.2084	0.800	911.1	1	1.422	IDENTIFIED	26.46	☐	
Americium-243 INT	0.1233	0.03154	pCi/g	0.03672	Y	75.01	1	0.9163	IDENTIFIED	12.44	☑ UI	
Bismuth-214 ✓	0.569	0.1207	pCi/g	0.1104	0.200	609.1	1	1.221	IDENTIFIED	10.16	☐	
Cesium-137 NUP	0.09229	0.05681	pCi/g	0.05914	0.100	661.2	1	2.325	IDENTIFIED	31.14	☑ UI	
Lead-212 ✓	0.6427	0.08322	pCi/g	0.06878	0.100	238.6	1	1.005	IDENTIFIED	5.694	☐	
Lead-214 ✓	0.5059	0.1134	pCi/g	0.1089	0.100	351.7	1	1.174	IDENTIFIED	11.13	☐	
Neptunium-237 INT	0.4552	0.1503	pCi/g	0.1971	Y	87.31	1	1.053	IDENTIFIED	16.37	☑ UI	
Potassium-40 ✓	5.968	0.989	pCi/g	0.5086	1.00	1460	1	1.765	IDENTIFIED	7.984	☐	
Protactinium-234m NUP	8.673	6.363	pCi/g	6.285	Y	1002	1	1.113	IDENTIFIED	37.31	☑ UI	
Radium-223 INT	0.3277	0.2352	pCi/g	0.223	Y	269.7	1	1.404	IDENTIFIED	36.51	☑ UI	
Thallium-208 ✓	0.2145	0.07275	pCi/g	0.05919	0.080	582.9	1	1.481	IDENTIFIED	16.93	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689014	18-OCT-07 00:00	12-DEC-07 12:38	55.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.309	0.1596	pCi/g	0.1218	0.800	911.7	1	1.61	IDENTIFIED	25.93	☐	

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Gamma Review Report based on Result > MDA for Batch:708130

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689011	18-OCT-07 00:00	12-DEC-07 12:21	55.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.5866**	0.2203	pCi/g	**0.1633**	**0.800**	911.6	1	1.827	IDENTIFIED	18.87	☐	
Americium-243 INT	**0.1008**	0.02639	pCi/g	**0.03064**	**Y**	74.87	1	0.9789	IDENTIFIED	12.96	☑ UI	
Bismuth-214 ✓	**0.3703**	0.1038	pCi/g	**0.08309**	**0.200**	609.3	1	1.278	IDENTIFIED	13.85	☐	
Cesium-137 ✓	**0.1114**	0.04929	pCi/g	**0.04354**	**0.100**	662.2	1	1.36	IDENTIFIED	22.28	☐	
Lead-212 ✓	**0.5434**	0.07584	pCi/g	**0.0568**	**0.100**	238.7	1	1.032	IDENTIFIED	5.904	☐	
Lead-214 ✓	**0.3809**	0.07564	pCi/g	**0.07048**	**0.100**	352	1	1.11	IDENTIFIED	9.586	☐	
Neptunium-237 INT	**0.3458**	0.1376	pCi/g	**0.1495**	**Y**	87.27	1	1.105	IDENTIFIED	20.02	☑ UI	
Potassium-40 ✓	**4.146**	0.6912	pCi/g	**0.4349**	**1.00**	1461	1	1.973	IDENTIFIED	8.061	☐	
Radium-223 INT	**0.2935**	0.1437	pCi/g	**0.1709**	**Y**	270.4	1	1.536	IDENTIFIED	24.67	☑ UI	
Thallium-208 ✓	**0.137**	0.04214	pCi/g	**0.04418**	**0.080**	583.4	1	1.201	IDENTIFIED	15.31	☐	
Thorium-234 ✓	**0.7807**	0.3773	pCi/g	**0.3478**	**0.500**	92.72	1	1.036	IDENTIFIED	24.39	☐	

*** = Number of isotopes identified with a keyline at this energy.

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689012	18-OCT-07 00:00	12-DEC-07 12:37	55.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 LA	**0.3755**	0.1445	pCi/g	**0.2353**	**0.800**	910.5	1	1.671	FAIL_ABUND	18.97	☑ UI	Data rejected due to low abundance.
Americium-243 INT	**0.04636**	0.03383	pCi/g	**0.04298**	**Y**	74.49	1	0.9446	IDENTIFIED	37.01	☑ UI	
Bismuth-214 LA	**0.2128**	0.09044	pCi/g	**0.1249**	**0.200**	608.9	1	1.169	FAIL_ABUND	21.42	☑ UI	Data rejected due to low abundance.
Cesium-137 ✓	**0.1927**	0.04856	pCi/g	**0.03474**	**0.100**	661.4	1	1.64	IDENTIFIED	12.41	☐	
Lead-212 ✓	**0.2967**	0.05835	pCi/g	**0.05818**	**0.100**	238.2	1	1.224	IDENTIFIED	9.536	☐	
Lead-214 ✓	**0.2084**	0.07631	pCi/g	**0.06765**	**0.100**	351.6	1	1.46	IDENTIFIED	18.42	☐	
Potassium-40 ✓	**2.328**	0.6326	pCi/g	**0.3408**	**1.00**	1460	1	2.073	IDENTIFIED	13.49	☐	
Thallium-208 LA	**0.09872**	0.04042	pCi/g	**0.05879**	**0.080**	583.1	1	1.584	FAIL_ABUND	20.62	☑ UI	Data rejected due to low abundance.

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689013	18-OCT-07 00:00	12-DEC-07 12:38	55.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.4315**	0.2253	pCi/g	**0.2084**	**0.800**	911.1	1	1.422	IDENTIFIED	26.46	☐	
Americium-243 INT	**0.1233**	0.03154	pCi/g	**0.03672**	**Y**	75.01	1	0.9163	IDENTIFIED	12.44	☑ UI	
Bismuth-214 ✓	**0.569**	0.1207	pCi/g	**0.1104**	**0.200**	609.1	1	1.221	IDENTIFIED	10.16	☐	
Cesium-137 NVP	**0.09229**	0.05681	pCi/g	**0.05914**	**0.100**	661.2	1	2.325	IDENTIFIED	31.14	☑ UI	
Lead-212 ✓	**0.6427**	0.08322	pCi/g	**0.06878**	**0.100**	238.6	1	1.005	IDENTIFIED	5.694	☐	
Lead-214 ✓	**0.5059**	0.1134	pCi/g	**0.1089**	**0.100**	351.7	1	1.174	IDENTIFIED	11.13	☐	
Neptunium-237 INT	**0.4552**	0.1503	pCi/g	**0.1971**	**Y**	87.31	1	1.053	IDENTIFIED	16.37	☑ UI	
Potassium-40 ✓	**5.968**	0.989	pCi/g	**0.5086**	**1.00**	1460	1	1.765	IDENTIFIED	7.984	☐	
Protactinium-234m NVP	**8.673**	6.363	pCi/g	**6.285**	**Y**	1002	1	1.113	IDENTIFIED	37.31	☑ UI	
Radium-223 INT	**0.3277**	0.2352	pCi/g	**0.223**	**Y**	269.7	1	1.404	IDENTIFIED	36.51	☑ UI	
Thallium-208 ✓	**0.2145**	0.07275	pCi/g	**0.05919**	**0.080**	582.9	1	1.481	IDENTIFIED	16.93	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198689014	18-OCT-07 00:00	12-DEC-07 12:38	55.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.309**	0.1596	pCi/g	**0.1218**	**0.800**	911.7	1	1.61	IDENTIFIED	25.93	☐	
Americium-243 INT	**0.1217**	0.03495	pCi/g	**0.0352**	**Y**	74.91	1	1.292	IDENTIFIED	13.61	☑ UI	
Bismuth-212 ✓	**0.2545**	0.2012	pCi/g	**0.2518**	**0.500**	727.6	1	1.929	IDENTIFIED	40.16	☐	

Bismuth-214 ✓	**0.3753**	0.0841	pCi/g	**0.0597**	**0.200**	609.5	1	0.8969	IDENTIFIED	10.96	☐
Cesium-137 ✓	**0.2198**	0.043	pCi/g	**0.03076**	**0.100**	661.9	1	1.461	IDENTIFIED	9.376	☐
Lead-212 ✓	**0.4541**	0.05912	pCi/g	**0.04699**	**0.100**	238.6	1	1.136	IDENTIFIED	5.969	☐
Lead-214 ✓	**0.4128**	0.07856	pCi/g	**0.06124**	**0.100**	352	1	1.37	IDENTIFIED	9.305	☐
Neptunium-237 INT	**0.3433**	0.1494	pCi/g	**0.1896**	**Y**	87.33	1	1.365	IDENTIFIED	21.41	☑ UI
Potassium-40 ✓	**3.25**	0.5744	pCi/g	**0.2459**	**1.00**	1461	1	1.736	IDENTIFIED	7.977	☐
Radium-223 INT	**0.2351**	0.1687	pCi/g	**0.164**	**Y**	270.1	1	2.45	IDENTIFIED	36.49	☑ UI
Thallium-208 ✓	**0.1451**	0.03247	pCi/g	**0.02739**	**0.080**	583.3	1	1.688	IDENTIFIED	10.98	☐
Thorium-234 ✓	**0.8912**	0.4578	pCi/g	**0.3811**	**0.500**	93.03	1	1.439	IDENTIFIED	25.66	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701001	28-SEP-07 00:00	12-DEC-07 12:39	75.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.5501**	0.1992	pCi/g	**0.1635**	**0.800**	910.7	1	1.413	IDENTIFIED	18.17	☐	
Americium-243 INT	**0.122**	0.03029	pCi/g	**0.02822**	**Y**	74.95	1	1.86	IDENTIFIED	12.19	☑ UI	
Bismuth-214 ✓	**0.4273**	0.1238	pCi/g	**0.09204**	**0.200**	609.4	1	1.515	IDENTIFIED	14.28	☐	
Cesium-137 ✓	**0.2249**	0.06991	pCi/g	**0.04857**	**0.100**	661.8	1	1.396	IDENTIFIED	15.32	☐	
Lead-212 ✓	**0.582**	0.07084	pCi/g	**0.05852**	**0.100**	238.5	1	1.397	IDENTIFIED	5.402	☐	
Lead-214 ✓	**0.4633**	0.1001	pCi/g	**0.0818**	**0.100**	352	1	1.557	IDENTIFIED	10.71	☐	
Neptunium-237 INT	**0.2301**	0.09738	pCi/g	**0.176**	**Y**	87.16	1	1.091	IDENTIFIED	21.27	☑ UI	
Potassium-40 ✓	**3.381**	0.7816	pCi/g	**0.4971**	**1.00**	1461	1	2.081	IDENTIFIED	11.47	☐	
Radium-223 INT	**0.3384**	0.1798	pCi/g	**0.1857**	**Y**	270.1	1	1.54	IDENTIFIED	26.97	☑ UI	
Thallium-208 ✓	**0.1869**	0.05436	pCi/g	**0.03651**	**0.080**	583.5	1	1.548	IDENTIFIED	14.38	☐	
Thorium-234 ✓	**0.3523**	0.2367	pCi/g	**0.3067**	**0.500**	92.87	1	1.084	IDENTIFIED	34.07	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701002	28-SEP-07 00:00	12-DEC-07 12:39	75.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.8308**	0.1894	pCi/g	**0.1445**	**0.800**	911	1	1.569	IDENTIFIED	10.92	☐	
Americium-243 INT	**0.127**	0.03718	pCi/g	**0.04519**	**Y**	75.05	1	0.9789	IDENTIFIED	14.51	☑ UI	
Bismuth-212 ✓	**0.4317**	0.2827	pCi/g	**0.3051**	**0.500**	727.4	1	1.787	IDENTIFIED	33.26	☐	
Bismuth-214 ✓	**0.5979**	0.1172	pCi/g	**0.07779**	**0.200**	609.1	1	1.554	IDENTIFIED	9.576	☐	
Cesium-137 ✓	**0.09136**	0.04077	pCi/g	**0.04366**	**0.100**	661.6	1	1.728	IDENTIFIED	22.58	☐	
Lead-212 ✓	**0.6392**	0.06976	pCi/g	**0.06104**	**0.100**	238.6	1	0.9153	IDENTIFIED	4.802	☐	
Lead-214 ✓	**0.6863**	0.1075	pCi/g	**0.07182**	**0.100**	352	1	1.227	IDENTIFIED	7.521	☐	
Neptunium-237 INT	**0.4227**	0.1667	pCi/g	**0.19**	**Y**	87.28	1	1.228	IDENTIFIED	19.78	☑ UI	
Potassium-40 ✓	**5.871**	0.7751	pCi/g	**0.3608**	**1.00**	1460	1	2.077	IDENTIFIED	5.714	☐	
Radium-223 INT	**0.2756**	0.1907	pCi/g	**0.1766**	**Y**	270.9	1	1.021	IDENTIFIED	35.19	☑ UI	
Thallium-208 ✓	**0.2234**	0.04748	pCi/g	**0.03788**	**0.080**	582.9	1	1.552	IDENTIFIED	10.46	☐	
Thorium-234 ✓	**0.7325**	0.4079	pCi/g	**0.4061**	**0.500**	92.77	1	1.193	IDENTIFIED	28.18	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701003	28-SEP-07 00:00	13-DEC-07 05:36	76.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.7617**	0.2021	pCi/g	**0.1451**	**0.800**	911	1	1.862	IDENTIFIED	12.55	☐	
Americium-243 INT	**0.1556**	0.03997	pCi/g	**0.05073**	**Y**	74.48	1	1.066	IDENTIFIED	12.44	☑ UI	
Bismuth-212 ✓	**0.4084**	0.3191	pCi/g	**0.3101**	**0.500**	727.4	1	1.338	IDENTIFIED	39.68	☐	
Bismuth-214 ✓	**0.7651**	0.1148	pCi/g	**0.06882**	**0.200**	608.9	1	1.378	IDENTIFIED	6.882	☐	
Cesium-137 ✓	**0.1706**	0.04676	pCi/g	**0.04125**	**0.100**	661.2	1	1.435	IDENTIFIED	13.57	☐	
Lead-212 ✓	**0.9312**	0.09003	pCi/g	**0.05973**	**0.100**	238.3	1	1.136	IDENTIFIED	3.819	☐	
Lead-214 ✓	**0.9391**	0.1119	pCi/g	**0.06792**	**0.100**	351.6	1	1.229	IDENTIFIED	5.214	☐	
Neptunium-237 INT	**0.6241**	0.1871	pCi/g	**0.2053**	**Y**	86.83	1	1.317	IDENTIFIED	14.65	☑ UI	
Potassium-40 ✓	**7.352**	0.8773	pCi/g	**0.3631**	**1.00**	1460	1	1.691	IDENTIFIED	5.178	☐	

Radium-223 INT	**0.2299**	0.2074	pCi/g	**0.1928**	**Y**	269.8	1	1.335	IDENTIFIED	45.92	☑ UI
Thallium-208 ✓	**0.2545**	0.05094	pCi/g	**0.03597**	**0.080**	582.9	1	1.554	IDENTIFIED	9.648	☐
Thorium-234 ✓	**0.9324**	0.3987	pCi/g	**0.4426**	**0.500**	92.2	1	1.231	IDENTIFIED	21.42	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701004	28-SEP-07 00:00	13-DEC-07 05:36	76.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**1.69**	0.3212	pCi/g	**0.1862**	**0.800**	911.2	1	1.363	IDENTIFIED	9.103	☐	
Americium-243 INT	**0.2764**	0.04136	pCi/g	**0.04132**	**Y**	74.94	1	0.9683	IDENTIFIED	6.915	☑ UI	
Bismuth-212 ✓	**0.8269**	0.5454	pCi/g	**0.447**	**0.500**	727.5	1	1.691	IDENTIFIED	33.45	☐	
Bismuth-214 ✓	**1.046**	0.1639	pCi/g	**0.1031**	**0.200**	609.5	1	1.305	IDENTIFIED	7.154	☐	
Cesium-137 ✓	**0.1507**	0.05642	pCi/g	**0.05669**	**0.100**	661.9	1	1.616	IDENTIFIED	18.74	☐	
Lead-212 ✓	**1.3**	0.1371	pCi/g	**0.06881**	**0.100**	238.7	1	0.9726	IDENTIFIED	3.62	☐	
Lead-214 ✓	**1.006**	0.1517	pCi/g	**0.09962**	**0.100**	352	1	1.168	IDENTIFIED	6.956	☐	
Neptunium-237 INT	**0.7266**	0.1921	pCi/g	**0.2021**	**Y**	87.33	1	1.105	IDENTIFIED	13.06	☑ UI	
Potassium-40 ✓	**7.951**	1.021	pCi/g	**0.5309**	**1.00**	1461	1	1.846	IDENTIFIED	5.961	☐	
Radium-223 INT	**0.3894**	0.2983	pCi/g	**0.2272**	**Y**	269.6	1	1.858	IDENTIFIED	38.89	☑ UI	
Thallium-208 ✓	**0.432**	0.07876	pCi/g	**0.05616**	**0.080**	583.4	1	1.488	IDENTIFIED	8.624	☐	
Thorium-234 ✓	**1.823**	0.5341	pCi/g	**0.4702**	**0.500**	92.83	1	1.117	IDENTIFIED	14.51	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701005	28-SEP-07 00:00	13-DEC-07 05:37	76.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.7452**	0.1906	pCi/g	**0.143**	**0.800**	911.2	1	1.587	IDENTIFIED	12.42	☐	
Americium-243 INT	**0.1788**	0.04113	pCi/g	**0.05111**	**Y**	74.93	1	0.9293	IDENTIFIED	11.19	☑ UI	
Bismuth-212 ✓	**0.4867**	0.3769	pCi/g	**0.2869**	**0.500**	727.5	1	1.572	IDENTIFIED	39.38	☐	
Bismuth-214 ✓	**0.8363**	0.1138	pCi/g	**0.08286**	**0.200**	609.1	1	1.414	IDENTIFIED	6.313	☐	
Cesium-137 ✓	**0.1938**	0.04237	pCi/g	**0.04065**	**0.100**	661.6	1	1.501	IDENTIFIED	10.76	☐	
Lead-212 ✓	**0.7482**	0.07517	pCi/g	**0.0579**	**0.100**	238.7	1	1.016	IDENTIFIED	4.281	☐	
Lead-214 ✓	**0.9435**	0.1102	pCi/g	**0.07309**	**0.100**	351.9	1	1.187	IDENTIFIED	5.315	☐	
Neptunium-237 INT	**0.7503**	0.2579	pCi/g	**0.1819**	**Y**	86.43	1	1.176	IDENTIFIED	17.14	☑ UI	
Potassium-40 ✓	**4.378**	0.756	pCi/g	**0.3438**	**1.00**	1460	1	1.765	IDENTIFIED	8.056	☐	
Radium-223 INT	**0.3243**	0.1677	pCi/g	**0.1756**	**Y**	270.1	1	1.264	IDENTIFIED	26.22	☑ UI	
Thallium-208 ✓	**0.1775**	0.04623	pCi/g	**0.03988**	**0.080**	583.2	1	1.344	IDENTIFIED	12.98	☐	
Thorium-234 LA	**0.9921**	0.4065	pCi/g	**0.6067**	**0.500**	92.83	1	1.247	FAIL_ABUND	20.59	☑ UI	Data rejected due to low abundance.

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701006	28-SEP-07 00:00	13-DEC-07 05:38	76.2	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.8475**	0.212	pCi/g	**0.1349**	**0.800**	912	1	1.92	IDENTIFIED	11.47	☐	
Americium-243 INT	**0.1383**	0.04624	pCi/g	**0.05031**	**Y**	74.87	1	1.5	IDENTIFIED	16.61	☑ UI	
Bismuth-212 ✓	**0.7373**	0.3258	pCi/g	**0.2745**	**0.500**	727.6	1	2.205	IDENTIFIED	22.2	☐	
Bismuth-214 ✓	**0.587**	0.1106	pCi/g	**0.07383**	**0.200**	609.8	1	2.079	IDENTIFIED	8.994	☐	
Cesium-137 ✓	**0.04652**	0.04167	pCi/g	**0.03965**	**0.100**	661.7	1	1.728	IDENTIFIED	45.57	☐	
Lead-212 ✓	**0.8908**	0.09028	pCi/g	**0.05862**	**0.100**	238.7	1	1.654	IDENTIFIED	4.043	☐	
Lead-214 ✓	**0.7655**	0.1039	pCi/g	**0.07037**	**0.100**	352	1	1.985	IDENTIFIED	6.138	☐	
Potassium-40 ✓	**5.214**	0.7302	pCi/g	**0.3567**	**1.00**	1462	1	3.019	IDENTIFIED	6.533	☑ ~~UI — Data rejected due to high peak width.~~	RB 12/14/07
Radium-223 INT	**0.2181**	0.1424	pCi/g	**0.1765**	**Y**	269.6	1	1.601	IDENTIFIED	33.15	☑ UI	
Thallium-208 ✓	**0.2653**	0.0556	pCi/g	**0.03842**	**0.080**	583.5	1	2.255	IDENTIFIED	10.14	☐	
Thorium-234 ✓	**0.6456**	0.6479	pCi/g	**0.5021**	**0.500**	93.41	1	1.45	IDENTIFIED	51.05	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701007	28-SEP-07 00:00	13-DEC-07 06:55	76.3	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**1.153**	0.2055	pCi/g	**0.118**	**0.800**	911.5	1	1.458	IDENTIFIED	7.789	☐	
Americium-243 INT	**0.2169**	0.0423	pCi/g	**0.043**	**Y**	74.94	1	1.242	IDENTIFIED	8.337	☑ UI	
Bismuth-212 ✓	**0.7926**	0.2866	pCi/g	**0.2453**	**0.500**	727.7	1	1.623	IDENTIFIED	18.06	☐	
Bismuth-214 ✓	**0.8913**	0.1086	pCi/g	**0.06368**	**0.200**	609.4	1	1.574	IDENTIFIED	5.3	☐	
Cesium-137 ✓	**0.2932**	0.04742	pCi/g	**0.03567**	**0.100**	661.9	1	1.231	IDENTIFIED	7.512	☐	
Lead-212 ✓	**1.013**	0.08852	pCi/g	**0.05407**	**0.100**	238.7	1	1.111	IDENTIFIED	3.376	☐	
Lead-214 ✓	**0.9157**	0.1087	pCi/g	**0.06641**	**0.100**	351.9	1	1.359	IDENTIFIED	5.384	☐	
Neptunium-237 INT	**0.5028**	0.1458	pCi/g	**0.196**	**Y**	87.34	1	1.07	IDENTIFIED	13.57	☑ UI	
Potassium-40 ✓	**6.776**	0.8758	pCi/g	**0.3745**	**1.00**	1461	1	1.795	IDENTIFIED	5.081	☐	
Radium-223 ↑PW	**0.3818**	0.2811	pCi/g	**0.1865**	**Y**	268.6	1	7.423	IDENTIFIED	37.43	☑ UI	Data rejected due to high peak-width.
Thallium-208 ✓	**0.3327**	0.05192	pCi/g	**0.02842**	**0.080**	583.3	1	1.382	IDENTIFIED	7.308	☐	
Thorium-234 ✓	**1.107**	0.3849	pCi/g	**0.4331**	**0.500**	92.74	1	1.22	IDENTIFIED	16.91	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701008	28-SEP-07 00:00	13-DEC-07 07:36	76.3	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.8521**	0.1617	pCi/g	**0.09567**	**0.800**	911.5	1	1.398	IDENTIFIED	8.627	☐	
Americium-243 INT	**0.1316**	0.02827	pCi/g	**0.03553**	**Y**	74.76	1	0.8451	IDENTIFIED	10.46	☑ UI	
Bismuth-212 ✓	**0.5766**	0.2779	pCi/g	**0.2328**	**0.500**	727.7	1	1.634	IDENTIFIED	24.26	☐	
Bismuth-214 ✓	**0.6019**	0.09555	pCi/g	**0.05283**	**0.200**	609.3	1	1.444	IDENTIFIED	7.281	☐	
Cesium-137 ✓	**0.2497**	0.04604	pCi/g	**0.03289**	**0.100**	661.9	1	1.226	IDENTIFIED	8.598	☐	
Lead-212 ✓	**0.8583**	0.07592	pCi/g	**0.04328**	**0.100**	238.6	1	0.9911	IDENTIFIED	3.425	☐	
Lead-214 ✓	**0.6425**	0.08732	pCi/g	**0.05655**	**0.100**	351.9	1	1.191	IDENTIFIED	6.362	☐	
Neptunium-237 INT	**0.498**	0.1505	pCi/g	**0.1464**	**Y**	87.09	1	1.267	IDENTIFIED	14.98	☑ UI	
Potassium-40 ✓	**3.871**	0.5654	pCi/g	**0.2811**	**1.00**	1461	1	1.954	IDENTIFIED	6.573	☐	
Radium-223 INT	**0.2771**	0.1447	pCi/g	**0.1359**	**Y**	270.1	1	0.9051	IDENTIFIED	26.47	☑ UI	
Thallium-208 ✓	**0.2314**	0.04749	pCi/g	**0.02978**	**0.080**	583.2	1	1.242	IDENTIFIED	9.899	☐	
Thorium-234 ✓	**1.08**	0.3341	pCi/g	**0.3232**	**0.500**	92.65	1	1.127	IDENTIFIED	15.39	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701009	28-SEP-07 00:00	13-DEC-07 07:37	76.3	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.8522**	0.1886	pCi/g	**0.1292**	**0.800**	910.7	1	1.7	IDENTIFIED	10.02	☐	
Americium-243 INT	**0.1825**	0.04288	pCi/g	**0.05192**	**Y**	74.88	1	1.232	IDENTIFIED	11.43	☑ UI	
Bismuth-212 ✓	**0.7194**	0.3161	pCi/g	**0.2587**	**0.500**	727.5	1	1.817	IDENTIFIED	21.92	☐	
Bismuth-214 ✓	**0.6945**	0.1103	pCi/g	**0.06508**	**0.200**	609	1	1.409	IDENTIFIED	6.996	☐	
Cesium-137 ✓	**0.1683**	0.05957	pCi/g	**0.03831**	**0.100**	661.3	1	1.572	IDENTIFIED	17.51	☐	
Lead-212 ✓	**0.8897**	0.08505	pCi/g	**0.05818**	**0.100**	238.6	1	1.2	IDENTIFIED	3.785	☐	
Lead-214 ✓	**0.7231**	0.09886	pCi/g	**0.0735**	**0.100**	351.8	1	1.335	IDENTIFIED	6.327	☐	
Neptunium-237 INT	**0.6613**	0.265	pCi/g	**0.226**	**Y**	86.23	1	1.127	IDENTIFIED	20.06	☑ UI	
Potassium-40 ✓	**4.021**	0.675	pCi/g	**0.3569**	**1.00**	1460	1	1.728	IDENTIFIED	8.004	☐	
Radium-223 INT	**0.2577**	0.1555	pCi/g	**0.1769**	**Y**	269.9	1	1.821	IDENTIFIED	30.63	☑ UI	
Thallium-208 ✓	**0.2588**	0.05063	pCi/g	**0.03353**	**0.080**	582.9	1	1.24	IDENTIFIED	9.175	☐	
Thorium-234 ✓	**1.019**	0.4606	pCi/g	**0.4221**	**0.500**	92.82	1	1.39	IDENTIFIED	22.73	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701010	28-SEP-07 00:00	13-DEC-07 07:37	76.3	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**1.239**	0.2051	pCi/g	**0.1419**	**0.800**	911.3	1	1.883	IDENTIFIED	7.194	☐	
Americium-243 INT	**0.2494**	0.04775	pCi/g	**0.04857**	**Y**	74.87	1	1.54	IDENTIFIED	9.033	☑ UI	
Bismuth-212 ✓	**0.8658**	0.3198	pCi/g	**0.2883**	**0.500**	727.5	1	1.738	IDENTIFIED	18.4	☐	

Bismuth-214 ✓	**1.363**	0.1518	pCi/g	**0.07324**	**0.200**	609.2	1	1.56	IDENTIFIED	4.313	☐
Cesium-137 ✓	**0.1602**	0.04902	pCi/g	**0.04197**	**0.100**	661.8	1	1.634	IDENTIFIED	15.12	☐
Gross Gamma	**7.034**	1.641	pCi/g	**2.556**	**N**		0				☐
Lead-212 ✓	**1.158**	0.1021	pCi/g	**0.06141**	**0.100**	238.5	1	1.429	IDENTIFIED	3.247	☐
Lead-214 ✓	**1.32**	0.1396	pCi/g	**0.07109**	**0.100**	351.7	1	1.373	IDENTIFIED	4.497	☐
Neptunium-237 INT	**0.7035**	0.1756	pCi/g	**0.2132**	**Y**	87.19	1	1.344	IDENTIFIED	12.04	☑ UI
Potassium-40 ✓	**8.587**	0.9175	pCi/g	**0.3547**	**1.00**	1461	1	2.016	IDENTIFIED	4.689	☐
Radium-223 INT	**0.2316**	0.1693	pCi/g	**0.1981**	**Y**	270.7	1	1.493	IDENTIFIED	37.15	☑ UI
Thallium-208 ✓	**0.312**	0.05817	pCi/g	**0.03596**	**0.080**	583	1	1.698	IDENTIFIED	8.806	☐
Thorium-234 ✓	**1.884**	0.5131	pCi/g	**0.4708**	**0.500**	92.86	1	1.826	IDENTIFIED	13.31	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701011	28-SEP-07 00:00	13-DEC-07 07:39	76.3	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.5801**	0.1564	pCi/g	**0.1208**	**0.800**	911	1	1.52	IDENTIFIED	13.19	☐	
Americium-243 INT	**0.09072**	0.04013	pCi/g	**0.04743**	**Y**	74.85	1	1.036	IDENTIFIED	22.19	☑ UI	
Bismuth-212 ✓	**0.4309**	0.2585	pCi/g	**0.255**	**0.500**	727.6	1	2.429	IDENTIFIED	30.43	☐	
Bismuth-214 ✓	**0.3404**	0.09257	pCi/g	**0.06453**	**0.200**	609.5	1	1.252	IDENTIFIED	13.54	☐	
Cesium-137 ✓	**0.2752**	0.0471	pCi/g	**0.03846**	**0.100**	661.5	1	1.509	IDENTIFIED	8.169	☐	
Curium-243 INT	**0.1103**	0.07397	pCi/g	**0.0801**	**Y**	105.7	2	1.424	IDENTIFIED	34.05	☑ UI	
Europium-155 INT	**0.1225**	0.08221	pCi/g	**0.08974**	**0.500**	105.7	2	1.424	IDENTIFIED	34.05	☑ UI	
Lead-212 ✓	**0.3522**	0.06548	pCi/g	**0.07637**	**0.100**	238.6	1	1.084	IDENTIFIED	8.968	☐	
Lead-214 ✓	**0.3668**	0.08737	pCi/g	**0.06213**	**0.100**	351.7	1	1.117	IDENTIFIED	11.79	☐	
Potassium-40 ✓	**2.894**	0.543	pCi/g	**0.3018**	**1.00**	1460	1	1.453	IDENTIFIED	8.989	☐	
Radium-223 INT	**0.2235**	0.1429	pCi/g	**0.1491**	**Y**	270.5	1	1.168	IDENTIFIED	32.43	☑ UI	
Thallium-208 ✓	**0.1474**	0.04803	pCi/g	**0.03001**	**0.080**	583.4	1	1.716	IDENTIFIED	16.35	☐	
Thorium-234 ✓	**0.8772**	0.5135	pCi/g	**0.4457**	**0.500**	92.87	1	1.137	IDENTIFIED	29.6	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701012	28-SEP-07 00:00	13-DEC-07 08:29	76.4	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.7103**	0.1688	pCi/g	**0.1181**	**0.800**	911.8	1	1.749	IDENTIFIED	10.95	☐	
Americium-243 INT	**0.1156**	0.03382	pCi/g	**0.04511**	**Y**	74.95	1	1.21	IDENTIFIED	14.58	☑ UI	
Bismuth-212 ✓	**0.3959**	0.2346	pCi/g	**0.2516**	**0.500**	727.9	1	1.695	IDENTIFIED	29.91	☐	
Bismuth-214 LA	**0.485**	0.0978	pCi/g	**0.1444**	**0.200**	609.6	1	1.261	FAIL_ABUND	9.556	☑ UI	Data rejected due to low abundance.
Cesium-137 ✓	**0.2144**	0.04497	pCi/g	**0.03495**	**0.100**	662	1	1.584	IDENTIFIED	9.913	☐	
Europium-155 ↑PW	**0.1199**	0.09994	pCi/g	**0.09011**	**0.500**	105.8	1	4.825	IDENTIFIED	42.4	☑ UI	Data rejected due to high peak-width.
Lead-212 ✓	**0.602**	0.06964	pCi/g	**0.05314**	**0.100**	238.7	1	1.332	IDENTIFIED	4.992	☐	
Lead-214 ✓	**0.6584**	0.09357	pCi/g	**0.06141**	**0.100**	352	1	1.571	IDENTIFIED	6.6	☐	
Neptunium-237 INT	**0.3822**	0.1208	pCi/g	**0.2004**	**Y**	87.46	1	1.367	IDENTIFIED	15.76	☑ UI	
Potassium-40 ✓	**5.125**	0.6403	pCi/g	**0.2722**	**1.00**	1462	1	2.104	IDENTIFIED	5.563	☐	
Radium-223 INT	**0.3508**	0.2182	pCi/g	**0.1538**	**Y**	270.5	1	1.734	IDENTIFIED	31.57	☑ UI	
Thallium-208 ✓	**0.1774**	0.04555	pCi/g	**0.02957**	**0.080**	583.5	1	1.557	IDENTIFIED	12.57	☐	
Thorium-234 ✓	**0.586**	0.3568	pCi/g	**0.4096**	**0.500**	92.76	1	1.346	IDENTIFIED	30.89	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701013	28-SEP-07 00:00	13-DEC-07 08:56	76.4	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.8316**	0.1665	pCi/g	**0.109**	**0.800**	910.7	1	1.89	IDENTIFIED	8.935	☐	
Americium-243 INT	**0.1821**	0.05539	pCi/g	**0.03807**	**Y**	74.6	1	2.421	IDENTIFIED	15.02	☑ UI	
Bismuth-212 ✓	**0.544**	0.2052	pCi/g	**0.2076**	**0.500**	726.9	1	0.8691	IDENTIFIED	18.69	☐	
Bismuth-214 ✓	**0.805**	0.1008	pCi/g	**0.0519**	**0.200**	609.1	1	1.601	IDENTIFIED	4.95	☐	
Cesium-137 ✓	**0.1585**	0.03129	pCi/g	**0.02983**	**0.100**	661.3	1	1.784	IDENTIFIED	9.064	☐	

Gross Gamma	**5.21**	1.362	pCi/g	**1.856**	N		0				☐
Lead-212 ✓	**0.9091**	0.0754	pCi/g	**0.0463**	**0.100**	238.4	1	1.316	IDENTIFIED	2.994	☐
Lead-214 ✓	**0.9254**	0.09301	pCi/g	**0.05408**	**0.100**	351.7	1	1.359	IDENTIFIED	4.248	☐
Neptunium-237 INT	**0.5105**	0.1454	pCi/g	**0.1692**	Y	87.05	1	1.267	IDENTIFIED	13.87	☑ UI
Potassium-40 ✓	**7.381**	0.73	pCi/g	**0.2268**	**1.00**	1460	1	2.71	IDENTIFIED	4.102	☐
Radium-223 INT	**0.4496**	0.1593	pCi/g	**0.1428**	Y	269.5	1	2.143	IDENTIFIED	17.83	☑ UI
Thallium-208 ✓	**0.2522**	0.03844	pCi/g	**0.02702**	**0.080**	582.7	1	1.902	IDENTIFIED	6.745	☐
Thorium-234 ✓	**0.6613**	0.3193	pCi/g	**0.3712**	**0.500**	92.51	1	1.197	IDENTIFIED	24.29	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701014	28-SEP-07 00:00	13-DEC-07 09:03	76.4	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	**1.02**	0.2723	pCi/g	**0.2056**	**0.800**	911.7	1	1.466	IDENTIFIED	12.82	☐	
Americium-243 INT	**0.2262**	0.04008	pCi/g	**0.03896**	Y	74.71	1	1.31	IDENTIFIED	8.072	☑ UI	
Bismuth-212 ✓	**0.7808**	0.4493	pCi/g	**0.3752**	**0.500**	728.1	1	1.828	IDENTIFIED	29.05	☐	
Bismuth-214 ✓	**0.8649**	0.1362	pCi/g	**0.09567**	**0.200**	609.5	1	1.668	IDENTIFIED	7.107	☐	
Cesium-137 ✓	**0.2185**	0.0624	pCi/g	**0.05333**	**0.100**	661.8	1	1.294	IDENTIFIED	13.99	☐	
Gross Gamma	**6.108**	2.119	pCi/g	**3.214**	N		0				☐	
Lead-212 ✓	**1.123**	0.1247	pCi/g	**0.06898**	**0.100**	238.7	1	1.272	IDENTIFIED	3.794	☐	
Lead-214 ✓	**1.024**	0.1381	pCi/g	**0.09154**	**0.100**	352.1	1	1.358	IDENTIFIED	6.286	☐	
Neptunium-236 INT	**0.0658**	0.05085	pCi/g	**0.06076**	Y	99.05	1	1.869	IDENTIFIED	39.16	☑ UI	
Neptunium-237 INT	**0.8183**	0.1794	pCi/g	**0.2019**	Y	87.15	1	1.316	IDENTIFIED	10.3	☑ UI	
Potassium-40 ✓	**5.488**	0.8775	pCi/g	**0.4292**	**1.00**	1462	1	1.951	IDENTIFIED	7.125	☐	
Protactinium-234m NNP	**6.257**	5.607	pCi/g	**5.832**	Y	1001	1	2.844	IDENTIFIED	45.53	☑ UI	
Radium-223 INT	**0.4957**	0.1926	pCi/g	**0.2139**	Y	270.3	1	1.318	IDENTIFIED	19.51	☑ UI	
Thallium-208 ✓	**0.3788**	0.06664	pCi/g	**0.0452**	**0.080**	583.5	1	1.604	IDENTIFIED	8.227	☐	
Thorium-234 ✓	**1.611**	0.4284	pCi/g	**0.4709**	**0.500**	92.71	1	1.394	IDENTIFIED	12.8	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701015	28-SEP-07 00:00	13-DEC-07 10:59	76.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.5536**	0.1429	pCi/g	**0.1028**	**0.800**	911.5	1	1.91	IDENTIFIED	12.31	☐	
Americium-243 INT	**0.1324**	0.03094	pCi/g	**0.03387**	Y	74.93	1	1.242	IDENTIFIED	10.61	☑ UI	
Bismuth-212 ✓	**0.3318**	0.2469	pCi/g	**0.2022**	**0.500**	728	1	1.945	IDENTIFIED	37.78	☐	
Bismuth-214 ✓	**0.4823**	0.07331	pCi/g	**0.05308**	**0.200**	609.5	1	1.554	IDENTIFIED	7.042	☐	
Cesium-137 ✓	**0.1013**	0.03327	pCi/g	**0.02774**	**0.100**	662.1	1	1.879	IDENTIFIED	16.41	☐	
Lead-212 ✓	**0.5531**	0.05984	pCi/g	**0.04584**	**0.100**	238.6	1	1.042	IDENTIFIED	4.688	☐	
Lead-214 ✓	**0.5266**	0.07868	pCi/g	**0.05638**	**0.100**	351.9	1	1.178	IDENTIFIED	7.101	☐	
Neptunium-237 INT	**0.3259**	0.1276	pCi/g	**0.1583**	Y	87.32	1	1.25	IDENTIFIED	19.09	☑ UI	
Potassium-40 ✓	**3.205**	0.5552	pCi/g	**0.212**	**1.00**	1462	1	2.088	IDENTIFIED	7.774	☐	
Radium-223 INT	**0.2353**	0.1305	pCi/g	**0.1507**	Y	269.9	1	1.652	IDENTIFIED	28.12	☑ UI	
Thallium-208 ✓	**0.1656**	0.03578	pCi/g	**0.02811**	**0.080**	583.5	1	1.447	IDENTIFIED	10.56	☐	
Thorium-234 ✓	**0.7391**	0.3858	pCi/g	**0.3497**	**0.500**	92.87	1	1.684	IDENTIFIED	26.08	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198701016	28-SEP-07 00:00	13-DEC-07 11:15	76.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.5992**	0.1616	pCi/g	**0.114**	**0.800**	911.2	1	1.228	IDENTIFIED	13.12	☐	
Americium-243 INT	**0.1428**	0.0381	pCi/g	**0.03971**	Y	74.78	1	1.535	IDENTIFIED	13.21	☑ UI	
Bismuth-212 ✓	**0.4085**	0.2436	pCi/g	**0.2318**	**0.500**	727.1	1	1.158	IDENTIFIED	30.12	☐	
Bismuth-214 ✓	**0.4638**	0.08399	pCi/g	**0.06333**	**0.200**	609.5	1	1.781	IDENTIFIED	8.4	☐	
Lead-212 ✓	**0.687**	0.06645	pCi/g	**0.04836**	**0.100**	238.7	1	1.155	IDENTIFIED	4.064	☐	

Lead-214 ✓	**0.4703**	0.07677	pCi/g	**0.05904**	**0.100**	352.1	1	1.229	IDENTIFIED	7.908	☐	
Neptunium-237 INT	**0.3958**	0.1414	pCi/g	**0.1744**	**Y**	87.3	1	1.252	IDENTIFIED	17.85	☑ UI	
Potassium-40 ✓	**6.165**	0.7437	pCi/g	**0.2951**	**1.00**	1461	1	2.725	IDENTIFIED	5.354	☐	
Radium-223 INT	**0.4148**	0.1682	pCi/g	**0.1466**	**Y**	270	1	1.862	IDENTIFIED	20.5	☑ UI	
Thallium-208 ✓	**0.2329**	0.0485	pCi/g	**0.03021**	**0.080**	583.5	1	1.774	IDENTIFIED	9.968	☐	
Thorium-234 ✓	**1.022**	0.3705	pCi/g	**0.3833**	**0.500**	92.77	1	1.457	IDENTIFIED	18.14	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201473840		13-DEC-07 12:52	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201473841	18-OCT-07 00:00	13-DEC-07 12:53	56.5	DUP	LOAD	1		SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.6071**	0.168	pCi/g	**0.1292**	**0.800**	910.9	1	1.288	IDENTIFIED	13.54	☐	
Americium-243 INT	**0.1143**	0.03745	pCi/g	**0.04327**	**Y**	74.89	1	0.9789	IDENTIFIED	16.33	☑ UI	
Bismuth-214 ✓	**0.3556**	0.1006	pCi/g	**0.07891**	**0.200**	609.5	1	1.599	IDENTIFIED	14.13	☐	
Cesium-137 ✓	**0.1188**	0.03659	pCi/g	**0.04046**	**0.100**	661.5	1	1.794	IDENTIFIED	15.43	☐	
Cobalt-60 LA	**0.07021**	0.02036	pCi/g	**0.0471**	**0.100**	1461	2	2.293	NOT_IDENTI	7.634	☑ UI	Data rejected due to low abundance.
Lead-212 ✓	**0.5464**	0.06754	pCi/g	**0.05807**	**0.100**	238.7	1	0.9653	IDENTIFIED	5.641	☐	
Lead-214 ✓	**0.4219**	0.08777	pCi/g	**0.07456**	**0.100**	351.9	1	1.052	IDENTIFIED	10.27	☐	
Neptunium-237 INT	**0.3858**	0.1703	pCi/g	**0.2122**	**Y**	87.14	1	1.109	IDENTIFIED	22.21	☑ UI	
Potassium-40 ✓	**4.302**	0.7105	pCi/g	**0.3692**	**1.00**	1461	2	2.293	IDENTIFIED	7.634	☐	
Radium-223 INT	**0.2059**	0.1603	pCi/g	**0.1809**	**Y**	270.2	1	1.338	IDENTIFIED	39.61	☑ UI	
Thallium-208 ✓	**0.16**	0.04097	pCi/g	**0.03437**	**0.080**	583.3	1	2.024	IDENTIFIED	12.75	☐	
Thorium-234 LA	**0.6279**	0.5184	pCi/g	**0.6071**	**0.500**	92.88	1	1.321	FAIL_ABUND	41.97	☑ UI	Data rejected due to low abundance.

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201473842		14-DEC-07 04:50	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	**1.077**	0.7099	pCi/g	**1.009**	**0.800**	911.7	1	1.175	FAIL_ABUND	33.33	☐	
Americium-241	**14.96**	1.185	pCi/g	**0.3146**	**0.200**	59.33	1	1.126	IDENTIFIED	1.467	☐	
Americium-243	**0.577**	0.1492	pCi/g	**0.1501**	**Y**	76.15	1	1.004	IDENTIFIED	12.54	☐	
Bismuth-214	**1.001**	0.3363	pCi/g	**0.4103**	**0.200**	609.5	1	1.761	FAIL_ABUND	16.73	☐	
Cesium-137	**6.064**	0.5861	pCi/g	**0.1687**	**0.100**	661.8	1	1.503	IDENTIFIED	2.766	☐	
Cobalt-60	**8.869**	0.6321	pCi/g	**0.1785**	**0.100**	1174	1	1.935	IDENTIFIED	2.371	☐	
Gross Gamma	**43.13**	5.76	pCi/g	**9.526**	**N**		0				☐	
Lead-212	**1.239**	0.1985	pCi/g	**0.2093**	**0.100**	238.7	1	1.374	IDENTIFIED	7.01	☐	
Lead-214	**0.9987**	0.2589	pCi/g	**0.2843**	**0.100**	351.8	1	1.393	IDENTIFIED	12.93	☐	
Neptunium-237	**35.86**	3.308	pCi/g	**0.8723**	**Y**	87.94	1	1.151	IDENTIFIED	1.673	☐	
Polonium-209	**261.2**	46.79	pCi/g	**45.24**	**Y**	898.4	1	1.694	IDENTIFIED	7.863	☐	
Potassium-40	**1.287**	0.8182	pCi/g	**1.013**	**1.00**	1462	1	2.942	IDENTIFIED	32.19	☐	
Thallium-208	**0.355**	0.1493	pCi/g	**0.1522**	**0.080**	583.5	1	1.437	IDENTIFIED	21.15	☐	

*** = Number of isotopes identified with a keyline at this energy.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 09:46:49.54

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689011.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 12-DEC-2007 12:21:32
Sample ID        : G198689011           Sample quantity  : 1.03210E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.68*	29	307	0.94	93.86	90	8	2.01E-03	126.5	
2	0	53.20*	37	171	1.31	106.89	105	5	2.54E-03	66.7	
3	0	63.44*	86	474	0.88	127.34	123	9	6.00E-03	54.5	
4	1	74.87*	268	304	0.98	150.18	143	20	1.86E-02	13.0	2.07E+00
5	1	77.19*	375	302	0.98	154.82	143	20	2.61E-02	9.8	
6	2	84.23*	50	320	1.10	168.89	162	31	3.48E-03	66.0	1.96E+00
7	2	87.27*	166	308	1.11	174.96	162	31	1.15E-02	20.0	
8	2	89.90	115	212	0.86	180.21	162	31	7.96E-03	21.1	
9	2	92.72*	162	240	1.04	185.85	162	31	1.13E-02	24.4	
10	0	129.13	55	242	0.65	258.61	255	7	3.78E-03	49.2	
11	0	143.72*	21	183	0.73	287.77	285	6	1.43E-03	128.4	
12	0	163.55*	45	206	1.94	327.38	324	8	3.15E-03	62.0	
13	1	184.27*	22	126	1.16	368.79	366	12	1.51E-03	94.2	9.16E+00
14	1	185.94*	154	183	1.16	372.13	366	12	1.07E-02	19.6	
15	0	205.51*	48	150	1.31	411.24	408	7	3.33E-03	49.4	
16	0	223.43	49	111	2.30	447.04	445	7	3.41E-03	38.8	
17	5	238.73*	572	137	1.03	477.61	473	17	3.97E-02	5.9	8.49E-01
18	5	241.61	137	226	1.74	483.37	473	17	9.50E-03	26.3	
19	3	267.45	42	38	1.15	535.00	534	16	2.93E-03	22.5	2.14E+00
20	3	270.40	89	119	1.54	540.89	534	16	6.16E-03	24.7	
21	10	277.90	25	149	2.28	555.88	552	15	1.76E-03	84.4	2.99E+00
22	10	279.20	28	142	1.41	558.48	552	15	1.93E-03	77.2	
23	0	295.18*	128	199	1.17	590.43	585	12	8.88E-03	25.2	
24	0	300.65	47	161	0.67	601.34	597	10	3.27E-03	52.6	
25	0	327.59	50	176	1.80	655.18	649	12	3.45E-03	55.4	
26	0	338.32*	86	167	1.22	676.62	673	9	6.01E-03	31.7	
27	1	352.04*	253	67	1.11	704.05	699	10	1.76E-02	9.6	2.39E+00
28	0	463.30	73	115	1.24	926.39	919	14	5.07E-03	33.4	
29	0	510.98*	64	152	2.32	1021.69	1014	16	4.45E-03	56.8	
30	0	583.41*	128	64	1.20	1166.44	1162	8	8.90E-03	15.3	
31	0	588.41	27	52	0.65	1176.44	1172	8	1.87E-03	51.3	
32	0	609.27*	182	75	1.28	1218.13	1212	13	1.26E-02	13.9	
33	0	662.15*	93	74	1.36	1323.82	1319	11	6.45E-03	22.3	
34	0	747.37	14	58	3.30	1494.16	1487	10	9.51E-04	110.4	
35	0	768.32	55	46	3.43	1536.03	1531	11	3.84E-03	27.4	
36	0	796.03	8	48	0.67	1591.43	1586	9	5.28E-04	164.8	
37	0	808.25	20	41	0.99	1615.85	1611	9	1.35E-03	63.0	
38	0	876.11	35	39	6.33	1751.49	1744	17	2.42E-03	44.1	

Sample ID : G198689011 Acquisition date : 12-DEC-2007 12:21:32

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	911.58*	111	62	1.83	1822.39	1816	13	7.71E-03	18.9	
40	0	927.84	24	49	4.72	1854.89	1846	14	1.69E-03	64.3	
41	0	964.60	37	30	1.91	1928.38	1923	10	2.57E-03	32.2	
42	0	968.89*	71	24	1.19	1936.96	1933	10	4.91E-03	19.7	
43	0	1014.96*	14	10	2.44	2029.05	2024	10	9.87E-04	60.5	
44	0	1099.79	8	21	0.70	2198.63	2196	6	5.56E-04	97.2	
45	0	1120.85*	46	41	2.06	2240.72	2235	13	3.21E-03	36.4	
46	0	1156.51	20	26	1.78	2312.03	2306	9	1.42E-03	50.7	
47	0	1203.88	59	22	5.26	2406.72	2395	22	4.12E-03	24.0	
48	0	1239.64	15	32	0.91	2478.21	2470	11	1.01E-03	80.8	
49	0	1249.15	27	21	3.25	2497.23	2492	11	1.85E-03	39.0	
50	0	1378.21	25	21	2.70	2755.26	2746	15	1.71E-03	46.4	
51	0	1460.57*	217	9	1.97	2919.92	2910	16	1.51E-02	8.1	
52	0	1655.27	15	3	0.61	3309.23	3303	11	1.05E-03	33.3	
53	0	1691.47	16	3	4.64	3381.63	3376	12	1.10E-03	33.5	
54	0	1764.43*	14	12	1.63	3527.53	3521	12	9.81E-04	68.6	
55	0	1839.53	15	3	0.99	3677.71	3671	12	1.06E-03	33.9	
56	0	1942.30	9	0	1.19	3883.22	3879	8	6.25E-04	33.3	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689011       *
* Acquisition date : 12-DEC-2007 12:21:32 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:04.65     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689011           Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.0321E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.146E+00	6.912E-01	4.349E-01	0.000E+00
CS-137	1.114E-01	4.929E-02	4.354E-02	0.000E+00
TL-208	1.370E-01	4.214E-02	4.418E-02	0.000E+00
PB-212	5.434E-01	7.584E-02	5.680E-02	0.000E+00
BI-214	3.703E-01	1.038E-01	8.309E-02	0.000E+00
PB-214	3.809E-01	7.564E-02	7.048E-02	0.000E+00
RA-223	2.935E-01	1.437E-01	1.709E-01	0.000E+00
AC-228	5.866E-01	2.203E-01	1.633E-01	0.000E+00
TH-234	7.807E-01	3.773E-01	3.478E-01	0.000E+00
U-235	5.622E-02	1.416E-01	1.849E-01	0.000E+00
NP-237	3.458E-01	1.376E-01	1.495E-01	0.000E+00
AM-243	1.008E-01	2.639E-02	3.064E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	7.090E-03		3.120E-02	5.259E-02	0.000E+00	NOT IDENT.
RH-101	-1.345E-02		2.172E-02	3.146E-02	0.000E+00	NOT IDENT.
SB-125	1.774E-02		6.333E-02	1.087E-01	0.000E+00	NOT IDENT.
EU-155	4.358E-02		5.862E-02	9.431E-02	0.000E+00	NOT IDENT.
PO-209	1.820E+00		5.701E+00	9.871E+00	0.000E+00	NOT IDENT.
BI-211	-7.377E-01		8.060E-01	1.250E+00	0.000E+00	NOT IDENT.
BI-212	2.738E-01		2.291E-01	4.227E-01	0.000E+00	NOT IDENT.
PA-233	-1.553E-02		3.809E-02	6.390E-02	0.000E+00	NOT IDENT.
PA-234M	-1.633E+00		3.981E+00	5.786E+00	0.000E+00	NOT IDENT.
NP-236	1.677E-02		3.441E-02	5.001E-02	0.000E+00	NOT IDENT.
NP-239	1.134E-01		1.471E-01	2.264E-01	0.000E+00	NOT IDENT.
AM-241	1.711E-02		3.280E-02	5.317E-02	0.000E+00	NOT IDENT.
CM-243	-5.424E-02		5.209E-02	7.635E-02	0.000E+00	NOT IDENT.
AM-246	2.247E-02		9.499E-02	1.617E-01	0.000E+00	NOT IDENT.
CF-249	-1.853E-04		2.600E-02	4.408E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 09:46:51.44

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689011.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 12-DEC-2007 12:21:32
Sample ID        : G198689011           Sample quantity  : 1.03210E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           :
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	217	10.66*	8.925E-01	4.146E+00	4.146E+00	17.01
CS-137	661.66	93	85.10*	1.789E+00	1.110E-01	1.114E-01	45.17
TL-208	277.36	25	6.31	3.926E+00	1.859E-01	1.859E-01	168.97
	510.77	64	22.60	2.281E+00	2.259E-01	2.259E-01	113.78
	583.19	128	84.50*	2.014E+00	1.370E-01	1.370E-01	31.40
	763.13	------	1.81	1.568E+00	------	Line Not Found	------
	860.56	------	12.42	1.404E+00	------	Line Not Found	------
PB-212	74.81	268	10.40	7.088E+00	6.607E-01	6.607E-01	26.73
	77.11	375	17.50	7.087E+00	5.500E-01	5.500E-01	20.59
	87.30	166	7.81	7.032E+00	5.490E-01	5.490E-01	40.60
	238.63	572	43.30*	4.423E+00	5.434E-01	5.434E-01	14.24
	300.09	47	3.28	3.678E+00	7.101E-01	7.101E-01	105.48
BI-214	609.31	182	46.10*	1.934E+00	3.703E-01	3.703E-01	28.61
	768.36	55	4.94	1.558E+00	1.307E+00	1.307E+00	55.28
	806.17	------	1.22	1.490E+00	------	Line Not Found	------
	934.06	------	3.03	1.304E+00	------	Line Not Found	------
	1120.29	46	15.10	1.112E+00	5.010E-01	5.011E-01	72.98
	1155.19	20	1.63	1.082E+00	2.102E+00	2.102E+00	101.51
	1238.11	15	5.79	1.021E+00	4.471E-01	4.471E-01	161.63
	1280.96	------	1.43	9.933E-01	------	Line Not Found	------
	1377.67	25	4.00	9.353E-01	1.195E+00	1.195E+00	93.03
	1401.50	------	1.27	9.227E-01	------	Line Not Found	------
	1407.98	------	2.15	9.193E-01	------	Line Not Found	------
	1509.23	------	2.11	8.695E-01	------	Line Not Found	------
	1729.60	------	2.92	7.820E-01	------	Line Not Found	------
	1764.49	14	15.40	7.702E-01	2.165E-01	2.165E-01	137.24
PB-214	74.81	268	6.44	7.088E+00	1.067E+00	1.067E+00	26.73
	77.11	375	10.80	7.087E+00	8.913E-01	8.913E-01	20.59
	87.30	166	4.84	7.032E+00	8.859E-01	8.859E-01	40.60
	242.00	137	7.43	4.383E+00	7.638E-01	7.639E-01	53.13
	295.22	128	19.30	3.735E+00	3.226E-01	3.226E-01	50.96
	351.93	253	37.60*	3.210E+00	3.809E-01	3.809E-01	20.26

Sample ID : G198689011 Acquisition date : 12-DEC-2007 12:21:32

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-223	269.46	89	13.70*	4.014E+00	2.935E-01	2.935E-01	49.95
AC-228	129.07	55	2.42	6.356E+00	6.443E-01	6.443E-01	98.87
	209.25	------	3.89	4.865E+00	------	Line Not Found	------
	270.25	89	3.46	4.014E+00	1.162E+00	1.162E+00	49.95
	338.32	86	11.27	3.324E+00	4.198E-01	4.198E-01	63.80
	409.46	------	1.92	2.802E+00	------	Line Not Found	------
	463.00	73	4.40	2.500E+00	1.206E+00	1.206E+00	67.00
	794.95	8	4.25	1.508E+00	2.159E-01	2.159E-01	329.77
	911.20	111	25.80*	1.333E+00	5.866E-01	5.866E-01	38.33
	964.77	37	4.99	1.268E+00	1.064E+00	1.064E+00	64.75
	968.97	71	15.80	1.263E+00	6.447E-01	6.447E-01	39.94
	1588.20	------	3.22	8.353E-01	------	Line Not Found	------
TH-234	63.29	86	4.80	7.002E+00	4.676E-01	4.676E-01	109.15
	92.58	162	5.41*	6.976E+00	7.807E-01	7.807E-01	49.31
U-235	143.76	21	10.96*	6.066E+00	5.622E-02	5.622E-02	257.00
NP-237	86.48	166	12.40*	7.032E+00	3.458E-01	3.458E-01	40.60
AM-243	74.66	268	68.20*	7.088E+00	1.008E-01	1.008E-01	26.73

Flag: "*" = Keyline

Sample ID : G198689011 Acquisition date : 12-DEC-2007 12:21:32

Total number of lines in spectrum	56	
Number of unidentified lines	25	
Number of lines tentatively identified by NID	31	55.36%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.146E+00	4.146E+00	0.705E+00	17.01	
CS-137	9.47E+08S	1.00	1.110E-01	1.114E-01	0.503E-01	45.17	
TL-208	4.43E+17S	1.00	1.370E-01	1.370E-01	0.430E-01	31.40	
PB-212	4.43E+17S	1.00	5.434E-01	5.434E-01	0.774E-01	14.24	
BI-214	5.05E+10S	1.00	3.703E-01	3.703E-01	1.059E-01	28.61	
PB-214	5.05E+10S	1.00	3.809E-01	3.809E-01	0.772E-01	20.26	
RA-223	1.04E+12S	1.00	2.935E-01	2.935E-01	1.466E-01	49.95	
AC-228	4.43E+17S	1.00	5.866E-01	5.866E-01	2.248E-01	38.33	
TH-234	1.41E+17S	1.00	7.807E-01	7.807E-01	3.850E-01	49.31	
U-235	2.22E+16S	1.00	5.622E-02	5.622E-02	14.45E-02	257.00	
NP-237	6.75E+13S	1.00	3.458E-01	3.458E-01	1.404E-01	40.60	
AM-243	2.33E+11S	1.00	1.008E-01	1.008E-01	0.269E-01	26.73	
			---	---			
		Total Activity :	7.852E+00	7.852E+00			
		Grand Total Activity :	7.852E+00	7.852E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689011 Acquisition date : 12-DEC-2007 12:21:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.68	29	307	0.94	93.86	90	8	2.01E-03	****	6.48E+00	
0	53.20	37	171	1.31	106.89	105	5	2.54E-03	****	6.76E+00	
2	84.23	50	320	1.10	168.89	162	31	3.48E-03	****	7.06E+00	
2	89.90	115	212	0.86	180.21	162	31	7.96E-03	42.2	7.01E+00	
0	163.55	45	206	1.94	327.38	324	8	3.15E-03	****	5.68E+00	
1	184.27	22	126	1.16	368.79	366	12	1.51E-03	****	5.29E+00	
1	185.94	154	183	1.16	372.13	366	12	1.07E-02	39.2	5.26E+00	
0	205.51	48	150	1.31	411.24	408	7	3.33E-03	98.8	4.93E+00	
0	223.43	49	111	2.30	447.04	445	7	3.41E-03	77.5	4.64E+00	
3	267.45	42	38	1.15	535.00	534	16	2.93E-03	44.9	4.05E+00	
10	279.20	28	142	1.41	558.48	552	15	1.93E-03	****	3.91E+00	
0	327.59	50	176	1.80	655.18	649	12	3.45E-03	****	3.42E+00	
0	588.41	27	52	0.65	1176.44	1172	8	1.87E-03	****	2.00E+00	
0	747.37	14	58	3.30	1494.16	1487	10	9.51E-04	****	1.60E+00	
0	808.25	20	41	0.99	1615.85	1611	9	1.35E-03	****	1.49E+00	
0	876.11	35	39	6.33	1751.49	1744	17	2.42E-03	88.1	1.38E+00	
0	927.84	24	49	4.72	1854.89	1846	14	1.69E-03	****	1.31E+00	
0	1014.96	14	10	2.44	2029.05	2024	10	9.87E-04	****	1.21E+00	
0	1099.79	8	21	0.70	2198.63	2196	6	5.56E-04	****	1.13E+00	
0	1203.88	59	22	5.26	2406.72	2395	22	4.12E-03	47.9	1.05E+00	
0	1249.15	27	21	3.25	2497.23	2492	11	1.85E-03	78.0	1.01E+00	
0	1655.27	15	3	0.61	3309.23	3303	11	1.05E-03	66.7	8.09E-01	
0	1691.47	16	3	4.64	3381.63	3376	12	1.10E-03	66.9	7.95E-01	
0	1839.53	15	3	0.99	3677.71	3671	12	1.06E-03	67.9	7.46E-01	
0	1942.30	9	0	1.19	3883.22	3879	8	6.25E-04	66.7	7.17E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689011            *
* Acquisition date : 12-DEC-2007 12:21:32 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:04.65     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689011           Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.0321E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  5-FEB-2007 16:40:35 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.146E+00	6.912E-01	2.176E-01	6.912E-01
CS-137	1.114E-01	4.929E-02	2.178E-02	4.929E-02
TL-208	1.370E-01	4.214E-02	2.210E-02	4.214E-02
PB-212	5.434E-01	7.584E-02	2.842E-02	7.584E-02
BI-214	3.703E-01	1.038E-01	4.157E-02	1.038E-01
PB-214	3.809E-01	7.564E-02	3.526E-02	7.564E-02
RA-223	2.935E-01	1.437E-01	8.552E-02	1.437E-01
AC-228	5.866E-01	2.203E-01	8.170E-02	2.203E-01
TH-234	7.807E-01	3.773E-01	1.740E-01	3.773E-01
U-235	5.622E-02	1.416E-01	9.251E-02	1.416E-01
NP-237	3.458E-01	1.376E-01	7.482E-02	1.376E-01
AM-243	1.008E-01	2.639E-02	1.533E-02	2.639E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	7.090E-03	3.120E-02	2.631E-02	3.120E-02	NOT IDENT.
RH-101	-1.345E-02	2.172E-02	1.574E-02	2.172E-02	NOT IDENT.
SB-125	1.774E-02	6.333E-02	5.440E-02	6.333E-02	NOT IDENT.
EU-155	4.358E-02	5.862E-02	4.718E-02	5.862E-02	NOT IDENT.
PO-209	1.820E+00	5.701E+00	4.938E+00	5.701E+00	NOT IDENT.
BI-211	-7.377E-01	8.060E-01	6.253E-01	8.060E-01	NOT IDENT.
BI-212	2.738E-01	2.291E-01	2.115E-01	2.291E-01	NOT IDENT.
PA-233	-1.553E-02	3.809E-02	3.197E-02	3.809E-02	NOT IDENT.
PA-234M	-1.633E+00	3.981E+00	2.895E+00	3.981E+00	NOT IDENT.
NP-236	1.677E-02	3.441E-02	2.502E-02	3.441E-02	NOT IDENT.
NP-239	1.134E-01	1.471E-01	1.132E-01	1.471E-01	NOT IDENT.
AM-241	1.711E-02	3.280E-02	2.660E-02	3.280E-02	NOT IDENT.
CM-243	-5.424E-02	5.209E-02	3.820E-02	5.209E-02	NOT IDENT.
AM-246	2.247E-02	9.499E-02	8.088E-02	9.499E-02	NOT IDENT.
CF-249	-1.853E-04	2.600E-02	2.205E-02	2.600E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	218.6796
63.29	272.6862
74.66	303.9945
74.81	304.0945
74.81	304.0945
77.11	305.6235
77.11	305.6235
86.48	236.4535
87.30	236.8402
87.30	236.8402
92.58	239.2860
98.44	202.7668
103.76	225.8936
105.31	193.4763
129.07	210.9161
143.76	210.4849
198.00	175.9383
209.25	167.8103
228.18	142.9099
238.63	165.6735
242.00	166.2185
269.46	124.4355
270.25	124.5234
277.36	146.1951
295.22	110.2740
300.09	127.7556
312.17	120.0594
338.32	130.7568
351.93	101.6060
387.59	103.2503
409.46	99.0001
427.87	91.4240
463.00	71.5496
510.77	83.7411
583.19	79.7554
609.31	77.3416
661.66	61.6311
727.33	65.2148
763.13	64.3364
768.36	73.6816
785.37	61.1966
794.95	61.4254
806.17	68.5459
831.80	69.8411
860.56	43.8774
896.60	49.2768
911.20	44.6726
934.06	33.5583
964.77	29.6675
968.97	42.9123
1001.03	41.0270
1078.86	33.8314
1120.29	36.3262
1155.19	31.4517
1173.23	38.9891
1238.11	37.5464
1280.96	23.8702
1332.51	24.1893
1377.67	21.3126
1401.50	23.3012
1407.98	25.2048
1460.80	24.3091
1509.23	23.8993
1588.20	24.3245
1620.50	16.6569
1729.60	15.0354
1764.49	8.6523

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689011

Total Uranium Activity	2.6015E-02	ug/g
Total Uranium Counting Unc.	6.5521E-02	ug/g
Total Uranium Tpu	6.5521E-08	ug/g
Total Uranium Mda	4.2802E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:34:29.05

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689012.CNF;2
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 12-DEC-2007 12:37:48
Sample ID        : G198689012           Sample quantity  : 1.04610E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:01.70  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	75.72*	344	653	3.21	151.46	145	13	1.59E-02	16.7	
2	0	83.93*	44	283	0.68	167.87	166	6	2.03E-03	71.1	
3	5	86.93	95	240	0.88	173.86	171	20	4.42E-03	26.1	7.51E-01
4	5	89.52	65	369	1.35	179.02	171	20	2.99E-03	52.9	
5	5	92.33*	109	349	1.34	184.64	171	20	5.04E-03	40.2	
6	0	128.97*	27	372	3.61	257.86	253	9	1.24E-03	142.4	
7	1	143.17	60	267	1.20	286.22	283	10	2.79E-03	47.6	3.00E+00
8	1	144.45	55	261	1.20	288.78	283	10	2.55E-03	52.2	
9	0	185.73*	75	447	1.11	371.27	366	11	3.46E-03	64.9	
10	0	208.67	42	258	0.95	417.11	414	7	1.93E-03	65.9	
11	2	238.25*	441	233	1.14	476.21	471	16	2.04E-02	8.9	5.29E-01
12	2	241.18	103	253	1.41	482.08	471	16	4.76E-03	29.5	
13	0	269.85	43	194	1.12	539.37	537	7	1.98E-03	56.0	
14	0	294.68*	127	258	1.19	588.97	584	11	5.88E-03	30.1	
15	0	338.44*	104	293	1.72	676.43	670	14	4.83E-03	38.6	
16	0	351.60*	229	206	1.52	702.72	695	12	1.06E-02	15.7	
17	0	462.83	31	129	1.00	925.02	919	11	1.43E-03	73.4	
18	0	546.00	32	59	2.32	1091.25	1086	9	1.46E-03	47.3	
19	0	583.01*	124	119	1.29	1165.22	1159	12	5.73E-03	21.9	
20	0	602.61	15	91	0.78	1204.41	1196	10	6.77E-04	126.7	
21	0	608.99*	151	130	1.25	1217.15	1210	14	6.98E-03	21.0	
22	0	661.38	220	118	1.44	1321.87	1317	13	1.02E-02	12.2	
23	0	727.12	58	49	1.35	1453.29	1448	11	2.69E-03	26.8	
24	0	777.46	8	34	1.38	1553.92	1549	8	3.50E-04	138.7	
25	0	794.88	38	51	2.13	1588.75	1583	11	1.75E-03	40.3	
26	0	910.49*	113	46	1.45	1819.86	1813	14	5.22E-03	18.1	
27	0	947.26	15	50	0.84	1893.39	1884	14	7.10E-04	100.3	
28	1	963.89	29	56	1.98	1926.64	1922	26	1.32E-03	48.4	1.16E+00
29	1	968.55*	40	46	1.99	1935.94	1922	26	1.86E-03	43.8	
30	0	1001.21*	9	39	1.18	2001.26	1994	12	4.05E-04	185.7	
31	0	1072.76	29	124	14.60	2144.31	2122	33	1.34E-03	118.6	
32	0	1121.53*	75	30	2.17	2241.83	2233	21	3.46E-03	25.2	
33	0	1167.58	14	24	1.40	2333.91	2331	9	6.35E-04	68.7	
34	0	1210.47	21	55	7.00	2419.67	2406	19	9.55E-04	90.3	
35	0	1245.97	14	25	0.89	2490.68	2484	11	6.36E-04	75.4	
36	0	1266.35	14	36	4.68	2531.42	2521	16	6.63E-04	97.3	
37	0	1342.38*	11	20	1.80	2683.47	2674	14	4.91E-04	126.6	
38	0	1370.35	26	23	5.48	2739.42	2729	19	1.18E-03	49.7	

Sample ID : G198689012 Acquisition date : 12-DEC-2007 12:37:48

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1460.10*	214	30	1.95	2918.92	2911	15	9.92E-03	10.2	
40	0	1524.52	19	4	3.37	3047.76	3041	14	8.95E-04	30.7	
41	0	1586.31	29	16	5.81	3171.35	3158	19	1.36E-03	36.2	
42	0	1635.13	9	10	1.60	3269.01	3264	9	3.94E-04	72.8	
43	0	1716.75	18	3	3.84	3432.29	3426	13	8.37E-04	31.1	
44	0	1755.80	12	13	1.48	3510.42	3505	11	5.44E-04	67.5	
45	0	1764.08*	28	6	2.49	3526.97	3518	21	1.30E-03	42.0	
46	0	1772.98	5	7	0.54	3544.79	3539	9	2.18E-04	110.7	
47	0	1786.07	16	7	0.67	3570.96	3565	13	7.49E-04	41.1	
48	0	1856.84	6	6	0.90	3712.55	3708	9	2.70E-04	89.4	
49	0	1933.70	9	19	4.75	3866.34	3856	15	4.32E-04	106.4	
50	2	1950.04	12	10	2.78	3899.04	3891	19	5.38E-04	68.4	4.53E-01
51	2	1953.51	12	1	2.60	3905.96	3891	19	5.68E-04	37.3	
52	0	1961.89	9	2	1.62	3922.75	3918	8	4.15E-04	43.3	
53	0	2039.49	6	13	0.95	4078.00	4071	13	2.78E-04	130.4	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689012       *
* Acquisition date : 12-DEC-2007 12:37:48 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:01.70     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689012           Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.0461E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-FEB-2007 10:58:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.502E+00	5.234E-01	2.688E-01	0.000E+00
CS-137	1.567E-01	3.888E-02	2.973E-02	0.000E+00
BI-212	3.241E-01	1.721E-01	2.072E-01	0.000E+00
PB-212	2.767E-01	5.098E-02	4.522E-02	0.000E+00
PB-214	2.211E-01	6.936E-02	5.412E-02	0.000E+00
RA-223	9.278E-02	1.019E-01	1.518E-01	0.000E+00
AC-228	3.535E-01	1.303E-01	1.022E-01	0.000E+00
PA-234M	9.226E-01	3.358E+00	3.721E+00	0.000E+00
U-235	1.114E-01	1.041E-01	1.422E-01	0.000E+00
NP-237	1.772E-01	9.174E-02	1.475E-01	0.000E+00
AM-243	1.419E-01	4.798E-02	3.452E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-2.825E-02		2.692E-02	3.176E-02	0.000E+00	NOT IDENT.
RH-101	2.246E-02		1.610E-02	2.921E-02	0.000E+00	NOT IDENT.
SB-125	7.187E-03		4.667E-02	7.778E-02	0.000E+00	NOT IDENT.
EU-155	5.822E-02		4.462E-02	7.856E-02	0.000E+00	NOT IDENT.
TL-208	0.000E+00		3.457E-02	4.789E-02	0.000E+00	FAIL ABUN
PO-209	4.869E-01		3.446E+00	5.752E+00	0.000E+00	NOT IDENT.
BI-211	-9.337E-02		4.786E-01	7.783E-01	0.000E+00	NOT IDENT.
BI-214	0.000E+00		7.695E-02	9.952E-02	0.000E+00	FAIL ABUN
PA-233	1.462E-02		3.302E-02	5.691E-02	0.000E+00	NOT IDENT.
TH-234	4.368E-01		3.463E-01	4.399E-01	0.000E+00	FAIL ABUN
NP-236	8.824E-03		2.826E-02	4.404E-02	0.000E+00	NOT IDENT.
NP-239	-6.934E-02		1.087E-01	1.822E-01	0.000E+00	NOT IDENT.
AM-241	6.000E-02		6.664E-02	1.184E-01	0.000E+00	NOT IDENT.
CM-243	2.662E-02		3.980E-02	6.860E-02	0.000E+00	NOT IDENT.
AM-246	5.363E-03		8.130E-02	1.199E-01	0.000E+00	NOT IDENT.
CF-249	1.451E-02		1.972E-02	3.416E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:34:30.05

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689012.CNF;2
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 12-DEC-2007 12:37:48
Sample ID        : G198689012           Sample quantity  : 1.04610E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:01.70  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	214	10.66*	9.606E-01	2.502E+00	2.502E+00	21.35
CS-137	661.66	220	85.10*	1.977E+00	1.562E-01	1.567E-01	25.31
BI-212	727.33	58	11.80*	1.818E+00	3.241E-01	3.241E-01	54.18
	785.37	------	1.10	1.696E+00	------	Line Not Found	------
	1620.50	------	1.49	8.878E-01	------	Line Not Found	------
PB-212	74.81	344	10.40	4.256E+00	9.304E-01	9.304E-01	34.51
	77.11	344	17.50	4.256E+00	5.529E-01	5.529E-01	34.51
	87.30	95	7.81	5.195E+00	2.813E-01	2.813E-01	52.84
	238.63	441	43.30*	4.398E+00	2.767E-01	2.767E-01	18.80
	300.09	------	3.28	3.712E+00	------	Line Not Found	------
PB-214	74.81	344	6.44	4.256E+00	1.503E+00	1.503E+00	34.51
	77.11	344	10.80	4.256E+00	8.960E-01	8.960E-01	34.51
	87.30	95	4.84	5.195E+00	4.539E-01	4.539E-01	52.84
	242.00	103	7.43	4.360E+00	3.798E-01	3.798E-01	59.28
	295.22	127	19.30	3.763E+00	2.090E-01	2.090E-01	60.53
	351.93	229	37.60*	3.292E+00	2.211E-01	2.211E-01	32.01
RA-223	269.46	43	13.70*	4.017E+00	9.278E-02	9.278E-02	112.11
AC-228	129.07	27	2.42	6.052E+00	2.181E-01	2.181E-01	284.96
	209.25	42	3.89	4.822E+00	2.661E-01	2.661E-01	131.96
	270.25	43	3.46	4.017E+00	3.674E-01	3.674E-01	112.11
	338.32	104	11.27	3.389E+00	3.268E-01	3.268E-01	77.54
	409.46	------	1.92	2.927E+00	------	Line Not Found	------
	463.00	31	4.40	2.659E+00	3.161E-01	3.161E-01	146.99
	794.95	38	4.25	1.677E+00	6.355E-01	6.355E-01	81.02
	911.20	113	25.80*	1.479E+00	3.535E-01	3.535E-01	37.60
	964.77	29	4.99	1.401E+00	4.879E-01	4.879E-01	97.26
	968.97	40	15.80	1.395E+00	2.177E-01	2.177E-01	88.15
	1588.20	29	3.22	9.013E-01	1.209E+00	1.209E+00	72.65
PA-234M	1001.03	9	0.84*	1.352E+00	9.226E-01	9.226E-01	371.41
U-235	143.76	60	10.96*	5.898E+00	1.114E-01	1.114E-01	95.38
NP-237	86.48	95	12.40*	5.195E+00	1.772E-01	1.772E-01	52.84
AM-243	74.66	344	68.20*	4.256E+00	1.419E-01	1.419E-01	34.51

Sample ID : G198689012 Acquisition date : 12-DEC-2007 12:37:48

Flag: "*" = Keyline

Sample ID : G198689012 Acquisition date : 12-DEC-2007 12:37:48

Total number of lines in spectrum 53
Number of unidentified lines 27
Number of lines tentatively identified by NID 26 49.06%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	2.502E+00	2.502E+00	0.534E+00	21.35	
CS-137	9.47E+08S	1.00	1.562E-01	1.567E-01	0.397E-01	25.31	
BI-212	4.43E+17S	1.00	3.241E-01	3.241E-01	1.756E-01	54.18	
PB-212	4.43E+17S	1.00	2.767E-01	2.767E-01	0.520E-01	18.80	
PB-214	5.05E+10S	1.00	2.211E-01	2.211E-01	0.708E-01	32.01	
RA-223	1.04E+12S	1.00	9.278E-02	9.278E-02	10.40E-02	112.11	
AC-228	4.43E+17S	1.00	3.535E-01	3.535E-01	1.329E-01	37.60	
PA-234M	1.41E+17S	1.00	9.226E-01	9.226E-01	34.27E-01	371.41	
U-235	2.22E+16S	1.00	1.114E-01	1.114E-01	1.063E-01	95.38	
NP-237	6.75E+13S	1.00	1.772E-01	1.772E-01	0.936E-01	52.84	
AM-243	2.33E+11S	1.00	1.419E-01	1.419E-01	0.490E-01	34.51	
		Total Activity :	5.279E+00	5.280E+00			

Grand Total Activity : 5.279E+00 5.280E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689012 Acquisition date : 12-DEC-2007 12:37:48

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.93	44	283	0.68	167.87	166	6	2.03E-03	****	4.98E+00	
5	89.52	65	369	1.35	179.02	171	20	2.99E-03	****	5.35E+00	
5	92.33	109	349	1.34	184.64	171	20	5.04E-03	80.5	5.51E+00	T
1	144.45	55	261	1.20	288.78	283	10	2.55E-03	****	5.88E+00	
0	185.73	75	447	1.11	371.27	366	11	3.46E-03	****	5.20E+00	
0	546.00	32	59	2.32	1091.25	1086	9	1.46E-03	94.5	2.33E+00	
0	583.01	124	119	1.29	1165.22	1159	12	5.73E-03	43.8	2.20E+00	T
0	602.61	15	91	0.78	1204.41	1196	10	6.77E-04	****	2.14E+00	
0	608.99	151	130	1.25	1217.15	1210	14	6.98E-03	42.0	2.12E+00	T
0	777.46	8	34	1.38	1553.92	1549	8	3.50E-04	****	1.71E+00	
0	947.26	15	50	0.84	1893.39	1884	14	7.10E-04	****	1.42E+00	
0	1072.76	29	124	14.60	2144.31	2122	33	1.34E-03	****	1.27E+00	
0	1121.53	75	30	2.17	2241.83	2233	21	3.46E-03	50.3	1.21E+00	T
0	1167.58	14	24	1.40	2333.91	2331	9	6.35E-04	****	1.17E+00	
0	1210.47	21	55	7.00	2419.67	2406	19	9.55E-04	****	1.13E+00	
0	1245.97	14	25	0.89	2490.68	2484	11	6.36E-04	****	1.10E+00	
0	1266.35	14	36	4.68	2531.42	2521	16	6.63E-04	****	1.09E+00	
0	1342.38	11	20	1.80	2683.47	2674	14	4.91E-04	****	1.03E+00	
0	1370.35	26	23	5.48	2739.42	2729	19	1.18E-03	99.4	1.01E+00	
0	1524.52	19	4	3.37	3047.76	3041	14	8.95E-04	61.4	9.28E-01	
0	1635.13	9	10	1.60	3269.01	3264	9	3.94E-04	****	8.82E-01	
0	1716.75	18	3	3.84	3432.29	3426	13	8.37E-04	62.2	8.55E-01	
0	1755.80	12	13	1.48	3510.42	3505	11	5.44E-04	****	8.43E-01	
0	1764.08	28	6	2.49	3526.97	3518	21	1.30E-03	84.1	8.41E-01	T
0	1772.98	5	7	0.54	3544.79	3539	9	2.18E-04	****	8.39E-01	
0	1786.07	16	7	0.67	3570.96	3565	13	7.49E-04	82.1	8.35E-01	
0	1856.84	6	6	0.90	3712.55	3708	9	2.70E-04	****	8.19E-01	
0	1933.70	9	19	4.75	3866.34	3856	15	4.32E-04	****	8.04E-01	
2	1950.04	12	10	2.78	3899.04	3891	19	5.38E-04	****	8.02E-01	
2	1953.51	12	1	2.60	3905.96	3891	19	5.68E-04	74.7	8.01E-01	
0	1961.89	9	2	1.62	3922.75	3918	8	4.15E-04	86.5	8.00E-01	
0	2039.49	6	13	0.95	4078.00	4071	13	2.78E-04	****	7.90E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689012            *
* Acquisition date : 12-DEC-2007 12:37:48 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:01.70     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689012           Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.0461E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 20-FEB-2007 10:58:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	2.502E+00	5.234E-01	1.345E-01	5.234E-01
CS-137	1.567E-01	3.888E-02	1.487E-02	3.888E-02
BI-212	3.241E-01	1.721E-01	1.036E-01	1.721E-01
PB-212	2.767E-01	5.098E-02	2.262E-02	5.098E-02
PB-214	2.211E-01	6.936E-02	2.708E-02	6.936E-02
RA-223	9.278E-02	1.019E-01	7.596E-02	1.019E-01
AC-228	3.535E-01	1.303E-01	5.113E-02	1.303E-01
PA-234M	9.226E-01	3.358E+00	1.862E+00	3.358E+00
U-235	1.114E-01	1.041E-01	7.112E-02	1.041E-01
NP-237	1.772E-01	9.174E-02	7.377E-02	9.174E-02
AM-243	1.419E-01	4.798E-02	1.727E-02	4.798E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-2.825E-02	2.692E-02	1.589E-02	2.692E-02	NOT IDENT.
RH-101	2.246E-02	1.610E-02	1.462E-02	1.610E-02	NOT IDENT.
SB-125	7.187E-03	4.667E-02	3.891E-02	4.667E-02	NOT IDENT.
EU-155	5.822E-02	4.462E-02	3.931E-02	4.462E-02	NOT IDENT.
TL-208	7.960E-02	3.457E-02	2.396E-02	3.457E-02	FAIL ABUN
PO-209	4.869E-01	3.446E+00	2.878E+00	3.446E+00	NOT IDENT.
BI-211	-9.337E-02	4.786E-01	3.894E-01	4.786E-01	NOT IDENT.
BI-214	1.844E-01	7.695E-02	4.979E-02	7.695E-02	FAIL ABUN
PA-233	1.462E-02	3.302E-02	2.847E-02	3.302E-02	NOT IDENT.
TH-234	4.368E-01	3.463E-01	2.201E-01	3.463E-01	FAIL ABUN
NP-236	8.824E-03	2.826E-02	2.204E-02	2.826E-02	NOT IDENT.
NP-239	-6.934E-02	1.087E-01	9.117E-02	1.087E-01	NOT IDENT.
AM-241	6.000E-02	6.664E-02	5.923E-02	6.664E-02	NOT IDENT.
CM-243	2.662E-02	3.980E-02	3.432E-02	3.980E-02	NOT IDENT.
AM-246	5.363E-03	8.130E-02	5.998E-02	8.130E-02	NOT IDENT.
CF-249	1.451E-02	1.972E-02	1.709E-02	1.972E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	252.8466
63.29	292.8206
74.66	303.7015
74.81	303.8040
74.81	303.8040
77.11	305.3581
77.11	305.3581
86.48	284.7627
87.30	286.7214
87.30	286.7214
92.58	289.7341
98.44	257.0528
103.76	246.2795
105.31	240.8138
129.07	289.8999
143.76	270.1526
198.00	275.7307
209.25	287.8997
228.18	283.0569
238.63	238.5325
242.00	220.0726
269.46	225.8496
270.25	230.7230
277.36	214.1889
295.22	205.9835
300.09	180.9272
312.17	185.4715
338.32	185.3501
351.93	144.9756
387.59	129.0970
409.46	155.1227
427.87	124.1072
463.00	111.0094
510.77	150.4475
583.19	100.0397
609.31	84.4453
661.66	80.7721
727.33	64.3192
763.13	92.3886
768.36	55.3491
785.37	61.8042
794.95	57.6309
806.17	59.2447
831.80	59.8267
860.56	42.7457
896.60	50.6988
911.20	49.5446
934.06	56.7149
964.77	58.3888
968.97	58.4706
1001.03	58.3594
1078.86	56.0669
1120.29	36.8973
1155.19	46.8327
1173.23	49.4092
1238.11	46.9531
1280.96	24.7365
1332.51	37.4366
1377.67	15.6483
1401.50	34.6876
1407.98	27.5900
1460.80	24.8369
1509.23	21.9792
1588.20	31.0473
1620.50	19.3125
1729.60	18.8198
1764.49	13.2676

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689012

Total Uranium Activity	5.1551E-02	ug/g
Total Uranium Counting Unc.	4.8186E-02	ug/g
Total Uranium Tpu	4.8186E-08	ug/g
Total Uranium Mda	3.2907E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 09:48:09.55

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689013.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 12-DEC-2007 12:38:21
Sample ID        : G198689013           Sample quantity  : 9.50300E+01 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.71  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.58*	45	437	0.97	92.60	89	7	3.16E-03	95.4	
2	0	53.13*	29	595	1.00	105.72	102	9	2.02E-03	162.5	
3	0	63.40*	110	736	0.93	126.28	121	9	7.65E-03	55.4	
4	0	66.94	57	429	1.48	133.36	131	6	3.97E-03	59.2	
5	4	75.01	328	547	0.92	149.51	146	12	2.27E-02	12.4	1.34E+00
6	4	77.21*	516	436	0.84	153.91	146	12	3.59E-02	8.1	
7	9	84.26*	111	404	1.69	168.04	165	13	7.69E-03	34.5	1.23E+00
8	9	87.31	217	420	1.05	174.15	165	13	1.51E-02	16.4	
9	2	90.12	107	384	0.86	179.76	177	12	7.42E-03	29.0	2.95E+00
10	2	92.71*	50	468	1.03	184.94	177	12	3.47E-03	102.7	
11	0	99.12*	60	495	1.95	197.78	194	9	4.15E-03	73.5	
12	0	129.18	69	288	0.92	257.96	255	6	4.82E-03	40.5	
13	0	143.63*	11	422	0.79	286.88	283	8	7.66E-04	361.3	
14	0	163.45*	34	408	1.50	326.55	323	9	2.39E-03	117.0	
15	2	185.82*	166	234	1.08	371.33	365	14	1.15E-02	23.4	8.12E-01
16	0	198.87*	25	330	1.17	397.45	394	8	1.72E-03	139.9	
17	0	205.51*	39	317	1.42	410.75	407	8	2.68E-03	89.5	
18	0	209.06	71	330	1.38	417.86	415	8	4.91E-03	46.1	
19	2	238.63*	680	212	1.01	477.03	472	16	4.72E-02	5.7	1.56E+00
20	2	240.84	83	234	1.14	481.46	472	16	5.79E-03	38.9	
21	2	242.01	129	232	1.20	483.80	472	16	8.97E-03	22.5	
22	0	269.69	100	331	1.40	539.21	534	11	6.96E-03	36.5	
23	0	295.24*	215	345	1.16	590.34	584	12	1.49E-02	19.6	
24	0	299.40	40	279	2.03	598.67	596	9	2.78E-03	76.9	
25	0	328.76	71	273	2.69	657.43	652	10	4.96E-03	45.3	
26	0	338.24*	107	225	1.09	676.40	671	10	7.45E-03	32.1	
27	0	351.75*	344	274	1.17	703.45	699	10	2.39E-02	11.1	
28	0	416.38	24	153	0.92	832.81	827	9	1.67E-03	95.9	
29	0	462.92*	23	149	1.82	925.95	922	9	1.58E-03	106.3	
30	0	510.75*	60	256	2.03	1021.67	1014	16	4.15E-03	78.9	
31	0	582.87*	212	207	1.48	1165.99	1158	14	1.47E-02	16.9	
32	0	609.13*	295	139	1.22	1218.55	1214	9	2.05E-02	10.2	
33	0	661.25	82	134	2.33	1322.84	1317	13	5.68E-03	31.1	
34	0	668.60	22	137	1.61	1337.55	1332	12	1.50E-03	111.0	
35	0	726.33	50	177	4.22	1453.07	1446	16	3.48E-03	60.9	
36	0	824.26	15	58	2.33	1649.02	1644	8	1.07E-03	88.6	
37	0	861.88	23	55	0.64	1724.30	1720	8	1.59E-03	62.7	
38	6	899.62	18	45	1.70	1799.81	1797	18	1.28E-03	59.7	1.12E+00

Sample ID : G198689013 Acquisition date : 12-DEC-2007 12:38:21

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	6	904.33	31	82	3.24	1809.24	1797	18	2.14E-03	64.9	
40	0	911.06*	88	84	1.42	1822.69	1818	11	6.12E-03	26.5	
41	0	958.85	49	79	5.61	1918.30	1910	15	3.41E-03	41.9	
42	0	968.90*	75	97	1.53	1938.42	1932	13	5.18E-03	33.3	
43	0	1001.68*	53	57	1.11	2004.01	1998	14	3.70E-03	37.3	
44	0	1098.15	25	64	1.56	2197.00	2192	12	1.71E-03	67.7	
45	0	1119.44*	87	72	1.56	2239.60	2232	16	6.04E-03	26.3	
46	0	1142.68	21	61	3.55	2286.09	2276	13	1.43E-03	81.7	
47	0	1199.11	35	63	5.26	2398.97	2392	15	2.41E-03	53.0	
48	0	1237.16*	33	66	1.38	2475.08	2468	15	2.31E-03	57.8	
49	0	1304.43	27	16	2.74	2609.65	2605	10	1.89E-03	32.9	
50	0	1309.22	29	13	2.44	2619.22	2615	9	2.03E-03	29.1	
51	0	1400.66	14	19	0.63	2802.13	2796	11	9.74E-04	66.1	
52	0	1460.04*	342	55	1.77	2920.91	2911	20	2.37E-02	8.0	
53	0	1591.33	36	59	6.72	3183.49	3169	26	2.53E-03	59.9	
54	0	1642.36	13	6	1.46	3285.55	3281	9	8.68E-04	46.1	
55	0	1663.76	8	17	1.33	3328.33	3319	11	5.62E-04	109.0	
56	0	1728.21	42	4	2.42	3457.22	3448	16	2.89E-03	18.9	
57	0	1741.32	9	17	3.57	3483.45	3474	13	6.22E-04	105.5	
58	0	1764.78	50	48	0.73	3530.36	3520	20	3.50E-03	37.0	
59	0	1827.61	22	0	5.10	3656.00	3649	13	1.53E-03	21.3	
60	0	1916.38	10	14	0.50	3833.50	3825	14	6.94E-04	85.4	
61	0	1955.34	12	2	0.79	3911.41	3906	12	8.09E-04	41.2	
62	0	2019.38	14	9	1.29	4039.45	4031	14	9.50E-04	56.5	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689013       *
* Acquisition date : 12-DEC-2007 12:38:21 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.71     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689013           Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 9.5030E+01 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.968E+00	9.890E-01	5.086E-01	0.000E+00
RH-101	1.271E-02	3.486E-02	4.082E-02	0.000E+00
CS-137	9.229E-02	5.681E-02	5.914E-02	0.000E+00
TL-208	2.145E-01	7.275E-02	5.919E-02	0.000E+00
BI-212	4.414E-01	5.275E-01	4.560E-01	0.000E+00
PB-212	6.427E-01	8.322E-02	6.878E-02	0.000E+00
BI-214	5.690E-01	1.207E-01	1.104E-01	0.000E+00
PB-214	5.059E-01	1.134E-01	1.089E-01	0.000E+00
RA-223	3.277E-01	2.352E-01	2.230E-01	0.000E+00
AC-228	4.315E-01	2.253E-01	2.084E-01	0.000E+00
PA-234M	8.673E+00	6.363E+00	6.285E+00	0.000E+00
TH-234	2.429E-01	4.893E-01	4.350E-01	0.000E+00
U-235	3.048E-02	2.159E-01	2.302E-01	0.000E+00
NP-236	4.184E-02	6.035E-02	5.842E-02	0.000E+00
NP-237	4.552E-01	1.503E-01	1.971E-01	0.000E+00
AM-243	1.233E-01	3.154E-02	3.672E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	4.415E-02	3.941E-02	7.059E-02	0.000E+00	NOT IDENT.
SB-125	2.131E-02	8.024E-02	1.340E-01	0.000E+00	NOT IDENT.
EU-155	9.059E-03	6.340E-02	1.090E-01	0.000E+00	NOT IDENT.
PO-209	1.035E+00	7.996E+00	1.133E+01	0.000E+00	NOT IDENT.
BI-211	-1.276E+00	9.937E-01	1.458E+00	0.000E+00	NOT IDENT.
PA-233	-3.933E-03	5.252E-02	8.851E-02	0.000E+00	NOT IDENT.
NP-239	1.424E-02	1.736E-01	2.813E-01	0.000E+00	NOT IDENT.
AM-241	3.693E-03	4.271E-02	6.337E-02	0.000E+00	NOT IDENT.
CM-243	-4.414E-02	6.420E-02	9.555E-02	0.000E+00	NOT IDENT.
AM-246	-3.966E-02	1.361E-01	2.220E-01	0.000E+00	NOT IDENT.
CF-249	-3.873E-04	3.500E-02	5.806E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 09:48:10.48

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689013.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 12-DEC-2007 12:38:21
Sample ID        : G198689013           Sample quantity  : 9.50300E+01 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.71  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	342	10.66*	1.061E+00	5.968E+00	5.968E+00	16.91
RH-101	198.00	25	73.00*	5.454E+00	1.231E-02	1.271E-02	279.85
CS-137	661.66	82	85.10*	2.064E+00	9.196E-02	9.229E-02	62.81
TL-208	277.36	------	6.31	4.315E+00	------	Line Not Found	------
	510.77	60	22.60	2.591E+00	2.018E-01	2.018E-01	157.88
	583.19	212	84.50*	2.307E+00	2.145E-01	2.145E-01	34.61
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	23	12.42	1.640E+00	2.219E-01	2.219E-01	125.61
BI-212	727.33	50	11.80*	1.902E+00	4.414E-01	4.414E-01	121.95
	785.37	------	1.10	1.777E+00	------	Line Not Found	------
	1620.50	------	1.49	9.772E-01	------	Line Not Found	------
PB-212	74.81	328	10.40	7.693E+00	8.086E-01	8.086E-01	26.10
	77.11	516	17.50	7.683E+00	7.584E-01	7.584E-01	17.93
	87.30	217	7.81	7.592E+00	7.227E-01	7.227E-01	33.69
	238.63	680	43.30*	4.823E+00	6.427E-01	6.427E-01	13.21
	300.09	40	3.28	4.066E+00	5.924E-01	5.924E-01	153.94
BI-214	609.31	295	46.10*	2.219E+00	5.690E-01	5.690E-01	21.65
	768.36	------	4.94	1.811E+00	------	Line Not Found	------
	806.17	------	1.22	1.737E+00	------	Line Not Found	------
	934.06	------	3.03	1.531E+00	------	Line Not Found	------
	1120.29	87	15.10	1.315E+00	8.643E-01	8.644E-01	52.97
	1155.19	------	1.63	1.282E+00	------	Line Not Found	------
	1238.11	33	5.79	1.212E+00	9.363E-01	9.363E-01	115.66
	1280.96	------	1.43	1.178E+00	------	Line Not Found	------
	1377.67	------	4.00	1.111E+00	------	Line Not Found	------
	1401.50	14	1.27	1.097E+00	1.990E+00	1.990E+00	132.26
	1407.98	------	2.15	1.092E+00	------	Line Not Found	------
	1509.23	------	2.11	1.033E+00	------	Line Not Found	------
	1729.60	42	2.92	9.292E-01	3.031E+00	3.031E+00	38.24
	1764.49	50	15.40	9.142E-01	7.069E-01	7.069E-01	74.26
PB-214	74.81	328	6.44	7.693E+00	1.306E+00	1.306E+00	26.10
	77.11	516	10.80	7.683E+00	1.229E+00	1.229E+00	17.93

Sample ID : G198689013 Acquisition date : 12-DEC-2007 12:38:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	217	4.84	7.592E+00	1.166E+00	1.166E+00	33.69
	242.00	129	7.43	4.775E+00	7.189E-01	7.190E-01	45.49
	295.22	215	19.30	4.111E+00	5.356E-01	5.356E-01	39.49
	351.93	344	37.60*	3.568E+00	5.058E-01	5.059E-01	22.88
RA-223	269.46	100	13.70*	4.408E+00	3.277E-01	3.277E-01	73.25
AC-228	129.07	69	2.42	6.829E+00	8.297E-01	8.297E-01	81.51
	209.25	71	3.89	5.281E+00	6.797E-01	6.797E-01	92.44
	270.25	100	3.46	4.408E+00	1.298E+00	1.298E+00	73.25
	338.32	107	11.27	3.685E+00	5.103E-01	5.103E-01	64.35
	409.46	------	1.92	3.139E+00	------	Line Not Found	------
	463.00	23	4.40	2.823E+00	3.606E-01	3.606E-01	212.59
	794.95	------	4.25	1.758E+00	------	Line Not Found	------
	911.20	88	25.80*	1.564E+00	4.315E-01	4.315E-01	53.28
	964.77	------	4.99	1.490E+00	------	Line Not Found	------
	968.97	75	15.80	1.484E+00	6.282E-01	6.282E-01	66.84
	1588.20	------	3.22	9.927E-01	------	Line Not Found	------
PA-234M	1001.03	53	0.84*	1.443E+00	8.673E+00	8.673E+00	74.87
TH-234	63.29	110	4.80	7.666E+00	5.914E-01	5.914E-01	111.08
	92.58	50	5.41*	7.519E+00	2.429E-01	2.429E-01	205.53
U-235	143.76	11	10.96*	6.525E+00	3.048E-02	3.048E-02	722.74
NP-236	98.44	60	38.00*	7.418E+00	4.184E-02	4.184E-02	147.16
NP-237	86.48	217	12.40*	7.592E+00	4.552E-01	4.552E-01	33.69
AM-243	74.66	328	68.20*	7.693E+00	1.233E-01	1.233E-01	26.10

Flag: "*" = Keyline

Sample ID : G198689013 Acquisition date : 12-DEC-2007 12:38:21

Total number of lines in spectrum 62
Number of unidentified lines 29
Number of lines tentatively identified by NID 33 53.23%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	5.968E+00	5.968E+00	1.009E+00	16.91	
RH-101	1.04E+08S	1.03	1.231E-02	1.271E-02	3.557E-02	279.85	
CS-137	9.47E+08S	1.00	9.196E-02	9.229E-02	5.796E-02	62.81	
TL-208	4.43E+17S	1.00	2.145E-01	2.145E-01	0.742E-01	34.61	
BI-212	4.43E+17S	1.00	4.414E-01	4.414E-01	5.382E-01	121.95	
PB-212	4.43E+17S	1.00	6.427E-01	6.427E-01	0.849E-01	13.21	
BI-214	5.05E+10S	1.00	5.690E-01	5.690E-01	1.232E-01	21.65	
PB-214	5.05E+10S	1.00	5.058E-01	5.059E-01	1.157E-01	22.88	
RA-223	1.04E+12S	1.00	3.277E-01	3.277E-01	2.400E-01	73.25	
AC-228	4.43E+17S	1.00	4.315E-01	4.315E-01	2.299E-01	53.28	
PA-234M	1.41E+17S	1.00	8.673E+00	8.673E+00	6.493E+00	74.87	
TH-234	1.41E+17S	1.00	2.429E-01	2.429E-01	4.993E-01	205.53	
U-235	2.22E+16S	1.00	3.048E-02	3.048E-02	22.03E-02	722.74	
NP-236	4.89E+12S	1.00	4.184E-02	4.184E-02	6.158E-02	147.16	
NP-237	6.75E+13S	1.00	4.552E-01	4.552E-01	1.533E-01	33.69	
AM-243	2.33E+11S	1.00	1.233E-01	1.233E-01	0.322E-01	26.10	
			---	---			
	Total Activity :		1.877E+01	1.877E+01			

Grand Total Activity : 1.877E+01 1.877E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689013 Acquisition date : 12-DEC-2007 12:38:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.58	45	437	0.97	92.60	89	7	3.16E-03	****	7.26E+00	
0	53.13	29	595	1.00	105.72	102	9	2.02E-03	****	7.49E+00	
0	66.94	57	429	1.48	133.36	131	6	3.97E-03	****	7.69E+00	
9	84.26	111	404	1.69	168.04	165	13	7.69E-03	69.1	7.63E+00	
2	90.12	107	384	0.86	179.76	177	12	7.42E-03	58.0	7.56E+00	
0	163.45	34	408	1.50	326.55	323	9	2.39E-03	****	6.12E+00	
2	185.82	166	234	1.08	371.33	365	14	1.15E-02	46.8	5.69E+00	
0	205.51	39	317	1.42	410.75	407	8	2.68E-03	****	5.34E+00	
2	240.84	83	234	1.14	481.46	472	16	5.79E-03	77.7	4.79E+00	
0	328.76	71	273	2.69	657.43	652	10	4.96E-03	90.6	3.77E+00	
0	416.38	24	153	0.92	832.81	827	9	1.67E-03	****	3.09E+00	
0	668.60	22	137	1.61	1337.55	1332	12	1.50E-03	****	2.04E+00	
0	824.26	15	58	2.33	1649.02	1644	8	1.07E-03	****	1.70E+00	
6	899.62	18	45	1.70	1799.81	1797	18	1.28E-03	****	1.58E+00	
6	904.33	31	82	3.24	1809.24	1797	18	2.14E-03	****	1.57E+00	
0	958.85	49	79	5.61	1918.30	1910	15	3.41E-03	83.8	1.50E+00	
0	1098.15	25	64	1.56	2197.00	2192	12	1.71E-03	****	1.34E+00	
0	1142.68	21	61	3.55	2286.09	2276	13	1.43E-03	****	1.29E+00	
0	1199.11	35	63	5.26	2398.97	2392	15	2.41E-03	****	1.24E+00	
0	1304.43	27	16	2.74	2609.65	2605	10	1.89E-03	65.8	1.16E+00	
0	1309.22	29	13	2.44	2619.22	2615	9	2.03E-03	58.2	1.16E+00	
0	1591.33	36	59	6.72	3183.49	3169	26	2.53E-03	****	9.91E-01	
0	1642.36	13	6	1.46	3285.55	3281	9	8.68E-04	92.2	9.67E-01	
0	1663.76	8	17	1.33	3328.33	3319	11	5.62E-04	****	9.57E-01	
0	1741.32	9	17	3.57	3483.45	3474	13	6.22E-04	****	9.24E-01	
0	1827.61	22	0	5.10	3656.00	3649	13	1.53E-03	42.6	8.90E-01	
0	1916.38	10	14	0.50	3833.50	3825	14	6.94E-04	****	8.58E-01	
0	1955.34	12	2	0.79	3911.41	3906	12	8.09E-04	82.4	8.44E-01	
0	2019.38	14	9	1.29	4039.45	4031	14	9.50E-04	****	8.23E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689013            *
* Acquisition date : 12-DEC-2007 12:38:21 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.71     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689013           Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 9.5030E+01 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 15:48:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.968E+00	9.890E-01	2.544E-01	9.890E-01
RH-101	1.271E-02	3.486E-02	2.042E-02	3.486E-02
CS-137	9.229E-02	5.681E-02	2.959E-02	5.681E-02
TL-208	2.145E-01	7.275E-02	2.961E-02	7.275E-02
BI-212	4.414E-01	5.275E-01	2.281E-01	5.275E-01
PB-212	6.427E-01	8.322E-02	3.441E-02	8.322E-02
BI-214	5.690E-01	1.207E-01	5.522E-02	1.207E-01
PB-214	5.059E-01	1.134E-01	5.447E-02	1.134E-01
RA-223	3.277E-01	2.352E-01	1.115E-01	2.352E-01
AC-228	4.315E-01	2.253E-01	1.043E-01	2.253E-01
PA-234M	8.673E+00	6.363E+00	3.145E+00	6.363E+00
TH-234	2.429E-01	4.893E-01	2.176E-01	4.893E-01
U-235	3.048E-02	2.159E-01	1.152E-01	2.159E-01
NP-236	4.184E-02	6.035E-02	2.923E-02	6.035E-02
NP-237	4.552E-01	1.503E-01	9.861E-02	1.503E-01
AM-243	1.233E-01	3.154E-02	1.837E-02	3.154E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	4.415E-02	3.941E-02	3.531E-02	3.941E-02	NOT IDENT.
SB-125	2.131E-02	8.024E-02	6.702E-02	8.024E-02	NOT IDENT.
EU-155	9.059E-03	6.340E-02	5.453E-02	6.340E-02	NOT IDENT.
PO-209	1.035E+00	7.996E+00	5.671E+00	7.996E+00	NOT IDENT.
BI-211	-1.276E+00	9.937E-01	7.292E-01	9.937E-01	NOT IDENT.
PA-233	-3.933E-03	5.252E-02	4.428E-02	5.252E-02	NOT IDENT.
NP-239	1.424E-02	1.736E-01	1.407E-01	1.736E-01	NOT IDENT.
AM-241	3.693E-03	4.271E-02	3.170E-02	4.271E-02	NOT IDENT.
CM-243	-4.414E-02	6.420E-02	4.780E-02	6.420E-02	NOT IDENT.
AM-246	-3.966E-02	1.361E-01	1.111E-01	1.361E-01	NOT IDENT.
CF-249	-3.873E-04	3.500E-02	2.905E-02	3.500E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	357.8400
63.29	388.0253
74.66	448.8824
74.81	449.1111
74.81	449.1111
77.11	452.6115
77.11	452.6115
86.48	417.2021
87.30	418.2451
87.30	418.2451
92.58	378.6440
98.44	328.8697
103.76	349.5374
105.31	323.4964
129.07	304.1752
143.76	327.4822
198.00	301.2745
209.25	291.9129
228.18	270.5046
238.63	249.5097
242.00	250.6533
269.46	219.5505
270.25	219.7662
277.36	230.6119
295.22	201.5386
300.09	220.2795
312.17	221.3891
338.32	209.4094
351.93	257.8417
387.59	192.4951
409.46	157.7135
427.87	153.6751
463.00	164.4991
510.77	170.4772
583.19	160.8951
609.31	154.0939
661.66	129.5552
727.33	126.3611
763.13	131.8000
768.36	136.2765
785.37	113.4840
794.95	118.2031
806.17	102.0158
831.80	116.0374
860.56	93.8500
896.60	82.2125
911.20	85.4941
934.06	91.9001
964.77	50.7700
968.97	92.2957
1001.03	70.3234
1078.86	92.3859
1120.29	76.8277
1155.19	78.7903
1173.23	65.0521
1238.11	85.4766
1280.96	71.6191
1332.51	48.1622
1377.67	40.9170
1401.50	52.4434
1407.98	38.0922
1460.80	40.0063
1509.23	44.4085
1588.20	24.6486
1620.50	42.7510
1729.60	16.3443
1764.49	23.6915

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689013

Total Uranium Activity	1.4104E-02	ug/g
Total Uranium Counting Unc.	9.9899E-02	ug/g
Total Uranium Tpu	9.9899E-08	ug/g
Total Uranium Mda	5.3297E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 09:48:46.52

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689014.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 12-DEC-2007 12:38:43
Sample ID        : G198689014           Sample quantity  : 1.00010E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:00.72  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.90*	27	242	1.07	93.77	90	8	1.88E-03	121.1	
2	0	63.63*	70	353	0.89	127.20	123	8	4.86E-03	53.2	
3	3	74.91*	276	326	1.29	149.72	144	22	1.92E-02	13.6	2.85E+00
4	3	77.20*	390	225	1.07	154.29	144	22	2.71E-02	8.7	
5	3	81.04	76	303	1.50	161.97	144	22	5.25E-03	44.6	
6	2	84.16*	54	179	1.18	168.20	166	13	3.72E-03	48.9	1.53E+00
7	2	87.33*	163	343	1.37	174.53	166	13	1.13E-02	21.4	
8	0	93.03*	192	420	1.44	185.92	182	12	1.33E-02	25.7	
9	0	120.44	89	253	2.84	240.68	236	10	6.15E-03	35.5	
10	0	143.87*	1	308	0.74	287.47	282	10	5.96E-05	****	
11	0	185.88*	125	370	1.16	371.40	366	12	8.68E-03	35.9	
12	0	209.14	87	291	1.19	417.88	414	11	6.04E-03	39.4	
13	0	220.30	40	186	0.86	440.16	436	8	2.79E-03	60.8	
14	5	238.60*	586	132	1.14	476.74	470	20	4.07E-02	6.0	1.32E+00
15	5	241.79	213	208	2.11	483.12	470	20	1.48E-02	19.0	
16	0	270.10	88	236	2.45	539.67	535	12	6.12E-03	36.5	
17	1	295.18*	241	149	1.49	589.80	585	27	1.67E-02	12.0	2.15E+00
18	1	300.26	72	135	1.45	599.95	585	27	5.01E-03	31.8	
19	0	328.21	45	127	1.18	655.79	652	9	3.13E-03	47.4	
20	0	338.15	123	142	0.89	675.65	671	10	8.52E-03	20.3	
21	0	351.98*	352	143	1.37	703.29	699	12	2.44E-02	9.3	
22	0	401.90	25	112	1.10	803.06	798	10	1.75E-03	81.0	
23	0	408.93	35	146	1.24	817.10	810	13	2.42E-03	73.4	
24	0	426.44	23	71	1.73	852.11	848	7	1.63E-03	63.3	
25	0	457.86	43	90	1.44	914.91	909	12	2.99E-03	46.7	
26	0	463.14	47	63	2.41	925.46	921	9	3.29E-03	33.5	
27	0	511.32*	73	121	1.98	1021.76	1014	18	5.09E-03	50.0	
28	1	583.32*	188	35	1.69	1165.69	1158	25	1.30E-02	11.0	1.52E+00
29	1	589.32	27	35	1.69	1177.69	1158	25	1.90E-03	46.0	
30	0	609.50*	255	79	0.90	1218.03	1210	16	1.77E-02	11.0	
31	0	614.90	28	35	1.56	1228.84	1225	9	1.91E-03	42.8	
32	0	630.15	17	55	1.37	1259.31	1254	10	1.15E-03	88.9	
33	0	661.91	256	69	1.46	1322.82	1316	15	1.78E-02	9.4	
34	0	727.61*	38	43	1.93	1454.19	1450	9	2.64E-03	40.2	
35	0	769.29	22	42	1.72	1537.54	1532	10	1.52E-03	59.6	
36	0	827.16	20	36	3.87	1653.27	1647	12	1.37E-03	64.9	
37	0	861.91*	25	39	0.98	1722.77	1716	13	1.74E-03	60.2	
38	0	911.68*	82	71	1.61	1822.32	1816	15	5.73E-03	25.9	

Sample ID : G198689014 Acquisition date : 12-DEC-2007 12:38:43

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	953.61	28	17	1.10	1906.19	1901	10	1.97E-03	33.2	
40	1	964.91	34	42	1.89	1928.80	1920	30	2.33E-03	38.0	1.11E+00
41	1	969.56	87	29	1.89	1938.10	1920	30	6.03E-03	16.9	
42	0	1004.88	31	68	11.79	2008.76	1995	27	2.12E-03	77.0	
43	0	1057.73	30	80	12.15	2114.48	2094	27	2.10E-03	84.8	
44	0	1075.53	10	29	0.54	2150.10	2144	10	6.68E-04	111.0	
45	0	1120.77*	53	39	1.27	2240.62	2234	14	3.65E-03	30.3	
46	0	1175.32	48	37	9.45	2349.77	2335	26	3.33E-03	38.4	
47	0	1252.04	19	21	1.46	2503.31	2499	9	1.35E-03	47.5	
48	0	1318.06	14	21	2.91	2635.46	2627	12	9.74E-04	70.6	
49	0	1379.41	13	35	1.02	2758.27	2753	14	9.03E-04	100.4	
50	0	1408.65	13	11	2.48	2816.80	2810	11	8.68E-04	58.4	
51	0	1461.30*	237	18	1.74	2922.20	2914	14	1.65E-02	8.0	
52	0	1539.46	8	12	1.84	3078.70	3072	10	5.24E-04	94.8	
53	0	1620.13	11	7	1.32	3240.24	3235	10	7.54E-04	55.8	
54	0	1630.61	15	4	1.44	3261.22	3257	8	1.06E-03	34.0	
55	0	1658.77	6	8	0.90	3317.61	3311	9	4.37E-04	93.1	
56	0	1667.35	6	4	1.31	3334.80	3331	6	3.92E-04	72.4	
57	0	1730.42	23	11	0.98	3461.12	3455	12	1.58E-03	36.8	
58	0	1765.00*	59	7	1.74	3530.39	3524	13	4.13E-03	18.1	
59	0	1769.78	13	1	1.60	3539.96	3537	7	8.75E-04	32.8	
60	0	1847.66	14	8	1.01	3695.99	3690	10	1.01E-03	44.1	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689014       *
* Acquisition date : 12-DEC-2007 12:38:43 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:00.72     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689014           Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.0001E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-SEP-2007 16:22:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.250E+00	5.744E-01	2.459E-01	0.000E+00
SB-125	4.159E-02	5.162E-02	8.388E-02	0.000E+00
CS-137	2.198E-01	4.300E-02	3.076E-02	0.000E+00
TL-208	1.451E-01	3.247E-02	2.739E-02	0.000E+00
BI-212	2.545E-01	2.012E-01	2.518E-01	0.000E+00
PB-212	4.541E-01	5.912E-02	4.699E-02	0.000E+00
BI-214	3.753E-01	8.410E-02	5.970E-02	0.000E+00
PB-214	4.128E-01	7.856E-02	6.124E-02	0.000E+00
RA-223	2.351E-01	1.687E-01	1.640E-01	0.000E+00
AC-228	3.090E-01	1.596E-01	1.218E-01	0.000E+00
TH-234	8.912E-01	4.578E-01	3.811E-01	0.000E+00
U-235	1.986E-03	1.640E-01	1.577E-01	0.000E+00
NP-237	3.433E-01	1.494E-01	1.896E-01	0.000E+00
AM-243	1.217E-01	3.495E-02	3.520E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.316E-02		1.950E-02	3.454E-02	0.000E+00	NOT IDENT.
RH-101	-1.963E-03		1.984E-02	3.128E-02	0.000E+00	NOT IDENT.
EU-155	1.023E-02		4.868E-02	8.484E-02	0.000E+00	NOT IDENT.
PO-209	1.076E+00		3.741E+00	6.398E+00	0.000E+00	NOT IDENT.
BI-211	-4.565E-01		6.758E-01	8.877E-01	0.000E+00	NOT IDENT.
PA-233	-1.309E-02		3.555E-02	5.775E-02	0.000E+00	NOT IDENT.
PA-234M	-2.300E+00		2.599E+00	3.589E+00	0.000E+00	NOT IDENT.
NP-236	-5.070E-03		3.299E-02	4.476E-02	0.000E+00	NOT IDENT.
NP-239	-2.911E-02		1.197E-01	1.991E-01	0.000E+00	NOT IDENT.
AM-241	4.309E-02		6.612E-02	9.975E-02	0.000E+00	NOT IDENT.
CM-243	-2.816E-03		4.284E-02	7.387E-02	0.000E+00	NOT IDENT.
AM-246	1.940E-02		7.828E-02	1.156E-01	0.000E+00	NOT IDENT.
CF-249	-5.071E-03		2.269E-02	3.675E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 09:48:47.46

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198689014.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 12-DEC-2007 12:38:43
Sample ID        : G198689014           Sample quantity  : 1.00010E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:00.72  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	237	10.66*	1.286E+00	3.250E+00	3.250E+00	18.03
SB-125	427.87	23	29.80*	3.686E+00	4.002E-02	4.159E-02	126.64
CS-137	661.66	256	85.10*	2.582E+00	2.191E-01	2.198E-01	19.96
TL-208	277.36	------	6.31	5.045E+00	------	Line Not Found	------
	510.77	73	22.60	3.198E+00	1.902E-01	1.902E-01	100.23
	583.19	188	84.50*	2.873E+00	1.451E-01	1.451E-01	22.84
	763.13	------	1.81	2.279E+00	------	Line Not Found	------
	860.56	25	12.42	2.043E+00	1.851E-01	1.851E-01	120.67
BI-212	727.33	38	11.80*	2.378E+00	2.545E-01	2.545E-01	80.67
	785.37	------	1.10	2.222E+00	------	Line Not Found	------
	1620.50	11	1.49	1.196E+00	1.144E+00	1.144E+00	111.89
PB-212	74.81	276	10.40	6.236E+00	7.980E-01	7.980E-01	29.31
	77.11	390	17.50	6.461E+00	6.477E-01	6.477E-01	20.57
	87.30	163	7.81	7.201E+00	5.451E-01	5.451E-01	44.41
	238.63	586	43.30*	5.590E+00	4.541E-01	4.541E-01	13.28
	300.09	72	3.28	4.771E+00	8.645E-01	8.645E-01	63.80
BI-214	609.31	255	46.10*	2.769E+00	3.753E-01	3.753E-01	22.87
	768.36	22	4.94	2.263E+00	3.673E-01	3.674E-01	119.52
	806.17	------	1.22	2.170E+00	------	Line Not Found	------
	934.06	------	3.03	1.899E+00	------	Line Not Found	------
	1120.29	53	15.10	1.608E+00	4.066E-01	4.066E-01	61.02
	1155.19	------	1.63	1.566E+00	------	Line Not Found	------
	1238.11	------	5.79	1.473E+00	------	Line Not Found	------
	1280.96	------	1.43	1.431E+00	------	Line Not Found	------
	1377.67	13	4.00	1.346E+00	4.533E-01	4.533E-01	201.07
	1401.50	------	1.27	1.329E+00	------	Line Not Found	------
	1407.98	13	2.15	1.323E+00	8.246E-01	8.246E-01	117.07
	1509.23	------	2.11	1.256E+00	------	Line Not Found	------
	1729.60	23	2.92	1.149E+00	1.274E+00	1.274E+00	73.83
	1764.49	59	15.40	1.136E+00	6.373E-01	6.373E-01	36.88
PB-214	74.81	276	6.44	6.236E+00	1.289E+00	1.289E+00	29.31
	77.11	390	10.80	6.461E+00	1.049E+00	1.050E+00	20.57

Sample ID : G198689014 Acquisition date : 12-DEC-2007 12:38:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	163	4.84	7.201E+00	8.795E-01	8.796E-01	44.41
	242.00	213	7.43	5.541E+00	9.691E-01	9.692E-01	38.47
	295.22	241	19.30	4.829E+00	4.844E-01	4.845E-01	24.77
	351.93	352	37.60*	4.255E+00	4.128E-01	4.128E-01	19.42
RA-223	269.46	88	13.70*	5.139E+00	2.351E-01	2.351E-01	73.23
AC-228	129.07	------	2.42	7.644E+00	------	Line Not Found	------
	209.25	87	3.89	6.088E+00	6.891E-01	6.891E-01	78.94
	270.25	88	3.46	5.139E+00	9.307E-01	9.307E-01	73.23
	338.32	123	11.27	4.381E+00	4.665E-01	4.665E-01	41.02
	409.46	35	1.92	3.805E+00	8.969E-01	8.969E-01	146.84
	463.00	47	4.40	3.458E+00	5.847E-01	5.847E-01	67.16
	794.95	------	4.25	2.198E+00	------	Line Not Found	------
	911.20	82	25.80*	1.941E+00	3.090E-01	3.090E-01	52.70
	964.77	34	4.99	1.843E+00	6.844E-01	6.844E-01	76.58
	968.97	87	15.80	1.835E+00	5.621E-01	5.620E-01	34.86
	1588.20	------	3.22	1.211E+00	------	Line Not Found	------
TH-234	63.29	70	4.80	4.780E+00	5.725E-01	5.725E-01	107.05
	92.58	192	5.41*	7.460E+00	8.912E-01	8.912E-01	52.42
U-235	143.76	1	10.96*	7.396E+00	1.986E-03	1.986E-03	8426.04
NP-237	86.48	163	12.40*	7.201E+00	3.433E-01	3.433E-01	44.41
AM-243	74.66	276	68.20*	6.236E+00	1.217E-01	1.217E-01	29.31

Flag: "*" = Keyline

Sample ID : G198689014 Acquisition date : 12-DEC-2007 12:38:43

Total number of lines in spectrum 60
Number of unidentified lines 26
Number of lines tentatively identified by NID 34 56.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	3.250E+00	3.250E+00	0.586E+00	18.03	
SB-125	8.62E+07S	1.04	4.002E-02	4.159E-02	5.268E-02	126.64	
CS-137	9.47E+08S	1.00	2.191E-01	2.198E-01	0.439E-01	19.96	
TL-208	4.43E+17S	1.00	1.451E-01	1.451E-01	0.331E-01	22.84	
BI-212	4.43E+17S	1.00	2.545E-01	2.545E-01	2.053E-01	80.67	
PB-212	4.43E+17S	1.00	4.541E-01	4.541E-01	0.603E-01	13.28	
BI-214	5.05E+10S	1.00	3.753E-01	3.753E-01	0.858E-01	22.87	
PB-214	5.05E+10S	1.00	4.128E-01	4.128E-01	0.802E-01	19.42	
RA-223	1.04E+12S	1.00	2.351E-01	2.351E-01	1.721E-01	73.23	
AC-228	4.43E+17S	1.00	3.090E-01	3.090E-01	1.629E-01	52.70	
TH-234	1.41E+17S	1.00	8.912E-01	8.912E-01	4.671E-01	52.42	
U-235	2.22E+16S	1.00	1.986E-03	1.986E-03	167.4E-03	8426.04	
NP-237	6.75E+13S	1.00	3.433E-01	3.433E-01	1.525E-01	44.41	
AM-243	2.33E+11S	1.00	1.217E-01	1.217E-01	0.357E-01	29.31	
			---	---			
	Total Activity :		7.053E+00	7.055E+00			

Grand Total Activity : 7.053E+00 7.055E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G198689014 Acquisition date : 12-DEC-2007 12:38:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.90	27	242	1.07	93.77	90	8	1.88E-03	****	1.88E+00	
3	81.04	76	303	1.50	161.97	144	22	5.25E-03	89.3	6.79E+00	
2	84.16	54	179	1.18	168.20	166	13	3.72E-03	97.7	7.01E+00	
0	120.44	89	253	2.84	240.68	236	10	6.15E-03	70.9	7.74E+00	
0	185.88	125	370	1.16	371.40	366	12	8.68E-03	71.8	6.53E+00	
0	220.30	40	186	0.86	440.16	436	8	2.79E-03	****	5.89E+00	
0	328.21	45	127	1.18	655.79	652	9	3.13E-03	94.7	4.48E+00	
0	401.90	25	112	1.10	803.06	798	10	1.75E-03	****	3.86E+00	
0	457.86	43	90	1.44	914.91	909	12	2.99E-03	93.4	3.49E+00	
1	589.32	27	35	1.69	1177.69	1158	25	1.90E-03	91.9	2.85E+00	
0	614.90	28	35	1.56	1228.84	1225	9	1.91E-03	85.6	2.75E+00	
0	630.15	17	55	1.37	1259.31	1254	10	1.15E-03	****	2.69E+00	
0	827.16	20	36	3.87	1653.27	1647	12	1.37E-03	****	2.12E+00	
0	953.61	28	17	1.10	1906.19	1901	10	1.97E-03	66.4	1.86E+00	
0	1004.88	31	68	11.79	2008.76	1995	27	2.12E-03	****	1.78E+00	
0	1057.73	30	80	12.15	2114.48	2094	27	2.10E-03	****	1.69E+00	
0	1075.53	10	29	0.54	2150.10	2144	10	6.68E-04	****	1.67E+00	
0	1175.32	48	37	9.45	2349.77	2335	26	3.33E-03	76.8	1.54E+00	
0	1252.04	19	21	1.46	2503.31	2499	9	1.35E-03	95.0	1.46E+00	
0	1318.06	14	21	2.91	2635.46	2627	12	9.74E-04	****	1.40E+00	
0	1539.46	8	12	1.84	3078.70	3072	10	5.24E-04	****	1.24E+00	
0	1630.61	15	4	1.44	3261.22	3257	8	1.06E-03	68.1	1.19E+00	
0	1658.77	6	8	0.90	3317.61	3311	9	4.37E-04	****	1.18E+00	
0	1667.35	6	4	1.31	3334.80	3331	6	3.92E-04	****	1.17E+00	
0	1769.78	13	1	1.60	3539.96	3537	7	8.75E-04	65.5	1.13E+00	
0	1847.66	14	8	1.01	3695.99	3690	10	1.01E-03	88.2	1.11E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198689014            *
* Acquisition date : 12-DEC-2007 12:38:43 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:00.72     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198689014           Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.0001E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  7-SEP-2007 16:22:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.250E+00	5.744E-01	1.230E-01	5.744E-01
SB-125	4.159E-02	5.162E-02	4.197E-02	5.162E-02
CS-137	2.198E-01	4.300E-02	1.539E-02	4.300E-02
TL-208	1.451E-01	3.247E-02	1.371E-02	3.247E-02
BI-212	2.545E-01	2.012E-01	1.260E-01	2.012E-01
PB-212	4.541E-01	5.912E-02	2.351E-02	5.912E-02
BI-214	3.753E-01	8.410E-02	2.987E-02	8.410E-02
PB-214	4.128E-01	7.856E-02	3.064E-02	7.856E-02
RA-223	2.351E-01	1.687E-01	8.206E-02	1.687E-01
AC-228	3.090E-01	1.596E-01	6.095E-02	1.596E-01
TH-234	8.912E-01	4.578E-01	1.907E-01	4.578E-01
U-235	1.986E-03	1.640E-01	7.891E-02	1.640E-01
NP-237	3.433E-01	1.494E-01	9.487E-02	1.494E-01
AM-243	1.217E-01	3.495E-02	1.761E-02	3.495E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.316E-02	1.950E-02	1.728E-02	1.950E-02	NOT IDENT.
RH-101	-1.963E-03	1.984E-02	1.565E-02	1.984E-02	NOT IDENT.
EU-155	1.023E-02	4.868E-02	4.245E-02	4.868E-02	NOT IDENT.
PO-209	1.076E+00	3.741E+00	3.201E+00	3.741E+00	NOT IDENT.
BI-211	-4.565E-01	6.758E-01	4.441E-01	6.758E-01	NOT IDENT.
PA-233	-1.309E-02	3.555E-02	2.889E-02	3.555E-02	NOT IDENT.
PA-234M	-2.300E+00	2.599E+00	1.796E+00	2.599E+00	NOT IDENT.
NP-236	-5.070E-03	3.299E-02	2.239E-02	3.299E-02	NOT IDENT.
NP-239	-2.911E-02	1.197E-01	9.960E-02	1.197E-01	NOT IDENT.
AM-241	4.309E-02	6.612E-02	4.991E-02	6.612E-02	NOT IDENT.
CM-243	-2.816E-03	4.284E-02	3.695E-02	4.284E-02	NOT IDENT.
AM-246	1.940E-02	7.828E-02	5.785E-02	7.828E-02	NOT IDENT.
CF-249	-5.071E-03	2.269E-02	1.839E-02	2.269E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	251.5239
63.29	317.2933
74.66	292.5321
74.81	292.5909
74.81	292.5909
77.11	293.4844
77.11	293.4844
86.48	372.5284
87.30	372.9025
87.30	372.9025
92.58	310.1282
98.44	208.9288
103.76	227.6855
105.31	235.9661
129.07	227.3703
143.76	215.9095
198.00	222.7045
209.25	211.0781
228.18	210.9174
238.63	171.2669
242.00	171.6381
269.46	177.1745
270.25	165.6783
277.36	153.4910
295.22	152.9032
300.09	153.3202
312.17	154.3386
338.32	137.8280
351.93	127.3036
387.59	129.5189
409.46	118.6725
427.87	103.7900
463.00	80.7707
510.77	73.8290
583.19	58.8250
609.31	77.2929
661.66	60.4016
727.33	66.4664
763.13	43.8102
768.36	58.5015
785.37	55.8491
794.95	50.1060
806.17	42.3796
831.80	67.8262
860.56	41.6799
896.60	41.4034
911.20	49.6687
934.06	36.7031
964.77	40.0664
968.97	40.1073
1001.03	39.3833
1078.86	33.4170
1120.29	39.4064
1155.19	27.9018
1173.23	25.8551
1238.11	32.7583
1280.96	28.4520
1332.51	26.8866
1377.67	19.2363
1401.50	12.8817
1407.98	18.8086
1460.80	15.1921
1509.23	22.9854
1588.20	28.1528
1620.50	17.5693
1729.60	8.5153
1764.49	13.6992

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198689014

Total Uranium Activity	9.1911E-04	ug/g
Total Uranium Counting Unc.	7.5895E-02	ug/g
Total Uranium Tpu	7.5895E-08	ug/g
Total Uranium Mda	3.6510E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 09:59:40.96

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473840.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 13-DEC-2007 12:52:26
Sample ID        : G1201473840          Sample quantity  : 1.27910E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.42  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	186.08*	16	134	1.34	370.87	366	9	1.10E-03	160.0	
2	0	192.11	83	151	6.56	382.94	375	16	5.78E-03	35.2	
3	0	239.49*	7	169	3.40	477.58	471	13	5.15E-04	403.5	
4	0	267.47	30	73	1.63	533.47	530	9	2.06E-03	55.0	
5	0	352.20*	33	106	2.43	702.76	695	17	2.30E-03	80.2	
6	0	431.29	20	55	4.48	860.80	852	12	1.39E-03	71.0	
7	0	527.54	30	53	7.25	1053.17	1045	18	2.05E-03	61.1	
8	0	610.92*	35	60	9.41	1219.83	1209	22	2.43E-03	66.5	
9	0	698.81	100	61	14.57	1395.55	1371	40	6.93E-03	27.6	
10	0	709.16	19	32	0.81	1416.24	1412	10	1.33E-03	60.2	
11	0	971.51	8	16	0.57	1940.90	1934	8	5.61E-04	92.6	
12	0	978.11	22	2	1.21	1954.10	1949	11	1.50E-03	26.0	
13	0	1024.70	6	14	1.27	2047.31	2040	9	3.99E-04	129.5	
14	0	1039.98	39	21	11.04	2077.87	2066	27	2.72E-03	35.8	
15	0	1052.94	24	14	4.71	2103.81	2093	19	1.66E-03	43.1	
16	0	1162.24	13	20	6.11	2322.49	2312	16	9.08E-04	81.3	
17	0	1166.13	10	3	0.68	2330.28	2327	7	7.05E-04	43.1	
18	0	1194.37	14	6	0.54	2386.79	2380	12	9.72E-04	44.0	
19	0	1318.02	7	18	2.95	2634.25	2623	15	4.58E-04	147.9	
20	0	1363.91	4	13	0.78	2726.11	2718	10	3.02E-04	159.6	
21	0	1368.15	7	7	0.92	2734.60	2729	9	4.96E-04	81.9	
22	0	1499.87	7	8	0.78	2998.31	2989	12	4.72E-04	95.3	
23	0	1553.40	21	0	5.37	3105.48	3100	14	1.46E-03	21.8	
24	0	1591.55	16	4	1.34	3181.89	3177	10	1.09E-03	36.3	
25	0	1660.92	14	7	2.66	3320.81	3314	13	9.37E-04	47.5	
26	0	1678.58	12	0	2.96	3356.17	3351	11	8.33E-04	28.9	
27	0	1713.83	3	4	1.00	3426.78	3420	8	2.28E-04	117.9	
28	0	1913.04	9	3	1.32	3825.86	3819	12	6.37E-04	50.0	
29	0	1987.46	8	4	0.69	3975.00	3969	10	5.32E-04	64.6	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473840      *
* Acquisition date : 13-DEC-2007 12:52:26 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:24.42     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473840          Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.2791E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
RA-223	7.499E-02	8.096E-02	1.232E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
K-40	-1.514E-01	2.882E-01	4.045E-01	0.000E+00	NOT IDENT.
CO-60	1.167E-02	2.064E-02	3.611E-02	0.000E+00	NOT IDENT.
RH-101	-3.295E-03	1.497E-02	2.003E-02	0.000E+00	NOT IDENT.
SB-125	-2.985E-03	4.848E-02	7.066E-02	0.000E+00	NOT IDENT.
CS-137	-6.439E-04	1.809E-02	3.124E-02	0.000E+00	NOT IDENT.
EU-155	-3.051E-02	2.810E-02	4.453E-02	0.000E+00	NOT IDENT.
TL-208	-5.707E-03	2.080E-02	3.271E-02	0.000E+00	NOT IDENT.
PO-209	1.370E+00	3.986E+00	7.059E+00	0.000E+00	NOT IDENT.
BI-211	1.774E-01	5.365E-01	9.520E-01	0.000E+00	NOT IDENT.
BI-212	1.353E-01	1.345E-01	2.559E-01	0.000E+00	NOT IDENT.
PB-212	5.361E-03	4.240E-02	4.647E-02	0.000E+00	FAIL ABUN
BI-214	6.232E-02	8.136E-02	6.883E-02	0.000E+00	FAIL ABUN
PB-214	4.042E-02	6.357E-02	6.269E-02	0.000E+00	FAIL ABUN
AC-228	-4.585E-03	7.131E-02	1.202E-01	0.000E+00	NOT IDENT.
PA-233	-2.208E-04	2.770E-02	4.782E-02	0.000E+00	NOT IDENT.
PA-234M	-2.283E+00	2.422E+00	3.552E+00	0.000E+00	NOT IDENT.
TH-234	-1.301E-01	1.249E-01	1.824E-01	0.000E+00	NOT IDENT.
U-235	-2.076E-02	6.486E-02	1.074E-01	0.000E+00	NOT IDENT.
NP-236	-1.511E-02	1.523E-02	2.439E-02	0.000E+00	NOT IDENT.
NP-237	-2.576E-02	4.457E-02	7.397E-02	0.000E+00	NOT IDENT.
NP-239	-1.258E-03	8.657E-02	1.517E-01	0.000E+00	NOT IDENT.
AM-241	-1.323E-02	1.400E-02	2.278E-02	0.000E+00	NOT IDENT.
AM-243	-3.370E-03	8.135E-03	1.374E-02	0.000E+00	NOT IDENT.
CM-243	-7.899E-04	2.512E-02	4.295E-02	0.000E+00	NOT IDENT.
AM-246	2.893E-02	6.565E-02	1.177E-01	0.000E+00	NOT IDENT.
CF-249	1.587E-03	1.715E-02	2.952E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 09:59:41.72

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473840.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 13-DEC-2007 12:52:26
Sample ID        : G1201473840          Sample quantity  : 1.27910E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.42  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-223	269.46	30	13.70*	4.226E+00	7.499E-02	7.499E-02	110.16

Flag: "*" = Keyline

Sample ID : G1201473840 Acquisition date : 13-DEC-2007 12:52:26

Total number of lines in spectrum 29
Number of unidentified lines 25
Number of lines tentatively identified by NID 4 13.79%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
RA-223	1.04E+12S	1.00	7.499E-02	7.499E-02	8.261E-02	110.16	
		Total Activity :	7.499E-02	7.499E-02			
		Grand Total Activity :	7.499E-02	7.499E-02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201473840 Acquisition date : 13-DEC-2007 12:52:26

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	186.08	16	134	1.34	370.87	366	9	1.10E-03	****	5.83E+00	
0	192.11	83	151	6.56	382.94	375	16	5.78E-03	70.4	5.69E+00	
0	239.49	7	169	3.40	477.58	471	13	5.15E-04	****	4.69E+00	T
0	352.20	33	106	2.43	702.76	695	17	2.30E-03	****	3.20E+00	T
0	431.29	20	55	4.48	860.80	852	12	1.39E-03	****	2.59E+00	
0	527.54	30	53	7.25	1053.17	1045	18	2.05E-03	****	2.09E+00	
0	610.92	35	60	9.41	1219.83	1209	22	2.43E-03	****	1.79E+00	T
0	698.81	100	61	14.57	1395.55	1371	40	6.93E-03	55.3	1.55E+00	
0	709.16	19	32	0.81	1416.24	1412	10	1.33E-03	****	1.53E+00	
0	971.51	8	16	0.57	1940.90	1934	8	5.61E-04	****	1.11E+00	
0	978.11	22	2	1.21	1954.10	1949	11	1.50E-03	52.1	1.10E+00	
0	1024.70	6	14	1.27	2047.31	2040	9	3.99E-04	****	1.05E+00	
0	1039.98	39	21	11.04	2077.87	2066	27	2.72E-03	71.7	1.04E+00	
0	1052.94	24	14	4.71	2103.81	2093	19	1.66E-03	86.2	1.02E+00	
0	1162.24	13	20	6.11	2322.49	2312	16	9.08E-04	****	9.28E-01	
0	1166.13	10	3	0.68	2330.28	2327	7	7.05E-04	86.1	9.25E-01	
0	1194.37	14	6	0.54	2386.79	2380	12	9.72E-04	88.1	9.04E-01	
0	1318.02	7	18	2.95	2634.25	2623	15	4.58E-04	****	8.21E-01	
0	1363.91	4	13	0.78	2726.11	2718	10	3.02E-04	****	7.94E-01	
0	1368.15	7	7	0.92	2734.60	2729	9	4.96E-04	****	7.92E-01	
0	1499.87	7	8	0.78	2998.31	2989	12	4.72E-04	****	7.25E-01	
0	1553.40	21	0	5.37	3105.48	3100	14	1.46E-03	43.6	7.00E-01	
0	1591.55	16	4	1.34	3181.89	3177	10	1.09E-03	72.6	6.84E-01	
0	1660.92	14	7	2.66	3320.81	3314	13	9.37E-04	95.0	6.56E-01	
0	1678.58	12	0	2.96	3356.17	3351	11	8.33E-04	57.7	6.50E-01	
0	1713.83	3	4	1.00	3426.78	3420	8	2.28E-04	****	6.36E-01	
0	1913.04	9	3	1.32	3825.86	3819	12	6.37E-04	****	5.71E-01	
0	1987.46	8	4	0.69	3975.00	3969	10	5.32E-04	****	5.49E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201473840          *
* Acquisition date : 13-DEC-2007 12:52:26 Detector SN#    :                *
* Detector ID      : GAM21                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:24.42     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473840          Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.2791E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUL-2007 16:42:48 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
RA-223	7.499E-02	8.096E-02	6.163E-02	8.096E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
K-40	-1.514E-01	2.882E-01	2.024E-01	2.882E-01	NOT IDENT.
CO-60	1.167E-02	2.064E-02	1.807E-02	2.064E-02	NOT IDENT.
RH-101	-3.295E-03	1.497E-02	1.002E-02	1.497E-02	NOT IDENT.
SB-125	-2.985E-03	4.848E-02	3.535E-02	4.848E-02	NOT IDENT.
CS-137	-6.439E-04	1.809E-02	1.563E-02	1.809E-02	NOT IDENT.
EU-155	-3.051E-02	2.810E-02	2.228E-02	2.810E-02	NOT IDENT.
TL-208	-5.707E-03	2.080E-02	1.636E-02	2.080E-02	NOT IDENT.
PO-209	1.370E+00	3.986E+00	3.531E+00	3.986E+00	NOT IDENT.
BI-211	1.774E-01	5.365E-01	4.763E-01	5.365E-01	NOT IDENT.
BI-212	1.353E-01	1.345E-01	1.280E-01	1.345E-01	NOT IDENT.
PB-212	5.361E-03	4.240E-02	2.325E-02	4.240E-02	FAIL ABUN
BI-214	6.232E-02	8.136E-02	3.443E-02	8.136E-02	FAIL ABUN
PB-214	4.042E-02	6.357E-02	3.136E-02	6.357E-02	FAIL ABUN
AC-228	-4.585E-03	7.131E-02	6.013E-02	7.131E-02	NOT IDENT.
PA-233	-2.208E-04	2.770E-02	2.393E-02	2.770E-02	NOT IDENT.
PA-234M	-2.283E+00	2.422E+00	1.777E+00	2.422E+00	NOT IDENT.
TH-234	-1.301E-01	1.249E-01	9.124E-02	1.249E-01	NOT IDENT.
U-235	-2.076E-02	6.486E-02	5.374E-02	6.486E-02	NOT IDENT.
NP-236	-1.511E-02	1.523E-02	1.220E-02	1.523E-02	NOT IDENT.
NP-237	-2.576E-02	4.457E-02	3.701E-02	4.457E-02	NOT IDENT.
NP-239	-1.258E-03	8.657E-02	7.587E-02	8.657E-02	NOT IDENT.
AM-241	-1.323E-02	1.400E-02	1.140E-02	1.400E-02	NOT IDENT.
AM-243	-3.370E-03	8.135E-03	6.874E-03	8.135E-03	NOT IDENT.
CM-243	-7.899E-04	2.512E-02	2.149E-02	2.512E-02	NOT IDENT.
AM-246	2.893E-02	6.565E-02	5.886E-02	6.565E-02	NOT IDENT.
CF-249	1.587E-03	1.715E-02	1.477E-02	1.715E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	119.3414
63.29	88.8782
74.66	142.3677
74.81	142.3906
74.81	142.3906
77.11	121.7490
77.11	121.7490
86.48	139.8754
87.30	142.1097
87.30	142.1097
92.58	142.8366
98.44	150.0504
103.76	130.3105
105.31	152.0576
129.07	157.2769
143.76	146.7970
198.00	129.0984
209.25	143.8830
228.18	130.4177
238.63	117.0053
242.00	103.9810
269.46	102.2591
270.25	103.8966
277.36	102.0146
295.22	99.0042
300.09	100.2012
312.17	91.9518
338.32	91.0353
351.93	72.6516
387.59	63.6106
409.46	64.1489
427.87	63.2234
463.00	57.1028
510.77	63.3065
583.19	44.2502
609.31	48.9419
661.66	40.4721
727.33	26.2084
763.13	34.0034
768.36	36.8854
785.37	35.1399
794.95	33.3181
806.17	32.4540
831.80	29.7708
860.56	32.8704
896.60	28.2654
911.20	29.3347
934.06	19.6541
964.77	28.8280
968.97	23.7617
1001.03	35.8813
1078.86	17.2103
1120.29	17.3486
1155.19	15.8486
1173.23	16.0780
1238.11	22.9417
1280.96	14.7092
1332.51	13.7786
1377.67	12.8145
1401.50	17.1523
1407.98	19.3169
1460.80	16.2329
1509.23	14.9537
1588.20	14.8964
1620.50	12.3534
1729.60	14.4768
1764.49	19.3952

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473840

Total Uranium Activity	-9.6042E-03	ug/g
Total Uranium Counting Unc.	3.0012E-02	ug/g
Total Uranium Tpu	3.0012E-08	ug/g
Total Uranium Mda	2.4866E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 10:00:16.05

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473841.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 13-DEC-2007 12:53:05
Sample ID        : G1201473841          Sample quantity  : 1.03260E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.04  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.89	178	273	0.98	149.73	145	16	1.24E-02	16.3	7.78E-01
2	2	77.09*	251	220	0.90	154.13	145	16	1.74E-02	12.0	
3	0	87.14	141	310	1.11	174.24	172	7	9.81E-03	22.2	
4	0	92.88*	108	429	1.32	185.73	182	10	7.48E-03	42.0	
5	0	108.16	47	215	1.37	216.28	214	6	3.28E-03	51.2	
6	9	143.61*	55	98	1.37	287.19	285	11	3.83E-03	42.0	3.08E+00
7	9	145.75*	0	215	1.39	291.48	285	11	1.66E-05	*****	
8	0	154.08	48	189	1.16	308.14	305	6	3.36E-03	47.2	
9	0	185.88*	117	319	1.11	371.73	367	10	8.15E-03	33.3	
10	0	209.21	45	209	0.92	418.41	415	7	3.13E-03	55.4	
11	2	238.67*	620	176	0.97	477.34	473	21	4.31E-02	5.6	1.18E+00
12	2	242.10	104	197	1.35	484.21	473	21	7.22E-03	26.8	
13	0	251.94	48	205	3.03	503.88	500	9	3.30E-03	56.2	
14	0	270.22	67	199	1.34	540.46	536	9	4.68E-03	39.6	
15	0	295.37*	153	150	1.05	590.76	587	8	1.06E-02	18.5	
16	0	300.56	34	144	0.83	601.14	598	8	2.34E-03	65.3	
17	0	338.39	96	193	1.03	676.81	672	9	6.65E-03	28.1	
18	0	351.93*	308	167	1.05	703.90	698	10	2.14E-02	10.3	
19	0	462.71	45	105	0.94	925.51	920	10	3.16E-03	44.6	
20	0	510.84*	51	185	2.28	1021.80	1014	18	3.55E-03	80.2	
21	0	583.26*	174	58	2.02	1166.68	1162	9	1.21E-02	12.8	
22	0	609.50*	203	120	1.60	1219.18	1212	13	1.41E-02	14.1	
23	0	627.35	19	109	3.41	1254.90	1243	13	1.32E-03	116.0	
24	4	661.47*	117	49	1.79	1323.16	1319	19	8.10E-03	15.4	1.75E+00
25	4	666.09	31	47	2.30	1332.42	1319	19	2.16E-03	47.4	
26	0	728.60	23	80	0.73	1457.47	1449	12	1.61E-03	80.2	
27	0	803.51*	9	80	2.79	1607.35	1600	12	6.08E-04	223.9	
28	0	840.78	28	33	1.53	1681.93	1678	7	1.91E-03	39.7	
29	0	910.91*	136	36	1.29	1822.25	1816	13	9.45E-03	13.5	
30	0	934.83	19	44	0.97	1870.10	1864	12	1.34E-03	73.1	
31	0	965.56	26	40	2.44	1931.59	1926	10	1.78E-03	51.3	
32	0	969.31	59	20	1.40	1939.09	1935	9	4.10E-03	18.9	
33	0	1063.60*	28	54	1.74	2127.77	2118	20	1.95E-03	108.6	
34	0	1121.89	72	40	3.85	2244.41	2237	17	4.99E-03	24.5	
35	0	1154.16	12	21	1.05	2309.00	2303	10	8.27E-04	79.3	
36	1	1166.16	16	22	1.94	2333.00	2327	22	1.14E-03	67.1	3.69E+00
37	1	1168.66	23	27	1.95	2338.00	2327	22	1.61E-03	49.6	
38	0	1176.12	21	19	3.80	2352.92	2348	11	1.47E-03	45.6	

Sample ID : G1201473841 Acquisition date : 13-DEC-2007 12:53:05

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1230.14	7	25	2.59	2461.03	2453	11	5.12E-04	140.7	
40	0	1339.86	7	24	3.65	2680.61	2671	15	4.93E-04	151.4	
41	0	1351.16	22	14	3.81	2703.21	2694	15	1.52E-03	44.0	
42	0	1376.93	37	8	1.66	2754.78	2747	16	2.57E-03	23.7	
43	0	1395.81	16	10	4.39	2792.58	2786	13	1.12E-03	47.3	
44	0	1437.13	10	9	0.70	2875.27	2867	12	7.27E-04	64.8	
45	0	1460.64*	262	22	2.29	2922.33	2914	15	1.82E-02	7.6	
46	0	1546.45	16	35	3.00	3094.06	3078	29	1.08E-03	114.2	
47	0	1590.03	28	13	3.37	3181.28	3173	19	1.92E-03	37.8	
48	0	1614.84	6	9	1.27	3230.94	3226	11	4.28E-04	99.6	
49	1	1764.53	25	21	2.52	3530.54	3525	21	1.72E-03	39.0	1.01E+00
50	1	1769.98*	9	15	2.53	3541.46	3525	21	6.46E-04	119.4	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473841      *
* Acquisition date : 13-DEC-2007 12:53:05 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:08.04     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473841          Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.0326E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.302E+00	7.105E-01	3.692E-01	0.000E+00
CS-137	1.188E-01	3.659E-02	4.046E-02	0.000E+00
TL-208	1.600E-01	4.097E-02	3.437E-02	0.000E+00
BI-212	1.849E-01	2.909E-01	3.353E-01	0.000E+00
PB-212	5.464E-01	6.754E-02	5.807E-02	0.000E+00
BI-214	3.556E-01	1.006E-01	7.891E-02	0.000E+00
PB-214	4.219E-01	8.777E-02	7.456E-02	0.000E+00
RA-223	2.059E-01	1.603E-01	1.809E-01	0.000E+00
AC-228	6.071E-01	1.680E-01	1.292E-01	0.000E+00
U-235	1.430E-01	1.181E-01	1.719E-01	0.000E+00
NP-237	3.858E-01	1.703E-01	2.122E-01	0.000E+00
AM-243	1.143E-01	3.745E-02	4.327E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	0.000E+00		2.036E-02	4.710E-02	0.000E+00	NOT IDENT.
RH-101	2.066E-02		2.322E-02	3.502E-02	0.000E+00	NOT IDENT.
SB-125	-7.017E-03		6.073E-02	1.006E-01	0.000E+00	NOT IDENT.
EU-155	3.897E-02		6.208E-02	1.003E-01	0.000E+00	NOT IDENT.
PO-209	-3.195E-01		5.044E+00	8.250E+00	0.000E+00	NOT IDENT.
BI-211	4.841E-01		7.442E-01	1.299E+00	0.000E+00	NOT IDENT.
PA-233	3.193E-02		3.892E-02	6.961E-02	0.000E+00	NOT IDENT.
PA-234M	-2.259E+00		3.463E+00	4.812E+00	0.000E+00	NOT IDENT.
TH-234	0.000E+00		5.184E-01	6.071E-01	0.000E+00	FAIL ABUN
NP-236	-1.597E-02		3.294E-02	5.360E-02	0.000E+00	NOT IDENT.
NP-239	-7.723E-03		1.285E-01	2.098E-01	0.000E+00	NOT IDENT.
AM-241	2.953E-02		9.392E-02	1.554E-01	0.000E+00	NOT IDENT.
CM-243	8.844E-04		5.086E-02	8.842E-02	0.000E+00	NOT IDENT.
AM-246	-2.172E-02		8.374E-02	1.377E-01	0.000E+00	NOT IDENT.
CF-249	3.129E-03		2.644E-02	4.484E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 10:00:16.98

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473841.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 13-DEC-2007 12:53:05
Sample ID        : G1201473841          Sample quantity  : 1.03260E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.04  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	262	10.66*	1.037E+00	4.302E+00	4.302E+00	16.85
CS-137	661.66	117	85.10*	2.102E+00	1.184E-01	1.188E-01	31.41
TL-208	277.36	------	6.31	4.253E+00	------	Line Not Found	------
	510.77	51	22.60	2.614E+00	1.571E-01	1.571E-01	160.45
	583.19	174	84.50*	2.341E+00	1.600E-01	1.600E-01	26.14
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	------	12.42	1.664E+00	------	Line Not Found	------
BI-212	727.33	23	11.80*	1.932E+00	1.849E-01	1.849E-01	160.56
	785.37	------	1.10	1.807E+00	------	Line Not Found	------
	1620.50	------	1.49	9.597E-01	------	Line Not Found	------
PB-212	74.81	178	10.40	4.157E+00	7.497E-01	7.497E-01	33.43
	77.11	251	17.50	4.410E+00	5.912E-01	5.912E-01	25.05
	87.30	141	7.81	5.365E+00	6.126E-01	6.126E-01	45.04
	238.63	620	43.30*	4.766E+00	5.464E-01	5.464E-01	12.61
	300.09	34	3.28	3.996E+00	4.664E-01	4.664E-01	130.68
BI-214	609.31	203	46.10*	2.255E+00	3.556E-01	3.556E-01	28.85
	768.36	------	4.94	1.843E+00	------	Line Not Found	------
	806.17	------	1.22	1.765E+00	------	Line Not Found	------
	934.06	19	3.03	1.542E+00	7.482E-01	7.483E-01	146.50
	1120.29	72	15.10	1.304E+00	6.631E-01	6.631E-01	49.47
	1155.19	12	1.63	1.271E+00	1.045E+00	1.045E+00	158.76
	1238.11	------	5.79	1.193E+00	------	Line Not Found	------
	1280.96	------	1.43	1.158E+00	------	Line Not Found	------
	1377.67	37	4.00	1.089E+00	1.545E+00	1.545E+00	47.98
	1401.50	------	1.27	1.073E+00	------	Line Not Found	------
	1407.98	------	2.15	1.069E+00	------	Line Not Found	------
	1509.23	------	2.11	1.011E+00	------	Line Not Found	------
	1729.60	------	2.92	9.196E-01	------	Line Not Found	------
	1764.49	25	15.40	9.087E-01	3.226E-01	3.226E-01	78.29
PB-214	74.81	178	6.44	4.157E+00	1.211E+00	1.211E+00	33.43
	77.11	251	10.80	4.410E+00	9.580E-01	9.581E-01	25.05
	87.30	141	4.84	5.365E+00	9.885E-01	9.886E-01	45.04

Sample ID : G1201473841 Acquisition date : 13-DEC-2007 12:53:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	104	7.43	4.716E+00	5.394E-01	5.394E-01	53.92
	295.22	153	19.30	4.051E+00	3.551E-01	3.551E-01	37.55
	351.93	308	37.60*	3.529E+00	4.219E-01	4.219E-01	21.23
RA-223	269.46	67	13.70*	4.340E+00	2.059E-01	2.059E-01	79.43
AC-228	129.07	------	2.42	6.529E+00	------	Line Not Found	------
	209.25	45	3.89	5.237E+00	4.024E-01	4.024E-01	110.94
	270.25	67	3.46	4.340E+00	8.152E-01	8.152E-01	79.43
	338.32	96	11.27	3.640E+00	4.242E-01	4.242E-01	56.49
	409.46	------	1.92	3.128E+00	------	Line Not Found	------
	463.00	45	4.40	2.834E+00	6.631E-01	6.631E-01	89.44
	794.95	------	4.25	1.788E+00	------	Line Not Found	------
	911.20	136	25.80*	1.580E+00	6.071E-01	6.071E-01	28.24
	964.77	26	4.99	1.497E+00	6.224E-01	6.224E-01	102.89
	968.97	59	15.80	1.492E+00	4.549E-01	4.549E-01	38.60
	1588.20	28	3.22	9.726E-01	1.601E+00	1.601E+00	75.90
U-235	143.76	55	10.96*	6.392E+00	1.430E-01	1.430E-01	84.30
NP-237	86.48	141	12.40*	5.365E+00	3.858E-01	3.858E-01	45.04
AM-243	74.66	178	68.20*	4.157E+00	1.143E-01	1.143E-01	33.43

Flag: "*" = Keyline

Sample ID : G1201473841 Acquisition date : 13-DEC-2007 12:53:05

Total number of lines in spectrum 50
Number of unidentified lines 21
Number of lines tentatively identified by NID 29 58.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	4.302E+00	4.302E+00	0.725E+00	16.85	
CS-137	9.47E+08S	1.00	1.184E-01	1.188E-01	0.373E-01	31.41	
TL-208	4.43E+17S	1.00	1.600E-01	1.600E-01	0.418E-01	26.14	
BI-212	4.43E+17S	1.00	1.849E-01	1.849E-01	2.968E-01	160.56	
PB-212	4.43E+17S	1.00	5.464E-01	5.464E-01	0.689E-01	12.61	
BI-214	5.05E+10S	1.00	3.556E-01	3.556E-01	1.026E-01	28.85	
PB-214	5.05E+10S	1.00	4.219E-01	4.219E-01	0.896E-01	21.23	
RA-223	1.04E+12S	1.00	2.059E-01	2.059E-01	1.636E-01	79.43	
AC-228	4.43E+17S	1.00	6.071E-01	6.071E-01	1.714E-01	28.24	
U-235	2.22E+16S	1.00	1.430E-01	1.430E-01	1.205E-01	84.30	
NP-237	6.75E+13S	1.00	3.858E-01	3.858E-01	1.738E-01	45.04	
AM-243	2.33E+11S	1.00	1.143E-01	1.143E-01	0.382E-01	33.43	
			---	---			
		Total Activity :	7.545E+00	7.546E+00			

Grand Total Activity : 7.545E+00 7.546E+00

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201473841 Acquisition date : 13-DEC-2007 12:53:05

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.88	108	429	1.32	185.73	182	10	7.48E-03	83.9	5.76E+00	T
0	108.16	47	215	1.37	216.28	214	6	3.28E-03	****	6.38E+00	
0	154.08	48	189	1.16	308.14	305	6	3.36E-03	94.3	6.23E+00	
0	185.88	117	319	1.11	371.73	367	10	8.15E-03	66.6	5.66E+00	
0	251.94	48	205	3.03	503.88	500	9	3.30E-03	****	4.58E+00	
0	627.35	19	109	3.41	1254.90	1243	13	1.32E-03	****	2.20E+00	
4	666.09	31	47	2.30	1332.42	1319	19	2.16E-03	94.8	2.09E+00	
0	803.51	9	80	2.79	1607.35	1600	12	6.08E-04	****	1.77E+00	
0	840.78	28	33	1.53	1681.93	1678	7	1.91E-03	79.3	1.70E+00	
0	1063.60	28	54	1.74	2127.77	2118	20	1.95E-03	****	1.37E+00	
1	1166.16	16	22	1.94	2333.00	2327	22	1.14E-03	****	1.26E+00	
1	1168.66	23	27	1.95	2338.00	2327	22	1.61E-03	99.2	1.26E+00	
0	1176.12	21	19	3.80	2352.92	2348	11	1.47E-03	91.2	1.25E+00	
0	1230.14	7	25	2.59	2461.03	2453	11	5.12E-04	****	1.20E+00	
0	1339.86	7	24	3.65	2680.61	2671	15	4.93E-04	****	1.11E+00	
0	1351.16	22	14	3.81	2703.21	2694	15	1.52E-03	88.0	1.11E+00	
0	1395.81	16	10	4.39	2792.58	2786	13	1.12E-03	94.6	1.08E+00	
0	1437.13	10	9	0.70	2875.27	2867	12	7.27E-04	****	1.05E+00	
0	1546.45	16	35	3.00	3094.06	3078	29	1.08E-03	****	9.93E-01	
0	1614.84	6	9	1.27	3230.94	3226	11	4.28E-04	****	9.62E-01	
1	1769.98	9	15	2.53	3541.46	3525	21	6.46E-04	****	9.07E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201473841          *
* Acquisition date : 13-DEC-2007 12:53:05 Detector SN#    :                *
* Detector ID      : GAM23                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:08.04     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473841          Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.0326E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-MAY-2007 16:30:26 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.302E+00	7.105E-01	1.847E-01	7.105E-01
CS-137	1.188E-01	3.659E-02	2.024E-02	3.659E-02
TL-208	1.600E-01	4.097E-02	1.719E-02	4.097E-02
BI-212	1.849E-01	2.909E-01	1.678E-01	2.909E-01
PB-212	5.464E-01	6.754E-02	2.905E-02	6.754E-02
BI-214	3.556E-01	1.006E-01	3.948E-02	1.006E-01
PB-214	4.219E-01	8.777E-02	3.730E-02	8.777E-02
RA-223	2.059E-01	1.603E-01	9.049E-02	1.603E-01
AC-228	6.071E-01	1.680E-01	6.465E-02	1.680E-01
U-235	1.430E-01	1.181E-01	8.598E-02	1.181E-01
NP-237	3.858E-01	1.703E-01	1.062E-01	1.703E-01
AM-243	1.143E-01	3.745E-02	2.165E-02	3.745E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	7.021E-02	2.036E-02	2.356E-02	2.036E-02	NOT IDENT.
RH-101	2.066E-02	2.322E-02	1.752E-02	2.322E-02	NOT IDENT.
SB-125	-7.017E-03	6.073E-02	5.034E-02	6.073E-02	NOT IDENT.
EU-155	3.897E-02	6.208E-02	5.018E-02	6.208E-02	NOT IDENT.
PO-209	-3.195E-01	5.044E+00	4.127E+00	5.044E+00	NOT IDENT.
BI-211	4.841E-01	7.442E-01	6.500E-01	7.442E-01	NOT IDENT.
PA-233	3.193E-02	3.892E-02	3.483E-02	3.892E-02	NOT IDENT.
PA-234M	-2.259E+00	3.463E+00	2.408E+00	3.463E+00	NOT IDENT.
TH-234	6.279E-01	5.184E-01	3.037E-01	5.184E-01	FAIL ABUN
NP-236	-1.597E-02	3.294E-02	2.682E-02	3.294E-02	NOT IDENT.
NP-239	-7.723E-03	1.285E-01	1.050E-01	1.285E-01	NOT IDENT.
AM-241	2.953E-02	9.392E-02	7.777E-02	9.392E-02	NOT IDENT.
CM-243	8.844E-04	5.086E-02	4.423E-02	5.086E-02	NOT IDENT.
AM-246	-2.172E-02	8.374E-02	6.888E-02	8.374E-02	NOT IDENT.
CF-249	3.129E-03	2.644E-02	2.243E-02	2.644E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	178.3147
63.29	187.7915
74.66	206.0734
74.81	206.1720
74.81	206.1720
77.11	207.6713
77.11	207.6713
86.48	271.3464
87.30	277.0175
87.30	277.0175
92.58	251.2965
98.44	231.5299
103.76	222.7577
105.31	211.2903
129.07	186.7972
143.76	202.0044
198.00	193.2183
209.25	197.5185
228.18	175.3906
238.63	201.1688
242.00	202.0452
269.46	162.7903
270.25	161.7867
277.36	151.4736
295.22	163.0218
300.09	155.3483
312.17	126.1808
338.32	163.1012
351.93	137.4831
387.59	127.7578
409.46	122.2061
427.87	109.9364
463.00	92.8621
510.77	101.8964
583.19	65.2128
609.31	95.0346
661.66	73.4411
727.33	82.8625
763.13	89.3167
768.36	90.5379
785.37	65.2000
794.95	59.3389
806.17	70.9058
831.80	61.4941
860.56	61.2500
896.60	55.8816
911.20	39.2520
934.06	48.1915
964.77	70.4764
968.97	47.0626
1001.03	43.9883
1078.86	42.4493
1120.29	41.0243
1155.19	39.8571
1173.23	0.0000
1238.11	31.8542
1280.96	27.2406
1332.51	19.3244
1377.67	19.5822
1401.50	25.0938
1407.98	27.2357
1460.80	23.6904
1509.23	22.6176
1588.20	16.4911
1620.50	21.6138
1729.60	16.5832
1764.49	20.6528

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473841

Total Uranium Activity	6.6162E-02	ug/g
Total Uranium Counting Unc.	5.4658E-02	ug/g
Total Uranium Tpu	5.4658E-08	ug/g
Total Uranium Mda	3.9784E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 10:01:12.45

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473842.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 04:50:43
Sample ID        : G1201473842          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.39  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	49.06	140	1156	1.84	98.90	96	7	3.90E-02	40.9	
2	0	59.33	8211	1649	1.13	119.42	114	11	2.28E+00	1.5	
3	0	76.15*	596	1320	1.00	153.05	147	11	1.66E-01	12.5	
4	0	87.94*	6609	1255	1.15	176.61	171	13	1.84E+00	1.7	
5	0	92.86*	77	501	1.19	186.45	183	8	2.14E-02	52.4	
6	0	105.55	54	331	1.07	211.82	209	7	1.49E-02	58.0	
7	0	121.95*	2060	541	1.14	244.60	238	12	5.72E-01	3.2	
8	0	136.53	279	417	1.15	273.73	269	11	7.75E-02	15.4	
9	0	165.74	835	539	1.10	332.11	325	14	2.32E-01	6.8	
10	0	187.64	173	936	3.88	375.89	360	28	4.81E-02	50.6	
11	2	238.69*	496	237	1.37	477.91	470	25	1.38E-01	7.0	1.38E+00
12	2	241.80	128	276	1.75	484.12	470	25	3.56E-02	27.9	
13	0	270.11	68	219	1.30	540.71	537	9	1.88E-02	41.0	
14	0	295.44*	102	207	1.49	591.32	587	9	2.84E-02	27.5	
15	0	327.92	31	222	1.64	656.24	652	10	8.55E-03	92.4	
16	0	338.36*	154	245	1.24	677.10	671	13	4.29E-02	22.5	
17	0	351.78*	255	200	1.39	703.92	697	12	7.07E-02	12.9	
18	0	391.87	385	251	1.37	784.04	779	13	1.07E-01	9.9	
19	0	504.36	25	93	1.65	1008.80	1007	7	6.83E-03	67.7	
20	0	510.73*	27	290	2.48	1021.54	1015	17	7.54E-03	148.9	
21	8	561.06	16	34	1.21	1122.09	1120	11	4.33E-03	53.0	1.31E+00
22	8	563.60	28	84	1.35	1127.17	1120	11	7.75E-03	60.6	
23	0	583.51	131	149	1.44	1166.96	1160	13	3.63E-02	21.2	
24	0	609.46*	194	152	1.76	1218.81	1211	18	5.38E-02	16.7	
25	0	661.84	2016	208	1.50	1323.44	1315	17	5.60E-01	2.8	
26	0	728.00	26	119	0.88	1455.62	1451	9	7.35E-03	76.9	
27	0	835.59	43	89	3.69	1670.55	1664	12	1.21E-02	46.1	
28	0	852.28	24	77	1.15	1703.88	1698	9	6.75E-03	69.2	
29	0	880.84	18	99	0.80	1760.93	1755	9	4.95E-03	104.9	
30	0	898.45	370	127	1.69	1796.10	1790	11	1.03E-01	7.9	
31	0	911.68*	83	167	1.18	1822.52	1817	12	2.30E-02	33.3	
32	0	938.37	30	289	6.54	1875.85	1864	21	8.37E-03	142.2	
33	0	1028.77	27	108	5.31	2056.39	2047	14	7.45E-03	84.6	
34	0	1173.74	2136	92	1.93	2345.91	2338	15	5.93E-01	2.4	
35	0	1333.11	1821	38	1.99	2664.14	2653	20	5.06E-01	2.5	
36	0	1344.61	8	7	0.88	2687.10	2681	8	2.09E-03	73.9	
37	0	1461.64*	28	12	2.94	2920.77	2915	12	7.70E-03	32.2	
38	0	1491.92	9	11	3.25	2981.22	2973	11	2.50E-03	78.8	

Sample ID : G1201473842 Acquisition date : 14-DEC-2007 04:50:43

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1510.35	20	19	2.30	3018.01	3007	15	5.55E-03	52.3	
40	0	1613.22	22	11	7.18	3223.37	3214	21	6.05E-03	43.1	
41	0	1640.53	15	9	1.11	3277.89	3272	11	4.24E-03	48.3	
42	0	1701.51	5	9	4.36	3399.62	3388	13	1.27E-03	147.9	
43	0	1720.90	6	3	1.41	3438.30	3434	8	1.64E-03	70.0	
44	0	1729.66	21	4	3.99	3455.79	3447	16	5.83E-03	30.5	
45	0	1753.15	8	5	1.51	3502.69	3498	8	2.20E-03	63.1	
46	0	1764.88*	39	4	2.09	3526.09	3518	16	1.08E-02	20.6	
47	0	1837.14	275	0	2.34	3670.31	3661	18	7.64E-02	6.0	

Flag: "*" = Peak area was modified by background subtraction

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473842      *
* Acquisition date : 14-DEC-2007 04:50:43 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.39     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473842          Analyst initials: MJH1            *
* Batch Number     : 708130               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 31-MAY-2007 12:09:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.287E+00	8.182E-01	1.013E+00	0.000E+00
CO-60	8.869E+00	6.321E-01	1.785E-01	0.000E+00
CS-137	6.064E+00	5.861E-01	1.687E-01	0.000E+00
EU-155	1.781E-01	2.032E-01	3.533E-01	0.000E+00
TL-208	3.550E-01	1.493E-01	1.522E-01	0.000E+00
PO-209	2.612E+02	4.679E+01	4.524E+01	0.000E+00
BI-212	6.227E-01	9.396E-01	1.309E+00	0.000E+00
PB-212	1.239E+00	1.985E-01	2.093E-01	0.000E+00
PB-214	9.987E-01	2.589E-01	2.843E-01	0.000E+00
RA-223	5.883E-01	4.743E-01	6.268E-01	0.000E+00
NP-237	3.586E+01	3.308E+00	8.723E-01	0.000E+00
AM-241	1.496E+01	1.185E+00	3.146E-01	0.000E+00
AM-243	5.770E-01	1.492E-01	1.501E-01	0.000E+00
CM-243	1.637E-01	1.868E-01	3.142E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
RH-101	2.597E-02	6.871E-02	1.215E-01	0.000E+00	NOT IDENT.
SB-125	-1.103E-01	2.442E-01	4.149E-01	0.000E+00	NOT IDENT.
BI-211	1.481E+00	3.397E+00	5.177E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	3.363E-01	4.103E-01	0.000E+00	FAIL ABUN
AC-228	0.000E+00	7.099E-01	1.009E+00	0.000E+00	FAIL ABUN
PA-233	4.286E-02	1.443E-01	2.608E-01	0.000E+00	NOT IDENT.
PA-234M	-2.139E+00	1.442E+01	2.398E+01	0.000E+00	NOT IDENT.
TH-234	9.686E-01	9.991E-01	1.556E+00	0.000E+00	FAIL ABUN
U-235	-9.008E-02	3.690E-01	6.523E-01	0.000E+00	NOT IDENT.
NP-236	-5.303E-02	1.070E-01	1.861E-01	0.000E+00	NOT IDENT.
NP-239	-1.720E-01	5.072E-01	8.639E-01	0.000E+00	NOT IDENT.
AM-246	-2.309E-02	4.452E-01	7.686E-01	0.000E+00	NOT IDENT.
CF-249	-2.175E-02	1.130E-01	1.691E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 10:01:13.37

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473842.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 04:50:43
Sample ID        : G1201473842          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.39  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708130               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.80	28	10.66*	9.764E-01	1.287E+00	1.287E+00	64.87
CO-60	1173.23	2136	100.00*	1.167E+00	8.840E+00	8.869E+00	7.27
	1332.51	1821	100.00	1.053E+00	8.358E+00	8.386E+00	9.73
CS-137	661.66	2016	85.10*	1.888E+00	6.061E+00	6.064E+00	9.86
EU-155	105.31	54	21.20*	6.879E+00	1.775E-01	1.781E-01	116.42
TL-208	277.36	------	6.31	3.981E+00	------	Line Not Found	------
	510.77	27	22.60	2.368E+00	2.451E-01	2.451E-01	297.95
	583.19	131	84.50*	2.107E+00	3.550E-01	3.550E-01	42.91
	763.13	------	1.81	1.670E+00	------	Line Not Found	------
	860.56	------	12.42	1.508E+00	------	Line Not Found	------
PO-209	896.60	370	0.47*	1.455E+00	2.611E+02	2.612E+02	18.28
BI-212	727.33	26	11.80*	1.738E+00	6.227E-01	6.227E-01	153.97
	785.37	------	1.10	1.629E+00	------	Line Not Found	------
	1620.50	------	1.49	8.967E-01	------	Line Not Found	------
PB-212	74.81	596	10.40	7.319E+00	3.784E+00	3.784E+00	26.39
	77.11	596	17.50	7.319E+00	2.249E+00	2.249E+00	26.39
	87.30	6609	7.81	7.178E+00	5.694E+01	5.694E+01	9.41
	238.63	496	43.30*	4.466E+00	1.239E+00	1.239E+00	16.35
	300.09	------	3.28	3.738E+00	------	Line Not Found	------
PB-214	74.81	596	6.44	7.319E+00	6.111E+00	6.111E+00	26.39
	77.11	596	10.80	7.319E+00	3.644E+00	3.644E+00	26.39
	87.30	6609	4.84	7.178E+00	9.188E+01	9.188E+01	9.41
	242.00	128	7.43	4.423E+00	1.881E+00	1.881E+00	56.40
	295.22	102	19.30	3.785E+00	6.758E-01	6.758E-01	55.34
	351.93	255	37.60*	3.275E+00	9.986E-01	9.987E-01	26.46
RA-223	269.46	68	13.70*	4.065E+00	5.883E-01	5.883E-01	82.26
NP-237	86.48	6609	12.40*	7.178E+00	3.586E+01	3.586E+01	9.41
AM-241	59.54	8211	35.90*	7.383E+00	1.496E+01	1.496E+01	8.08
AM-243	74.66	596	68.20*	7.319E+00	5.770E-01	5.770E-01	26.39
CM-243	103.76	54	23.00*	6.879E+00	1.636E-01	1.637E-01	116.42

Flag: "*" = Keyline

Sample ID : G1201473842 Acquisition date : 14-DEC-2007 04:50:43

Total number of lines in spectrum 47
Number of unidentified lines 23
Number of lines tentatively identified by NID 24 51.06%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	4.03E+16S	1.00	1.287E+00	1.287E+00	0.835E+00	64.87	
CO-60	1.66E+08S	1.00	8.840E+00	8.869E+00	0.645E+00	7.27	
CS-137	9.47E+08S	1.00	6.061E+00	6.064E+00	0.598E+00	9.86	
EU-155	1.57E+08S	1.00	1.775E-01	1.781E-01	2.074E-01	116.42	
TL-208	4.43E+17S	1.00	3.550E-01	3.550E-01	1.523E-01	42.91	
PO-209	3.22E+09S	1.00	2.611E+02	2.612E+02	0.477E+02	18.28	
BI-212	4.43E+17S	1.00	6.227E-01	6.227E-01	9.588E-01	153.97	
PB-212	4.43E+17S	1.00	1.239E+00	1.239E+00	0.203E+00	16.35	
PB-214	5.05E+10S	1.00	9.986E-01	9.987E-01	2.642E-01	26.46	
RA-223	1.04E+12S	1.00	5.883E-01	5.883E-01	4.840E-01	82.26	
NP-237	6.75E+13S	1.00	3.586E+01	3.586E+01	0.338E+01	9.41	
AM-241	1.36E+10S	1.00	1.496E+01	1.496E+01	0.121E+01	8.08	
AM-243	2.33E+11S	1.00	5.770E-01	5.770E-01	1.523E-01	26.39	
CM-243	8.99E+08S	1.00	1.636E-01	1.637E-01	1.906E-01	116.42	
			---	---			
	Total Activity :		3.329E+02	3.330E+02			

Grand Total Activity : 3.329E+02 3.330E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201473842 Acquisition date : 14-DEC-2007 04:50:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	49.06	140	1156	1.84	98.90	96	7	3.90E-02	81.8	7.32E+00	
0	92.86	77	501	1.19	186.45	183	8	2.14E-02	****	7.10E+00	T
0	121.95	2060	541	1.14	244.60	238	12	5.72E-01	6.3	6.56E+00	
0	136.53	279	417	1.15	273.73	269	11	7.75E-02	30.8	6.26E+00	
0	165.74	835	539	1.10	332.11	325	14	2.32E-01	13.7	5.67E+00	
0	187.64	173	936	3.88	375.89	360	28	4.81E-02	****	5.27E+00	
0	327.92	31	222	1.64	656.24	652	10	8.55E-03	****	3.47E+00	
0	338.36	154	245	1.24	677.10	671	13	4.29E-02	45.0	3.38E+00	T
0	391.87	385	251	1.37	784.04	779	13	1.07E-01	19.8	2.99E+00	
0	504.36	25	93	1.65	1008.80	1007	7	6.83E-03	****	2.39E+00	
8	561.06	16	34	1.21	1122.09	1120	11	4.33E-03	****	2.18E+00	
8	563.60	28	84	1.35	1127.17	1120	11	7.75E-03	****	2.17E+00	
0	609.46	194	152	1.76	1218.81	1211	18	5.38E-02	33.5	2.03E+00	T
0	835.59	43	89	3.69	1670.55	1664	12	1.21E-02	92.3	1.55E+00	
0	852.28	24	77	1.15	1703.88	1698	9	6.75E-03	****	1.52E+00	
0	880.84	18	99	0.80	1760.93	1755	9	4.95E-03	****	1.48E+00	
0	911.68	83	167	1.18	1822.52	1817	12	2.30E-02	66.7	1.44E+00	T
0	938.37	30	289	6.54	1875.85	1864	21	8.37E-03	****	1.40E+00	
0	1028.77	27	108	5.31	2056.39	2047	14	7.45E-03	****	1.30E+00	
0	1344.61	8	7	0.88	2687.10	2681	8	2.09E-03	****	1.05E+00	
0	1491.92	9	11	3.25	2981.22	2973	11	2.50E-03	****	9.60E-01	
0	1510.35	20	19	2.30	3018.01	3007	15	5.55E-03	****	9.50E-01	T
0	1613.22	22	11	7.18	3223.37	3214	21	6.05E-03	86.2	9.00E-01	
0	1640.53	15	9	1.11	3277.89	3272	11	4.24E-03	96.6	8.88E-01	
0	1701.51	5	9	4.36	3399.62	3388	13	1.27E-03	****	8.61E-01	
0	1720.90	6	3	1.41	3438.30	3434	8	1.64E-03	****	8.53E-01	
0	1729.66	21	4	3.99	3455.79	3447	16	5.83E-03	61.0	8.49E-01	T
0	1753.15	8	5	1.51	3502.69	3498	8	2.20E-03	****	8.39E-01	
0	1764.88	39	4	2.09	3526.09	3518	16	1.08E-02	41.2	8.34E-01	T
0	1837.14	275	0	2.34	3670.31	3661	18	7.64E-02	12.1	8.06E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201473842          *
* Acquisition date : 14-DEC-2007 04:50:43 Detector SN#    :                *
* Detector ID      : GAM05                Sensitivity     : 3.000          *
* Geometry         : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:02.39     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473842          Analyst initials: MJH1           *
* Batch Number     : 708130               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 31-MAY-2007 12:09:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.287E+00	8.182E-01	5.070E-01	8.182E-01
CO-60	8.869E+00	6.321E-01	8.929E-02	6.321E-01
CS-137	6.064E+00	5.861E-01	8.439E-02	5.861E-01
EU-155	1.781E-01	2.032E-01	1.767E-01	2.032E-01
TL-208	3.550E-01	1.493E-01	7.612E-02	1.493E-01
PO-209	2.612E+02	4.679E+01	2.264E+01	4.679E+01
BI-212	6.227E-01	9.396E-01	6.550E-01	9.396E-01
PB-212	1.239E+00	1.985E-01	1.047E-01	1.985E-01
PB-214	9.987E-01	2.589E-01	1.422E-01	2.589E-01
RA-223	5.883E-01	4.743E-01	3.136E-01	4.743E-01
NP-237	3.586E+01	3.308E+00	4.364E-01	3.308E+00
AM-241	1.496E+01	1.185E+00	1.574E-01	1.185E+00
AM-243	5.770E-01	1.492E-01	7.509E-02	1.492E-01
CM-243	1.637E-01	1.868E-01	1.572E-01	1.868E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
RH-101	2.597E-02	6.871E-02	6.079E-02	6.871E-02	NOT IDENT.
SB-125	-1.103E-01	2.442E-01	2.076E-01	2.442E-01	NOT IDENT.
BI-211	1.481E+00	3.397E+00	2.590E+00	3.397E+00	NOT IDENT.
BI-214	1.001E+00	3.363E-01	2.053E-01	3.363E-01	FAIL ABUN
AC-228	1.077E+00	7.099E-01	5.049E-01	7.099E-01	FAIL ABUN
PA-233	4.286E-02	1.443E-01	1.305E-01	1.443E-01	NOT IDENT.
PA-234M	-2.139E+00	1.442E+01	1.200E+01	1.442E+01	NOT IDENT.
TH-234	9.686E-01	9.991E-01	7.784E-01	9.991E-01	FAIL ABUN
U-235	-9.008E-02	3.690E-01	3.264E-01	3.690E-01	NOT IDENT.
NP-236	-5.303E-02	1.070E-01	9.311E-02	1.070E-01	NOT IDENT.
NP-239	-1.720E-01	5.072E-01	4.322E-01	5.072E-01	NOT IDENT.
AM-246	-2.309E-02	4.452E-01	3.845E-01	4.452E-01	NOT IDENT.
CF-249	-2.175E-02	1.130E-01	8.461E-02	1.130E-01	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
59.54	1147.8208
63.29	874.1918
74.66	939.8574
74.81	913.2867
74.81	913.2867
77.11	843.0249
77.11	843.0249
86.48	1018.8121
87.30	915.7863
87.30	915.7863
92.58	435.1956
98.44	444.7864
103.76	422.6841
105.31	447.8132
129.07	342.1556
143.76	335.2204
198.00	324.0232
209.25	327.5335
228.18	342.1815
238.63	289.7875
242.00	290.6222
269.46	217.5844
270.25	273.3089
277.36	268.3019
295.22	262.4948
300.09	222.6849
312.17	225.5799
338.32	214.0999
351.93	220.9378
387.59	214.2109
409.46	210.5629
427.87	229.2365
463.00	232.6258
510.77	193.2748
583.19	136.0689
609.31	126.4005
661.66	136.8497
727.33	135.4900
763.13	145.2515
768.36	127.5859
785.37	151.4301
794.95	140.8744
806.17	144.4576
831.80	117.0514
860.56	149.1979
896.60	182.0397
911.20	177.8027
934.06	184.1955
964.77	206.2868
968.97	166.0896
1001.03	141.8801
1078.86	138.4585
1120.29	120.0234
1155.19	71.1429
1173.23	83.0695
1238.11	36.3290
1280.96	28.7734
1332.51	23.1003
1377.67	22.3261
1401.50	30.6090
1407.98	29.6311
1460.80	21.7075
1509.23	23.7601
1588.20	39.2764
1620.50	13.0883
1729.60	6.7895
1764.49	6.7272

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473842

Total Uranium Activity	-4.1679E-02	ug/g
Total Uranium Counting Unc.	1.7072E-01	ug/g
Total Uranium Tpu	1.7072E-07	ug/g
Total Uranium Mda	1.5100E-01	ug/g

CONTINUING CALIBRATION DATA

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_2LMB.QAF;1

Sample ID : Calib Check
Sample date : 1-APR-2005 12:00:00
Elapsed live time: 0 00:05:00.00

Sample quantity : 1.00 EACH
Acquisition date : 9-DEC-2007 13:27:32
Elapsed real time: 0 00:05:01.23

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1697E+05+/-3.2175E+04]	7.8289E+05	-1.06	
*DECAY CORRECTED ACTIVITY CS-137 [2.4416E+04+/-658.7]	2.3990E+04	-0.65	
*DECAY CORRECTED ACTIVITY CO-60 [3.9594E+04+/-984.4]	3.8388E+04	-1.22	
*DECAY CORRECTED ACTIVITY AM-241 [6.8037E+04+/-3176]	7.0468E+04	0.77	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7507E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3217E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6626E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7542E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6129E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3319E+03	
*PEAK FWHM CD-109	8.8210E-01	1.1228E+00	9.8120E-01	
*PEAK FWHM CS-137	1.2904E+00	1.6432E+00	1.5187E+00	
*PEAK FWHM CO-60	1.6812E+00	2.2061E+00	1.9883E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1805E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9004E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0053E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 9 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1

Sample ID : Calib Check
Sample date : 1-APR-2004 12:00:00
Elapsed live time: 0 00:05:00.00

Sample quantity : 1.00 EACH
Acquisition date : 10-DEC-2007 09:05:31
Elapsed real time: 0 00:05:04.40

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2199E+05+/-1.6962E+04]	8.3383E+05	0.70	
*DECAY CORRECTED ACTIVITY CS-137 [2.6347E+04+/-617.7]	2.5940E+04	-0.66	
*DECAY CORRECTED ACTIVITY CO-60 [4.0298E+04+/-1103]	4.0317E+04	0.02	
*DECAY CORRECTED ACTIVITY AM-241 [6.5239E+04+/-1310]	6.4199E+04	-0.79	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7522E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3209E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6627E+03	
*PEAK ENERGY CD-109	8.6000E+01	9.0000E+01	8.8120E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6149E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3323E+03	
*PEAK FWHM CD-109	1.2623E+00	1.5019E+00	1.4105E+00	
*PEAK FWHM CS-137	1.5605E+00	1.8906E+00	1.6337E+00	
*PEAK FWHM CO-60	1.8533E+00	2.3397E+00	2.1077E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1863E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9781E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.3565E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MR Approval Date: 12 / 10 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1

Sample ID : Calib Check
Sample date : 1-APR-2003 12:00:00
Elapsed live time: 0 00:05:00.00

Sample quantity : 1.00 EACH
Acquisition date : 10-DEC-2007 08:33:06
Elapsed real time: 0 00:05:03.12

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7105E+05+/-2.4257E+04]	7.5112E+05	-0.82	
*DECAY CORRECTED ACTIVITY CS-137 [2.5576E+04+/-422.4]	2.4899E+04	-1.60	
*DECAY CORRECTED ACTIVITY CO-60 [4.0337E+04+/-833.8]	3.9995E+04	-0.41	
*DECAY CORRECTED ACTIVITY AM-241 [6.3532E+04+/-1855]	6.5216E+04	0.91	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7586E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6649E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7953E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6138E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3320E+03	
*PEAK FWHM CD-109	6.9450E-01	9.5230E-01	7.8452E-01	
*PEAK FWHM CS-137	1.3260E+00	1.5802E+00	1.5052E+00	
*PEAK FWHM CO-60	1.7823E+00	2.2419E+00	2.0797E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1888E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9466E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	7.5538E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MR Approval Date: 12 / 10 / 07

QA filename : DKA100:[CANBERRA.GAMMA.GANALYST.QA]QCC_GAMAN_JAR.QAF;1

Sample ID : Calib Check
Sample date : 1-JAN-2006 12:00:00
Elapsed live time: 0 00:05:00.00

Sample quantity : 1.00 EACH
Acquisition date : 10-DEC-2007 08:38:09
Elapsed real time: 0 00:05:02.55

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*CD-109 88 KeV Activity [8.4122E+05+/-1.9568E+04]	8.6577E+05	1.26	
*Cs-137 661 KeV Activity [2.5842E+04+/-486.5]	2.5559E+04	-0.58	
*Co-60 1332 KeV Activity [4.1626E+04+/-886.4]	4.1422E+04	-0.23	
*DECAY CORRECTED ACTIVITY AM-241 [6.4306E+04+/-2866]	6.0553E+04	-1.31	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*CD-109 88 KeV Centroid	1.7200E+02	1.8000E+02	1.7579E+02	
*CD-109 88 KeV FWHM	1.0815E+00	1.3627E+00	1.2684E+00	
*Cs-137 661 KeV Centroid	1.3193E+03	1.3273E+03	1.3221E+03	
*Cs-137 661 KeV FWHM	1.4800E+00	1.7914E+00	1.6396E+00	
*Co-60 1332 KeV Centroid	2.6610E+03	2.6690E+03	2.6637E+03	
*Co-60 1332 KeV FWHM	1.8334E+00	2.3248E+00	2.1662E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1893E+02	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1899E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MR Approval Date: 12 / 10 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_2LMB.QAF;1

Sample ID : Calib Check
Sample date : 1-APR-2002 12:00:00
Elapsed live time: 0 00:05:00.00

Sample quantity : 1.00 EACH
Acquisition date : 11-DEC-2007 04:38:34
Elapsed real time: 0 00:05:00.99

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6676E+05+/-1.0074E+05]	8.4899E+05	-0.18	
*DECAY CORRECTED ACTIVITY CS-137 [2.8570E+04+/-644.2]	2.7657E+04	-1.42	
*DECAY CORRECTED ACTIVITY CO-60 [4.0735E+04+/-1358]	4.2189E+04	1.07	
*DECAY CORRECTED ACTIVITY AM-241 [6.2720E+04+/-2409]	6.3688E+04	0.40	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7632E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3238E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6660E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8124E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6176E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	9.2990E-01	1.7963E+00	1.2888E+00	
*PEAK FWHM CS-137	1.4326E+00	1.9580E+00	1.7609E+00	
*PEAK FWHM CO-60	1.8050E+00	2.2573E+00	2.0382E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1918E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9566E+01	
*PEAK FWHM AM-241	5.0000E-01	1.7500E+00	1.3240E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 11-DEC-2007 04:38:50
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.57

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.9829E+05+/-2.1783E+04]	7.9062E+05	-0.35	
*DECAY CORRECTED ACTIVITY CS-137 [2.5417E+04+/-441.8]	2.5967E+04	1.25	
*DECAY CORRECTED ACTIVITY CO-60 [4.0155E+04+/-741.6]	4.1661E+04	2.03	Investigate
*DECAY CORRECTED ACTIVITY AM-241 [6.6624E+04+/-1169]	6.6178E+04	-0.38	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7560E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3215E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6620E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8053E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6150E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3322E+03	
*PEAK FWHM CD-109	8.6870E-01	1.1641E+00	1.0807E+00	
*PEAK FWHM CS-137	1.3890E+00	1.5958E+00	1.4463E+00	
*PEAK FWHM CO-60	1.7960E+00	2.2545E+00	1.9606E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1864E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9547E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.2266E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM03_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 11-DEC-2007 07:07:00
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:00.82

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6960E+05+/-1.0766E+05]	7.5291E+05	-1.08	
*DECAY CORRECTED ACTIVITY CS-137 [2.8269E+04+/-721.5]	2.7233E+04	-1.44	
*DECAY CORRECTED ACTIVITY CO-60 [4.1409E+04+/-1231]	4.0064E+04	-1.09	
*DECAY CORRECTED ACTIVITY AM-241 [6.3613E+04+/-1893]	6.4767E+04	0.61	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7589E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3219E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6641E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8033E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6149E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3324E+03	
*PEAK FWHM CD-109	8.3610E-01	1.8524E+00	1.3529E+00	
*PEAK FWHM CS-137	1.5869E+00	2.1036E+00	1.9036E+00	
*PEAK FWHM CO-60	2.1075E+00	3.0714E+00	3.0086E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1917E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9637E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.4234E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 11-DEC-2007 04:39:25
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.02

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.6229E+05+/-4.6983E+04]	8.0323E+05	0.87	
*DECAY CORRECTED ACTIVITY CS-137 [2.5347E+04+/-581.1]	2.5887E+04	0.93	
*DECAY CORRECTED ACTIVITY CO-60 [4.0193E+04+/-817.5]	3.9978E+04	-0.26	
*DECAY CORRECTED ACTIVITY AM-241 [5.9533E+04+/-1534]	6.0586E+04	0.69	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7580E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6645E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8156E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6190E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	8.8960E-01	1.2630E+00	1.0720E+00	
*PEAK FWHM CS-137	1.3220E+00	1.6316E+00	1.5434E+00	
*PEAK FWHM CO-60	1.7106E+00	2.2639E+00	1.7706E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1876E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9630E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0007E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 11-DEC-2007 04:52:46
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.58

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7161E+05+/-5.4538E+04]	8.1074E+05	0.72	
*DECAY CORRECTED ACTIVITY CS-137 [2.5461E+04+/-453.1]	2.5455E+04	-0.01	
*DECAY CORRECTED ACTIVITY CO-60 [4.0000E+04+/-942.5]	3.9342E+04	-0.70	
*DECAY CORRECTED ACTIVITY AM-241 [6.0688E+04+/-2424]	5.7125E+04	-1.47	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7548E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3238E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6665E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7973E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6169E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3327E+03	
*PEAK FWHM CD-109	8.6980E-01	1.0978E+00	9.6832E-01	
*PEAK FWHM CS-137	1.2287E+00	1.4696E+00	1.2903E+00	
*PEAK FWHM CO-60	1.5668E+00	1.9957E+00	1.7461E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1841E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9462E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	8.0423E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 11-DEC-2007 08:55:24
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.34

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1190E+05+/-3.9665E+04]	8.1372E+05	0.05	
*DECAY CORRECTED ACTIVITY CS-137 [2.5426E+04+/-564.0]	2.5001E+04	-0.75	
*DECAY CORRECTED ACTIVITY CO-60 [4.0446E+04+/-915.4]	4.0676E+04	0.25	
*DECAY CORRECTED ACTIVITY AM-241 [6.7449E+04+/-2021]	7.0582E+04	1.55	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7586E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6657E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7955E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6160E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3327E+03	
*PEAK FWHM CD-109	1.0337E+00	1.5254E+00	1.3488E+00	
*PEAK FWHM CS-137	1.4334E+00	1.8319E+00	1.6531E+00	
*PEAK FWHM CO-60	1.6848E+00	2.2203E+00	2.0354E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1889E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9462E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.4055E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 11-DEC-2007 08:39:14
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:05.62

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6112E+05+/-3.2007E+04]	8.2780E+05	-1.04	
*DECAY CORRECTED ACTIVITY CS-137 [2.8529E+04+/-528.8]	2.8017E+04	-0.97	
*DECAY CORRECTED ACTIVITY CO-60 [4.0368E+04+/-919.5]	4.1100E+04	0.80	
*DECAY CORRECTED ACTIVITY AM-241 [6.0841E+04+/-699.3]	6.1941E+04	1.57	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7633E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3225E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6633E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7956E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6149E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3322E+03	
*PEAK FWHM CD-109	7.4630E-01	1.0839E+00	9.2234E-01	
*PEAK FWHM CS-137	1.2763E+00	1.4672E+00	1.3147E+00	
*PEAK FWHM CO-60	1.6103E+00	2.0503E+00	2.0382E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1940E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9464E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.8246E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 11-DEC-2007 08:46:43
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.32

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2558E+05+/-2.3590E+04]	8.4566E+05	0.85	
*DECAY CORRECTED ACTIVITY CS-137 [2.5787E+04+/-427.7]	2.5964E+04	0.41	
*DECAY CORRECTED ACTIVITY CO-60 [3.9967E+04+/-792.7]	3.9633E+04	-0.42	
*DECAY CORRECTED ACTIVITY AM-241 [7.0178E+04+/-2267]	6.8431E+04	-0.77	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7580E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3223E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6645E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8120E+01	
*PEAK ENERGY CS-137	6.5964E+02	6.6364E+02	6.6176E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3330E+03	
*PEAK FWHM CD-109	1.1583E+00	1.4038E+00	1.3510E+00	
*PEAK FWHM CS-137	1.5052E+00	1.7317E+00	1.6469E+00	
*PEAK FWHM CO-60	1.7723E+00	2.1545E+00	2.0522E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1899E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9685E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.2505E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 11-DEC-2007 05:43:20
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.39

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [6.7938E+05+/-2.3458E+05]	7.5268E+05	0.31	
*DECAY CORRECTED ACTIVITY CS-137 [2.6310E+04+/-489.1]	2.6076E+04	-0.48	
*DECAY CORRECTED ACTIVITY CO-60 [3.8670E+04+/-3834]	4.0480E+04	0.47	
*DECAY CORRECTED ACTIVITY AM-241 [6.0610E+04+/-1384]	5.8852E+04	-1.27	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.7600E+02	1.7487E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3213E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6625E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7728E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6112E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3316E+03	
*PEAK FWHM CD-109	1.0000E+00	1.5000E+00	1.0840E+00	
*PEAK FWHM CS-137	1.5000E+00	2.0000E+00	1.8085E+00	
*PEAK FWHM CO-60	2.0000E+00	3.0000E+00	2.6256E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1805E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9302E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1013E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.GANALYST.QA]QCC_GAMAN_JAR.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-JAN-2006 12:00:00 Acquisition date : 11-DEC-2007 14:37:42
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.56

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*CD-109 88 KeV Activity [8.4122E+05+/-1.9568E+04]	8.4566E+05	0.23	
*Cs-137 661 KeV Activity [2.5842E+04+/-486.5]	2.5827E+04	-0.03	
*Co-60 1332 KeV Activity [4.1626E+04+/-886.4]	4.1299E+04	-0.37	
*DECAY CORRECTED ACTIVITY AM-241 [6.4763E+04+/-2952]	6.7969E+04	1.09	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*CD-109 88 KeV Centroid	1.7200E+02	1.8000E+02	1.7614E+02	
*CD-109 88 KeV FWHM	1.0815E+00	1.3627E+00	1.1855E+00	
*Cs-137 661 KeV Centroid	1.3193E+03	1.3273E+03	1.3226E+03	
*Cs-137 661 KeV FWHM	1.4800E+00	1.7914E+00	1.5581E+00	
*Co-60 1332 KeV Centroid	2.6610E+03	2.6690E+03	2.6644E+03	
*Co-60 1332 KeV FWHM	1.8334E+00	2.3248E+00	1.9701E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1888E+02	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1766E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MR Approval Date: 12 / 11 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2005 12:00:00 Acquisition date : 12-DEC-2007 08:07:07
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.23

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1697E+05+/-3.2175E+04]	8.2706E+05	0.31	
*DECAY CORRECTED ACTIVITY CS-137 [2.4416E+04+/-658.7]	2.4566E+04	0.23	
*DECAY CORRECTED ACTIVITY CO-60 [3.9594E+04+/-984.4]	3.8769E+04	-0.84	
*DECAY CORRECTED ACTIVITY AM-241 [6.7526E+04+/-3010]	6.3415E+04	-1.37	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7530E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3218E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6628E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7656E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6134E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3320E+03	
*PEAK FWHM CD-109	8.8210E-01	1.1228E+00	1.0695E+00	
*PEAK FWHM CS-137	1.2904E+00	1.6432E+00	1.4119E+00	
*PEAK FWHM CO-60	1.6812E+00	2.2061E+00	1.8722E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1821E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9082E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0325E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: K Approval Date: 12 / 12 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM13_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 12-DEC-2007 08:07:19
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.85

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6479E+05+/-3.5006E+04]	8.9294E+05	0.80	
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	2.9258E+04	-0.10	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.0031E+04	-1.36	
*DECAY CORRECTED ACTIVITY AM-241 [6.0266E+04+/-524.1]	6.0084E+04	-0.35	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7569E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6645E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8086E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6135E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3318E+03	
*PEAK FWHM CD-109	7.0540E-01	1.1577E+00	9.4188E-01	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.4789E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	1.8542E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1873E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9631E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.0218E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 12 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 12-DEC-2007 07:12:24
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:05.61

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6112E+05+/-3.2007E+04]	8.8040E+05	0.60	
*DECAY CORRECTED ACTIVITY CS-137 [2.8529E+04+/-528.8]	2.8241E+04	-0.54	
*DECAY CORRECTED ACTIVITY CO-60 [4.0368E+04+/-919.5]	3.9948E+04	-0.46	
*DECAY CORRECTED ACTIVITY AM-241 [6.0818E+04+/-667.8]	6.0586E+04	-0.35	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7643E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3227E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6635E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8008E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6157E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3323E+03	
*PEAK FWHM CD-109	7.4630E-01	1.0839E+00	1.0266E+00	
*PEAK FWHM CS-137	1.2763E+00	1.4672E+00	1.3802E+00	
*PEAK FWHM CO-60	1.6103E+00	2.0503E+00	1.8803E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1950E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9517E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.9707E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 12 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 12-DEC-2007 06:38:06
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.37

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4629E+05+/-8.2185E+04]	8.4511E+05	-0.01	
*DECAY CORRECTED ACTIVITY CS-137 [2.8541E+04+/-525.1]	2.8139E+04	-0.76	
*DECAY CORRECTED ACTIVITY CO-60 [4.0826E+04+/-992.7]	3.9676E+04	-1.16	
*DECAY CORRECTED ACTIVITY AM-241 [6.2409E+04+/-1901]	6.0869E+04	-0.81	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7574E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3227E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6657E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7934E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6187E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3332E+03	
*PEAK FWHM CD-109	7.7050E-01	1.3272E+00	1.0573E+00	
*PEAK FWHM CS-137	1.2848E+00	1.6116E+00	1.4189E+00	
*PEAK FWHM CO-60	1.5484E+00	2.0686E+00	1.7533E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1934E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9699E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.9294E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 12 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 13-DEC-2007 10:01:27
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.39

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2199E+05+/-1.6962E+04]	7.9399E+05	-1.65	
*DECAY CORRECTED ACTIVITY CS-137 [2.6347E+04+/-617.7]	2.6526E+04	0.29	
*DECAY CORRECTED ACTIVITY CO-60 [4.0298E+04+/-1103]	4.0756E+04	0.41	
*DECAY CORRECTED ACTIVITY AM-241 [6.5328E+04+/-1175]	6.4773E+04	-0.47	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7510E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3209E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6630E+03	
*PEAK ENERGY CD-109	8.6000E+01	9.0000E+01	8.8061E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6147E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3324E+03	
*PEAK FWHM CD-109	1.2623E+00	1.5019E+00	1.3775E+00	
*PEAK FWHM CS-137	1.5605E+00	1.8906E+00	1.6682E+00	
*PEAK FWHM CO-60	1.8533E+00	2.3397E+00	2.1384E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1834E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9640E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.3460E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 13 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 13-DEC-2007 04:34:35
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.12

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7105E+05+/-2.4257E+04]	7.8068E+05	0.40	
*DECAY CORRECTED ACTIVITY CS-137 [2.5576E+04+/-422.4]	2.5274E+04	-0.71	
*DECAY CORRECTED ACTIVITY CO-60 [4.0337E+04+/-833.8]	3.9203E+04	-1.36	
*DECAY CORRECTED ACTIVITY AM-241 [6.3653E+04+/-1619]	6.4665E+04	0.63	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7600E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3231E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6647E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8022E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6141E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3319E+03	
*PEAK FWHM CD-109	6.9450E-01	9.5230E-01	8.0509E-01	
*PEAK FWHM CS-137	1.3260E+00	1.5802E+00	1.4478E+00	
*PEAK FWHM CO-60	1.7823E+00	2.2419E+00	2.0275E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1903E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9541E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	7.4759E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 13 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM05_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2005 12:00:00 Acquisition date : 14-DEC-2007 04:36:23
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.24

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [9.4102E+05+/-1.5120E+04]	9.7646E+05	2.34	Investigate
*DECAY CORRECTED ACTIVITY CS-137 [2.7324E+04+/-449.6]	2.7062E+04	-0.58	
*DECAY CORRECTED ACTIVITY CO-60 [4.1154E+04+/-757.2]	4.0631E+04	-0.69	
*DECAY CORRECTED ACTIVITY AM-241 [6.9408E+04+/-815.5]	7.0408E+04	1.23	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7654E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3236E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6642E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7903E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6190E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3332E+03	
*PEAK FWHM CD-109	1.0354E+00	1.2686E+00	1.1695E+00	
*PEAK FWHM CS-137	1.4355E+00	1.7081E+00	1.5189E+00	
*PEAK FWHM CO-60	1.7629E+00	2.2581E+00	1.9699E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1943E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9334E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1284E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 14 / 07

RUNLOGS

Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
198686005	SAMPLE	MJH1	GAM06		09-DEC-2007 15:02	708128	**DONE**	CAN	21-FEB-2007
198686006	SAMPLE	MJH1	GAM07		09-DEC-2007 15:03	708128	**DONE**	CAN	30-OCT-2007
198686007	SAMPLE	MJH1	GAM11		09-DEC-2007 15:03	708128	**DONE**	CAN	02-OCT-2007
198686008	SAMPLE	MJH1	GAM12		09-DEC-2007 15:03	708128	**DONE**	CAN	22-FEB-2007
198686009	SAMPLE	MJH1	GAM16		09-DEC-2007 15:04	708128	**DONE**	CAN	02-OCT-2007
198686010	SAMPLE	MJH1	GAM17		09-DEC-2007 15:05	708128	**DONE**	CAN	07-FEB-2007
198686011	SAMPLE	MJH1	GAM19		09-DEC-2007 15:05	708128	**DONE**	CAN	07-MAR-2007
198686012	SAMPLE	MJH1	GAM20		09-DEC-2007 15:06	708128	**DONE**	CAN	10-SEP-2007
198686013	SAMPLE	MJH1	GAM05		10-DEC-2007 09:17	708128	**DONE**	CAN	31-MAY-2007
198686014	SAMPLE	MJH1	GAM13		10-DEC-2007 09:17	708128	**DONE**	CAN	03-JUL-2007
198689001	SAMPLE	MJH1	GAM21		10-DEC-2007 09:18	708128	**DONE**	CAN	03-JUL-2007
198689002	SAMPLE	MJH1	GAM23		10-DEC-2007 09:18	708128	**DONE**	CAN	23-MAY-2007
198689003	SAMPLE	MJH1	GAMAN		10-DEC-2007 15:58	708128	**DONE**	CAN	28-MAR-2007
198689004	SAMPLE	MJH1	GAMAN		11-DEC-2007 04:03	708128	**DONE**	CAN	28-MAR-2007
198689005	SAMPLE	MJH1	GAM19		11-DEC-2007 08:59	708128	**DONE**	CAN	07-MAR-2007
198689006	SAMPLE	MJH1	GAM14		11-DEC-2007 09:03	708128	**DONE**	CAN	07-MAR-2007
198689007	SAMPLE	MJH1	GAM01		11-DEC-2007 11:41	708128	**DONE**	CAN	07-MAR-2007
198689008	SAMPLE	MJH1	GAM07		11-DEC-2007 12:07	708128	**DONE**	CAN	30-OCT-2007
198689009	SAMPLE	MJH1	GAM11		11-DEC-2007 12:08	708128	**DONE**	CAN	02-OCT-2007
198689010	SAMPLE	MJH1	GAM22		11-DEC-2007 12:24	708128	**DONE**	CAN	06-MAR-2007
1201473833	MB	MJH1	GAM02		11-DEC-2007 12:53	708128	**DONE**	CAN	23-OCT-2007
1201473834	DUP	MJH1	GAM03		11-DEC-2007 12:54	708128	**DONE**	CAN	29-MAR-2007
1201473835	LCS	MJH1	GAM17		11-DEC-2007 12:54	708128	**DONE**	CAN	07-FEB-2007

Version 1.1 9/5/05
GEL Laboratories LLC

Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
198689011	SAMPLE	MJH1	GAM17		12-DEC-2007 12:21	708130	**DONE**	CAN	07-FEB-2007
198689012	SAMPLE	MJH1	GAM06		12-DEC-2007 12:37	708130	**DONE**	CAN	21-FEB-2007
198689013	SAMPLE	MJH1	GAM13		12-DEC-2007 12:38	708130	**DONE**	CAN	03-JUL-2007
198689014	SAMPLE	MJH1	GAM20		12-DEC-2007 12:38	708130	**DONE**	CAN	10-SEP-2007
198701001	SAMPLE	MJH1	GAM21		12-DEC-2007 12:39	708130	**DONE**	CAN	03-JUL-2007
198701002	SAMPLE	MJH1	GAM23		12-DEC-2007 12:39	708130	**DONE**	CAN	23-MAY-2007
198701003	SAMPLE	MJH1	GAM06		13-DEC-2007 05:36	708130	**DONE**	CAN	21-FEB-2007
198701004	SAMPLE	MJH1	GAM17		13-DEC-2007 05:36	708130	**DONE**	CAN	07-FEB-2007
198701005	SAMPLE	MJH1	GAM23		13-DEC-2007 05:37	708130	**DONE**	CAN	23-MAY-2007
198701006	SAMPLE	MJH1	GAM03		13-DEC-2007 05:38	708130	**DONE**	CAN	29-MAR-2007
198701007	SAMPLE	MJH1	GAM20		13-DEC-2007 06:55	708130	**DONE**	CAN	10-SEP-2007
198701008	SAMPLE	MJH1	GAM11		13-DEC-2007 07:36	708130	**DONE**	CAN	02-OCT-2007
198701009	SAMPLE	MJH1	GAM12		13-DEC-2007 07:37	708130	**DONE**	CAN	22-FEB-2007
198701010	SAMPLE	MJH1	GAM14		13-DEC-2007 07:37	708130	**DONE**	CAN	07-MAR-2007
198701011	SAMPLE	MJH1	GAM02		13-DEC-2007 07:39	708130	**DONE**	CAN	23-OCT-2007
198701012	SAMPLE	MJH1	GAM19		13-DEC-2007 08:29	708130	**DONE**	CAN	07-MAR-2007
198701013	SAMPLE	MJH1	GAM22		13-DEC-2007 08:56	708130	**DONE**	CAN	06-MAR-2007
198701014	SAMPLE	MJH1	GAM05		13-DEC-2007 09:03	708130	**DONE**	CAN	31-MAY-2007
198701015	SAMPLE	MJH1	GAM20		13-DEC-2007 10:59	708130	**DONE**	CAN	10-SEP-2007
198701016	SAMPLE	MJH1	GAM16		13-DEC-2007 11:15	708130	**DONE**	CAN	02-OCT-2007
1201473840	MB	MJH1	GAM21		13-DEC-2007 12:52	708130	**DONE**	CAN	03-JUL-2007
1201473841	DUP	MJH1	GAM23		13-DEC-2007 12:53	708130	**DONE**	CAN	23-MAY-2007
1201473842	LCS	MJH1	GAM05		14-DEC-2007 04:50	708130	**DONE**	CAN	31-MAY-2007

Version 1.1 9/5/05
GEL Laboratories LLC

Analytical Report For 711095

for

SC&A, Inc.

Project Manager : Cynthia White

Project Name : Cabrera-Schofield CZ

December 20, 2007

GPL

Laboratories

GPL Laboratories, LLLP Certifies that the test results meet all requirements of the NELAC Standards unless otherwise noted.

Reviewed by, Project Manager	Approved by, Laboratory Director

7210A Corporate CT Frederick, MD 21703 Phone (301) 694-5310 Fax: (301) 620-0731
www.gplab.com

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2143-BA
GPL ID: 711095-001-001-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/11/2007
Time Analyzed: 23:22
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	32.8	8.6	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2144-BA
GPL ID: 711095-002-002-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/11/2007
Time Analyzed: 23:40
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	23.3	8.4	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2145-BA
GPL ID: 711095-003-003-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/11/2007
Time Analyzed: 23:43
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	12.5	7.8	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2146-BA
GPL ID: 711095-004-004-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/11/2007
Time Analyzed: 23:54
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	31.4	7.9	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2147-BA
GPL ID: 711095-005-005-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/11/2007
Time Analyzed: 23:58
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	16.4	8.1	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2148-BA
GPL ID: 711095-006-006-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/12/2007
Time Analyzed: 00:01
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	33.1	8.9	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2149-BA
GPL ID: 711095-007-007-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/12/2007
Time Analyzed: 00:05
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	26.0	8.5	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2143-BD
GPL ID: 711095-008-008-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/12/2007
Time Analyzed: 00:08
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	31.8	7.9	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2144-BD
GPL ID: 711095-009-009-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/12/2007
Time Analyzed: 00:12
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	20.3	7.8	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2145-BD
GPL ID: 711095-010-010-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/12/2007
Time Analyzed: 00:15
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	13.7	8.7	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2146-BD
GPL ID: 711095-011-011-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/12/2007
Time Analyzed: 00:19
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	16.4	8	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2147-BD
GPL ID: 711095-012-012-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/12/2007
Time Analyzed: 00:23
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	8.4	8.3	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2148-BD
GPL ID: 711095-013-013-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/12/2007
Time Analyzed: 00:26
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	15.3	8.7	mg/kg	D	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: SB-CZ-SS-2149-BD
GPL ID: 711095-014-014-1/1
Matrix: SOIL
Date Collected: 10/18/2007
Date Received: 11/15/2007

Prep Method: SW3050B
Prep Date: 11/27/2007
Prep Time: 12:00
Prep Batch: 101755

Analytical Method: SW6010C
Date Analyzed: 12/12/2007
Time Analyzed: 00:37
Analysis Batch: 108882

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	32.9	8	mg/kg	D	10

GPL LABORATORIES, LLP
ANALYTICAL RESULTS

Project Name : Cabrera-Schofield CZ

Date Printed December 20, 2007

GPL ID	Client ID
711095-001-001-1/1	SB-CZ-SS-2143-BA
711095-008-008-1/1	SB-CZ-SS-2143-BD
711095-002-002-1/1	SB-CZ-SS-2144-BA
711095-009-009-1/1	SB-CZ-SS-2144-BD
711095-003-003-1/1	SB-CZ-SS-2145-BA
711095-010-010-1/1	SB-CZ-SS-2145-BD
711095-004-004-1/1	SB-CZ-SS-2146-BA
711095-011-011-1/1	SB-CZ-SS-2146-BD
711095-005-005-1/1	SB-CZ-SS-2147-BA
711095-012-012-1/1	SB-CZ-SS-2147-BD
711095-006-006-1/1	SB-CZ-SS-2148-BA
711095-013-013-1/1	SB-CZ-SS-2148-BD
711095-007-007-1/1	SB-CZ-SS-2149-BA
711095-014-014-1/1	SB-CZ-SS-2149-BD

TRACE METALS

GPL Laboratories

USEPA - CLP

COVER PAGE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 711095

SOW No.:

EPA Sample No.	Lab Sample ID
SB-CZ-SS-2143-BA	S 711095-001-001-1/1
SB-CZ-SS-2143-BA MS	SP711095-001-001-1/1
SB-CZ-SS-2143-BA MSD	SD711095-001-001-1/1
SB-CZ-SS-2143-BD	S 711095-008-008-1/1
SB-CZ-SS-2144-BA	S 711095-002-002-1/1
SB-CZ-SS-2144-BD	S 711095-009-009-1/1
SB-CZ-SS-2145-BA	S 711095-003-003-1/1
SB-CZ-SS-2145-BD	S 711095-010-010-1/1
SB-CZ-SS-2146-BA	S 711095-004-004-1/1
SB-CZ-SS-2146-BD	S 711095-011-011-1/1
SB-CZ-SS-2147-BA	S 711095-005-005-1/1
SB-CZ-SS-2147-BD	S 711095-012-012-1/1
SB-CZ-SS-2148-BA	S 711095-006-006-1/1
SB-CZ-SS-2148-BD	S 711095-013-013-1/1
SB-CZ-SS-2149-BA	S 711095-007-007-1/1
SB-CZ-SS-2149-BD	S 711095-014-014-1/1

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

Comments:

I certify that this Sample Data Package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the computer-readable data submitted on diskette (or via an alternate means of electronic transmission, if approved in advance by USEPA) has been authorized by the Laboratory Manager or the Manager's designee, as referred by the following signature.

Signature: Name: Robert Turner

Date: 12/4/2007 Title: Asst Lab Director

EPA Sample No.	Lab Sample ID

COVER PAGE

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-001-001-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2143-BA	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.86	8.6	32.8	D	10	12/11/07 23:22

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-002-002-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2144-BA	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.84	8.4	23.3	D	10	12/11/07 23:40

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-003-003-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2145-BA	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.78	7.8	12.5	D	10	12/11/07 23:43

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-004-004-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2146-BA	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.79	7.9	31.4	D	10	12/11/07 23:54

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-005-005-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2147-BA	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.81	8.1	16.4	D	10	12/11/07 23:58

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-006-006-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2148-BA	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.89	8.9	33.1	D	10	12/12/07 0:01

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-007-007-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2149-BA	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.85	8.5	26.0	D	10	12/12/07 0:05

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-008-008-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2143-BD	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.79	7.9	31.8	D	10	12/12/07 0:08

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-009-009-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2144-BD	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.78	7.8	20.3	D	10	12/12/07 0:12

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-010-010-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2145-BD	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.87	8.7	13.7	D	10	12/12/07 0:15

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-011-011-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2146-BD	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.80	8.0	16.4	D	10	12/12/07 0:19

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-012-012-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2147-BD	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.83	8.3	8.4	D	10	12/12/07 0:23

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-013-013-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2148-BD	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.87	8.7	15.3	D	10	12/12/07 0:26

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Sample Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	S 711095-014-014-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2149-BD	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.80	8.0	32.9	D	10	12/12/07 0:37

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Preparation Blank Results

Project:	711095	Matrix:	Soil
Lab Sample ID:	BLK101755	Percent Moisture:	0.0
Client Sample ID:	NA	Prep Batch:	101755
Analysis Method:	6010 ICP Analysis	Reporting Units:	mg/kg

Analyte	WL/ Mass	Method Detection Limit	Reporting Limit	Reported Result	Q	Dilution Factor	Analysis Date/Time
Lead	220.353	0.10	1.0	0.10	U	1	12/11/07 23:15

U = The analyte concentration was less than the MDL

J = Reported value was less than the CRQL but greater than or equal to the MDL

URIT Version 4.6.0

GPL Laboratories, LLLP

Initial Calibration Verification

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	AB.ST.	Standard ID:	

Analyte	True	ICV 12/11/2007 4:58:13 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	400.0	418.58	105						

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV1 12/11/2007 5:05:07 PM		CCV2 12/11/2007 5:30:27 PM		CCV3 12/11/2007 6:11:54 PM		CCV4 12/11/2007 6:53:42 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	485.23	97	494.53	99	496.45	99	501.87	100

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV5 12/11/2007 7:35:03 PM		CCV6 12/11/2007 8:16:40 PM		CCV7 12/11/2007 8:58:37 PM		CCV8 12/11/2007 9:40:25 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	497.68	100	494.17	99	493.79	99	488.96	98

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	HP.	Standard ID:	

Analyte	True	CCV9 12/11/2007 10:22:38 PM		CCV10 12/11/2007 11:05:19 PM		CCV11 12/11/2007 11:47:19 PM		CCV12 12/12/2007 12:30:14 AM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	480.28	96	477.88	96	480.93	96	482.56	97

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV13 12/12/2007 1:12:46 AM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	483.50	97						

URIT Version 4.6.0

GPL Laboratories, LLLP

Low Level Check Standard

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	PQL 12/11/2007 5:12:11 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	10.0	9.12	91						

GPL Laboratories, LLLP

Initial Calibration Blanks

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:		Standard ID:	

Analyte	RL	ICB 12/11/2007 5:01:40 PM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB1 12/11/2007 5:08:44 PM		CCB2 12/11/2007 5:34:04 PM		CCB3 12/11/2007 6:15:29 PM		CCB4 12/11/2007 6:57:17 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U	1.00	U

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB5 12/11/2007 7:38:37 PM		CCB6 12/11/2007 8:20:18 PM		CCB7 12/11/2007 9:02:15 PM		CCB8 12/11/2007 9:44:02 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U	1.00	U

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB9 12/11/2007 10:26:16 PM		CCB10 12/11/2007 11:08:57 PM		CCB11 12/11/2007 11:50:57 PM		CCB12 12/12/2007 12:33:52 AM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U	1.00	U

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Continuing Calibration Blanks

Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB13 12/12/2007 1:16:24 AM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

GPL Laboratories, LLLP

Matrix Spike Recovery

Client ID:	SB-CZ-SS-2143-BA MS	Lab Sample ID:	SP711095-001-001-1/1
Project:	711095	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 23:26		Sample Result 12/11/07 23:22		Spike Added	%R
Lead	110.43		32.82		83.33	93

URIT Version 4.6.0

GPL Laboratories, LLLP

Matrix Spike Duplicate Recovery

Client ID:	SB-CZ-SS-2143-BA MSD	Lab Sample ID:	SD711095-001-001-1/1
Project:	711095	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 23:29		Sample Result 12/11/07 23:22		Spike Added	%R
Lead	110.89		32.82		80.00	98

URIT Version 4.6.0

GPL Laboratories, LLLP

Duplicates RPD

Client ID:	SB-CZ-SS-2143-BA MSD	Lab Sample ID:	SD711095-001-001-1/1
Project:	711095	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt

Analyte	Matrix Spike ~~Original~~ Sample Results		Matrix Spike Duplicate Sample Results		RPD	Control Limit	Q
Lead	110.43		110.89		0	20	D

URIT Version 4.6.0

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Laboratory Control Sample

Project:	711095	Lab Sample ID:	BKS101755
Units:	mg/kg	Instrument:	iTEVA-Soil
		Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 23:19	Spike Added	%R
Lead	96.98	100.00	97

URIT Version 4.6.0

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Serial Dilutions

Client ID:	SB-CZ-SS-2143-BA	Lab Sample ID:	SE711095-001-001-1/1
Project:	711095	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt

Analyte	Sample Result 12/11/07 23:22		Serial Dilution Result 12/11/07 23:36		Percent Difference	Flag
Lead	38.07		26.51	J	30	

URIT Version 4.6.0

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Detection Limits

Project: 711095 Instrument: iTEVA

Units: ug/L

Analyte	Wavelength/Mass	Reporting Limit	Method Detection Limit	Date of MDL
Lead	220.353	10.0	1.0	11/14/07

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☐	4	Fe	-0.000015	0.000000	No
			Mn	0.000084	0.000000	No
			Cu	0.000068	0.000000	No
			Ti	-0.000115	0.000000	No
Al 396.152 { 85}	☐	5	Mo	0.051689	0.000000	No
			Fe	-0.000009	0.000000	No
			Cu	0.007323	0.000000	No
			Ca	0.000144	0.000000	No
			Na	0.000079	0.000000	No
As 193.759 {474}	☐	8	Al	-0.000182	0.000000	No
			V	-0.004848	0.000000	No
			Fe	-0.000159	0.000000	No
			Mo	-0.000304	0.000000	No
			Ca	-0.000010	0.000000	No
			Cr	0.001489	0.000000	No
			Ti	-0.000159	0.000000	No
			Zn	-0.000199	0.000000	No
B 208.959 {461}	☐	8	Mo	0.040678	0.000000	No
			Zn	0.000094	0.000000	No
			Mn	0.000290	0.000000	No
			Fe	-0.000008	0.000000	No
			Cu	-0.000516	0.000000	No
			Cr	0.001056	0.000000	No
			Co	0.000360	0.000000	No
			Ti	0.000557	0.000000	No
Ba 455.403 { 74}	☐	2	Fe	-0.000008	0.000000	No
			Al	0.000003	0.000000	No
Be 313.042 {108}	☐	3	Ti	-0.000402	0.000000	No
			Mo	-0.000038	0.000000	No
			V	0.000959	0.000000	No
Ca 317.933 {106}	☐	1	Na	0.000256	0.000000	No
Cd 226.502 {449}	☐	1	Fe	0.000054	0.000000	No
Co 228.616 {447}	☐	4	Mo	-0.001136	0.000000	No
			Ti	0.001995	0.000000	No
			Fe	-0.000002	0.000000	No
			Mn	0.000069	0.000000	No
Cr 267.716 {126}	☒	6	Fe	-0.000006	0.000000	No
			Mn	0.000116	0.000000	No
			Al	0.000005	0.000000	No
			Cu	0.000075	0.000000	No
			Ca	0.000001	0.000000	No
			Co	0.000063	0.000000	No
Cu 219.958 {453}	☒	13	Al	0.000568	0.000000	No
			Ca	-0.000227	0.000000	No
			Na	-0.000238	0.000000	No
			Mg	-0.000439	0.000000	No
			B	-0.003834	0.000000	No
			Cr	-0.007088	0.000000	No
			Co	-0.011022	0.000000	No
			Mn	-0.004165	0.000000	No
			Mo	-0.011425	0.000000	No
			Ti	-0.011681	0.000000	No
			V	-0.010122	0.000000	No
			Zn	-0.011796	0.000000	No
			Fe	-0.000223	0.000000	No
Cu 221.810 {452}	☒	13	Al	-0.000147	0.000000	No
			Ca	-0.000148	0.000000	No
			Na	-0.000148	0.000000	No
			Mg	-0.000277	0.000000	No
			B	0.014899	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cr	0.020542	0.000000	No
			Co	-0.005233	0.000000	No
			Mn	0.002165	0.000000	No
			Mo	-0.010463	0.000000	No
			Ti	-0.007247	0.000000	No
			V	-0.007106	0.000000	No
			Zn	-0.007367	0.000000	No
			Fe	-0.001067	0.000000	No
Cu 327.396 {103}	☒	13	Al	-0.000143	0.000000	No
			Ca	-0.000123	0.000000	No
			Na	-0.000138	0.000000	No
			Mg	-0.000249	0.000000	No
			B	0.012714	0.000000	No
			Cr	0.000995	0.000000	No
			Co	-0.006974	0.000000	No
			Mn	0.001006	0.000000	No
			Mo	-0.007649	0.000000	No
			Ti	-0.008111	0.000000	No
			V	-0.005533	0.000000	No
			Zn	-0.007110	0.000000	No
			Fe	-0.000017	0.000000	No
Fe 259.940 {130}	☒	5	Na	-0.000014	0.000000	No
			Mn	-0.001399	0.000000	No
			Mo	-0.000705	0.000000	No
			V	-0.000340	0.000000	No
			Zn	0.000310	0.000000	No
K 766.490 { 44}	☒	13	Cu	0.003618	0.000000	No
			Mg	0.000031	0.000000	No
			Fe	-0.000501	0.000000	No
			Mn	0.008244	0.000000	No
			Mo	-0.008795	0.000000	No
			Al	0.000271	0.000000	No
			B	0.008494	0.000000	No
			Co	0.005627	0.000000	No
			Ti	0.005118	0.000000	No
			V	-0.004687	0.000000	No
			Zn	0.002340	0.000000	No
			Cr	0.004371	0.000000	No
			Na	0.000003	0.000000	No
Mg 280.270 {120}	☒	11	Ca	-0.000042	0.000000	No
			Na	0.000045	0.000000	No
			B	-0.001335	0.000000	No
			Cr	-0.001430	0.000000	No
			Co	-0.001417	0.000000	No
			Mn	-0.001523	0.000000	No
			Mo	-0.001745	0.000000	No
			Ti	-0.001522	0.000000	No
			V	-0.000962	0.000000	No
			Zn	-0.001715	0.000000	No
			Fe	-0.000034	0.000000	No
Mg 285.213 {118}	☒	11	Ca	-0.000042	0.000000	No
			Na	0.000044	0.000000	No
			B	-0.001799	0.000000	No
			Cr	-0.001797	0.000000	No
			Co	-0.001949	0.000000	No
			Mn	-0.001953	0.000000	No
			Mo	-0.002286	0.000000	No
			Ti	-0.002038	0.000000	No
			V	-0.002423	0.000000	No
			Zn	-0.002295	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Fe	-0.000527	0.000000	No
Mn 257.610 {131}	☒	5	Mg	0.000024	0.000000	No
			Fe	-0.000014	0.000000	No
			Al	-0.000002	0.000000	No
			Cr	-0.000058	0.000000	No
			V	-0.000028	0.000000	No
Mo 202.030 {467}	☒	8	Fe	-0.000006	0.000000	No
			Mn	-0.000090	0.000000	No
			Al	-0.000001	0.000000	No
			Mg	-0.000002	0.000000	No
			Cr	0.000043	0.000000	No
			Ti	0.000030	0.000000	No
			V	-0.000131	0.000000	No
			Zn	-0.000254	0.000000	No
Na 589.592 { 57}	☒	4	Mg	0.000593	0.000000	No
			Cr	0.010584	0.000000	No
			Zn	0.005397	0.000000	No
			Fe	-0.000012	0.000000	No
Ni 231.604 {445}	☒	8	Fe	-0.000062	0.000000	No
			Mo	0.001560	0.000000	No
			Al	0.000002	0.000000	No
			Mg	0.000003	0.000000	No
			Cr	-0.000055	0.000000	No
			Co	0.000472	0.000000	No
			Mn	0.000095	0.000000	No
			Zn	0.000064	0.000000	No
Pb 220.353 {453}	☒	10	Al	0.000241	0.000000	No
			Cu	0.002348	0.000000	No
			Mg	0.000008	0.000000	No
			Mo	-0.001992	0.000000	No
			Fe	0.000027	0.000000	No
			Mn	0.000149	0.000000	No
			Cr	0.000109	0.000000	No
			Ca	-0.000013	0.000000	No
			Na	-0.000002	0.000000	No
			Zn	0.000108	0.000000	No
Sb 206.833 {463}	☒	9	Cr	0.017119	0.000000	No
			V	-0.001556	0.000000	No
			Fe	0.000034	0.000000	No
			Mn	0.000000	0.000000	No
			Mo	-0.005080	0.000000	No
			Ca	0.000003	0.000000	No
			Co	0.000139	0.000000	No
			Ti	0.000447	0.000000	No
			Zn	0.000099	0.000000	No
Se 196.090 {472}	☒	14	Al	0.000005	0.000000	No
			Mn	0.000837	0.000000	No
			Fe	-0.000160	0.000000	No
			Co	-0.000157	0.000000	No
			Cu	0.000107	0.000000	No
			Mg	-0.000003	0.000000	No
			Cr	-0.000048	0.000000	No
			Mo	-0.000060	0.000000	No
			Ca	-0.000007	0.000000	No
			Na	-0.000006	0.000000	No
			B	-0.000110	0.000000	No
			Ti	-0.000067	0.000000	No
			V	-0.000070	0.000000	No
			Zn	-0.000068	0.000000	No
Si 251.611 {134}	☒	10	Ca	0.000006	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Na	0.000049	0.000000	No
			Mg	0.000036	0.000000	No
			B	-0.000732	0.000000	No
			Mn	0.000830	0.000000	No
			Mo	0.009831	0.000000	No
			Ti	0.006504	0.000000	No
			V	0.000256	0.000000	No
			Zn	0.000733	0.000000	No
			Fe	-0.000083	0.000000	No
Sn 189.989 {477}	☒	6	Fe	0.000006	0.000000	No
			Ca	-0.000003	0.000000	No
			Na	0.000003	0.000000	No
			Mg	0.000004	0.000000	No
			Ti	-0.001478	0.000000	No
			Zn	0.000107	0.000000	No
Sr 407.771 { 83}	☒	1	Ca	0.000009	0.000000	No
Sr 421.552 { 80}	☒	None				
Te 214.281 {457}	☒	11	Mo	0.000341	0.000000	No
			Ti	0.002474	0.000000	No
			V	-0.171245	0.000000	No
			Zn	-0.002905	0.000000	No
			Fe	-0.000278	0.000000	No
			Al	-0.000014	0.000000	No
			Mg	0.000003	0.000000	No
			Ca	0.000007	0.000000	No
			Na	0.000003	0.000000	No
			B	0.000321	0.000000	No
			Mn	-0.000102	0.000000	No
Ti 334.941 {101}	☒	5	Fe	-0.000000	0.000000	No
			Mn	0.000000	0.000000	No
			Mg	-0.000004	0.000000	No
			Cr	0.000161	0.000000	No
			Ca	0.000004	0.000000	No
Tl 190.856 {477}	☒	10	Co	0.005004	0.000000	No
			Mo	-0.007135	0.000000	No
			Ti	-0.001460	0.000000	No
			V	-0.020145	0.000000	No
			Mn	0.001894	0.000000	No
			Fe	-0.000038	0.000000	No
			Cu	-0.000070	0.000000	No
			Cr	0.000181	0.000000	No
			Ca	0.000003	0.000000	No
			Zn	-0.000050	0.000000	No
V 292.402 {115}	☒	8	Cr	-0.003158	0.000000	No
			Mo	-0.008495	0.000000	No
			Ti	0.000800	0.000000	No
			Fe	0.000008	0.000000	No
			Mn	-0.000485	0.000000	No
			Cu	0.000072	0.000000	No
			Mg	-0.000002	0.000000	No
			Zn	0.000078	0.000000	No
Y 224.306 {450}*	☒	None				
Y 377.433 { 89}*	☒	None				
Y 377.433 { 89}2*	☒	None				
Zn 213.856 {458}	☒	12	Fe	0.000080	0.000000	No
			Mn	0.000094	0.000000	No
			Mg	0.000036	0.000000	No
			Cu	0.000365	0.000000	No
			Ca	0.000003	0.000000	No
			Na	0.000002	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				B	0.000128	0.000000	No
				Cr	0.000161	0.000000	No
				Co	0.000113	0.000000	No
				Mo	-0.000118	0.000000	No
				Ti	-0.000755	0.000000	No
				V	0.000129	0.000000	No
	Zr 343.823 { 98}	☒	1	Fe	0.000031	0.000000	No

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Linear Dynamic Ranges

Project: 711095 Instrument: iTEVA-Soil

Units: ug/L

Analyte	Wavelength/Mass	Linear Dynamic Range	Date of LDR
Lead	220.353	22000	11/14/07

GPL Laboratories, LLLP

Preparation Log

Project: 711095 Instrument: iTEVA-Soil

Prep Method: Batch Number: 101755

Lab Sample ID	Client ID	Preparation Date	Initial Weight (grams)	Final Volume (ml)
BLK101755	BLK101755	11/27/2007	1.00	100
BKS101755	BKS101755	11/27/2007	1.00	100
S 711095-001-001-1/1	SB-CZ-SS-2143-BA	11/27/2007	1.16	100
SP711095-001-001-1/1	SB-CZ-SS-2143-BA MS	11/27/2007	1.20	100
S 711095-008-008-1/1	SB-CZ-SS-2143-BD	11/27/2007	1.27	100
S 711095-002-002-1/1	SB-CZ-SS-2144-BA	11/27/2007	1.19	100
S 711095-009-009-1/1	SB-CZ-SS-2144-BD	11/27/2007	1.28	100
S 711095-003-003-1/1	SB-CZ-SS-2145-BA	11/27/2007	1.28	100
S 711095-010-010-1/1	SB-CZ-SS-2145-BD	11/27/2007	1.15	100
S 711095-004-004-1/1	SB-CZ-SS-2146-BA	11/27/2007	1.26	100
S 711095-011-011-1/1	SB-CZ-SS-2146-BD	11/27/2007	1.25	100
S 711095-005-005-1/1	SB-CZ-SS-2147-BA	11/27/2007	1.23	100
S 711095-012-012-1/1	SB-CZ-SS-2147-BD	11/27/2007	1.21	100
S 711095-006-006-1/1	SB-CZ-SS-2148-BA	11/27/2007	1.12	100
S 711095-013-013-1/1	SB-CZ-SS-2148-BD	11/27/2007	1.15	100
S 711095-007-007-1/1	SB-CZ-SS-2149-BA	11/27/2007	1.18	100
S 711095-014-014-1/1	SB-CZ-SS-2149-BD	11/27/2007	1.25	100
SD711095-001-001-1/1	SB-CZ-SS-2143-BA MSD	11/27/2007	1.25	100

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Analysis Run Log

Project: 711095

Instrument: iTEVA-Soil

Data File Name: 071211.txt

Sample Name	Client ID	Analysis Date	Analysis Time
STD0		12/11/07	4:26 PM
STD1		12/11/07	4:30 PM
STD2		12/11/07	4:33 PM
STD3		12/11/07	4:37 PM
STD4		12/11/07	4:40 PM
STD5		12/11/07	4:44 PM
STD6		12/11/07	4:47 PM
ICV		12/11/07	4:58 PM
ICB		12/11/07	5:01 PM
CCV1		12/11/07	5:05 PM
CCB1		12/11/07	5:08 PM
PQL		12/11/07	5:12 PM
ICSA		12/11/07	5:15 PM
ICSAB		12/11/07	5:19 PM
CCV2		12/11/07	5:30 PM
CCB2		12/11/07	5:34 PM
CCV3		12/11/07	6:11 PM
CCB3		12/11/07	6:15 PM
CCV4		12/11/07	6:53 PM
CCB4		12/11/07	6:57 PM
CCV5		12/11/07	7:35 PM
CCB5		12/11/07	7:38 PM
CCV6		12/11/07	8:16 PM
CCB6		12/11/07	8:20 PM
CCV7		12/11/07	8:58 PM
CCB7		12/11/07	9:02 PM
CCV8		12/11/07	9:40 PM
CCB8		12/11/07	9:44 PM
CCV9		12/11/07	10:22 PM
CCB9		12/11/07	10:26 PM
CCV10		12/11/07	11:05 PM
CCB10		12/11/07	11:08 PM
BLK101755	BLK101755	12/11/07	11:15 PM
BKS101755	BKS101755	12/11/07	11:19 PM
S 711095-001-001-1/1	SB-CZ-SS-2143-BA	12/11/07	11:22 PM
SP711095-001-001-1/1	SB-CZ-SS-2143-BA MS	12/11/07	11:26 PM
SD711095-001-001-1/1	SB-CZ-SS-2143-BA MSD	12/11/07	11:29 PM
PS711095-001-001-1/1	SB-CZ-SS-2143-BA	12/11/07	11:33 PM
SE711095-001-001-1/1	SB-CZ-SS-2143-BA	12/11/07	11:36 PM

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Analysis Run Log

Project: 711095

Instrument: iTEVA-Soil

Data File Name: 071211.txt

Sample Name	Client ID	Analysis Date	Analysis Time
S 711095-002-002-1/1	SB-CZ-SS-2144-BA	12/11/07	11:40 PM
S 711095-003-003-1/1	SB-CZ-SS-2145-BA	12/11/07	11:43 PM
CCV11		12/11/07	11:47 PM
CCB11		12/11/07	11:50 PM
S 711095-004-004-1/1	SB-CZ-SS-2146-BA	12/11/07	11:54 PM
S 711095-005-005-1/1	SB-CZ-SS-2147-BA	12/11/07	11:58 PM
S 711095-006-006-1/1	SB-CZ-SS-2148-BA	12/12/07	12:01 AM
S 711095-007-007-1/1	SB-CZ-SS-2149-BA	12/12/07	12:05 AM
S 711095-008-008-1/1	SB-CZ-SS-2143-BD	12/12/07	12:08 AM
S 711095-009-009-1/1	SB-CZ-SS-2144-BD	12/12/07	12:12 AM
S 711095-010-010-1/1	SB-CZ-SS-2145-BD	12/12/07	12:15 AM
S 711095-011-011-1/1	SB-CZ-SS-2146-BD	12/12/07	12:19 AM
S 711095-012-012-1/1	SB-CZ-SS-2147-BD	12/12/07	12:23 AM
S 711095-013-013-1/1	SB-CZ-SS-2148-BD	12/12/07	12:26 AM
CCV12		12/12/07	12:30 AM
CCB12		12/12/07	12:33 AM
S 711095-014-014-1/1	SB-CZ-SS-2149-BD	12/12/07	12:37 AM
CCV13		12/12/07	1:12 AM
CCB13		12/12/07	1:16 AM

ICP ANALYSIS LOG

Instrument ID: ICAP 6500 (20072904) Inst. Method: Nebulizer: Analytical Batch No: 0712112

Workorder	Project/SDG #	Prep. Seq.	Batch #	Matrix S/W/E	Prep. Date	Method	Comments / Dilution
711053	SC&A		101	S	11-13-07	6010C	10x on all
710216	USACE		056	S	11-01-07	6010B	10x on all
711067	SC&A		119	S	11-20-07	~~3050B~~ 6010C	10x on all
711095	SC&A		131	S	11-27-07	6010C	↓
711096	SC&A		132	S	11-27-07	6010C	
712019	Alson Science		162	S	12-7-07	6010B	

MC 12/11/07

Source Solution Numbers

Stds.	Number	Stds.	Number
S0	GP-129-116-10	ICV	42173
S1	42105	CCV	42200
S2	42106	ICSA	42304
S3	42109	ICSAB	42305
S4	42110	Low Ck	42234
S5	42111	LR	42008
S6	42112	IS	42235

Post Digestion Spikes

Spike 9.9 mls of sample with 0.1 mls of 4153

Samples:

PS 711053-001-001-1
PS 710216-002-006-1
PS 711067-001-001-1
PS 711067-021-021-1
PS 711095-001-001-1
PS 711096-001-001-1
PS 712019-001-001-1

Analyst: MC Date: ~~11/12/07~~ 12/11/07 Reviewed: Date: 12/14/07

ICP ANALYSIS LOG

	Pos ID	Type	Samplename
1	1	QC	BLK 101
2	2	QC	BKS 101
3	3	Unk	S 711053-001-001-1
4	4	Unk	SP711053-001-001-
5	5	Unk	SD711053-001-001-
6	6	Unk	PS711053-001-001-
7	7	Unk	SE711053-001-001-
8	8	Unk	S 711053-002-002-1
9	9	Unk	S 711053-003-003-1
10	10	Unk	S 711053-004-004-1
11	11	Unk	S 711053-005-005-1
12	12	Unk	S 711053-006-006-1
13	13	Unk	S 711053-007-007-1
14	14	Unk	S 711053-008-008-1
15	15	Unk	S 711053-009-009-1
16	16	Unk	S 711053-010-010-1
17	17	Unk	S 711053-011-011-1
18	18	Unk	S 711053-012-012-1
19	19	Unk	S 711053-013-013-1
20	20	QC	BLK 056
21	21	QC	BKS 056
22	22	Unk	S 710216-002-006-1
23	23	Unk	SP710216-002-006-
24	24	Unk	SD710216-002-006-
25	25	Unk	PS710216-002-006-
26	26	Unk	SE710216-002-006-
27	27	Unk	S 710216-003-008-1
28	28	QC	BLK 119
29	29	QC	BKS 119
30	30	Unk	S 711067-001-001-1
31	31	Unk	SP711067-001-001-
32	32	Unk	SD711067-001-001-
33	33	Unk	PS711067-001-001-
34	34	Unk	SE711067-001-001-
35	35	Unk	S 711067-002-002-1
36	36	Unk	S 711067-003-003-1
37	37	Unk	S 711067-004-004-1
38	38	Unk	S 711067-005-005-1
39	39	Unk	S 711067-006-006-1
40	40	Unk	S 711067-007-007-1
41	41	Unk	S 711067-008-008-1
42	42	Unk	S 711067-009-009-1
43	43	Unk	S 711067-010-010-1
44	44	Unk	S 711067-011-011-1
45	45	Unk	S 711067-012-012-1
46	46	Unk	S 711067-013-013-1
47	47	Unk	S 711067-014-014-1
48	48	Unk	S 711067-015-015-1
49	49	Unk	S 711067-016-016-1
50	50	Unk	S 711067-017-017-1
51	51	Unk	S 711067-018-018-1
52	52	Unk	S 711067-019-019-1
53	53	Unk	S 711067-020-020-1
54	54	QC	BLK 120
55	55	QC	BKS 120
56	56	Unk	S 711067-021-021-1
57	57	Unk	SP711067-021-021-
58	58	Unk	SD711067-021-021-
59	59	Unk	PS711067-021-021-
60	60	Unk	SE711067-021-021-
61	61	Unk	S 711067-022-022-1
62	62	Unk	S 711067-023-023-1
63	63	Unk	S 711067-024-024-1
64	64	Unk	S 711067-025-025-1
65	65	Unk	S 711067-026-026-1
66	66	Unk	S 711067-027-027-1
67	67	Unk	S 711067-028-028-1
68	68	Unk	S 711067-029-029-1
69	69	Unk	S 711067-030-030-1
70	70	Unk	S 711067-031-031-1
71	71	Unk	S 711067-032-032-1
72	72	Unk	S 711067-033-033-1
73	73	Unk	S 711067-034-034-1
74	74	Unk	S 711067-035-035-1
75	75	Unk	S 711067-036-036-1
76	76	Unk	S 711067-037-037-1
77	77	Unk	S 711067-038-038-1
78	78	Unk	S 711067-039-039-1
79	79	QC	ICSA
80	80	QC	ICSAB
81	81	Unk	S 711067-040-040-1
82	82	QC	BLK 131
83	83	QC	BKS 131
84	84	Unk	S 711095-001-001-1
85	85	Unk	SP711095-001-001-
86	86	Unk	SD711095-001-001-
87	87	Unk	PS711095-001-001-
88	88	Unk	SE711095-001-001-
89	89	Unk	S 711095-002-002-1
90	90	Unk	S 711095-003-003-1
91	91	Unk	S 711095-004-004-1
92	92	Unk	S 711095-005-005-1
93	93	Unk	S 711095-006-006-1
94	94	Unk	S 711095-007-007-1
95	95	Unk	S 711095-008-008-1
96	96	Unk	S 711095-009-009-1
97	97	Unk	S 711095-010-010-1
98	98	Unk	S 711095-011-011-1
99	99	Unk	S 711095-012-012-1
100	100	Unk	S 711095-013-013-1
101	101	Unk	S 711095-014-014-1
102	102	QC	BLK 132
103	103	QC	BKS 132
104	104	Unk	S 711096-001-001-1
105	105	Unk	SP711096-001-001-
106	106	Unk	SD711096-001-001-
107	107	Unk	PS711096-001-001-
108	108	Unk	SE711096-001-001-
109	109	Unk	S 711096-002-002-1
110	110	Unk	S 711096-003-003-1
111	111	Unk	S 711096-004-004-1
112	112	Unk	S 711096-005-005-1
113	113	Unk	S 711096-006-006-1
114	114	Unk	S 711096-007-007-1
115	115	Unk	S 711096-008-008-1
116	116	Unk	S 711096-009-009-1
117	117	Unk	S 711096-010-010-1
118	118	Unk	S 711096-011-011-1
119	119	Unk	S 711096-012-012-1
120	120	Unk	S 711096-013-013-1
121	121	Unk	S 711096-014-014-1
122	122	QC	BLK 162
123	123	QC	BKS 162
124	124	Unk	S 712019-001-001-1
	Pos ID	Type	Samplename
125	125	Unk	SP712019-001-001-
126	126	Unk	SD712019-001-001-
127	127	Unk	PS712019-001-001-
128	128	Unk	SE712019-001-001-
129	129	Unk	S 712019-002-003-1
130	130	Unk	S 712019-003-005-1
131	131	Unk	S 712019-004-007-1
132	132	Unk	S 712019-005-009-1
133	133	Unk	S 712019-006-011-1
134	134	Unk	S 712019-007-013-1
135	135	Unk	S 712019-008-015-1
136	136	Unk	S 712019-009-017-1
137	137	Unk	S 712019-010-019-1
138	138	Unk	S 712019-011-021-1
139	139	Unk	S 712019-012-023-1
140	140	Unk	S 712019-013-025-1
141	141	Unk	S 712019-014-027-1
142	142	Unk	S 712019-015-029-1
143	143	Unk	S 712019-016-031-1
144	144	Unk	S 712019-017-033-1
145	145	Unk	S 712019-018-035-1
146	146	Unk	S 712019-019-037-1
147	147	Unk	S 712019-020-039-1
148	148	QC	ICSA
149	149	QC	ICSAB

Sample Dilutions:

Sample Name: STD0 Acquired: 12/11/2007 15:21:34 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00002**	**-.00004**	**-.00003**	**.00027**	**.00077**	**.00004**	**.00519**
Stddev	.00001	.00016	.00001	.00001	.00001	.00000	.00014
%RSD	27.670	390.57	46.279	4.5789	1.3060	6.3682	2.6965
#1	-.00003	.00007	-.00004	.00028	.00078	.00004	.00509
#2	-.00002	-.00015	-.00002	.00026	.00076	.00004	.00529

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00009**	**-.00005**	**.00000**	**.0001**	**.0002**	**.0001**	**.00016**
Stddev	.00000	.00002	.0000	.0001	.0000	.0001	.00014
%RSD	.72237	33.168	104.08	48.38	18.23	79.77	85.842
#1	.00009	-.00007	-.00001	.0001	.0002	.0002	.00025
#2	.00009	-.00004	.00000	.0002	.0002	.0001	.00006

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00053**	**.0095**	**.0008**	**.00001**	**.00002**	**.00564**	**.00003**
Stddev	.00037	.0026	.0001	.00001	.00001	.00011	.00000
%RSD	69.490	27.44	15.63	113.33	61.732	1.9925	8.4488
#1	-.00027	.0077	.0007	.00000	.00003	.00572	.00003
#2	-.00079	.0114	.0009	.00002	.00001	.00557	.00002

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00021**	**.00002**	**.00000**	**.00014**	**.00004**	**.00114**	**.00003**
Stddev	.00003	.00002	.0001	.00001	.00001	.00000	.00004
%RSD	15.528	85.925	1047.3	4.3901	17.171	.20408	123.80
#1	-.00024	.00004	-.00004	.00013	.00004	.00114	.00000
#2	-.00019	.00001	.00003	.00014	.00003	.00115	.00006

Sample Name: STD0 Acquired: 12/11/2007 15:21:34 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00001**	**-.00003**	**.00003**	**.00055**
Stddev	.00000	.00001	.00000	.00002
%RSD	9.0177	43.063	8.5312	3.1932
#1	-.00001	-.00002	.00003	.00054
#2	-.00001	-.00004	.00003	.00057

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43596.	28857.	581810.
Stddev	103.	73.	5657.
%RSD	.23566	.25450	.97222
#1	43523.	28909.	577810.
#2	43668.	28805.	585810.

Sample Name: STD1 Acquired: 12/11/2007 15:24:56 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00913**	**.37726**	**.00358**	**.01764**	**.19619**	**.02968**	**.12283**	**.04737**
Stddev	.00004	.00483	.00004	.00007	.00036	.00011	.00068	.00020
%RSD	.39241	1.2804	1.0489	.40266	.18299	.35637	.55187	.43039
#1	.00910	.37384	.00360	.01769	.19593	.02960	.12331	.04751
#2	.00916	.38067	.00355	.01759	.19644	.02975	.12235	.04722

Elem	Cr	Cu2199	Cu2218	Cu3273	Fe	Mn	Mo	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00643**	**.0069**	**.0098**	**.0030**	**.46987**	**.03684**	**.02639**	**.02561**
Stddev	.00002	.0000	.0000	.0001	.00715	.00014	.00010	.00003
%RSD	.36410	.5867	.1961	4.435	1.5211	.37959	.37662	.12024
#1	.00642	.0069	.0098	.0029	.46481	.03674	.02646	.02563
#2	.00645	.0069	.0098	.0031	.47492	.03694	.02632	.02559

Elem	Pb	Sb	Se	Si	Sn	Sr	Te	Ti
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00969**	**.00479**	**.00324**	**.00247**	**.00943**	**.43190**	**.00382**	**.02363**
Stddev	.00004	.00003	.00001	.00002	.00006	.00114	.00004	.00007
%RSD	.37038	.53183	.42984	.87994	.60237	.26421	1.0609	.27654
#1	.00971	.00481	.00324	.00245	.00947	.43109	.00379	.02359
#2	.00966	.00477	.00325	.00248	.00939	.43270	.00385	.02368

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.00398**	**.00901**	**.08350**
Stddev	.00005	.00003	.00030
%RSD	1.2390	.33842	.35620
#1	.00401	.00899	.08371
#2	.00394	.00903	.08329

Sample Name: STD1 Acquired: 12/11/2007 15:24:56 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43752.	29222.	591150.
Stddev	113.	247.	736.
%RSD	.25749	.84389	.12457
#1	43672.	29397.	591670.
#2	43832.	29048.	590630.

Sample Name: STD2 Acquired: 12/11/2007 15:28:14 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02282**	**.89445**	**.00868**	**.04339**	**.48357**	**.07386**	**.30044**	**.11706**
Stddev	.00020	.03384	.00002	.00012	.00326	.00070	.00042	.00007
%RSD	.85959	3.7830	.18338	.27927	.67330	.95035	.13891	.05761
#1	.02296	.87053	.00869	.04347	.48588	.07436	.30073	.11701
#2	.02268	.91838	.00866	.04330	.48127	.07337	.30014	.11711

Elem	Cr	Cu2199	Cu2218	Cu3273	Fe	Mn	Mo	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01575**	**.0168**	**.0239**	**.0076**	**1.1201**	**.09280**	**.06520**	**.06327**
Stddev	.00018	.0000	.0000	.0001	.0458	.00061	.00006	.00013
%RSD	1.1337	.0431	.1452	.9607	4.0907	.65946	.08595	.20774
#1	.01588	.0168	.0239	.0076	1.0877	.09323	.06524	.06318
#2	.01563	.0168	.0239	.0075	1.1525	.09236	.06516	.06336

Elem	Pb	Sb	Se	Si	Sn	Sr	Te	Ti
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02408**	**.01182**	**.00786**	**.00587**	**.02323**	**1.0668**	**.00937**	**.05919**
Stddev	.00003	.00001	.00005	.00005	.00003	.0102	.00001	.00053
%RSD	.11342	.09756	.66358	.90206	.12303	.95794	.06450	.90277
#1	.02410	.01181	.00789	.00591	.02321	1.0741	.00937	.05957
#2	.02406	.01183	.00782	.00584	.02325	1.0596	.00936	.05881

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.00976**	**.02241**	**.20266**
Stddev	.00006	.00021	.00050
%RSD	.60861	.91802	.24596
#1	.00980	.02255	.20301
#2	.00972	.02226	.20230

Sample Name: STD2 Acquired: 12/11/2007 15:28:14 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43520.	30262.	586950.
Stddev	32.	1087.	4068.
%RSD	.07422	3.5925	.69301
#1	43543.	31031.	584080.
#2	43497.	29494.	589830.

Sample Name: STD3 Acquired: 12/11/2007 15:31:47 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04471**	**1.8697**	**.01716**	**.08478**	**.95513**	**.14467**	**.59336**	**.23100**
Stddev	.00130	.0187	.00000	.00013	.02447	.00426	.00077	.00046
%RSD	2.8997	.99814	.00108	.15270	2.5622	2.9420	.12989	.19842
#1	.04563	1.8829	.01716	.08487	.97243	.14768	.59391	.23132
#2	.04379	1.8565	.01716	.08469	.93783	.14166	.59282	.23067

Elem	Cr	Cu2199	Cu2218	Cu3273	Fe	Mn	Mo	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.03065**	**.0331**	**.0470**	**.0151**	**2.3153**	**.18180**	**.12874**	**.12500**
Stddev	.00092	.0000	.0001	.0000	.0261	.00537	.00021	.00032
%RSD	2.9893	.0322	.3167	.0159	1.1277	2.9541	.16127	.25207
#1	.03129	.0331	.0471	.0151	2.3338	.18559	.12888	.12523
#2	.03000	.0331	.0469	.0151	2.2968	.17800	.12859	.12478

Elem	Pb	Sb	Se	Si	Sn	Sr	Te	Ti
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04754**	**.02345**	**.01531**	**.01120**	**.04572**	**2.0600**	**.01834**	**.11626**
Stddev	.00016	.00006	.00003	.00034	.00003	.0566	.00002	.00328
%RSD	.33628	.25370	.17456	3.0360	.06044	2.7495	.09237	2.8233
#1	.04766	.02349	.01533	.01144	.04574	2.1001	.01835	.11858
#2	.04743	.02340	.01529	.01096	.04570	2.0200	.01833	.11394

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.01931**	**.04376**	**.39952**
Stddev	.00010	.00135	.00088
%RSD	.52669	3.0760	.21959
#1	.01938	.04471	.40014
#2	.01923	.04281	.39890

Sample Name: STD3 Acquired: 12/11/2007 15:31:47 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43403.	28818.	593240.
Stddev	5.	119.	15953.
%RSD	.01254	.41441	2.6891
#1	43399.	28733.	581960.
#2	43406.	28902.	604520.

Sample Name: STD4 Acquired: 12/11/2007 15:35:20 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Mg2852	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8510**	**.06564**	**26.34**	**2.746**	**1.8020**
Stddev	.0352	.00118	.80	.048	.0323
%RSD	1.8993	1.8018	3.050	1.739	1.7924
#1	1.8262	.06480	25.78	2.713	1.7792
#2	1.8759	.06648	26.91	2.780	1.8248

Int. Std.	Y_3774
Units	Cts/S
Avg	**29319.**
Stddev	652.
%RSD	2.2248
#1	29780.
#2	28858.

Sample Name: STD5 Acquired: 12/11/2007 15:38:50 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Mg2852	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.5571**	**.12910**	**61.61**	**6.482**	**4.4168**
Stddev	.1177	.00372	.51	.147	.1052
%RSD	2.5836	2.8796	.8247	2.276	2.3814
#1	4.4738	.12647	61.25	6.378	4.3424
#2	4.6404	.13173	61.97	6.586	4.4912

Int. Std.	Y_3774
Units	Cts/S
Avg	29914.
Stddev	575.
%RSD	1.9227
#1	30320.
#2	29507.

Sample Name: STD6 Acquired: 12/11/2007 15:42:20 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Mg2852	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**9.1937**	**.33193**	**110.5**	**12.15**	**8.9143**
Stddev	.0057	.00131	1.0	.03	.0244
%RSD	.06198	.39326	.9081	.2181	.27419
#1	9.1897	.33285	111.2	12.17	8.9316
#2	9.1977	.33101	109.8	12.13	8.8970

Int. Std.	Y_3774
Units	Cts/S
Avg	**28959.**
Stddev	64.
%RSD	.22103
#1	28914.
#2	29005.

Sample Name: Blank Acquired: 12/11/2007 15:45:55 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Cu2218	Cu3273
Units	Cts/S	Cts/S
Avg	**.0001**	**.0000**
Stddev	.0000	.000
%RSD	12.54	117.1
#1	.0001	-.0001
#2	.0001	.0000

Int. Std.	Y_2243
Units	Cts/S
Avg	43879.
Stddev	5.
%RSD	.01043
#1	43876.
#2	43883.

Sample Name: PBLK Acquired: 12/11/2007 15:49:19 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.15233**	**-1.4205**	**.15281**	**-.86528**	**-.08129**	**.01278**	**-31.278**	**-.18096**
Stddev	.06959	2.2061	.84165	.51896	.00252	.00231	1.563	.01402
%RSD	45.680	155.31	550.79	59.976	3.1002	18.099	4.9980	7.7449
#1	-.10313	-2.9805	-.44233	-.49832	-.07950	.01442	-30.173	-.19087
#2	-.20154	.13948	.74794	-1.2322	-.08307	.01115	-32.384	-.17105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.13969**	**.10404**	**-1.542**	**-.3514**	**.9027**	**-3.2575**	**140.31**	F **-11.45**
Stddev	.01853	.06363	.575	.7927	1.721	3.4176	18.54	.81
%RSD	13.262	61.163	37.28	225.6	190.6	104.92	13.215	7.079
#1	-.15279	.05904	-1.135	-.9119	-.3140	-.84083	127.19	-10.88
#2	-.12659	.14903	-1.948	.2092	2.119	-5.6741	153.42	-12.02
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-16.33**	**-.06506**	**.11222**	**61.496**	**-.27839**	**.03088**	**.74496**	**1.1871**
Stddev	.62	.05452	.19602	5.001	.15218	.75282	.42900	.1099
%RSD	3.816	83.790	174.67	8.1315	54.664	2437.8	57.587	9.2604
#1	-15.89	-.10361	-.02639	57.960	-.38600	.56321	1.0483	1.2649
#2	-16.77	-.02651	.25083	65.032	-.17078	-.50145	.44161	1.1094
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: PBLK Acquired: 12/11/2007 15:49:19 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.9268**	**-.33962**	**-.07132**	**-1.6597**	**-.09479**	**.71605**	**-.22512**	**-.54600**
Stddev	.2976	.23547	.01251	2.2565	.04327	.10596	.14422	.05965
%RSD	7.5775	69.335	17.534	135.96	45.649	14.798	64.061	10.924
#1	-3.7164	-.50613	-.08016	-3.2552	-.12539	.64112	-.12315	-.58818
#2	-4.1372	-.17311	-.06248	-.06409	-.06419	.79098	-.32710	-.50383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43467.	31505.	595800.
Stddev	10.	1070.	2525.
%RSD	.02332	3.3952	.42384
#1	43474.	32261.	597580.
#2	43460.	30748.	594010.

Sample Name: ICV Acquired: 12/11/2007 15:52:45 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**400.95**	**4998.7**	**439.48**	**434.25**	**431.02**	**41.283**	**5135.6**
Stddev	1.48	87.4	2.21	1.11	2.14	.138	65.0
%RSD	.37005	1.7477	.50349	.25476	.49594	.33361	1.2654
#1	402.00	5060.5	437.92	433.46	432.53	41.380	5181.6
#2	399.91	4936.9	441.05	435.03	429.51	41.186	5089.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**41.812**	**435.20**	**404.69**	**435.0**	**373.1**	**426.3**	**5105.2**
Stddev	.083	.82	1.15	1.6	.8	5.5	81.4
%RSD	.19761	.18819	.28529	.3706	.2083	1.281	1.5945
#1	41.754	434.62	405.51	433.9	372.5	422.4	5162.7
#2	41.870	435.78	403.88	436.2	373.6	430.2	5047.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5256.5**	**5149.**	F **5659.**	**408.02**	**411.95**	**10251.**	**420.93**
Stddev	66.2	60.	79.	2.26	1.26	99.	2.38
%RSD	1.2603	1.159	1.396	.55389	.30478	.96664	.56554
#1	5303.3	5192.	5714.	409.62	411.06	10321.	419.24
#2	5209.7	5107.	5603.	406.43	412.84	10181.	422.61
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5000.				
Range			10.00%				

Sample Name: ICV Acquired: 12/11/2007 15:52:45 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**421.21**	**414.04**	**424.27**	F **86.059**	**413.08**	**414.48**	F **12.888**
Stddev	.90	1.50	4.85	.251	1.16	.30	.792
%RSD	.21302	.36198	1.1433	.29116	.28021	.07298	6.1423
#1	420.58	415.10	420.84	86.236	412.26	414.70	13.447
#2	421.85	412.98	427.70	85.881	413.90	414.27	12.328
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				400.00			400.00
Range				-10.000%			-10.000%

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**405.23**	**412.07**	**413.18**	**432.13**
Stddev	2.08	4.51	1.40	.54
%RSD	.51238	1.0943	.33789	.12456
#1	406.70	408.88	414.17	431.75
#2	403.76	415.26	412.19	432.51
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43352.**	**30747.**	**600290.**
Stddev	38.	264.	3070.
%RSD	.08697	.85892	.51137
#1	43379.	30561.	598120.
#2	43325.	30934.	602460.

Sample Name: ICB Acquired: 12/11/2007 15:56:11 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.02850**	**7.3080**	**2.5458**	**-.67340**	**-.04731**	**.00261**	**-19.241**	**-.11980**
Stddev	.12196	2.6587	.3286	.32575	.04294	.00567	.048	.07287
%RSD	427.94	36.381	12.908	48.374	90.757	216.86	.24957	60.827
#1	.11474	5.4280	2.3135	-.44306	-.07768	.00662	-19.207	-.06827
#2	-.05774	9.1879	2.7782	-.90374	-.01695	-.00139	-19.275	-.17133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00310**	**.22536**	**-1.251**	**-.6024**	F **-4.722**	**.05338**	**209.88**	F **-9.603**
Stddev	.13847	.02448	1.166	.1100	10.03	1.8771	9.76	.038
%RSD	4461.3	10.862	93.21	18.25	212.5	3516.7	4.6509	.3996
#1	-.09481	.24267	-.4264	-.5246	-11.82	-1.2740	202.98	-9.631
#2	.10102	.20805	-2.075	-.6802	2.372	1.3807	216.78	-9.576
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit					3.000			3.000
Low Limit					-3.000			-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-11.93**	**.01062**	**.52237**	**65.544**	**-.33291**	**.25968**	**1.2781**	**.41665**
Stddev	.18	.02190	.10774	7.624	.40401	1.4562	.7766	1.3897
%RSD	1.519	206.33	20.626	11.632	121.36	560.76	60.761	333.55
#1	-12.06	-.00487	.44619	60.153	-.04723	-.76999	1.8273	1.3994
#2	-11.80	.02610	.59856	70.935	-.61859	1.2893	.72899	-.56605
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: ICB Acquired: 12/11/2007 15:56:11 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.9738**	**-.55497**	**-.03687**	**-1.2309**	**-.11252**	**1.3668**	**-.23655**	**.01470**
Stddev	.1693	.01120	.00889	.2334	.09692	.7795	.28878	.05902
%RSD	4.2613	2.0178	24.102	18.964	86.140	57.032	122.08	401.65
#1	-4.0935	-.56289	-.04315	-1.0658	-.18105	1.9180	-.03235	-.02704
#2	-3.8541	-.54705	-.03059	-1.3960	-.04398	.81561	-.44075	.05643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43285.	30944.	594670.
Stddev	131.	883.	6655.
%RSD	.30190	2.8550	1.1191
#1	43193.	31569.	599380.
#2	43378.	30319.	589970.

Sample Name: CCV Acquired: 12/11/2007 15:59:38 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**503.30**	**50079.**	**511.25**	**513.09**	**504.98**	**49.351**	**100630.**
Stddev	1.09	215.	4.08	1.73	.61	.135	276.
%RSD	.21716	.42851	.79747	.33764	.12085	.27344	.27463
#1	502.53	50231.	514.13	514.32	505.41	49.256	100830.
#2	504.07	49927.	508.37	511.87	504.55	49.447	100440.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**495.36**	**494.91**	**491.41**	F **595.3**	F **556.0**	F **591.1**	**49226.**
Stddev	.89	.02	1.55	.3	1.8	5.1	61.
%RSD	.17904	.00486	.31510	.0563	.3299	.8656	.12321
#1	495.99	494.93	490.32	595.1	557.3	587.5	49269.
#2	494.73	494.89	492.51	595.6	554.7	594.7	49183.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				500.0	500.0	500.0	
Range				10.00%	10.00%	10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24788.**	**98650.**	**104400.**	**488.25**	**510.15**	**100800.**	**491.68**
Stddev	32.	853.	486.	1.11	.78	443.	.52
%RSD	.12747	.8642	.4654	.22645	.15286	.43944	.10652
#1	24811.	99250.	104800.	487.47	510.70	101110.	491.31
#2	24766.	98050.	104100.	489.03	509.60	100490.	492.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 15:59:38 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**490.13**	**508.21**	**504.00**	**501.76**	**494.66**	**499.90**	**503.36**
Stddev	1.71	2.73	2.84	6.25	.96	4.39	3.06
%RSD	.34804	.53626	.56279	1.2455	.19350	.87855	.60850
#1	491.34	510.14	506.01	506.17	495.33	496.79	505.53
#2	488.93	506.28	502.00	497.34	493.98	503.00	501.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**499.23**	**497.65**	**498.99**	F **605.56**
Stddev	1.33	.89	1.76	1.32
%RSD	.26698	.17928	.35333	.21839
#1	498.29	498.28	497.75	606.50
#2	500.17	497.02	500.24	604.62
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41664.**	**30023.**	**581890.**
Stddev	4.	59.	2875.
%RSD	.00979	.19750	.49400
#1	41661.	29981.	583920.
#2	41667.	30065.	579860.

Sample Name: CCB Acquired: 12/11/2007 16:03:14 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.09725**	**-4.7361**	**1.7814**	**-.13306**	**-.07807**	**-.00088**	**-28.809**
Stddev	.07154	.3766	2.9380	.04135	.01691	.01478	3.796
%RSD	73.559	7.9507	164.93	31.079	21.654	1684.7	13.176
#1	.04667	-5.0023	-.29612	-.10382	-.06612	-.01133	-26.125
#2	.14784	-4.4698	3.8588	-.16230	-.09003	.00958	-31.493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.20090**	**-.15327**	**.31155**	**-2.330**	**-.9754**	F **4.040**	**1.3602**
Stddev	.02973	.27967	.15352	.413	.9527	5.003	2.2457
%RSD	14.801	182.48	49.275	17.71	97.68	123.8	165.10
#1	-.17987	-.35102	.42010	-2.622	-1.649	7.577	2.9481
#2	-.22192	.04449	.20300	-2.038	-.3017	.5020	-.22776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						3.000	
Low Limit						-3.000	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **255.90**	F **-9.316**	F **-11.23**	**-.02079**	**.36420**	**99.917**	**.02487**
Stddev	38.61	1.577	4.34	.02415	.40048	11.418	.41178
%RSD	15.087	16.93	38.61	116.16	109.96	11.427	1656.0
#1	228.60	-8.201	-8.167	-.03786	.64738	91.844	-.26631
#2	283.20	-10.43	-14.30	-.00371	.08102	107.99	.31604
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000	3.000				
Low Limit	-250.00	-3.000	-3.000				

Sample Name: CCB Acquired: 12/11/2007 16:03:14 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.31379	-.71789	1.6797	-4.8835	-.88104	-.05117	.18054
Stddev	.75243	.31298	2.8639	.5077	.38470	.00608	.55059
%RSD	239.79	43.597	170.50	10.397	43.664	11.876	304.96
#1	-.84584	-.93920	3.7048	-5.2425	-1.1531	-.05547	.56987
#2	.21826	-.49658	-.34536	-4.5245	-.60902	-.04687	-.20878
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	-.01353	.35830	-.20553	-.52091
Stddev	.17675	1.2617	.18387	.13013
%RSD	1306.2	352.14	89.464	24.982
#1	-.13851	1.2505	-.07551	-.61292
#2	.11145	-.53388	-.33555	-.42889
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43362.	30910.	606620.
Stddev	171.	191.	5945.
%RSD	.39499	.61716	.97998
#1	43241.	31045.	602420.
#2	43483.	30775.	610830.

Sample Name: PQL Acquired: 12/11/2007 16:06:42 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.8672**	**205.43**	**22.318**	**15.015**	**5.0736**	**1.9701**	**981.30**
Stddev	.3950	4.88	.080	.332	.0394	.0037	2.10
%RSD	8.1150	2.3744	.35932	2.2123	.77667	.18668	.21405
#1	5.1464	201.98	22.261	14.780	5.1015	1.9727	979.82
#2	4.5879	208.88	22.375	15.250	5.0458	1.9675	982.79
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.0353**	**4.9565**	**5.3876**	F **8.935**	F **12.11**	F **9.866**	**150.55**
Stddev	.0970	.0291	.2162	1.157	.03	.898	6.61
%RSD	1.6074	.58789	4.0127	12.95	.2540	9.099	4.3911
#1	6.1039	4.9771	5.2347	8.117	12.09	9.231	145.87
#2	5.9667	4.9359	5.5404	9.753	12.13	10.50	155.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				5.000	5.000	5.000	
Range				20.00%	20.00%	20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **511.01**	F **241.8**	F **264.0**	**4.8618**	**5.3319**	**2609.3**	**9.7453**
Stddev	12.97	1.2	1.1	.0050	.1447	24.0	.0947
%RSD	2.5373	.4900	.4278	.10391	2.7133	.91862	.97213
#1	520.18	241.0	264.8	4.8583	5.4342	2592.4	9.6783
#2	501.84	242.7	263.2	4.8654	5.2296	2626.3	9.8123
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	250.00	5.000	5.000				
Range	20.000%	20.00%	20.00%				

Sample Name: PQL Acquired: 12/11/2007 16:06:42 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.413**	**19.305**	**22.261**	**49.939**	**25.497**	**4.9516**	**.77949**
Stddev	.685	1.199	.456	.878	.421	.0158	1.2990
%RSD	6.5797	6.2123	2.0483	1.7575	1.6515	.31840	166.65
#1	10.897	18.457	22.583	50.560	25.795	4.9628	-.13904
#2	9.9281	20.153	21.938	49.319	25.199	4.9405	1.6980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**24.614**	**30.377**	**9.5761**	**22.296**
Stddev	.013	1.126	.0212	.198
%RSD	.05407	3.7077	.22110	.88657
#1	24.605	29.581	9.5911	22.436
#2	24.623	31.173	9.5611	22.156
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43526.**	**31038.**	**604110.**
Stddev	137.	104.	1461.
%RSD	.31465	.33430	.24177
#1	43429.	30965.	603080.
#2	43623.	31111.	605150.

Sample Name: ICSA Acquired: 12/11/2007 16:10:07 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.07982**	**488710.**	**12.174**	**5.1672**	**1.8978**	**-.06148**
Stddev	.06656	786.	.334	.7518	.0217	.00126
%RSD	83.385	.16074	2.7444	14.550	1.1418	2.0507
#1	.03276	488160.	12.410	5.6988	1.8824	-.06059
#2	.12689	489270.	11.938	4.6355	1.9131	-.06237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**479450.**	**1.9185**	**-.02722**	**.30308**	F **-181.1**	F **283.2**
Stddev	1230.	.0495	.02656	.16861	1.6	.0
%RSD	.25664	2.5781	97.604	55.632	.8748	.0121
#1	480320.	1.9534	-.00843	.42231	-179.9	283.2
#2	478580.	1.8835	-.04600	.18386	-182.2	283.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit					3.000	3.000
Low Limit					-3.000	-3.000

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **191.8**	**186690.**	F **282.77**	F **227600.**	F **223700.**	**.47315**
Stddev	1.2	362.	35.68	285.	664.	.05621
%RSD	.6203	.19381	12.616	.1252	.2969	11.880
#1	191.0	186430.	308.00	227400.	223300.	.43341
#2	192.7	186950.	257.54	227800.	224200.	.51290
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
High Limit	3.000		250.00	3.000	3.000	
Low Limit	-3.000		-250.00	-3.000	-3.000	

Sample Name: ICSA Acquired: 12/11/2007 16:10:07 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.50065**	**-11.148**	**-3.8382**	F **11.555**	**-.41275**	**3.9520**
Stddev	.18180	4.272	.5795	1.096	1.1156	4.2345
%RSD	36.312	38.320	15.097	9.4887	270.28	107.15
#1	.37210	-8.1273	-3.4285	12.330	-1.2016	6.9463
#2	.62920	-14.169	-4.2479	10.779	.37609	.95771
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				6.0000		
Low Limit				-6.0000		

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.6930**	**-.83799**	**.24028**	**16.388**	**1.0013**	**1.0675**
Stddev	.3961	.98038	.04482	2.758	.0550	.7557
%RSD	8.4392	116.99	18.656	16.828	5.4944	70.786
#1	-4.4130	-.14476	.20858	18.338	.96237	.53319
#2	-4.9731	-1.5312	.27197	14.438	1.0402	1.6019
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	V	Zn
Units	ppb	ppb
Avg	**-.69326**	**-1.5559**
Stddev	.04231	.1245
%RSD	6.1038	8.0028
#1	-.66333	-1.6439
#2	-.72318	-1.4678
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/11/2007 16:10:07 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	40075.	29934.	553260.
Stddev	60.	31.	4420.
%RSD	.14861	.10314	.79888
#1	40033.	29956.	556380.
#2	40117.	29913.	550130.

Sample Name: ICSAB Acquired: 12/11/2007 16:13:40 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**208.80**	**499690.**	**112.09**	**923.21**	**506.50**	**499.00**	**475050.**
Stddev	.25	8890.	.78	2.86	1.70	5.08	7886.
%RSD	.11752	1.7791	.69592	.30967	.33536	1.0189	1.6600
#1	208.63	493400.	111.54	921.19	505.29	502.60	469470.
#2	208.98	505970.	112.64	925.23	507.70	495.41	480620.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**932.42**	**460.39**	**485.97**	F **331.5**	F **772.0**	F **733.8**	**185510.**
Stddev	1.52	1.11	.05	.7	9.8	6.9	3252.
%RSD	.16322	.24151	.01116	.2187	1.272	.9410	1.7528
#1	933.49	461.17	486.01	331.0	765.1	728.9	183210.
#2	931.34	459.60	485.93	332.0	779.0	738.7	187810.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				200.0	200.0	200.0	
Range				20.00%	20.00%	20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5037.5**	**235100.**	**235300.**	**481.87**	**919.58**	**10372.**	**926.14**
Stddev	183.6	14560.	7933.	1.47	.52	204.	1.86
%RSD	3.6454	6.195	3.372	.30530	.05660	1.9669	.20133
#1	4907.6	224800.	229700.	480.83	919.21	10227.	927.45
#2	5167.3	245400.	240900.	482.91	919.94	10516.	924.82
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 12/11/2007 16:13:40 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**54.434**	**592.99**	**49.552**	**1146.0**	**878.77**	**503.03**	**208.06**
Stddev	2.571	1.10	3.777	3.6	.27	1.31	1.47
%RSD	4.7226	.18521	7.6228	.31152	.03038	.26069	.70854
#1	56.251	592.21	46.881	1143.4	878.96	503.96	207.02
#2	52.616	593.77	52.223	1148.5	878.58	502.10	209.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**930.69**	**97.488**	**491.97**	**1056.2**
Stddev	4.12	.723	.14	.8
%RSD	.44294	.74136	.02875	.07250
#1	927.77	97.999	491.87	1056.7
#2	933.60	96.977	492.07	1055.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**40134.**	**29102.**	**547180.**
Stddev	1.	488.	594.
%RSD	.00153	1.6768	.10850
#1	40134.	29447.	547600.
#2	40134.	28757.	546760.

Sample Name: STD0 Acquired: 12/11/2007 16:26:54 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00002**	**.00021**	**.00000**	**.00030**	**.00119**	**.00009**	**.00539**
Stddev	.00001	.00008	.0000	.00001	.00015	.00000	.00020
%RSD	33.194	39.452	3106.9	1.9266	13.005	5.3951	3.7053
#1	-.00002	.00015	-.00002	.00030	.00108	.00009	.00525
#2	-.00001	.00026	.00002	.00029	.00130	.00009	.00553

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00012**	**.00016**	**.00001**	**.0001**	**.0002**	**-.0001**	**.00064**
Stddev	.00001	.00005	.00000	.0000	.0000	.0000	.00004
%RSD	10.042	32.741	20.354	3.329	4.029	7.172	6.1321
#1	.00011	.00012	.00001	.0001	.0002	-.0001	.00061
#2	.00013	.00019	.00001	.0001	.0002	-.0001	.00066

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00134**	**.0124**	**.0012**	**.00009**	**.00016**	**.00909**	**.00009**
Stddev	.00046	.0010	.0001	.00002	.00001	.00006	.00001
%RSD	34.062	8.105	10.95	20.405	8.2314	.68022	7.3840
#1	.00102	.0117	.0011	.00008	.00015	.00913	.00009
#2	.00167	.0131	.0013	.00010	.00017	.00904	.00010

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00013**	**.00004**	**.00003**	**.00009**	**.00006**	**.00130**	**-.00002**
Stddev	.00001	.00002	.00003	.00000	.00003	.00008	.00001
%RSD	8.0462	43.906	86.420	3.8398	54.995	5.7938	54.202
#1	-.00014	.00006	.00005	.00009	.00003	.00125	-.00003
#2	-.00012	.00003	.00001	.00009	.00008	.00135	-.00001

Sample Name: STD0 Acquired: 12/11/2007 16:26:54 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00005**	**-.00002**	**.00005**	**.00090**
Stddev	.00002	.00002	.00001	.00002
%RSD	30.998	63.980	11.309	2.6096
#1	.00004	-.00001	.00005	.00092
#2	.00006	-.00003	.00004	.00088

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42918.**	**29578.**	**586280.**
Stddev	24.	514.	3485.
%RSD	.05609	1.7361	.59440
#1	42901.	29215.	583810.
#2	42935.	29941.	588740.

Sample Name: STD1 Acquired: 12/11/2007 16:30:16 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00897**	**.36688**	**.00347**	**.01750**	**.20003**	**.02872**	**.12046**	**.04710**
Stddev	.00007	.00469	.00004	.00009	.00131	.00015	.00039	.00013
%RSD	.73805	1.2776	1.1869	.48633	.65256	.52978	.32323	.26939
#1	.00893	.37020	.00350	.01756	.19910	.02861	.12018	.04701
#2	.00902	.36357	.00344	.01744	.20095	.02883	.12073	.04719

Elem	Cr	Cu2199	Cu2218	Cu3273	Fe	Mn	Mo	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00611**	**.0068**	**.0096**	**.0030**	**.45757**	**.03675**	**.02631**	**.02549**
Stddev	.00002	.0000	.0000	.0001	.00668	.00024	.00004	.00002
%RSD	.34353	.6166	.3723	2.505	1.4600	.66647	.16635	.07156
#1	.00609	.0068	.0096	.0030	.46230	.03658	.02628	.02548
#2	.00612	.0069	.0097	.0029	.45285	.03692	.02634	.02551

Elem	Pb	Sb	Se	Si	Sn	Sr	Te	Ti
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00945**	**.00478**	**.00315**	**.00233**	**.00924**	**.43434**	**.00374**	**.02315**
Stddev	.00002	.00002	.00003	.00003	.00004	.00375	.00004	.00024
%RSD	.24795	.52171	.88851	1.2218	.39535	.86355	.93964	1.0154
#1	.00944	.00480	.00313	.00231	.00921	.43169	.00372	.02298
#2	.00947	.00477	.00317	.00235	.00926	.43700	.00377	.02331

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.00386**	**.00890**	**.08194**
Stddev	.00001	.00005	.00009
%RSD	.20915	.50697	.11294
#1	.00386	.00886	.08188
#2	.00385	.00893	.08201

Sample Name: STD1 Acquired: 12/11/2007 16:30:16 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42938.	29399.	592500.
Stddev	24.	281.	5063.
%RSD	.05664	.95603	.85459
#1	42955.	29200.	596080.
#2	42920.	29598.	588920.

Sample Name: STD2 Acquired: 12/11/2007 16:33:40 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02243**	**.90511**	**.00854**	**.04274**	**.49762**	**.07258**	**.29498**	**.11585**
Stddev	.00007	.01161	.00005	.00005	.00007	.00038	.00054	.00016
%RSD	.29686	1.2830	.60464	.10701	.01449	.51807	.18301	.13828
#1	.02238	.89690	.00850	.04277	.49768	.07231	.29537	.11597
#2	.02248	.91333	.00858	.04271	.49757	.07284	.29460	.11574

Elem	Cr	Cu2199	Cu2218	Cu3273	Fe	Mn	Mo	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01531**	**.0166**	**.0236**	**.0074**	**1.1216**	**.09236**	**.06469**	**.06270**
Stddev	.00008	.0000	.0000	.0000	.0148	.00027	.00004	.00002
%RSD	.49332	.1815	.0661	.1201	1.3192	.29243	.06399	.03015
#1	.01526	.0166	.0236	.0074	1.1112	.09217	.06466	.06272
#2	.01537	.0166	.0236	.0074	1.1321	.09255	.06472	.06269

Elem	Pb	Sb	Se	Si	Sn	Sr	Te	Ti
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02350**	**.01167**	**.00760**	**.00563**	**.02268**	**1.0717**	**.00911**	**.05823**
Stddev	.00002	.00005	.00001	.00001	.00001	.0044	.00001	.00030
%RSD	.08197	.38713	.08516	.24689	.04916	.40719	.08541	.50775
#1	.02352	.01164	.00761	.00562	.02268	1.0686	.00912	.05803
#2	.02349	.01170	.00760	.00564	.02267	1.0748	.00911	.05844

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.00961**	**.02220**	**.19924**
Stddev	.00001	.00011	.00012
%RSD	.08550	.47478	.05985
#1	.00960	.02212	.19932
#2	.00961	.02227	.19915

Sample Name: STD2 Acquired: 12/11/2007 16:33:40 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43063.	29135.	586010.
Stddev	94.	219.	2647.
%RSD	.21830	.75199	.45161
#1	42996.	29289.	587880.
#2	43129.	28980.	584140.

Sample Name: STD3 Acquired: 12/11/2007 16:37:13 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Cd	Co
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04360**	**1.8372**	**.01688**	**.08391**	**.96514**	**.14114**	**.58472**	**.22950**
Stddev	.00048	.0243	.00006	.00007	.00867	.00128	.00042	.00002
%RSD	1.1071	1.3239	.38404	.07815	.89801	.90659	.07131	.00891
#1	.04326	1.8544	.01683	.08386	.95901	.14024	.58443	.22951
#2	.04394	1.8200	.01692	.08396	.97127	.14205	.58502	.22948

Elem	Cr	Cu2199	Cu2218	Cu3273	Fe	Mn	Mo	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02965**	**.0328**	**.0467**	**.0149**	**2.2786**	**.18007**	**.12825**	**.12438**
Stddev	.00023	.0001	.0001	.0002	.0267	.00198	.00005	.00008
%RSD	.76053	.2599	.1895	1.249	1.1723	1.0991	.03816	.06039
#1	.02949	.0327	.0467	.0151	2.2975	.17867	.12829	.12433
#2	.02981	.0329	.0466	.0148	2.2598	.18147	.12822	.12443

Elem	Pb	Sb	Se	Si	Sn	Sr	Te	Ti
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04659**	**.02312**	**.01493**	**.01075**	**.04497**	**2.0641**	**.01798**	**.11307**
Stddev	.00002	.00000	.00003	.00012	.00005	.0181	.00002	.00132
%RSD	.03761	.01701	.17500	1.1253	.12077	.87696	.08647	1.1699
#1	.04657	.02313	.01495	.01067	.04501	2.0513	.01799	.11213
#2	.04660	.02312	.01492	.01084	.04493	2.0769	.01796	.11400

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.01898**	**.04322**	**.39418**
Stddev	.00001	.00041	.00018
%RSD	.03502	.95538	.04590
#1	.01898	.04293	.39431
#2	.01897	.04351	.39405

Sample Name: STD3 Acquired: 12/11/2007 16:37:13 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42980.	28542.	598850.
Stddev	113.	167.	6073.
%RSD	.26193	.58453	1.0141
#1	43060.	28424.	603140.
#2	42900.	28660.	594550.

Sample Name: STD4 Acquired: 12/11/2007 16:40:46 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Mg2852	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.7987**	**.06643**	**25.81**	**2.640**	**1.7654**
Stddev	.0505	.00195	.34	.068	.0444
%RSD	2.8062	2.9335	1.331	2.559	2.5175
#1	1.7630	.06505	25.56	2.593	1.7340
#2	1.8344	.06781	26.05	2.688	1.7968

Int. Std.	Y_3774
Units	Cts/S
Avg	29167.
Stddev	787.
%RSD	2.6977
#1	29724.
#2	28611.

Sample Name: STD5 Acquired: 12/11/2007 16:44:16 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Mg2852	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.6780**	**.13598**	**62.22**	**6.645**	**4.6031**
Stddev	.0508	.00193	.73	.086	.0579
%RSD	1.0855	1.4218	1.180	1.288	1.2573
#1	4.7139	.13734	62.74	6.705	4.6441
#2	4.6421	.13461	61.70	6.584	4.5622

Int. Std.	Y_3774
Units	Cts/S
Avg	**28026.**
Stddev	301.
%RSD	1.0738
#1	27814.
#2	28239.

Sample Name: STD6 Acquired: 12/11/2007 16:47:47 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca	K	Mg2802	Mg2852	Na
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8.9880**	**.33020**	**106.9**	**11.81**	**8.8700**
Stddev	.0901	.00234	.3	.05	.0790
%RSD	1.0029	.70746	.2982	.4540	.89009
#1	8.9243	.32855	106.6	11.77	8.8141
#2	9.0518	.33186	107.1	11.84	8.9258

Int. Std.	Y_3774
Units	Cts/S
Avg	**28683.**
Stddev	170.
%RSD	.59148
#1	28803.
#2	28563.

Sample Name: Blank Acquired: 12/11/2007 16:51:21 Type: Cal
Method: TRACEPB(v4) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Cu2218	Cu3273
Units	Cts/S	Cts/S
Avg	.0002	.0000
Stddev	.0000	.0001
%RSD	20.35	4880.
#1	.0001	.0001
#2	.0002	-.0001

Int. Std.	Y_2243
Units	Cts/S
Avg	42930.
Stddev	192.
%RSD	.44649
#1	42795.
#2	43066.

Sample Name: PBLK Acquired: 12/11/2007 16:54:46 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.06121**	**-18.570**	**-.40130**	**-.97546**	**-.51889**	**-.03926**	**-37.892**	**-.15310**
Stddev	.19350	16.295	.62049	.02227	.00102	.00765	3.673	.04085
%RSD	316.13	87.748	154.62	2.2831	.19588	19.477	9.6919	26.680
#1	.07562	-7.0480	.03746	-.95972	-.51817	-.04467	-35.295	-.18198
#2	-.19803	-30.093	-.84005	-.99121	-.51961	-.03385	-40.489	-.12422
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.91430**	**-.49167**	**-.9557**	**-1.564**	**-1.892**	**-23.128**	**-49.225**	F **-13.69**
Stddev	.08362	.02436	1.111	.515	10.82	1.357	51.273	.21
%RSD	9.1462	4.9548	116.2	32.93	571.6	5.8663	104.16	1.567
#1	-.97343	-.50890	-1.741	-1.928	5.756	-22.169	-12.969	-13.84
#2	-.85517	-.47445	-.1704	-1.200	-9.540	-24.088	-85.480	-13.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-18.35**	**-.49711**	**-1.0028**	**15.993**	**-.50745**	**-1.8606**	**-.71530**	**-.97037**
Stddev	.84	.00416	.1345	3.802	.01767	.8512	.15046	1.2122
%RSD	4.595	.83777	13.412	23.774	3.4827	45.751	21.035	124.92
#1	-17.75	-.50006	-1.0979	13.305	-.51995	-2.4625	-.60891	-1.8275
#2	-18.95	-.49417	-.90766	18.681	-.49496	-1.2587	-.82169	-.11322
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: PBLK Acquired: 12/11/2007 16:54:46 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.9439**	**-1.0302**	**-.15235**	**2.2284**	**-.55342**	**-.06230**	**-.53066**	**-1.5074**
Stddev	.1921	.9111	.00007	.0663	.01839	.92246	.10110	.0459
%RSD	9.8847	88.445	.04703	2.9761	3.3228	1480.6	19.051	3.0437
#1	-1.8080	-1.6744	-.15230	2.1815	-.54041	.58997	-.45917	-1.4750
#2	-2.0798	-.38590	-.15240	2.2753	-.56642	-.71458	-.60214	-1.5399
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43346.	29264.	586490.
Stddev	133.	899.	976.
%RSD	.30595	3.0728	.16639
#1	43252.	29900.	585800.
#2	43439.	28628.	587180.

Sample Name: ICV Acquired: 12/11/2007 16:58:13 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**406.54**	**4965.8**	**429.22**	**424.85**	**414.57**	**41.937**	**4831.4**
Stddev	.97	104.1	2.79	.13	1.40	.105	112.8
%RSD	.23822	2.0964	.65039	.02955	.33873	.25136	2.3338
#1	407.22	4892.2	427.25	424.76	415.56	42.012	4751.7
#2	405.86	5039.4	431.19	424.94	413.57	41.863	4911.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**41.423**	**430.48**	**409.99**	**434.8**	**367.6**	**394.9**	**4877.1**
Stddev	.304	.06	.72	.1	1.7	4.2	101.4
%RSD	.73506	.01500	.17593	.0141	.4625	1.070	2.0788
#1	41.638	430.52	410.50	434.9	366.4	391.9	4805.4
#2	41.207	430.43	409.48	434.8	368.8	397.9	4948.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4920.8**	**5007.**	F **5602.**	**412.56**	**404.43**	**9926.1**	**422.23**
Stddev	97.9	113.	132.	1.77	.51	231.9	.15
%RSD	1.9889	2.256	2.360	.42945	.12591	2.3364	.03490
#1	4851.6	4927.	5508.	413.81	404.79	9762.1	422.34
#2	4990.0	5087.	5695.	411.31	404.07	10090.	422.13
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5000.				
Range			10.00%				

Sample Name: ICV Acquired: 12/11/2007 16:58:13 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**418.58**	**405.99**	**418.46**	F **90.463**	**410.89**	**411.61**	F **17.283**
Stddev	.12	.88	4.46	.024	1.31	5.32	.978
%RSD	.02774	.21669	1.0666	.02659	.31761	1.2937	5.6563
#1	418.50	405.37	421.62	90.446	409.97	415.37	17.974
#2	418.66	406.62	415.31	90.480	411.82	407.84	16.592
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				400.00			400.00
Range				-10.000%			-10.000%

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**421.41**	**402.73**	**414.77**	**422.28**
Stddev	1.47	1.15	.83	.34
%RSD	.34899	.28594	.19938	.08098
#1	422.45	403.55	415.36	422.52
#2	420.37	401.92	414.19	422.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43367.**	**29374.**	**595130.**
Stddev	33.	418.	2094.
%RSD	.07639	1.4219	.35190
#1	43390.	29669.	593650.
#2	43343.	29079.	596610.

Sample Name: ICB Acquired: 12/11/2007 17:01:40 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.04319	-6.2670	-.26091	-1.0027	-.48317	-.03104	-34.979	-.18976
Stddev	.26399	12.046	.08946	.0533	.02696	.00772	2.219	.02295
%RSD	611.22	192.22	34.287	5.3165	5.5790	24.868	6.3446	12.094
#1	.22986	2.2512	-.32417	-.96498	-.50223	-.02558	-36.548	-.17354
#2	-.14348	-14.785	-.19766	-1.0404	-.46411	-.03649	-33.410	-.20599
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.92531	-.22495	-1.718	-.8485	F 3.637	-21.871	-6.1544	F -12.18
Stddev	.07516	.16093	1.826	.4863	3.437	2.978	16.719	.22
%RSD	8.1230	71.542	106.3	57.31	94.50	13.615	271.67	1.776
#1	-.97846	-.11115	-3.010	-.5046	1.207	-23.977	-17.977	-12.03
#2	-.87217	-.33874	-.4271	-1.192	6.068	-19.765	5.6680	-12.34
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit					3.000			3.000
Low Limit					-3.000			-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -16.27	-.37585	-1.0434	-6.9403	-.72938	-1.3403	-.61936	-2.0543
Stddev	2.24	.02470	.2516	3.1342	.21674	1.1547	.22107	.3962
%RSD	13.79	6.5708	24.109	45.160	29.715	86.149	35.694	19.286
#1	-14.69	-.39331	-.86552	-4.7241	-.88263	-2.1568	-.46304	-1.7742
#2	-17.86	-.35839	-1.2213	-9.1566	-.57612	-.52385	-.77568	-2.3345
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: ICB Acquired: 12/11/2007 17:01:40 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.2600	-1.0497	-.11622	1.5083	-.52864	-.29336	-.34251	-.88330
Stddev	.3175	.3549	.00406	.0422	.07107	.77747	.27893	.12250
%RSD	25.198	33.816	3.4962	2.7971	13.445	265.02	81.435	13.868
#1	-1.0355	-.79867	-.11334	1.4785	-.47838	-.84311	-.14528	-.79668
#2	-1.4845	-1.3006	-.11909	1.5381	-.57890	.25639	-.53975	-.96992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43557.	29222.	591320.
Stddev	87.	341.	423.
%RSD	.19952	1.1656	.07158
#1	43496.	29463.	591030.
#2	43619.	28981.	591620.

Sample Name: CCV Acquired: 12/11/2007 17:05:07 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**506.22**	**49480.**	**497.05**	**499.53**	**484.65**	**49.470**	**96928.**
Stddev	4.86	620.	4.33	.03	.70	.336	1036.
%RSD	.95962	1.2526	.87042	.00505	.14358	.68007	1.0684
#1	509.65	49042.	493.99	499.51	485.15	49.708	96196.
#2	502.78	49919.	500.11	499.54	484.16	49.233	97660.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**487.53**	**488.23**	**490.47**	F **588.7**	**544.6**	F **553.7**	**47469.**
Stddev	.05	.76	2.65	1.3	.7	3.9	482.
%RSD	.01028	.15636	.53990	.2124	.1350	.7116	1.0149
#1	487.50	488.77	492.34	587.8	544.1	550.9	47128.
#2	487.57	487.69	488.59	589.5	545.1	556.4	47809.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass
Value				500.0		500.0	
Range				10.00%		10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24228.**	**97140.**	**102700.**	**494.03**	**496.49**	**98147.**	**491.14**
Stddev	350.	1069.	1183.	3.99	.07	1297.	.36
%RSD	1.4465	1.101	1.152	.80783	.01411	1.3219	.07259
#1	23981.	96380.	101800.	496.85	496.54	97230.	490.89
#2	24476.	97890.	103500.	491.20	496.44	99065.	491.39
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 17:05:07 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**485.23**	**504.86**	**498.70**	**511.47**	**488.61**	**493.61**	**491.26**
Stddev	2.64	1.31	.29	4.65	1.35	6.14	.62
%RSD	.54357	.25904	.05797	.90896	.27701	1.2433	.12571
#1	487.09	505.78	498.90	514.75	487.65	497.95	491.69
#2	483.36	503.93	498.50	508.18	489.57	489.27	490.82
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**511.41**	**484.39**	**497.94**	F **587.86**
Stddev	4.06	1.69	3.27	.63
%RSD	.79383	.34862	.65715	.10695
#1	514.28	483.20	500.25	588.30
#2	508.53	485.59	495.62	587.41
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42398.**	**29029.**	**584770.**
Stddev	43.	128.	2544.
%RSD	.10152	.44213	.43497
#1	42429.	29120.	582970.
#2	42368.	28938.	586570.

Sample Name: CCB Acquired: 12/11/2007 17:08:44 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08903	-19.125	-2.4223	-.74695	-.51945	-.03754	-30.532	-.17094
Stddev	.39476	2.527	.2963	.63671	.02494	.01406	3.064	.04393
%RSD	443.40	13.215	12.233	85.242	4.8012	37.444	10.036	25.697
#1	-.36816	-20.912	-2.2127	-.29672	-.50181	-.02760	-28.365	-.13988
#2	.19011	-17.338	-2.6318	-1.1972	-.53708	-.04748	-32.699	-.20200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.1895	-.58847	-.1828	-.8022	F 3.232	-22.848	-30.620	F -9.145
Stddev	.0037	.25623	.0160	.2791	3.069	5.096	28.765	3.145
%RSD	.31532	43.543	8.760	34.80	94.95	22.305	93.942	34.39
#1	-1.1868	-.40728	-.1941	-.9996	5.402	-19.245	-10.280	-6.921
#2	-1.1921	-.76965	-.1714	-.6048	1.062	-26.452	-50.960	-11.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit					3.000			3.000
Low Limit					-3.000			-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -14.06	-.45539	-.93659	23.672	-.43971	-.67077	-.94007	-.08759
Stddev	1.96	.02839	.27079	1.644	.10539	1.8977	.99437	.01797
%RSD	13.94	6.2350	28.912	6.9433	23.968	282.91	105.78	20.519
#1	-12.67	-.47546	-.74511	24.834	-.36519	-2.0126	-.23695	-.07488
#2	-15.44	-.43531	-1.1281	22.510	-.51424	.67109	-1.6432	-.10030
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: CCB Acquired: 12/11/2007 17:08:44 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.5864	-.38428	-.13994	1.4398	-.61914	1.0717	-.44005	-1.5852
Stddev	.2001	.49842	.00418	1.3977	.02058	1.1620	.03319	.0018
%RSD	12.611	129.70	2.9860	97.076	3.3247	108.42	7.5423	.11427
#1	-1.7278	-.03184	-.13698	.45148	-.60458	.25009	-.41658	-1.5839
#2	-1.4449	-.73671	-.14289	2.4282	-.63369	1.8934	-.46352	-1.5865
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43875.	28669.	598880.
Stddev	225.	307.	2588.
%RSD	.51305	1.0719	.43220
#1	44034.	28451.	597050.
#2	43716.	28886.	600710.

Sample Name: PQL Acquired: 12/11/2007 17:12:11 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.0129**	**189.94**	**21.305**	**14.880**	**4.5220**	**1.9740**	**926.80**
Stddev	.2167	8.52	1.794	.781	.0185	.0129	10.00
%RSD	4.3233	4.4845	8.4180	5.2464	.40806	.65537	1.0785
#1	4.8596	183.92	22.573	14.328	4.5089	1.9649	919.74
#2	5.1661	195.96	20.037	15.432	4.5350	1.9832	933.87
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.0399**	F **3.9787**	**4.6351**	F **9.526**	F **11.62**	F **15.25**	**125.75**
Stddev	.0017	.1331	.0758	.478	.07	.90	2.79
%RSD	.02876	3.3457	1.6358	5.013	.5863	5.908	2.2164
#1	6.0387	4.0729	4.6887	9.189	11.57	15.89	123.78
#2	6.0412	3.8846	4.5815	9.864	11.67	14.62	127.72
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value		5.0000		5.000	5.000	5.000	
Range		-20.000%		20.00%	20.00%	20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **194.58**	F **235.3**	F **260.6**	**4.5740**	F **3.8493**	**2432.2**	**9.0788**
Stddev	9.35	3.9	6.4	.0195	.1572	12.9	.0489
%RSD	4.8050	1.663	2.467	.42538	4.0843	.53032	.53833
#1	201.19	232.5	256.1	4.5602	3.7381	2423.1	9.1134
#2	187.97	238.1	265.1	4.5878	3.9605	2441.3	9.0443
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value	250.00	5.000	5.000		5.0000		
Range	-20.000%	20.00%	20.00%		-20.000%		

Sample Name: PQL Acquired: 12/11/2007 17:12:11 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9.1198**	**19.987**	**21.172**	**56.851**	**25.180**	**4.8692**	**.94255**
Stddev	.2007	.498	1.091	.111	.291	.0263	1.4559
%RSD	2.2008	2.4918	5.1524	.19598	1.1565	.54109	154.47
#1	9.2617	19.635	20.401	56.773	24.974	4.8506	-.08695
#2	8.9779	20.340	21.943	56.930	25.386	4.8878	1.9721
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**24.798**	**30.352**	**9.7404**	**21.333**
Stddev	.046	1.037	.1062	.039
%RSD	.18350	3.4154	1.0905	.18410
#1	24.830	31.085	9.6653	21.361
#2	24.766	29.619	9.8155	21.306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43295.**	**29314.**	**593600.**
Stddev	121.	426.	2952.
%RSD	.27997	1.4534	.49724
#1	43209.	29615.	595690.
#2	43380.	29013.	591520.

Sample Name: ICSA Acquired: 12/11/2007 17:15:35 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.46528**	**485060.**	**6.9984**	**5.2633**	**1.4218**	**-.06270**
Stddev	.06055	589.	.5309	.6864	.0211	.00794
%RSD	13.015	.12136	7.5853	13.041	1.4825	12.669
#1	-.50809	485480.	6.6231	5.7487	1.4069	-.05708
#2	-.42246	484650.	7.3738	4.7780	1.4367	-.06831
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**500330.**	**1.6245**	**-.72069**	**.10180**	F **-173.9**	F **275.5**
Stddev	672.	.0859	.02021	.05040	4.2	.5
%RSD	.13428	5.2905	2.8049	49.509	2.395	.1647
#1	499860.	1.5637	-.73498	.13743	-176.8	275.2
#2	500810.	1.6853	-.70640	.06616	-170.9	275.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit					3.000	3.000
Low Limit					-3.000	-3.000

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **200.1**	**182310.**	**-117.55**	F **239500.**	F **221100.**	**-.17903**
Stddev	14.3	463.	34.75	2270.	1501.	.02125
%RSD	7.156	.25397	29.563	.9478	.6788	11.869
#1	210.2	182630.	-142.12	237900.	220000.	-.16400
#2	190.0	181980.	-92.976	241200.	222200.	-.19405
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
High Limit	3.000			3.000	3.000	
Low Limit	-3.000			-3.000	-3.000	

Sample Name: ICSA Acquired: 12/11/2007 17:15:35 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.09599**	**-118.19**	**-4.2566**	F **11.672**	**-2.0253**	**1.2706**
Stddev	.86172	4.57	.1064	1.814	1.8071	1.3493
%RSD	897.67	3.8701	2.5000	15.539	89.226	106.20
#1	.51333	-121.43	-4.3318	10.389	-3.3031	.31646
#2	-.70532	-114.96	-4.1814	12.954	-.74749	2.2247
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				6.0000		
Low Limit				-6.0000		

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.97649**	**-.99888**	**-.04529**	**17.538**	**.43436**	**.69006**
Stddev	.45853	1.0203	.00920	2.166	.09279	2.9144
%RSD	46.957	102.15	20.307	12.350	21.363	422.35
#1	-1.3007	-.27741	-.05180	19.070	.36875	-1.3708
#2	-.65226	-1.7203	-.03879	16.007	.49997	2.7509
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	V	Zn
Units	ppb	ppb
Avg	**-1.0289**	**-2.7117**
Stddev	.0806	.2031
%RSD	7.8360	7.4878
#1	-.97187	-2.8553
#2	-1.0859	-2.5682
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/11/2007 17:15:35 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	40348.	28816.	553680.
Stddev	25.	209.	651.
%RSD	.06247	.72522	.11765
#1	40330.	28964.	554140.
#2	40366.	28669.	553220.

Sample Name: ICSAB Acquired: 12/11/2007 17:19:09 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**211.26**	**484890.**	**109.44**	**927.27**	**501.32**	**495.47**	**504810.**
Stddev	1.23	1390.	5.11	.81	3.75	3.09	6404.
%RSD	.58424	.28656	4.6687	.08709	.74806	.62318	1.2686
#1	212.13	485870.	105.83	927.84	503.97	497.66	509340.
#2	210.39	483900.	113.05	926.70	498.66	493.29	500290.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**934.40**	**460.12**	**485.11**	F **348.7**	F **771.8**	F **719.8**	**182070.**
Stddev	.16	.04	1.83	.2	3.3	8.8	495.
%RSD	.01667	.00907	.37734	.0578	.4258	1.224	.27205
#1	934.51	460.15	486.40	348.6	774.2	726.0	182420.
#2	934.29	460.09	483.81	348.9	769.5	713.5	181720.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				200.0	200.0	200.0	
Range				20.00%	20.00%	20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4534.8**	**251300.**	**229900.**	**487.51**	**907.01**	**9622.1**	**926.55**
Stddev	22.3	3104.	782.	2.80	.67	23.0	1.37
%RSD	.49130	1.235	.3400	.57520	.07410	.23934	.14786
#1	4550.5	249100.	229400.	489.49	906.54	9638.4	927.52
#2	4519.0	253500.	230500.	485.52	907.49	9605.8	925.58
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 12/11/2007 17:19:09 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**57.726**	**601.45**	**53.060**	**1196.3**	**886.76**	**500.61**	**213.62**
Stddev	.011	3.05	.004	3.8	2.78	.36	1.96
%RSD	.01883	.50714	.00778	.32120	.31336	.07112	.91779
#1	57.733	599.29	53.057	1199.0	888.72	500.87	212.23
#2	57.718	603.60	53.063	1193.6	884.79	500.36	215.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**927.48**	**94.981**	**492.79**	**1058.4**
Stddev	5.16	.416	2.89	.7
%RSD	.55587	.43781	.58684	.06397
#1	931.13	94.687	494.83	1058.0
#2	923.83	95.275	490.74	1058.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**40297.**	**28547.**	**550580.**
Stddev	117.	70.	2208.
%RSD	.29033	.24670	.40106
#1	40214.	28597.	549020.
#2	40379.	28498.	552140.

Sample Name: LR Acquired: 12/11/2007 17:23:04 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1017.0**	**-62.691**	**2044.2**	**4992.5**	**9381.3**	**484.52**	**10.629**
Stddev	2.4	4.162	.9	1.6	3.7	3.96	3.023
%RSD	.23142	6.6381	.04299	.03299	.03955	.81756	28.439
#1	1018.6	-65.634	2043.6	4991.4	9383.9	487.32	8.4916
#2	1015.3	-59.748	2044.8	4993.7	9378.7	481.72	12.766
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2025.7**	**9997.3**	**10215.**	F **10910.**	F **9846.**	F **9985.**	**459970.**
Stddev	1.7	7.2	46.	4.	14.	14.	11840.
%RSD	.08188	.07172	.44563	.0389	.1462	.1368	2.5741
#1	2026.8	10002.	10247.	10910.	9836.	9995.	451600.
#2	2024.5	9992.3	10182.	10910.	9856.	9976.	468350.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				1000.	1000.	1000.	
Range				10.00%	10.00%	10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-327.08**	F **136.0**	F **162.8**	**9640.6**	**9964.3**	**-172.38**	**7530.4**
Stddev	20.65	.7	.5	73.2	9.0	2.44	8.2
%RSD	6.3122	.5157	.2990	.75951	.09060	1.4178	.10843
#1	-312.48	136.5	163.1	9692.4	9970.7	-174.11	7536.2
#2	-341.68	135.5	162.4	9588.8	9957.9	-170.65	7524.7
Check ?	None	Chk Fail	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass
Value		1000.	1000.				
Range		-10.00%	-10.00%				

Sample Name: LR Acquired: 12/11/2007 17:23:04 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20118.**	**5074.2**	**2020.3**	**10919.**	**10030.**	**1946.6**	**359.04**
Stddev	14.	5.6	5.9	10.	11.	12.8	.53
%RSD	.06900	.11076	.29232	.09246	.10547	.65874	.14851
#1	20128.	5078.1	2016.1	10911.	10038.	1955.6	359.42
#2	20109.	5070.2	2024.5	10926.	10023.	1937.5	358.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9818.2**	**2030.3**	**10158.**	**9954.6**
Stddev	7.9	2.8	30.	.9
%RSD	.08026	.13886	.29200	.00910
#1	9823.7	2028.3	10179.	9953.9
#2	9812.6	2032.3	10137.	9955.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41930.**	**28768.**	**585250.**
Stddev	67.	491.	1921.
%RSD	.16047	1.7077	.32817
#1	41882.	29115.	583890.
#2	41977.	28421.	586600.

Sample Name: PBLK Acquired: 12/11/2007 17:27:01 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.09507	5.7434	.13777	4.4174	.12153	.01419	-11.579	-.02750
Stddev	.12895	14.456	.13390	.0548	.20721	.00047	3.116	.05140
%RSD	135.63	251.69	97.192	1.2406	170.50	3.3173	26.911	186.91
#1	-.18625	15.965	.04309	4.4562	-.02499	.01452	-9.3755	.00885
#2	-.00389	-4.4783	.23245	4.3787	.26805	.01386	-13.782	-.06385
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.24250	.08436	-1.129	.0232	F 4.465	21.821	-204.52	-2.380
Stddev	.08745	.21797	1.156	1.023	4.721	8.348	46.43	1.645
%RSD	36.060	258.38	102.4	4402.	105.7	38.258	22.704	69.12
#1	-.30434	-.06977	-.3119	-.7002	7.803	27.725	-237.36	-1.217
#2	-.18067	.23849	-1.946	.7467	1.127	15.918	-171.69	-3.544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					3.000			
Low Limit					-3.000			

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -7.995	.09949	2.5344	-103.49	-.32223	.04136	-.71246	1.5325
Stddev	2.247	.14943	.5365	4.19	.11366	.85552	.22833	1.9598
%RSD	28.11	150.20	21.169	4.0468	35.272	2068.3	32.048	127.88
#1	-6.405	-.00617	2.9137	-100.53	-.24187	-.56358	-.55101	2.9183
#2	-9.584	.20516	2.1550	-106.45	-.40260	.64631	-.87391	.14676
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: PBLK Acquired: 12/11/2007 17:27:01 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	6.8625	.20907	-.02009	.56566	.02290	.93520	-.17633	-.62162
Stddev	1.5821	.14032	.04677	.43950	.13451	1.4303	.06544	.03158
%RSD	23.054	67.117	232.84	77.697	587.32	152.94	37.112	5.0800
#1	7.9812	.30830	-.05316	.87644	-.07221	-.07615	-.22260	-.59929
#2	5.7438	.10985	.01298	.25488	.11801	1.9466	-.13006	-.64395
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43362.	28097.	592710.
Stddev	147.	644.	1524.
%RSD	.33887	2.2937	.25713
#1	43258.	27642.	591640.
#2	43466.	28553.	593790.

Sample Name: CCV Acquired: 12/11/2007 17:30:27 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**513.53**	**49358.**	**511.24**	**513.66**	**492.05**	**50.229**	**96623.**
Stddev	4.60	1657.	3.58	1.19	.77	.498	3146.
%RSD	.89576	3.3561	.70012	.23174	.15701	.99116	3.2562
#1	516.78	48187.	508.71	512.82	492.59	50.581	94399.
#2	510.27	50530.	513.77	514.50	491.50	49.877	98848.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**495.25**	**492.29**	**502.59**	F **593.5**	**549.7**	F **557.6**	**47255.**
Stddev	1.36	1.21	4.66	3.5	4.6	2.1	1432.
%RSD	.27559	.24526	.92716	.5941	.8346	.3722	3.0311
#1	494.29	491.44	505.89	591.0	546.5	559.1	46242.
#2	496.22	493.15	499.30	596.0	553.0	556.2	48268.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass
Value				500.0		500.0	
Range				10.00%		10.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24360.**	**96360.**	**101900.**	**495.22**	**504.45**	**98198.**	**491.18**
Stddev	772.	2667.	3499.	5.33	1.85	3375.	1.45
%RSD	3.1701	2.768	3.435	1.0757	.36662	3.4368	.29529
#1	23814.	94480.	99400.	498.99	503.14	95812.	490.16
#2	24906.	98250.	104300.	491.45	505.76	100580.	492.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 17:30:27 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**494.53**	**510.01**	**508.45**	**520.51**	**497.83**	**494.61**	**505.07**
Stddev	.95	.09	5.82	7.95	1.45	1.90	1.77
%RSD	.19253	.01667	1.1448	1.5278	.29101	.38411	.34950
#1	493.86	510.07	504.33	526.14	496.80	495.95	503.82
#2	495.20	509.94	512.56	514.89	498.85	493.26	506.32
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**511.99**	**497.10**	**503.75**	F **603.57**
Stddev	5.07	3.09	5.39	1.60
%RSD	.99112	.62259	1.0702	.26511
#1	515.58	494.91	507.56	602.43
#2	508.40	499.29	499.94	604.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41918.	29091.	576440.
Stddev	166.	781.	5453.
%RSD	.39591	2.6848	.94594
#1	42035.	29643.	572580.
#2	41801.	28539.	580290.

Sample Name: CCB Acquired: 12/11/2007 17:34:04 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.08493	-5.8708	-.06719	1.0968	-.49207	-.01793	-25.482	-.05504
Stddev	.18933	3.5674	1.6905	.5015	.01663	.00529	1.228	.04657
%RSD	222.93	60.765	2516.1	45.726	3.3800	29.518	4.8172	84.609
#1	.04895	-3.3483	1.1282	1.4515	-.50383	-.01419	-24.614	-.08797
#2	-.21880	-8.3934	-1.2626	.74218	-.48031	-.02167	-26.350	-.02211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.79037	-.43020	-.7278	-.2796	F 6.922	-16.138	-170.93	F -6.993
Stddev	.15396	.13997	1.168	.2317	5.023	1.258	26.70	2.263
%RSD	19.479	32.535	160.5	82.85	72.56	7.7954	15.621	32.36
#1	-.89923	-.52917	-1.554	-.1158	10.47	-15.249	-152.05	-5.393
#2	-.68150	-.33123	.0983	-.4434	3.370	-17.028	-189.81	-8.594
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit					3.000			3.000
Low Limit					-3.000			-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -12.22	-.48615	-.43439	-31.262	-.62395	-.26782	-.29196	-.12109
Stddev	3.06	.01059	.21462	11.529	.19768	1.1914	.02998	2.0015
%RSD	25.00	2.1780	49.406	36.880	31.681	444.84	10.267	1652.9
#1	-10.06	-.49364	-.58614	-23.110	-.48418	.57461	-.27077	1.2942
#2	-14.39	-.47867	-.28263	-39.415	-.76373	-1.1103	-.31316	-1.5364
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	3.000							
Low Limit	-3.000							

Sample Name: CCB Acquired: 12/11/2007 17:34:04 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.2135	-.39227	-.12384	3.2860	-.55338	.69393	-.35923	-1.4332
Stddev	.7594	.00138	.00206	.0624	.00925	.53139	.07774	.0945
%RSD	62.581	.35133	1.6659	1.8980	1.6724	76.577	21.640	6.5933
#1	-1.7505	-.39325	-.12529	3.2419	-.54684	1.0697	-.41420	-1.5000
#2	-.67651	-.39130	-.12238	3.3301	-.55992	.31818	-.30426	-1.3664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43249.	28300.	588680.
Stddev	301.	33.	1648.
%RSD	.69528	.11655	.27990
#1	43462.	28324.	587520.
#2	43037.	28277.	589850.

Sample Name: CCV Acquired: 12/11/2007 18:11:54 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**515.34**	**48980.**	**508.91**	**509.10**	**495.29**	**50.586**	**95842.**
Stddev	2.56	1580.	8.61	7.47	2.59	.326	3235.
%RSD	.49635	3.2248	1.6925	1.4666	.52301	.64423	3.3750
#1	517.15	47863.	515.00	514.37	497.12	50.816	93554.
#2	513.53	50097.	502.82	503.82	493.45	50.355	98129.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**496.60**	**495.02**	**506.40**	F **593.6**	F **550.4**	**534.3**	**46697.**
Stddev	5.84	5.33	3.33	5.4	.3	.9	1575.
%RSD	1.1768	1.0772	.65659	.9020	.0510	.1707	3.3731
#1	500.73	498.79	508.75	597.4	550.6	533.7	45584.
#2	492.47	491.25	504.05	589.8	550.2	535.0	47811.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24180.**	**95670.**	**100800.**	**499.23**	**504.88**	**97592.**	**493.65**
Stddev	886.	3112.	3286.	3.31	6.51	3172.	6.53
%RSD	3.6639	3.253	3.259	.66380	1.2885	3.2507	1.3238
#1	23554.	93470.	98510.	501.58	509.48	95349.	498.27
#2	24807.	97870.	103200.	496.89	500.28	99835.	489.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 18:11:54 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**496.45**	**509.83**	**508.08**	**521.41**	**498.72**	**498.19**	**503.48**
Stddev	6.59	7.61	2.14	1.82	6.45	5.69	6.34
%RSD	1.3265	1.4919	.42130	.34879	1.2925	1.1419	1.2592
#1	501.10	515.21	509.59	522.69	503.28	502.21	507.96
#2	491.79	504.45	506.57	520.12	494.16	494.17	499.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**515.98**	**496.56**	**506.56**	F **601.37**
Stddev	3.09	2.52	3.56	7.87
%RSD	.59889	.50722	.70346	1.3087
#1	518.16	498.34	509.08	606.94
#2	513.79	494.78	504.04	595.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41035.	27988.	563280.
Stddev	218.	849.	2933.
%RSD	.53177	3.0329	.52063
#1	40881.	28588.	561200.
#2	41190.	27387.	565350.

Sample Name: CCB Acquired: 12/11/2007 18:15:29 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.02502**	**-1.0052**	**-.55943**	**-.76603**	**-.45788**	**-.02507**	**-24.518**	**-.06412**
Stddev	.07756	21.973	.75863	.20264	.01344	.00186	1.529	.01673
%RSD	309.94	2185.9	135.61	26.454	2.9352	7.4359	6.2374	26.097
#1	-.02982	-16.542	-1.0959	-.62274	-.46738	-.02639	-23.436	-.05229
#2	.07986	14.532	-.02300	-.90932	-.44838	-.02376	-25.599	-.07595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.89976**	**-.35778**	**-1.955**	**-1.201**	F **14.95**	**-3.4527**	**-245.76**	**-1.341**
Stddev	.13099	.25664	1.279	.021	6.45	8.1739	2.96	2.376
%RSD	14.558	71.730	65.42	1.788	43.14	236.74	1.2049	177.2
#1	-.99239	-.53925	-2.859	-1.216	10.39	2.3271	-243.67	.3394
#2	-.80714	-.17631	-1.050	-1.186	19.50	-9.2325	-247.85	-3.021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					3.000			
Low Limit					-3.000			

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-2.057**	**-.29330**	**-.83232**	**-31.226**	**-.80339**	**-1.8401**	**1.4239**	**-2.2893**
Stddev	3.635	.08618	.06226	4.371	.28962	1.1067	1.8803	2.0843
%RSD	176.7	29.383	7.4808	13.997	36.051	60.145	132.05	91.045
#1	.5132	-.35423	-.87634	-28.136	-.59859	-2.6226	2.7535	-3.7631
#2	-4.628	-.23236	-.78829	-34.317	-1.0082	-1.0575	.09437	-.81548
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/11/2007 18:15:29 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.3980	-.33672	-.08236	1.3004	.00801	-.36435	-.52352	-1.2403
Stddev	.7546	.38572	.01996	2.5777	.12245	.03113	.13770	.0051
%RSD	53.973	114.55	24.233	198.22	1528.0	8.5431	26.303	.41241
#1	-1.9316	-.06397	-.09648	3.1231	-.07857	-.34234	-.62090	-1.2367
#2	-.86448	-.60947	-.06825	-.52232	.09460	-.38636	-.42615	-1.2439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42764.	27736.	585320.
Stddev	150.	318.	7644.
%RSD	.35148	1.1448	1.3059
#1	42870.	27961.	579920.
#2	42657.	27512.	590730.

Sample Name: CCV Acquired: 12/11/2007 18:53:42 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.06**	**50068.**	**510.35**	**511.12**	**491.66**	**50.403**	**97545.**
Stddev	4.18	1310.	3.86	3.28	6.40	.458	2531.
%RSD	.81367	2.6166	.75541	.64144	1.3021	.90942	2.5947
#1	511.10	49142.	507.62	508.80	487.13	50.079	95756.
#2	517.01	50994.	513.07	513.44	496.19	50.727	99335.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**501.25**	**497.26**	**505.64**	F **593.8**	F **555.5**	**530.8**	**47185.**
Stddev	3.74	2.69	4.63	6.4	7.9	12.5	1237.
%RSD	.74624	.54076	.91597	1.076	1.414	2.355	2.6220
#1	498.60	495.35	502.36	589.3	549.9	521.9	46311.
#2	503.89	499.16	508.91	598.3	561.0	539.6	48060.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24736.**	**97250.**	**102700.**	**496.73**	**508.66**	**99946.**	**496.93**
Stddev	561.	2691.	2499.	3.29	3.17	2389.	2.61
%RSD	2.2684	2.767	2.434	.66326	.62380	2.3907	.52482
#1	24339.	95350.	100900.	494.40	506.42	98256.	495.08
#2	25132.	99160.	104400.	499.06	510.90	101640.	498.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 18:53:42 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**501.87**	**512.64**	**512.29**	**522.71**	**505.13**	**493.13**	**505.30**
Stddev	5.46	3.17	3.11	5.61	3.39	1.48	4.23
%RSD	1.0881	.61881	.60661	1.0729	.67123	.30030	.83662
#1	498.01	510.40	510.10	518.74	502.73	492.09	502.31
#2	505.73	514.88	514.49	526.67	507.52	494.18	508.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**513.60**	**502.95**	**504.79**	F **607.25**
Stddev	3.77	5.36	3.83	4.53
%RSD	.73454	1.0661	.75820	.74586
#1	510.93	499.16	502.09	604.05
#2	516.27	506.74	507.50	610.45
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41142.	26967.	570520.
Stddev	224.	522.	4690.
%RSD	.54360	1.9343	.82209
#1	41300.	27336.	573830.
#2	40983.	26598.	567200.

Sample Name: CCB Acquired: 12/11/2007 18:57:17 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.03125**	**-5.6967**	**-1.3608**	**-.81835**	**-.31604**	**-.01265**	**-12.895**
Stddev	.07769	25.961	.5670	.78264	.01758	.00245	6.499
%RSD	248.61	455.73	41.666	95.637	5.5634	19.341	50.402
#1	-.02369	-24.054	-.95989	-.26494	-.30360	-.01438	-17.490
#2	.08619	12.661	-1.7617	-1.3718	-.32847	-.01092	-8.2990
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.06213**	**-1.0138**	**-.27933**	**-.1617**	**-.8736**	**-.5191**	**-5.1270**
Stddev	.00445	.0630	.17348	1.798	.2951	11.94	.2999
%RSD	7.1650	6.2172	62.105	1112.	33.78	2301.	5.8501
#1	-.06528	-.96923	-.40199	1.110	-1.082	-8.964	-4.9149
#2	-.05898	-1.0584	-.15666	-1.433	-.6649	7.926	-5.3391
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-265.96**	F **8.328**	F **4.619**	**-.17986**	**-.74945**	**-44.879**	**-.54364**
Stddev	20.75	.610	1.406	.04058	.07711	11.335	.05358
%RSD	7.8019	7.319	30.43	22.564	10.289	25.257	9.8551
#1	-251.29	7.897	3.625	-.15116	-.80397	-36.864	-.50575
#2	-280.64	8.759	5.614	-.20856	-.69492	-52.894	-.58152
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000	3.000				
Low Limit	-250.00	-3.000	-3.000				

Sample Name: CCB Acquired: 12/11/2007 18:57:17 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.99283**	**-1.2526**	**-.55378**	**-1.3605**	**-1.0071**	**.03550**	**3.0788**
Stddev	.60868	.0001	.52778	.4238	.1085	.03489	2.9277
%RSD	61.308	.01210	95.305	31.149	10.772	98.283	95.093
#1	-.56242	-1.2525	-.92698	-1.6602	-.93043	.06018	5.1490
#2	-1.4232	-1.2527	-.18058	-1.0609	-1.0839	.01083	1.0086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.20168**	**.50708**	**-.23001**	**-1.3628**
Stddev	.02283	.43702	.02673	.0289
%RSD	11.319	86.183	11.623	2.1174
#1	.18553	.81610	-.24891	-1.3832
#2	.21782	.19806	-.21110	-1.3424
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42066.	27422.	582760.
Stddev	328.	512.	2147.
%RSD	.78047	1.8677	.36834
#1	42298.	27784.	581240.
#2	41834.	27060.	584280.

Sample Name: CCV Acquired: 12/11/2007 19:35:03 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**511.24**	**50288.**	**510.06**	**511.81**	**491.15**	**50.115**	**97587.**
Stddev	6.90	635.	2.80	1.01	5.48	.655	1094.
%RSD	1.3502	1.2627	.54896	.19791	1.1160	1.3078	1.1211
#1	506.36	49839.	508.08	511.09	487.28	49.652	96813.
#2	516.12	50737.	512.03	512.52	495.03	50.579	98360.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**499.94**	**496.92**	**502.23**	F **597.0**	F **554.0**	**522.7**	**47099.**
Stddev	1.21	1.11	6.48	1.8	1.4	3.6	513.
%RSD	.24174	.22419	1.2901	.3050	.2556	.6847	1.0889
#1	499.09	496.13	497.65	598.3	553.0	525.3	46736.
#2	500.80	497.70	506.81	595.7	555.0	520.2	47462.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value				500.0	500.0		
Range				10.00%	10.00%		

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24935.**	**98070.**	**102600.**	**495.48**	**508.23**	**100610.**	**497.31**
Stddev	284.	454.	1351.	6.19	.83	1268.	1.63
%RSD	1.1397	.4626	1.317	1.2494	.16398	1.2601	.32724
#1	24734.	97750.	101700.	491.10	507.64	99714.	496.15
#2	25136.	98390.	103600.	499.85	508.82	101510.	498.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 19:35:03 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**497.68**	**512.74**	**507.11**	**517.81**	**503.88**	**495.55**	**502.43**
Stddev	1.24	2.54	.87	6.88	.85	3.09	3.36
%RSD	.24837	.49619	.17124	1.3296	.16848	.62291	.66788
#1	496.80	510.95	507.73	512.94	503.28	493.36	500.06
#2	498.55	514.54	506.50	522.68	504.48	497.73	504.80
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**512.33**	**499.82**	**503.08**	F **604.74**
Stddev	7.07	3.86	5.46	2.31
%RSD	1.3802	.77136	1.0851	.38259
#1	507.33	497.10	499.22	603.10
#2	517.33	502.55	506.94	606.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**40801.**	**26322.**	**567060.**
Stddev	67.	196.	5921.
%RSD	.16508	.74330	1.0441
#1	40754.	26461.	571240.
#2	40849.	26184.	562870.

Sample Name: CCB Acquired: 12/11/2007 19:38:37 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.10167	6.3831	-.01719	-.38765	-.38972	-.01826	-16.353	.01389
Stddev	.14726	8.8938	.35308	.32684	.01660	.00452	.063	.06791
%RSD	144.85	139.33	2054.2	84.314	4.2583	24.761	.38295	488.88
#1	.00246	12.672	.23247	-.15654	-.37798	-.01507	-16.397	.06191
#2	-.20579	.09429	-.26685	-.61876	-.40145	-.02146	-16.309	-.03413
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.87162	-.42117	-1.816	-1.173	2.451	-4.7274	-243.36	F 4.615
Stddev	.28093	.06699	.780	.825	.578	3.2323	31.65	2.565
%RSD	32.231	15.905	42.97	70.27	23.59	68.373	13.007	55.58
#1	-1.0703	-.37381	-1.264	-.5903	2.860	-2.4418	-220.98	6.428
#2	-.67297	-.46854	-2.368	-1.756	2.042	-7.0130	-265.74	2.801
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit								3.000
Low Limit								-3.000

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.263	-.29687	-1.0264	-56.246	-.91519	-.81959	.72734	-1.5642
Stddev	3.453	.01140	.0110	.187	.11635	.04061	1.1454	.9962
%RSD	273.4	3.8416	1.0726	.33307	12.713	4.9544	157.47	63.689
#1	3.704	-.30493	-1.0186	-56.378	-.99746	-.84830	1.5372	-2.2686
#2	-1.178	-.28881	-1.0341	-56.113	-.83292	-.79088	-.08256	-.85976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: CCB Acquired: 12/11/2007 19:38:37 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.8808**	**-1.0930**	**-.04539**	**3.0613**	**.11898**	**-.13786**	**-.45944**	**-1.4555**
Stddev	.5175	.3226	.00815	2.7309	.03220	.22918	.05733	.0789
%RSD	27.514	29.519	17.963	89.207	27.061	166.25	12.478	5.4226
#1	-1.5149	-1.3211	-.05116	4.9923	.09621	.02420	-.49998	-1.3997
#2	-2.2467	-.86483	-.03963	1.1303	.14174	-.29991	-.41891	-1.5113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42900.	26810.	585700.
Stddev	159.	358.	471.
%RSD	.36990	1.3362	.08037
#1	43012.	26557.	586040.
#2	42788.	27064.	585370.

Sample Name: CCV Acquired: 12/11/2007 20:16:40 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**516.36**	**50573.**	**503.97**	**507.01**	**488.86**	**50.536**	**96845.**
Stddev	1.98	565.	1.17	1.72	5.65	.271	948.
%RSD	.38264	1.1174	.23220	.33947	1.1560	.53663	.97839
#1	517.75	50173.	503.14	508.22	484.87	50.728	96175.
#2	514.96	50973.	504.80	505.79	492.86	50.344	97515.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**493.26**	**495.15**	**504.35**	F **594.8**	**549.3**	**508.7**	**46394.**
Stddev	1.85	.83	1.18	2.6	.0	6.1	444.
%RSD	.37432	.16771	.23300	.4440	.0016	1.201	.95670
#1	494.56	495.74	505.18	596.7	549.3	513.0	46080.
#2	491.95	494.56	503.52	592.9	549.4	504.4	46708.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				500.0			
Range				10.00%			

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25075.**	**97060.**	**102800.**	**502.86**	**502.15**	**101930.**	**498.85**
Stddev	388.	942.	1214.	.76	.99	1192.	.59
%RSD	1.5465	.9705	1.181	.15133	.19814	1.1691	.11896
#1	24801.	96390.	101900.	503.40	502.85	101090.	499.27
#2	25349.	97720.	103700.	502.32	501.44	102770.	498.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 20:16:40 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**494.17**	**509.75**	**504.86**	**524.59**	**496.72**	**500.93**	**498.56**
Stddev	.45	1.01	1.12	.76	.52	.65	1.79
%RSD	.09134	.19844	.22118	.14463	.10383	.12938	.35939
#1	494.49	509.04	505.65	525.13	497.08	501.39	497.30
#2	493.85	510.47	504.07	524.05	496.35	500.47	499.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**522.71**	**491.97**	**507.30**	F **594.23**
Stddev	2.98	1.49	.10	2.27
%RSD	.56988	.30285	.02022	.38139
#1	524.81	493.02	507.38	595.83
#2	520.60	490.91	507.23	592.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**40723.**	**26051.**	**555760.**
Stddev	106.	309.	257.
%RSD	.25981	1.1851	.04628
#1	40648.	26269.	555580.
#2	40798.	25833.	555940.

Sample Name: CCB Acquired: 12/11/2007 20:20:18 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.12715**	**-4.1856**	**.31159**	**-1.1602**	**-.41142**	**-.00790**	**-22.052**
Stddev	.19597	.6865	1.6017	.1728	.01296	.00348	.639
%RSD	154.12	16.402	514.03	14.893	3.1497	43.966	2.8975
#1	.01142	-3.7002	1.4441	-1.0380	-.42059	-.00545	-21.600
#2	-.26572	-4.6711	-.82096	-1.2824	-.40226	-.01036	-22.504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.09334**	**-.81006**	**-.27054**	**-.6231**	**-1.104**	**.5719**	**-1.7475**
Stddev	.04244	.25099	.23558	.8088	.079	.5531	4.1815
%RSD	45.469	30.984	87.076	129.8	7.145	96.72	239.29
#1	-.12335	-.98754	-.10396	-.0512	-1.160	.9630	1.2093
#2	-.06333	-.63258	-.43712	-1.195	-1.049	.1808	-4.7042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-300.00**	**.4988**	F **-3.546**	**-.23455**	**-.79780**	**-60.055**	**-.41207**
Stddev	8.79	1.282	.416	.08362	.09471	4.602	.06865
%RSD	2.9308	257.0	11.73	35.653	11.871	7.6629	16.660
#1	-293.78	1.405	-3.840	-.29368	-.73083	-63.309	-.36353
#2	-306.22	-.4076	-3.252	-.17541	-.86477	-56.801	-.46062
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00		3.000				
Low Limit	-250.00		-3.000				

Sample Name: CCB Acquired: 12/11/2007 20:20:18 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.9969	-1.0375	-1.3247	-1.5829	-.50100	-.06442	1.7493
Stddev	.3015	1.3361	2.1789	.5700	.64117	.01091	.6483
%RSD	15.097	128.78	164.49	36.007	127.98	16.928	37.058
#1	-2.2100	-.09272	.21605	-1.9859	-.95437	-.07213	2.2077
#2	-1.7837	-1.9822	-2.8654	-1.1799	-.04762	-.05671	1.2909
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	.07492	.07990	-.35878	-1.4331
Stddev	.05321	.15516	.05972	.0227
%RSD	71.026	194.19	16.646	1.5833
#1	.03729	.18962	-.31655	-1.4170
#2	.11255	-.02981	-.40101	-1.4491
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42081.	26465.	570270.
Stddev	207.	543.	729.
%RSD	.49109	2.0517	.12778
#1	41935.	26849.	569750.
#2	42227.	26081.	570780.

Sample Name: CCV Acquired: 12/11/2007 20:58:37 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**519.55**	**50685.**	**502.87**	**509.03**	**493.48**	**50.604**	**96585.**
Stddev	.03	539.	.91	1.32	.06	.103	882.
%RSD	.00520	1.0637	.18186	.25909	.01127	.20279	.91290
#1	519.57	50304.	503.52	509.96	493.44	50.532	95962.
#2	519.53	51067.	502.22	508.10	493.52	50.677	97208.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**493.64**	**494.91**	**504.24**	F **596.2**	**549.7**	**510.4**	**46174.**
Stddev	1.40	1.24	1.25	1.0	.1	1.2	395.
%RSD	.28446	.24970	.24856	.1684	.0143	.2392	.85462
#1	494.63	495.78	503.35	596.9	549.7	511.3	45895.
#2	492.64	494.03	505.12	595.5	549.8	509.6	46453.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				500.0			
Range				10.00%			

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25100.**	**97250.**	**102600.**	**505.98**	**502.94**	**102490.**	**498.93**
Stddev	224.	497.	969.	.74	2.30	970.	2.40
%RSD	.89383	.5115	.9445	.14614	.45806	.94696	.48118
#1	24942.	96890.	101900.	506.50	504.57	101800.	500.62
#2	25259.	97600.	103300.	505.46	501.31	103170.	497.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 20:58:37 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**493.79**	**511.77**	**507.79**	**527.42**	**498.61**	**505.35**	**498.73**
Stddev	.69	.46	1.47	.20	.52	1.72	2.47
%RSD	.13889	.09004	.28976	.03880	.10409	.33994	.49549
#1	493.31	511.44	508.83	527.28	498.98	506.56	500.47
#2	494.28	512.09	506.75	527.57	498.25	504.13	496.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**528.18**	**492.54**	**508.74**	F **595.34**
Stddev	.01	1.86	.05	1.80
%RSD	.00262	.37846	.00916	.30194
#1	528.19	493.86	508.71	596.61
#2	528.17	491.23	508.77	594.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**40706.**	**25749.**	**554280.**
Stddev	242.	160.	1521.
%RSD	.59500	.62076	.27435
#1	40535.	25862.	555360.
#2	40878.	25636.	553210.

Sample Name: CCB Acquired: 12/11/2007 21:02:15 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.21338**	**5.2214**	**-.69542**	**-1.3914**	**-.41830**	**-.01801**	**-29.648**
Stddev	.51261	1.6107	.29852	.5410	.00112	.00195	2.317
%RSD	240.23	30.849	42.926	38.882	.26725	10.839	7.8153
#1	-.57585	6.3603	-.48433	-1.7740	-.41909	-.01663	-28.010
#2	.14908	4.0824	-.90650	-1.0089	-.41751	-.01939	-31.287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.06180**	**-.87201**	**-.37847**	**-.7152**	**-.4382**	F **-5.162**	**4.2570**
Stddev	.11962	.01230	.28996	.3636	.8130	2.208	3.9966
%RSD	193.56	1.4100	76.613	50.84	185.5	42.77	93.883
#1	.02278	-.88071	-.17344	-.4581	.1366	-3.601	7.0830
#2	-.14638	-.86332	-.58350	-.9723	-1.013	-6.724	1.4310
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						3.000	
Low Limit						-3.000	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-300.05**	**.4191**	F **-4.083**	**.06122**	**-.61827**	**-61.709**	**-.53138**
Stddev	44.77	.5878	.293	.00559	.14213	5.505	.10847
%RSD	14.920	140.2	7.167	9.1332	22.989	8.9215	20.414
#1	-331.71	.8347	-3.876	.05726	-.51777	-57.816	-.60808
#2	-268.40	.0035	-4.290	.06517	-.71878	-65.602	-.45468
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00		3.000				
Low Limit	-250.00		-3.000				

Sample Name: CCB Acquired: 12/11/2007 21:02:15 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.2559	-.36904	-2.9378	-1.3582	-.63134	-.07144	1.7599
Stddev	.1694	.62608	1.5525	.1475	.17897	.00680	1.0073
%RSD	7.5091	169.65	52.846	10.860	28.347	9.5182	57.237
#1	-2.3757	-.81175	-4.0356	-1.4625	-.75789	-.06664	1.0476
#2	-2.1361	.07366	-1.8400	-1.2539	-.50479	-.07625	2.4722
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	.71022	-.30799	-.37108	-1.5953
Stddev	.00323	.06484	.19372	.1081
%RSD	.45498	21.052	52.203	6.7788
#1	.70794	-.35384	-.50806	-1.5188
#2	.71251	-.26214	-.23410	-1.6717
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41796.	25147.	566700.
Stddev	79.	360.	1355.
%RSD	.18814	1.4333	.23908
#1	41741.	24892.	567660.
#2	41852.	25402.	565740.

Sample Name: CCV Acquired: 12/11/2007 21:40:25 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**519.48**	**50727.**	**498.95**	**504.69**	**491.51**	**50.405**	**95991.**
Stddev	3.51	289.	1.22	1.17	1.53	.366	695.
%RSD	.67602	.57001	.24495	.23096	.31203	.72606	.72353
#1	517.00	50931.	498.09	505.51	492.60	50.147	96482.
#2	521.97	50522.	499.82	503.86	490.43	50.664	95499.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**488.93**	**492.30**	**500.12**	F **594.1**	**543.9**	**494.9**	**45620.**
Stddev	.81	.13	4.57	1.7	.3	.0	425.
%RSD	.16519	.02572	.91380	.2823	.0481	.0076	.93065
#1	488.36	492.39	496.89	595.3	543.8	494.9	45920.
#2	489.50	492.21	503.35	592.9	544.1	494.8	45319.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				500.0			
Range				10.00%			

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25152.**	**98190.**	**102600.**	**504.52**	**499.13**	**103030.**	**498.12**
Stddev	88.	734.	560.	2.15	.36	398.	.43
%RSD	.34976	.7472	.5462	.42543	.07276	.38652	.08696
#1	25214.	98710.	103000.	503.00	498.88	103320.	498.42
#2	25090.	97670.	102200.	506.03	499.39	102750.	497.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 21:40:25 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**488.96**	**510.36**	**498.56**	**529.28**	**492.79**	**498.05**	**496.06**
Stddev	.39	1.57	.31	3.59	3.46	1.82	1.31
%RSD	.07881	.30813	.06269	.67878	.70196	.36445	.26504
#1	489.23	511.48	498.79	526.74	490.35	499.33	495.13
#2	488.68	509.25	498.34	531.82	495.24	496.76	496.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**528.49**	**487.10**	**506.76**	F **588.90**
Stddev	3.15	.45	2.89	.79
%RSD	.59541	.09146	.57053	.13472
#1	526.27	486.79	504.71	588.34
#2	530.72	487.42	508.80	589.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**40941.**	**25356.**	**556940.**
Stddev	37.	151.	3404.
%RSD	.08989	.59484	.61116
#1	40967.	25249.	559350.
#2	40915.	25462.	554530.

Sample Name: CCB Acquired: 12/11/2007 21:44:02 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.13898**	**-3.2919**	**-.18179**	**-.94062**	**-.32960**	**-.00349**	**-11.235**
Stddev	.38556	13.200	.08963	.15392	.00109	.00175	6.528
%RSD	277.42	400.99	49.307	16.364	.33108	50.170	58.108
#1	-.41161	6.0421	-.11841	-.83178	-.32883	-.00473	-6.6185
#2	.13365	-12.626	-.24517	-1.0495	-.33038	-.00225	-15.851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.11584**	**-.94944**	**-.28669**	**-.8832**	**.0334**	**-2.626**	**11.976**
Stddev	.00790	.11346	.13543	.7044	.2465	7.468	5.217
%RSD	6.8221	11.950	47.239	79.76	738.9	284.4	43.565
#1	-.12143	-1.0297	-.19093	-1.381	.2077	2.655	15.665
#2	-.11025	-.86921	-.38246	-.3850	-.1410	-7.906	8.2865
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**F -310.47**	**F 16.40**	**F 14.95**	**-.05658**	**-.99989**	**-62.803**	**-.57036**
Stddev	72.84	4.02	4.17	.00638	.00624	34.338	.16039
%RSD	23.462	24.50	27.90	11.282	.62359	54.677	28.121
#1	-361.98	19.24	17.90	-.05207	-.99549	-38.522	-.45695
#2	-258.97	13.56	12.00	-.06109	-1.0043	-87.083	-.68378
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000	3.000				
Low Limit	-250.00	-3.000	-3.000				

Sample Name: CCB Acquired: 12/11/2007 21:44:02 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-2.1644	.68489	.40387	-1.0913	-.34797	.02374	2.3235
Stddev	.5827	.07630	.03382	.4037	.10116	.01004	.5332
%RSD	26.923	11.141	8.3741	36.992	29.073	42.292	22.948
#1	-2.5764	.63093	.37995	-1.3768	-.27643	.01664	2.7005
#2	-1.7523	.73884	.42778	-.80587	-.41950	.03084	1.9465
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	.43216	.99657	-.15660	-1.4011
Stddev	.12552	.97145	.26983	.0508
%RSD	29.045	97.480	172.30	3.6247
#1	.34341	1.6835	-.34740	-1.4371
#2	.52092	.30965	.03420	-1.3652
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42399.	25478.	571030.
Stddev	14.	202.	21.
%RSD	.03279	.79174	.00366
#1	42389.	25335.	571010.
#2	42409.	25621.	571040.

Sample Name: CCV Acquired: 12/11/2007 22:22:38 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**515.67**	**50079.**	**488.51**	**498.26**	**487.06**	**49.967**	**94583.**
Stddev	2.77	881.	.02	1.26	.18	.105	1564.
%RSD	.53719	1.7583	.00451	.25225	.03791	.20930	1.6532
#1	513.71	49456.	488.53	499.15	487.19	49.893	93478.
#2	517.63	50702.	488.50	497.37	486.93	50.041	95689.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**480.01**	**485.66**	**494.46**	F **587.3**	**537.0**	**499.5**	F **44831.**
Stddev	.57	.44	2.77	4.5	2.0	1.7	768.
%RSD	.11881	.08970	.56100	.7724	.3673	.3501	1.7124
#1	480.42	485.97	492.50	584.1	535.6	498.3	44288.
#2	479.61	485.35	496.42	590.6	538.4	500.7	45374.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				500.0			50000.
Range				10.00%			-10.000%

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24859.**	**96350.**	**100600.**	**505.33**	**490.31**	**101930.**	**493.07**
Stddev	489.	1405.	1680.	.55	.19	1667.	.23
%RSD	1.9670	1.458	1.669	.10974	.03928	1.6356	.04584
#1	24513.	95360.	99460.	504.93	490.45	100750.	493.23
#2	25205.	97350.	101800.	505.72	490.18	103110.	492.91
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 22:22:38 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**480.28**	**504.67**	**494.41**	**524.10**	**484.63**	**498.23**	**488.50**
Stddev	.56	1.66	.80	1.10	.92	1.27	1.88
%RSD	.11608	.32802	.16144	.20999	.19016	.25438	.38464
#1	479.88	505.84	494.97	523.32	483.98	499.13	487.17
#2	480.67	503.49	493.85	524.88	485.29	497.33	489.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**526.77**	**479.93**	**503.73**	F **577.51**
Stddev	.62	2.44	1.84	.72
%RSD	.11823	.50821	.36506	.12499
#1	526.33	478.21	502.43	578.02
#2	527.21	481.66	505.04	577.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41365.**	**25560.**	**558220.**
Stddev	44.	266.	413.
%RSD	.10562	1.0423	.07398
#1	41334.	25748.	558510.
#2	41396.	25371.	557930.

Sample Name: CCB Acquired: 12/11/2007 22:26:16 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.17714	-1.8494	-.51555	-1.2220	-.32094	.00054	-13.457
Stddev	.29351	13.824	1.8858	.1537	.01899	.01170	5.252
%RSD	165.70	747.45	365.78	12.580	5.9161	2147.5	39.029
#1	-.38468	-11.624	-1.8490	-1.3307	-.33437	-.00773	-9.7430
#2	.03040	7.9254	.81792	-1.1133	-.30752	.00882	-17.170
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.04486	-.88532	-.44664	-1.266	-1.340	F -4.230	15.325
Stddev	.01350	.33993	.07852	.894	.552	2.850	2.167
%RSD	30.103	38.396	17.580	70.63	41.20	67.37	14.140
#1	-.05441	-.64496	-.50216	-.6338	-1.730	-6.245	13.793
#2	-.03531	-1.1257	-.39111	-1.899	-.9495	-2.215	16.857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						3.000	
Low Limit						-3.000	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -362.41	F 14.19	F 11.87	.39089	-.80090	-57.404	-.85413
Stddev	3.46	1.10	.15	.07453	.11506	18.699	.32952
%RSD	.95548	7.754	1.246	19.067	14.366	32.574	38.579
#1	-359.96	13.41	11.76	.33819	-.88226	-44.182	-.62113
#2	-364.86	14.97	11.97	.44360	-.71954	-70.626	-1.0871
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000	3.000				
Low Limit	-250.00	-3.000	-3.000				

Sample Name: CCB Acquired: 12/11/2007 22:26:16 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.3048**	**-.12194**	**-.88997**	**-1.5069**	**-.50176**	**-.00245**	**1.9254**
Stddev	.8186	.25990	.62313	.1919	.11683	.01226	1.2302
%RSD	62.735	213.13	70.017	12.737	23.284	499.30	63.891
#1	-1.8837	.06183	-.44935	-1.6426	-.41915	-.01112	1.0556
#2	-.72601	-.30572	-1.3306	-1.3712	-.58437	.00621	2.7953
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.85703**	**-.89828**	**-.21026**	**-1.3180**
Stddev	.17450	.40410	.25478	.0500
%RSD	20.361	44.985	121.17	3.7907
#1	.73364	-.61254	-.03010	-1.3534
#2	.98042	-1.1840	-.39041	-1.2827
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42478.**	**25506.**	**571820.**
Stddev	118.	208.	4390.
%RSD	.27891	.81585	.76779
#1	42394.	25653.	574930.
#2	42561.	25359.	568720.

Sample Name: ICSA Acquired: 12/11/2007 22:57:53 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.2770**	**492870.**	**1.0073**	**4.3916**	**1.3324**	**-.07289**
Stddev	.0194	1955.	3.1649	1.1819	.0093	.00904
%RSD	1.5204	.39658	314.21	26.913	.70075	12.399
#1	-1.2633	491490.	-1.2307	3.5558	1.3390	-.06650
#2	-1.2908	494250.	3.2452	5.2273	1.3258	-.07929
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca	Cd	Co	Cr	Cu2199	Cu2218
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**495280.**	**1.7131**	**-1.0234**	**.14205**	F **-183.0**	F **254.1**
Stddev	5103.	.4177	.1194	.06123	.1	3.1
%RSD	1.0303	24.381	11.669	43.102	.0453	1.201
#1	498890.	2.0085	-1.1079	.09876	-183.0	251.9
#2	491670.	1.4178	-.93900	.18535	-182.9	256.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit					3.000	3.000
Low Limit					-3.000	-3.000

Elem	Cu3273	Fe	K	Mg2802	Mg2852	Mn
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **200.4**	**172290.**	F **-441.34**	F **234900.**	F **217700.**	**.26852**
Stddev	10.9	68.	24.23	142.	2533.	.26773
%RSD	5.428	.03936	5.4893	.0603	1.164	99.706
#1	192.7	172240.	-424.21	235000.	219500.	.07920
#2	208.1	172340.	-458.47	234800.	215900.	.45783
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
High Limit	3.000		250.00	3.000	3.000	
Low Limit	-3.000		-250.00	-3.000	-3.000	

Sample Name: ICSA Acquired: 12/11/2007 22:57:53 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.53688**	**-247.23**	**-4.6230**	F **10.147**	**-.95974**	**-3.0717**
Stddev	.09642	6.30	.0157	3.860	.88905	1.4810
%RSD	17.959	2.5494	.34027	38.037	92.634	48.214
#1	-.60506	-251.68	-4.6341	12.876	-1.5884	-2.0245
#2	-.46870	-242.77	-4.6119	7.4179	-.33109	-4.1189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit				6.0000		
Low Limit				-6.0000		

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.99140**	**-.62087**	**-.01176**	**12.932**	**1.9620**	**3.3400**
Stddev	.13182	.73701	.02206	3.241	.7964	1.2544
%RSD	13.296	118.71	187.59	25.059	40.590	37.556
#1	-1.0846	-1.1420	-.02736	10.640	1.3989	2.4530
#2	-.89819	-.09973	.00384	15.223	2.5252	4.2270
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	V	Zn
Units	ppb	ppb
Avg	**-.17813**	**-2.7333**
Stddev	.01779	.7992
%RSD	9.9863	29.239
#1	-.19071	-2.1682
#2	-.16555	-3.2984
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/11/2007 22:57:53 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	38922.	25109.	532800.
Stddev	976.	12.	1142.
%RSD	2.5068	.04607	.21430
#1	38232.	25117.	531990.
#2	39612.	25101.	533610.

Sample Name: ICSAB Acquired: 12/11/2007 23:01:29 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**211.50**	**488150.**	**102.58**	**908.97**	**498.62**	**496.14**	**483100.**
Stddev	.80	63.	5.12	1.34	1.43	.58	1916.
%RSD	.37652	.01287	4.9867	.14695	.28651	.11605	.39660
#1	210.94	488100.	98.965	909.91	497.61	496.55	481750.
#2	212.06	488190.	106.20	908.03	499.63	495.73	484460.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**909.93**	**456.63**	**481.15**	F **337.7**	F **739.5**	F **634.4**	**169320.**
Stddev	.22	.43	2.03	3.9	.3	.8	54.
%RSD	.02451	.09470	.42223	1.144	.0382	.1294	.03189
#1	909.77	456.32	479.71	340.5	739.3	635.0	169280.
#2	910.08	456.93	482.59	335.0	739.7	633.9	169360.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				200.0	200.0	200.0	
Range				20.00%	20.00%	20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4346.1**	**245600.**	**224900.**	**497.33**	**888.83**	**9869.6**	**935.38**
Stddev	6.5	2005.	139.	.12	1.14	11.5	.84
%RSD	.14931	.8163	.0619	.02337	.12792	.11638	.09019
#1	4341.6	247100.	224800.	497.25	888.03	9861.5	935.98
#2	4350.7	244200.	225000.	497.41	889.63	9877.7	934.79
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 12/11/2007 23:01:29 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**54.670**	**594.30**	**45.520**	F **1205.7**	**870.83**	**504.76**	**204.63**
Stddev	2.685	.89	.496	1.6	.02	1.92	4.34
%RSD	4.9114	.15056	1.0902	.13387	.00253	.38067	2.1190
#1	56.569	593.67	45.170	1204.6	870.84	506.11	201.57
#2	52.771	594.93	45.871	1206.9	870.81	503.40	207.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				1000.0			
Range				20.000%			

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**956.75**	**93.682**	**496.06**	**1017.9**
Stddev	3.05	.388	1.15	.3
%RSD	.31839	.41438	.23127	.02712
#1	954.59	93.956	495.25	1017.7
#2	958.90	93.407	496.87	1018.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**39648.**	**25124.**	**527040.**
Stddev	13.	34.	2289.
%RSD	.03230	.13487	.43424
#1	39657.	25100.	525420.
#2	39638.	25148.	528650.

Sample Name: CCV Acquired: 12/11/2007 23:05:19 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.62**	**51479.**	**484.39**	**496.34**	**486.79**	**49.760**	**97187.**
Stddev	.02	2361.	8.15	7.29	3.75	.017	4463.
%RSD	.00316	4.5856	1.6824	1.4679	.77098	.03397	4.5924
#1	514.63	53149.	490.15	501.49	484.13	49.772	100340.
#2	514.61	49810.	478.63	491.18	489.44	49.748	94031.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**477.15**	**483.99**	**490.05**	F **586.4**	**536.3**	**486.4**	**45881.**
Stddev	7.16	7.61	.44	9.4	12.6	4.3	2036.
%RSD	1.5000	1.5728	.08914	1.606	2.344	.8785	4.4382
#1	482.21	489.37	489.74	593.1	545.2	489.4	47321.
#2	472.08	478.60	490.36	579.8	527.5	483.4	44441.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				500.0			
Range				10.00%			

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25537.**	**100100.**	**103200.**	**503.99**	**487.94**	**105400.**	**492.76**
Stddev	1227.	4605.	4830.	.86	7.67	4916.	7.25
%RSD	4.8063	4.599	4.681	.17153	1.5725	4.6643	1.4703
#1	26405.	103400.	106600.	504.60	493.37	108880.	497.89
#2	24669.	96850.	99760.	503.38	482.52	101930.	487.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 23:05:19 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**477.88**	**502.34**	**490.00**	**523.61**	**482.06**	**497.15**	**486.65**
Stddev	8.57	7.15	11.52	2.57	7.21	.57	4.63
%RSD	1.7932	1.4230	2.3499	.49085	1.4966	.11426	.95159
#1	483.94	507.39	498.14	521.79	487.16	496.75	489.92
#2	471.82	497.28	481.86	525.43	476.96	497.55	483.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**525.57**	**474.68**	**502.16**	F **572.97**
Stddev	1.35	4.36	.01	8.11
%RSD	.25734	.91812	.00260	1.4152
#1	526.52	477.76	502.17	578.71
#2	524.61	471.60	502.15	567.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41460.	24619.	558710.
Stddev	521.	994.	1432.
%RSD	1.2564	4.0381	.25624
#1	41092.	23916.	557700.
#2	41828.	25322.	559730.

Sample Name: CCB Acquired: 12/11/2007 23:08:57 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.36379	34.309	-.21408	-.88833	-.35368	.02066	14.339
Stddev	.01617	10.910	2.0013	.72190	.00887	.00352	5.331
%RSD	4.4445	31.800	934.81	81.264	2.5085	17.028	37.179
#1	-.37522	42.024	-1.6292	-.37787	-.34740	.01817	18.108
#2	-.35236	26.595	1.2010	-1.3988	-.35995	.02315	10.569
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.05310	-.84168	-.42178	-1.601	-.7497	F 4.022	16.408
Stddev	.05944	.01372	.06389	.184	.7523	3.675	2.272
%RSD	111.93	1.6307	15.148	11.46	100.3	91.37	13.849
#1	-.09513	-.85138	-.46696	-1.472	-1.282	6.620	18.014
#2	-.01107	-.83197	-.37660	-1.731	-.2178	1.424	14.801
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						3.000	
Low Limit						-3.000	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -322.35	F 30.18	F 28.17	-.00661	-.69959	-83.876	-.83047
Stddev	49.99	4.49	3.63	.03056	.04587	3.743	.32828
%RSD	15.508	14.88	12.88	462.33	6.5565	4.4630	39.530
#1	-287.00	33.36	30.74	.01500	-.73203	-86.523	-.59834
#2	-357.69	27.01	25.60	-.02822	-.66716	-81.229	-1.0626
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000	3.000				
Low Limit	-250.00	-3.000	-3.000				

Sample Name: CCB Acquired: 12/11/2007 23:08:57 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.1087	-.28672	.25226	-1.5104	-1.0089	.00176	2.8326
Stddev	.1770	.20674	.12240	.0372	.1572	.01033	1.5417
%RSD	15.963	72.105	48.520	2.4597	15.582	585.70	54.427
#1	-1.2338	-.43291	.33881	-1.4841	-1.1201	-.00554	1.7425
#2	-.98354	-.14054	.16571	-1.5366	-.89774	.00907	3.9228
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	.31328	.20880	-.32294	-1.4083
Stddev	.06764	2.5880	.15389	.0486
%RSD	21.589	1239.5	47.652	3.4494
#1	.26546	-1.6212	-.43175	-1.3740
#2	.36111	2.0388	-.21412	-1.4427
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42772.	25334.	570480.
Stddev	169.	97.	929.
%RSD	.39516	.38379	.16277
#1	42892.	25402.	571140.
#2	42653.	25265.	569830.

Sample Name: BLK 131 Acquired: 12/11/2007 23:15:51 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.06103**	**-13.095**	**-4.0814**	**-.45267**	**-.48194**	**.01341**	**-5.2107**
Stddev	.24879	12.550	.2437	.07837	.00403	.00519	.5436
%RSD	407.61	95.835	5.9706	17.314	.83517	38.699	10.432
#1	.23695	-4.2212	-3.9091	-.39725	-.47910	.00974	-4.8264
#2	-.11488	-21.969	-4.2537	-.50808	-.48479	.01708	-5.5951
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.45898**	**-1.4010**	**1.6773**	**-1.360**	**-.0390**	**1.374**	**-16.661**
Stddev	.01613	.1311	.1207	1.171	.6552	2.953	4.695
%RSD	3.5147	9.3593	7.1948	86.12	1681.	215.0	28.182
#1	-.47039	-1.3083	1.5920	-.5320	-.5023	3.462	-13.341
#2	-.44758	-1.4937	1.7627	-2.189	.4243	-.7149	-19.981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-401.89**	F **-11.24**	F **-15.07**	**-.32552**	**-.77675**	**-174.41**	**-.68739**
Stddev	45.03	2.02	1.15	.03528	.34337	3.10	.02855
%RSD	11.205	17.93	7.638	10.839	44.207	1.7755	4.1535
#1	-370.04	-9.819	-15.88	-.35047	-1.0195	-172.22	-.66720
#2	-433.73	-12.67	-14.26	-.30057	-.53394	-176.60	-.70758
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000	3.000				
Low Limit	-250.00	-3.000	-3.000				

Sample Name: BLK 131 Acquired: 12/11/2007 23:15:51 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-2.1447**	**.16853**	**.83609**	**2.3942**	F **25.424**	**-.12473**	**.49045**
Stddev	.8630	.95281	2.0472	.0957	.025	.00566	2.3554
%RSD	40.241	565.37	244.85	3.9969	.09871	4.5356	480.26
#1	-2.7549	-.50521	2.2837	2.4618	25.442	-.12073	2.1560
#2	-1.5344	.84227	-.61150	2.3265	25.406	-.12873	-1.1751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					20.000		
Low Limit					-20.000		

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**-.12023**	**-5.4129**	**-.40424**	**2.5142**
Stddev	.00227	.9440	.09112	.1022
%RSD	1.8914	17.440	22.541	4.0663
#1	-.12184	-4.7453	-.33981	2.4419
#2	-.11862	-6.0804	-.46868	2.5865
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41083.	24165.	562090.
Stddev	46.	805.	165.
%RSD	.11102	3.3299	.02932
#1	41116.	23596.	561980.
#2	41051.	24734.	562210.

Sample Name: BKS 131 Acquired: 12/11/2007 23:19:20 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**99.091**	**10112.**	**91.006**	**920.78**	**985.09**	**49.650**	**9561.6**
Stddev	.430	14.	1.311	.69	14.02	.219	37.2
%RSD	.43435	.13604	1.4406	.07526	1.4228	.44152	.38888
#1	98.787	10122.	91.933	921.27	975.18	49.495	9535.3
#2	99.395	10102.	90.079	920.29	995.00	49.805	9587.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**98.520**	**493.70**	**502.19**	F **552.4**	F **976.9**	F **444.2**	**9129.8**
Stddev	.038	.25	1.33	.1	1.1	2.6	39.9
%RSD	.03872	.05053	.26502	.0152	.1095	.5859	.43718
#1	98.493	493.88	501.25	552.5	977.6	442.3	9101.6
#2	98.547	493.53	503.13	552.4	976.1	446.0	9158.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				100.0	100.0	100.0	
Range				20.00%	20.00%	20.00%	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9737.4**	F **9848.**	F **10790.**	**1019.9**	**499.59**	**10165.**	**513.12**
Stddev	40.8	25.	31.	4.0	.32	9.	1.09
%RSD	.41926	.2576	.2852	.39028	.06468	.09264	.21191
#1	9766.3	9830.	10760.	1017.1	499.82	10159.	513.89
#2	9708.6	9865.	10810.	1022.7	499.36	10172.	512.35
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		100.0	100.0				
Range		20.00%	20.00%				

Sample Name: BKS 131 Acquired: 12/11/2007 23:19:20 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**969.76**	**93.349**	**96.069**	**8908.0**	**519.13**	F **999.61**	**363.52**
Stddev	.74	.769	.089	19.1	1.72	1.17	.01
%RSD	.07665	.82383	.09222	.21410	.33155	.11674	.00374
#1	970.28	93.893	96.132	8894.5	520.34	998.78	363.51
#2	969.23	92.806	96.007	8921.5	517.91	1000.4	363.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						500.00	
Range						20.000%	

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**2075.7**	**92.351**	**511.82**	**957.66**
Stddev	8.3	2.281	1.19	.93
%RSD	.40211	2.4701	.23298	.09714
#1	2069.8	93.964	510.98	958.32
#2	2081.6	90.738	512.66	957.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41398.**	**24853.**	**567260.**
Stddev	4.	13.	3061.
%RSD	.01015	.05034	.53956
#1	41395.	24862.	569430.
#2	41401.	24844.	565100.

Sample Name: S 711095-001-001-1/1 Acquired: 12/11/2007 23:22:57 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.41019**	**25762.**	**7.7878**	**-4.8126**	**32.976**	**3.0731**	**1952.8**
Stddev	.17915	366.	1.5899	.1380	.291	.0475	33.0
%RSD	43.674	1.4197	20.415	2.8670	.88118	1.5468	1.6878
#1	-.53687	26020.	6.6636	-4.9101	33.182	3.1067	1976.1
#2	-.28351	25503.	8.9120	-4.7150	32.771	3.0395	1929.5

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.0280**	**21.257**	**586.30**	**427.1**	**382.5**	**288.3**	**222310.**
Stddev	.1297	.227	2.96	4.4	4.8	.6	3920.
%RSD	6.3977	1.0663	.50457	1.028	1.267	.2021	1.7634
#1	1.9362	21.417	588.39	430.2	385.9	287.9	225080.
#2	2.1197	21.097	584.21	424.0	379.0	288.7	219530.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**515.37**	**2506.**	**2778.**	**1004.3**	**4.2411**	**-70.476**	**81.267**
Stddev	6.60	41.	50.	7.5	.0707	1.301	.658
%RSD	1.2799	1.654	1.799	.74713	1.6665	1.8454	.80968
#1	520.03	2535.	2813.	1009.6	4.2911	-69.557	81.732
#2	510.70	2476.	2743.	999.00	4.1911	-71.396	80.802

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**38.068**	**-1.0409**	**-.43180**	**674.90**	**4.3475**	**49.761**	**27.902**
Stddev	1.081	.1311	3.0903	7.63	.4889	.334	.093
%RSD	2.8391	12.596	715.67	1.1312	11.246	.67102	.33358
#1	38.832	-1.1336	1.7534	680.29	4.0018	49.997	27.837
#2	37.304	-.94820	-2.6170	669.50	4.6932	49.525	27.968

Sample Name: S 711095-001-001-1/1 Acquired: 12/11/2007 23:22:57 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**13958.**	**-.00076**	**575.17**	**168.58**
Stddev	39.	.49079	3.27	.79
%RSD	.27734	64625.	.56859	.46647
#1	13985.	.34628	577.48	169.14
#2	13931.	-.34780	572.85	168.02

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42792.	25239.	574310.
Stddev	93.	182.	495.
%RSD	.21768	.72095	.08618
#1	42726.	25111.	574660.
#2	42858.	25368.	573960.

Sample Name: SP711095-001-001-1/1 Acquired: 12/11/2007 23:26:26 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.099**	**33373.**	**13.458**	**86.254**	**141.01**	^ *****	**2723.5**
Stddev	.195	478.	3.232	.161	1.24	-----	54.4
%RSD	1.9327	1.4326	24.019	.18704	.88221	-----	1.9967
#1	9.9610	33035.	11.172	86.369	141.89	^ -----	2685.1
#2	10.237	33711.	15.744	86.140	140.13	^ -----	2762.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.957**	**72.184**	**649.58**	**489.3**	**444.9**	**342.9**	**215750.**
Stddev	.227	.397	3.75	.6	3.9	4.3	3765.
%RSD	1.7539	.54987	.57660	.1258	.8787	1.261	1.7452
#1	13.118	72.465	652.23	489.7	442.2	346.0	213080.
#2	12.796	71.904	646.94	488.9	447.7	339.9	218410.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1529.8**	**3409.**	**3768.**	**1107.8**	**46.304**	**954.11**	**153.00**
Stddev	5.5	58.	58.	9.2	.171	.88	.20
%RSD	.36040	1.692	1.544	.83331	.37000	.09214	.13318
#1	1533.7	3368.	3727.	1114.4	46.183	953.48	152.85
#2	1525.9	3450.	3809.	1101.3	46.425	954.73	153.14

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**132.51**	**5.1058**	**4.9256**	**1029.8**	**51.814**	**165.43**	**56.896**
Stddev	1.76	.8257	1.6139	5.7	.195	1.35	1.988
%RSD	1.3296	16.172	32.766	.55031	.37687	.81360	3.4933
#1	131.26	4.5219	3.7844	1033.8	51.952	166.38	55.490
#2	133.76	5.6897	6.0668	1025.8	51.676	164.48	58.301

Sample Name: SP711095-001-001-1/1 Acquired: 12/11/2007 23:26:26 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**14373.**	**9.9936**	**639.88**	**276.40**
Stddev	147.	.2181	4.55	1.44
%RSD	1.0258	2.1821	.71061	.51988
#1	14478.	10.148	643.10	277.42
#2	14269.	9.8394	636.67	275.39

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42602.**	**25912.**	**571760.**
Stddev	12.	369.	3282.
%RSD	.02908	1.4257	.57394
#1	42593.	26173.	569440.
#2	42611.	25651.	574080.

Sample Name: SD711095-001-001-1/1 Acquired: 12/11/2007 23:29:53 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.391**	**35618.**	**15.610**	**85.978**	**142.15**	^ *****	**2908.1**
Stddev	.113	691.	2.633	.322	.09	-----	51.9
%RSD	1.0843	1.9387	16.866	.37448	.06114	-----	1.7846
#1	10.311	36107.	17.472	85.750	142.21	^ -----	2944.8
#2	10.471	35130.	13.748	86.205	142.09	^ -----	2871.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.631**	**73.730**	**668.73**	**512.6**	**475.8**	**347.7**	**234620.**
Stddev	.220	.111	1.42	1.3	5.5	1.0	4447.
%RSD	1.7389	.15076	.21264	.2532	1.157	.2857	1.8953
#1	12.475	73.652	669.74	513.5	479.7	348.4	237760.
#2	12.786	73.809	667.73	511.7	471.9	347.0	231480.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1625.4**	**3662.**	**4053.**	**1177.9**	**47.363**	**973.30**	**157.76**
Stddev	50.9	68.	82.	1.7	.019	23.90	.21
%RSD	3.1305	1.848	2.014	.14625	.04031	2.4554	.13280
#1	1661.4	3710.	4111.	1179.1	47.377	990.20	157.91
#2	1589.5	3614.	3995.	1176.6	47.350	956.40	157.61

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**138.61**	**4.0182**	**5.9544**	**1081.3**	**51.297**	**167.05**	**61.028**
Stddev	.54	1.6568	.6458	5.8	.020	.29	3.487
%RSD	.39266	41.232	10.845	.53864	.03897	.17347	5.7145
#1	138.23	5.1898	6.4111	1085.4	51.283	167.25	63.494
#2	139.00	2.8467	5.4978	1077.1	51.311	166.84	58.562

Sample Name: SD711095-001-001-1/1 Acquired: 12/11/2007 23:29:53 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**14949.**	**9.9295**	**659.99**	**286.48**
Stddev	22.	.7584	.23	1.28
%RSD	.15030	7.6374	.03521	.44624
#1	14933.	10.466	660.16	285.58
#2	14965.	9.3933	659.83	287.38

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42406.	25275.	570480.
Stddev	106.	451.	638.
%RSD	.25087	1.7829	.11191
#1	42331.	24957.	570930.
#2	42482.	25594.	570030.

Sample Name: PS711095-001-001-1/1 Acquired: 12/11/2007 23:33:20 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**55.598**	**25276.**	**117.04**	**93.396**	**59.496**	**14.081**	**6138.8**
Stddev	4.478	298.	1.52	.794	2.064	1.171	540.9
%RSD	8.0541	1.1774	1.2985	.84972	3.4695	8.3193	8.8118
#1	52.432	25066.	115.97	92.835	58.036	13.253	5756.3
#2	58.765	25487.	118.11	93.957	60.955	14.909	6521.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**30.265**	**62.997**	**580.09**	**452.5**	**822.6**	**295.7**	**212510.**
Stddev	.091	.201	2.71	1.8	4.9	7.6	1392.
%RSD	.29905	.31854	.46796	.3892	.5897	2.579	.65506
#1	30.329	62.855	582.01	451.3	819.2	290.3	211530.
#2	30.201	63.139	578.18	453.8	826.1	301.1	213500.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5047.7**	**6805.**	**7495.**	**1066.4**	**46.747**	**4625.0**	**136.28**
Stddev	399.2	587.	637.	1.1	.327	498.1	.27
%RSD	7.9082	8.621	8.500	.10309	.69982	10.770	.19755
#1	4765.4	6390.	7045.	1065.6	46.516	4272.7	136.09
#2	5330.0	7219.	7946.	1067.1	46.979	4977.2	136.47

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**149.69**	**114.75**	**96.712**	**7484.0**	**145.98**	**75.535**	**689.27**
Stddev	.11	.79	1.952	571.4	.77	1.966	.87
%RSD	.07526	.69195	2.0179	7.6350	.52603	2.6024	.12588
#1	149.77	114.19	95.332	7079.9	145.44	74.145	688.65
#2	149.61	115.31	98.092	7888.0	146.52	76.925	689.88

Sample Name: PS711095-001-001-1/1 Acquired: 12/11/2007 23:33:20 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**13338.**	**137.80**	**573.43**	**273.47**
Stddev	11.	.68	2.82	.52
%RSD	.07965	.49105	.49263	.18848
#1	13346.	138.28	575.43	273.84
#2	13331.	137.32	571.44	273.11

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42458.**	**25779.**	**575150.**
Stddev	9.	417.	2511.
%RSD	.02233	1.6187	.43658
#1	42451.	26074.	576920.
#2	42465.	25484.	573370.

Sample Name: SE711095-001-001-1/1 Acquired: 12/11/2007 23:36:45 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.21924**	**5286.8**	**1.4907**	**-2.0991**	**6.2842**	**.11816**	**365.61**	**.29518**
Stddev	.12256	269.6	.2411	.0191	.0554	.00101	27.99	.05655
%RSD	55.902	5.0997	16.172	.90879	.88084	.85494	7.6553	19.157
#1	-.13257	5477.5	1.3202	-2.1126	6.3233	.11888	385.40	.25519
#2	-.30590	5096.2	1.6612	-2.0856	6.2450	.11745	345.82	.33516

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.0022**	**119.63**	**88.00**	**79.39**	**61.72**	**46601.**	**-217.96**	**504.9**
Stddev	.1461	.11	1.35	2.54	1.64	2170.	51.53	25.6
%RSD	3.6513	.09053	1.534	3.197	2.660	4.6574	23.643	5.075
#1	3.8989	119.71	88.95	81.19	62.88	48135.	-181.52	523.0
#2	4.1056	119.56	87.04	77.60	60.56	45066.	-254.39	486.7

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**549.3**	**202.32**	**-.15833**	**-176.62**	**16.058**	**5.3029**	**-1.6807**	**-.59360**
Stddev	32.0	.60	.03905	8.71	.012	.5187	.8336	1.4866
%RSD	5.833	.29425	24.664	4.9292	.07361	9.7817	49.600	250.43
#1	571.9	202.74	-.18594	-182.78	16.066	4.9361	-1.0912	.45756
#2	526.6	201.90	-.13072	-170.47	16.049	5.6697	-2.2702	-1.6448

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**142.07**	**.43023**	**9.8570**	**6.6449**	**2915.3**	**-.71210**	**116.72**	**35.702**
Stddev	.35	.32263	.0296	1.4067	1.6	.57541	.41	.180
%RSD	.24364	74.988	.30005	21.170	.05382	80.804	.35231	.50386
#1	141.82	.20210	9.8779	5.6502	2914.2	-.30523	117.01	35.575
#2	142.31	.65837	9.8360	7.6396	2916.4	-1.1190	116.43	35.829

Sample Name: SE711095-001-001-1/1 Acquired: 12/11/2007 23:36:45 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43002.	24738.	577780.
Stddev	116.	950.	67.
%RSD	.26929	3.8383	.01161
#1	42920.	24067.	577730.
#2	43084.	25409.	577830.

Sample Name: S 711095-002-002-1/1 Acquired: 12/11/2007 23:40:10 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.06192**	**56872.**	**4.8149**	**-4.1188**	**223.60**	^ *****	**2927.8**
Stddev	.11112	1432.	.7720	.6389	2.14	-----	70.0
%RSD	179.45	2.5170	16.034	15.511	.95728	-----	2.3920
#1	.01665	57884.	4.2691	-4.5706	225.11	^ -----	2977.3
#2	-.14049	55860.	5.3608	-3.6671	222.08	^ -----	2878.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.4819**	**107.41**	**312.89**	**383.8**	**321.1**	**253.2**	**116620.**
Stddev	.0992	.07	3.15	3.6	4.3	3.2	2872.
%RSD	6.6967	.06621	1.0073	.9346	1.352	1.260	2.4628
#1	1.4118	107.36	315.12	386.4	324.1	251.0	118650.
#2	1.5521	107.46	310.66	381.3	318.0	255.5	114590.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1317.6**	**2228.**	**2481.**	**13540.**	**.96486**	**19.454**	**265.49**
Stddev	21.5	56.	53.	128.	.27414	12.598	.42
%RSD	1.6297	2.494	2.142	.94887	28.412	64.762	.15684
#1	1332.8	2267.	2519.	13631.	.77102	28.362	265.79
#2	1302.4	2189.	2444.	13449.	1.1587	10.545	265.20

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**27.751**	**-1.0301**	**-.17095**	**788.87**	**2.1965**	**66.029**	**16.880**
Stddev	.009	.1433	1.6080	12.21	.6809	.678	3.572
%RSD	.03307	13.911	940.58	1.5474	30.998	1.0274	21.159
#1	27.758	-.92876	-1.3080	797.50	2.6779	66.509	14.354
#2	27.745	-1.1314	.96604	780.24	1.7150	65.549	19.405

Sample Name: S 711095-002-002-1/1 Acquired: 12/11/2007 23:40:10 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7641.7**	**3.2979**	**298.41**	**216.13**
Stddev	98.4	1.1767	3.21	.27
%RSD	1.2880	35.679	1.0758	.12616
#1	7711.3	4.1300	300.68	215.94
#2	7572.1	2.4659	296.14	216.32

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43104.**	**25204.**	**580460.**
Stddev	49.	592.	1280.
%RSD	.11305	2.3478	.22051
#1	43138.	24785.	579550.
#2	43069.	25622.	581360.

Sample Name: S 711095-003-003-1/1 Acquired: 12/11/2007 23:43:44 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.09859**	**68281.**	**3.7559**	**-9.5615**	**391.19**	^ *****	**672.40**
Stddev	.00902	1521.	2.4348	.1996	1.41	-----	11.08
%RSD	9.1506	2.2271	64.827	2.0871	.36166	-----	1.6483
#1	.10497	69356.	5.4776	-9.4204	390.19	^ -----	680.23
#2	.09221	67206.	2.0342	-9.7026	392.19	1.5131	664.56

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.8083**	**125.26**	**280.71**	**503.3**	**361.7**	**315.6**	**113130.**
Stddev	.0909	1.75	.74	3.5	4.1	7.1	2099.
%RSD	5.0249	1.3981	.26392	.6909	1.135	2.252	1.8555
#1	1.7440	126.50	280.18	505.7	364.6	320.6	114610.
#2	1.8725	124.02	281.23	500.8	358.7	310.6	111640.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**209.04**	**1706.**	**1894.**	**24861.**	**1.0082**	**-26.232**	**373.63**
Stddev	60.05	38.	43.	85.	.1668	12.993	5.11
%RSD	28.728	2.210	2.286	.34363	16.539	49.531	1.3687
#1	251.50	1733.	1925.	24800.	1.1261	-17.045	377.25
#2	166.57	1680.	1863.	24921.	.89032	-35.420	370.02

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**16.034**	**-1.6796**	**-3.9279**	**674.37**	**2.4090**	**29.499**	**18.855**
Stddev	.156	.3327	3.9739	4.09	.2837	.093	1.618
%RSD	.97548	19.810	101.17	.60616	11.775	.31657	8.5809
#1	15.923	-1.9149	-1.1180	671.48	2.2084	29.433	19.999
#2	16.144	-1.4444	-6.7379	677.26	2.6095	29.565	17.711

Sample Name: S 711095-003-003-1/1 Acquired: 12/11/2007 23:43:44 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7303.5**	**4.4965**	**280.16**	**274.61**
Stddev	11.6	.5660	.80	2.93
%RSD	.15920	12.589	.28424	1.0663
#1	7311.7	4.0962	279.60	276.68
#2	7295.3	4.8967	280.72	272.54

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43505.	25796.	582960.
Stddev	55.	269.	4618.
%RSD	.12621	1.0433	.79224
#1	43467.	25606.	586220.
#2	43544.	25987.	579690.

Sample Name: CCV Acquired: 12/11/2007 23:47:19 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**522.66**	**50649.**	**491.40**	**500.91**	**489.96**	**50.451**	**94663.**
Stddev	.15	391.	.35	1.85	3.91	.021	963.
%RSD	.02958	.77166	.07145	.36888	.79801	.04205	1.0175
#1	522.77	50373.	491.15	499.60	487.19	50.466	93982.
#2	522.55	50926.	491.65	502.22	492.72	50.436	95344.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**480.80**	**487.35**	**497.47**	F **589.0**	**537.6**	**486.1**	F **44479.**
Stddev	1.69	2.51	.08	2.8	2.0	1.7	548.
%RSD	.35193	.51557	.01525	.4745	.3660	.3593	1.2315
#1	479.60	485.57	497.52	587.0	536.2	484.9	44092.
#2	481.99	489.13	497.42	590.9	539.0	487.3	44867.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				500.0			50000.
Range				10.00%			-10.000%

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25288.**	**97250.**	**101100.**	**513.71**	**492.13**	**104090.**	**496.50**
Stddev	168.	58.	758.	1.83	1.40	790.	2.15
%RSD	.66293	.0594	.7497	.35668	.28404	.75928	.43364
#1	25169.	97290.	100600.	512.42	491.15	103530.	494.98
#2	25406.	97210.	101600.	515.01	493.12	104650.	498.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/11/2007 23:47:19 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**480.93**	**507.69**	**493.01**	**531.08**	**486.19**	**503.61**	**490.54**
Stddev	1.86	1.12	.30	.08	1.66	3.28	.62
%RSD	.38766	.21964	.06061	.01534	.34160	.65045	.12633
#1	479.62	506.91	493.22	531.14	485.02	505.93	490.10
#2	482.25	508.48	492.80	531.03	487.37	501.30	490.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**534.24**	**478.26**	**507.98**	F **579.45**
Stddev	.15	.60	.16	1.63
%RSD	.02765	.12485	.03237	.28066
#1	534.14	477.84	508.10	578.30
#2	534.35	478.68	507.87	580.60
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41554.**	**25327.**	**556970.**
Stddev	21.	314.	264.
%RSD	.05166	1.2390	.04744
#1	41569.	25549.	556780.
#2	41539.	25105.	557160.

Sample Name: CCB Acquired: 12/11/2007 23:50:57 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.68407**	**-.29271**	**-.35570**	**-1.1831**	**-.44928**	**-.00695**	**-38.293**
Stddev	.19921	2.5189	1.2777	.0868	.00776	.00941	4.441
%RSD	29.121	860.55	359.20	7.3403	1.7271	135.39	11.599
#1	-.54321	1.4884	-1.2591	-1.1217	-.45476	-.01361	-35.153
#2	-.82493	-2.0739	.54775	-1.2446	-.44379	-.00030	-41.434
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.08921**	**-1.0260**	**-.41512**	**-.5709**	**-.5790**	F **6.846**	**-11.364**
Stddev	.13846	.1893	.02676	.1180	.6032	5.371	8.029
%RSD	155.21	18.449	6.4474	20.68	104.2	78.46	70.659
#1	-.18712	-1.1598	-.43404	-.4874	-1.006	3.048	-5.6859
#2	.00870	-.89215	-.39619	-.6543	-.1525	10.64	-17.041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						3.000	
Low Limit						-3.000	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-354.25**	F **-9.653**	F **-15.75**	**.43469**	**-.90856**	**-98.707**	**-.68048**
Stddev	10.90	3.860	6.62	.21369	.23926	25.988	.41868
%RSD	3.0758	39.99	42.02	49.160	26.334	26.328	61.527
#1	-346.55	-6.923	-11.07	.28359	-.73938	-80.331	-.97653
#2	-361.96	-12.38	-20.43	.58580	-1.0777	-117.08	-.38443
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00	3.000	3.000				
Low Limit	-250.00	-3.000	-3.000				

Sample Name: CCB Acquired: 12/11/2007 23:50:57 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.2997	-.92064	-.90936	-1.0169	-1.3661	-.11406	2.5963
Stddev	.2563	.25449	2.0973	.7343	.2840	.00027	2.5275
%RSD	19.717	27.643	230.63	72.208	20.789	.23587	97.349
#1	-1.4809	-1.1006	-2.3924	-1.5361	-1.1653	-.11425	4.3835
#2	-1.1185	-.74069	.57365	-.49769	-1.5669	-.11387	.80911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	-.11006	1.3899	-.34138	-1.4489
Stddev	.15068	.2050	.13588	.0583
%RSD	136.90	14.751	39.804	4.0208
#1	-.21661	1.2449	-.43746	-1.4901
#2	-.00352	1.5349	-.24529	-1.4077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42782.	25235.	568020.
Stddev	144.	176.	4811.
%RSD	.33600	.69588	.84701
#1	42884.	25111.	564620.
#2	42680.	25360.	571420.

Sample Name: S 711095-004-004-1/1 Acquired: 12/11/2007 23:54:24 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3493**	**54745.**	**-2.8948**	**-8.2798**	**532.74**	**1.6591**	**2562.9**
Stddev	.1344	486.	1.5406	.1863	.34	.0017	28.0
%RSD	9.9630	.88726	53.217	2.2496	.06364	.10506	1.0914
#1	1.4444	54402.	-3.9842	-8.1481	532.50	1.6604	2543.1
#2	1.2542	55089.	-1.8055	-8.4115	532.98	1.6579	2582.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.7776**	**127.99**	**274.78**	**547.1**	**384.0**	**332.6**	**102540.**
Stddev	.0502	.45	.88	3.1	.6	7.3	936.
%RSD	1.3292	.35064	.32029	.5623	.1473	2.190	.91251
#1	3.8131	128.31	275.40	549.3	384.4	327.4	101880.
#2	3.7421	127.67	274.16	544.9	383.6	337.7	103200.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**694.55**	**2106.**	**2327.**	**24451.**	**1.8852**	**23.251**	**486.39**
Stddev	124.20	21.	13.	215.	.0468	6.609	2.67
%RSD	17.882	.9902	.5400	.87863	2.4802	28.423	.54835
#1	606.73	2091.	2318.	24603.	1.9183	27.923	488.27
#2	782.37	2120.	2336.	24299.	1.8521	18.578	484.50

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**39.562**	**-2.0043**	**-3.5399**	**650.94**	**2.3912**	**73.800**	**17.311**
Stddev	.543	.8991	1.7401	3.40	.2513	.070	.383
%RSD	1.3730	44.862	49.156	.52231	10.511	.09529	2.2124
#1	39.946	-1.3685	-4.7703	653.34	2.2135	73.850	17.582
#2	39.178	-2.6400	-2.3095	648.53	2.5690	73.750	17.040

Sample Name: S 711095-004-004-1/1 Acquired: 12/11/2007 23:54:24 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**6544.2**	**5.4748**	**264.35**	**468.75**
Stddev	14.4	.1316	.57	1.71
%RSD	.21999	2.4035	.21615	.36470
#1	6554.4	5.5678	264.76	469.96
#2	6534.1	5.3818	263.95	467.54

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44425.	26636.	598300.
Stddev	19.	257.	21.
%RSD	.04329	.96544	.00352
#1	44412.	26818.	598280.
#2	44439.	26454.	598310.

Sample Name: S 711095-005-005-1/1 Acquired: 12/11/2007 23:58:05 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.21944**	**37602.**	**1.0046**	**-1.8453**	**284.60**	**1.9634**	**5629.9**
Stddev	.17328	41.	.6180	.1312	2.84	.0896	12.7
%RSD	78.963	.10791	61.521	7.1121	.99880	4.5635	.22571
#1	.34197	37573.	.56755	-1.9381	286.61	2.0268	5638.9
#2	.09692	37631.	1.4415	-1.7525	282.59	1.9001	5620.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.5573**	**116.98**	**417.52**	**362.8**	**307.6**	**240.5**	**114920.**
Stddev	.1302	.43	5.16	2.7	3.4	16.0	213.
%RSD	8.3598	.36925	1.2357	.7370	1.089	6.669	.18549
#1	1.6494	117.29	421.17	364.7	310.0	229.1	115070.
#2	1.4653	116.68	413.87	360.9	305.2	251.8	114770.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1093.4**	**6065.**	**6691.**	**6835.4**	**.15738**	**-21.202**	**426.67**
Stddev	49.7	8.	13.	27.4	.19924	1.938	2.22
%RSD	4.5462	.1240	.1915	.40130	126.59	9.1428	.52046
#1	1058.2	6070.	6682.	6854.8	.29827	-22.573	428.24
#2	1128.5	6060.	6700.	6816.0	.01650	-19.832	425.10

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20.224**	**-1.2309**	**-2.5457**	**715.51**	**2.8960**	**61.763**	**14.112**
Stddev	.288	.0645	.0485	6.48	.5149	.656	1.046
%RSD	1.4244	5.2444	1.9031	.90524	17.779	1.0616	7.4098
#1	20.021	-1.1853	-2.5799	720.09	3.2600	62.227	13.373
#2	20.428	-1.2766	-2.5114	710.93	2.5319	61.300	14.852

Sample Name: S 711095-005-005-1/1 Acquired: 12/11/2007 23:58:05 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8997.6**	**2.0634**	**329.20**	**278.16**
Stddev	58.6	1.2411	3.73	1.10
%RSD	.65143	60.149	1.1325	.39671
#1	9039.0	1.1858	331.84	278.94
#2	8956.2	2.9411	326.57	277.38

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43404.	25896.	582340.
Stddev	29.	49.	3204.
%RSD	.06708	.19071	.55013
#1	43424.	25931.	580070.
#2	43383.	25861.	584600.

Sample Name: S 711095-006-006-1/1 Acquired: 12/12/2007 0:01:39 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.20566**	**41930.**	**3.9501**	**-2.6500**	**169.56**	^ *****	**2658.5**
Stddev	.18263	3515.	3.4256	.2241	.62	-----	228.8
%RSD	88.803	8.3838	86.723	8.4563	.36429	-----	8.6066
#1	-.33480	39444.	1.5278	-2.8085	169.99	1.5831	2496.7
#2	-.07652	44415.	6.3723	-2.4916	169.12	^ -----	2820.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.97065**	**204.84**	**307.41**	**383.8**	**344.4**	**258.9**	**110960.**
Stddev	.67356	.96	1.05	.7	9.6	3.7	9710.
%RSD	69.393	.47075	.34054	.1737	2.793	1.423	8.7501
#1	1.4469	205.52	308.15	383.3	337.6	256.3	104100.
#2	.49437	204.16	306.67	384.3	351.2	261.5	117830.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**826.34**	**1894.**	**2098.**	**6799.4**	**.73377**	**8.2047**	**234.06**
Stddev	119.43	152.	169.	54.1	.19800	20.726	.95
%RSD	14.453	8.047	8.036	.79516	26.984	252.62	.40702
#1	741.88	1786.	1979.	6837.6	.87378	-6.4511	234.73
#2	910.79	2002.	2217.	6761.2	.59376	22.860	233.39

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**37.087**	**-.58450**	**-.41864**	**803.69**	**3.4225**	**35.769**	**16.489**
Stddev	.920	1.5985	.01927	3.87	.4072	.143	4.558
%RSD	2.4812	273.48	4.6039	.48131	11.898	.39943	27.644
#1	37.738	.54581	-.43227	806.43	3.1346	35.870	13.266
#2	36.436	-1.7148	-.40502	800.96	3.7105	35.668	19.712

Sample Name: S 711095-006-006-1/1 Acquired: 12/12/2007 0:01:39 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8353.6**	**1.7125**	**324.79**	**138.97**
Stddev	11.4	.1235	2.16	1.16
%RSD	.13640	7.2097	.66368	.83582
#1	8361.7	1.7998	326.32	139.79
#2	8345.5	1.6252	323.27	138.15

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43018.	24281.	572050.
Stddev	115.	2377.	2036.
%RSD	.26745	9.7889	.35584
#1	42937.	25961.	570610.
#2	43100.	22600.	573490.

Sample Name: S 711095-007-007-1/1 Acquired: 12/12/2007 0:05:14 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.17027**	**36826.**	**4.3670**	**-4.6135**	**148.03**	^ *****	**2078.3**
Stddev	.04888	167.	1.3287	.2085	.02	-----	23.6
%RSD	28.709	.45298	30.426	4.5189	.01025	-----	1.1368
#1	-.13571	36943.	3.4275	-4.4661	148.04	^ -----	2095.0
#2	-.20484	36708.	5.3065	-4.7610	148.02	^ -----	2061.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.7749**	**87.497**	**481.99**	**381.7**	**335.7**	**264.0**	**126950.**
Stddev	.0400	.532	.91	3.0	.0	6.5	626.
%RSD	2.2517	.60821	.18830	.7887	.0081	2.476	.49336
#1	1.8032	87.874	481.35	383.9	335.7	268.6	127390.
#2	1.7467	87.121	482.63	379.6	335.7	259.4	126510.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**512.88**	**2294.**	**2538.**	**5943.4**	**.11432**	**4.2842**	**312.74**
Stddev	45.19	15.	13.	23.2	.11036	6.7481	2.14
%RSD	8.8115	.6620	.5007	.39051	96.535	157.51	.68515
#1	480.93	2305.	2547.	5959.8	.19236	-.48741	314.25
#2	544.84	2283.	2529.	5927.0	.03628	9.0558	311.22

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**30.659**	**-1.5257**	**-2.0835**	**812.81**	**4.0032**	**30.236**	**17.222**
Stddev	.198	.5284	.8183	3.71	.1777	.000	2.904
%RSD	.64558	34.633	39.278	.45605	4.4383	.00137	16.861
#1	30.520	-1.8993	-1.5048	815.44	3.8776	30.236	15.169
#2	30.799	-1.1520	-2.6621	810.19	4.1289	30.236	19.276

Sample Name: S 711095-007-007-1/1 Acquired: 12/12/2007 0:05:14 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9673.5**	**.65260**	**370.62**	**165.50**
Stddev	22.1	2.7840	.32	1.12
%RSD	.22843	426.60	.08687	.67683
#1	9689.1	2.6212	370.39	166.29
#2	9657.9	-1.3160	370.84	164.71

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42756.**	**25575.**	**576250.**
Stddev	5.	84.	2939.
%RSD	.01147	.32936	.51004
#1	42752.	25516.	578330.
#2	42759.	25635.	574170.

Sample Name: S 711095-008-008-1/1 Acquired: 12/12/2007 0:08:49 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.71506**	**44374.**	**11.808**	**-6.4240**	**23.540**	**3.0082**	**745.40**
Stddev	.23399	482.	1.797	.1907	.297	.1053	10.10
%RSD	32.723	1.0860	15.222	2.9690	1.2623	3.5008	1.3550
#1	-.54961	44715.	13.079	-6.5589	23.751	2.9338	752.54
#2	-.88051	44033.	10.537	-6.2892	23.330	3.0827	738.26

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.9377**	**7.7818**	**544.46**	**325.8**	**360.3**	**210.9**	**264320.**
Stddev	.2109	.2021	5.43	2.5	3.8	6.8	2524.
%RSD	10.881	2.5974	.99801	.7530	1.042	3.233	.95474
#1	1.7886	7.9248	548.30	327.5	362.9	215.8	266100.
#2	2.0868	7.6389	540.62	324.0	357.6	206.1	262530.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-8.0278**	**875.0**	**954.8**	**490.20**	**3.4176**	**-125.92**	**68.116**
Stddev	34.822	8.3	12.3	4.59	.1772	10.61	.351
%RSD	433.77	.9527	1.287	.93707	5.1851	8.4286	.51540
#1	16.595	880.8	963.5	493.45	3.2922	-133.42	68.364
#2	-32.651	869.1	946.1	486.96	3.5429	-118.41	67.867

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**40.341**	**-2.1354**	**8.8133**	**1429.5**	**5.4112**	**26.687**	**29.408**
Stddev	.834	1.3855	1.1448	17.8	1.1628	.295	.370
%RSD	2.0672	64.886	12.989	1.2428	21.488	1.1061	1.2596
#1	40.930	-1.1556	9.6228	1442.1	6.2334	26.895	29.146
#2	39.751	-3.1151	8.0038	1417.0	4.5890	26.478	29.670

Sample Name: S 711095-008-008-1/1 Acquired: 12/12/2007 0:08:49 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**13311.**	**1.4631**	**569.02**	**98.647**
Stddev	137.	1.5358	5.90	.602
%RSD	1.0266	104.97	1.0370	.61003
#1	13408.	.37707	573.20	99.073
#2	13214.	2.5491	564.85	98.222

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42519.	25287.	569600.
Stddev	95.	194.	2417.
%RSD	.22438	.76564	.42427
#1	42451.	25150.	567890.
#2	42586.	25423.	571310.

Sample Name: S 711095-009-009-1/1 Acquired: 12/12/2007 0:12:18 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.40749**	**58075.**	**5.1537**	**-6.0098**	**209.42**	^ *****	**2171.0**
Stddev	.05918	1685.	1.5650	.1516	1.20	-----	68.3
%RSD	14.523	2.9008	30.366	2.5222	.57521	-----	3.1467
#1	-.36564	59266.	6.2603	-5.9026	208.57	^ -----	2219.3
#2	-.44934	56884.	4.0471	-6.1170	210.27	^ -----	2122.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.5105**	**123.00**	**335.10**	**403.5**	**328.0**	**268.5**	**122410.**
Stddev	.2912	.35	2.81	1.1	4.9	3.6	4000.
%RSD	19.276	.28224	.83989	.2807	1.493	1.336	3.2679
#1	1.3046	123.25	333.11	402.7	331.5	271.0	125230.
#2	1.7164	122.76	337.09	404.3	324.6	266.0	119580.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1114.4**	**1919.**	**2111.**	**14504.**	**1.1023**	**-6.1758**	**283.08**
Stddev	30.8	52.	64.	208.	.1952	1.9518	.33
%RSD	2.7595	2.733	3.014	1.4323	17.709	31.605	.11527
#1	1136.2	1956.	2156.	14357.	.96428	-4.7957	283.31
#2	1092.7	1882.	2066.	14650.	1.2403	-7.5560	282.85

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25.979**	**-1.4828**	**-1.5012**	**818.90**	**2.2780**	**54.335**	**17.464**
Stddev	.500	.9198	1.2852	6.86	.3189	.481	.366
%RSD	1.9251	62.030	85.616	.83767	13.999	.88553	2.0959
#1	25.625	-.83240	-.59237	814.05	2.0525	53.995	17.723
#2	26.333	-2.1331	-2.4100	823.75	2.5034	54.675	17.206

Sample Name: S 711095-009-009-1/1 Acquired: 12/12/2007 0:12:18 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**7835.6**	**2.2435**	**320.46**	**212.41**
Stddev	95.9	.1620	1.79	.19
%RSD	1.2239	7.2198	.55826	.09027
#1	7767.8	2.3580	319.20	212.28
#2	7903.4	2.1290	321.73	212.55

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42967.	25279.	575670.
Stddev	51.	564.	7647.
%RSD	.11949	2.2325	1.3283
#1	42931.	24880.	581080.
#2	43003.	25678.	570270.

Sample Name: S 711095-010-010-1/1 Acquired: 12/12/2007 0:15:53 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca	Cd
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.30915**	**55617.**	**4.2500**	**-9.2607**	**282.28**	^ *****	**565.39**	**1.5739**
Stddev	.01235	282.	1.8970	.1695	2.16	-----	2.26	.1623
%RSD	3.9951	.50775	44.636	1.8302	.76567	-----	.39902	10.315
#1	-.30042	55417.	5.5914	-9.3806	280.75	^ -----	563.80	1.6887
#2	-.31788	55817.	2.9086	-9.1409	283.80	^ -----	566.99	1.4592

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**114.59**	**248.16**	**442.2**	**322.4**	**265.8**	**97768.**	**142.94**	**1418.**
Stddev	.47	2.52	1.6	.2	3.5	291.	31.31	7.
%RSD	.41279	1.0169	.3646	.0746	1.317	.29803	21.905	.5173
#1	114.93	246.38	441.1	322.6	263.3	97562.	120.80	1413.
#2	114.26	249.95	443.4	322.3	268.3	97974.	165.09	1423.

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1567.**	**21152.**	**.85729**	**-32.985**	**318.18**	**15.699**	**-2.1469**	**-3.2312**
Stddev	8.	190.	.39017	10.733	1.15	.064	.6438	.8817
%RSD	.4985	.89961	45.512	32.540	.36026	.40905	29.987	27.286
#1	1561.	21018.	.58140	-40.574	318.99	15.654	-1.6916	-2.6078
#2	1572.	21287.	1.1332	-25.395	317.37	15.744	-2.6021	-3.8546

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**740.44**	**1.8097**	**26.998**	**15.274**	**6265.5**	**3.3833**	**250.18**	**221.64**
Stddev	6.98	.0975	.246	2.728	70.0	1.7066	1.68	.45
%RSD	.94254	5.3891	.90959	17.858	1.1176	50.442	.67065	.20111
#1	735.50	1.8787	26.824	13.345	6215.9	4.5900	249.00	221.96
#2	745.37	1.7407	27.172	17.202	6315.0	2.1765	251.37	221.33

Sample Name: S 711095-010-010-1/1 Acquired: 12/12/2007 0:15:53 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43189.	25743.	580150.
Stddev	133.	197.	4962.
%RSD	.30687	.76402	.85522
#1	43095.	25882.	583660.
#2	43282.	25604.	576640.

Sample Name: S 711095-011-011-1/1 Acquired: 12/12/2007 0:19:29 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.03209**	**59829.**	**.11808**	**-9.6802**	**401.11**	**1.6941**	**1563.9**
Stddev	.23599	458.	.15028	.0590	1.77	.0472	22.9
%RSD	735.42	.76493	127.27	.60945	.44067	2.7840	1.4673
#1	.13478	60152.	.01182	-9.6385	399.86	1.6608	1580.2
#2	-.19896	59505.	.22435	-9.7219	402.36	1.7275	1547.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.3430**	**126.50**	**275.87**	**491.5**	**347.9**	**298.7**	**103340.**
Stddev	.1016	.39	.51	.5	.3	.6	929.
%RSD	4.3382	.30986	.18553	.0988	.0998	.1945	.89852
#1	2.2711	126.22	275.51	491.8	348.2	299.1	104000.
#2	2.4148	126.78	276.23	491.1	347.7	298.3	102690.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**459.60**	**1895.**	**2099.**	**23906.**	**1.0910**	**15.667**	**491.87**
Stddev	6.06	16.	20.	54.	.0706	10.549	1.17
%RSD	1.3178	.8185	.9734	.22539	6.4742	67.335	.23698
#1	463.88	1906.	2113.	23944.	1.0411	23.126	491.04
#2	455.32	1884.	2085.	23868.	1.1410	8.2073	492.69

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20.552**	**-3.3806**	**-2.0405**	**681.77**	**1.9145**	**59.820**	**17.832**
Stddev	.218	2.3392	.8749	3.85	.1390	.210	1.467
%RSD	1.0590	69.194	42.876	.56419	7.2614	.35069	8.2258
#1	20.399	-5.0346	-1.4219	679.05	2.0128	59.672	18.869
#2	20.706	-1.7266	-2.6592	684.49	1.8162	59.969	16.795

Sample Name: S 711095-011-011-1/1 Acquired: 12/12/2007 0:19:29 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**6815.1**	**3.4894**	**265.04**	**371.19**
Stddev	51.6	1.5438	.43	.34
%RSD	.75663	44.242	.16141	.09279
#1	6851.6	2.3978	264.73	370.95
#2	6778.7	4.5811	265.34	371.44

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44218.	25728.	592920.
Stddev	5.	225.	1028.
%RSD	.01138	.87546	.17335
#1	44215.	25569.	592200.
#2	44222.	25887.	593650.

Sample Name: S 711095-012-012-1/1 Acquired: 12/12/2007 0:23:04 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.14237**	**37974.**	**.73255**	**-3.8902**	**274.57**	**1.8352**	**3584.1**
Stddev	.39492	1243.	1.2095	.1058	.86	.0405	123.9
%RSD	277.39	3.2728	165.11	2.7188	.31296	2.2088	3.4564
#1	-.13688	38853.	1.5878	-3.9650	275.18	1.8065	3671.7
#2	.42162	37096.	-.12271	-3.8154	273.97	1.8639	3496.5

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.2807**	**116.79**	**414.46**	**336.9**	**293.5**	**223.1**	**110330.**
Stddev	.3066	.01	1.30	.9	6.6	.2	3624.
%RSD	23.939	.00560	.31331	.2723	2.232	.1067	3.2848
#1	1.0639	116.80	415.37	337.5	298.1	223.0	112900.
#2	1.4975	116.79	413.54	336.2	288.9	223.3	107770.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**625.45**	**6541.**	**7176.**	**6578.2**	**-.17088**	**-64.732**	**438.00**
Stddev	21.34	214.	235.	10.7	.09092	9.688	1.14
%RSD	3.4115	3.277	3.270	.16311	53.205	14.966	.25934
#1	610.36	6693.	7342.	6585.8	-.10659	-57.882	438.80
#2	640.54	6390.	7011.	6570.6	-.23517	-71.583	437.19

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.174**	**-2.3775**	**-1.3117**	**749.01**	**2.3047**	**43.253**	**15.130**
Stddev	2.013	1.3860	.0718	.89	.0840	.206	1.476
%RSD	19.783	58.297	5.4772	.11891	3.6441	.47634	9.7554
#1	8.7506	-1.3975	-1.3625	749.64	2.3640	43.399	16.174
#2	11.597	-3.3576	-1.2609	748.38	2.2453	43.108	14.087

Sample Name: S 711095-012-012-1/1 Acquired: 12/12/2007 0:23:04 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8529.8**	**1.3351**	**319.50**	**236.40**
Stddev	45.7	.3159	1.49	.11
%RSD	.53558	23.662	.46760	.04547
#1	8562.1	1.1117	320.56	236.33
#2	8497.5	1.5584	318.45	236.48

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43350.	25400.	584860.
Stddev	50.	599.	1502.
%RSD	.11628	2.3563	.25673
#1	43314.	24977.	583800.
#2	43385.	25824.	585930.

Sample Name: S 711095-013-013-1/1 Acquired: 12/12/2007 0:26:40 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.72556**	**42989.**	**1.8361**	**-4.6514**	**133.49**	^ *****	**1192.8**
Stddev	.20610	278.	.9194	.3128	.40	-----	10.7
%RSD	28.405	.64630	50.072	6.7240	.29723	-----	.89692
#1	-.87130	42792.	1.1860	-4.8725	133.77	^ -----	1185.2
#2	-.57983	43185.	2.4862	-4.4302	133.21	^ -----	1200.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.91832**	**216.57**	**301.77**	**358.3**	**323.9**	**255.3**	**105090.**
Stddev	.06345	1.72	.12	5.5	.1	13.3	576.
%RSD	6.9097	.79370	.03920	1.539	.0182	5.223	.54809
#1	.96318	217.78	301.85	362.2	323.9	245.9	104680.
#2	.87345	215.35	301.68	354.4	323.9	264.7	105500.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**579.62**	**1362.**	**1504.**	**5854.2**	**.35215**	**-45.908**	**237.60**
Stddev	67.10	9.	11.	48.8	.20699	13.918	1.79
%RSD	11.577	.6453	.7297	.83372	58.778	30.318	.75503
#1	627.07	1356.	1496.	5888.7	.20579	-55.749	238.87
#2	532.18	1369.	1511.	5819.7	.49851	-36.066	236.33

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**17.641**	**-2.3228**	**-2.0270**	**799.32**	**2.3371**	**21.401**	**15.891**
Stddev	1.575	.0603	.6311	1.94	.3001	.082	1.496
%RSD	8.9253	2.5946	31.136	.24249	12.840	.38267	9.4170
#1	18.755	-2.2802	-1.5807	800.69	2.1249	21.459	14.833
#2	16.528	-2.3654	-2.4733	797.95	2.5492	21.343	16.949

Sample Name: S 711095-013-013-1/1 Acquired: 12/12/2007 0:26:40 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**8022.4**	**-.23385**	**327.84**	**105.72**
Stddev	59.8	2.4840	.70	1.04
%RSD	.74567	1062.3	.21313	.98650
#1	8064.7	1.5226	328.33	106.46
#2	7980.1	-1.9903	327.34	104.98

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43063.	25770.	576670.
Stddev	156.	260.	1189.
%RSD	.36256	1.0100	.20624
#1	42952.	25954.	575830.
#2	43173.	25586.	577510.

Sample Name: CCV Acquired: 12/12/2007 0:30:14 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**524.45**	**51265.**	**491.72**	**503.76**	**488.61**	**50.496**	**95686.**
Stddev	.97	985.	1.42	2.59	5.69	.054	1447.
%RSD	.18475	1.9211	.28784	.51371	1.1641	.10717	1.5123
#1	525.13	51961.	492.72	505.59	492.63	50.534	96709.
#2	523.76	50568.	490.72	501.93	484.59	50.458	94663.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**482.48**	**491.38**	**496.17**	**F 594.1**	**541.3**	**490.2**	**F 44895.**
Stddev	1.73	2.07	.77	2.6	2.8	1.4	643.
%RSD	.35932	.42130	.15456	.4314	.5081	.2935	1.4317
#1	483.71	492.84	496.71	595.9	543.3	491.3	45349.
#2	481.26	489.91	495.63	592.3	539.4	489.2	44440.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				500.0			50000.
Range				10.00%			-10.000%

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25496.**	**98570.**	**102100.**	**512.12**	**494.87**	**105680.**	**502.61**
Stddev	402.	1366.	1836.	1.35	2.40	1917.	1.24
%RSD	1.5761	1.386	1.798	.26437	.48419	1.8141	.24601
#1	25781.	99530.	103400.	513.08	496.56	107040.	503.49
#2	25212.	97600.	100800.	511.17	493.17	104330.	501.74
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/12/2007 0:30:14 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**482.56**	**513.74**	**497.61**	**532.97**	**487.34**	**502.93**	**492.88**
Stddev	.55	2.00	.67	.81	2.25	3.07	5.40
%RSD	.11468	.38874	.13439	.15119	.46085	.61088	1.0954
#1	482.17	515.15	498.08	533.54	488.93	505.10	496.70
#2	482.95	512.33	497.13	532.40	485.75	500.75	489.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**536.54**	**480.05**	**509.87**	F **580.37**
Stddev	1.04	1.26	1.71	3.07
%RSD	.19408	.26282	.33447	.52825
#1	537.27	480.94	511.08	582.54
#2	535.80	479.16	508.67	578.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41300.**	**24830.**	**558220.**
Stddev	91.	419.	1548.
%RSD	.22068	1.6867	.27735
#1	41235.	24534.	557120.
#2	41364.	25126.	559310.

Sample Name: CCB Acquired: 12/12/2007 0:33:52 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.01143**	**-10.611**	**.46392**	**-1.4088**	**-.43928**	**.00161**	**-34.297**
Stddev	.13124	3.072	3.2185	.1742	.02529	.00857	6.139
%RSD	1148.2	28.951	693.76	12.363	5.7570	531.83	17.898
#1	.08137	-8.4387	2.7398	-1.5320	-.45717	-.00445	-38.638
#2	-.10423	-12.783	-1.8119	-1.2857	-.42140	.00768	-29.957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.16960**	**-.82755**	**-.27398**	**-1.839**	**-.3741**	F **5.686**	**-12.789**
Stddev	.00883	.07313	.02961	.770	.5974	.578	2.885
%RSD	5.2076	8.8371	10.807	41.87	159.7	10.17	22.559
#1	-.16336	-.87926	-.29492	-1.294	-.7965	5.277	-10.749
#2	-.17585	-.77583	-.25304	-2.383	.0483	6.095	-14.830
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						3.000	
Low Limit						-3.000	

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-364.01**	**-2.101**	F **-5.305**	**.19860**	**-.91930**	**-82.620**	**-.39221**
Stddev	74.28	.855	3.332	.12996	.31755	9.936	.04095
%RSD	20.405	40.68	62.80	65.438	34.542	12.026	10.441
#1	-311.49	-2.706	-7.661	.10670	-.69477	-75.594	-.42116
#2	-416.53	-1.497	-2.949	.29050	-1.1438	-89.645	-.36325
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00		3.000				
Low Limit	-250.00		-3.000				

Sample Name: CCB Acquired: 12/12/2007 0:33:52 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.5613**	**.28974**	**-1.7816**	**-.71691**	**-.97044**	**-.10738**	**.46789**
Stddev	.3597	.86974	1.9637	.14473	.07462	.00459	2.2216
%RSD	23.039	300.18	110.22	20.188	7.6888	4.2787	474.81
#1	-1.8156	.90473	-.39309	-.61457	-1.0232	-.11063	-1.1030
#2	-1.3069	-.32526	-3.1702	-.81925	-.91768	-.10413	2.0388
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**-.05052**	**-.29974**	**-.26424**	**-1.4453**
Stddev	.16017	.52421	.27115	.0384
%RSD	317.03	174.89	102.61	2.6532
#1	-.16378	.07093	-.07251	-1.4182
#2	.06274	-.67042	-.45597	-1.4724
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42706.**	**25128.**	**570070.**
Stddev	22.	1102.	788.
%RSD	.05069	4.3856	.13821
#1	42691.	25907.	570620.
#2	42721.	24349.	569510.

Sample Name: S 711095-014-014-1/1 Acquired: 12/12/2007 0:37:20 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.05914**	**40758.**	**2.9777**	**-5.0189**	**127.00**	^ *****	**2030.3**
Stddev	.13396	1172.	.0740	.0596	.02	-----	56.1
%RSD	226.52	2.8751	2.4862	1.1871	.01443	-----	2.7615
#1	.03559	41587.	2.9253	-4.9768	126.98	1.8401	2069.9
#2	-.15387	39930.	3.0300	-5.0611	127.01	^ -----	1990.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.7500**	**72.896**	**510.38**	**371.2**	**333.4**	**252.7**	**134360.**
Stddev	.3238	.604	1.29	.6	3.0	5.6	3361.
%RSD	18.504	.82877	.25292	.1566	.9113	2.235	2.5012
#1	1.5210	72.469	509.47	370.8	335.5	248.7	136740.
#2	1.9789	73.323	511.29	371.6	331.2	256.7	131990.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**573.55**	**2067.**	**2289.**	**4957.4**	**.32226**	**49.610**	**310.76**
Stddev	4.12	57.	71.	5.4	.19987	16.289	.51
%RSD	.71787	2.735	3.093	.10831	62.023	32.834	.16392
#1	576.46	2107.	2339.	4953.6	.46359	61.128	310.40
#2	570.64	2027.	2239.	4961.2	.18092	38.092	311.12

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**41.163**	**-1.8176**	**-1.8396**	**837.27**	**4.0438**	**31.029**	**15.794**
Stddev	1.645	1.7343	.4231	2.51	.2816	.016	.150
%RSD	3.9967	95.420	23.000	.29985	6.9646	.05188	.95022
#1	39.999	-3.0440	-1.5404	835.49	3.8446	31.018	15.901
#2	42.326	-.59123	-2.1387	839.04	4.2429	31.040	15.688

Sample Name: S 711095-014-014-1/1 Acquired: 12/12/2007 0:37:20 Type: Unk
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**9472.3**	**-.31042**	**374.20**	**168.46**
Stddev	20.5	.60725	.24	1.97
%RSD	.21590	195.62	.06441	1.1684
#1	9486.8	.11897	374.03	167.07
#2	9457.9	-.73981	374.37	169.86

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42835.	24871.	566660.
Stddev	126.	521.	1281.
%RSD	.29500	2.0947	.22606
#1	42925.	24502.	567570.
#2	42746.	25239.	565760.

Sample Name: CCV Acquired: 12/12/2007 1:12:46 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**527.87**	**51138.**	**493.61**	**507.92**	**494.82**	**50.447**	**95252.**
Stddev	1.88	374.	4.86	.73	2.21	.167	606.
%RSD	.35560	.73222	.98470	.14299	.44591	.33125	.63655
#1	526.55	50873.	490.18	507.40	496.38	50.329	94823.
#2	529.20	51403.	497.05	508.43	493.26	50.565	95681.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**482.43**	**493.23**	**494.16**	F **600.4**	**541.8**	**488.2**	F **44672.**
Stddev	.42	.01	1.84	2.4	1.9	.6	293.
%RSD	.08750	.00288	.37255	.3929	.3424	.1127	.65634
#1	482.13	493.22	492.86	602.1	540.5	487.9	44465.
#2	482.73	493.24	495.46	598.7	543.1	488.6	44879.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				500.0			50000.
Range				10.00%			-10.000%

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25535.**	**98900.**	**101700.**	**514.96**	**495.73**	**105570.**	**506.46**
Stddev	187.	107.	637.	1.90	1.50	631.	.49
%RSD	.73068	.1081	.6268	.36887	.30181	.59744	.09723
#1	25403.	98830.	101200.	513.62	494.67	105120.	506.80
#2	25667.	98980.	102100.	516.31	496.78	106010.	506.11
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/12/2007 1:12:46 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**483.50**	**514.74**	**499.30**	**537.90**	**489.23**	**509.37**	**494.07**
Stddev	1.13	.14	.76	1.26	3.29	.89	1.24
%RSD	.23355	.02650	.15227	.23459	.67265	.17557	.25044
#1	484.30	514.64	499.83	537.01	486.90	508.73	493.20
#2	482.70	514.83	498.76	538.79	491.55	510.00	494.95
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**540.49**	**480.78**	**510.44**	F **580.12**
Stddev	1.22	1.24	2.44	.84
%RSD	.22551	.25740	.47707	.14431
#1	539.63	481.66	508.72	579.53
#2	541.35	479.91	512.16	580.71
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value				500.00
Range				10.000%

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41297.	24885.	558460.
Stddev	27.	197.	2653.
%RSD	.06424	.79115	.47509
#1	41278.	25024.	560340.
#2	41316.	24746.	556590.

Sample Name: CCB Acquired: 12/12/2007 1:16:24 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag	Al	As	B	Ba	Be	Ca
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.46785**	**7.1657**	**-.83346**	**-1.1797**	**-.39560**	**.02244**	**-36.266**
Stddev	.42170	2.4106	.19681	.1520	.01341	.00178	2.473
%RSD	90.135	33.641	23.613	12.886	3.3896	7.9346	6.8198
#1	-.76604	8.8703	-.97263	-1.2872	-.40508	.02370	-38.015
#2	-.16967	5.4612	-.69430	-1.0722	-.38612	.02119	-34.517
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.08440**	**-.94851**	**-.22492**	**-1.750**	**-.7188**	**3.000**	**-5.2647**
Stddev	.00541	.09531	.03047	1.586	.0585	3.103	.9666
%RSD	6.4143	10.048	13.546	90.60	8.140	103.4	18.360
#1	-.08823	-.88111	-.20338	-2.872	-.7602	.8057	-4.5812
#2	-.08057	-1.0159	-.24647	-.6291	-.6774	5.194	-5.9482
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-305.71**	**1.011**	**-2.397**	**.48305**	**-.77037**	**-82.246**	**-.83588**
Stddev	51.78	1.098	.828	.10700	.20679	19.293	.25047
%RSD	16.938	108.6	34.53	22.150	26.843	23.458	29.965
#1	-342.32	1.787	-2.983	.40739	-.62415	-68.603	-.65877
#2	-269.09	.2344	-1.812	.55870	-.91660	-95.888	-1.0130
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	250.00						
Low Limit	-250.00						

Sample Name: CCB Acquired: 12/12/2007 1:16:24 Type: QC
Method: TRACEPB(v4) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.9980**	**-.44769**	**.11691**	**-.82845**	**-.68144**	**-.04472**	**.89924**
Stddev	1.0566	.43226	2.8572	.36060	.07490	.00631	.00366
%RSD	52.883	96.554	2443.8	43.527	10.991	14.120	.40650
#1	-1.2508	-.14203	-1.9034	-.57346	-.73440	-.04918	.89665
#2	-2.7451	-.75334	2.1372	-1.0834	-.62847	-.04025	.90182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.35320**	**.29467**	**-.33245**	**-1.4539**
Stddev	.26977	.15049	.10904	.1559
%RSD	76.377	51.069	32.799	10.721
#1	.16245	.18826	-.40956	-1.5641
#2	.54396	.40108	-.25535	-1.3437
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42706.**	**25013.**	**570310.**
Stddev	38.	256.	540.
%RSD	.08984	1.0248	.09469
#1	42679.	25195.	569930.
#2	42733.	24832.	570690.

Metals Preparation & Sample Description Log

Prep: 200.7 / 3005A / 3020A / 3050B/ 3010A/ ILC03.1 / ILM04.1 / ILM05.3 / ILM05.4

Date: 11-22-07 Batch No.: 202131

Analyst: MII Comments: MDD BLOCK DIGESTION (Soil)

Reviewed by: /8 Date: 12/10/07 Spike Witness: Pep. Seq: 101755

	GPL Work Order No.	Sample	Frac	Size mL (g)	Final Vol. (mL)	Matrix S, W Other	Color Before R, Bl, Y, G, O, V, W, Colorless, Br, Grey, Bk.	Color After	Clarity Before or Soil Texture	Clarity After Clear, Cloudy, Opaque	Soil Artifacts or Water pH
1	BLK	131		1.00	100	S				clear	–
2	BKS	131		1.00							–
3	711095	001	-001-i	1.16		soil	Brown	yellow	Medium		–
4		MS		1.20							
5		MSD		1.25							
6		002	-002-i	1.19							
7		003	-003-i	1.28							
8		004	-004-i	1.26							
9		005	-005-i	1.23							
10		006	-006-i	1.12							
11		007	-007-i	1.18							
12		008	-008-i	1.27							
13		009	-009-i	1.28							
14		010	-010-i	1.15							
15		011	-011-i	1.25							
16		012	-012-i	1.21							
17		013	-013-i	1.15							
18		014	-014-i	1.25							
19											
20											
21											
22				MII			11-22-07				
23											
24											

LCS ID/ Amt. Added (ml ,g) : 0.2 ml (41862, 41863, 41861)

Spiking ID / Amt. Added (ml) : 0.2 ml (41862, 41863, 41861)

10ml 1:1 HNO3, 10ml HNO3 CNC, 7ml Peroxide, 10ml HCL CNC

Temperature C: 94°C

HNO3(1+1) ID: GP-057-164-09

HNO3(conc) ID: GP-129-11-08

HCl(conc) ID: GP-129-11-06

HCl(1+1) ID: – –

Peroxide ID: GP-129-10-12