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
for
Sanford Cohen and Associates, Inc.
SDG: 198683

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
198683001	SB-CZ-SS-2115-BA
198683002	SB-CZ-SS-2116-BA
198683003	SB-CZ-SS-2117-BA
198683004	SB-CZ-SS-2118-BA
198683005	SB-CZ-SS-2119-BA
198683006	SB-CZ-SS-2120-BA
198683007	SB-CZ-SS-2121-BA
198683008	SB-CZ-SS-2122-BA
198683009	SB-CZ-SS-2123-BA
198683010	SB-CZ-SS-2124-BA
198683011	SB-CZ-SS-2125-BA
198683012	SB-CZ-SS-2126-BA
198683013	SB-CZ-SS-2127-BA
198683014	SB-CZ-SS-2128-BA
198683015	SB-CZ-SS-2115-BD
198683016	SB-CZ-SS-2116-BD
198683017	SB-CZ-SS-2117-BD
198683018	SB-CZ-SS-2118-BD
198683019	SB-CZ-SS-2119-BD
198683020	SB-CZ-SS-2120-BD
198683021	SB-CZ-SS-2121-BD
198683022	SB-CZ-SS-2122-BD
198683023	SB-CZ-SS-2123-BD
198683024	SB-CZ-SS-2124-BD
198683025	SB-CZ-SS-2125-BD
198683026	SB-CZ-SS-2126-BD
198683027	SB-CZ-SS-2127-BD
198683028	SB-CZ-SS-2128-BD
198683029	SB-CZ-SS-2129-BA

198683030	SB-CZ-SS-2130-BA
198683031	SB-CZ-SS-2131-BA
198683032	SB-CZ-SS-2132-BA
198683033	SB-CZ-SS-2133-BA
198683034	SB-CZ-SS-2134-BA
198683035	SB-CZ-SS-2135-BA
198683036	SB-CZ-SS-2129-BD
198683037	SB-CZ-SS-2130-BD
198683038	SB-CZ-SS-2131-BD
198683039	SB-CZ-SS-2132-BD
198683040	SB-CZ-SS-2133-BD
198683041	SB-CZ-SS-2134-BD
198683042	SB-CZ-SS-2135-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

198683

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# 42

Laboratory Prefix

Study I.D.

Pg 1 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Gamma Spec & Lead					0H207	8034	Laboratory	Comments
1	10/18/2007		Soil	SB-CZ-SS-2115-BA	1		X						01		
2	10/18/2007		Soil	SB-CZ-SS-2116-BA	1		X						02		
3	10/18/2007		Soil	SB-CZ-SS-2117-BA	1		X						03		
4	10/18/2007		Soil	SB-CZ-SS-2118-BA	1		X						04		
5	10/18/2007		Soil	SB-CZ-SS-2119-BA	1		X						05		
6	10/18/2007		Soil	SB-CZ-SS-2120-BA	1		X						06		
7	10/18/2007		Soil	SB-CZ-SS-2121-BA	1		X						07		
8	10/18/2007		Soil	SB-CZ-SS-2122-BA	1		X						08		
9	10/18/2007		Soil	SB-CZ-SS-2123-BA	1		X						09		
10	10/18/2007		Soil	SB-CZ-SS-2124-BA	1		X						10		
11	10/18/2007		Soil	SB-CZ-SS-2125-BA	1		X						11		
12	10/18/2007		Soil	SB-CZ-SS-2126-BA	1		X						12		
13	10/18/2007		Soil	SB-CZ-SS-2127-BA	1		X						13		
14	10/18/2007		Soil	SB-CZ-SS-2128-BA	1		X						14		

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: Tiffany Adams	Date/Time 12-04-07 950	Relinquished by:	Date/Time	COC / ICE
Received by: C. Clarens - SC&A	Date/Time 12/14/07 840	Relinquished by: C. Clarens - SC&A	Date/Time 12/14/07 1530	ANA REQ / TEMP
		Sample shipped via	Air Bill #	Cust Seal / pH
		UPS FED-EX HAND OTHER		Sample

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# 42

Laboratory Prefix

Study I.D.

Pg 2 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Gamma Spec & Lead					0420T	8035	Laboratory	Comments
1	10/18/2007		Soil	SB-CZ-SS-2115-BD	1		X						01		
2	10/18/2007		Soil	SB-CZ-SS-2116-BD	1		X						02		
3	10/18/2007		Soil	SB-CZ-SS-2117-BD	1		X						03		
4	10/18/2007		Soil	SB-CZ-SS-2118-BD	1		X						04		
5	10/18/2007		Soil	SB-CZ-SS-2119-BD	1		X						05		
6	10/18/2007		Soil	SB-CZ-SS-2120-BD	1		X						06		
7	10/18/2007		Soil	SB-CZ-SS-2121-BD	1		X						07		
8	10/18/2007		Soil	SB-CZ-SS-2122-BD	1		X						08		
9	10/18/2007		Soil	SB-CZ-SS-2123-BD	1		X						09		
10	10/18/2007		Soil	SB-CZ-SS-2124-BD	1		X						10		
11	10/18/2007		Soil	SB-CZ-SS-2125-BD	1		X						11		
12	10/18/2007		Soil	SB-CZ-SS-2126-BD	1		X						12		
13	10/18/2007		Soil	SB-CZ-SS-2127-BD	1		X						13		
14	10/18/2007		Soil	SB-CZ-SS-2128-BD	1		X						14		

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: Tillman Adams	Date/Time 10-04-07 950	Relinquished by:	Date/Time	COC / ICE
Received by: C. Owens - SC&A	Date/Time 10/22/07 840	Relinquished by: C. Owens SC&A	Date/Time 11/30/07 1530	ANA REQ / TEMP
		Sample shipped via UPS FED-EX HAND OTHER	Air Bill #	Cust Seal / pH / Sample

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# 42

Laboratory Prefix

Study I.D.

Pg 3 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS		Gamma Spec & Lead					041207	8036	Laboratory	Comments
1	10/18/2007		Soil	SB-CZ-SS-2129-BA	1		X						01		
2	10/18/2007		Soil	SB-CZ-SS-2130-BA	1		X						02		
3	10/18/2007		Soil	SB-CZ-SS-2131-BA	1		X						03		
4	10/18/2007		Soil	SB-CZ-SS-2132-BA	1		X						04		
5	10/18/2007		Soil	SB-CZ-SS-2133-BA	1		X						05		
6	10/18/2007		Soil	SB-CZ-SS-2134-BA	1		X						06		
7	10/18/2007		Soil	SB-CZ-SS-2135-BA	1		X						07		
8	10/18/2007		Soil	SB-CZ-SS-2129-BD	1		X					041207	8037-01		
9	10/18/2007		Soil	SB-CZ-SS-2130-BD	1		X						02		
10	10/18/2007		Soil	SB-CZ-SS-2131-BD	1		X						03		
11	10/18/2007		Soil	SB-CZ-SS-2132-BD	1		X						04		
12	10/18/2007		Soil	SB-CZ-SS-2133-BD	1		X						05		
13	10/18/2007		Soil	SB-CZ-SS-2134-BD	1		X						06		
14	10/18/2007		Soil	SB-CZ-SS-2135-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: Tiffany Adams	Date/Time 10-04-07 950	Relinquished by:	Date/Time	COC / ICE
Received by: C. Owens - SC&A	Date/Time 10/22/07 840	Relinquished by: C. Owens - SC&A	Date/Time 10/19 1530	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:	708123
Prep Batch Number:	707913

Sample ID	Client ID
198683001	SB-CZ-SS-2115-BA
198683002	SB-CZ-SS-2116-BA
198683003	SB-CZ-SS-2117-BA
198683004	SB-CZ-SS-2118-BA
198683005	SB-CZ-SS-2119-BA
198683006	SB-CZ-SS-2120-BA
1201473818	Method Blank (MB)
1201473819	198681021(SB-CZ-SS-2105-BD) Sample Duplicate (DUP)
1201473820	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: 198681021 (SB-CZ-SS-2105-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
The sample and the duplicate, 1201473819 (SB-CZ-SS-2105-BD), did not meet the relative percent difference requirement for Th-234, however they do meet the relative error ratio requirement with value of 2.76

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high peak-width.	Californium-249	198683005
UI	Data rejected due to interference.	Americium-243	198683001
			198683002
			198683003
			198683004
			198683005
			198683006
			1201473819
		Curium-243	198683006
		Europium-155	198683006
		Neptunium-236	198683002
			1201473819
		Neptunium-237	198683001
			198683002
			198683003
			198683004
			198683005
			198683006
			1201473819
		Radium-223	198683001
			198683002
			198683003
			198683005
			198683006
			1201473819
UI	Data rejected due to no valid peak.	Protactinium-234m	198683004

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	708124
Prep Batch Number:	707915

Sample ID	Client ID
198683007	SB-CZ-SS-2121-BA
198683008	SB-CZ-SS-2122-BA
198683009	SB-CZ-SS-2123-BA
198683010	SB-CZ-SS-2124-BA
198683011	SB-CZ-SS-2125-BA
198683012	SB-CZ-SS-2126-BA
198683013	SB-CZ-SS-2127-BA
198683014	SB-CZ-SS-2128-BA
198683015	SB-CZ-SS-2115-BD
198683016	SB-CZ-SS-2116-BD
198683017	SB-CZ-SS-2117-BD
198683018	SB-CZ-SS-2118-BD
198683019	SB-CZ-SS-2119-BD
198683020	SB-CZ-SS-2120-BD
198683021	SB-CZ-SS-2121-BD
198683022	SB-CZ-SS-2122-BD
198683023	SB-CZ-SS-2123-BD
198683024	SB-CZ-SS-2124-BD
198683025	SB-CZ-SS-2125-BD
198683026	SB-CZ-SS-2126-BD
1201473821	Method Blank (MB)
1201473822	198683007(SB-CZ-SS-2121-BA) Sample Duplicate (DUP)
1201473823	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: 198683007 (SB-CZ-SS-2121-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
Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to a high counting uncertainty.	Rhodium-101	198683012
UI	Data rejected due to interference.	Americium-243	198683007
			198683008
			198683009
			198683010

	198683011
	198683012
	198683013
	198683014
	198683015
	198683016
	198683017
	198683018
	198683019
	198683020
	198683021
	198683022
	198683023
	198683024
	198683025
	198683026
	1201473822
Bismuth-211	198683020
Neptunium-236	198683018
	198683020
	198683021
Neptunium-237	198683007
	198683008
	198683009
	198683010
	198683011
	198683012
	198683014
	198683015
	198683016

	198683017
	198683018
	198683019
	198683020
	198683021
	198683022
	198683023
	198683025
	198683026
	1201473822
Radium-223	198683007
	198683008
	198683009
	198683010
	198683011
	198683012
	198683013
	198683014
	198683015
	198683017
	198683018
	198683019
	198683020
	198683021
	198683022
	198683023
	198683024
	198683025
	198683026
	1201473822

UI	Data rejected due to low abundance.	Actinium-228	198683026
		Neptunium-237	198683013
			198683024
		Thorium-234	198683010
			198683023
UI	Data rejected due to no valid peak.	Curium-243	198683015
			198683016
			198683020
		Europium-155	198683015
			198683016
			198683020
		Neptunium-236	1201473821
		Polonium-209	198683020
		Protactinium-233	198683025
		Protactinium-234m	198683015
			1201473822
		Uranium-235	198683017

Method/Analysis Information

Product:	**Gammaspec, Gamma, Solid**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	708126
Prep Batch Number:	707916

Sample ID	Client ID
198683027	SB-CZ-SS-2127-BD
198683028	SB-CZ-SS-2128-BD
198683029	SB-CZ-SS-2129-BA
198683030	SB-CZ-SS-2130-BA
198683031	SB-CZ-SS-2131-BA
198683032	SB-CZ-SS-2132-BA
198683033	SB-CZ-SS-2133-BA
198683034	SB-CZ-SS-2134-BA
198683035	SB-CZ-SS-2135-BA
198683036	SB-CZ-SS-2129-BD
198683037	SB-CZ-SS-2130-BD
198683038	SB-CZ-SS-2131-BD
198683039	SB-CZ-SS-2132-BD
198683040	SB-CZ-SS-2133-BD
198683041	SB-CZ-SS-2134-BD
198683042	SB-CZ-SS-2135-BD
1201473827	Method Blank (MB)
1201473828	198683027(SB-CZ-SS-2127-BD) Sample Duplicate (DUP)
1201473829	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: 198683027 (SB-CZ-SS-2127-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
The sample and the duplicate, 1201473828 (SB-CZ-SS-2127-BD) and 198683027 (SB-CZ-SS-2127-BD), did not meet the relative percent difference requirement for Tl-208, however they do meet the relative error ratio requirement with value of 1.63.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high counting uncertainty.	Bismuth-212	198683042
UI	Data rejected due to high peak-width.	Protactinium-234m	198683041
UI	Data rejected due to interference.	Americium-243	198683027
			198683028
			198683029
			198683030
			198683031
			198683032
			198683033
			198683034
			198683035
			198683036
			198683037

	198683038
	198683039
	198683040
	198683041
	198683042
	1201473828
Antimony-125	198683034
Californium-249	198683032
Curium-243	198683037
	1201473828
Europium-155	198683037
	1201473828
Neptunium-236	1201473828
Neptunium-237	198683027
	198683028
	198683029
	198683030
	198683031
	198683032
	198683033
	198683034
	198683035
	198683036
	198683037
	198683038
	198683039
	198683040
	198683041
	198683042
	1201473828

		Radium-223	198683027
			198683028
			198683031
			198683032
			198683033
			198683034
			198683036
			198683037
			198683038
			198683039
			198683040
			198683041
			198683042
			1201473828
UI	Data rejected due to low abundance.	Actinium-228	1201473827
		Cesium-137	198683038
UI	Data rejected due to no valid peak.	Bismuth-212	198683027
			198683029
			198683036
		Uranium-235	198683030
			198683037

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: 198683 GEL Work Order: 198683

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−2115−BA	Project:	SCAN00101
Sample ID:	198683001	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		0.676	+/−0.143	0.110	+/−0.143	0.800	pCi/g		MJH1	12/14/07	1426	708123	1
Americium−241	U	0.0529	+/−0.0909	0.154	+/−0.0909	0.200	pCi/g						
Americium−243	UI	0.105	+/−0.0381	0.0454	+/−0.0381		pCi/g						
Americium−246	U	−0.0291	+/−0.0637	0.104	+/−0.0637		pCi/g						
Antimony−125	U	0.00499	+/−0.048	0.0819	+/−0.048	0.200	pCi/g						
Bismuth−211	U	−0.255	+/−0.596	0.965	+/−0.596		pCi/g						
Bismuth−212		0.493	+/−0.242	0.223	+/−0.242	0.500	pCi/g						
Bismuth−214		0.478	+/−0.0788	0.0637	+/−0.0788	0.200	pCi/g						
Californium−249	U	0.0221	+/−0.0212	0.0383	+/−0.0212		pCi/g						
Cesium−137		0.110	+/−0.0356	0.0332	+/−0.0356	0.100	pCi/g						
Cobalt−60	U	0.00853	+/−0.0188	0.0334	+/−0.0188	0.100	pCi/g						
Curium−243	U	0.017	+/−0.0467	0.0834	+/−0.0467		pCi/g						
Europium−155	U	0.0141	+/−0.0517	0.092	+/−0.0517	0.500	pCi/g						
Lead−212		0.608	+/−0.0645	0.0477	+/−0.0645	0.100	pCi/g						
Lead−214		0.424	+/−0.081	0.0578	+/−0.081	0.100	pCi/g						
Neptunium−236	U	−0.0108	+/−0.0336	0.0515	+/−0.0336		pCi/g						
Neptunium−237	UI	0.303	+/−0.150	0.187	+/−0.150		pCi/g						
Neptunium−239	U	0.0287	+/−0.113	0.190	+/−0.113	2.00	pCi/g						
Polonium−209	U	1.33	+/−3.85	6.63	+/−3.85		pCi/g						
Potassium−40		4.35	+/−0.647	0.248	+/−0.647	1.00	pCi/g						
Protactinium−233	U	−0.0083	+/−0.0301	0.0515	+/−0.0301		pCi/g						
Protactinium−234m	U	−0.687	+/−3.22	4.68	+/−3.22		pCi/g						
Radium−223	UI	0.189	+/−0.0967	0.145	+/−0.0967		pCi/g						
Rhodium−101	U	0.0043	+/−0.0181	0.0288	+/−0.0181		pCi/g						
Thallium−208		0.187	+/−0.0443	0.030	+/−0.0443	0.080	pCi/g						
Thorium−234		0.534	+/−0.368	0.398	+/−0.368	0.500	pCi/g						
Uranium−235	U	0.0886	+/−0.142	0.167	+/−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−2115−BA Project: SCAN00101
Sample ID: 198683001 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−2116−BA
Sample ID: 198683002
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		0.793	+/−0.139	0.090	+/−0.139	0.800	pCi/g		MJH1	12/14/07	1427	708123	1
Americium−241	U	−0.00185	+/−0.0472	0.0743	+/−0.0472	0.200	pCi/g						
Americium−243	UI	0.141	+/−0.026	0.0294	+/−0.026		pCi/g						
Americium−246	U	0.0229	+/−0.0542	0.0961	+/−0.0542		pCi/g						
Antimony−125	U	0.0197	+/−0.0359	0.0654	+/−0.0359	0.200	pCi/g						
Bismuth−211	U	0.317	+/−0.407	0.681	+/−0.407		pCi/g						
Bismuth−212		0.482	+/−0.230	0.184	+/−0.230	0.500	pCi/g						
Bismuth−214		0.557	+/−0.0825	0.0483	+/−0.0825	0.200	pCi/g						
Californium−249	U	−0.00011	+/−0.0159	0.0283	+/−0.0159		pCi/g						
Cesium−137		0.148	+/−0.0395	0.0254	+/−0.0395	0.100	pCi/g						
Cobalt−60	U	0.0112	+/−0.0178	0.0318	+/−0.0178	0.100	pCi/g						
Curium−243	U	0.0335	+/−0.0405	0.0581	+/−0.0405		pCi/g						
Europium−155	U	0.0371	+/−0.0447	0.0703	+/−0.0447	0.500	pCi/g						
Lead−212		0.743	+/−0.0634	0.037	+/−0.0634	0.100	pCi/g						
Lead−214		0.641	+/−0.0657	0.0477	+/−0.0657	0.100	pCi/g						
Neptunium−236	UI	0.0537	+/−0.0325	0.0386	+/−0.0325		pCi/g						
Neptunium−237	UI	0.397	+/−0.119	0.137	+/−0.119		pCi/g						
Neptunium−239	U	−0.00623	+/−0.0875	0.151	+/−0.0875	2.00	pCi/g						
Polonium−209	U	0.106	+/−3.35	5.24	+/−3.35		pCi/g						
Potassium−40		6.36	+/−0.685	0.239	+/−0.685	1.00	pCi/g						
Protactinium−233	U	−0.0074	+/−0.0277	0.046	+/−0.0277		pCi/g						
Protactinium−234m	U	1.41	+/−2.45	2.67	+/−2.45		pCi/g						
Radium−223	UI	0.386	+/−0.174	0.115	+/−0.174		pCi/g						
Rhodium−101	U	0.00304	+/−0.0144	0.0243	+/−0.0144		pCi/g						
Thallium−208		0.220	+/−0.0344	0.0269	+/−0.0344	0.080	pCi/g						
Thorium−234		0.735	+/−0.282	0.302	+/−0.282	0.500	pCi/g						
Uranium−235	U	0.113	+/−0.142	0.129	+/−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−2116−BA Project: SCAN00101
Sample ID: 198683002 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−2117−BA
Sample ID: 198683003
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		1.34	+/−0.220	0.128	+/−0.220	0.800	pCi/g		MJH1	12/14/07	1458	708123	1
Americium−241	U	0.00754	+/−0.0612	0.0951	+/−0.0612	0.200	pCi/g						
Americium−243	UI	0.229	+/−0.0394	0.0404	+/−0.0394		pCi/g						
Americium−246	U	−0.0329	+/−0.0775	0.127	+/−0.0775		pCi/g						
Antimony−125	U	−0.0142	+/−0.0582	0.0949	+/−0.0582	0.200	pCi/g						
Bismuth−211	U	0.0767	+/−0.708	1.19	+/−0.708		pCi/g						
Bismuth−212		0.974	+/−0.269	0.297	+/−0.269	0.500	pCi/g						
Bismuth−214		0.923	+/−0.122	0.0722	+/−0.122	0.200	pCi/g						
Californium−249	U	−0.0146	+/−0.0265	0.0402	+/−0.0265		pCi/g						
Cesium−137	U	0.0311	+/−0.0394	0.0379	+/−0.0394	0.100	pCi/g						
Cobalt−60	U	0.0248	+/−0.0545	0.0402	+/−0.0545	0.100	pCi/g						
Curium−243	U	−0.0155	+/−0.0566	0.0894	+/−0.0566		pCi/g						
Europium−155	U	0.0236	+/−0.0636	0.103	+/−0.0636	0.500	pCi/g						
Lead−212		1.20	+/−0.102	0.056	+/−0.102	0.100	pCi/g						
Lead−214		0.894	+/−0.118	0.0723	+/−0.118	0.100	pCi/g						
Neptunium−236	U	0.044	+/−0.0387	0.0601	+/−0.0387		pCi/g						
Neptunium−237	UI	0.656	+/−0.151	0.186	+/−0.151		pCi/g						
Neptunium−239	U	0.0243	+/−0.134	0.232	+/−0.134	2.00	pCi/g						
Polonium−209	U	1.52	+/−5.68	8.37	+/−5.68		pCi/g						
Potassium−40		7.64	+/−0.794	0.309	+/−0.794	1.00	pCi/g						
Protactinium−233	U	−0.00642	+/−0.0381	0.0639	+/−0.0381		pCi/g						
Protactinium−234m	U	1.35	+/−2.76	4.73	+/−2.76		pCi/g						
Radium−223	UI	0.329	+/−0.172	0.183	+/−0.172		pCi/g						
Rhodium−101	U	0.0162	+/−0.0217	0.0363	+/−0.0217		pCi/g						
Thallium−208		0.334	+/−0.055	0.0366	+/−0.055	0.080	pCi/g						
Thorium−234		1.20	+/−0.399	0.417	+/−0.399	0.500	pCi/g						
Uranium−235	U	0.107	+/−0.143	0.193	+/−0.143	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−2117−BA Project: SCAN00101
Sample ID: 198683003 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−2118−BA
Sample ID: 198683004
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		0.979	+/−0.203	0.130	+/−0.203	0.800	pCi/g		MJH1	12/14/07	1459	708123	1
Americium−241	U	0.0526	+/−0.0939	0.147	+/−0.0939	0.200	pCi/g						
Americium−243	UI	0.229	+/−0.049	0.0536	+/−0.049		pCi/g						
Americium−246	U	−0.0288	+/−0.0726	0.120	+/−0.0726		pCi/g						
Antimony−125	U	0.0587	+/−0.0593	0.104	+/−0.0593	0.200	pCi/g						
Bismuth−211	U	0.225	+/−0.613	1.00	+/−0.613		pCi/g						
Bismuth−212		0.888	+/−0.264	0.242	+/−0.264	0.500	pCi/g						
Bismuth−214		0.942	+/−0.125	0.0639	+/−0.125	0.200	pCi/g						
Californium−249	U	0.0169	+/−0.0237	0.0412	+/−0.0237		pCi/g						
Cesium−137		0.104	+/−0.0422	0.0357	+/−0.0422	0.100	pCi/g						
Cobalt−60	U	−0.00177	+/−0.0214	0.0362	+/−0.0214	0.100	pCi/g						
Curium−243	U	−0.063	+/−0.0587	0.0934	+/−0.0587		pCi/g						
Europium−155	U	−0.00805	+/−0.0607	0.108	+/−0.0607	0.500	pCi/g						
Lead−212		0.987	+/−0.0897	0.0567	+/−0.0897	0.100	pCi/g						
Lead−214		1.08	+/−0.115	0.0714	+/−0.115	0.100	pCi/g						
Neptunium−236	U	0.0208	+/−0.0415	0.0632	+/−0.0415		pCi/g						
Neptunium−237	UI	0.703	+/−0.171	0.222	+/−0.171		pCi/g						
Neptunium−239	U	−0.0533	+/−0.142	0.241	+/−0.142	2.00	pCi/g						
Polonium−209	U	0.104	+/−4.19	7.00	+/−4.19		pCi/g						
Potassium−40		4.65	+/−0.695	0.345	+/−0.695	1.00	pCi/g						
Protactinium−233	U	0.0347	+/−0.0389	0.0686	+/−0.0389		pCi/g						
Protactinium−234m	UI	3.93	+/−3.51	3.90	+/−3.51		pCi/g						
Radium−223	U	0.165	+/−0.201	0.180	+/−0.201		pCi/g						
Rhodium−101	U	0.00439	+/−0.0214	0.0366	+/−0.0214		pCi/g						
Thallium−208		0.320	+/−0.0569	0.0337	+/−0.0569	0.080	pCi/g						
Thorium−234		1.26	+/−0.455	0.481	+/−0.455	0.500	pCi/g						
Uranium−235	U	0.150	+/−0.143	0.206	+/−0.143	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−2118−BA Project: SCAN00101
Sample ID: 198683004 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−2119−BA
Sample ID: 198683005
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		0.782	+/−0.155	0.0929	+/−0.155	0.800	pCi/g		MJH1	12/14/07	1536	708123	1
Americium−241	U	0.0236	+/−0.0504	0.0841	+/−0.0504	0.200	pCi/g						
Americium−243	UI	0.135	+/−0.0313	0.0339	+/−0.0313		pCi/g						
Americium−246	U	0.0116	+/−0.059	0.091	+/−0.059		pCi/g						
Antimony−125	U	0.00588	+/−0.0407	0.0716	+/−0.0407	0.200	pCi/g						
Bismuth−211	U	−0.0452	+/−0.482	0.717	+/−0.482		pCi/g						
Bismuth−212		0.292	+/−0.189	0.192	+/−0.189	0.500	pCi/g						
Bismuth−214		0.828	+/−0.0952	0.0486	+/−0.0952	0.200	pCi/g						
Californium−249	UI	0.0429	+/−0.0389	0.0301	+/−0.0389		pCi/g						
Cesium−137		0.167	+/−0.0282	0.0271	+/−0.0282	0.100	pCi/g						
Cobalt−60	U	−0.00189	+/−0.0145	0.0243	+/−0.0145	0.100	pCi/g						
Curium−243	U	−0.00508	+/−0.0473	0.0752	+/−0.0473		pCi/g						
Europium−155	U	0.0254	+/−0.0526	0.0839	+/−0.0526	0.500	pCi/g						
Lead−212		0.758	+/−0.0708	0.0454	+/−0.0708	0.100	pCi/g						
Lead−214		0.865	+/−0.0865	0.0542	+/−0.0865	0.100	pCi/g						
Neptunium−236	U	0.0157	+/−0.0288	0.0468	+/−0.0288		pCi/g						
Neptunium−237	UI	0.519	+/−0.125	0.148	+/−0.125		pCi/g						
Neptunium−239	U	−0.0115	+/−0.104	0.179	+/−0.104	2.00	pCi/g						
Polonium−209	U	0.812	+/−2.91	5.09	+/−2.91		pCi/g						
Potassium−40		4.54	+/−0.456	0.223	+/−0.456	1.00	pCi/g						
Protactinium−233	U	0.0176	+/−0.0283	0.0516	+/−0.0283		pCi/g						
Protactinium−234m	U	1.02	+/−2.53	2.55	+/−2.53		pCi/g						
Radium−223	UI	0.177	+/−0.148	0.140	+/−0.148		pCi/g						
Rhodium−101	U	0.000552	+/−0.0181	0.0283	+/−0.0181		pCi/g						
Thallium−208		0.264	+/−0.0399	0.0242	+/−0.0399	0.080	pCi/g						
Thorium−234		1.01	+/−0.395	0.327	+/−0.395	0.500	pCi/g						
Uranium−235	U	0.0483	+/−0.127	0.165	+/−0.127	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−2119−BA Project: SCAN00101
Sample ID: 198683005 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−2120−BA
Sample ID: 198683006
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		1.29	+/−0.207	0.133	+/−0.207	0.800	pCi/g		MJH1	12/14/07	1636	708123	1
Americium−241	U	0.0353	+/−0.029	0.047	+/−0.029	0.200	pCi/g						
Americium−243	UI	0.278	+/−0.0339	0.028	+/−0.0339		pCi/g						
Americium−246	U	0.0548	+/−0.0784	0.128	+/−0.0784		pCi/g						
Antimony−125	U	0.0104	+/−0.0532	0.0905	+/−0.0532	0.200	pCi/g						
Bismuth−211	U	0.678	+/−0.658	1.01	+/−0.658		pCi/g						
Bismuth−212		0.917	+/−0.299	0.248	+/−0.299	0.500	pCi/g						
Bismuth−214		1.14	+/−0.124	0.0663	+/−0.124	0.200	pCi/g						
Californium−249	U	0.0221	+/−0.0232	0.0405	+/−0.0232		pCi/g						
Cesium−137		0.238	+/−0.0438	0.0381	+/−0.0438	0.100	pCi/g						
Cobalt−60	U	−0.00689	+/−0.0215	0.0357	+/−0.0215	0.100	pCi/g						
Curium−243	UI	0.0983	+/−0.054	0.0736	+/−0.054		pCi/g						
Europium−155	UI	0.109	+/−0.0596	0.0828	+/−0.0596	0.500	pCi/g						
Lead−212		1.49	+/−0.136	0.0483	+/−0.136	0.100	pCi/g						
Lead−214		1.13	+/−0.101	0.0646	+/−0.101	0.100	pCi/g						
Neptunium−236	U	0.0359	+/−0.0278	0.0462	+/−0.0278		pCi/g						
Neptunium−237	UI	0.831	+/−0.133	0.141	+/−0.133		pCi/g						
Neptunium−239	U	0.132	+/−0.118	0.202	+/−0.118	2.00	pCi/g						
Polonium−209	U	0.785	+/−4.25	7.15	+/−4.25		pCi/g						
Potassium−40		8.79	+/−0.895	0.259	+/−0.895	1.00	pCi/g						
Protactinium−233	U	−0.0198	+/−0.0335	0.0567	+/−0.0335		pCi/g						
Protactinium−234m	U	1.25	+/−2.78	3.91	+/−2.78		pCi/g						
Radium−223	UI	0.546	+/−0.161	0.158	+/−0.161		pCi/g						
Rhodium−101	U	0.00221	+/−0.0217	0.0309	+/−0.0217		pCi/g						
Thallium−208		0.466	+/−0.0562	0.0336	+/−0.0562	0.080	pCi/g						
Thorium−234		2.01	+/−0.348	0.329	+/−0.348	0.500	pCi/g						
Uranium−235	U	0.0562	+/−0.134	0.172	+/−0.134	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−2120−BA Project: SCAN00101
Sample ID: 198683006 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−2121−BA
Sample ID: 198683007
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		1.52	+/−0.263	0.131	+/−0.263	0.800	pCi/g		MJH1	12/15/07	0826	708124	1
Americium−241	U	0.0309	+/−0.111	0.169	+/−0.111	0.200	pCi/g						
Americium−243	UI	0.309	+/−0.0546	0.0598	+/−0.0546		pCi/g						
Americium−246	U	0.0401	+/−0.0824	0.147	+/−0.0824		pCi/g						
Antimony−125	U	−0.0193	+/−0.0637	0.103	+/−0.0637	0.200	pCi/g						
Bismuth−211	U	−0.535	+/−0.824	1.10	+/−0.824		pCi/g						
Bismuth−212		1.13	+/−0.276	0.303	+/−0.276	0.500	pCi/g						
Bismuth−214		1.28	+/−0.161	0.0791	+/−0.161	0.200	pCi/g						
Californium−249	U	0.0267	+/−0.0388	0.0458	+/−0.0388		pCi/g						
Cesium−137		0.347	+/−0.0651	0.0416	+/−0.0651	0.100	pCi/g						
Cobalt−60	U	0.0174	+/−0.0266	0.0477	+/−0.0266	0.100	pCi/g						
Curium−243	U	−0.0195	+/−0.0705	0.115	+/−0.0705		pCi/g						
Europium−155	U	0.0706	+/−0.0711	0.129	+/−0.0711	0.500	pCi/g						
Lead−212		1.41	+/−0.118	0.0684	+/−0.118	0.100	pCi/g						
Lead−214		1.29	+/−0.133	0.0811	+/−0.133	0.100	pCi/g						
Neptunium−236	U	0.0411	+/−0.0479	0.0729	+/−0.0479		pCi/g						
Neptunium−237	UI	0.988	+/−0.225	0.251	+/−0.225		pCi/g						
Neptunium−239	U	−0.0063	+/−0.164	0.280	+/−0.164	2.00	pCi/g						
Polonium−209	U	2.58	+/−5.46	8.88	+/−5.46		pCi/g						
Potassium−40		8.85	+/−1.01	0.346	+/−1.01	1.00	pCi/g						
Protactinium−233	U	0.0136	+/−0.045	0.0767	+/−0.045		pCi/g						
Protactinium−234m	U	3.52	+/−5.65	5.24	+/−5.65		pCi/g						
Radium−223	UI	0.437	+/−0.211	0.206	+/−0.211		pCi/g						
Rhodium−101	U	−0.00453	+/−0.024	0.0402	+/−0.024		pCi/g						
Thallium−208		0.442	+/−0.0647	0.039	+/−0.0647	0.080	pCi/g						
Thorium−234		1.74	+/−0.572	0.543	+/−0.572	0.500	pCi/g						
Uranium−235	U	0.0405	+/−0.179	0.221	+/−0.179	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−2121−BA Project: SCAN00101
Sample ID: 198683007 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−2122−BA
Sample ID: 198683008
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		0.932	+/−0.178	0.113	+/−0.178	0.800	pCi/g		MJH1	12/15/07	0827	708124	1
Americium−241	U	0.0175	+/−0.0676	0.102	+/−0.0676	0.200	pCi/g						
Americium−243	UI	0.183	+/−0.0396	0.0386	+/−0.0396		pCi/g						
Americium−246	U	0.0394	+/−0.0673	0.120	+/−0.0673		pCi/g						
Antimony−125	U	−0.0016	+/−0.0493	0.0851	+/−0.0493	0.200	pCi/g						
Bismuth−211	U	−0.0413	+/−0.488	0.842	+/−0.488		pCi/g						
Bismuth−212		0.583	+/−0.232	0.226	+/−0.232	0.500	pCi/g						
Bismuth−214		0.734	+/−0.102	0.0605	+/−0.102	0.200	pCi/g						
Californium−249	U	0.0104	+/−0.0202	0.0359	+/−0.0202		pCi/g						
Cesium−137		0.219	+/−0.0333	0.0294	+/−0.0333	0.100	pCi/g						
Cobalt−60	U	−0.000764	+/−0.0225	0.0371	+/−0.0225	0.100	pCi/g						
Curium−243	U	0.0136	+/−0.0462	0.0816	+/−0.0462		pCi/g						
Europium−155	U	0.0415	+/−0.0507	0.0909	+/−0.0507	0.500	pCi/g						
Lead−212		0.865	+/−0.0765	0.049	+/−0.0765	0.100	pCi/g						
Lead−214		0.854	+/−0.0957	0.0643	+/−0.0957	0.100	pCi/g						
Neptunium−236	U	0.0425	+/−0.0317	0.0512	+/−0.0317		pCi/g						
Neptunium−237	UI	0.479	+/−0.122	0.179	+/−0.122		pCi/g						
Neptunium−239	U	0.010	+/−0.113	0.203	+/−0.113	2.00	pCi/g						
Polonium−209	U	1.45	+/−3.33	5.94	+/−3.33		pCi/g						
Potassium−40		4.71	+/−0.599	0.297	+/−0.599	1.00	pCi/g						
Protactinium−233	U	0.00163	+/−0.0372	0.0569	+/−0.0372		pCi/g						
Protactinium−234m	U	2.49	+/−2.46	4.13	+/−2.46		pCi/g						
Radium−223	UI	0.320	+/−0.136	0.154	+/−0.136		pCi/g						
Rhodium−101	U	0.0168	+/−0.0169	0.0312	+/−0.0169		pCi/g						
Thallium−208		0.252	+/−0.0421	0.0311	+/−0.0421	0.080	pCi/g						
Thorium−234		1.04	+/−0.340	0.376	+/−0.340	0.500	pCi/g						
Uranium−235	U	0.089	+/−0.111	0.185	+/−0.111	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−2122−BA Project: SCAN00101
Sample ID: 198683008 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−2123−BA
Sample ID: 198683009
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		1.19	+/−0.211	0.129	+/−0.211	0.800	pCi/g		MJH1	12/15/07	1048	708124	1
Americium−241	U	0.0278	+/−0.107	0.164	+/−0.107	0.200	pCi/g						
Americium−243	UI	0.221	+/−0.0558	0.0524	+/−0.0558		pCi/g						
Americium−246	U	0.0031	+/−0.0756	0.127	+/−0.0756		pCi/g						
Antimony−125	U	0.0132	+/−0.0664	0.0984	+/−0.0664	0.200	pCi/g						
Bismuth−211	U	0.377	+/−0.657	1.16	+/−0.657		pCi/g						
Bismuth−212		0.624	+/−0.361	0.280	+/−0.361	0.500	pCi/g						
Bismuth−214		0.759	+/−0.0992	0.069	+/−0.0992	0.200	pCi/g						
Californium−249	U	0.0281	+/−0.0265	0.045	+/−0.0265		pCi/g						
Cesium−137		0.0636	+/−0.0343	0.0426	+/−0.0343	0.100	pCi/g						
Cobalt−60	U	−0.00766	+/−0.0247	0.0397	+/−0.0247	0.100	pCi/g						
Curium−243	U	0.0681	+/−0.0654	0.0973	+/−0.0654		pCi/g						
Europium−155	U	0.0752	+/−0.0723	0.118	+/−0.0723	0.500	pCi/g						
Lead−212		1.10	+/−0.101	0.0604	+/−0.101	0.100	pCi/g						
Lead−214		0.752	+/−0.0963	0.074	+/−0.0963	0.100	pCi/g						
Neptunium−236	U	0.044	+/−0.049	0.0586	+/−0.049		pCi/g						
Neptunium−237	UI	0.541	+/−0.206	0.228	+/−0.206		pCi/g						
Neptunium−239	U	0.0781	+/−0.141	0.251	+/−0.141	2.00	pCi/g						
Polonium−209	U	−0.981	+/−4.02	6.65	+/−4.02		pCi/g						
Potassium−40		3.84	+/−0.546	0.299	+/−0.546	1.00	pCi/g						
Protactinium−233	U	0.00493	+/−0.0454	0.068	+/−0.0454		pCi/g						
Protactinium−234m	U	2.48	+/−3.43	4.16	+/−3.43		pCi/g						
Radium−223	UI	0.504	+/−0.193	0.186	+/−0.193		pCi/g						
Rhodium−101	U	0.00858	+/−0.026	0.0386	+/−0.026		pCi/g						
Thallium−208		0.314	+/−0.0533	0.0377	+/−0.0533	0.080	pCi/g						
Thorium−234		1.37	+/−0.442	0.491	+/−0.442	0.500	pCi/g						
Uranium−235	U	0.142	+/−0.137	0.222	+/−0.137	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−2123−BA Project: SCAN00101
Sample ID: 198683009 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−2124−BA
Sample ID: 198683010
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		0.894	+/−0.183	0.115	+/−0.183	0.800	pCi/g		MJH1	12/15/07 1049	708124	1
Americium−241	U	0.0393	+/−0.0877	0.164	+/−0.0877	0.200	pCi/g					
Americium−243	UI	0.149	+/−0.0426	0.0472	+/−0.0426		pCi/g					
Americium−246	U	0.0323	+/−0.0663	0.119	+/−0.0663		pCi/g					
Antimony−125	U	0.0177	+/−0.0519	0.0901	+/−0.0519	0.200	pCi/g					
Bismuth−211	U	−0.0473	+/−0.549	0.920	+/−0.549		pCi/g					
Bismuth−212		0.558	+/−0.203	0.219	+/−0.203	0.500	pCi/g					
Bismuth−214		0.708	+/−0.0953	0.0614	+/−0.0953	0.200	pCi/g					
Californium−249	U	0.00686	+/−0.0211	0.037	+/−0.0211		pCi/g					
Cesium−137		0.228	+/−0.0414	0.031	+/−0.0414	0.100	pCi/g					
Cobalt−60	U	0.00609	+/−0.0188	0.0331	+/−0.0188	0.100	pCi/g					
Curium−243	U	−0.0029	+/−0.048	0.0851	+/−0.048		pCi/g					
Europium−155	U	0.014	+/−0.0514	0.0922	+/−0.0514	0.500	pCi/g					
Lead−212		0.785	+/−0.0747	0.0497	+/−0.0747	0.100	pCi/g					
Lead−214		0.777	+/−0.0981	0.0608	+/−0.0981	0.100	pCi/g					
Neptunium−236	U	0.0128	+/−0.0373	0.0576	+/−0.0373		pCi/g					
Neptunium−237	UI	0.568	+/−0.170	0.191	+/−0.170		pCi/g					
Neptunium−239	U	−0.119	+/−0.120	0.191	+/−0.120	2.00	pCi/g					
Polonium−209	U	−0.406	+/−4.60	6.56	+/−4.60		pCi/g					
Potassium−40		3.96	+/−0.599	0.247	+/−0.599	1.00	pCi/g					
Protactinium−233	U	0.0269	+/−0.0325	0.0592	+/−0.0325		pCi/g					
Protactinium−234m	U	−1.52	+/−2.56	3.95	+/−2.56		pCi/g					
Radium−223	UI	0.273	+/−0.120	0.145	+/−0.120		pCi/g					
Rhodium−101	U	0.00454	+/−0.0185	0.0299	+/−0.0185		pCi/g					
Thallium−208		0.232	+/−0.0452	0.0312	+/−0.0452	0.080	pCi/g					
Thorium−234	UI	1.31	+/−0.451	0.695	+/−0.451	0.500	pCi/g					
Uranium−235	U	0.100	+/−0.156	0.167	+/−0.156	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−2124−BA Project: SCAN00101
Sample ID: 198683010 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−2125−BA	Project:	SCAN00101
Sample ID:	198683011	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		1.02	+/−0.189	0.135	+/−0.189	0.800	pCi/g		MJH1	12/15/07	1050	708124	1
Americium−241	U	0.0203	+/−0.131	0.204	+/−0.131	0.200	pCi/g						
Americium−243	UI	0.164	+/−0.0516	0.0561	+/−0.0516		pCi/g						
Americium−246	U	0.053	+/−0.0684	0.125	+/−0.0684		pCi/g						
Antimony−125	U	0.012	+/−0.0564	0.099	+/−0.0564	0.200	pCi/g						
Bismuth−211	U	−0.716	+/−0.653	0.963	+/−0.653		pCi/g						
Bismuth−212		0.655	+/−0.247	0.241	+/−0.247	0.500	pCi/g						
Bismuth−214		0.455	+/−0.0974	0.0681	+/−0.0974	0.200	pCi/g						
Californium−249	U	0.00936	+/−0.0232	0.0393	+/−0.0232		pCi/g						
Cesium−137		0.145	+/−0.035	0.0353	+/−0.035	0.100	pCi/g						
Cobalt−60	U	0.0166	+/−0.0228	0.041	+/−0.0228	0.100	pCi/g						
Curium−243	U	0.0596	+/−0.0545	0.0907	+/−0.0545		pCi/g						
Europium−155	U	0.0658	+/−0.0602	0.107	+/−0.0602	0.500	pCi/g						
Lead−212		0.896	+/−0.113	0.056	+/−0.113	0.100	pCi/g						
Lead−214		0.545	+/−0.106	0.0661	+/−0.106	0.100	pCi/g						
Neptunium−236	U	0.0601	+/−0.0392	0.0632	+/−0.0392		pCi/g						
Neptunium−237	UI	0.592	+/−0.191	0.213	+/−0.191		pCi/g						
Neptunium−239	U	0.107	+/−0.132	0.234	+/−0.132	2.00	pCi/g						
Polonium−209	U	1.21	+/−3.66	6.47	+/−3.66		pCi/g						
Potassium−40		4.43	+/−0.630	0.325	+/−0.630	1.00	pCi/g						
Protactinium−233	U	−0.00728	+/−0.0365	0.0606	+/−0.0365		pCi/g						
Protactinium−234m	U	0.757	+/−2.90	3.98	+/−2.90		pCi/g						
Radium−223	UI	0.299	+/−0.178	0.171	+/−0.178		pCi/g						
Rhodium−101	U	0.00868	+/−0.0209	0.0346	+/−0.0209		pCi/g						
Thallium−208		0.285	+/−0.0481	0.0314	+/−0.0481	0.080	pCi/g						
Thorium−234		1.43	+/−0.554	0.448	+/−0.554	0.500	pCi/g						
Uranium−235	U	0.116	+/−0.131	0.207	+/−0.131	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−2125−BA Project: SCAN00101
Sample ID: 198683011 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−2126−BA
Sample ID: 198683012
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		0.575	+/−0.196	0.168	+/−0.196	0.800	pCi/g		MJH1	12/15/07	1051	708124	1
Americium−241	U	0.039	+/−0.0352	0.057	+/−0.0352	0.200	pCi/g						
Americium−243	UI	0.096	+/−0.0271	0.0353	+/−0.0271		pCi/g						
Americium−246	U	0.0309	+/−0.101	0.176	+/−0.101		pCi/g						
Antimony−125	U	0.015	+/−0.0709	0.120	+/−0.0709	0.200	pCi/g						
Bismuth−211	U	1.10	+/−0.863	1.42	+/−0.863		pCi/g						
Bismuth−212		0.745	+/−0.309	0.333	+/−0.309	0.500	pCi/g						
Bismuth−214		0.373	+/−0.109	0.103	+/−0.109	0.200	pCi/g						
Californium−249	U	0.0312	+/−0.0301	0.0533	+/−0.0301		pCi/g						
Cesium−137		0.270	+/−0.0594	0.0494	+/−0.0594	0.100	pCi/g						
Cobalt−60	U	0.0182	+/−0.0295	0.0526	+/−0.0295	0.100	pCi/g						
Curium−243	U	0.0401	+/−0.0532	0.0972	+/−0.0532		pCi/g						
Europium−155	U	0.0443	+/−0.0588	0.0995	+/−0.0588	0.500	pCi/g						
Lead−212		0.620	+/−0.0823	0.0651	+/−0.0823	0.100	pCi/g						
Lead−214		0.492	+/−0.102	0.0831	+/−0.102	0.100	pCi/g						
Neptunium−236	U	0.0369	+/−0.0359	0.0591	+/−0.0359		pCi/g						
Neptunium−237	UI	0.317	+/−0.136	0.179	+/−0.136		pCi/g						
Neptunium−239	U	−0.0221	+/−0.157	0.256	+/−0.157	2.00	pCi/g						
Polonium−209	U	4.63	+/−5.60	9.92	+/−5.60		pCi/g						
Potassium−40		5.49	+/−0.844	0.308	+/−0.844	1.00	pCi/g						
Protactinium−233	U	−0.0253	+/−0.0545	0.0777	+/−0.0545		pCi/g						
Protactinium−234m	U	4.16	+/−3.34	6.09	+/−3.34		pCi/g						
Radium−223	UI	0.270	+/−0.191	0.209	+/−0.191		pCi/g						
Rhodium−101	UI	0.0404	+/−0.0368	0.0346	+/−0.0368		pCi/g						
Thallium−208		0.201	+/−0.0503	0.041	+/−0.0503	0.080	pCi/g						
Thorium−234		1.00	+/−0.382	0.417	+/−0.382	0.500	pCi/g						
Uranium−235	U	0.0417	+/−0.147	0.233	+/−0.147	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−2126−BA Project: SCAN00101
Sample ID: 198683012 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−2127−BA
Sample ID: 198683013
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		0.425	+/−0.161	0.127	+/−0.161	0.800	pCi/g		MJH1	12/15/07	1051	708124	1
Americium−241	U	0.0188	+/−0.095	0.151	+/−0.095	0.200	pCi/g						
Americium−243	UI	0.127	+/−0.0425	0.0498	+/−0.0425		pCi/g						
Americium−246	U	0.0035	+/−0.0817	0.140	+/−0.0817		pCi/g						
Antimony−125	U	0.0624	+/−0.0633	0.101	+/−0.0633	0.200	pCi/g						
Bismuth−211	U	−0.197	+/−0.731	1.01	+/−0.731		pCi/g						
Bismuth−212		0.346	+/−0.306	0.269	+/−0.306	0.500	pCi/g						
Bismuth−214		0.526	+/−0.116	0.0754	+/−0.116	0.200	pCi/g						
Californium−249	U	0.0078	+/−0.0261	0.0447	+/−0.0261		pCi/g						
Cesium−137		0.207	+/−0.0448	0.039	+/−0.0448	0.100	pCi/g						
Cobalt−60	U	−0.0176	+/−0.0282	0.0428	+/−0.0282	0.100	pCi/g						
Curium−243	U	0.0265	+/−0.0551	0.0958	+/−0.0551		pCi/g						
Europium−155	U	0.0593	+/−0.0608	0.108	+/−0.0608	0.500	pCi/g						
Lead−212		0.629	+/−0.0732	0.0583	+/−0.0732	0.100	pCi/g						
Lead−214		0.692	+/−0.109	0.0668	+/−0.109	0.100	pCi/g						
Neptunium−236	U	0.00606	+/−0.0356	0.0589	+/−0.0356		pCi/g						
Neptunium−237	UI	0.440	+/−0.140	0.258	+/−0.140		pCi/g						
Neptunium−239	U	0.0371	+/−0.140	0.247	+/−0.140	2.00	pCi/g						
Polonium−209	U	−5.27	+/−4.68	6.77	+/−4.68		pCi/g						
Potassium−40		5.84	+/−0.826	0.281	+/−0.826	1.00	pCi/g						
Protactinium−233	U	0.00725	+/−0.0397	0.0684	+/−0.0397		pCi/g						
Protactinium−234m	U	0.315	+/−3.50	4.76	+/−3.50		pCi/g						
Radium−223	UI	0.242	+/−0.196	0.188	+/−0.196		pCi/g						
Rhodium−101	U	0.0179	+/−0.0202	0.0367	+/−0.0202		pCi/g						
Thallium−208		0.191	+/−0.0442	0.0378	+/−0.0442	0.080	pCi/g						
Thorium−234		1.01	+/−0.415	0.439	+/−0.415	0.500	pCi/g						
Uranium−235	U	0.0109	+/−0.122	0.205	+/−0.122	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−2127−BA Project: SCAN00101
Sample ID: 198683013 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−2128−BA
Sample ID: 198683014
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		0.577	+/−0.154	0.112	+/−0.154	0.800	pCi/g		MJH1	12/15/07	1052	708124	1
Americium−241	U	0.0435	+/−0.0296	0.0778	+/−0.0296	0.200	pCi/g						
Americium−243	UI	0.116	+/−0.029	0.0323	+/−0.029		pCi/g						
Americium−246	U	−0.00302	+/−0.0667	0.113	+/−0.0667		pCi/g						
Antimony−125	U	−0.00682	+/−0.0496	0.0816	+/−0.0496	0.200	pCi/g						
Bismuth−211	U	0.183	+/−0.491	0.850	+/−0.491		pCi/g						
Bismuth−212		0.496	+/−0.244	0.239	+/−0.244	0.500	pCi/g						
Bismuth−214		0.460	+/−0.084	0.0589	+/−0.084	0.200	pCi/g						
Californium−249	U	0.0111	+/−0.0226	0.0361	+/−0.0226		pCi/g						
Cesium−137		0.114	+/−0.0417	0.0312	+/−0.0417	0.100	pCi/g						
Cobalt−60	U	0.0215	+/−0.0441	0.0405	+/−0.0441	0.100	pCi/g						
Curium−243	U	−0.0111	+/−0.0417	0.0696	+/−0.0417		pCi/g						
Europium−155	U	−0.0018	+/−0.0511	0.0796	+/−0.0511	0.500	pCi/g						
Lead−212		0.587	+/−0.0664	0.0449	+/−0.0664	0.100	pCi/g						
Lead−214		0.480	+/−0.0815	0.0624	+/−0.0815	0.100	pCi/g						
Neptunium−236	U	0.0161	+/−0.0266	0.0462	+/−0.0266		pCi/g						
Neptunium−237	UI	0.301	+/−0.111	0.146	+/−0.111		pCi/g						
Neptunium−239	U	0.00395	+/−0.109	0.189	+/−0.109	2.00	pCi/g						
Polonium−209	U	−0.113	+/−3.77	6.23	+/−3.77		pCi/g						
Potassium−40		4.06	+/−0.565	0.265	+/−0.565	1.00	pCi/g						
Protactinium−233	U	−0.00724	+/−0.033	0.0553	+/−0.033		pCi/g						
Protactinium−234m	U	0.0171	+/−2.59	3.67	+/−2.59		pCi/g						
Radium−223	UI	0.195	+/−0.137	0.154	+/−0.137		pCi/g						
Rhodium−101	U	−0.0115	+/−0.0182	0.0282	+/−0.0182		pCi/g						
Thallium−208		0.152	+/−0.0434	0.0321	+/−0.0434	0.080	pCi/g						
Thorium−234		0.740	+/−0.352	0.334	+/−0.352	0.500	pCi/g						
Uranium−235	U	−0.0533	+/−0.111	0.169	+/−0.111	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−2128−BA Project: SCAN00101
Sample ID: 198683014 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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D Results are reported from a diluted aliquot of the sample
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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−2115−BD
Sample ID: 198683015
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		0.860	+/−0.150	0.0796	+/−0.150	0.800	pCi/g		MJH1	12/15/07	1053	708124	1
Americium−241	U	0.00875	+/−0.0466	0.0753	+/−0.0466	0.200	pCi/g						
Americium−243	UI	0.151	+/−0.0255	0.0282	+/−0.0255		pCi/g						
Americium−246	U	0.00345	+/−0.0524	0.0902	+/−0.0524		pCi/g						
Antimony−125	U	0.0193	+/−0.0369	0.0675	+/−0.0369	0.200	pCi/g						
Bismuth−211	U	−0.298	+/−0.411	0.678	+/−0.411		pCi/g						
Bismuth−212		0.542	+/−0.202	0.183	+/−0.202	0.500	pCi/g						
Bismuth−214		0.535	+/−0.0779	0.0464	+/−0.0779	0.200	pCi/g						
Californium−249	U	−0.000718	+/−0.017	0.0268	+/−0.017		pCi/g						
Cesium−137		0.0457	+/−0.020	0.0275	+/−0.020	0.100	pCi/g						
Cobalt−60	U	0.00897	+/−0.0151	0.0272	+/−0.0151	0.100	pCi/g						
Curium−243	UI	0.0551	+/−0.0376	0.0542	+/−0.0376		pCi/g						
Europium−155	UI	0.0606	+/−0.0472	0.0598	+/−0.0472	0.500	pCi/g						
Lead−212		0.829	+/−0.0678	0.039	+/−0.0678	0.100	pCi/g						
Lead−214		0.545	+/−0.0695	0.0452	+/−0.0695	0.100	pCi/g						
Neptunium−236	U	0.0329	+/−0.0251	0.0398	+/−0.0251		pCi/g						
Neptunium−237	UI	0.489	+/−0.122	0.131	+/−0.122		pCi/g						
Neptunium−239	U	−0.0126	+/−0.0953	0.147	+/−0.0953	2.00	pCi/g						
Polonium−209	U	0.668	+/−3.24	5.17	+/−3.24		pCi/g						
Potassium−40		5.77	+/−0.640	0.200	+/−0.640	1.00	pCi/g						
Protactinium−233	U	−0.00356	+/−0.0254	0.0428	+/−0.0254		pCi/g						
Protactinium−234m	UI	2.76	+/−2.65	2.70	+/−2.65		pCi/g						
Radium−223	UI	0.267	+/−0.139	0.112	+/−0.139		pCi/g						
Rhodium−101	U	0.00664	+/−0.0163	0.0218	+/−0.0163		pCi/g						
Thallium−208		0.247	+/−0.0369	0.0235	+/−0.0369	0.080	pCi/g						
Thorium−234		1.07	+/−0.286	0.289	+/−0.286	0.500	pCi/g						
Uranium−235	U	0.0199	+/−0.109	0.129	+/−0.109	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−2115−BD Project: SCAN00101
Sample ID: 198683015 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−2116−BD
Sample ID: 198683016
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		0.837	+/−0.215	0.171	+/−0.215	0.800	pCi/g		MJH1	12/15/07	1053	708124	1
Americium−241	U	0.00274	+/−0.0347	0.0536	+/−0.0347	0.200	pCi/g						
Americium−243	UI	0.140	+/−0.0256	0.0318	+/−0.0256		pCi/g						
Americium−246	U	−0.00279	+/−0.102	0.172	+/−0.102		pCi/g						
Antimony−125	U	0.0141	+/−0.0681	0.116	+/−0.0681	0.200	pCi/g						
Bismuth−211	U	0.119	+/−0.849	1.42	+/−0.849		pCi/g						
Bismuth−212		0.561	+/−0.362	0.365	+/−0.362	0.500	pCi/g						
Bismuth−214		0.445	+/−0.125	0.0885	+/−0.125	0.200	pCi/g						
Californium−249	U	−0.00504	+/−0.0289	0.0486	+/−0.0289		pCi/g						
Cesium−137	U	0.0405	+/−0.0372	0.0472	+/−0.0372	0.100	pCi/g						
Cobalt−60	U	−0.0116	+/−0.0305	0.0493	+/−0.0305	0.100	pCi/g						
Curium−243	UI	0.0879	+/−0.0633	0.082	+/−0.0633		pCi/g						
Europium−155	UI	0.0972	+/−0.070	0.0936	+/−0.070	0.500	pCi/g						
Lead−212		0.801	+/−0.0851	0.0615	+/−0.0851	0.100	pCi/g						
Lead−214		0.496	+/−0.096	0.082	+/−0.096	0.100	pCi/g						
Neptunium−236	U	0.0191	+/−0.0424	0.0519	+/−0.0424		pCi/g						
Neptunium−237	UI	0.361	+/−0.118	0.190	+/−0.118		pCi/g						
Neptunium−239	U	0.0908	+/−0.142	0.241	+/−0.142	2.00	pCi/g						
Polonium−209	U	4.50	+/−6.20	10.7	+/−6.20		pCi/g						
Potassium−40		4.08	+/−0.605	0.386	+/−0.605	1.00	pCi/g						
Protactinium−233	U	−0.0132	+/−0.0418	0.0712	+/−0.0418		pCi/g						
Protactinium−234m	U	1.73	+/−7.16	5.85	+/−7.16		pCi/g						
Radium−223	U	0.174	+/−0.213	0.189	+/−0.213		pCi/g						
Rhodium−101	U	−0.0101	+/−0.0233	0.0357	+/−0.0233		pCi/g						
Thallium−208		0.253	+/−0.0576	0.0461	+/−0.0576	0.080	pCi/g						
Thorium−234		1.00	+/−0.482	0.406	+/−0.482	0.500	pCi/g						
Uranium−235	U	0.0983	+/−0.181	0.193	+/−0.181	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−2116−BD Project: SCAN00101
Sample ID: 198683016 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−2117−BD
Sample ID: 198683017
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		1.38	+/−0.214	0.131	+/−0.214	0.800	pCi/g		MJH1	12/15/07	1054	708124	1
Americium−241	U	0.0227	+/−0.0782	0.123	+/−0.0782	0.200	pCi/g						
Americium−243	UI	0.273	+/−0.0446	0.0468	+/−0.0446		pCi/g						
Americium−246	U	0.024	+/−0.079	0.136	+/−0.079		pCi/g						
Antimony−125	U	0.0315	+/−0.0541	0.0949	+/−0.0541	0.200	pCi/g						
Bismuth−211	U	0.234	+/−0.690	1.05	+/−0.690		pCi/g						
Bismuth−212		0.822	+/−0.294	0.277	+/−0.294	0.500	pCi/g						
Bismuth−214		0.925	+/−0.119	0.0635	+/−0.119	0.200	pCi/g						
Californium−249	U	0.005	+/−0.0236	0.0409	+/−0.0236		pCi/g						
Cesium−137	U	−0.000969	+/−0.0216	0.0358	+/−0.0216	0.100	pCi/g						
Cobalt−60	U	0.00334	+/−0.0228	0.0385	+/−0.0228	0.100	pCi/g						
Curium−243	U	3.93E−05	+/−0.0544	0.0941	+/−0.0544		pCi/g						
Europium−155	U	0.029	+/−0.0601	0.105	+/−0.0601	0.500	pCi/g						
Lead−212		1.30	+/−0.0976	0.0557	+/−0.0976	0.100	pCi/g						
Lead−214		1.03	+/−0.108	0.0647	+/−0.108	0.100	pCi/g						
Neptunium−236	U	0.00854	+/−0.0392	0.0586	+/−0.0392		pCi/g						
Neptunium−237	UI	0.642	+/−0.159	0.193	+/−0.159		pCi/g						
Neptunium−239	U	−0.071	+/−0.130	0.212	+/−0.130	2.00	pCi/g						
Polonium−209	U	−0.914	+/−4.25	7.12	+/−4.25		pCi/g						
Potassium−40		7.19	+/−0.762	0.380	+/−0.762	1.00	pCi/g						
Protactinium−233	U	0.0418	+/−0.035	0.0638	+/−0.035		pCi/g						
Protactinium−234m	U	0.289	+/−2.66	4.07	+/−2.66		pCi/g						
Radium−223	UI	0.581	+/−0.168	0.135	+/−0.168		pCi/g						
Rhodium−101	U	0.00434	+/−0.0216	0.0349	+/−0.0216		pCi/g						
Thallium−208		0.409	+/−0.0549	0.0344	+/−0.0549	0.080	pCi/g						
Thorium−234		1.60	+/−0.406	0.424	+/−0.406	0.500	pCi/g						
Uranium−235	UI	0.272	+/−0.180	0.191	+/−0.180	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−2117−BD Project: SCAN00101
Sample ID: 198683017 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.
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J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
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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
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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−2118−BD
Sample ID: 198683018
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		1.11	+/−0.200	0.134	+/−0.200	0.800	pCi/g		MJH1	12/15/07 1055	708124	1
Americium−241	U	0.0172	+/−0.0301	0.0514	+/−0.0301	0.200	pCi/g					
Americium−243	UI	0.183	+/−0.0256	0.0302	+/−0.0256		pCi/g					
Americium−246	U	−0.026	+/−0.0891	0.145	+/−0.0891		pCi/g					
Antimony−125	U	0.0131	+/−0.0558	0.098	+/−0.0558	0.200	pCi/g					
Bismuth−211	U	0.476	+/−0.761	0.844	+/−0.761		pCi/g					
Bismuth−212		0.814	+/−0.305	0.288	+/−0.305	0.500	pCi/g					
Bismuth−214		0.623	+/−0.118	0.0802	+/−0.118	0.200	pCi/g					
Californium−249	U	0.0184	+/−0.0254	0.046	+/−0.0254		pCi/g					
Cesium−137		0.0557	+/−0.0528	0.040	+/−0.0528	0.100	pCi/g					
Cobalt−60	U	−0.00788	+/−0.025	0.0402	+/−0.025	0.100	pCi/g					
Curium−243	U	0.0717	+/−0.0668	0.0737	+/−0.0668		pCi/g					
Europium−155	U	0.0793	+/−0.0738	0.0906	+/−0.0738	0.500	pCi/g					
Lead−212		1.02	+/−0.104	0.0545	+/−0.104	0.100	pCi/g					
Lead−214		0.663	+/−0.0902	0.0658	+/−0.0902	0.100	pCi/g					
Neptunium−236	UI	0.0517	+/−0.0401	0.0444	+/−0.0401		pCi/g					
Neptunium−237	UI	0.493	+/−0.124	0.147	+/−0.124		pCi/g					
Neptunium−239	U	0.0801	+/−0.122	0.213	+/−0.122	2.00	pCi/g					
Polonium−209	U	−3.64	+/−5.12	8.24	+/−5.12		pCi/g					
Potassium−40		4.33	+/−0.664	0.319	+/−0.664	1.00	pCi/g					
Protactinium−233	U	−0.00481	+/−0.0351	0.0619	+/−0.0351		pCi/g					
Protactinium−234m	U	2.03	+/−3.81	4.58	+/−3.81		pCi/g					
Radium−223	UI	0.178	+/−0.159	0.170	+/−0.159		pCi/g					
Rhodium−101	U	−0.0119	+/−0.0203	0.0318	+/−0.0203		pCi/g					
Thallium−208		0.363	+/−0.057	0.040	+/−0.057	0.080	pCi/g					
Thorium−234		1.30	+/−0.320	0.366	+/−0.320	0.500	pCi/g					
Uranium−235	U	0.0237	+/−0.144	0.187	+/−0.144	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−2118−BD Project: SCAN00101
Sample ID: 198683018 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−2119−BD
Sample ID: 198683019
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		0.798	+/−0.167	0.123	+/−0.167	0.800	pCi/g		MJH1	12/15/07 1055	708124	1
Americium−241	U	0.00837	+/−0.0773	0.126	+/−0.0773	0.200	pCi/g					
Americium−243	UI	0.145	+/−0.0405	0.0445	+/−0.0405		pCi/g					
Americium−246	U	0.0301	+/−0.0652	0.117	+/−0.0652		pCi/g					
Antimony−125	U	0.0184	+/−0.0466	0.0837	+/−0.0466	0.200	pCi/g					
Bismuth−211	U	0.365	+/−0.320	0.916	+/−0.320		pCi/g					
Bismuth−212		0.489	+/−0.246	0.248	+/−0.246	0.500	pCi/g					
Bismuth−214		0.705	+/−0.102	0.060	+/−0.102	0.200	pCi/g					
Californium−249	U	0.00855	+/−0.0202	0.0365	+/−0.0202		pCi/g					
Cesium−137		0.0381	+/−0.0242	0.0367	+/−0.0242	0.100	pCi/g					
Cobalt−60	U	0.0256	+/−0.0217	0.0404	+/−0.0217	0.100	pCi/g					
Curium−243	U	0.0445	+/−0.0521	0.0884	+/−0.0521		pCi/g					
Europium−155	U	0.0492	+/−0.0575	0.094	+/−0.0575	0.500	pCi/g					
Lead−212		0.739	+/−0.0738	0.0524	+/−0.0738	0.100	pCi/g					
Lead−214		0.794	+/−0.0917	0.0605	+/−0.0917	0.100	pCi/g					
Neptunium−236	U	0.0105	+/−0.0331	0.0556	+/−0.0331		pCi/g					
Neptunium−237	UI	0.403	+/−0.151	0.203	+/−0.151		pCi/g					
Neptunium−239	U	−0.0357	+/−0.114	0.195	+/−0.114	2.00	pCi/g					
Polonium−209	U	−0.556	+/−3.59	5.91	+/−3.59		pCi/g					
Potassium−40		5.92	+/−0.658	0.275	+/−0.658	1.00	pCi/g					
Protactinium−233	U	−0.00782	+/−0.034	0.0569	+/−0.034		pCi/g					
Protactinium−234m	U	−0.292	+/−2.43	3.92	+/−2.43		pCi/g					
Radium−223	UI	0.258	+/−0.175	0.161	+/−0.175		pCi/g					
Rhodium−101	U	−0.00558	+/−0.0186	0.0302	+/−0.0186		pCi/g					
Thallium−208		0.253	+/−0.0444	0.0316	+/−0.0444	0.080	pCi/g					
Thorium−234		0.924	+/−0.383	0.404	+/−0.383	0.500	pCi/g					
Uranium−235	U	−0.0589	+/−0.108	0.178	+/−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−2119−BD Project: SCAN00101
Sample ID: 198683019 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−2120−BD
Sample ID: 198683020
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		1.37	+/−0.218	0.114	+/−0.218	0.800	pCi/g		MJH1	12/15/07	1056	708124	1
Americium−241	U	0.106	+/−0.097	0.108	+/−0.097	0.200	pCi/g						
Americium−243	UI	0.253	+/−0.0457	0.0443	+/−0.0457		pCi/g						
Americium−246	U	0.00697	+/−0.0793	0.132	+/−0.0793		pCi/g						
Antimony−125	U	0.015	+/−0.0584	0.0844	+/−0.0584	0.200	pCi/g						
Bismuth−211	UI	0.879	+/−0.534	0.643	+/−0.534		pCi/g						
Bismuth−212		1.02	+/−0.273	0.247	+/−0.273	0.500	pCi/g						
Bismuth−214		0.700	+/−0.105	0.0729	+/−0.105	0.200	pCi/g						
Californium−249	U	0.00647	+/−0.0267	0.0396	+/−0.0267		pCi/g						
Cesium−137	U	0.0333	+/−0.0245	0.0364	+/−0.0245	0.100	pCi/g						
Cobalt−60	U	0.018	+/−0.0218	0.0387	+/−0.0218	0.100	pCi/g						
Curium−243	UI	0.113	+/−0.0689	0.0859	+/−0.0689		pCi/g						
Europium−155	UI	0.125	+/−0.0761	0.104	+/−0.0761	0.500	pCi/g						
Lead−212		1.49	+/−0.114	0.0556	+/−0.114	0.100	pCi/g						
Lead−214		0.812	+/−0.100	0.0643	+/−0.100	0.100	pCi/g						
Neptunium−236	UI	0.0623	+/−0.0469	0.054	+/−0.0469		pCi/g						
Neptunium−237	UI	0.720	+/−0.194	0.196	+/−0.194		pCi/g						
Neptunium−239	U	−0.0428	+/−0.130	0.219	+/−0.130	2.00	pCi/g						
Polonium−209	UI	7.89	+/−7.07	5.88	+/−7.07		pCi/g						
Potassium−40		7.55	+/−0.906	0.263	+/−0.906	1.00	pCi/g						
Protactinium−233	U	−0.0221	+/−0.0371	0.0607	+/−0.0371		pCi/g						
Protactinium−234m	U	2.20	+/−3.63	3.39	+/−3.63		pCi/g						
Radium−223	UI	0.490	+/−0.184	0.176	+/−0.184		pCi/g						
Rhodium−101	U	0.000947	+/−0.0212	0.035	+/−0.0212		pCi/g						
Thallium−208		0.454	+/−0.0586	0.0328	+/−0.0586	0.080	pCi/g						
Thorium−234		1.40	+/−0.417	0.432	+/−0.417	0.500	pCi/g						
Uranium−235	U	0.0589	+/−0.166	0.188	+/−0.166	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−2120−BD Project: SCAN00101
Sample ID: 198683020 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−2121−BD	Project:	SCAN00101
Sample ID:	198683021	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		1.70	+/−0.302	0.202	+/−0.302	0.800	pCi/g		MJH1	12/15/07	1057	708124	1
Americium−241	U	0.0522	+/−0.0426	0.0666	+/−0.0426	0.200	pCi/g						
Americium−243	UI	0.326	+/−0.0465	0.0373	+/−0.0465		pCi/g						
Americium−246	U	−0.0366	+/−0.119	0.193	+/−0.119		pCi/g						
Antimony−125	U	−0.000723	+/−0.0797	0.134	+/−0.0797	0.200	pCi/g						
Bismuth−211	U	−0.453	+/−0.943	1.54	+/−0.943		pCi/g						
Bismuth−212		1.08	+/−0.402	0.479	+/−0.402	0.500	pCi/g						
Bismuth−214		1.02	+/−0.168	0.0952	+/−0.168	0.200	pCi/g						
Californium−249	U	−0.0103	+/−0.032	0.0531	+/−0.032		pCi/g						
Cesium−137	U	0.0258	+/−0.0377	0.0585	+/−0.0377	0.100	pCi/g						
Cobalt−60	U	−0.00439	+/−0.0383	0.0629	+/−0.0383	0.100	pCi/g						
Curium−243	U	0.0904	+/−0.0809	0.092	+/−0.0809		pCi/g						
Europium−155	U	0.0999	+/−0.0894	0.108	+/−0.0894	0.500	pCi/g						
Lead−212		1.60	+/−0.133	0.0729	+/−0.133	0.100	pCi/g						
Lead−214		1.10	+/−0.126	0.0956	+/−0.126	0.100	pCi/g						
Neptunium−236	UI	0.0627	+/−0.0471	0.0591	+/−0.0471		pCi/g						
Neptunium−237	UI	0.801	+/−0.165	0.187	+/−0.165		pCi/g						
Neptunium−239	U	−0.0208	+/−0.167	0.287	+/−0.167	2.00	pCi/g						
Polonium−209	U	0.964	+/−6.86	11.7	+/−6.86		pCi/g						
Potassium−40		8.78	+/−1.08	0.523	+/−1.08	1.00	pCi/g						
Protactinium−233	U	−0.0111	+/−0.0501	0.0845	+/−0.0501		pCi/g						
Protactinium−234m	U	−1.0	+/−4.04	6.62	+/−4.04		pCi/g						
Radium−223	UI	0.354	+/−0.203	0.223	+/−0.203		pCi/g						
Rhodium−101	U	−0.00221	+/−0.0256	0.0419	+/−0.0256		pCi/g						
Thallium−208		0.582	+/−0.0903	0.0512	+/−0.0903	0.080	pCi/g						
Thorium−234		1.76	+/−0.410	0.456	+/−0.410	0.500	pCi/g						
Uranium−235	U	0.0128	+/−0.141	0.235	+/−0.141	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−2121−BD Project: SCAN00101
Sample ID: 198683021 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−2122−BD
Sample ID: 198683022
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		0.928	+/−0.176	0.0903	+/−0.176	0.800	pCi/g		MJH1	12/15/07	1058	708124	1
Americium−241	U	0.0291	+/−0.0628	0.0985	+/−0.0628	0.200	pCi/g						
Americium−243	UI	0.171	+/−0.0347	0.0373	+/−0.0347		pCi/g						
Americium−246	U	−0.00113	+/−0.0655	0.0934	+/−0.0655		pCi/g						
Antimony−125	U	0.00503	+/−0.0425	0.0723	+/−0.0425	0.200	pCi/g						
Bismuth−211	U	0.276	+/−0.425	0.632	+/−0.425		pCi/g						
Bismuth−212		0.713	+/−0.171	0.202	+/−0.171	0.500	pCi/g						
Bismuth−214		0.817	+/−0.0987	0.0529	+/−0.0987	0.200	pCi/g						
Californium−249	U	0.0112	+/−0.0186	0.0325	+/−0.0186		pCi/g						
Cesium−137		0.064	+/−0.0239	0.0283	+/−0.0239	0.100	pCi/g						
Cobalt−60	U	0.00829	+/−0.0189	0.0273	+/−0.0189	0.100	pCi/g						
Curium−243	U	0.0451	+/−0.0502	0.0716	+/−0.0502		pCi/g						
Europium−155	U	0.0498	+/−0.0554	0.0859	+/−0.0554	0.500	pCi/g						
Lead−212		0.850	+/−0.0706	0.0454	+/−0.0706	0.100	pCi/g						
Lead−214		0.935	+/−0.0881	0.0512	+/−0.0881	0.100	pCi/g						
Neptunium−236	U	0.0257	+/−0.0327	0.0435	+/−0.0327		pCi/g						
Neptunium−237	UI	0.559	+/−0.145	0.157	+/−0.145		pCi/g						
Neptunium−239	U	−0.0206	+/−0.119	0.185	+/−0.119	2.00	pCi/g						
Polonium−209	U	−0.327	+/−3.13	5.33	+/−3.13		pCi/g						
Potassium−40		4.88	+/−0.524	0.231	+/−0.524	1.00	pCi/g						
Protactinium−233	U	0.0219	+/−0.0279	0.0499	+/−0.0279		pCi/g						
Protactinium−234m	U	2.35	+/−2.59	3.69	+/−2.59		pCi/g						
Radium−223	UI	0.242	+/−0.115	0.140	+/−0.115		pCi/g						
Rhodium−101	U	0.016	+/−0.0231	0.0285	+/−0.0231		pCi/g						
Thallium−208		0.261	+/−0.0387	0.025	+/−0.0387	0.080	pCi/g						
Thorium−234		1.09	+/−0.349	0.345	+/−0.349	0.500	pCi/g						
Uranium−235	U	0.0864	+/−0.132	0.161	+/−0.132	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−2122−BD Project: SCAN00101
Sample ID: 198683022 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−2123−BD
Sample ID: 198683023
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		1.09	+/−0.202	0.125	+/−0.202	0.800	pCi/g		MJH1	12/15/07 1058	708124	1
Americium−241	U	−0.0216	+/−0.0839	0.144	+/−0.0839	0.200	pCi/g					
Americium−243	UI	0.380	+/−0.0804	0.0462	+/−0.0804		pCi/g					
Americium−246	U	0.0774	+/−0.0672	0.127	+/−0.0672		pCi/g					
Antimony−125	U	−0.0168	+/−0.0545	0.0925	+/−0.0545	0.200	pCi/g					
Bismuth−211	U	0.717	+/−0.692	1.12	+/−0.692		pCi/g					
Bismuth−212		0.696	+/−0.235	0.278	+/−0.235	0.500	pCi/g					
Bismuth−214		0.866	+/−0.108	0.0676	+/−0.108	0.200	pCi/g					
Californium−249	U	0.0272	+/−0.0235	0.0432	+/−0.0235		pCi/g					
Cesium−137		0.138	+/−0.037	0.036	+/−0.037	0.100	pCi/g					
Cobalt−60	U	−0.0114	+/−0.0192	0.0307	+/−0.0192	0.100	pCi/g					
Curium−243	U	0.0547	+/−0.0617	0.0785	+/−0.0617		pCi/g					
Europium−155	U	0.0605	+/−0.0682	0.0897	+/−0.0682	0.500	pCi/g					
Lead−212		0.988	+/−0.0824	0.0556	+/−0.0824	0.100	pCi/g					
Lead−214		0.902	+/−0.104	0.0704	+/−0.104	0.100	pCi/g					
Neptunium−236	U	0.0277	+/−0.0307	0.0559	+/−0.0307		pCi/g					
Neptunium−237	UI	0.639	+/−0.149	0.181	+/−0.149		pCi/g					
Neptunium−239	U	0.00771	+/−0.119	0.205	+/−0.119	2.00	pCi/g					
Polonium−209	U	−1.81	+/−5.05	7.01	+/−5.05		pCi/g					
Potassium−40		3.39	+/−0.560	0.327	+/−0.560	1.00	pCi/g					
Protactinium−233	U	−0.00758	+/−0.034	0.060	+/−0.034		pCi/g					
Protactinium−234m	U	0.0329	+/−3.06	3.58	+/−3.06		pCi/g					
Radium−223	UI	0.245	+/−0.131	0.161	+/−0.131		pCi/g					
Rhodium−101	U	0.0121	+/−0.0201	0.0325	+/−0.0201		pCi/g					
Thallium−208		0.301	+/−0.0454	0.0335	+/−0.0454	0.080	pCi/g					
Thorium−234	UI	1.11	+/−0.398	0.569	+/−0.398	0.500	pCi/g					
Uranium−235	U	0.0705	+/−0.129	0.174	+/−0.129	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−2123−BD Project: SCAN00101
Sample ID: 198683023 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 Report Date: December 17, 2007
Contact: Cindy White
Project: SC&A (GELP07−0971)

Client Sample ID:	SB−CZ−SS−2124−BD	Project:	SCAN00101
Sample ID:	198683024	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		1.33	+/−0.316	0.148	+/−0.316	0.800	pCi/g		MJH1	12/15/07	1231	708124	1
Americium−241	U	0.00963	+/−0.126	0.192	+/−0.126	0.200	pCi/g						
Americium−243	UI	0.204	+/−0.0607	0.0708	+/−0.0607		pCi/g						
Americium−246	U	−0.0535	+/−0.0898	0.143	+/−0.0898		pCi/g						
Antimony−125	U	−0.006	+/−0.0766	0.126	+/−0.0766	0.200	pCi/g						
Bismuth−211	U	−0.348	+/−0.740	1.17	+/−0.740		pCi/g						
Bismuth−212		0.931	+/−0.329	0.361	+/−0.329	0.500	pCi/g						
Bismuth−214		0.706	+/−0.145	0.096	+/−0.145	0.200	pCi/g						
Californium−249	U	0.0141	+/−0.0317	0.0545	+/−0.0317		pCi/g						
Cesium−137		0.0776	+/−0.0605	0.0481	+/−0.0605	0.100	pCi/g						
Cobalt−60	U	0.0275	+/−0.0331	0.0552	+/−0.0331	0.100	pCi/g						
Curium−243	U	−0.0211	+/−0.090	0.131	+/−0.090		pCi/g						
Europium−155	U	0.026	+/−0.0816	0.147	+/−0.0816	0.500	pCi/g						
Lead−212		1.22	+/−0.118	0.0746	+/−0.118	0.100	pCi/g						
Lead−214		0.834	+/−0.107	0.0873	+/−0.107	0.100	pCi/g						
Neptunium−236	U	0.0632	+/−0.059	0.0697	+/−0.059		pCi/g						
Neptunium−237	UI	0.534	+/−0.225	0.368	+/−0.225		pCi/g						
Neptunium−239	U	−0.117	+/−0.176	0.293	+/−0.176	2.00	pCi/g						
Polonium−209	U	1.36	+/−5.48	8.57	+/−5.48		pCi/g						
Potassium−40		4.26	+/−0.719	0.494	+/−0.719	1.00	pCi/g						
Protactinium−233	U	−0.0257	+/−0.0494	0.0806	+/−0.0494		pCi/g						
Protactinium−234m	U	1.53	+/−3.46	5.64	+/−3.46		pCi/g						
Radium−223	UI	0.398	+/−0.235	0.224	+/−0.235		pCi/g						
Rhodium−101	U	−0.0086	+/−0.0262	0.0441	+/−0.0262		pCi/g						
Thallium−208		0.390	+/−0.0604	0.0461	+/−0.0604	0.080	pCi/g						
Thorium−234		1.23	+/−0.571	0.657	+/−0.571	0.500	pCi/g						
Uranium−235	U	0.0624	+/−0.186	0.268	+/−0.186	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−2124−BD Project: SCAN00101
Sample ID: 198683024 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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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−2125−BD
Sample ID: 198683025
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		1.34	+/−0.260	0.201	+/−0.260	0.800	pCi/g		MJH1	12/15/07	1231	708124	1
Americium−241	U	0.00486	+/−0.107	0.153	+/−0.107	0.200	pCi/g						
Americium−243	UI	0.210	+/−0.062	0.0583	+/−0.062		pCi/g						
Americium−246	U	0.135	+/−0.122	0.173	+/−0.122		pCi/g						
Antimony−125	U	0.0297	+/−0.077	0.132	+/−0.077	0.200	pCi/g						
Bismuth−211	U	0.316	+/−0.856	1.50	+/−0.856		pCi/g						
Bismuth−212		0.691	+/−0.514	0.361	+/−0.514	0.500	pCi/g						
Bismuth−214		0.595	+/−0.149	0.0832	+/−0.149	0.200	pCi/g						
Californium−249	U	0.00329	+/−0.0329	0.0556	+/−0.0329		pCi/g						
Cesium−137	U	0.0375	+/−0.0422	0.0494	+/−0.0422	0.100	pCi/g						
Cobalt−60	U	0.00728	+/−0.0317	0.0539	+/−0.0317	0.100	pCi/g						
Curium−243	U	−0.0666	+/−0.0735	0.117	+/−0.0735		pCi/g						
Europium−155	U	0.0195	+/−0.0797	0.134	+/−0.0797	0.500	pCi/g						
Lead−212		1.11	+/−0.113	0.0708	+/−0.113	0.100	pCi/g						
Lead−214		0.637	+/−0.112	0.0962	+/−0.112	0.100	pCi/g						
Neptunium−236	U	0.0495	+/−0.0489	0.0753	+/−0.0489		pCi/g						
Neptunium−237	UI	0.612	+/−0.264	0.244	+/−0.264		pCi/g						
Neptunium−239	U	−0.0653	+/−0.172	0.289	+/−0.172	2.00	pCi/g						
Polonium−209	U	1.95	+/−5.75	10.1	+/−5.75		pCi/g						
Potassium−40		5.67	+/−0.893	0.486	+/−0.893	1.00	pCi/g						
Protactinium−233	UI	0.0856	+/−0.0671	0.0794	+/−0.0671		pCi/g						
Protactinium−234m	U	0.172	+/−4.27	6.07	+/−4.27		pCi/g						
Radium−223	UI	0.373	+/−0.265	0.239	+/−0.265		pCi/g						
Rhodium−101	U	0.027	+/−0.026	0.0467	+/−0.026		pCi/g						
Thallium−208		0.338	+/−0.0695	0.0465	+/−0.0695	0.080	pCi/g						
Thorium−234		1.57	+/−0.618	0.538	+/−0.618	0.500	pCi/g						
Uranium−235	U	0.0411	+/−0.167	0.265	+/−0.167	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−2125−BD Project: SCAN00101
Sample ID: 198683025 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−2126−BD
Sample ID: 198683026
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	UI	0.348	+/−0.115	0.195	+/−0.115	0.800	pCi/g		MJH1	12/16/07	1208	708124	1
Americium−241	U	−0.0506	+/−0.0774	0.114	+/−0.0774	0.200	pCi/g						
Americium−243	UI	0.121	+/−0.0417	0.0398	+/−0.0417		pCi/g						
Americium−246	U	0.0187	+/−0.0582	0.101	+/−0.0582		pCi/g						
Antimony−125	U	−0.0307	+/−0.0482	0.0787	+/−0.0482	0.200	pCi/g						
Bismuth−211	U	−0.0333	+/−0.467	0.792	+/−0.467		pCi/g						
Bismuth−212		0.436	+/−0.268	0.216	+/−0.268	0.500	pCi/g						
Bismuth−214		0.225	+/−0.0644	0.0586	+/−0.0644	0.200	pCi/g						
Californium−249	U	0.00698	+/−0.0199	0.0347	+/−0.0199		pCi/g						
Cesium−137		0.0696	+/−0.021	0.0315	+/−0.021	0.100	pCi/g						
Cobalt−60	U	−0.00682	+/−0.0202	0.0324	+/−0.0202	0.100	pCi/g						
Curium−243	U	−0.02	+/−0.0426	0.0765	+/−0.0426		pCi/g						
Europium−155	U	0.0145	+/−0.0471	0.087	+/−0.0471	0.500	pCi/g						
Lead−212		0.394	+/−0.052	0.0471	+/−0.052	0.100	pCi/g						
Lead−214		0.266	+/−0.0682	0.0584	+/−0.0682	0.100	pCi/g						
Neptunium−236	U	0.0386	+/−0.0299	0.0506	+/−0.0299		pCi/g						
Neptunium−237	UI	0.244	+/−0.123	0.193	+/−0.123		pCi/g						
Neptunium−239	U	0.0273	+/−0.107	0.190	+/−0.107	2.00	pCi/g						
Polonium−209	U	2.68	+/−3.34	6.10	+/−3.34		pCi/g						
Potassium−40		3.99	+/−0.549	0.271	+/−0.549	1.00	pCi/g						
Protactinium−233	U	−0.0237	+/−0.0319	0.0531	+/−0.0319		pCi/g						
Protactinium−234m	U	−3.02	+/−2.45	3.19	+/−2.45		pCi/g						
Radium−223	UI	0.201	+/−0.140	0.147	+/−0.140		pCi/g						
Rhodium−101	U	−0.0104	+/−0.0204	0.029	+/−0.0204		pCi/g						
Thallium−208		0.119	+/−0.0306	0.030	+/−0.0306	0.080	pCi/g						
Thorium−234		0.492	+/−0.400	0.400	+/−0.400	0.500	pCi/g						
Uranium−235	U	0.00532	+/−0.0932	0.168	+/−0.0932	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−2126−BD Project: SCAN00101
Sample ID: 198683026 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−2127−BD
Sample ID: 198683027
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		0.764	+/−0.213	0.140	+/−0.213	0.800	pCi/g		MJH1	12/16/07	1222	708126	1
Americium−241	U	0.0252	+/−0.103	0.163	+/−0.103	0.200	pCi/g						
Americium−243	UI	0.132	+/−0.0426	0.0512	+/−0.0426		pCi/g						
Americium−246	U	0.0285	+/−0.0877	0.154	+/−0.0877		pCi/g						
Antimony−125	U	−0.0288	+/−0.059	0.0947	+/−0.059	0.200	pCi/g						
Bismuth−211	U	−0.25	+/−0.622	0.993	+/−0.622		pCi/g						
Bismuth−212	UI	0.567	+/−0.252	0.287	+/−0.252	0.500	pCi/g						
Bismuth−214		0.512	+/−0.101	0.0723	+/−0.101	0.200	pCi/g						
Californium−249	U	0.00893	+/−0.0256	0.0439	+/−0.0256		pCi/g						
Cesium−137		0.0766	+/−0.0338	0.0365	+/−0.0338	0.100	pCi/g						
Cobalt−60	U	−0.00585	+/−0.0282	0.0467	+/−0.0282	0.100	pCi/g						
Curium−243	U	0.0202	+/−0.0565	0.0974	+/−0.0565		pCi/g						
Europium−155	U	0.0395	+/−0.0635	0.111	+/−0.0635	0.500	pCi/g						
Lead−212		0.625	+/−0.0741	0.0616	+/−0.0741	0.100	pCi/g						
Lead−214		0.607	+/−0.110	0.0691	+/−0.110	0.100	pCi/g						
Neptunium−236	U	0.0217	+/−0.0343	0.060	+/−0.0343		pCi/g						
Neptunium−237	UI	0.419	+/−0.185	0.217	+/−0.185		pCi/g						
Neptunium−239	U	0.181	+/−0.134	0.247	+/−0.134	2.00	pCi/g						
Polonium−209	U	3.30	+/−4.44	7.90	+/−4.44		pCi/g						
Potassium−40		5.83	+/−0.760	0.283	+/−0.760	1.00	pCi/g						
Protactinium−233	U	−0.00418	+/−0.0386	0.0653	+/−0.0386		pCi/g						
Protactinium−234m	U	−0.916	+/−2.82	4.45	+/−2.82		pCi/g						
Radium−223	UI	0.191	+/−0.126	0.190	+/−0.126		pCi/g						
Rhodium−101	U	0.00869	+/−0.0232	0.0375	+/−0.0232		pCi/g						
Thallium−208		0.201	+/−0.0442	0.0358	+/−0.0442	0.080	pCi/g						
Thorium−234		0.522	+/−0.471	0.502	+/−0.471	0.500	pCi/g						
Uranium−235	U	−0.0263	+/−0.139	0.212	+/−0.139	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−2127−BD Project: SCAN00101
Sample ID: 198683027 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−2128−BD
Sample ID: 198683028
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		0.722	+/−0.159	0.118	+/−0.159	0.800	pCi/g		MJH1	12/16/07	1222	708126	1
Americium−241	U	0.0626	+/−0.0476	0.080	+/−0.0476	0.200	pCi/g						
Americium−243	UI	0.122	+/−0.0303	0.0321	+/−0.0303		pCi/g						
Americium−246	U	0.00407	+/−0.0629	0.109	+/−0.0629		pCi/g						
Antimony−125	U	0.0282	+/−0.0457	0.0799	+/−0.0457	0.200	pCi/g						
Bismuth−211	U	−0.286	+/−0.560	0.896	+/−0.560		pCi/g						
Bismuth−212		0.290	+/−0.201	0.249	+/−0.201	0.500	pCi/g						
Bismuth−214		0.606	+/−0.0897	0.0549	+/−0.0897	0.200	pCi/g						
Californium−249	U	0.0137	+/−0.0214	0.0374	+/−0.0214		pCi/g						
Cesium−137		0.0448	+/−0.0275	0.0295	+/−0.0275	0.100	pCi/g						
Cobalt−60	U	0.0151	+/−0.0207	0.0376	+/−0.0207	0.100	pCi/g						
Curium−243	U	0.0016	+/−0.0435	0.0746	+/−0.0435		pCi/g						
Europium−155	U	−0.021	+/−0.0514	0.0823	+/−0.0514	0.500	pCi/g						
Lead−212		0.629	+/−0.0679	0.0446	+/−0.0679	0.100	pCi/g						
Lead−214		0.730	+/−0.0952	0.0548	+/−0.0952	0.100	pCi/g						
Neptunium−236	U	0.011	+/−0.0292	0.0457	+/−0.0292		pCi/g						
Neptunium−237	UI	0.346	+/−0.148	0.146	+/−0.148		pCi/g						
Neptunium−239	U	−0.00132	+/−0.104	0.182	+/−0.104	2.00	pCi/g						
Polonium−209	U	0.718	+/−4.15	6.72	+/−4.15		pCi/g						
Potassium−40		5.81	+/−0.641	0.258	+/−0.641	1.00	pCi/g						
Protactinium−233	U	−0.03	+/−0.0315	0.051	+/−0.0315		pCi/g						
Protactinium−234m	U	−1.51	+/−3.21	4.08	+/−3.21		pCi/g						
Radium−223	UI	0.213	+/−0.139	0.153	+/−0.139		pCi/g						
Rhodium−101	U	0.0147	+/−0.0181	0.0313	+/−0.0181		pCi/g						
Thallium−208		0.162	+/−0.0432	0.0338	+/−0.0432	0.080	pCi/g						
Thorium−234		0.760	+/−0.306	0.327	+/−0.306	0.500	pCi/g						
Uranium−235	U	0.0339	+/−0.144	0.159	+/−0.144	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−2128−BD Project: SCAN00101
Sample ID: 198683028 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−2129−BA
Sample ID: 198683029
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		0.349	+/−0.133	0.101	+/−0.133	0.800	pCi/g		MJH1	12/16/07	1222	708126	1
Americium−241	U	−0.00257	+/−0.0906	0.134	+/−0.0906	0.200	pCi/g						
Americium−243	UI	0.0772	+/−0.0316	0.0394	+/−0.0316		pCi/g						
Americium−246	U	0.0358	+/−0.0781	0.120	+/−0.0781		pCi/g						
Antimony−125	U	0.0607	+/−0.0481	0.0892	+/−0.0481	0.200	pCi/g						
Bismuth−211	U	−0.283	+/−0.533	0.863	+/−0.533		pCi/g						
Bismuth−212	UI	0.265	+/−0.200	0.206	+/−0.200	0.500	pCi/g						
Bismuth−214		0.266	+/−0.0749	0.0629	+/−0.0749	0.200	pCi/g						
Californium−249	U	−0.00882	+/−0.0208	0.035	+/−0.0208		pCi/g						
Cesium−137		0.177	+/−0.0346	0.0345	+/−0.0346	0.100	pCi/g						
Cobalt−60	U	0.0107	+/−0.0216	0.0377	+/−0.0216	0.100	pCi/g						
Curium−243	U	−0.0366	+/−0.0426	0.0726	+/−0.0426		pCi/g						
Europium−155	U	−0.018	+/−0.0477	0.0832	+/−0.0477	0.500	pCi/g						
Lead−212		0.337	+/−0.052	0.0467	+/−0.052	0.100	pCi/g						
Lead−214		0.327	+/−0.0781	0.0615	+/−0.0781	0.100	pCi/g						
Neptunium−236	U	0.00236	+/−0.0333	0.0491	+/−0.0333		pCi/g						
Neptunium−237	UI	0.345	+/−0.148	0.172	+/−0.148		pCi/g						
Neptunium−239	U	0.0772	+/−0.115	0.201	+/−0.115	2.00	pCi/g						
Polonium−209	U	−0.451	+/−3.80	6.35	+/−3.80		pCi/g						
Potassium−40		2.76	+/−0.479	0.251	+/−0.479	1.00	pCi/g						
Protactinium−233	U	0.00259	+/−0.033	0.0551	+/−0.033		pCi/g						
Protactinium−234m	U	0.793	+/−2.15	3.76	+/−2.15		pCi/g						
Radium−223	U	0.121	+/−0.111	0.142	+/−0.111		pCi/g						
Rhodium−101	U	−0.00321	+/−0.0202	0.0307	+/−0.0202		pCi/g						
Thallium−208		0.122	+/−0.0344	0.0308	+/−0.0344	0.080	pCi/g						
Thorium−234		0.609	+/−0.341	0.371	+/−0.341	0.500	pCi/g						
Uranium−235	U	0.0403	+/−0.135	0.172	+/−0.135	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−2129−BA Project: SCAN00101
Sample ID: 198683029 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−2130−BA
Sample ID: 198683030
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		0.859	+/−0.175	0.106	+/−0.175	0.800	pCi/g		MJH1	12/16/07	1223	708126	1
Americium−241	U	0.0768	+/−0.0573	0.0924	+/−0.0573	0.200	pCi/g						
Americium−243	UI	0.178	+/−0.0322	0.0347	+/−0.0322		pCi/g						
Americium−246	U	0.0288	+/−0.0592	0.105	+/−0.0592		pCi/g						
Antimony−125	U	−0.0494	+/−0.0464	0.0739	+/−0.0464	0.200	pCi/g						
Bismuth−211	U	−0.269	+/−0.500	0.816	+/−0.500		pCi/g						
Bismuth−212		0.458	+/−0.229	0.247	+/−0.229	0.500	pCi/g						
Bismuth−214		0.558	+/−0.0875	0.0579	+/−0.0875	0.200	pCi/g						
Californium−249	U	0.018	+/−0.0214	0.0348	+/−0.0214		pCi/g						
Cesium−137		0.386	+/−0.050	0.0307	+/−0.050	0.100	pCi/g						
Cobalt−60	U	0.0113	+/−0.0208	0.0326	+/−0.0208	0.100	pCi/g						
Curium−243	U	−0.00758	+/−0.0405	0.0704	+/−0.0405		pCi/g						
Europium−155	U	0.0269	+/−0.0468	0.0836	+/−0.0468	0.500	pCi/g						
Lead−212		0.659	+/−0.0665	0.047	+/−0.0665	0.100	pCi/g						
Lead−214		0.669	+/−0.0923	0.053	+/−0.0923	0.100	pCi/g						
Neptunium−236	U	−0.00515	+/−0.0286	0.0426	+/−0.0286		pCi/g						
Neptunium−237	UI	0.342	+/−0.123	0.148	+/−0.123		pCi/g						
Neptunium−239	U	0.0176	+/−0.104	0.175	+/−0.104	2.00	pCi/g						
Polonium−209	U	−0.527	+/−3.52	5.75	+/−3.52		pCi/g						
Potassium−40		6.61	+/−0.796	0.270	+/−0.796	1.00	pCi/g						
Protactinium−233	U	0.00984	+/−0.032	0.0533	+/−0.032		pCi/g						
Protactinium−234m	U	2.61	+/−3.14	3.72	+/−3.14		pCi/g						
Radium−223	U	0.147	+/−0.129	0.152	+/−0.129		pCi/g						
Rhodium−101	U	0.0189	+/−0.0244	0.0259	+/−0.0244		pCi/g						
Thallium−208		0.188	+/−0.0433	0.0324	+/−0.0433	0.080	pCi/g						
Thorium−234		1.15	+/−0.351	0.304	+/−0.351	0.500	pCi/g						
Uranium−235	UI	0.181	+/−0.139	0.158	+/−0.139	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−2130−BA Project: SCAN00101
Sample ID: 198683030 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−2131−BA	Project:	SCAN00101
Sample ID:	198683031	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		0.721	+/−0.184	0.108	+/−0.184	0.800	pCi/g		MJH1	12/16/07	1223	708126	1
Americium−241	U	0.0541	+/−0.0906	0.140	+/−0.0906	0.200	pCi/g						
Americium−243	UI	0.105	+/−0.037	0.0485	+/−0.037		pCi/g						
Americium−246	U	0.0656	+/−0.0812	0.139	+/−0.0812		pCi/g						
Antimony−125	U	0.00553	+/−0.0573	0.0949	+/−0.0573	0.200	pCi/g						
Bismuth−211	U	0.197	+/−0.640	0.960	+/−0.640		pCi/g						
Bismuth−212		0.425	+/−0.306	0.251	+/−0.306	0.500	pCi/g						
Bismuth−214		0.440	+/−0.110	0.0708	+/−0.110	0.200	pCi/g						
Californium−249	U	0.00943	+/−0.0256	0.0433	+/−0.0256		pCi/g						
Cesium−137		0.237	+/−0.0459	0.0424	+/−0.0459	0.100	pCi/g						
Cobalt−60	U	0.00712	+/−0.0226	0.0395	+/−0.0226	0.100	pCi/g						
Curium−243	U	−0.0153	+/−0.058	0.0944	+/−0.058		pCi/g						
Europium−155	U	0.0773	+/−0.0596	0.110	+/−0.0596	0.500	pCi/g						
Lead−212		0.456	+/−0.0769	0.0671	+/−0.0769	0.100	pCi/g						
Lead−214		0.717	+/−0.0968	0.0655	+/−0.0968	0.100	pCi/g						
Neptunium−236	U	0.0153	+/−0.0401	0.0581	+/−0.0401		pCi/g						
Neptunium−237	UI	0.471	+/−0.185	0.204	+/−0.185		pCi/g						
Neptunium−239	U	−0.00683	+/−0.126	0.215	+/−0.126	2.00	pCi/g						
Polonium−209	U	1.81	+/−4.58	7.86	+/−4.58		pCi/g						
Potassium−40		6.62	+/−0.788	0.386	+/−0.788	1.00	pCi/g						
Protactinium−233	U	0.0185	+/−0.0393	0.0676	+/−0.0393		pCi/g						
Protactinium−234m	U	−1.44	+/−3.21	4.59	+/−3.21		pCi/g						
Radium−223	UI	0.261	+/−0.144	0.162	+/−0.144		pCi/g						
Rhodium−101	U	0.0094	+/−0.0213	0.0343	+/−0.0213		pCi/g						
Thallium−208		0.206	+/−0.0425	0.0343	+/−0.0425	0.080	pCi/g						
Thorium−234		0.929	+/−0.457	0.442	+/−0.457	0.500	pCi/g						
Uranium−235	U	0.0816	+/−0.168	0.193	+/−0.168	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−2131−BA Project: SCAN00101
Sample ID: 198683031 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−2132−BA
Sample ID: 198683032
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		0.863	+/−0.236	0.204	+/−0.236	0.800	pCi/g		MJH1	12/16/07	1224	708126	1
Americium−241	U	0.0208	+/−0.0387	0.0603	+/−0.0387	0.200	pCi/g						
Americium−243	UI	0.205	+/−0.0323	0.0333	+/−0.0323		pCi/g						
Americium−246	U	0.0372	+/−0.113	0.195	+/−0.113		pCi/g						
Antimony−125	U	−0.0203	+/−0.0765	0.126	+/−0.0765	0.200	pCi/g						
Bismuth−211	U	−0.0335	+/−0.925	1.52	+/−0.925		pCi/g						
Bismuth−212		0.397	+/−0.342	0.396	+/−0.342	0.500	pCi/g						
Bismuth−214		0.909	+/−0.158	0.096	+/−0.158	0.200	pCi/g						
Californium−249	UI	0.0483	+/−0.0311	0.0477	+/−0.0311		pCi/g						
Cesium−137		0.171	+/−0.0737	0.0566	+/−0.0737	0.100	pCi/g						
Cobalt−60	U	0.00462	+/−0.0376	0.0632	+/−0.0376	0.100	pCi/g						
Curium−243	U	−0.0478	+/−0.0573	0.087	+/−0.0573		pCi/g						
Europium−155	U	0.0721	+/−0.0889	0.100	+/−0.0889	0.500	pCi/g						
Lead−212		0.768	+/−0.0865	0.0674	+/−0.0865	0.100	pCi/g						
Lead−214		0.817	+/−0.107	0.0895	+/−0.107	0.100	pCi/g						
Neptunium−236	U	−0.00291	+/−0.0398	0.0584	+/−0.0398		pCi/g						
Neptunium−237	UI	0.522	+/−0.155	0.161	+/−0.155		pCi/g						
Neptunium−239	U	0.0439	+/−0.153	0.255	+/−0.153	2.00	pCi/g						
Polonium−209	U	3.73	+/−6.82	11.6	+/−6.82		pCi/g						
Potassium−40		7.50	+/−0.885	0.512	+/−0.885	1.00	pCi/g						
Protactinium−233	U	0.0186	+/−0.0473	0.0827	+/−0.0473		pCi/g						
Protactinium−234m	U	2.16	+/−6.97	6.03	+/−6.97		pCi/g						
Radium−223	UI	0.260	+/−0.188	0.213	+/−0.188		pCi/g						
Rhodium−101	U	−0.00779	+/−0.0259	0.0399	+/−0.0259		pCi/g						
Thallium−208		0.288	+/−0.0665	0.051	+/−0.0665	0.080	pCi/g						
Thorium−234		0.949	+/−0.457	0.375	+/−0.457	0.500	pCi/g						
Uranium−235	U	−0.0604	+/−0.145	0.226	+/−0.145	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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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−2132−BA Project: SCAN00101
Sample ID: 198683032 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−2133−BA
Sample ID: 198683033
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		0.949	+/−0.188	0.123	+/−0.188	0.800	pCi/g		MJH1	12/16/07	1224	708126	1
Americium−241	U	0.0131	+/−0.0733	0.112	+/−0.0733	0.200	pCi/g						
Americium−243	UI	0.182	+/−0.0473	0.0422	+/−0.0473		pCi/g						
Americium−246	U	0.0394	+/−0.0768	0.130	+/−0.0768		pCi/g						
Antimony−125	U	−0.0523	+/−0.0533	0.0851	+/−0.0533	0.200	pCi/g						
Bismuth−211	U	−0.421	+/−0.578	0.933	+/−0.578		pCi/g						
Bismuth−212		0.614	+/−0.281	0.262	+/−0.281	0.500	pCi/g						
Bismuth−214		0.801	+/−0.110	0.0631	+/−0.110	0.200	pCi/g						
Californium−249	U	−0.00502	+/−0.0236	0.0398	+/−0.0236		pCi/g						
Cesium−137		0.158	+/−0.0438	0.0401	+/−0.0438	0.100	pCi/g						
Cobalt−60	U	0.0177	+/−0.0245	0.042	+/−0.0245	0.100	pCi/g						
Curium−243	U	−0.0156	+/−0.0537	0.0901	+/−0.0537		pCi/g						
Europium−155	U	0.00536	+/−0.0581	0.0987	+/−0.0581	0.500	pCi/g						
Lead−212		0.789	+/−0.0792	0.0583	+/−0.0792	0.100	pCi/g						
Lead−214		1.03	+/−0.112	0.0657	+/−0.112	0.100	pCi/g						
Neptunium−236	U	0.0351	+/−0.0389	0.0578	+/−0.0389		pCi/g						
Neptunium−237	UI	0.683	+/−0.196	0.189	+/−0.196		pCi/g						
Neptunium−239	U	−0.0353	+/−0.129	0.223	+/−0.129	2.00	pCi/g						
Polonium−209	U	−1.79	+/−4.72	6.63	+/−4.72		pCi/g						
Potassium−40		8.09	+/−0.824	0.322	+/−0.824	1.00	pCi/g						
Protactinium−233	U	0.00126	+/−0.038	0.0654	+/−0.038		pCi/g						
Protactinium−234m	U	−0.379	+/−2.70	4.45	+/−2.70		pCi/g						
Radium−223	UI	0.299	+/−0.153	0.167	+/−0.153		pCi/g						
Rhodium−101	U	0.0123	+/−0.0214	0.0346	+/−0.0214		pCi/g						
Thallium−208		0.271	+/−0.0432	0.0369	+/−0.0432	0.080	pCi/g						
Thorium−234		1.05	+/−0.432	0.418	+/−0.432	0.500	pCi/g						
Uranium−235	U	0.117	+/−0.150	0.191	+/−0.150	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−2133−BA Project: SCAN00101
Sample ID: 198683033 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−2134−BA
Sample ID: 198683034
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		0.628	+/−0.135	0.106	+/−0.135	0.800	pCi/g		MJH1	12/16/07 1224	708126	1
Americium−241	U	0.0602	+/−0.0653	0.106	+/−0.0653	0.200	pCi/g					
Americium−243	UI	0.142	+/−0.0367	0.0378	+/−0.0367		pCi/g					
Americium−246	U	−0.0103	+/−0.0663	0.110	+/−0.0663		pCi/g					
Antimony−125	UI	0.0967	+/−0.0574	0.0801	+/−0.0574	0.200	pCi/g					
Bismuth−211	U	0.399	+/−0.546	0.927	+/−0.546		pCi/g					
Bismuth−212		0.254	+/−0.243	0.226	+/−0.243	0.500	pCi/g					
Bismuth−214		0.713	+/−0.101	0.0583	+/−0.101	0.200	pCi/g					
Californium−249	U	0.00431	+/−0.0201	0.035	+/−0.0201		pCi/g					
Cesium−137		0.169	+/−0.0421	0.034	+/−0.0421	0.100	pCi/g					
Cobalt−60	U	0.00509	+/−0.0248	0.0365	+/−0.0248	0.100	pCi/g					
Curium−243	U	−0.0104	+/−0.0528	0.0798	+/−0.0528		pCi/g					
Europium−155	U	0.0536	+/−0.0516	0.0926	+/−0.0516	0.500	pCi/g					
Lead−212		0.625	+/−0.0628	0.0471	+/−0.0628	0.100	pCi/g					
Lead−214		0.880	+/−0.0924	0.0593	+/−0.0924	0.100	pCi/g					
Neptunium−236	U	0.0164	+/−0.0361	0.0516	+/−0.0361		pCi/g					
Neptunium−237	UI	0.402	+/−0.134	0.183	+/−0.134		pCi/g					
Neptunium−239	U	0.0186	+/−0.116	0.195	+/−0.116	2.00	pCi/g					
Polonium−209	U	4.68	+/−3.81	7.08	+/−3.81		pCi/g					
Potassium−40		5.71	+/−0.725	0.298	+/−0.725	1.00	pCi/g					
Protactinium−233	U	−0.00729	+/−0.0313	0.0539	+/−0.0313		pCi/g					
Protactinium−234m	U	1.24	+/−3.62	4.25	+/−3.62		pCi/g					
Radium−223	UI	0.291	+/−0.156	0.151	+/−0.156		pCi/g					
Rhodium−101	U	−0.0056	+/−0.0186	0.0296	+/−0.0186		pCi/g					
Thallium−208		0.199	+/−0.0433	0.031	+/−0.0433	0.080	pCi/g					
Thorium−234		0.807	+/−0.348	0.393	+/−0.348	0.500	pCi/g					
Uranium−235	U	0.0854	+/−0.138	0.181	+/−0.138	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−2134−BA Project: SCAN00101
Sample ID: 198683034 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−2135−BA
Sample ID: 198683035
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	U	0.173	+/−0.145	0.211	+/−0.145	0.800	pCi/g		MJH1	12/16/07	1231	708126	1
Americium−241	U	−0.0116	+/−0.0283	0.045	+/−0.0283	0.200	pCi/g						
Americium−243	UI	0.0625	+/−0.0203	0.0256	+/−0.0203		pCi/g						
Americium−246	U	−0.0102	+/−0.0791	0.130	+/−0.0791		pCi/g						
Antimony−125	U	−0.0335	+/−0.0535	0.0872	+/−0.0535	0.200	pCi/g						
Bismuth−211	U	0.196	+/−0.661	1.16	+/−0.661		pCi/g						
Bismuth−212	U	0.179	+/−0.242	0.269	+/−0.242	0.500	pCi/g						
Bismuth−214		0.320	+/−0.083	0.0669	+/−0.083	0.200	pCi/g						
Californium−249	U	−0.000558	+/−0.0219	0.0378	+/−0.0219		pCi/g						
Cesium−137		0.249	+/−0.0535	0.0346	+/−0.0535	0.100	pCi/g						
Cobalt−60	U	0.0143	+/−0.0221	0.0396	+/−0.0221	0.100	pCi/g						
Curium−243	U	0.0364	+/−0.0686	0.0619	+/−0.0686		pCi/g						
Europium−155	U	0.0402	+/−0.0758	0.0724	+/−0.0758	0.500	pCi/g						
Lead−212		0.238	+/−0.0491	0.0438	+/−0.0491	0.100	pCi/g						
Lead−214		0.202	+/−0.0797	0.0559	+/−0.0797	0.100	pCi/g						
Neptunium−236	U	0.0301	+/−0.0332	0.035	+/−0.0332		pCi/g						
Neptunium−237	UI	0.189	+/−0.0993	0.109	+/−0.0993		pCi/g						
Neptunium−239	U	0.00363	+/−0.109	0.182	+/−0.109	2.00	pCi/g						
Polonium−209	U	−1.39	+/−5.00	8.28	+/−5.00		pCi/g						
Potassium−40		2.31	+/−0.518	0.347	+/−0.518	1.00	pCi/g						
Protactinium−233	U	−0.0276	+/−0.0317	0.0524	+/−0.0317		pCi/g						
Protactinium−234m	U	1.25	+/−2.88	5.05	+/−2.88		pCi/g						
Radium−223	U	0.00867	+/−0.0912	0.151	+/−0.0912		pCi/g						
Rhodium−101	U	7.04E−05	+/−0.0184	0.0272	+/−0.0184		pCi/g						
Thallium−208		0.105	+/−0.0463	0.0322	+/−0.0463	0.080	pCi/g						
Thorium−234		0.353	+/−0.301	0.253	+/−0.301	0.500	pCi/g						
Uranium−235	U	0.0608	+/−0.137	0.156	+/−0.137	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−2135−BA Project: SCAN00101
Sample ID: 198683035 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−2129−BD
Sample ID: 198683036
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		0.474	+/−0.115	0.104	+/−0.115	0.800	pCi/g		MJH1	12/16/07	1232	708126	1
Americium−241	U	0.0313	+/−0.071	0.113	+/−0.071	0.200	pCi/g						
Americium−243	UI	0.0782	+/−0.0324	0.0391	+/−0.0324		pCi/g						
Americium−246	U	0.0133	+/−0.0607	0.106	+/−0.0607		pCi/g						
Antimony−125	U	−0.0029	+/−0.0451	0.0773	+/−0.0451	0.200	pCi/g						
Bismuth−211	U	0.0253	+/−0.478	0.797	+/−0.478		pCi/g						
Bismuth−212	UI	0.211	+/−0.165	0.187	+/−0.165	0.500	pCi/g						
Bismuth−214		0.283	+/−0.0744	0.0549	+/−0.0744	0.200	pCi/g						
Californium−249	U	0.0304	+/−0.0196	0.0368	+/−0.0196		pCi/g						
Cesium−137		0.069	+/−0.0326	0.0326	+/−0.0326	0.100	pCi/g						
Cobalt−60	U	0.0146	+/−0.0153	0.0366	+/−0.0153	0.100	pCi/g						
Curium−243	U	−0.0336	+/−0.041	0.0682	+/−0.041		pCi/g						
Europium−155	U	−0.021	+/−0.0443	0.075	+/−0.0443	0.500	pCi/g						
Lead−212		0.324	+/−0.0563	0.051	+/−0.0563	0.100	pCi/g						
Lead−214		0.249	+/−0.0712	0.0586	+/−0.0712	0.100	pCi/g						
Neptunium−236	U	0.0223	+/−0.0297	0.0473	+/−0.0297		pCi/g						
Neptunium−237	UI	0.257	+/−0.147	0.156	+/−0.147		pCi/g						
Neptunium−239	U	0.0274	+/−0.104	0.178	+/−0.104	2.00	pCi/g						
Polonium−209	U	1.00	+/−3.79	6.43	+/−3.79		pCi/g						
Potassium−40		2.48	+/−0.496	0.255	+/−0.496	1.00	pCi/g						
Protactinium−233	U	0.00164	+/−0.0355	0.0514	+/−0.0355		pCi/g						
Protactinium−234m	U	−2.24	+/−2.35	3.63	+/−2.35		pCi/g						
Radium−223	UI	0.264	+/−0.150	0.148	+/−0.150		pCi/g						
Rhodium−101	U	−0.00179	+/−0.018	0.027	+/−0.018		pCi/g						
Thallium−208		0.144	+/−0.0394	0.0298	+/−0.0394	0.080	pCi/g						
Thorium−234		0.693	+/−0.378	0.338	+/−0.378	0.500	pCi/g						
Uranium−235	U	0.132	+/−0.122	0.159	+/−0.122	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−2129−BD Project: SCAN00101
Sample ID: 198683036 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−2130−BD
Sample ID: 198683037
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		0.677	+/−0.162	0.107	+/−0.162	0.800	pCi/g		MJH1	12/16/07	1232	708126	1
Americium−241	U	0.0443	+/−0.103	0.0928	+/−0.103	0.200	pCi/g						
Americium−243	UI	0.151	+/−0.034	0.0372	+/−0.034		pCi/g						
Americium−246	U	−0.00974	+/−0.0673	0.110	+/−0.0673		pCi/g						
Antimony−125	U	0.00645	+/−0.0489	0.0819	+/−0.0489	0.200	pCi/g						
Bismuth−211	U	0.411	+/−0.574	0.910	+/−0.574		pCi/g						
Bismuth−212		0.538	+/−0.245	0.199	+/−0.245	0.500	pCi/g						
Bismuth−214		0.548	+/−0.0838	0.0612	+/−0.0838	0.200	pCi/g						
Californium−249	U	0.00213	+/−0.020	0.0336	+/−0.020		pCi/g						
Cesium−137		0.0951	+/−0.0339	0.0336	+/−0.0339	0.100	pCi/g						
Cobalt−60	U	0.0108	+/−0.0207	0.0358	+/−0.0207	0.100	pCi/g						
Curium−243	UI	0.0966	+/−0.0614	0.0794	+/−0.0614		pCi/g						
Europium−155	UI	0.107	+/−0.0678	0.0838	+/−0.0678	0.500	pCi/g						
Lead−212		0.734	+/−0.072	0.0501	+/−0.072	0.100	pCi/g						
Lead−214		0.548	+/−0.0817	0.0618	+/−0.0817	0.100	pCi/g						
Neptunium−236	U	0.0171	+/−0.0332	0.0501	+/−0.0332		pCi/g						
Neptunium−237	UI	0.449	+/−0.149	0.160	+/−0.149		pCi/g						
Neptunium−239	U	−0.0651	+/−0.111	0.186	+/−0.111	2.00	pCi/g						
Polonium−209	U	2.56	+/−4.02	6.84	+/−4.02		pCi/g						
Potassium−40		6.25	+/−0.770	0.235	+/−0.770	1.00	pCi/g						
Protactinium−233	U	−0.00526	+/−0.033	0.0533	+/−0.033		pCi/g						
Protactinium−234m	U	0.879	+/−2.85	3.26	+/−2.85		pCi/g						
Radium−223	UI	0.291	+/−0.145	0.147	+/−0.145		pCi/g						
Rhodium−101	U	0.000666	+/−0.0186	0.0299	+/−0.0186		pCi/g						
Thallium−208		0.207	+/−0.0431	0.0295	+/−0.0431	0.080	pCi/g						
Thorium−234		1.04	+/−0.359	0.354	+/−0.359	0.500	pCi/g						
Uranium−235	UI	0.238	+/−0.153	0.163	+/−0.153	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−2130−BD Project: SCAN00101
Sample ID: 198683037 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−2131−BD
Sample ID: 198683038
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		0.585	+/−0.206	0.174	+/−0.206	0.800	pCi/g		MJH1	12/16/07	1232	708126	1
Americium−241	U	0.0122	+/−0.0322	0.0489	+/−0.0322	0.200	pCi/g						
Americium−243	UI	0.118	+/−0.0228	0.0284	+/−0.0228		pCi/g						
Americium−246	U	−0.00458	+/−0.125	0.193	+/−0.125		pCi/g						
Antimony−125	U	0.00192	+/−0.0683	0.112	+/−0.0683	0.200	pCi/g						
Bismuth−211	U	−0.465	+/−0.802	1.29	+/−0.802		pCi/g						
Bismuth−212	U	0.302	+/−0.299	0.325	+/−0.299	0.500	pCi/g						
Bismuth−214		0.452	+/−0.115	0.0765	+/−0.115	0.200	pCi/g						
Californium−249	U	0.0116	+/−0.0256	0.0443	+/−0.0256		pCi/g						
Cesium−137	UI	0.0698	+/−0.0346	0.0606	+/−0.0346	0.100	pCi/g						
Cobalt−60	U	0.00423	+/−0.034	0.0572	+/−0.034	0.100	pCi/g						
Curium−243	U	0.0445	+/−0.0493	0.0762	+/−0.0493		pCi/g						
Europium−155	U	0.0492	+/−0.0545	0.0795	+/−0.0545	0.500	pCi/g						
Lead−212		0.653	+/−0.0752	0.0583	+/−0.0752	0.100	pCi/g						
Lead−214		0.431	+/−0.101	0.075	+/−0.101	0.100	pCi/g						
Neptunium−236	U	0.0383	+/−0.029	0.0455	+/−0.029		pCi/g						
Neptunium−237	UI	0.337	+/−0.112	0.142	+/−0.112		pCi/g						
Neptunium−239	U	−0.0135	+/−0.136	0.233	+/−0.136	2.00	pCi/g						
Polonium−209	U	−0.194	+/−6.09	8.80	+/−6.09		pCi/g						
Potassium−40		5.56	+/−0.935	0.485	+/−0.935	1.00	pCi/g						
Protactinium−233	U	0.000457	+/−0.0673	0.0665	+/−0.0673		pCi/g						
Protactinium−234m	U	1.20	+/−3.23	5.63	+/−3.23		pCi/g						
Radium−223	UI	0.201	+/−0.195	0.168	+/−0.195		pCi/g						
Rhodium−101	U	−0.00463	+/−0.0186	0.0318	+/−0.0186		pCi/g						
Thallium−208		0.208	+/−0.0494	0.0415	+/−0.0494	0.080	pCi/g						
Thorium−234		1.13	+/−0.313	0.330	+/−0.313	0.500	pCi/g						
Uranium−235	U	0.154	+/−0.162	0.181	+/−0.162	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−2131−BD Project: SCAN00101
Sample ID: 198683038 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−2132−BD
Sample ID: 198683039
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		0.918	+/−0.170	0.103	+/−0.170	0.800	pCi/g		MJH1	12/16/07	1233	708126	1
Americium−241	U	0.0379	+/−0.0757	0.113	+/−0.0757	0.200	pCi/g						
Americium−243	UI	0.166	+/−0.036	0.0409	+/−0.036		pCi/g						
Americium−246	U	0.046	+/−0.0619	0.108	+/−0.0619		pCi/g						
Antimony−125	U	−0.00648	+/−0.0458	0.0758	+/−0.0458	0.200	pCi/g						
Bismuth−211	U	−0.264	+/−0.517	0.856	+/−0.517		pCi/g						
Bismuth−212		0.533	+/−0.184	0.226	+/−0.184	0.500	pCi/g						
Bismuth−214		0.616	+/−0.0883	0.0532	+/−0.0883	0.200	pCi/g						
Californium−249	U	0.00786	+/−0.0203	0.0347	+/−0.0203		pCi/g						
Cesium−137		0.120	+/−0.0322	0.0321	+/−0.0322	0.100	pCi/g						
Cobalt−60	U	0.00534	+/−0.0208	0.035	+/−0.0208	0.100	pCi/g						
Curium−243	U	0.027	+/−0.0502	0.083	+/−0.0502		pCi/g						
Europium−155	U	0.0464	+/−0.0575	0.0913	+/−0.0575	0.500	pCi/g						
Lead−212		0.866	+/−0.0757	0.0473	+/−0.0757	0.100	pCi/g						
Lead−214		0.756	+/−0.0819	0.059	+/−0.0819	0.100	pCi/g						
Neptunium−236	U	0.0276	+/−0.0329	0.0524	+/−0.0329		pCi/g						
Neptunium−237	UI	0.536	+/−0.167	0.174	+/−0.167		pCi/g						
Neptunium−239	U	−0.139	+/−0.122	0.192	+/−0.122	2.00	pCi/g						
Polonium−209	U	0.135	+/−3.37	5.73	+/−3.37		pCi/g						
Potassium−40		7.72	+/−0.752	0.283	+/−0.752	1.00	pCi/g						
Protactinium−233	U	−0.00226	+/−0.0318	0.0542	+/−0.0318		pCi/g						
Protactinium−234m	U	0.727	+/−2.48	3.99	+/−2.48		pCi/g						
Radium−223	UI	0.196	+/−0.136	0.156	+/−0.136		pCi/g						
Rhodium−101	U	−0.0185	+/−0.0207	0.0313	+/−0.0207		pCi/g						
Thallium−208		0.286	+/−0.0448	0.0285	+/−0.0448	0.080	pCi/g						
Thorium−234		0.869	+/−0.361	0.382	+/−0.361	0.500	pCi/g						
Uranium−235	U	0.139	+/−0.133	0.174	+/−0.133	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−2132−BD Project: SCAN00101
Sample ID: 198683039 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−2133−BD
Sample ID: 198683040
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		0.993	+/−0.186	0.127	+/−0.186	0.800	pCi/g		MJH1	12/16/07	1233	708126	1
Americium−241	U	0.0938	+/−0.0898	0.150	+/−0.0898	0.200	pCi/g						
Americium−243	UI	0.164	+/−0.0395	0.0458	+/−0.0395		pCi/g						
Americium−246	U	0.0246	+/−0.0796	0.140	+/−0.0796		pCi/g						
Antimony−125	U	−0.0318	+/−0.0555	0.0919	+/−0.0555	0.200	pCi/g						
Bismuth−211	U	0.436	+/−0.951	1.13	+/−0.951		pCi/g						
Bismuth−212		0.476	+/−0.258	0.280	+/−0.258	0.500	pCi/g						
Bismuth−214		0.559	+/−0.0996	0.0714	+/−0.0996	0.200	pCi/g						
Californium−249	U	−0.0211	+/−0.0236	0.0388	+/−0.0236		pCi/g						
Cesium−137		0.0512	+/−0.034	0.0383	+/−0.034	0.100	pCi/g						
Cobalt−60	U	0.0153	+/−0.0224	0.0404	+/−0.0224	0.100	pCi/g						
Curium−243	U	−0.0174	+/−0.0459	0.0822	+/−0.0459		pCi/g						
Europium−155	U	0.0617	+/−0.0509	0.0959	+/−0.0509	0.500	pCi/g						
Lead−212		0.821	+/−0.0773	0.0541	+/−0.0773	0.100	pCi/g						
Lead−214		0.724	+/−0.105	0.0673	+/−0.105	0.100	pCi/g						
Neptunium−236	U	0.00434	+/−0.032	0.054	+/−0.032		pCi/g						
Neptunium−237	UI	0.485	+/−0.160	0.182	+/−0.160		pCi/g						
Neptunium−239	U	−0.102	+/−0.125	0.204	+/−0.125	2.00	pCi/g						
Polonium−209	U	−0.409	+/−5.22	8.12	+/−5.22		pCi/g						
Potassium−40		7.98	+/−0.932	0.325	+/−0.932	1.00	pCi/g						
Protactinium−233	U	0.018	+/−0.0354	0.064	+/−0.0354		pCi/g						
Protactinium−234m	U	−1.2	+/−2.84	4.31	+/−2.84		pCi/g						
Radium−223	UI	0.289	+/−0.150	0.173	+/−0.150		pCi/g						
Rhodium−101	U	−0.00535	+/−0.0202	0.0292	+/−0.0202		pCi/g						
Thallium−208		0.293	+/−0.0485	0.0329	+/−0.0485	0.080	pCi/g						
Thorium−234		1.35	+/−0.393	0.389	+/−0.393	0.500	pCi/g						
Uranium−235	U	0.108	+/−0.148	0.173	+/−0.148	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−2133−BD Project: SCAN00101
Sample ID: 198683040 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

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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−2134−BD	Project:	SCAN00101
Sample ID:	198683041	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		0.683	+/−0.123	0.088	+/−0.123	0.800	pCi/g		MJH1	12/16/07	1641	708126	1
Americium−241	U	0.0143	+/−0.0192	0.0282	+/−0.0192	0.200	pCi/g						
Americium−243	UI	0.142	+/−0.0187	0.0178	+/−0.0187		pCi/g						
Americium−246	U	0.024	+/−0.0495	0.0868	+/−0.0495		pCi/g						
Antimony−125	U	0.0261	+/−0.0346	0.0604	+/−0.0346	0.200	pCi/g						
Bismuth−211	U	−0.0648	+/−0.449	0.644	+/−0.449		pCi/g						
Bismuth−212		0.434	+/−0.150	0.175	+/−0.150	0.500	pCi/g						
Bismuth−214		0.627	+/−0.0788	0.0452	+/−0.0788	0.200	pCi/g						
Californium−249	U	0.00135	+/−0.0148	0.0255	+/−0.0148		pCi/g						
Cesium−137		0.0388	+/−0.0252	0.0236	+/−0.0252	0.100	pCi/g						
Cobalt−60	U	−0.00827	+/−0.0135	0.0221	+/−0.0135	0.100	pCi/g						
Curium−243	U	0.0358	+/−0.0317	0.0507	+/−0.0317		pCi/g						
Europium−155	U	0.0396	+/−0.0351	0.0561	+/−0.0351	0.500	pCi/g						
Lead−212		0.699	+/−0.0686	0.0326	+/−0.0686	0.100	pCi/g						
Lead−214		0.691	+/−0.0687	0.0437	+/−0.0687	0.100	pCi/g						
Neptunium−236	U	0.0171	+/−0.0176	0.0307	+/−0.0176		pCi/g						
Neptunium−237	UI	0.412	+/−0.0782	0.103	+/−0.0782		pCi/g						
Neptunium−239	U	−0.0395	+/−0.0798	0.133	+/−0.0798	2.00	pCi/g						
Polonium−209	U	0.945	+/−2.71	4.62	+/−2.71		pCi/g						
Potassium−40		5.70	+/−0.612	0.203	+/−0.612	1.00	pCi/g						
Protactinium−233	U	−0.00943	+/−0.0227	0.0392	+/−0.0227		pCi/g						
Protactinium−234m	UI	3.05	+/−2.67	2.63	+/−2.67		pCi/g						
Radium−223	UI	0.242	+/−0.103	0.109	+/−0.103		pCi/g						
Rhodium−101	U	0.0128	+/−0.023	0.0202	+/−0.023		pCi/g						
Thallium−208		0.241	+/−0.0359	0.0221	+/−0.0359	0.080	pCi/g						
Thorium−234		0.700	+/−0.250	0.213	+/−0.250	0.500	pCi/g						
Uranium−235	U	0.042	+/−0.0855	0.116	+/−0.0855	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−2134−BD Project: SCAN00101
Sample ID: 198683041 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
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−2135−BD
Sample ID: 198683042
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		0.250	+/−0.0844	0.0593	+/−0.0844	0.800	pCi/g		MJH1	12/16/07	1641	708126	1
Americium−241	U	0.024	+/−0.0244	0.0393	+/−0.0244	0.200	pCi/g						
Americium−243	UI	0.0399	+/−0.0162	0.0153	+/−0.0162		pCi/g						
Americium−246	U	−0.0194	+/−0.0308	0.0501	+/−0.0308		pCi/g						
Antimony−125	U	0.00322	+/−0.0259	0.0434	+/−0.0259	0.200	pCi/g						
Bismuth−211	U	−0.18	+/−0.273	0.437	+/−0.273		pCi/g						
Bismuth−212	UI	0.129	+/−0.166	0.117	+/−0.166	0.500	pCi/g						
Bismuth−214		0.195	+/−0.0421	0.0341	+/−0.0421	0.200	pCi/g						
Californium−249	U	0.00342	+/−0.0107	0.0182	+/−0.0107		pCi/g						
Cesium−137		0.205	+/−0.0256	0.0165	+/−0.0256	0.100	pCi/g						
Cobalt−60	U	0.00326	+/−0.0103	0.0178	+/−0.0103	0.100	pCi/g						
Curium−243	U	0.00462	+/−0.0211	0.0361	+/−0.0211		pCi/g						
Europium−155	U	−0.0271	+/−0.0312	0.0407	+/−0.0312	0.500	pCi/g						
Lead−212		0.302	+/−0.0372	0.0236	+/−0.0372	0.100	pCi/g						
Lead−214		0.216	+/−0.0423	0.0316	+/−0.0423	0.100	pCi/g						
Neptunium−236	U	0.012	+/−0.0139	0.0231	+/−0.0139		pCi/g						
Neptunium−237	UI	0.113	+/−0.0907	0.0746	+/−0.0907		pCi/g						
Neptunium−239	U	0.0154	+/−0.0543	0.0952	+/−0.0543	2.00	pCi/g						
Polonium−209	U	−1.24	+/−2.54	3.18	+/−2.54		pCi/g						
Potassium−40		2.05	+/−0.309	0.159	+/−0.309	1.00	pCi/g						
Protactinium−233	U	0.011	+/−0.0173	0.0302	+/−0.0173		pCi/g						
Protactinium−234m	U	−1.66	+/−2.20	2.19	+/−2.20		pCi/g						
Radium−223	UI	0.164	+/−0.0913	0.0772	+/−0.0913		pCi/g						
Rhodium−101	U	−0.000616	+/−0.011	0.0152	+/−0.011		pCi/g						
Thallium−208		0.0647	+/−0.0249	0.0152	+/−0.0249	0.080	pCi/g						
Thorium−234		0.341	+/−0.201	0.168	+/−0.201	0.500	pCi/g						
Uranium−235	U	0.0209	+/−0.0827	0.0811	+/−0.0827	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−2135−BD Project: SCAN00101
Sample ID: 198683042 Client ID: SCAN001

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

** Analyte is a surrogate compound
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R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
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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.

QUALITY CONTROL DATA

QC Summary

Report Date: December 17, 2007

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

Montgomery, Alabama
Contact: **Cindy White**

Workorder: **198683**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708123										
QC1201473819 198681021 DUP										
Actinium-228		1.01		1.06	pCi/g	4		(0% - 20%)	MJH1	12/14/0716:37
	Uncert:	+/-0.180		+/-0.154						
	TPU:	+/-0.180		+/-0.154						
Americium-241	U	0.0402	U	0.0193	pCi/g	70		N/A		
	Uncert:	+/-0.0517		+/-0.0212						
	TPU:	+/-0.0517		+/-0.0212						
Americium-243	UI	0.152	UI	0.154	pCi/g	1		(0% - 100%)		
	Uncert:	+/-0.0274		+/-0.0192						
	TPU:	+/-0.0274		+/-0.0192						
Americium-246	U	0.0241	U	0.00631	pCi/g	117		N/A		
	Uncert:	+/-0.0568		+/-0.0598						
	TPU:	+/-0.0568		+/-0.0598						
Antimony-125	U	0.0235	U	-0.00725	pCi/g	379		N/A		
	Uncert:	+/-0.0387		+/-0.0394						
	TPU:	+/-0.0387		+/-0.0394						
Bismuth-211	U	0.109	U	-0.131	pCi/g	2180		N/A		
	Uncert:	+/-0.451		+/-0.467						
	TPU:	+/-0.451		+/-0.467						
Bismuth-212		0.743		0.854	pCi/g	14		(0% - 100%)		
	Uncert:	+/-0.230		+/-0.222						
	TPU:	+/-0.230		+/-0.222						
Bismuth-214		0.627		0.604	pCi/g	4		(0% - 20%)		
	Uncert:	+/-0.0864		+/-0.0838						
	TPU:	+/-0.0864		+/-0.0838						
Californium-249	U	0.0138	U	0.0038	pCi/g	114		N/A		
	Uncert:	+/-0.0164		+/-0.0163						
	TPU:	+/-0.0164		+/-0.0163						
Cesium-137		0.0784		0.084	pCi/g	7		(0% - 100%)		
	Uncert:	+/-0.0245		+/-0.030						
	TPU:	+/-0.0245		+/-0.030						
Cobalt-60	U	-0.00741	U	-0.00185	pCi/g	120		N/A		
	Uncert:	+/-0.0183		+/-0.0194						
	TPU:	+/-0.0183		+/-0.0194						
Curium-243	UI	0.0935	U	0.0296	pCi/g	104*		(0% - 100%)		
	Uncert:	+/-0.0621		+/-0.0399						
	TPU:	+/-0.0621		+/-0.0399						
Europium-155	UI	0.103	U	0.0327	pCi/g	104*		(0% - 100%)		
	Uncert:	+/-0.0686		+/-0.0441						
	TPU:	+/-0.0686		+/-0.0441						
Lead-212		0.990		0.957	pCi/g	3		(0% - 20%)		
	Uncert:	+/-0.0798		+/-0.0879						
	TPU:	+/-0.0798		+/-0.0879						

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708123										
Lead-214		0.671		0.586	pCi/g	14		(0% - 20%)		
	Uncert:	+/-0.0687		+/-0.0795						
	TPU:	+/-0.0687		+/-0.0795						
Neptunium-236	U	0.0123	UI	0.0427	pCi/g	110*		(0% - 100%)		
	Uncert:	+/-0.0275		+/-0.0287						
	TPU:	+/-0.0275		+/-0.0287						
Neptunium-237	UI	0.534	UI	0.513	pCi/g	4		(0% - 100%)		
	Uncert:	+/-0.135		+/-0.0966						
	TPU:	+/-0.135		+/-0.0966						
Neptunium-239	U	-0.0162	U	0.0152	pCi/g	6350		N/A		
	Uncert:	+/-0.0926		+/-0.0834						
	TPU:	+/-0.0926		+/-0.0834						
Polonium-209	U	0.919	U	-1.43	pCi/g	915		N/A		
	Uncert:	+/-3.43		+/-3.45						
	TPU:	+/-3.43		+/-3.45						
Potassium-40		6.84		6.85	pCi/g	0		(0% - 20%)		
	Uncert:	+/-0.738		+/-0.623						
	TPU:	+/-0.738		+/-0.623						
Protactinium-233	U	0.0164	U	0.00164	pCi/g	164		N/A		
	Uncert:	+/-0.0279		+/-0.0243						
	TPU:	+/-0.0279		+/-0.0243						
Protactinium-234m	U	1.06	U	0.956	pCi/g	11		N/A		
	Uncert:	+/-2.18		+/-2.84						
	TPU:	+/-2.18		+/-2.84						
Radium-223	UI	0.273	UI	0.343	pCi/g	23		(0% - 100%)		
	Uncert:	+/-0.131		+/-0.102						
	TPU:	+/-0.131		+/-0.102						
Rhodium-101	U	0.00848	U	0.00224	pCi/g	117		N/A		
	Uncert:	+/-0.0156		+/-0.017						
	TPU:	+/-0.0156		+/-0.017						
Thallium-208		0.292		0.311	pCi/g	7		(0% - 20%)		
	Uncert:	+/-0.0444		+/-0.0393						
	TPU:	+/-0.0444		+/-0.0393						
Thorium-234		0.858		1.44	pCi/g	50		(0% - 100%)		
	Uncert:	+/-0.306		+/-0.275						
	TPU:	+/-0.306		+/-0.275						
Uranium-235	U	0.0907	U	0.0128	pCi/g	151		N/A		
	Uncert:	+/-0.123		+/-0.106						
	TPU:	+/-0.123		+/-0.106						
QC1201473820 LCS										
Actinium-228				1.15	pCi/g					12/14/0716:00
	Uncert:			+/-0.526						
	TPU:			+/-0.526						
Americium-241	16.0			14.3	pCi/g		89	(75%-125%)		
	Uncert:			+/-1.41						
	TPU:			+/-1.41						
Americium-243			U	0.170	pCi/g					
	Uncert:			+/-0.130						

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708123											
	TPU:			+/-0.130							
Americium-246			U	0.0248	pCi/g						
	Uncert:			+/-0.361							
	TPU:			+/-0.361							
Antimony-125			U	-0.133	pCi/g						
	Uncert:			+/-0.195							
	TPU:			+/-0.195							
Bismuth-211			U	-0.728	pCi/g						
	Uncert:			+/-2.64							
	TPU:			+/-2.64							
Bismuth-212			U	0.191	pCi/g						
	Uncert:			+/-0.747							
	TPU:			+/-0.747							
Bismuth-214				0.521	pCi/g						
	Uncert:			+/-0.262							
	TPU:			+/-0.262							
Californium-249			U	0.0633	pCi/g						
	Uncert:			+/-0.0887							
	TPU:			+/-0.0887							
Cesium-137	6.10			5.64	pCi/g		93	(75%-125%)			
	Uncert:			+/-0.442							
	TPU:			+/-0.442							
Cobalt-60	8.52			8.55	pCi/g		100	(75%-125%)			
	Uncert:			+/-0.622							
	TPU:			+/-0.622							
Curium-243			U	0.063	pCi/g						
	Uncert:			+/-0.152							
	TPU:			+/-0.152							
Europium-155			U	0.0189	pCi/g						
	Uncert:			+/-0.163							
	TPU:			+/-0.163							
Lead-212				0.995	pCi/g						
	Uncert:			+/-0.155							
	TPU:			+/-0.155							
Lead-214				0.657	pCi/g						
	Uncert:			+/-0.288							
	TPU:			+/-0.288							
Neptunium-236			U	0.0968	pCi/g						
	Uncert:			+/-0.0962							
	TPU:			+/-0.0962							
Neptunium-237				30.6	pCi/g						
	Uncert:			+/-2.46							
	TPU:			+/-2.46							
Neptunium-239			U	-0.43	pCi/g						
	Uncert:			+/-0.411							
	TPU:			+/-0.411							
Polonium-209				239	pCi/g						
	Uncert:			+/-46.3							

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708123										
	TPU:			+/-46.3						
Potassium-40			U	0.563	pCi/g					
	Uncert:			+/-0.630						
	TPU:			+/-0.630						
Protactinium-233			U	0.0634	pCi/g					
	Uncert:			+/-0.121						
	TPU:			+/-0.121						
Protactinium-234m			U	-3.56	pCi/g					
	Uncert:			+/-12.5						
	TPU:			+/-12.5						
Radium-223			U	0.0092	pCi/g					
	Uncert:			+/-0.352						
	TPU:			+/-0.352						
Rhodium-101			U	0.0104	pCi/g					
	Uncert:			+/-0.0529						
	TPU:			+/-0.0529						
Thallium-208				0.370	pCi/g					
	Uncert:			+/-0.118						
	TPU:			+/-0.118						
Thorium-234			U	1.50	pCi/g					
	Uncert:			+/-1.02						
	TPU:			+/-1.02						
Uranium-235			U	-0.12	pCi/g					
	Uncert:			+/-0.307						
	TPU:			+/-0.307						
QC1201473818 MB										
Actinium-228			U	0.0497	pCi/g					12/14/0716:36
	Uncert:			+/-0.0969						
	TPU:			+/-0.0969						
Americium-241			U	0.00117	pCi/g					
	Uncert:			+/-0.0159						
	TPU:			+/-0.0159						
Americium-243			U	0.000616	pCi/g					
	Uncert:			+/-0.00854						
	TPU:			+/-0.00854						
Americium-246			U	0.0241	pCi/g					
	Uncert:			+/-0.0511						
	TPU:			+/-0.0511						
Antimony-125			U	0.0386	pCi/g					
	Uncert:			+/-0.0327						
	TPU:			+/-0.0327						
Bismuth-211			U	-0.164	pCi/g					
	Uncert:			+/-0.426						
	TPU:			+/-0.426						
Bismuth-212			U	-0.0374	pCi/g					
	Uncert:			+/-0.135						
	TPU:			+/-0.135						
Bismuth-214			U	0.00568	pCi/g					

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708123											
	Uncert:			+/-0.0387							
	TPU:			+/-0.0387							
Californium-249			U	0.00331	pCi/g						
	Uncert:			+/-0.0142							
	TPU:			+/-0.0142							
Cesium-137			U	0.0147	pCi/g						
	Uncert:			+/-0.0146							
	TPU:			+/-0.0146							
Cobalt-60			U	0.00511	pCi/g						
	Uncert:			+/-0.0162							
	TPU:			+/-0.0162							
Curium-243			U	-0.00836	pCi/g						
	Uncert:			+/-0.0216							
	TPU:			+/-0.0216							
Europium-155			U	0.00539	pCi/g						
	Uncert:			+/-0.0238							
	TPU:			+/-0.0238							
Lead-212			U	0.00386	pCi/g						
	Uncert:			+/-0.0319							
	TPU:			+/-0.0319							
Lead-214			U	-0.00584	pCi/g						
	Uncert:			+/-0.0316							
	TPU:			+/-0.0316							
Neptunium-236			U	-0.00708	pCi/g						
	Uncert:			+/-0.0186							
	TPU:			+/-0.0186							
Neptunium-237			U	-0.152	pCi/g						
	Uncert:			+/-0.0491							
	TPU:			+/-0.0491							
Neptunium-239			U	0.0964	pCi/g						
	Uncert:			+/-0.0731							
	TPU:			+/-0.0731							
Polonium-209			U	1.09	pCi/g						
	Uncert:			+/-2.94							
	TPU:			+/-2.94							
Potassium-40			U	0.123	pCi/g						
	Uncert:			+/-0.169							
	TPU:			+/-0.169							
Protactinium-233			U	-0.00456	pCi/g						
	Uncert:			+/-0.0211							
	TPU:			+/-0.0211							
Protactinium-234m			U	0.518	pCi/g						
	Uncert:			+/-2.51							
	TPU:			+/-2.51							
Radium-223			U	0.0498	pCi/g						
	Uncert:			+/-0.0553							
	TPU:			+/-0.0553							
Rhodium-101			U	0.000824	pCi/g						

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708123										
	Uncert:			+/-0.0162						
	TPU:			+/-0.0162						
Thallium-208			U	-0.0199	pCi/g					
	Uncert:			+/-0.0192						
	TPU:			+/-0.0192						
Thorium-234			U	0.0136	pCi/g					
	Uncert:			+/-0.209						
	TPU:			+/-0.209						
Uranium-235			U	0.00936	pCi/g					
	Uncert:			+/-0.0823						
	TPU:			+/-0.0823						
Batch 708124										
QC1201473822 198683007 DUP										
Actinium-228		1.52		1.62	pCi/g	6		(0% - 20%)	MJH1	12/16/0712:09
	Uncert:	+/-0.263		+/-0.282						
	TPU:	+/-0.263		+/-0.282						
Americium-241	U	0.0309	U	0.0383	pCi/g	21		N/A		
	Uncert:	+/-0.111		+/-0.0424						
	TPU:	+/-0.111		+/-0.0424						
Americium-243	UI	0.309	UI	0.327	pCi/g	6		(0% - 20%)		
	Uncert:	+/-0.0546		+/-0.0433						
	TPU:	+/-0.0546		+/-0.0433						
Americium-246	U	0.0401	U	0.0675	pCi/g	51		N/A		
	Uncert:	+/-0.0824		+/-0.127						
	TPU:	+/-0.0824		+/-0.127						
Antimony-125	U	-0.0193	U	0.0427	pCi/g	530		N/A		
	Uncert:	+/-0.0637		+/-0.082						
	TPU:	+/-0.0637		+/-0.082						
Bismuth-211	U	-0.535	U	-0.264	pCi/g	68		N/A		
	Uncert:	+/-0.824		+/-0.963						
	TPU:	+/-0.824		+/-0.963						
Bismuth-212		1.13		1.17	pCi/g	4		(0% - 100%)		
	Uncert:	+/-0.276		+/-0.308						
	TPU:	+/-0.276		+/-0.308						
Bismuth-214		1.28		1.33	pCi/g	4		(0% - 20%)		
	Uncert:	+/-0.161		+/-0.173						
	TPU:	+/-0.161		+/-0.173						
Californium-249	U	0.0267	U	0.0201	pCi/g	28		N/A		
	Uncert:	+/-0.0388		+/-0.0347						
	TPU:	+/-0.0388		+/-0.0347						
Cesium-137		0.347		0.343	pCi/g	1		(0% - 20%)		
	Uncert:	+/-0.0651		+/-0.0636						
	TPU:	+/-0.0651		+/-0.0636						
Cobalt-60	U	0.0174	U	0.0313	pCi/g	57		N/A		
	Uncert:	+/-0.0266		+/-0.036						
	TPU:	+/-0.0266		+/-0.036						
Curium-243	U	-0.0195	U	0.104	pCi/g	292		N/A		
	Uncert:	+/-0.0705		+/-0.0794						

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708124										
	TPU:	+/-0.0705		+/-0.0794						
Europium-155	U	0.0706	U	0.116	pCi/g	48		N/A		
	Uncert:	+/-0.0711		+/-0.0877						
	TPU:	+/-0.0711		+/-0.0877						
Lead-212		1.41		1.65	pCi/g	16		(0% - 20%)		
	Uncert:	+/-0.118		+/-0.163						
	TPU:	+/-0.118		+/-0.163						
Lead-214		1.29		1.54	pCi/g	17		(0% - 20%)		
	Uncert:	+/-0.133		+/-0.154						
	TPU:	+/-0.133		+/-0.154						
Neptunium-236	U	0.0411	U	0.0381	pCi/g	8		N/A		
	Uncert:	+/-0.0479		+/-0.0439						
	TPU:	+/-0.0479		+/-0.0439						
Neptunium-237	UI	0.988	UI	1.03	pCi/g	4		(0% - 100%)		
	Uncert:	+/-0.225		+/-0.197						
	TPU:	+/-0.225		+/-0.197						
Neptunium-239	U	-0.0063	U	0.0513	pCi/g	256		N/A		
	Uncert:	+/-0.164		+/-0.176						
	TPU:	+/-0.164		+/-0.176						
Polonium-209	U	2.58	U	-1.53	pCi/g	783		N/A		
	Uncert:	+/-5.46		+/-5.99						
	TPU:	+/-5.46		+/-5.99						
Potassium-40		8.85		8.71	pCi/g	2		(0% - 20%)		
	Uncert:	+/-1.01		+/-1.12						
	TPU:	+/-1.01		+/-1.12						
Protactinium-233	U	0.0136	U	0.0375	pCi/g	93		N/A		
	Uncert:	+/-0.045		+/-0.0527						
	TPU:	+/-0.045		+/-0.0527						
Protactinium-234m	U	3.52	UI	7.01	pCi/g	66		(0% - 100%)		
	Uncert:	+/-5.65		+/-4.03						
	TPU:	+/-5.65		+/-4.03						
Radium-223	UI	0.437	UI	0.397	pCi/g	10		(0% - 100%)		
	Uncert:	+/-0.211		+/-0.279						
	TPU:	+/-0.211		+/-0.279						
Rhodium-101	U	-0.00453	U	0.00368	pCi/g	1910		N/A		
	Uncert:	+/-0.024		+/-0.0304						
	TPU:	+/-0.024		+/-0.0304						
Thallium-208		0.442		0.507	pCi/g	14		(0% - 20%)		
	Uncert:	+/-0.0647		+/-0.0813						
	TPU:	+/-0.0647		+/-0.0813						
Thorium-234		1.74		1.92	pCi/g	10		(0% - 100%)		
	Uncert:	+/-0.572		+/-0.501						
	TPU:	+/-0.572		+/-0.501						
Uranium-235	U	0.0405	U	0.115	pCi/g	96		N/A		
	Uncert:	+/-0.179		+/-0.166						
	TPU:	+/-0.179		+/-0.166						
QC1201473823 LCS										
Actinium-228			U	0.768	pCi/g					12/16/0712:47

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708124										
	Uncert:			+/-0.551						
	TPU:			+/-0.551						
Americium-241	16.0			12.9	pCi/g		81	(75%-125%)		
	Uncert:			+/-1.30						
	TPU:			+/-1.30						
Americium-243			U	0.183	pCi/g					
	Uncert:			+/-0.132						
	TPU:			+/-0.132						
Americium-246			U	0.198	pCi/g					
	Uncert:			+/-0.366						
	TPU:			+/-0.366						
Antimony-125			U	-0.00123	pCi/g					
	Uncert:			+/-0.228						
	TPU:			+/-0.228						
Bismuth-211			U	0.883	pCi/g					
	Uncert:			+/-2.47						
	TPU:			+/-2.47						
Bismuth-212			U	0.300	pCi/g					
	Uncert:			+/-0.653						
	TPU:			+/-0.653						
Bismuth-214				0.860	pCi/g					
	Uncert:			+/-0.258						
	TPU:			+/-0.258						
Californium-249			U	0.0427	pCi/g					
	Uncert:			+/-0.109						
	TPU:			+/-0.109						
Cesium-137	6.10			6.12	pCi/g		100	(75%-125%)		
	Uncert:			+/-0.575						
	TPU:			+/-0.575						
Cobalt-60	8.52			9.20	pCi/g		108	(75%-125%)		
	Uncert:			+/-0.696						
	TPU:			+/-0.696						
Curium-243			U	-0.198	pCi/g					
	Uncert:			+/-0.224						
	TPU:			+/-0.224						
Europium-155			U	0.0679	pCi/g					
	Uncert:			+/-0.241						
	TPU:			+/-0.241						
Lead-212				1.11	pCi/g					
	Uncert:			+/-0.201						
	TPU:			+/-0.201						
Lead-214				0.860	pCi/g					
	Uncert:			+/-0.312						
	TPU:			+/-0.312						
Neptunium-236			U	0.00516	pCi/g					
	Uncert:			+/-0.138						
	TPU:			+/-0.138						
Neptunium-237				31.5	pCi/g					

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708124										
	Uncert:			+/-2.99						
	TPU:			+/-2.99						
Neptunium-239			U	-0.201	pCi/g					
	Uncert:			+/-0.612						
	TPU:			+/-0.612						
Polonium-209				244	pCi/g					
	Uncert:			+/-54.2						
	TPU:			+/-54.2						
Potassium-40				1.27	pCi/g					
	Uncert:			+/-0.628						
	TPU:			+/-0.628						
Protactinium-233			U	0.00712	pCi/g					
	Uncert:			+/-0.149						
	TPU:			+/-0.149						
Protactinium-234m			U	1.71	pCi/g					
	Uncert:			+/-11.6						
	TPU:			+/-11.6						
Radium-223			U	0.443	pCi/g					
	Uncert:			+/-0.427						
	TPU:			+/-0.427						
Rhodium-101			U	0.0127	pCi/g					
	Uncert:			+/-0.0755						
	TPU:			+/-0.0755						
Thallium-208				0.458	pCi/g					
	Uncert:			+/-0.178						
	TPU:			+/-0.178						
Thorium-234			U	0.342	pCi/g					
	Uncert:			+/-1.18						
	TPU:			+/-1.18						
Uranium-235			U	0.107	pCi/g					
	Uncert:			+/-0.435						
	TPU:			+/-0.435						
QC1201473821 MB										
Actinium-228			U	0.0841	pCi/g					12/16/0712:09
	Uncert:			+/-0.0773						
	TPU:			+/-0.0773						
Americium-241			U	-0.0414	pCi/g					
	Uncert:			+/-0.0708						
	TPU:			+/-0.0708						
Americium-243			U	0.00431	pCi/g					
	Uncert:			+/-0.017						
	TPU:			+/-0.017						
Americium-246			U	0.0511	pCi/g					
	Uncert:			+/-0.0503						
	TPU:			+/-0.0503						
Antimony-125			U	-0.0161	pCi/g					
	Uncert:			+/-0.0278						
	TPU:			+/-0.0278						

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708124											
Bismuth-211			U	0.033	pCi/g						
	Uncert:			+/-0.321							
	TPU:			+/-0.321							
Bismuth-212			U	-0.0809	pCi/g						
	Uncert:			+/-0.087							
	TPU:			+/-0.087							
Bismuth-214			U	0.00889	pCi/g						
	Uncert:			+/-0.0543							
	TPU:			+/-0.0543							
Californium-249			U	-0.00473	pCi/g						
	Uncert:			+/-0.0132							
	TPU:			+/-0.0132							
Cesium-137			U	0.00219	pCi/g						
	Uncert:			+/-0.0112							
	TPU:			+/-0.0112							
Cobalt-60			U	0.00183	pCi/g						
	Uncert:			+/-0.0104							
	TPU:			+/-0.0104							
Curium-243			U	0.00783	pCi/g						
	Uncert:			+/-0.0333							
	TPU:			+/-0.0333							
Europium-155			U	-0.0142	pCi/g						
	Uncert:			+/-0.0356							
	TPU:			+/-0.0356							
Lead-212			U	-0.00673	pCi/g						
	Uncert:			+/-0.025							
	TPU:			+/-0.025							
Lead-214			U	-0.0319	pCi/g						
	Uncert:			+/-0.0291							
	TPU:			+/-0.0291							
Neptunium-236			UI	0.0297	pCi/g						
	Uncert:			+/-0.0223							
	TPU:			+/-0.0223							
Neptunium-237			U	0.0441	pCi/g						
	Uncert:			+/-0.0738							
	TPU:			+/-0.0738							
Neptunium-239			U	0.0684	pCi/g						
	Uncert:			+/-0.073							
	TPU:			+/-0.073							
Polonium-209			U	-0.37	pCi/g						
	Uncert:			+/-2.18							
	TPU:			+/-2.18							
Potassium-40			U	0.139	pCi/g						
	Uncert:			+/-0.184							
	TPU:			+/-0.184							
Protactinium-233			U	0.0184	pCi/g						
	Uncert:			+/-0.0391							
	TPU:			+/-0.0391							

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708124										
Protactinium-234m			U	1.37	pCi/g					
	Uncert:			+/-1.68						
	TPU:			+/-1.68						
Radium-223			U	-0.0152	pCi/g					
	Uncert:			+/-0.0597						
	TPU:			+/-0.0597						
Rhodium-101			U	-0.00375	pCi/g					
	Uncert:			+/-0.0131						
	TPU:			+/-0.0131						
Thallium-208			U	-0.0142	pCi/g					
	Uncert:			+/-0.0144						
	TPU:			+/-0.0144						
Thorium-234			U	0.145	pCi/g					
	Uncert:			+/-0.253						
	TPU:			+/-0.253						
Uranium-235			U	-0.0499	pCi/g					
	Uncert:			+/-0.0814						
	TPU:			+/-0.0814						
Batch 708126										
QC1201473828 198683027 DUP										
Actinium-228		0.764		0.652	pCi/g	16		(0% - 20%)	MJH1	12/16/0716:43
	Uncert:	+/-0.213		+/-0.116						
	TPU:	+/-0.213		+/-0.116						
Americium-241	U	0.0252	U	0.0313	pCi/g	21		N/A		
	Uncert:	+/-0.103		+/-0.0487						
	TPU:	+/-0.103		+/-0.0487						
Americium-243	UI	0.132	UI	0.158	pCi/g	18		(0% - 100%)		
	Uncert:	+/-0.0426		+/-0.0254						
	TPU:	+/-0.0426		+/-0.0254						
Americium-246	U	0.0285	U	0.00996	pCi/g	97		N/A		
	Uncert:	+/-0.0877		+/-0.0418						
	TPU:	+/-0.0877		+/-0.0418						
Antimony-125	U	-0.0288	U	0.0253	pCi/g	3140		N/A		
	Uncert:	+/-0.059		+/-0.029						
	TPU:	+/-0.059		+/-0.029						
Bismuth-211	U	-0.25	U	-0.326	pCi/g	26		N/A		
	Uncert:	+/-0.622		+/-0.342						
	TPU:	+/-0.622		+/-0.342						
Bismuth-212	UI	0.567		0.565	pCi/g	0		(0% - 100%)		
	Uncert:	+/-0.252		+/-0.146						
	TPU:	+/-0.252		+/-0.146						
Bismuth-214		0.512		0.479	pCi/g	7		(0% - 20%)		
	Uncert:	+/-0.101		+/-0.0642						
	TPU:	+/-0.101		+/-0.0642						
Californium-249	U	0.00893	U	0.00369	pCi/g	83		N/A		
	Uncert:	+/-0.0256		+/-0.0129						
	TPU:	+/-0.0256		+/-0.0129						
Cesium-137		0.0766		0.0666	pCi/g	14		(0% - 100%)		

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708126										
	Uncert:	+/-0.0338		+/-0.0227						
	TPU:	+/-0.0338		+/-0.0227						
Cobalt-60	U	-0.00585	U	-0.00107	pCi/g	138		N/A		
	Uncert:	+/-0.0282		+/-0.015						
	TPU:	+/-0.0282		+/-0.015						
Curium-243	U	0.0202	UI	0.0572	pCi/g	96		(0% - 100%)		
	Uncert:	+/-0.0565		+/-0.0416						
	TPU:	+/-0.0565		+/-0.0416						
Europium-155	U	0.0395	UI	0.0632	pCi/g	46		(0% - 100%)		
	Uncert:	+/-0.0635		+/-0.046						
	TPU:	+/-0.0635		+/-0.046						
Lead-212		0.625		0.640	pCi/g	2		(0% - 20%)		
	Uncert:	+/-0.0741		+/-0.0531						
	TPU:	+/-0.0741		+/-0.0531						
Lead-214		0.607		0.512	pCi/g	17		(0% - 20%)		
	Uncert:	+/-0.110		+/-0.0597						
	TPU:	+/-0.110		+/-0.0597						
Neptunium-236	U	0.0217	UI	0.0384	pCi/g	56		(0% - 100%)		
	Uncert:	+/-0.0343		+/-0.0255						
	TPU:	+/-0.0343		+/-0.0255						
Neptunium-237	UI	0.419	UI	0.428	pCi/g	2		(0% - 100%)		
	Uncert:	+/-0.185		+/-0.0878						
	TPU:	+/-0.185		+/-0.0878						
Neptunium-239	U	0.181	U	0.0156	pCi/g	168		N/A		
	Uncert:	+/-0.134		+/-0.0705						
	TPU:	+/-0.134		+/-0.0705						
Polonium-209	U	3.30	U	-0.848	pCi/g	338		N/A		
	Uncert:	+/-4.44		+/-2.26						
	TPU:	+/-4.44		+/-2.26						
Potassium-40		5.83		5.63	pCi/g	4		(0% - 20%)		
	Uncert:	+/-0.760		+/-0.525						
	TPU:	+/-0.760		+/-0.525						
Protactinium-233	U	-0.00418	U	0.00507	pCi/g	2080		N/A		
	Uncert:	+/-0.0386		+/-0.0239						
	TPU:	+/-0.0386		+/-0.0239						
Protactinium-234m	U	-0.916	U	-1.04	pCi/g	13		N/A		
	Uncert:	+/-2.82		+/-1.80						
	TPU:	+/-2.82		+/-1.80						
Radium-223	UI	0.191	UI	0.234	pCi/g	20		(0% - 100%)		
	Uncert:	+/-0.126		+/-0.0874						
	TPU:	+/-0.126		+/-0.0874						
Rhodium-101	U	0.00869	U	0.00557	pCi/g	44		N/A		
	Uncert:	+/-0.0232		+/-0.0167						
	TPU:	+/-0.0232		+/-0.0167						
Thallium-208		0.201		0.157	pCi/g	24*		(0% - 20%)		
	Uncert:	+/-0.0442		+/-0.0283						
	TPU:	+/-0.0442		+/-0.0283						
Thorium-234		0.522		0.981	pCi/g	61		(0% - 100%)		

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708126										
	Uncert:	+/-0.471		+/-0.287						
	TPU:	+/-0.471		+/-0.287						
Uranium-235	U	-0.0263	U	-0.0709	pCi/g	92		N/A		
	Uncert:	+/-0.139		+/-0.0764						
	TPU:	+/-0.139		+/-0.0764						
QC1201473829 LCS										
Actinium-228				2.13	pCi/g					12/16/0713:52
	Uncert:			+/-0.834						
	TPU:			+/-0.834						
Americium-241	16.4			14.2	pCi/g		87	(75%-125%)		
	Uncert:			+/-1.44						
	TPU:			+/-1.44						
Americium-243				0.323	pCi/g					
	Uncert:			+/-0.159						
	TPU:			+/-0.159						
Americium-246			U	-0.181	pCi/g					
	Uncert:			+/-0.387						
	TPU:			+/-0.387						
Antimony-125			U	-0.0226	pCi/g					
	Uncert:			+/-0.238						
	TPU:			+/-0.238						
Bismuth-211			U	-0.258	pCi/g					
	Uncert:			+/-2.67						
	TPU:			+/-2.67						
Bismuth-212			U	0.882	pCi/g					
	Uncert:			+/-0.997						
	TPU:			+/-0.997						
Bismuth-214				1.15	pCi/g					
	Uncert:			+/-0.274						
	TPU:			+/-0.274						
Californium-249			U	0.110	pCi/g					
	Uncert:			+/-0.112						
	TPU:			+/-0.112						
Cesium-137	6.25			6.25	pCi/g		100	(75%-125%)		
	Uncert:			+/-0.581						
	TPU:			+/-0.581						
Cobalt-60	8.73			9.04	pCi/g		104	(75%-125%)		
	Uncert:			+/-0.692						
	TPU:			+/-0.692						
Curium-243			U	0.136	pCi/g					
	Uncert:			+/-0.245						
	TPU:			+/-0.245						
Europium-155			U	-0.0886	pCi/g					
	Uncert:			+/-0.250						
	TPU:			+/-0.250						
Lead-212				1.35	pCi/g					
	Uncert:			+/-0.225						
	TPU:			+/-0.225						

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 708126										
Lead-214				0.987	pCi/g					
	Uncert:			+/-0.286						
	TPU:			+/-0.286						
Neptunium-236			U	0.0724	pCi/g					
	Uncert:			+/-0.125						
	TPU:			+/-0.125						
Neptunium-237				33.4	pCi/g					
	Uncert:			+/-3.19						
	TPU:			+/-3.19						
Neptunium-239			U	-0.0624	pCi/g					
	Uncert:			+/-0.575						
	TPU:			+/-0.575						
Polonium-209				237	pCi/g					
	Uncert:			+/-51.1						
	TPU:			+/-51.1						
Potassium-40			U	0.438	pCi/g					
	Uncert:			+/-0.754						
	TPU:			+/-0.754						
Protactinium-233			U	0.0481	pCi/g					
	Uncert:			+/-0.155						
	TPU:			+/-0.155						
Protactinium-234m			U	4.31	pCi/g					
	Uncert:			+/-12.2						
	TPU:			+/-12.2						
Radium-223			U	0.177	pCi/g					
	Uncert:			+/-0.522						
	TPU:			+/-0.522						
Rhodium-101			U	0.018	pCi/g					
	Uncert:			+/-0.095						
	TPU:			+/-0.095						
Thallium-208				0.346	pCi/g					
	Uncert:			+/-0.170						
	TPU:			+/-0.170						
Thorium-234				2.58	pCi/g					
	Uncert:			+/-1.48						
	TPU:			+/-1.48						
Uranium-235			U	-0.0597	pCi/g					
	Uncert:			+/-0.458						
	TPU:			+/-0.458						
QC1201473827 MB										
Actinium-228			UI	0.0551	pCi/g					12/16/0716:43
	Uncert:			+/-0.0463						
	TPU:			+/-0.0463						
Americium-241			U	-0.0691	pCi/g					
	Uncert:			+/-0.0221						
	TPU:			+/-0.0221						
Americium-243			U	-0.0131	pCi/g					
	Uncert:			+/-0.0121						

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708126											
	TPU:			+/-0.0121							
Americium-246			U	-0.0151	pCi/g						
	Uncert:			+/-0.0262							
	TPU:			+/-0.0262							
Antimony-125			U	0.000772	pCi/g						
	Uncert:			+/-0.0177							
	TPU:			+/-0.0177							
Bismuth-211			U	-0.262	pCi/g						
	Uncert:			+/-0.243							
	TPU:			+/-0.243							
Bismuth-212			U	0.0313	pCi/g						
	Uncert:			+/-0.106							
	TPU:			+/-0.106							
Bismuth-214			U	0.0106	pCi/g						
	Uncert:			+/-0.0281							
	TPU:			+/-0.0281							
Californium-249			U	6.57E-06	pCi/g						
	Uncert:			+/-0.00773							
	TPU:			+/-0.00773							
Cesium-137			U	0.00383	pCi/g						
	Uncert:			+/-0.00725							
	TPU:			+/-0.00725							
Cobalt-60			U	0.00442	pCi/g						
	Uncert:			+/-0.00755							
	TPU:			+/-0.00755							
Curium-243			U	-0.00942	pCi/g						
	Uncert:			+/-0.0153							
	TPU:			+/-0.0153							
Europium-155			U	-0.00175	pCi/g						
	Uncert:			+/-0.0167							
	TPU:			+/-0.0167							
Lead-212			U	0.0148	pCi/g						
	Uncert:			+/-0.0196							
	TPU:			+/-0.0196							
Lead-214			U	-0.00851	pCi/g						
	Uncert:			+/-0.0226							
	TPU:			+/-0.0226							
Neptunium-236			U	0.0114	pCi/g						
	Uncert:			+/-0.0109							
	TPU:			+/-0.0109							
Neptunium-237			U	0.0414	pCi/g						
	Uncert:			+/-0.0286							
	TPU:			+/-0.0286							
Neptunium-239			U	0.00467	pCi/g						
	Uncert:			+/-0.0401							
	TPU:			+/-0.0401							
Polonium-209			U	1.22	pCi/g						
	Uncert:			+/-1.40							

QC Summary

Workorder: 198683

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 708126											
	TPU:			+/-1.40							
Potassium-40			U	-0.0859	pCi/g						
	Uncert:			+/-0.138							
	TPU:			+/-0.138							
Protactinium-233			U	-0.00718	pCi/g						
	Uncert:			+/-0.0123							
	TPU:			+/-0.0123							
Protactinium-234m			U	1.15	pCi/g						
	Uncert:			+/-1.10							
	TPU:			+/-1.10							
Radium-223			U	0.0229	pCi/g						
	Uncert:			+/-0.0342							
	TPU:			+/-0.0342							
Rhodium-101			U	0.00335	pCi/g						
	Uncert:			+/-0.00907							
	TPU:			+/-0.00907							
Thallium-208			U	-0.0111	pCi/g						
	Uncert:			+/-0.0125							
	TPU:			+/-0.0125							
Thorium-234			U	0.183	pCi/g						
	Uncert:			+/-0.153							
	TPU:			+/-0.153							
Uranium-235			U	-0.0318	pCi/g						
	Uncert:			+/-0.0472							
	TPU:			+/-0.0472							

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.

QC Summary

Workorder: 198683

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

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

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# 708123 Product: 8S SCAN 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.		✓	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 12/17/07

Secondary Review Performed By: KBoth 12/17/07

Gamma Spec Que Sheet

12/05/2007

Batch #:708123 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: 1.0mL Nominal Concentration: Am241-15.96 Cs137-61.03 Co60-8.52

Initials: MJH 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)
198681021-1	SB-CZ-SS-2105-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	135.49	11	
198681022-1	SB-CZ-SS-2106-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	137.03	5	
198681023-1	SB-CZ-SS-2107-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	129.47	23	
198681024-1	SB-CZ-SS-2108-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	114.75	7	
198681025-1	SB-CZ-SS-2109-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	132.75	12	
198681026-1	SB-CZ-SS-2110-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	123.46	13 3	SCE 12/17/07
198681027-1	SB-CZ-SS-2111-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	159.12	19	
198681028-1	SB-CZ-SS-2112-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	124.83	20	
198681029-1	SB-CZ-SS-2113-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	129.94	22	
198681030-1	SB-CZ-SS-2114-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	144.74	6	
198681031-1	SB-CZ-SS-2111-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	138.02	17	
198681032-1	SB-CZ-SS-2112-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	122.15	14	
198681033-1	SB-CZ-SS-2113-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	126.07	21	
198681034-1	SB-CZ-SS-2114-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	139.59	1	
198683001-1	SB-CZ-SS-2115-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	128.39	2	
198683002-1	SB-CZ-SS-2116-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	145.13	11	
198683003-1	SB-CZ-SS-2117-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	109.30	7	
198683004-1	SB-CZ-SS-2118-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	123.63	12	
198683005-1	SB-CZ-SS-2119-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	145.12	gamma	
198683006-1	SB-CZ-SS-2120-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	120.83	5	
1201473818-1	MB for batch 708123	MB		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07	145.13	13	
1201473819-1	SB-CZ-SS-2105-BD(198681021DUP	DUP		.08 pCi/g	QC ACCOUNT	SOIL	18-OCT-07 00:00:00	135.53	17	
1201473820-1	LCS for batch 708123	LCS		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07	155.44	23	

MJH 12/10/07

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: S. Eulard 12/17/07

MO 12/17/07

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
708123	198681021	SAMPLE	14-DEC-07				
708123	198681022	SAMPLE	14-DEC-07				
708123	198681023	SAMPLE	14-DEC-07				
708123	198681024	SAMPLE	14-DEC-07				
708123	198681025	SAMPLE	14-DEC-07				
708123	198681026	SAMPLE	14-DEC-07				
708123	198681027	SAMPLE	14-DEC-07				
708123	198681028	SAMPLE	14-DEC-07				
708123	198681029	SAMPLE	14-DEC-07				
708123	198681030	SAMPLE	14-DEC-07				
708123	198681031	SAMPLE	14-DEC-07				
708123	198681032	SAMPLE	14-DEC-07				
708123	198681033	SAMPLE	14-DEC-07				
708123	198681034	SAMPLE	14-DEC-07				
708123	198683001	SAMPLE	14-DEC-07				
708123	198683002	SAMPLE	14-DEC-07				
708123	198683003	SAMPLE	14-DEC-07				
708123	198683004	SAMPLE	14-DEC-07				
708123	198683005	SAMPLE	14-DEC-07				
708123	198683006	SAMPLE	14-DEC-07				
708123	1201473818	MB	14-DEC-07				
708123	1201473819	DUP	14-DEC-07				
708123	1201473820	LCS	14-DEC-07	Antimony-125	-0.133	0.3283	0.200
				Bismuth-212	0.1908	1.15	0.500
				Potassium-40	0.5628	1.217	1.00
				Thorium-234	1.495	1.568	0.500
				Uranium-235	-0.1204	0.546	0.500

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681021-1 14-DEC-2007 10:23	Americium-243	UI	UI	UI	Data rejected due to interference.		.1517			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09352			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1033		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5343			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2731			
198681022-1 14-DEC-2007 10:46	Americium-243	UI	UI	UI	Data rejected due to interference.		.1852			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09467			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1046		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6243			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3312			
198681023-1 14-DEC-2007 10:47	Americium-243	UI	UI	UI	Data rejected due to interference.		.1461			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3062			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3274			
198681024-1 14-DEC-2007 10:51	Americium-243	UI	UI	UI	Data rejected due to interference.		.2295			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09208			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1017		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.8845			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		5.117			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4403			
198681025-1 14-DEC-2007 10:51	Americium-243	UI	UI	UI	Data rejected due to interference.		.1766			

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681025-1 14-DEC-2007 10:51	Americium-246	UI	UI	UI	Data rejected due to interference.		.1655			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.7602			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.5256			
198681027-1 14-DEC-2007 11:35	Americium-243	UI	UI	UI	Data rejected due to interference.		.1126			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.22			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2417			
198681028-1 14-DEC-2007 11:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.1354			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4835			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3006			
198681029-1 14-DEC-2007 12:08	Americium-243	UI	UI	UI	Data rejected due to interference.		.1564			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6121			
	Protactinium-234m	UI	UI	UI	Data rejected due to high peak-width.		4.566			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2129			
198681030-1 14-DEC-2007 12:13	Americium-243	UI	UI	UI	Data rejected due to interference.		.06246			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2625			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2549			
198681031-1 14-DEC-2007 12:24	Americium-243	UI	UI	UI	Data rejected due to interference.		.09848			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4242			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3255			

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198681032-1 14-DEC-2007 13:02	Americium-243	UI	UI	UI	Data rejected due to interference.		.1413			
	~~Cesium-137~~	~~UI~~	~~UI~~	~~UI~~	~~Data rejected due to no valid peak.~~		~~.04767~~		.1	.1
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4751			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2324			
198681033-1 14-DEC-2007 13:54	Americium-243	UI	UI	UI	Data rejected due to interference.		.1545			
	~~Bismuth-212~~	~~UI~~	~~UI~~	~~UI~~	~~Data rejected due to no valid peak.~~		~~.51~~		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5715			
	Polonium-209	UI	UI	UI	Data rejected due to high peak-width.		20.71			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2545			
198681034-1 14-DEC-2007 14:26	Americium-243	UI	UI	UI	Data rejected due to interference.		.1217			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5325			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.234			
198683001-1 14-DEC-2007 14:26	Americium-243	UI	UI	UI	Data rejected due to interference.		.1048			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3032			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.189			
198683002-1 14-DEC-2007 14:27	Americium-243	UI	UI	UI	Data rejected due to interference.		.1408			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.05374			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3969			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3857			

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198683003-1 14-DEC-2007 14:58	Americium-243	UI	UI	UI	Data rejected due to interference.		.2285			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6559			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3293			
198683004-1 14-DEC-2007 14:59	Americium-243	UI	UI	UI	Data rejected due to interference.		.2293			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.7033			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		3.926			
198683005-1 14-DEC-2007 15:36	Americium-243	UI	UI	UI	Data rejected due to interference.		.135			
	Californium-249	UI	UI	UI	Data rejected due to high peak-width.		.04293			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5188			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1771			
198683006-1 14-DEC-2007 16:36	Americium-243	UI	UI	UI	Data rejected due to interference.		.2784			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09828			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1086		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.8313			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.5459			
1201473819-1 DUP 14-DEC-2007 16:37	Americium-243	UI	UI	UI	Data rejected due to interference.		.1539			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.04274			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5125			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3432			

GEL QUALS

Batch ID: 708123

Report run on: December 17, 2007 2:36 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
98681026-2 12-DEC-2007 10:09	Americium-243	UI	UI	UI	Data rejected due to interference.		.112			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3843			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3886			

Gamma Review Report based on Result > MDA for Batch:708123

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198681021	18-OCT-07 00:00	14-DEC-07 10:23	57.4	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 ✓	1.013	0.18	pCi/g	0.09333	0.800	911.4	1	1.352	IDENTIFIED	7.935	☐	
Americium-243 INT	0.1517	0.02744	pCi/g	0.03412	Y	74.78	1	0.8534	IDENTIFIED	8.622	☑ UI	
Bismuth-212 ✓	0.7429	0.2297	pCi/g	0.2035	0.500	727.6	1	1.546	IDENTIFIED	15.26	☐	
Bismuth-214 ✓	0.6269	0.08637	pCi/g	0.0519	0.200	609.3	1	1.323	IDENTIFIED	6.069	☐	
Cesium-137 ✓	0.07844	0.02447	pCi/g	0.03093	0.100	661.7	1	1.538	IDENTIFIED	15.45	☐	
Curium-243 INT	0.09352	0.06212	pCi/g	0.06889	Y	105.5	2	1.819	IDENTIFIED	33.74	☑ UI	
Europium-155 INT	0.1033	0.06862	pCi/g	0.07532	0.500	105.5	2	1.819	IDENTIFIED	33.74	☑ UI	
Lead-212 ✓	0.9903	0.07981	pCi/g	0.04349	0.100	238.6	1	0.9844	IDENTIFIED	2.876	☐	
Lead-214 ✓	0.6714	0.06873	pCi/g	0.05167	0.100	351.9	1	1.078	IDENTIFIED	4.436	☐	
Neptunium-237 INT	0.5343	0.1347	pCi/g	0.1476	Y	87.22	1	1.087	IDENTIFIED	12.33	☑ UI	
Potassium-40 ✓	6.838	0.7383	pCi/g	0.2832	1.00	1461	1	1.927	IDENTIFIED	4.245	☐	
Radium-223 INT	0.2731	0.1307	pCi/g	0.1354	Y	270.1	1	1.723	IDENTIFIED	24.23	☑ UI	
Thallium-208 ✓	0.2916	0.04444	pCi/g	0.02458	0.080	583.2	1	1.144	IDENTIFIED	6.984	☐	
Thorium-234 ✓	0.8575	0.3058	pCi/g	0.3258	0.500	92.63	1	1.096	IDENTIFIED	17.85	☐	

*** = 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
198681022	18-OCT-07 00:00	14-DEC-07 10:46	57.4	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 ✓	1.074	0.1996	pCi/g	0.14	0.800	911.6	1	1.686	IDENTIFIED	8.297	☐	
Americium-243 INT	0.1852	0.03164	pCi/g	0.03316	Y	74.67	1	1.357	IDENTIFIED	7.706	☑ UI	
Bismuth-212 ✓	0.7372	0.3342	pCi/g	0.3322	0.500	727.8	1	1.629	IDENTIFIED	22.73	☐	
Bismuth-214 ✓	0.6829	0.1131	pCi/g	0.07396	0.200	609.6	1	1.608	IDENTIFIED	7.569	☐	
Cesium-137 ✓	0.08527	0.0325	pCi/g	0.0412	0.100	661.5	1	2.549	IDENTIFIED	19.01	☐	
Curium-243 INT	0.09467	0.06264	pCi/g	0.08813	Y	105.5	2	1.131	IDENTIFIED	33.43	☑ UI	
Europium-155 INT	0.1046	0.0692	pCi/g	0.0959	0.500	105.5	2	1.131	IDENTIFIED	33.43	☑ UI	
Gross Gamma	5.205	1.318	pCi/g	2.405	N		0				☐	
Lead-212 ✓	0.9825	0.1115	pCi/g	0.0723	0.100	238.7	1	1.147	IDENTIFIED	3.975	☐	
Lead-214 ✓	0.7377	0.1006	pCi/g	0.07623	0.100	352	1	1.453	IDENTIFIED	6.372	☐	
Neptunium-237 INT	0.6243	0.1542	pCi/g	0.1639	Y	87.25	1	1.462	IDENTIFIED	11.82	☑ UI	
Potassium-40 ✓	4.859	0.7636	pCi/g	0.3118	1.00	1462	1	1.922	IDENTIFIED	6.964	☐	
Radium-223 INT	0.3312	0.1989	pCi/g	0.2045	Y	270	1	1.972	IDENTIFIED	30.45	☑ UI	
Thallium-208 ✓	0.3355	0.05881	pCi/g	0.0399	0.080	583.3	1	1.393	IDENTIFIED	8.193	☐	
Thorium-234 ✓	1.388	0.3512	pCi/g	0.382	0.500	92.71	1	1.327	IDENTIFIED	12.11	☐	

*** = 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
198681023	18-OCT-07 00:00	14-DEC-07 10:47	57.4	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 ✓	0.8717	0.177	pCi/g	0.1349	0.800	910.9	1	1.724	IDENTIFIED	9.557	☐	
Americium-243 INT	0.1461	0.03321	pCi/g	0.04403	Y	74.92	1	0.79	IDENTIFIED	11.04	☑ UI	
Bismuth-212 ✓	0.5628	0.3329	pCi/g	0.2814	0.500	727.5	1	1.522	IDENTIFIED	30	☐	
Bismuth-214 ✓	0.4743	0.08452	pCi/g	0.06545	0.200	609.1	1	1.473	IDENTIFIED	8.621	☐	
Lead-212 ✓	0.9113	0.08076	pCi/g	0.05539	0.100	238.7	1	1.014	IDENTIFIED	3.534	☐	
Lead-214 ✓	0.5391	0.08812	pCi/g	0.06628	0.100	351.8	1	1.044	IDENTIFIED	7.892	☐	
Neptunium-237 INT	0.3062	0.1624	pCi/g	0.1645	Y	86.92	1	1.111	IDENTIFIED	26.81	☑ UI	
Potassium-40 ✓	4.136	0.5724	pCi/g	0.2731	1.00	1460	1	2.03	IDENTIFIED	6.094	☐	
Radium-223 INT	0.3274	0.1598	pCi/g	0.1686	Y	269.9	1	1.393	IDENTIFIED	24.73	☑ UI	
Thallium-208 ✓	0.2655	0.04696	pCi/g	0.03901	0.080	583	1	1.405	IDENTIFIED	8.564	☐	

Thorium-234 ✓	**0.9672**	0.457	pCi/g	**0.381**	**0.500**	92.95	1	1.66	IDENTIFIED	23.83	☐	

*** = 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
198681024	18-OCT-07 00:00	14-DEC-07 10:51	57.5	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 ✓	**1.399**	0.2149	pCi/g	**0.1254**	**0.800**	911.5	1	1.482	IDENTIFIED	7.066	☐	
Americium-243 INT	**0.2295**	0.03894	pCi/g	**0.04064**	**Y**	75.03	1	1.151	IDENTIFIED	7.959	☑ UI	
Bismuth-212 ✓	**0.8598**	0.2912	pCi/g	**0.2881**	**0.500**	727.5	1	1.381	IDENTIFIED	16.89	☐	
Bismuth-214 ✓	**0.7444**	0.1057	pCi/g	**0.07106**	**0.200**	609.6	1	1.681	IDENTIFIED	6.371	☐	
Curium-243 INT	**0.09208**	0.0783	pCi/g	**0.08528**	**Y**	105.5	2	0.8751	IDENTIFIED	43.23	☑ UI	
Europium-155 INT	**0.1017**	0.0865	pCi/g	**0.09213**	**0.500**	105.5	2	0.8751	IDENTIFIED	43.23	☑ UI	
Lead-212 ✓	**1.278**	0.1049	pCi/g	**0.05296**	**0.100**	238.9	1	1.122	IDENTIFIED	2.931	☐	
Lead-214 ✓	**0.7304**	0.09599	pCi/g	**0.07038**	**0.100**	352.2	1	1.232	IDENTIFIED	6.09	☐	
Neptunium-237 INT	**0.8845**	0.1754	pCi/g	**0.1761**	**Y**	87.41	1	1.401	IDENTIFIED	9.326	☑ UI	
Potassium-40 ✓	**6.662**	0.8263	pCi/g	**0.3437**	**1.00**	1461	1	1.642	IDENTIFIED	5.714	☐	
Protactinium-234m NUP	**5.117**	3.179	pCi/g	**3.596**	**Y**	1001	1	1.987	IDENTIFIED	31.53	☑ UI	
Radium-223 INT	**0.4403**	0.1547	pCi/g	**0.1778**	**Y**	270.6	1	1.57	IDENTIFIED	17.66	☑ UI	
Thallium-208 ✓	**0.3778**	0.0588	pCi/g	**0.03415**	**0.080**	583.3	1	1.393	IDENTIFIED	7.2	☐	
Thorium-234 ✓	**1.678**	0.4071	pCi/g	**0.3953**	**0.500**	93.03	1	1.356	IDENTIFIED	11.78	☐	

*** = 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
198681025	18-OCT-07 00:00	14-DEC-07 10:51	57.5	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 ✓	**1.328**	0.2146	pCi/g	**0.1216**	**0.800**	910.7	1	1.873	IDENTIFIED	6.397	☐	
Americium-243 INT	**0.1766**	0.03916	pCi/g	**0.05323**	**Y**	74.88	1	1.043	IDENTIFIED	10.72	☑ UI	
Americium-246 INT	**0.1655**	0.1121	pCi/g	**0.121**	**Y**	1079	1	0.9669	IDENTIFIED	34.33	☑ UI	
Bismuth-212 ✓	**0.911**	0.2949	pCi/g	**0.2312**	**0.500**	727.1	1	1.374	IDENTIFIED	15.83	☐	
Bismuth-214 ✓	**0.7908**	0.1158	pCi/g	**0.0687**	**0.200**	609	1	1.565	IDENTIFIED	6.25	☐	
Gross Gamma	**5.651**	1.673	pCi/g	**2.465**	**N**		0				☐	
Lead-212 ✓	**1.173**	0.09855	pCi/g	**0.05941**	**0.100**	238.6	1	1.137	IDENTIFIED	2.985	☐	
Lead-214 ✓	**0.8401**	0.1005	pCi/g	**0.07297**	**0.100**	351.7	1	1.293	IDENTIFIED	5.349	☐	
Neptunium-237 INT	**0.7602**	0.2014	pCi/g	**0.2186**	**Y**	87.25	1	1.517	IDENTIFIED	12.92	☑ UI	
Potassium-40 ✓	**7.14**	0.8396	pCi/g	**0.283**	**1.00**	1460	1	1.953	IDENTIFIED	5.167	☐	
Radium-223 INT	**0.5256**	0.1966	pCi/g	**0.182**	**Y**	270.1	1	1.77	IDENTIFIED	18.83	☑ UI	
Thallium-208 ✓	**0.3806**	0.06023	pCi/g	**0.03323**	**0.080**	582.9	1	1.473	IDENTIFIED	7.055	☐	
Thorium-234 ✓	**1.383**	0.4464	pCi/g	**0.473**	**0.500**	92.84	1	1.362	IDENTIFIED	16.02	☐	

*** = 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
198681026	18-OCT-07 00:00	14-DEC-07 11:34	57.5	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	**0.9528**	0.2192	pCi/g	**0.1272**	**0.800**	909.7	1	2.676	IDENTIFIED	10.31	☐	
Americium-243 INT	**0.1502**	0.04162	pCi/g	**0.04681**	**Y**	74.95	1	1.363	IDENTIFIED	13.59	☑ UI	
Bismuth-212	**0.4735**	0.2683	pCi/g	**0.2514**	**0.500**	726.8	1	1.849	IDENTIFIED	28.64	☐	
Bismuth-214 LA	**0.436**	0.09351	pCi/g	**0.1295**	**0.200**	608.4	1	1.889	FAIL_ABUND	10.4	☑ UI	Data rejected due to low abundance.
Cesium-137	**0.05599**	0.04607	pCi/g	**0.03604**	**0.100**	661.3	1	1.908	IDENTIFIED	41.85	☐	
Lead-212	**0.5745**	0.08577	pCi/g	**0.05431**	**0.100**	238.2	1	1.748	IDENTIFIED	3.828	☐	
Lead-214	**0.3618**	0.07968	pCi/g	**0.07055**	**0.100**	351.3	1	1.728	IDENTIFIED	10.77	☐	
Neptunium-237 INT	**0.4041**	0.1509	pCi/g	**0.2079**	**Y**	87.35	1	1.542	IDENTIFIED	18.58	☑ UI	
Radium-223 INT	**0.2993**	0.1596	pCi/g	**0.1755**	**Y**	270.1	1	1.913	IDENTIFIED	27.01	☑ UI	
Thallium-208	**0.2056**	0.0582	pCi/g	**0.03327**	**0.080**	582.8	1	2.45	IDENTIFIED	14.04	☐	
Thorium-234	**0.6675**	0.439	pCi/g	**0.4181**	**0.500**	92.7	1	1.561	IDENTIFIED	33.32	☐	

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

SLEI 12/15/07

Thorium-234	**0.9672**	0.457	pCi/g	**0.381**	**0.500**	92.95	1	1.66	IDENTIFIED	23.83	☐

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

SKEI 12/17/07

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198681024	18-OCT-07 00:00	14-DEC-07 10:51	57.5	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	**1.399**	0.2149	pCi/g	**0.1254**	**0.800**	911.5	1	1.482	IDENTIFIED	7.066	☐	
Americium-243	**0.2295**	0.03894	pCi/g	**0.04064**	**Y**	75.03	1	1.151	IDENTIFIED	7.959	☐	
Bismuth-212	**0.8598**	0.2912	pCi/g	**0.2881**	**0.500**	727.5	1	1.381	IDENTIFIED	16.89	☐	
Bismuth-214	**0.7444**	0.1057	pCi/g	**0.07106**	**0.200**	609.6	1	1.681	IDENTIFIED	6.371	☐	
Curium-243	**0.09208**	0.0783	pCi/g	**0.08528**	**Y**	105.5	2	0.8751	IDENTIFIED	43.23	☐	
Europium-155	**0.1017**	0.0865	pCi/g	**0.09213**	**0.500**	105.5	2	0.8751	IDENTIFIED	43.23	☐	
Lead-212	**1.278**	0.1049	pCi/g	**0.05296**	**0.100**	238.9	1	1.122	IDENTIFIED	2.931	☐	
Lead-214	**0.7304**	0.09599	pCi/g	**0.07038**	**0.100**	352.2	1	1.232	IDENTIFIED	6.09	☐	
Neptunium-237	**0.8845**	0.1754	pCi/g	**0.1761**	**Y**	87.41	1	1.401	IDENTIFIED	9.326	☐	
Potassium-40	**6.662**	0.8263	pCi/g	**0.3437**	**1.00**	1461	1	1.642	IDENTIFIED	5.714	☐	
Protactinium-234m	**5.117**	3.179	pCi/g	**3.596**	**Y**	1001	1	1.987	IDENTIFIED	31.53	☐	
Radium-223	**0.4403**	0.1547	pCi/g	**0.1778**	**Y**	270.6	1	1.57	IDENTIFIED	17.66	☐	
Thallium-208	**0.3778**	0.0588	pCi/g	**0.03415**	**0.080**	583.3	1	1.393	IDENTIFIED	7.2	☐	
Thorium-234	**1.678**	0.4071	pCi/g	**0.3953**	**0.500**	93.03	1	1.356	IDENTIFIED	11.78	☐	

*** = 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
198681025	18-OCT-07 00:00	14-DEC-07 10:51	57.5	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	**1.328**	0.2146	pCi/g	**0.1216**	**0.800**	910.7	1	1.873	IDENTIFIED	6.397	☐	
Americium-243	**0.1766**	0.03916	pCi/g	**0.05323**	**Y**	74.88	1	1.043	IDENTIFIED	10.72	☐	
Americium-246	**0.1655**	0.1121	pCi/g	**0.121**	**Y**	1079	1	0.9669	IDENTIFIED	34.33	☐	
Bismuth-212	**0.911**	0.2949	pCi/g	**0.2312**	**0.500**	727.1	1	1.374	IDENTIFIED	15.83	☐	
Bismuth-214	**0.7908**	0.1158	pCi/g	**0.0687**	**0.200**	609	1	1.565	IDENTIFIED	6.25	☐	
Gross Gamma	**5.651**	1.673	pCi/g	**2.465**	**N**		0				☐	
Lead-212	**1.173**	0.09855	pCi/g	**0.05941**	**0.100**	238.6	1	1.137	IDENTIFIED	2.985	☐	
Lead-214	**0.8401**	0.1005	pCi/g	**0.07297**	**0.100**	351.7	1	1.293	IDENTIFIED	5.349	☐	
Neptunium-237	**0.7602**	0.2014	pCi/g	**0.2186**	**Y**	87.25	1	1.517	IDENTIFIED	12.92	☐	
Potassium-40	**7.14**	0.8396	pCi/g	**0.283**	**1.00**	1460	1	1.953	IDENTIFIED	5.167	☐	
Radium-223	**0.5256**	0.1966	pCi/g	**0.182**	**Y**	270.1	1	1.77	IDENTIFIED	18.83	☐	
Thallium-208	**0.3806**	0.06023	pCi/g	**0.03323**	**0.080**	582.9	1	1.473	IDENTIFIED	7.055	☐	
Thorium-234	**1.383**	0.4464	pCi/g	**0.473**	**0.500**	92.84	1	1.362	IDENTIFIED	16.02	☐	

*** = 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
198681026	18-OCT-07 00:00	17-DEC-07 10:09	60.4	SAMPLE	LOAD	2	SCAN	SCAN00101IGEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.996**	0.236	pCi/g	**0.15**	**0.800**	911.6	1	1.827	IDENTIFIED	11.69	☐	
Americium-243 INT	**0.112**	0.02351	pCi/g	**0.03004**	**Y**	74.93	1	0.8336	IDENTIFIED	9.954	☑ UI	
Bismuth-212 ✓	**0.5004**	0.3381	pCi/g	**0.3458**	**0.500**	727.2	1	2.24	IDENTIFIED	34.25	☐	
Bismuth-214 ✓	**0.3211**	0.1027	pCi/g	**0.08804**	**0.200**	609.5	1	1.505	IDENTIFIED	15.88	☐	
Cesium-137 ✓	**0.06724**	0.05424	pCi/g	**0.04646**	**0.100**	662.1	1	1.427	IDENTIFIED	40.96	☐	
Lead-212 ✓	**0.739**	0.08107	pCi/g	**0.05761**	**0.100**	238.7	1	1.135	IDENTIFIED	4.484	☐	
Lead-214 ✓	**0.3328**	0.08627	pCi/g	**0.08486**	**0.100**	352.1	1	1.241	IDENTIFIED	12.96	☐	
Neptunium-237 INT	**0.3843**	0.1255	pCi/g	**0.159**	**Y**	87.21	1	1.133	IDENTIFIED	16.18	☑ UI	
Potassium-40 ✓	**3.2**	0.5723	pCi/g	**0.3393**	**1.00**	1461	1	1.515	IDENTIFIED	8.692	☐	
Radium-223 INT	**0.3886**	0.1577	pCi/g	**0.179**	**Y**	270.3	1	1.428	IDENTIFIED	20.51	☑ UI	
Thallium-208 ✓	**0.2531**	0.05551	pCi/g	**0.04216**	**0.080**	583.4	1	1.455	IDENTIFIED	10.6	☐	

*** = 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
198681027	18-OCT-07 00:00	14-DEC-07 11:35	57.5	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 ✓	**0.6641**	0.1371	pCi/g	**0.09404**	**0.800**	911.7	1	1.721	IDENTIFIED	9.152	☐	
Americium-243 INT	**0.1126**	0.03238	pCi/g	**0.03742**	**Y**	74.96	1	1.521	IDENTIFIED	14.32	☑ UI	
Bismuth-212 ✓	**0.3791**	0.2147	pCi/g	**0.1888**	**0.500**	728.2	1	1.851	IDENTIFIED	28.56	☐	
Bismuth-214 ✓	**0.5023**	0.08146	pCi/g	**0.05327**	**0.200**	609.6	1	1.583	IDENTIFIED	7.342	☐	
Cesium-137 ✓	**0.2392**	0.03928	pCi/g	**0.02887**	**0.100**	661.8	1	1.585	IDENTIFIED	7.342	☐	
Lead-212 ✓	**0.6665**	0.06549	pCi/g	**0.04519**	**0.100**	238.7	1	1.416	IDENTIFIED	3.902	☐	
Lead-214 ✓	**0.5921**	0.07591	pCi/g	**0.05582**	**0.100**	351.9	1	1.46	IDENTIFIED	5.811	☐	
Neptunium-237 INT	**0.22**	0.123	pCi/g	**0.1852**	**Y**	87.34	1	1.225	IDENTIFIED	28.32	☑ UI	
Potassium-40 ✓	**4.675**	0.5597	pCi/g	**0.2472**	**1.00**	1462	1	2.017	IDENTIFIED	5.256	☐	
Radium-223 INT	**0.2417**	0.144	pCi/g	**0.147**	**Y**	270.2	1	1.948	IDENTIFIED	30.23	☑ UI	
Thallium-208 ✓	**0.2096**	0.0376	pCi/g	**0.02748**	**0.080**	583.4	1	1.513	IDENTIFIED	8.373	☐	
Thorium-234 ✓	**0.8745**	0.3359	pCi/g	**0.3619**	**0.500**	93.03	1	1.552	IDENTIFIED	19.32	☐	

*** = 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
198681028	18-OCT-07 00:00	14-DEC-07 11:37	57.5	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 ✓	**0.6601**	0.1691	pCi/g	**0.1122**	**0.800**	911.7	1	1.433	IDENTIFIED	12.2	☐	
Americium-243 INT	**0.1354**	0.03601	pCi/g	**0.03639**	**Y**	75.04	1	1.367	IDENTIFIED	12.43	☑ UI	
Bismuth-212 ✓	**0.614**	0.217	pCi/g	**0.2137**	**0.500**	727.7	1	1.371	IDENTIFIED	17.63	☐	
Bismuth-214 ✓	**0.5175**	0.08568	pCi/g	**0.05334**	**0.200**	609.6	1	1.509	IDENTIFIED	7.798	☐	
Cesium-137 ✓	**0.1557**	0.03254	pCi/g	**0.02957**	**0.100**	661.9	1	1.648	IDENTIFIED	10.1	☐	
Lead-212 ✓	**0.7514**	0.07263	pCi/g	**0.0463**	**0.100**	238.6	1	1.29	IDENTIFIED	3.979	☐	
Lead-214 ✓	**0.5691**	0.08235	pCi/g	**0.05863**	**0.100**	351.9	1	1.293	IDENTIFIED	6.843	☐	
Neptunium-237 INT	**0.4835**	0.1397	pCi/g	**0.1601**	**Y**	87.35	1	1.3	IDENTIFIED	13.51	☑ UI	
Potassium-40 ✓	**4.378**	0.6291	pCi/g	**0.1922**	**1.00**	1462	1	1.979	IDENTIFIED	6.007	☐	
Radium-223 INT	**0.3006**	0.1357	pCi/g	**0.1621**	**Y**	270.4	1	0.9043	IDENTIFIED	22.83	☑ UI	
Thallium-208 ✓	**0.2366**	0.03842	pCi/g	**0.02709**	**0.080**	583.4	1	1.42	IDENTIFIED	7.657	☐	
Thorium-234 ✓	**0.9441**	0.3779	pCi/g	**0.3536**	**0.500**	92.84	1	1.684	IDENTIFIED	19.71	☐	

*** = 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
198681029	18-OCT-07 00:00	14-DEC-07 12:08	57.5	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 ✓	**0.8568**	0.1598	pCi/g	**0.0965**	**0.800**	910.6	1	2.003	IDENTIFIED	8.125	☐	
Americium-243 INT	**0.1564**	0.03478	pCi/g	**0.03823**	**Y**	74.73	1	1.395	IDENTIFIED	10.64	☑ UI	
Bismuth-212 ✓	**0.6217**	0.2085	pCi/g	**0.1891**	**0.500**	727.1	1	1.794	IDENTIFIED	16.48	☐	
Bismuth-214 ✓	**0.5839**	0.08476	pCi/g	**0.05588**	**0.200**	609	1	1.585	IDENTIFIED	6.209	☐	
Cesium-137 ✓	**0.221**	0.03267	pCi/g	**0.02659**	**0.100**	661.3	1	2.033	IDENTIFIED	6.133	☐	
Lead-212 ✓	**0.7863**	0.06806	pCi/g	**0.04568**	**0.100**	238.4	1	1.224	IDENTIFIED	3.25	☐	
Lead-214 ✓	**0.5777**	0.07513	pCi/g	**0.05128**	**0.100**	351.7	1	1.399	IDENTIFIED	5.982	☐	
Neptunium-237 INT	**0.6121**	0.1505	pCi/g	**0.1683**	**Y**	87.13	1	1.435	IDENTIFIED	11.77	☑ UI	
Potassium-40 ✓	**6.509**	0.6326	pCi/g	**0.2427**	**1.00**	1460	1	2.653	IDENTIFIED	3.994	☐	
Protactinium-234m ↑PW	**4.566**	2.967	pCi/g	**3.116**	**Y**	1001	1	4.313	IDENTIFIED	32.86	☑ UI	Data rejected due to high peak-width.
Radium-223 INT	**0.2129**	0.1206	pCi/g	**0.1418**	**Y**	270.1	1	1.307	IDENTIFIED	28.73	☑ UI	
Thallium-208 ✓	**0.2268**	0.04207	pCi/g	**0.02565**	**0.080**	582.8	1	1.675	IDENTIFIED	8.659	☐	
Thorium-234 ✓	**0.6585**	0.3242	pCi/g	**0.3693**	**0.500**	92.48	1	1.277	IDENTIFIED	24.78	☐	

*** = 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
198681030	18-OCT-07 00:00	14-DEC-07 12:13	57.5	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 ✓	0.746	0.1545	pCi/g	0.1111	0.800	910.8	1	1.631	IDENTIFIED	9.27	☐	
Americium-243 INT	0.06246	0.03547	pCi/g	0.04369	Y	74.3	1	1.448	IDENTIFIED	28.68	☑ UI	
Bismuth-212 ✓	0.4244	0.2071	pCi/g	0.2603	0.500	727	1	1.582	IDENTIFIED	24.6	☐	
Bismuth-214 ✓	0.4563	0.09042	pCi/g	0.06337	0.200	609	1	1.324	IDENTIFIED	9.537	☐	
Cesium-137 ✓	0.1289	0.03963	pCi/g	0.03754	0.100	661.1	1	1.367	IDENTIFIED	15.32	☐	
Lead-212 ✓	0.7102	0.07159	pCi/g	0.05165	0.100	238.3	1	1.145	IDENTIFIED	4.086	☐	
Lead-214 ✓	0.6127	0.09781	pCi/g	0.06524	0.100	351.7	1	1.309	IDENTIFIED	7.521	☐	
Neptunium-237 INT	0.2625	0.1422	pCi/g	0.1778	Y	86.95	1	1.301	IDENTIFIED	27.29	☑ UI	
Potassium-40 ✓	4.894	0.6535	pCi/g	0.3346	1.00	1460	1	2.021	IDENTIFIED	6.014	☐	
Radium-223 INT	0.2549	0.151	pCi/g	0.1796	Y	270	1	1.147	IDENTIFIED	30.05	☑ UI	
Thallium-208 ✓	0.2332	0.03795	pCi/g	0.03282	0.080	582.8	1	1.592	IDENTIFIED	7.601	☐	
Thorium-234 ✓	0.4799	0.456	pCi/g	0.4197	0.500	93.06	1	1.131	IDENTIFIED	48.31	☐	

*** = 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
198681031	18-OCT-07 00:00	14-DEC-07 12:24	57.5	SAMPLE	LOAD	1	SCAN	SCAN00101GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.8492	0.1734	pCi/g	0.1385	0.800	911.3	1	1.621	IDENTIFIED	9.864	☐	
Americium-243 INT	0.09848	0.0213	pCi/g	0.02801	Y	74.9	1	0.765	IDENTIFIED	10.55	☑ UI	
Bismuth-212 ✓	0.7298	0.3162	pCi/g	0.2778	0.500	727.5	1	1.904	IDENTIFIED	21.8	☐	
Bismuth-214 ✓	0.533	0.1031	pCi/g	0.07691	0.200	609.5	1	1.291	IDENTIFIED	9.203	☐	
Cesium-137 ✓	0.04911	0.03818	pCi/g	0.03647	0.100	661.9	1	1.616	IDENTIFIED	39.5	☐	
Lead-212 ✓	0.6737	0.07961	pCi/g	0.05916	0.100	238.7	1	0.981	IDENTIFIED	4.528	☐	
Lead-214 ✓	0.5266	0.08904	pCi/g	0.0632	0.100	352.1	1	1.133	IDENTIFIED	7.979	☐	
Neptunium-237 INT	0.4242	0.1211	pCi/g	0.1365	Y	87.29	1	1.105	IDENTIFIED	14.17	☑ UI	
Potassium-40 ✓	4.461	0.6484	pCi/g	0.3431	1.00	1461	1	1.857	IDENTIFIED	6.901	☐	
Radium-223 INT	0.3255	0.1436	pCi/g	0.164	Y	270.6	1	1.417	IDENTIFIED	22.17	☑ UI	
Thallium-208 ✓	0.2595	0.04883	pCi/g	0.0327	0.080	583.3	1	1.281	IDENTIFIED	8.946	☐	
Thorium-234 ✓	0.8293	0.3271	pCi/g	0.3171	0.500	92.77	1	1.117	IDENTIFIED	19.8	☐	

*** = 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
198681032	18-OCT-07 00:00	14-DEC-07 13:02	57.5	SAMPLE	LOAD	1	SCAN	SCAN00101GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	0.8491	0.1739	pCi/g	0.1113	0.800	911.3	1	1.705	IDENTIFIED	9.472	☐	
Americium-243 INT	0.1413	0.03525	pCi/g	0.03746	Y	74.92	1	1.527	IDENTIFIED	12.17	☑ UI	
Bismuth-212 ✓	0.3736	0.2708	pCi/g	0.2335	0.500	727.8	1	1.182	IDENTIFIED	36.76	☐	
Bismuth-214 ✓	0.379	0.07739	pCi/g	0.06074	0.200	609.3	1	1.989	IDENTIFIED	9.737	☐	
Cesium-137 ~~NVP~~ ✓ 20 12/17/07	0.04767	0.02808	pCi/g	0.03307	0.100	662	1	2.145	IDENTIFIED	29.8	~~☑ UI~~ 20 12/17/07	
Lead-212 ✓	0.7438	0.07535	pCi/g	0.04948	0.100	238.5	1	1.449	IDENTIFIED	4.123	☐	
Lead-214 ✓	0.4123	0.07725	pCi/g	0.058	0.100	351.9	1	1.322	IDENTIFIED	9.083	☐	
Neptunium-237 INT	0.4751	0.2031	pCi/g	0.1685	Y	87.18	1	2.26	IDENTIFIED	21.42	☑ UI	
Potassium-40 ✓	3.604	0.6129	pCi/g	0.3333	1.00	1461	1	2.025	IDENTIFIED	8.22	☐	
Radium-223 INT	0.2324	0.1531	pCi/g	0.1477	Y	269.8	1	2.397	IDENTIFIED	33.46	☑ UI	
Thallium-208 ✓	0.2117	0.04374	pCi/g	0.03006	0.080	583.2	1	1.401	IDENTIFIED	9.91	☐	
Thorium-234 ✓	1.293	0.4672	pCi/g	0.3721	0.500	93.04	1	2.272	IDENTIFIED	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
198681033	18-OCT-07 00:00	14-DEC-07 13:54	57.6	SAMPLE	LOAD	1	SCAN	SCAN00101GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓	1.119	0.2315	pCi/g	0.1776	0.800	911.5	1	2.07	IDENTIFIED	9.998	☐	
Americium-243 INT	0.1545	0.02785	pCi/g	0.03162	Y	74.95	1	1.419	IDENTIFIED	8.52	☑ UI	
Bismuth-212 ~~NVP~~ ✓ 20 12/17/07	0.51	0.3247	pCi/g	0.3835	0.500	728.7	1	1.111	IDENTIFIED	32.24	~~☑ UI~~ 20 12/17/07	
Bismuth-214 ✓	0.7301	0.1165	pCi/g	0.08118	0.200	609.4	1	1.301	IDENTIFIED	7.201	☐	

Gross Gamma	**5.16**	1.378	pCi/g	**2.916**	**N**		0				☐	
Lead-212 ✓	**0.9072**	0.08648	pCi/g	**0.05902**	**0.100**	238.7	1	1.382	IDENTIFIED	3.779	☐	
Lead-214 ✓	**0.7241**	0.1089	pCi/g	**0.07883**	**0.100**	352	1	1.633	IDENTIFIED	7.221	☐	
Neptunium-237 INT	**0.5715**	0.1411	pCi/g	**0.1443**	**Y**	87.27	1	1.692	IDENTIFIED	12.05	☑ UI	
Polonium-209 APW	**20.71**	16.61	pCi/g	**9.298**	**Y**	895.1	1	15.86	IDENTIFIED	40.78	☑ UI	Data rejected due to high peak-width.
Potassium-40 ✓	**5.2**	0.8794	pCi/g	**0.3275**	**1.00**	1461	1	1.826	IDENTIFIED	8.173	☐	
Radium-223 INT	**0.2545**	0.1677	pCi/g	**0.1991**	**Y**	270.2	1	1.387	IDENTIFIED	33.5	☑ UI	
Thallium-208 ✓	**0.3146**	0.05496	pCi/g	**0.04164**	**0.080**	583.4	1	1.637	IDENTIFIED	8.133	☐	
Thorium-234 ✓	**1.189**	0.3091	pCi/g	**0.3357**	**0.500**	92.87	1	1.51	IDENTIFIED	12.71	☐	

*** = 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
198681034	18-OCT-07 00:00	14-DEC-07 14:26	57.6	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 ✓	**0.8778**	0.1674	pCi/g	**0.1192**	**0.800**	911.3	1	2.042	IDENTIFIED	8.444	☐	
Americium-243 INT	**0.1217**	0.04143	pCi/g	**0.04793**	**Y**	75.12	1	1.628	IDENTIFIED	16.92	☑ UI	
Bismuth-212 ✓	**0.6544**	0.2872	pCi/g	**0.2485**	**0.500**	727.6	1	1.508	IDENTIFIED	22.01	☐	
Bismuth-214 ✓	**0.5783**	0.0997	pCi/g	**0.06503**	**0.200**	609.6	1	1.613	IDENTIFIED	8.003	☐	
Cesium-137 ✓	**0.04767**	0.03151	pCi/g	**0.03063**	**0.100**	661.9	1	0.9208	IDENTIFIED	33.51	☐	
Lead-212 ✓	**0.6887**	0.07318	pCi/g	**0.05388**	**0.100**	238.7	1	1.4	IDENTIFIED	4.186	☐	
Lead-214 ✓	**0.5555**	0.09235	pCi/g	**0.06433**	**0.100**	352	1	1.43	IDENTIFIED	7.876	☐	
Neptunium-237 INT	**0.5325**	0.1853	pCi/g	**0.2063**	**Y**	87.4	1	1.812	IDENTIFIED	17.25	☑ UI	
Potassium-40 ✓	**6.814**	0.7976	pCi/g	**0.2862**	**1.00**	1461	1	2.18	IDENTIFIED	5.217	☐	
Radium-223 INT	**0.234**	0.1539	pCi/g	**0.1697**	**Y**	270.4	1	1.695	IDENTIFIED	33.38	☑ UI	
Thallium-208 ✓	**0.2325**	0.04871	pCi/g	**0.03349**	**0.080**	583.4	1	1.639	IDENTIFIED	10.08	☐	
Thorium-234 ✓	**1.189**	0.4229	pCi/g	**0.4442**	**0.500**	92.81	1	1.821	IDENTIFIED	17.71	☐	

*** = 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
198683001	18-OCT-07 00:00	14-DEC-07 14:26	57.6	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 ✓	**0.6757**	0.1431	pCi/g	**0.1099**	**0.800**	910.9	1	1.626	IDENTIFIED	10.08	☐	
Americium-243 INT	**0.1048**	0.03806	pCi/g	**0.04537**	**Y**	74.83	1	0.9973	IDENTIFIED	18.05	☑ UI	
Bismuth-212 ✓	**0.4933**	0.2422	pCi/g	**0.2231**	**0.500**	727.3	1	1.417	IDENTIFIED	24.83	☐	
Bismuth-214 ✓	**0.4775**	0.07876	pCi/g	**0.06372**	**0.200**	609.4	1	1.547	IDENTIFIED	7.856	☐	
Cesium-137 ✓	**0.11**	0.03562	pCi/g	**0.03321**	**0.100**	661.8	1	1.327	IDENTIFIED	16.23	☐	
Lead-212 ✓	**0.6079**	0.06446	pCi/g	**0.04768**	**0.100**	238.6	1	1.045	IDENTIFIED	4.441	☐	
Lead-214 ✓	**0.4237**	0.08102	pCi/g	**0.05778**	**0.100**	352	1	1.263	IDENTIFIED	9.299	☐	
Neptunium-237 INT	**0.3032**	0.1497	pCi/g	**0.187**	**Y**	87.24	1	1.125	IDENTIFIED	24.82	☑ UI	
Potassium-40 ✓	**4.348**	0.6472	pCi/g	**0.2479**	**1.00**	1460	1	1.418	IDENTIFIED	6.843	☐	
Radium-223 INT	**0.189**	0.09673	pCi/g	**0.1445**	**Y**	270.1	1	1.332	IDENTIFIED	25.9	☑ UI	
Thallium-208 ✓	**0.1873**	0.04431	pCi/g	**0.03002**	**0.080**	583	1	1.475	IDENTIFIED	11.7	☐	
Thorium-234 ✓	**0.5344**	0.3684	pCi/g	**0.3982**	**0.500**	92.67	1	1.028	IDENTIFIED	34.95	☐	

*** = 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
198683002	18-OCT-07 00:00	14-DEC-07 14:27	57.6	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 ✓	**0.7928**	0.1387	pCi/g	**0.09001**	**0.800**	911.4	1	1.797	IDENTIFIED	7.771	☐	
Americium-243 INT	**0.1408**	0.02595	pCi/g	**0.02937**	**Y**	74.78	1	1.069	IDENTIFIED	8.808	☑ UI	
Bismuth-212 ✓	**0.4821**	0.2299	pCi/g	**0.1836**	**0.500**	728	1	1.202	IDENTIFIED	24	☐	
Bismuth-214 ✓	**0.5566**	0.08254	pCi/g	**0.04826**	**0.200**	609.4	1	1.204	IDENTIFIED	6.684	☐	
Cesium-137 ✓	**0.1478**	0.03952	pCi/g	**0.02538**	**0.100**	661.6	1	1.5	IDENTIFIED	13.1	☐	
Lead-212 ✓	**0.7426**	0.06342	pCi/g	**0.03695**	**0.100**	238.6	1	1.01	IDENTIFIED	3.217	☐	
Lead-214 ✓	**0.6414**	0.06565	pCi/g	**0.0477**	**0.100**	351.9	1	1.214	IDENTIFIED	4.435	☐	
Neptunium-236 INT	**0.05374**	0.03251	pCi/g	**0.0386**	**Y**	99.25	1	2.196	IDENTIFIED	30.69	☑ UI	

Neptunium-237	INT	**0.3969**	0.1192	pCi/g	**0.1369**	Y	87.24	1	1.098	IDENTIFIED	14.87	☑	UI
Potassium-40	✓	**6.361**	0.6848	pCi/g	**0.2391**	**1.00**	1461	1	2.013	IDENTIFIED	4.225	☐	
Radium-223	INT	**0.3857**	0.1741	pCi/g	**0.1152**	Y	270.4	1	1.828	IDENTIFIED	22.82	☑	UI
Thallium-208	✓	**0.2197**	0.03444	pCi/g	**0.02689**	**0.080**	583.2	1	1.194	IDENTIFIED	7.233	☐	
Thorium-234	✓	**0.7351**	0.2815	pCi/g	**0.302**	**0.500**	92.72	1	1.166	IDENTIFIED	19.22	☐	

*** = 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
198683003	18-OCT-07 00:00	14-DEC-07 14:58	57.6	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	**1.34**	0.2199	pCi/g	**0.1275**	**0.800**	911.6	1	1.425	IDENTIFIED	7.653	☐	
Americium-243	INT	**0.2285**	0.0394	pCi/g	**0.04038**	Y	75.04	1	1.132	IDENTIFIED	8.112	☑	UI
Bismuth-212	✓	**0.9735**	0.2691	pCi/g	**0.2965**	**0.500**	727.7	1	1.763	IDENTIFIED	13.62	☐	
Bismuth-214	✓	**0.9229**	0.1223	pCi/g	**0.07217**	**0.200**	609.6	1	1.364	IDENTIFIED	5.817	☐	
Lead-212	✓	**1.204**	0.1019	pCi/g	**0.056**	**0.100**	238.9	1	1.175	IDENTIFIED	3.117	☐	
Lead-214	✓	**0.8942**	0.118	pCi/g	**0.07226**	**0.100**	352.2	1	1.239	IDENTIFIED	6.119	☐	
Neptunium-237	INT	**0.6559**	0.1514	pCi/g	**0.1859**	Y	87.38	1	1.069	IDENTIFIED	11.1	☑	UI
Potassium-40	✓	**7.637**	0.7944	pCi/g	**0.3093**	**1.00**	1461	1	1.519	IDENTIFIED	4.557	☐	
Radium-223	INT	**0.3293**	0.1721	pCi/g	**0.1829**	Y	270.2	1	1.834	IDENTIFIED	26.49	☑	UI
Thallium-208	✓	**0.3341**	0.05497	pCi/g	**0.03656**	**0.080**	583.5	1	1.389	IDENTIFIED	7.697	☐	
Thorium-234	✓	**1.198**	0.3992	pCi/g	**0.4173**	**0.500**	92.92	1	1.154	IDENTIFIED	16.57	☐	

*** = 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
198683004	18-OCT-07 00:00	14-DEC-07 14:59	57.6	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	**0.9791**	0.2026	pCi/g	**0.1299**	**0.800**	910.9	1	1.271	IDENTIFIED	9.188	☐	
Americium-243	INT	**0.2293**	0.04904	pCi/g	**0.05358**	Y	74.97	1	1.304	IDENTIFIED	10.29	☑	UI
Bismuth-212	✓	**0.8877**	0.2639	pCi/g	**0.2416**	**0.500**	727.2	1	1.548	IDENTIFIED	14.43	☐	
Bismuth-214	✓	**0.9416**	0.1248	pCi/g	**0.06389**	**0.200**	609	1	1.551	IDENTIFIED	5.386	☐	
Cesium-137	✓	**0.1043**	0.04224	pCi/g	**0.03569**	**0.100**	661.3	1	1.495	IDENTIFIED	20.18	☐	
Gross Gamma		**5.546**	1.545	pCi/g	**2.403**	N		0				☐	
Lead-212	✓	**0.987**	0.08972	pCi/g	**0.05666**	**0.100**	238.6	1	1.195	IDENTIFIED	3.471	☐	
Lead-214	✓	**1.084**	0.1148	pCi/g	**0.07139**	**0.100**	351.8	1	1.226	IDENTIFIED	4.539	☐	
Neptunium-237	INT	**0.7033**	0.171	pCi/g	**0.2222**	Y	87.22	1	1.114	IDENTIFIED	11.75	☑	UI
Potassium-40	✓	**4.646**	0.6948	pCi/g	**0.345**	**1.00**	1460	1	1.906	IDENTIFIED	6.993	☐	
Protactinium-234m	NUP	**3.926**	3.505	pCi/g	**3.904**	Y	1001	1	2.004	IDENTIFIED	45.32	☑	UI
Thallium-208	✓	**0.3201**	0.0569	pCi/g	**0.03372**	**0.080**	583.1	1	1.389	IDENTIFIED	8.175	☐	
Thorium-234	✓	**1.262**	0.4547	pCi/g	**0.481**	**0.500**	92.89	1	1.349	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
198683005	18-OCT-07 00:00	14-DEC-07 15:36	57.7	SAMPLE	LOAD	1	SCAN	SCAN00101IGEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	**0.7818**	0.1551	pCi/g	**0.09289**	**0.800**	911.1	1	1.663	IDENTIFIED	8.737	☐	
Americium-243	INT	**0.135**	0.03129	pCi/g	**0.03385**	Y	74.91	1	1.331	IDENTIFIED	11.14	☑	UI
Bismuth-212	✓	**0.2919**	0.1887	pCi/g	**0.1917**	**0.500**	727.4	1	1.225	IDENTIFIED	32.69	☐	
Bismuth-214	✓	**0.8284**	0.09515	pCi/g	**0.04856**	**0.200**	609.2	1	1.566	IDENTIFIED	4.457	☐	
Californium-249	NPW	**0.04293**	0.03888	pCi/g	**0.03007**	Y	386.2	1	6.168	IDENTIFIED	46.12	☑	UI Data rejected due to high peak-width.
Cesium-137	✓	**0.1674**	0.02816	pCi/g	**0.02707**	**0.100**	661.5	1	1.499	IDENTIFIED	7.588	☐	
Lead-212	✓	**0.7584**	0.07081	pCi/g	**0.0452[illegible]**	**0.100**	238.7	1	1.248	IDENTIFIED	3.524	☐	
Lead-214	✓	**0.865**	0.08647	pCi/g	**0.05424**	**0.100**	351.9	1	1.345	IDENTIFIED	4.09	☐	
Neptunium-237	INT	**0.5188**	0.1254	pCi/g	**0.1478**	Y	87.28	1	1.343	IDENTIFIED	11.57	☑	UI
Potassium-40	✓	**4.539**	0.4557	pCi/g	**0.2231**	**1.00**	1461	1	2.243	IDENTIFIED	4.16	☐	
Radium-223	INT	**0.1771**	0.1479	pCi/g	**0.1403**	Y	271.1	1	1.749	IDENTIFIED	42.48	☑	UI
Thallium-208	✓	**0.2644**	0.03988	pCi/g	**0.02423**	**0.080**	583.1	1	1.58	IDENTIFIED	6.749	☐	

Thorium-234 ✓	**1.014**	0.3949	pCi/g	**0.3273**	**0.500**	92.85	1	1.599	IDENTIFIED	19.45	☐	

*** = 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
198683006	18-OCT-07 00:00	14-DEC-07 16:36	57.7	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 ✓	**1.286**	0.2068	pCi/g	**0.1329**	**0.800**	911.5	1	1.849	IDENTIFIED	6.793	☐	
Americium-243 INT	**0.2784**	0.03385	pCi/g	**0.02802**	**Y**	74.7	1	1.29	IDENTIFIED	4.683	☑ UI	
Bismuth-212 ✓	**0.9172**	0.2987	pCi/g	**0.2475**	**0.500**	727.7	1	1.736	IDENTIFIED	16.06	☐	
Bismuth-214 ✓	**1.138**	0.1237	pCi/g	**0.06633**	**0.200**	609.7	1	1.521	IDENTIFIED	4.081	☐	
Cesium-137 ✓	**0.2381**	0.0438	pCi/g	**0.03807**	**0.100**	661.9	1	1.532	IDENTIFIED	8.45	☐	
Curium-243 INT	**0.09828**	0.05395	pCi/g	**0.07357**	**Y**	105.3	2	1.186	IDENTIFIED	27.61	☑ UI	
Europium-155 INT	**0.1086**	0.0596	pCi/g	**0.08279**	**0.500**	105.3	2	1.186	IDENTIFIED	27.61	☑ UI	
Gross Gamma	**7.536**	1.223	pCi/g	**2.012**	**N**		0				☐	
Lead-212 ✓	**1.486**	0.136	pCi/g	**0.04831**	**0.100**	238.7	1	1.23	IDENTIFIED	2.015	☐	
Lead-214 ✓	**1.134**	0.1012	pCi/g	**0.06456**	**0.100**	352.1	1	1.273	IDENTIFIED	3.597	☐	
Neptunium-237 INT	**0.8313**	0.1327	pCi/g	**0.1412**	**Y**	87.13	1	1.182	IDENTIFIED	6.866	☑ UI	
Potassium-40 ✓	**8.786**	0.8954	pCi/g	**0.2594**	**1.00**	1462	1	1.847	IDENTIFIED	3.355	☐	
Radium-223 INT	**0.5459**	0.1606	pCi/g	**0.1584**	**Y**	270.1	1	1.503	IDENTIFIED	14.6	☑ UI	
Thallium-208 ✓	**0.4664**	0.05624	pCi/g	**0.0336**	**0.080**	583.3	1	1.599	IDENTIFIED	4.998	☐	
Thorium-234 ✓	**2.008**	0.3482	pCi/g	**0.3293**	**0.500**	92.67	1	1.356	IDENTIFIED	7.637	☐	

*** = 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
1201473818		14-DEC-07 16:36	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201473819	18-OCT-07 00:00	14-DEC-07 16:37	57.7	DUP	LOAD	1		SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**1.055**	0.1538	pCi/g	**0.1048**	**0.800**	911.3	1	1.439	IDENTIFIED	6.641	☐	
Americium-243 INT	**0.1539**	0.01919	pCi/g	**0.0213**	**Y**	74.92	1	0.8217	IDENTIFIED	5.475	☑ UI	
Bismuth-212 ✓	**0.8535**	0.222	pCi/g	**0.2062**	**0.500**	727.2	1	1.109	IDENTIFIED	12.75	☐	
Bismuth-214 ✓	**0.6044**	0.08376	pCi/g	**0.04859**	**0.200**	609.4	1	1.305	IDENTIFIED	6.111	☐	
Cesium-137 ✓	**0.08397**	0.02995	pCi/g	**0.02609**	**0.100**	661.8	1	1.402	IDENTIFIED	17.82	☐	
Lead-212 ✓	**0.9571**	0.08789	pCi/g	**0.03746**	**0.100**	238.8	1	0.9823	IDENTIFIED	2.472	☐	
Lead-214 ✓	**0.5862**	0.07951	pCi/g	**0.04665**	**0.100**	352.1	1	1.175	IDENTIFIED	6.094	☐	
Neptunium-236 INT	**0.04274**	0.02869	pCi/g	**0.02936**	**Y**	99.13	1	1.817	IDENTIFIED	34.03	☑ UI	
Neptunium-237 INT	**0.5125**	0.09663	pCi/g	**0.111**	**Y**	87.33	1	1.112	IDENTIFIED	9.01	☑ UI	
Potassium-40 ✓	**6.847**	0.6227	pCi/g	**0.2305**	**1.00**	1461	1	1.951	IDENTIFIED	3.761	☐	
Radium-223 INT	**0.3432**	0.1024	pCi/g	**0.1164**	**Y**	270.4	1	1.493	IDENTIFIED	14.72	☑ UI	
Thallium-208 ✓	**0.3114**	0.03931	pCi/g	**0.02649**	**0.080**	583.3	1	1.33	IDENTIFIED	5.417	☐	
Thorium-234 ✓	**1.436**	0.2754	pCi/g	**0.2579**	**0.500**	92.79	1	1.144	IDENTIFIED	9.103	☐	

*** = 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
1201473820		14-DEC-07 16:00	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	**1.152**	0.5255	pCi/g	**0.8197**	**0.800**	910.3	1	2.367	FAIL_ABUND	22.92	☐	
Americium-241	**14.27**	1.41	pCi/g	**0.6353**	**0.200**	59.55	1	0.8054	IDENTIFIED	3.14	☐	
Bismuth-214	**0.521**	0.2619	pCi/g	**0.3526**	**0.200**	609.1	1	1.281	FAIL_ABUND	25.48	☐	
Cesium-137	**5.643**	0.4415	pCi/g	**0.1411**	**0.100**	661.4	1	1.451	IDENTIFIED	2.688	☐	
Cobalt-60	**8.353**	0.6218	pCi/g	**0.1487**	**0.100**	1173	1	1.894	IDENTIFIED	2.395	☐	
Gross Gamma	**38.97**	10.99	pCi/g	**6.855**	**N**		0				☐	
Lead-212	**0.995**	0.1546	pCi/g	**0.2104**	**0.100**	238.6	1	0.9284	IDENTIFIED	7.41	☐	
Lead-214	**0.6571**	0.2881	pCi/g	**0.2383**	**0.100**	351.9	1	1.43	IDENTIFIED	22.2	☐	
Neptunium-237	**30.62**	2.456	pCi/g	**0.8445**	**Y**	88.1	1	0.8534	IDENTIFIED	1.691	☐	

Polonium-209	**238.6**	46.27	pCi/g	**35.47**	**Y**	897.6	1	1.256	IDENTIFIED	9.037	☐
Thallium-208	**0.3697**	0.1176	pCi/g	**0.133**	**0.080**	583.1	1	1.535	IDENTIFIED	15.98	☐

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

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:23:36.65

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681021.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:23:10
Sample ID        : G198681021           Sample quantity  : 1.35490E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.29  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.34*	96	504	0.99	92.15	87	10	6.66E-03	47.6	
2	0	63.20*	129	499	0.67	125.90	122	8	8.94E-03	33.4	
3	4	74.78*	455	434	0.85	149.07	145	16	3.16E-02	8.6	8.64E-01
4	4	77.02*	755	413	0.90	153.55	145	16	5.25E-02	5.7	
5	5	84.24*	108	356	0.82	168.01	165	28	7.52E-03	29.9	1.77E+00
6	5	87.22*	340	476	1.09	173.97	165	28	2.36E-02	12.3	
7	5	89.81	225	392	0.96	179.15	165	28	1.56E-02	15.5	
8	5	92.63*	247	431	1.10	184.80	165	28	1.71E-02	17.8	
9	0	105.54	119	459	1.82	210.65	206	9	8.27E-03	33.7	
10	0	129.00	76	493	0.89	257.61	253	9	5.25E-03	54.1	
11	0	143.45*	53	387	0.75	286.53	283	8	3.70E-03	69.0	
12	0	153.57	17	298	0.46	306.79	304	5	1.19E-03	152.2	
13	0	185.63*	393	460	1.10	370.96	365	12	2.73E-02	12.7	
14	0	209.24	182	351	0.93	418.21	415	9	1.27E-02	19.9	
15	4	238.57*	1733	249	0.98	476.92	472	15	1.20E-01	2.9	3.35E+00
16	4	241.45	360	280	1.57	482.70	472	15	2.50E-02	11.9	
17	0	270.13*	139	266	1.72	540.10	535	10	9.63E-03	24.2	
18	0	277.14	86	171	1.02	554.14	551	7	5.96E-03	27.4	
19	0	284.08	48	142	1.55	568.02	565	6	3.35E-03	41.7	
20	0	295.16*	434	265	1.06	590.21	586	10	3.01E-02	8.9	
21	0	300.46	105	318	1.38	600.82	596	12	7.27E-03	35.6	
22	0	328.39	62	209	1.32	656.72	653	9	4.32E-03	43.7	
23	0	338.29	332	239	1.06	676.53	672	10	2.31E-02	10.3	
24	0	346.25	20	169	3.29	692.46	689	9	1.41E-03	116.8	
25	2	351.86*	769	124	1.08	703.69	699	12	5.34E-02	4.4	6.73E-01
26	0	405.32	43	121	1.43	810.69	808	8	3.00E-03	46.8	
27	7	409.54	40	98	1.49	819.14	816	13	2.79E-03	43.5	1.81E+00
28	7	412.87	26	93	1.46	825.80	816	13	1.83E-03	63.2	
29	0	463.29*	56	158	0.99	926.72	921	10	3.91E-03	44.9	
30	0	499.26	22	51	1.37	998.70	995	6	1.53E-03	55.6	
31	0	510.74*	153	170	1.61	1021.68	1016	15	1.07E-02	25.6	
32	0	562.38	57	87	2.81	1125.03	1120	10	3.94E-03	33.6	
33	0	583.17*	502	133	1.14	1166.65	1160	13	3.48E-02	7.0	
34	0	609.33*	567	131	1.32	1219.01	1214	12	3.94E-02	6.1	
35	0	641.16	26	84	3.14	1282.70	1275	12	1.80E-03	75.2	
36	0	645.61	45	45	2.89	1291.61	1287	10	3.10E-03	31.9	
37	0	651.18*	37	71	1.09	1302.77	1298	11	2.56E-03	51.2	
38	1	661.65	122	72	1.54	1323.72	1318	16	8.44E-03	15.5	9.48E-01

Sample ID : G198681021 Acquisition date : 14-DEC-2007 10:23:10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	664.91	29	48	1.54	1330.23	1318	16	2.04E-03	45.1	
40	0	703.98	29	98	0.82	1408.43	1402	11	2.01E-03	69.6	
41	0	717.97	16	72	1.00	1436.42	1433	8	1.13E-03	92.5	
42	0	727.61	148	85	1.55	1455.72	1452	13	1.02E-02	15.3	
43	0	768.39	47	87	1.02	1537.33	1531	11	3.23E-03	41.7	
44	0	795.04	94	61	1.15	1590.66	1585	13	6.50E-03	20.1	
45	0	804.09*	63	71	6.52	1608.77	1599	20	4.41E-03	36.4	
46	0	812.43	8	29	1.23	1625.46	1619	8	5.76E-04	118.7	
47	0	860.80*	84	64	1.24	1722.26	1716	13	5.82E-03	24.2	
48	0	911.37*	360	86	1.35	1823.46	1816	15	2.50E-02	7.9	
49	0	934.78	45	59	1.79	1870.30	1863	14	3.14E-03	39.1	
50	1	964.77	84	29	1.75	1930.32	1923	22	5.81E-03	16.6	1.26E+00
51	1	969.07	227	29	1.75	1938.93	1923	22	1.57E-02	8.4	
52	0	1029.04	18	26	0.93	2058.93	2053	9	1.25E-03	57.0	
53	0	1067.25	14	51	3.24	2135.38	2128	12	9.59E-04	106.9	
54	0	1120.65*	109	81	1.78	2242.25	2235	17	7.59E-03	21.6	
55	0	1148.64	6	43	0.61	2298.25	2293	11	3.92E-04	225.9	
56	0	1156.36	25	40	1.63	2313.70	2309	8	1.71E-03	50.1	
57	0	1195.84	21	79	5.18	2392.69	2379	21	1.43E-03	110.0	
58	0	1238.47	47	35	0.88	2477.99	2474	8	3.28E-03	25.9	
59	0	1309.39	7	48	3.34	2619.90	2605	16	4.58E-04	246.1	
60	0	1358.66	10	10	0.62	2718.49	2715	6	6.91E-04	60.1	
61	0	1377.95	28	30	1.79	2757.07	2752	10	1.94E-03	41.2	
62	0	1382.29	9	14	0.52	2765.76	2762	7	6.05E-04	81.6	
63	0	1385.36	15	17	1.53	2771.91	2768	9	1.05E-03	54.5	
64	0	1409.37	43	24	0.97	2819.94	2813	17	3.00E-03	30.6	
65	0	1450.04	11	12	0.71	2901.31	2897	8	7.88E-04	60.4	
66	0	1461.00*	666	19	1.93	2923.24	2916	15	4.63E-02	4.2	
67	0	1474.92	10	9	0.66	2951.10	2947	7	6.74E-04	63.0	
68	0	1510.56	17	18	0.77	3022.40	3014	13	1.19E-03	58.1	
69	0	1548.63	8	23	3.20	3098.57	3086	16	5.31E-04	147.4	
70	0	1574.42	11	4	1.03	3150.16	3147	7	7.69E-04	41.5	
71	0	1588.36	33	17	2.18	3178.05	3171	12	2.26E-03	31.3	
72	0	1592.18	16	15	1.63	3185.70	3183	8	1.11E-03	48.2	
73	0	1621.94	36	21	2.87	3245.22	3237	21	2.50E-03	35.9	
74	0	1631.30	26	9	1.33	3263.95	3258	13	1.79E-03	31.7	
75	0	1649.95	18	7	3.35	3301.28	3293	14	1.26E-03	38.9	
76	0	1723.87	6	10	1.22	3449.15	3445	8	3.86E-04	107.9	
77	0	1729.72	30	6	1.42	3460.85	3455	11	2.05E-03	24.0	
78	0	1747.35	8	1	1.47	3496.12	3493	7	5.29E-04	45.6	
79	0	1764.66	135	9	2.06	3530.76	3524	12	9.35E-03	9.7	
80	0	1848.86*	8	14	1.80	3699.21	3693	9	5.46E-04	105.9	
81	0	1867.42	12	0	1.18	3736.33	3732	8	8.33E-04	28.9	
82	0	1872.47	12	4	1.50	3746.42	3741	10	8.03E-04	46.2	
83	0	2032.97	6	10	1.44	4067.50	4060	10	4.17E-04	106.7	

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]G198681021       *
* Acquisition date : 14-DEC-2007 10:23:10 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 04:00:02.29     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681021           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3549E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.838E+00	7.383E-01	2.832E-01	0.000E+00
CS-137	7.844E-02	2.447E-02	3.093E-02	0.000E+00
EU-155	1.033E-01	6.862E-02	7.532E-02	0.000E+00
TL-208	2.916E-01	4.444E-02	2.458E-02	0.000E+00
BI-212	7.429E-01	2.297E-01	2.035E-01	0.000E+00
PB-212	9.903E-01	7.981E-02	4.349E-02	0.000E+00
BI-214	6.269E-01	8.637E-02	5.190E-02	0.000E+00
PB-214	6.714E-01	6.873E-02	5.167E-02	0.000E+00
RA-223	2.731E-01	1.307E-01	1.354E-01	0.000E+00
AC-228	1.013E+00	1.800E-01	9.333E-02	0.000E+00
TH-234	8.575E-01	3.058E-01	3.258E-01	0.000E+00
U-235	9.074E-02	1.228E-01	1.473E-01	0.000E+00
NP-237	5.343E-01	1.347E-01	1.476E-01	0.000E+00
AM-243	1.517E-01	2.744E-02	3.412E-02	0.000E+00
CM-243	9.352E-02	6.212E-02	6.889E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-7.414E-03		1.832E-02	2.954E-02	0.000E+00	NOT IDENT.
RH-101	8.482E-03		1.559E-02	2.648E-02	0.000E+00	NOT IDENT.
SB-125	2.347E-02		3.874E-02	7.027E-02	0.000E+00	NOT IDENT.
PO-209	9.187E-01		3.427E+00	5.392E+00	0.000E+00	NOT IDENT.
BI-211	1.088E-01		4.511E-01	7.993E-01	0.000E+00	NOT IDENT.
PA-233	1.639E-02		2.789E-02	4.824E-02	0.000E+00	NOT IDENT.
PA-234M	1.064E+00		2.177E+00	3.776E+00	0.000E+00	NOT IDENT.
NP-236	1.233E-02		2.754E-02	4.384E-02	0.000E+00	NOT IDENT.
NP-239	-1.622E-02		9.257E-02	1.574E-01	0.000E+00	NOT IDENT.
AM-241	4.015E-02		5.167E-02	8.385E-02	0.000E+00	NOT IDENT.
AM-246	2.410E-02		5.682E-02	1.004E-01	0.000E+00	NOT IDENT.
CF-249	1.383E-02		1.642E-02	3.031E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 14:23:37.66

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198681021.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 10:23:10
Sample ID        : G198681021           Sample quantity  : 1.35490E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.29  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	666	10.66*	1.266E+00	6.838E+00	6.838E+00	11.02
CS-137	661.66	122	85.10*	2.532E+00	7.815E-02	7.844E-02	31.83
EU-155	105.31	119	21.20*	7.701E+00	1.011E-01	1.033E-01	67.78
TL-208	277.36	86	6.31	5.039E+00	3.741E-01	3.741E-01	55.16
	510.77	153	22.60	3.148E+00	2.988E-01	2.988E-01	51.51
	583.19	502	84.50*	2.820E+00	2.916E-01	2.916E-01	15.55
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	84	12.42	2.006E+00	4.656E-01	4.656E-01	49.11
BI-212	727.33	148	11.80*	2.331E+00	7.429E-01	7.429E-01	31.56
	785.37	------	1.10	2.178E+00	------	Line Not Found	------
	1620.50	36	1.49	1.175E+00	2.849E+00	2.849E+00	72.15
PB-212	74.81	455	10.40	6.096E+00	9.947E-01	9.947E-01	18.46
	77.11	755	17.50	6.322E+00	9.460E-01	9.460E-01	13.14
	87.30	340	7.81	7.100E+00	8.483E-01	8.483E-01	25.73
	238.63	1733	43.30*	5.600E+00	9.903E-01	9.903E-01	8.22
	300.09	105	3.28	4.751E+00	9.308E-01	9.308E-01	71.36
BI-214	609.31	567	46.10*	2.718E+00	6.269E-01	6.269E-01	14.06
	768.36	47	4.94	2.221E+00	5.878E-01	5.878E-01	83.72
	806.17	------	1.22	2.128E+00	------	Line Not Found	------
	934.06	45	3.03	1.862E+00	1.110E+00	1.110E+00	78.62
	1120.29	109	15.10	1.582E+00	6.337E-01	6.338E-01	43.70
	1155.19	25	1.63	1.538E+00	1.364E+00	1.364E+00	100.34
	1238.11	47	5.79	1.449E+00	7.793E-01	7.793E-01	52.24
	1280.96	------	1.43	1.408E+00	------	Line Not Found	------
	1377.67	28	4.00	1.326E+00	7.313E-01	7.313E-01	82.68
	1401.50	------	1.27	1.308E+00	------	Line Not Found	------
	1407.98	43	2.15	1.302E+00	2.139E+00	2.139E+00	61.66
	1509.23	17	2.11	1.235E+00	9.074E-01	9.075E-01	116.41
	1729.60	30	2.92	1.128E+00	1.241E+00	1.241E+00	48.41
	1764.49	135	15.40	1.115E+00	1.087E+00	1.087E+00	20.36
PB-214	74.81	455	6.44	6.096E+00	1.606E+00	1.606E+00	18.46
	77.11	755	10.80	6.322E+00	1.533E+00	1.533E+00	13.14

Sample ID : G198681021 Acquisition date : 14-DEC-2007 10:23:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	340	4.84	7.100E+00	1.369E+00	1.369E+00	25.73
	242.00	360	7.43	5.554E+00	1.208E+00	1.208E+00	24.59
	295.22	434	19.30	4.814E+00	6.471E-01	6.471E-01	18.81
	351.93	769	37.60*	4.222E+00	6.714E-01	6.714E-01	10.45
RA-223	269.46	139	13.70*	5.133E+00	2.731E-01	2.731E-01	48.84
AC-228	129.07	76	2.42	7.655E+00	5.657E-01	5.657E-01	108.43
	209.25	182	3.89	6.108E+00	1.063E+00	1.063E+00	40.13
	270.25	139	3.46	5.133E+00	1.081E+00	1.081E+00	48.84
	338.32	332	11.27	4.350E+00	9.383E-01	9.383E-01	21.38
	409.46	40	1.92	3.756E+00	7.724E-01	7.724E-01	87.22
	463.00	56	4.40	3.407E+00	5.204E-01	5.204E-01	90.06
	794.95	94	4.25	2.154E+00	1.416E+00	1.416E+00	41.15
	911.20	360	25.80*	1.905E+00	1.013E+00	1.013E+00	18.13
	964.77	84	4.99	1.810E+00	1.284E+00	1.284E+00	34.19
	968.97	227	15.80	1.802E+00	1.103E+00	1.103E+00	18.77
	1588.20	33	3.22	1.192E+00	1.177E+00	1.177E+00	62.93
TH-234	63.29	129	4.80	4.581E+00	8.110E-01	8.110E-01	67.02
	92.58	247	5.41*	7.367E+00	8.575E-01	8.575E-01	36.39
U-235	143.76	53	10.96*	7.428E+00	9.074E-02	9.074E-02	138.14
NP-237	86.48	340	12.40*	7.100E+00	5.343E-01	5.343E-01	25.73
AM-243	74.66	455	68.20*	6.096E+00	1.517E-01	1.517E-01	18.46
CM-243	103.76	119	23.00*	7.701E+00	9.316E-02	9.352E-02	67.78

Flag: "*" = Keyline

Sample ID : G198681021 Acquisition date : 14-DEC-2007 10:23:10

Total number of lines in spectrum 83
Number of unidentified lines 41
Number of lines tentatively identified by NID 42 50.60%

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	6.838E+00	6.838E+00	0.753E+00	11.02	
CS-137	9.47E+08S	1.00	7.815E-02	7.844E-02	2.497E-02	31.83	
EU-155	1.57E+08S	1.02	1.011E-01	1.033E-01	0.700E-01	67.78	
TL-208	4.43E+17S	1.00	2.916E-01	2.916E-01	0.453E-01	15.55	
BI-212	4.43E+17S	1.00	7.429E-01	7.429E-01	2.344E-01	31.56	
PB-212	4.43E+17S	1.00	9.903E-01	9.903E-01	0.814E-01	8.22	
BI-214	5.05E+10S	1.00	6.269E-01	6.269E-01	0.881E-01	14.06	
PB-214	5.05E+10S	1.00	6.714E-01	6.714E-01	0.701E-01	10.45	
RA-223	1.04E+12S	1.00	2.731E-01	2.731E-01	1.333E-01	48.84	
AC-228	4.43E+17S	1.00	1.013E+00	1.013E+00	0.184E+00	18.13	
TH-234	1.41E+17S	1.00	8.575E-01	8.575E-01	3.120E-01	36.39	
U-235	2.22E+16S	1.00	9.074E-02	9.074E-02	12.54E-02	138.14	
NP-237	6.75E+13S	1.00	5.343E-01	5.343E-01	1.375E-01	25.73	
AM-243	2.33E+11S	1.00	1.517E-01	1.517E-01	0.280E-01	18.46	
CM-243	8.99E+08S	1.00	9.316E-02	9.352E-02	6.339E-02	67.78	
			---	---			
	Total Activity :		1.335E+01	1.336E+01			

Grand Total Activity : 1.335E+01 1.336E+01

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

Sample ID : G198681021 Acquisition date : 14-DEC-2007 10:23:10

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.34	96	504	0.99	92.15	87	10	6.66E-03	95.1	1.72E+00	
5	84.24	108	356	0.82	168.01	165	28	7.52E-03	59.7	6.91E+00	
5	89.81	225	392	0.96	179.15	165	28	1.56E-02	31.1	7.24E+00	
0	153.57	17	298	0.46	306.79	304	5	1.19E-03	****	7.23E+00	
0	185.63	393	460	1.10	370.96	365	12	2.73E-02	25.4	6.57E+00	
0	284.08	48	142	1.55	568.02	565	6	3.35E-03	83.5	4.95E+00	
0	328.39	62	209	1.32	656.72	653	9	4.32E-03	87.3	4.45E+00	
0	346.25	20	169	3.29	692.46	689	9	1.41E-03	****	4.27E+00	
0	405.32	43	121	1.43	810.69	808	8	3.00E-03	93.6	3.79E+00	
7	412.87	26	93	1.46	825.80	816	13	1.83E-03	****	3.73E+00	
0	499.26	22	51	1.37	998.70	995	6	1.53E-03	****	3.21E+00	
0	562.38	57	87	2.81	1125.03	1120	10	3.94E-03	67.2	2.91E+00	
0	641.16	26	84	3.14	1282.70	1275	12	1.80E-03	****	2.60E+00	
0	645.61	45	45	2.89	1291.61	1287	10	3.10E-03	63.7	2.59E+00	
0	651.18	37	71	1.09	1302.77	1298	11	2.56E-03	****	2.57E+00	
1	664.91	29	48	1.54	1330.23	1318	16	2.04E-03	90.1	2.52E+00	
0	703.98	29	98	0.82	1408.43	1402	11	2.01E-03	****	2.40E+00	
0	717.97	16	72	1.00	1436.42	1433	8	1.13E-03	****	2.36E+00	
0	804.09	63	71	6.52	1608.77	1599	20	4.41E-03	72.8	2.13E+00	
0	812.43	8	29	1.23	1625.46	1619	8	5.76E-04	****	2.11E+00	
0	1029.04	18	26	0.93	2058.93	2053	9	1.25E-03	****	1.71E+00	
0	1067.25	14	51	3.24	2135.38	2128	12	9.59E-04	****	1.65E+00	
0	1148.64	6	43	0.61	2298.25	2293	11	3.92E-04	****	1.55E+00	
0	1195.84	21	79	5.18	2392.69	2379	21	1.43E-03	****	1.49E+00	
0	1309.39	7	48	3.34	2619.90	2605	16	4.58E-04	****	1.38E+00	
0	1358.66	10	10	0.62	2718.49	2715	6	6.91E-04	****	1.34E+00	
0	1382.29	9	14	0.52	2765.76	2762	7	6.05E-04	****	1.32E+00	
0	1385.36	15	17	1.53	2771.91	2768	9	1.05E-03	****	1.32E+00	
0	1450.04	11	12	0.71	2901.31	2897	8	7.88E-04	****	1.27E+00	
0	1474.92	10	9	0.66	2951.10	2947	7	6.74E-04	****	1.26E+00	
0	1548.63	8	23	3.20	3098.57	3086	16	5.31E-04	****	1.21E+00	
0	1574.42	11	4	1.03	3150.16	3147	7	7.69E-04	83.1	1.20E+00	
0	1592.18	16	15	1.63	3185.70	3183	8	1.11E-03	96.3	1.19E+00	
0	1631.30	26	9	1.33	3263.95	3258	13	1.79E-03	63.4	1.17E+00	
0	1649.95	18	7	3.35	3301.28	3293	14	1.26E-03	77.8	1.16E+00	
0	1723.87	6	10	1.22	3449.15	3445	8	3.86E-04	****	1.13E+00	
0	1747.35	8	1	1.47	3496.12	3493	7	5.29E-04	91.3	1.12E+00	
0	1848.86	8	14	1.80	3699.21	3693	9	5.46E-04	****	1.09E+00	
0	1867.42	12	0	1.18	3736.33	3732	8	8.33E-04	57.7	1.08E+00	
0	1872.47	12	4	1.50	3746.42	3741	10	8.03E-04	92.3	1.08E+00	
0	2032.97	6	10	1.44	4067.50	4060	10	4.17E-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]G198681021            *
* Acquisition date : 14-DEC-2007 10:23:10 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 04:00:02.29     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198681021           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3549E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.838E+00	7.383E-01	1.417E-01	7.383E-01
CS-137	7.844E-02	2.447E-02	1.548E-02	2.447E-02
EU-155	1.033E-01	6.862E-02	3.768E-02	6.862E-02
TL-208	2.916E-01	4.444E-02	1.230E-02	4.444E-02
BI-212	7.429E-01	2.297E-01	1.018E-01	2.297E-01
PB-212	9.903E-01	7.981E-02	2.176E-02	7.981E-02
BI-214	6.269E-01	8.637E-02	2.597E-02	8.637E-02
PB-214	6.714E-01	6.873E-02	2.585E-02	6.873E-02
RA-223	2.731E-01	1.307E-01	6.776E-02	1.307E-01
AC-228	1.013E+00	1.800E-01	4.669E-02	1.800E-01
TH-234	8.575E-01	3.058E-01	1.630E-01	3.058E-01
U-235	9.074E-02	1.228E-01	7.368E-02	1.228E-01
NP-237	5.343E-01	1.347E-01	7.385E-02	1.347E-01
AM-243	1.517E-01	2.744E-02	1.707E-02	2.744E-02
CM-243	9.352E-02	6.212E-02	3.446E-02	6.212E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-7.414E-03	1.832E-02	1.478E-02	1.832E-02	NOT IDENT.
RH-101	8.482E-03	1.559E-02	1.325E-02	1.559E-02	NOT IDENT.
SB-125	2.347E-02	3.874E-02	3.515E-02	3.874E-02	NOT IDENT.
PO-209	9.187E-01	3.427E+00	2.697E+00	3.427E+00	NOT IDENT.
BI-211	1.088E-01	4.511E-01	3.999E-01	4.511E-01	NOT IDENT.
PA-233	1.639E-02	2.789E-02	2.413E-02	2.789E-02	NOT IDENT.
PA-234M	1.064E+00	2.177E+00	1.889E+00	2.177E+00	NOT IDENT.
NP-236	1.233E-02	2.754E-02	2.193E-02	2.754E-02	NOT IDENT.
NP-239	-1.622E-02	9.257E-02	7.877E-02	9.257E-02	NOT IDENT.
AM-241	4.015E-02	5.167E-02	4.195E-02	5.167E-02	NOT IDENT.
AM-246	2.410E-02	5.682E-02	5.023E-02	5.682E-02	NOT IDENT.
CF-249	1.383E-02	1.642E-02	1.516E-02	1.642E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	266.6422
63.29	331.2290
74.66	431.1147
74.81	431.2602
74.81	431.2602
77.11	433.5032
77.11	433.5032
86.48	360.9449
87.30	361.5536
87.30	361.5536
92.58	365.4137
98.44	300.4425
103.76	319.5347
105.31	315.0499
129.07	323.2029
143.76	316.1140
198.00	265.2732
209.25	254.1466
228.18	221.2503
238.63	249.3070
242.00	219.0140
269.46	205.0004
270.25	205.1517
277.36	184.2778
295.22	191.1358
300.09	205.5205
312.17	146.4089
338.32	148.9108
351.93	152.9429
387.59	114.4336
409.46	106.9375
427.87	104.5061
463.00	127.8148
510.77	99.0659
583.19	79.5187
609.31	98.1166
661.66	102.6954
727.33	73.2334
763.13	74.3326
768.36	108.1886
785.37	72.5458
794.95	51.9848
806.17	45.0122
831.80	64.5518
860.56	56.0616
896.60	43.7642
911.20	49.6086
934.06	55.6668
964.77	57.2065
968.97	57.2886
1001.03	48.2495
1078.86	41.5406
1120.29	42.0636
1155.19	47.7022
1173.23	53.9084
1238.11	61.1088
1280.96	30.3863
1332.51	24.4263
1377.67	34.0185
1401.50	26.2447
1407.98	41.4910
1460.80	35.0812
1509.23	22.1768
1588.20	22.5762
1620.50	22.7373
1729.60	18.9065
1764.49	16.7397

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198681021

Total Uranium Activity	4.1986E-02	ug/g
Total Uranium Counting Unc.	5.6841E-02	ug/g
Total Uranium Tpu	5.6841E-08	ug/g
Total Uranium Mda	3.4093E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:27:24.49

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683001.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:26:44
Sample ID        : G198683001           Sample quantity  : 1.28390E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.77  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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*	25	493	1.10	126.44	122	10	1.77E-03	180.1	
2	1	72.81*	25	202	0.99	145.13	143	16	1.76E-03	105.4	1.78E+00
3	1	74.83*	203	318	1.00	149.18	143	16	1.41E-02	18.1	
4	1	77.15*	328	343	1.00	153.82	143	16	2.28E-02	11.1	
5	4	84.12*	67	456	1.36	167.75	164	27	4.66E-03	60.3	1.15E+00
6	4	87.24	139	394	1.12	173.97	164	27	9.64E-03	24.8	
7	4	89.85	96	335	0.92	179.18	164	27	6.67E-03	31.6	
8	4	92.67*	114	329	1.03	184.83	164	27	7.94E-03	34.9	
9	0	129.34	42	279	1.39	258.11	255	7	2.92E-03	67.8	
10	0	143.99*	43	328	0.87	287.37	284	8	2.98E-03	81.6	
11	0	153.82	87	228	1.75	307.01	304	7	6.07E-03	30.7	
12	8	163.79*	26	192	0.95	326.93	321	9	1.80E-03	102.1	1.48E+00
13	0	185.84*	168	317	1.07	371.00	367	10	1.17E-02	25.3	
14	0	209.24	119	294	1.17	417.76	413	9	8.25E-03	27.7	
15	7	238.60*	876	181	1.05	476.43	472	16	6.08E-02	4.4	4.21E+00
16	7	241.61*	198	274	1.56	482.44	472	16	1.37E-02	17.6	
17	6	270.07	79	140	1.33	539.30	536	11	5.46E-03	25.9	2.49E+00
18	6	271.87	24	180	1.66	542.90	536	11	1.67E-03	104.4	
19	0	277.42	71	208	0.95	553.99	550	10	4.90E-03	40.0	
20	0	295.12*	196	302	1.30	589.37	584	13	1.36E-02	20.2	
21	0	300.40	57	163	1.05	599.91	596	8	3.94E-03	41.5	
22	0	327.91	38	110	1.00	654.89	652	6	2.63E-03	46.8	
23	0	338.40	223	190	1.32	675.84	671	12	1.55E-02	14.1	
24	0	352.04*	396	206	1.26	703.11	698	12	2.75E-02	9.3	
25	0	409.84	90	121	1.38	818.61	813	13	6.27E-03	27.4	
26	0	462.50	83	115	1.38	923.83	919	12	5.74E-03	28.1	
27	0	486.27	32	97	0.96	971.34	966	11	2.20E-03	63.3	
28	0	510.72*	81	187	2.21	1020.19	1013	17	5.64E-03	48.8	
29	0	583.03*	263	102	1.47	1164.71	1159	14	1.83E-02	11.7	
30	0	609.36*	352	73	1.55	1217.33	1210	14	2.45E-02	7.9	
31	0	661.78	139	99	1.33	1322.08	1316	11	9.66E-03	16.2	
32	0	727.31	80	69	1.42	1453.04	1446	14	5.55E-03	24.8	
33	0	742.54	28	48	3.03	1483.47	1478	10	1.94E-03	50.8	
34	0	794.87	45	36	1.17	1588.05	1584	10	3.12E-03	29.4	
35	0	859.80	39	51	1.06	1717.82	1712	12	2.71E-03	39.9	
36	0	910.94	195	44	1.63	1820.02	1814	14	1.35E-02	10.1	
37	0	934.10	24	42	1.40	1866.31	1860	12	1.67E-03	57.7	
38	2	964.60	33	35	1.78	1927.28	1924	21	2.32E-03	33.1	4.11E+00

Sample ID : G198683001 Acquisition date : 14-DEC-2007 14:26:44

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	2	968.81*	101	47	1.66	1935.70	1924	21	7.01E-03	17.4	
40	0	990.84	15	8	1.42	1979.72	1977	6	1.01E-03	41.6	
41	0	1005.90	10	91	1.94	2009.82	1996	18	6.60E-04	231.9	
42	0	1026.91	16	22	0.83	2051.81	2047	11	1.11E-03	62.0	
43	0	1060.28	29	65	11.40	2118.50	2101	26	2.01E-03	78.4	
44	0	1120.34	101	45	2.00	2238.55	2231	17	7.02E-03	18.4	
45	0	1239.31	18	55	1.01	2476.32	2467	13	1.27E-03	86.9	
46	0	1277.87	35	43	10.17	2553.40	2536	25	2.44E-03	53.4	
47	0	1302.58	23	14	5.06	2602.78	2596	14	1.60E-03	40.3	
48	0	1346.38	9	20	1.02	2690.33	2685	11	6.59E-04	95.5	
49	0	1377.49	23	19	2.36	2752.53	2744	15	1.61E-03	45.7	
50	0	1436.09	7	27	3.39	2869.65	2857	16	4.62E-04	181.8	
51	0	1451.48	18	8	0.99	2900.42	2894	13	1.24E-03	42.5	
52	0	1460.47*	338	35	1.42	2918.37	2912	14	2.35E-02	6.8	
53	0	1587.67	26	2	0.83	3172.63	3167	10	1.79E-03	22.7	
54	0	1683.10	5	15	0.88	3363.40	3351	15	3.47E-04	174.6	
55	0	1748.50	6	7	0.61	3494.13	3487	11	4.46E-04	93.0	
56	0	1763.47*	68	4	2.18	3524.05	3514	19	4.75E-03	16.9	
57	0	1870.82	5	6	0.81	3738.64	3734	8	3.38E-04	98.6	
58	0	1894.55	6	5	1.29	3786.08	3779	10	4.17E-04	80.8	
59	0	1924.38	5	9	0.92	3845.71	3836	11	3.47E-04	133.0	

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]G198683001       *
* Acquisition date : 14-DEC-2007 14:26:44 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 04:00:03.77     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683001           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2839E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.348E+00	6.472E-01	2.479E-01	0.000E+00
CS-137	1.100E-01	3.562E-02	3.321E-02	0.000E+00
TL-208	1.873E-01	4.431E-02	3.002E-02	0.000E+00
BI-212	4.933E-01	2.422E-01	2.231E-01	0.000E+00
PB-212	6.079E-01	6.446E-02	4.768E-02	0.000E+00
BI-214	4.775E-01	7.876E-02	6.372E-02	0.000E+00
PB-214	4.237E-01	8.102E-02	5.778E-02	0.000E+00
RA-223	1.890E-01	9.673E-02	1.445E-01	0.000E+00
AC-228	6.757E-01	1.431E-01	1.099E-01	0.000E+00
TH-234	5.344E-01	3.684E-01	3.982E-01	0.000E+00
U-235	8.857E-02	1.418E-01	1.667E-01	0.000E+00
NP-237	3.032E-01	1.497E-01	1.870E-01	0.000E+00
AM-243	1.048E-01	3.806E-02	4.537E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	8.532E-03		1.875E-02	3.344E-02	0.000E+00	NOT IDENT.
RH-101	4.302E-03		1.811E-02	2.882E-02	0.000E+00	NOT IDENT.
SB-125	4.990E-03		4.802E-02	8.186E-02	0.000E+00	NOT IDENT.
EU-155	1.409E-02		5.171E-02	9.198E-02	0.000E+00	NOT IDENT.
PO-209	1.330E+00		3.848E+00	6.630E+00	0.000E+00	NOT IDENT.
BI-211	-2.545E-01		5.960E-01	9.649E-01	0.000E+00	NOT IDENT.
PA-233	-8.304E-03		3.008E-02	5.149E-02	0.000E+00	NOT IDENT.
PA-234M	-6.866E-01		3.220E+00	4.680E+00	0.000E+00	NOT IDENT.
NP-236	-1.082E-02		3.362E-02	5.150E-02	0.000E+00	NOT IDENT.
NP-239	2.874E-02		1.128E-01	1.898E-01	0.000E+00	NOT IDENT.
AM-241	5.290E-02		9.094E-02	1.537E-01	0.000E+00	NOT IDENT.
CM-243	1.698E-02		4.668E-02	8.340E-02	0.000E+00	NOT IDENT.
AM-246	-2.913E-02		6.371E-02	1.036E-01	0.000E+00	NOT IDENT.
CF-249	2.205E-02		2.118E-02	3.833E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:27:25.49

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683001.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:26:44
Sample ID        : G198683001           Sample quantity  : 1.28390E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.77  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	338	10.66*	1.065E+00	4.348E+00	4.348E+00	15.19
CS-137	661.66	139	85.10*	2.181E+00	1.096E-01	1.100E-01	33.05
TL-208	277.36	71	6.31	4.353E+00	3.759E-01	3.759E-01	80.27
	510.77	81	22.60	2.710E+00	1.938E-01	1.938E-01	97.83
	583.19	263	84.50*	2.430E+00	1.873E-01	1.873E-01	24.14
	763.13	------	1.81	1.923E+00	------	Line Not Found	------
	860.56	39	12.42	1.724E+00	2.664E-01	2.664E-01	80.24
BI-212	727.33	80	11.80*	2.007E+00	4.933E-01	4.933E-01	50.11
	785.37	------	1.10	1.873E+00	------	Line Not Found	------
	1620.50	------	1.49	9.857E-01	------	Line Not Found	------
PB-212	74.81	203	10.40	4.149E+00	6.875E-01	6.875E-01	37.04
	77.11	328	17.50	4.422E+00	6.193E-01	6.193E-01	23.61
	87.30	139	7.81	5.399E+00	4.815E-01	4.815E-01	50.38
	238.63	876	43.30*	4.863E+00	6.079E-01	6.079E-01	10.82
	300.09	57	3.28	4.100E+00	6.174E-01	6.174E-01	83.29
BI-214	609.31	352	46.10*	2.341E+00	4.775E-01	4.775E-01	16.83
	768.36	------	4.94	1.911E+00	------	Line Not Found	------
	806.17	------	1.22	1.829E+00	------	Line Not Found	------
	934.06	24	3.03	1.596E+00	7.255E-01	7.255E-01	115.72
	1120.29	101	15.10	1.346E+00	7.273E-01	7.273E-01	37.23
	1155.19	------	1.63	1.308E+00	------	Line Not Found	------
	1238.11	18	5.79	1.227E+00	3.766E-01	3.766E-01	173.84
	1280.96	------	1.43	1.191E+00	------	Line Not Found	------
	1377.67	23	4.00	1.118E+00	7.590E-01	7.590E-01	91.54
	1401.50	------	1.27	1.102E+00	------	Line Not Found	------
	1407.98	------	2.15	1.098E+00	------	Line Not Found	------
	1509.23	------	2.11	1.038E+00	------	Line Not Found	------
	1729.60	------	2.92	9.455E-01	------	Line Not Found	------
	1764.49	68	15.40	9.350E-01	6.950E-01	6.951E-01	34.38
PB-214	74.81	203	6.44	4.149E+00	1.110E+00	1.110E+00	37.04
	77.11	328	10.80	4.422E+00	1.003E+00	1.004E+00	23.61
	87.30	139	4.84	5.399E+00	7.769E-01	7.770E-01	50.38

Sample ID : G198683001 Acquisition date : 14-DEC-2007 14:26:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	198	7.43	4.819E+00	8.068E-01	8.069E-01	35.74
	295.22	196	19.30	4.156E+00	3.576E-01	3.577E-01	40.86
	351.93	396	37.60*	3.633E+00	4.237E-01	4.237E-01	19.51
RA-223	269.46	79	13.70*	4.441E+00	1.890E-01	1.890E-01	52.23
AC-228	129.07	42	2.42	6.595E+00	3.849E-01	3.849E-01	135.66
	209.25	119	3.89	5.327E+00	8.386E-01	8.386E-01	55.62
	270.25	79	3.46	4.441E+00	7.482E-01	7.482E-01	52.23
	338.32	223	11.27	3.745E+00	7.717E-01	7.717E-01	28.76
	409.46	90	1.92	3.229E+00	2.130E+00	2.130E+00	55.05
	463.00	83	4.40	2.935E+00	9.363E-01	9.363E-01	56.45
	794.95	45	4.25	1.853E+00	8.336E-01	8.336E-01	59.30
	911.20	195	25.80*	1.634E+00	6.757E-01	6.757E-01	21.61
	964.77	33	4.99	1.549E+00	6.315E-01	6.315E-01	66.64
	968.97	101	15.80	1.542E+00	6.055E-01	6.055E-01	35.49
	1588.20	26	3.22	9.999E-01	1.171E+00	1.171E+00	45.85
TH-234	63.29	25	4.80	2.623E+00	2.959E-01	2.959E-01	360.25
	92.58	114	5.41*	5.785E+00	5.344E-01	5.344E-01	70.35
U-235	143.76	43	10.96*	6.459E+00	8.857E-02	8.857E-02	163.31
NP-237	86.48	139	12.40*	5.399E+00	3.032E-01	3.032E-01	50.38
AM-243	74.66	203	68.20*	4.149E+00	1.048E-01	1.048E-01	37.04

Flag: "*" = Keyline

Sample ID : G198683001 Acquisition date : 14-DEC-2007 14:26:44

Total number of lines in spectrum 59
Number of unidentified lines 24
Number of lines tentatively identified by NID 35 59.32%

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	4.348E+00	4.348E+00	0.660E+00	15.19	
CS-137	9.47E+08S	1.00	1.096E-01	1.100E-01	0.364E-01	33.05	
TL-208	4.43E+17S	1.00	1.873E-01	1.873E-01	0.452E-01	24.14	
BI-212	4.43E+17S	1.00	4.933E-01	4.933E-01	2.472E-01	50.11	
PB-212	4.43E+17S	1.00	6.079E-01	6.079E-01	0.658E-01	10.82	
BI-214	5.05E+10S	1.00	4.775E-01	4.775E-01	0.804E-01	16.83	
PB-214	5.05E+10S	1.00	4.237E-01	4.237E-01	0.827E-01	19.51	
RA-223	1.04E+12S	1.00	1.890E-01	1.890E-01	0.987E-01	52.23	
AC-228	4.43E+17S	1.00	6.757E-01	6.757E-01	1.460E-01	21.61	
TH-234	1.41E+17S	1.00	5.344E-01	5.344E-01	3.759E-01	70.35	
U-235	2.22E+16S	1.00	8.857E-02	8.857E-02	14.47E-02	163.31	
NP-237	6.75E+13S	1.00	3.032E-01	3.032E-01	1.528E-01	50.38	
AM-243	2.33E+11S	1.00	1.048E-01	1.048E-01	0.388E-01	37.04	
			---	---			
		Total Activity :	8.543E+00	8.543E+00			

Grand Total Activity : 8.543E+00 8.543E+00

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

Sample ID : G198683001 Acquisition date : 14-DEC-2007 14:26:44

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	72.81	25	202	0.99	145.13	143	16	1.76E-03	****	3.90E+00	
4	84.12	67	456	1.36	167.75	164	27	4.66E-03	****	5.13E+00	
4	89.85	96	335	0.92	179.18	164	27	6.67E-03	63.2	5.60E+00	
0	153.82	87	228	1.75	307.01	304	7	6.07E-03	61.5	6.31E+00	
8	163.79	26	192	0.95	326.93	321	9	1.80E-03	****	6.14E+00	
0	185.84	168	317	1.07	371.00	367	10	1.17E-02	50.5	5.74E+00	
6	271.87	24	180	1.66	542.90	536	11	1.67E-03	****	4.42E+00	
0	327.91	38	110	1.00	654.89	652	6	2.63E-03	93.6	3.84E+00	
0	486.27	32	97	0.96	971.34	966	11	2.20E-03	****	2.82E+00	
0	742.54	28	48	3.03	1483.47	1478	10	1.94E-03	****	1.97E+00	
0	990.84	15	8	1.42	1979.72	1977	6	1.01E-03	83.2	1.51E+00	
0	1005.90	10	91	1.94	2009.82	1996	18	6.60E-04	****	1.49E+00	
0	1026.91	16	22	0.83	2051.81	2047	11	1.11E-03	****	1.46E+00	
0	1060.28	29	65	11.40	2118.50	2101	26	2.01E-03	****	1.42E+00	
0	1277.87	35	43	10.17	2553.40	2536	25	2.44E-03	****	1.19E+00	
0	1302.58	23	14	5.06	2602.78	2596	14	1.60E-03	80.6	1.17E+00	
0	1346.38	9	20	1.02	2690.33	2685	11	6.59E-04	****	1.14E+00	
0	1436.09	7	27	3.39	2869.65	2857	16	4.62E-04	****	1.08E+00	
0	1451.48	18	8	0.99	2900.42	2894	13	1.24E-03	85.0	1.07E+00	
0	1683.10	5	15	0.88	3363.40	3351	15	3.47E-04	****	9.61E-01	
0	1748.50	6	7	0.61	3494.13	3487	11	4.46E-04	****	9.40E-01	
0	1870.82	5	6	0.81	3738.64	3734	8	3.38E-04	****	9.08E-01	
0	1894.55	6	5	1.29	3786.08	3779	10	4.17E-04	****	9.03E-01	
0	1924.38	5	9	0.92	3845.71	3836	11	3.47E-04	****	8.97E-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]G198683001            *
* Acquisition date : 14-DEC-2007 14:26:44 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 04:00:03.77     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683001           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2839E+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    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.348E+00	6.472E-01	1.240E-01	6.472E-01
CS-137	1.100E-01	3.562E-02	1.661E-02	3.562E-02
TL-208	1.873E-01	4.431E-02	1.502E-02	4.431E-02
BI-212	4.933E-01	2.422E-01	1.116E-01	2.422E-01
PB-212	6.079E-01	6.446E-02	2.385E-02	6.446E-02
BI-214	4.775E-01	7.876E-02	3.188E-02	7.876E-02
PB-214	4.237E-01	8.102E-02	2.890E-02	8.102E-02
RA-223	1.890E-01	9.673E-02	7.232E-02	9.673E-02
AC-228	6.757E-01	1.431E-01	5.497E-02	1.431E-01
TH-234	5.344E-01	3.684E-01	1.992E-01	3.684E-01
U-235	8.857E-02	1.418E-01	8.341E-02	1.418E-01
NP-237	3.032E-01	1.497E-01	9.355E-02	1.497E-01
AM-243	1.048E-01	3.806E-02	2.270E-02	3.806E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	8.532E-03	1.875E-02	1.673E-02	1.875E-02	NOT IDENT.
RH-101	4.302E-03	1.811E-02	1.442E-02	1.811E-02	NOT IDENT.
SB-125	4.990E-03	4.802E-02	4.096E-02	4.802E-02	NOT IDENT.
EU-155	1.409E-02	5.171E-02	4.602E-02	5.171E-02	NOT IDENT.
PO-209	1.330E+00	3.848E+00	3.317E+00	3.848E+00	NOT IDENT.
BI-211	-2.545E-01	5.960E-01	4.827E-01	5.960E-01	NOT IDENT.
PA-233	-8.304E-03	3.008E-02	2.576E-02	3.008E-02	NOT IDENT.
PA-234M	-6.866E-01	3.220E+00	2.342E+00	3.220E+00	NOT IDENT.
NP-236	-1.082E-02	3.362E-02	2.577E-02	3.362E-02	NOT IDENT.
NP-239	2.874E-02	1.128E-01	9.495E-02	1.128E-01	NOT IDENT.
AM-241	5.290E-02	9.094E-02	7.691E-02	9.094E-02	NOT IDENT.
CM-243	1.698E-02	4.668E-02	4.173E-02	4.668E-02	NOT IDENT.
AM-246	-2.913E-02	6.371E-02	5.182E-02	6.371E-02	NOT IDENT.
CF-249	2.205E-02	2.118E-02	1.918E-02	2.118E-02	NOT IDENT.

Sample ID : G198683002 Acquisition date : 14-DEC-2007 14:27:12

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	728.02	102	111	1.20	1456.53	1450	14	7.12E-03	24.0	
40	0	768.53	50	106	1.01	1537.62	1533	10	3.47E-03	40.9	
41	0	785.86	24	72	1.43	1572.30	1567	9	1.65E-03	67.7	
42	0	835.98	25	61	4.20	1672.59	1664	11	1.70E-03	64.7	
43	0	839.52	60	35	2.36	1679.67	1675	10	4.17E-03	22.9	
44	0	911.39*	301	43	1.80	1823.50	1817	14	2.09E-02	7.8	
45	3	965.02	66	24	2.11	1930.82	1926	19	4.62E-03	19.3	8.34E-01
46	3	969.05	216	35	1.58	1938.88	1926	19	1.50E-02	8.5	
47	3	998.64	16	5	1.23	1998.09	1996	15	1.09E-03	27.9	9.36E-01
48	3	1001.37*	16	30	2.14	2003.56	1996	15	1.12E-03	88.4	
49	0	1120.96*	174	27	2.15	2242.87	2237	16	1.21E-02	10.6	
50	0	1156.86	20	46	2.04	2314.70	2304	13	1.41E-03	72.1	
51	0	1238.50	37	41	0.99	2478.05	2472	9	2.58E-03	32.9	
52	0	1253.49	45	29	4.64	2508.06	2501	16	3.12E-03	31.6	
53	0	1340.39*	3	15	1.39	2681.92	2677	8	1.74E-04	334.5	
54	0	1378.49	44	26	1.53	2758.15	2751	15	3.06E-03	29.4	
55	0	1386.15	21	28	0.76	2773.49	2767	11	1.42E-03	54.2	
56	0	1402.43	19	18	0.76	2806.06	2801	10	1.29E-03	50.1	
57	0	1409.56	11	44	1.16	2820.32	2812	14	7.47E-04	132.0	
58	0	1461.08*	664	14	2.01	2923.39	2917	16	4.61E-02	4.2	
59	0	1477.72	23	19	1.05	2956.70	2948	19	1.60E-03	50.0	
60	0	1498.79	16	16	2.76	2998.85	2986	16	1.11E-03	61.2	
61	0	1588.20	43	11	2.01	3177.73	3173	9	2.99E-03	20.7	
62	0	1638.90	11	6	1.00	3279.16	3275	7	7.56E-04	49.7	
63	0	1730.11	43	6	1.62	3461.64	3455	14	2.98E-03	20.0	
64	0	1765.17	132	18	2.28	3531.77	3526	18	9.17E-03	11.5	
65	0	1825.58	11	3	3.86	3652.63	3645	13	7.49E-04	46.0	

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

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

ENERGY	MDA COUNTS
59.54	229.2819
63.29	281.8713
74.66	322.4005
74.81	322.5254
74.81	322.5254
77.11	324.4122
77.11	324.4122
86.48	303.8607
87.30	304.4361
87.30	304.4361
92.58	308.0807
98.44	271.0442
103.76	272.8935
105.31	280.5464
129.07	279.0948
143.76	280.8435
198.00	229.2468
209.25	245.0113
228.18	203.9281
238.63	206.0366
242.00	206.8010
269.46	159.3007
270.25	162.9806
277.36	164.1341
295.22	154.3391
300.09	159.5564
312.17	137.9199
338.32	137.1962
351.93	128.9111
387.59	117.3912
409.46	118.2779
427.87	108.3735
463.00	103.5125
510.77	106.6762
583.19	79.7911
609.31	99.5131
661.66	79.5878
727.33	59.1050
763.13	96.0867
768.36	65.2063
785.37	59.6208
794.95	57.8336
806.17	59.1257
831.80	78.2952
860.56	52.1057
896.60	49.6678
911.20	45.6928
934.06	41.0820
964.77	57.7969
968.97	52.0957
1001.03	47.5640
1078.86	42.2516
1120.29	39.9629
1155.19	33.6656
1173.23	30.9505
1238.11	50.7066
1280.96	32.5091
1332.51	32.3971
1377.67	24.5928
1401.50	36.0895
1407.98	19.6247
1460.80	17.1307
1509.23	25.4277
1588.20	21.5926
1620.50	23.3085
1729.60	15.2846
1764.49	15.1589

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683001

Total Uranium Activity	4.0983E-02	ug/g
Total Uranium Counting Unc.	6.5591E-02	ug/g
Total Uranium Tpu	6.5591E-08	ug/g
Total Uranium Mda	3.8594E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:28:04.52

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683002.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:27:12
Sample ID        : G198683002           Sample quantity  : 1.45130E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.17  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	46.17*	51	343	1.03	91.81	88	7	3.57E-03	67.7	
2	0	62.98*	148	472	0.94	125.45	121	9	1.03E-02	29.5	
3	3	74.78*	453	406	1.07	149.08	143	14	3.14E-02	8.8	4.74E-01
4	3	77.04*	655	321	0.87	153.60	143	14	4.55E-02	6.0	
5	3	84.02*	91	484	1.14	167.57	163	28	6.29E-03	42.9	1.80E+00
6	3	87.24*	270	461	1.10	174.01	163	28	1.88E-02	14.9	
7	3	89.98	147	382	1.01	179.50	163	28	1.02E-02	22.8	
8	3	92.72*	227	424	1.17	184.98	163	28	1.57E-02	19.2	
9	0	99.25*	120	367	2.20	198.05	194	8	8.32E-03	30.7	
10	0	105.00	46	302	1.30	209.56	208	6	3.17E-03	61.5	
11	0	129.19	78	522	0.91	257.99	252	10	5.42E-03	56.0	
12	0	144.31*	71	490	2.84	288.25	282	11	4.91E-03	64.3	
13	0	185.99*	239	510	1.23	371.69	367	12	1.66E-02	21.1	
14	3	207.40	35	95	0.75	414.54	413	10	2.42E-03	41.3	2.13E+00
15	3	209.23	142	220	1.07	418.20	413	10	9.88E-03	18.5	
16	4	236.47	34	175	1.54	472.72	470	25	2.38E-03	57.3	1.53E+00
17	4	238.60*	1392	189	1.01	476.98	470	25	9.67E-02	3.2	
18	4	241.69	372	244	1.57	483.18	470	25	2.58E-02	10.8	
19	0	270.36*	210	381	1.83	540.56	534	17	1.46E-02	22.8	
20	0	277.40	72	241	1.74	554.65	551	10	5.01E-03	41.7	
21	0	295.17*	472	254	0.96	590.22	585	11	3.28E-02	8.4	
22	0	299.76	77	225	0.76	599.41	596	8	5.36E-03	35.4	
23	7	327.63	113	111	2.25	655.20	652	12	7.85E-03	16.8	4.05E+00
24	7	329.72	43	179	1.85	659.37	652	12	2.99E-03	60.0	
25	3	338.29	320	139	1.27	676.52	672	18	2.22E-02	8.4	8.42E-01
26	3	341.14	27	142	1.56	682.22	672	18	1.90E-03	87.4	
27	3	351.89*	787	121	1.21	703.74	699	12	5.47E-02	4.4	7.48E-01
28	3	354.04	36	102	1.22	708.06	699	12	2.52E-03	79.3	
29	0	409.46	32	130	1.35	818.98	815	8	2.23E-03	64.5	
30	0	462.59*	112	166	1.31	925.32	919	14	7.77E-03	26.5	
31	0	510.78*	147	239	2.05	1021.76	1014	17	1.02E-02	30.4	
32	0	553.49	40	83	3.55	1107.25	1102	11	2.74E-03	47.3	
33	0	575.75	16	117	0.61	1151.80	1144	11	1.09E-03	136.8	
34	0	583.24*	405	90	1.19	1166.78	1162	9	2.81E-02	7.2	
35	0	609.35*	539	146	1.20	1219.05	1212	14	3.74E-02	6.7	
36	0	622.55	37	61	0.58	1245.46	1242	10	2.58E-03	42.5	
37	0	661.56	245	170	1.50	1323.54	1318	15	1.70E-02	13.1	
38	0	679.06	22	64	1.38	1358.55	1354	9	1.55E-03	67.5	

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683002       *
* Acquisition date : 14-DEC-2007 14:27:12 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 04:00:02.17     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683002           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4513E+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	6.361E+00	6.848E-01	2.391E-01	0.000E+00
CS-137	1.478E-01	3.952E-02	2.538E-02	0.000E+00
EU-155	3.705E-02	4.474E-02	7.025E-02	0.000E+00
TL-208	2.197E-01	3.444E-02	2.689E-02	0.000E+00
BI-212	4.821E-01	2.299E-01	1.836E-01	0.000E+00
PB-212	7.426E-01	6.342E-02	3.695E-02	0.000E+00
BI-214	5.566E-01	8.254E-02	4.826E-02	0.000E+00
PB-214	6.414E-01	6.565E-02	4.770E-02	0.000E+00
RA-223	3.857E-01	1.741E-01	1.152E-01	0.000E+00
AC-228	7.928E-01	1.387E-01	9.001E-02	0.000E+00
PA-234M	1.413E+00	2.450E+00	2.672E+00	0.000E+00
TH-234	7.351E-01	2.815E-01	3.020E-01	0.000E+00
U-235	1.126E-01	1.419E-01	1.294E-01	0.000E+00
NP-236	5.374E-02	3.251E-02	3.860E-02	0.000E+00
NP-237	3.969E-01	1.192E-01	1.369E-01	0.000E+00
AM-243	1.408E-01	2.595E-02	2.937E-02	0.000E+00
CM-243	3.353E-02	4.050E-02	5.813E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	1.123E-02	1.783E-02	3.183E-02	0.000E+00	NOT IDENT.
RH-101	3.037E-03	1.436E-02	2.432E-02	0.000E+00	NOT IDENT.
SB-125	1.969E-02	3.587E-02	6.540E-02	0.000E+00	NOT IDENT.
PO-209	1.061E-01	3.349E+00	5.237E+00	0.000E+00	NOT IDENT.
BI-211	3.168E-01	4.069E-01	6.812E-01	0.000E+00	NOT IDENT.
PA-233	-7.398E-03	2.770E-02	4.602E-02	0.000E+00	NOT IDENT.
NP-239	-6.228E-03	8.745E-02	1.511E-01	0.000E+00	NOT IDENT.
AM-241	-1.849E-03	4.717E-02	7.433E-02	0.000E+00	NOT IDENT.
AM-246	2.294E-02	5.423E-02	9.614E-02	0.000E+00	NOT IDENT.
CF-249	-1.097E-04	1.590E-02	2.829E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:28:05.56

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683002.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:27:12
Sample ID        : G198683002           Sample quantity  : 1.45130E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.17  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	664	10.66*	1.266E+00	6.361E+00	6.361E+00	10.99
CS-137	661.66	245	85.10*	2.533E+00	1.472E-01	1.478E-01	27.29
EU-155	105.31	46	21.20*	7.694E+00	3.624E-02	3.705E-02	123.24
TL-208	277.36	72	6.31	5.036E+00	2.937E-01	2.937E-01	83.66
	510.77	147	22.60	3.148E+00	2.675E-01	2.675E-01	61.01
	583.19	405	84.50*	2.820E+00	2.197E-01	2.197E-01	16.00
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	------	12.42	2.007E+00	------	Line Not Found	------
BI-212	727.33	102	11.80*	2.330E+00	4.821E-01	4.821E-01	48.67
	785.37	24	1.10	2.177E+00	1.282E+00	1.282E+00	135.64
	1620.50	------	1.49	1.176E+00	------	Line Not Found	------
PB-212	74.81	453	10.40	6.096E+00	9.232E-01	9.232E-01	18.81
	77.11	655	17.50	6.324E+00	7.649E-01	7.649E-01	13.76
	87.30	270	7.81	7.101E+00	6.301E-01	6.301E-01	30.64
	238.63	1392	43.30*	5.599E+00	7.426E-01	7.426E-01	8.71
	300.09	77	3.28	4.760E+00	6.391E-01	6.391E-01	71.07
BI-214	609.31	539	46.10*	2.718E+00	5.565E-01	5.566E-01	15.13
	768.36	50	4.94	2.221E+00	5.892E-01	5.893E-01	82.28
	806.17	------	1.22	2.128E+00	------	Line Not Found	------
	934.06	------	3.03	1.863E+00	------	Line Not Found	------
	1120.29	174	15.10	1.581E+00	9.407E-01	9.408E-01	22.04
	1155.19	20	1.63	1.538E+00	1.047E+00	1.047E+00	144.28
	1238.11	37	5.79	1.449E+00	5.715E-01	5.715E-01	66.08
	1280.96	------	1.43	1.408E+00	------	Line Not Found	------
	1377.67	44	4.00	1.326E+00	1.076E+00	1.076E+00	59.25
	1401.50	19	1.27	1.307E+00	1.450E+00	1.450E+00	100.43
	1407.98	11	2.15	1.302E+00	4.972E-01	4.972E-01	264.18
	1509.23	------	2.11	1.236E+00	------	Line Not Found	------
	1729.60	43	2.92	1.128E+00	1.684E+00	1.685E+00	40.46
	1764.49	132	15.40	1.115E+00	9.942E-01	9.943E-01	23.83
PB-214	74.81	453	6.44	6.096E+00	1.491E+00	1.491E+00	18.81
	77.11	655	10.80	6.324E+00	1.239E+00	1.240E+00	13.76

Sample ID : G198683002 Acquisition date : 14-DEC-2007 14:27:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	270	4.84	7.101E+00	1.017E+00	1.017E+00	30.64
	242.00	372	7.43	5.550E+00	1.167E+00	1.167E+00	22.33
	295.22	472	19.30	4.814E+00	6.565E-01	6.565E-01	17.81
	351.93	787	37.60*	4.222E+00	6.413E-01	6.414E-01	10.44
RA-223	269.46	210	13.70*	5.130E+00	3.857E-01	3.857E-01	46.05
AC-228	129.07	78	2.42	7.652E+00	5.447E-01	5.447E-01	112.10
	209.25	142	3.89	6.108E+00	7.739E-01	7.739E-01	37.49
	270.25	210	3.46	5.130E+00	1.527E+00	1.527E+00	46.05
	338.32	320	11.27	4.350E+00	8.442E-01	8.442E-01	17.78
	409.46	32	1.92	3.757E+00	5.761E-01	5.761E-01	129.17
	463.00	112	4.40	3.411E+00	9.640E-01	9.639E-01	53.31
	794.95	------	4.25	2.155E+00	------ Line Not Found		------
	911.20	301	25.80*	1.905E+00	7.928E-01	7.928E-01	17.85
	964.77	66	4.99	1.809E+00	9.524E-01	9.524E-01	39.49
	968.97	216	15.80	1.802E+00	9.800E-01	9.800E-01	18.90
	1588.20	43	3.22	1.192E+00	1.452E+00	1.452E+00	41.89
PA-234M	1001.03	16	0.84*	1.750E+00	1.413E+00	1.413E+00	176.96
TH-234	63.29	148	4.80	4.547E+00	8.748E-01	8.748E-01	59.30
	92.58	227	5.41*	7.371E+00	7.351E-01	7.351E-01	39.08
U-235	143.76	71	10.96*	7.413E+00	1.126E-01	1.126E-01	128.66
NP-236	98.44	120	38.00*	7.584E+00	5.374E-02	5.374E-02	61.73
NP-237	86.48	270	12.40*	7.101E+00	3.969E-01	3.969E-01	30.64
AM-243	74.66	453	68.20*	6.096E+00	1.408E-01	1.408E-01	18.81
CM-243	103.76	46	23.00*	7.694E+00	3.340E-02	3.353E-02	123.24

Flag: "*" = Keyline

Sample ID : G198683002 Acquisition date : 14-DEC-2007 14:27:12

Total number of lines in spectrum 65
Number of unidentified lines 24
Number of lines tentatively identified by NID 41 63.08%

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	6.361E+00	6.361E+00	0.699E+00	10.99	
CS-137	9.47E+08S	1.00	1.472E-01	1.478E-01	0.403E-01	27.29	
EU-155	1.57E+08S	1.02	3.624E-02	3.705E-02	4.566E-02	123.24	
TL-208	4.43E+17S	1.00	2.197E-01	2.197E-01	0.351E-01	16.00	
BI-212	4.43E+17S	1.00	4.821E-01	4.821E-01	2.346E-01	48.67	
PB-212	4.43E+17S	1.00	7.426E-01	7.426E-01	0.647E-01	8.71	
BI-214	5.05E+10S	1.00	5.565E-01	5.566E-01	0.842E-01	15.13	
PB-214	5.05E+10S	1.00	6.413E-01	6.414E-01	0.670E-01	10.44	
RA-223	1.04E+12S	1.00	3.857E-01	3.857E-01	1.776E-01	46.05	
AC-228	4.43E+17S	1.00	7.928E-01	7.928E-01	1.415E-01	17.85	
PA-234M	1.41E+17S	1.00	1.413E+00	1.413E+00	2.500E+00	176.96	
TH-234	1.41E+17S	1.00	7.351E-01	7.351E-01	2.873E-01	39.08	
U-235	2.22E+16S	1.00	1.126E-01	1.126E-01	1.448E-01	128.66	
NP-236	4.89E+12S	1.00	5.374E-02	5.374E-02	3.317E-02	61.73	
NP-237	6.75E+13S	1.00	3.969E-01	3.969E-01	1.216E-01	30.64	
AM-243	2.33E+11S	1.00	1.408E-01	1.408E-01	0.265E-01	18.81	
CM-243	8.99E+08S	1.00	3.340E-02	3.353E-02	4.133E-02	123.24	
			---	---			
	Total Activity :		1.325E+01	1.325E+01			

Grand Total Activity : 1.325E+01 1.325E+01

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

Sample ID : G198683002 Acquisition date : 14-DEC-2007 14:27:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.17	51	343	1.03	91.81	88	7	3.57E-03	****	1.69E+00	
3	84.02	91	484	1.14	167.57	163	28	6.29E-03	85.9	6.90E+00	
3	89.98	147	382	1.01	179.50	163	28	1.02E-02	45.5	7.25E+00	
0	185.99	239	510	1.23	371.69	367	12	1.66E-02	42.2	6.56E+00	
3	207.40	35	95	0.75	414.54	413	10	2.42E-03	82.6	6.14E+00	
4	236.47	34	175	1.54	472.72	470	25	2.38E-03	****	5.63E+00	
7	327.63	113	111	2.25	655.20	652	12	7.85E-03	33.6	4.46E+00	
7	329.72	43	179	1.85	659.37	652	12	2.99E-03	****	4.43E+00	
3	341.14	27	142	1.56	682.22	672	18	1.90E-03	****	4.32E+00	
3	354.04	36	102	1.22	708.06	699	12	2.52E-03	****	4.20E+00	
0	553.49	40	83	3.55	1107.25	1102	11	2.74E-03	94.6	2.95E+00	
0	575.75	16	117	0.61	1151.80	1144	11	1.09E-03	****	2.85E+00	
0	622.55	37	61	0.58	1245.46	1242	10	2.58E-03	84.9	2.67E+00	
0	679.06	22	64	1.38	1358.55	1354	9	1.55E-03	****	2.48E+00	
0	835.98	25	61	4.20	1672.59	1664	11	1.70E-03	****	2.06E+00	
0	839.52	60	35	2.36	1679.67	1675	10	4.17E-03	45.8	2.05E+00	
3	998.64	16	5	1.23	1998.09	1996	15	1.09E-03	55.8	1.75E+00	
0	1253.49	45	29	4.64	2508.06	2501	16	3.12E-03	63.3	1.43E+00	
0	1340.39	3	15	1.39	2681.92	2677	8	1.74E-04	****	1.36E+00	
0	1386.15	21	28	0.76	2773.49	2767	11	1.42E-03	****	1.32E+00	
0	1477.72	23	19	1.05	2956.70	2948	19	1.60E-03	****	1.26E+00	
0	1498.79	16	16	2.76	2998.85	2986	16	1.11E-03	****	1.24E+00	
0	1638.90	11	6	1.00	3279.16	3275	7	7.56E-04	99.4	1.17E+00	
0	1825.58	11	3	3.86	3652.63	3645	13	7.49E-04	91.9	1.09E+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]G198683002            *
* Acquisition date : 14-DEC-2007 14:27:12 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 04:00:02.17     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683002           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4513E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	6.361E+00	6.848E-01	1.196E-01	6.848E-01
CS-137	1.478E-01	3.952E-02	1.270E-02	3.952E-02
EU-155	3.705E-02	4.474E-02	3.515E-02	4.474E-02
TL-208	2.197E-01	3.444E-02	1.345E-02	3.444E-02
BI-212	4.821E-01	2.299E-01	9.185E-02	2.299E-01
PB-212	7.426E-01	6.342E-02	1.849E-02	6.342E-02
BI-214	5.566E-01	8.254E-02	2.415E-02	8.254E-02
PB-214	6.414E-01	6.565E-02	2.386E-02	6.565E-02
RA-223	3.857E-01	1.741E-01	5.766E-02	1.741E-01
AC-228	7.928E-01	1.387E-01	4.503E-02	1.387E-01
PA-234M	1.413E+00	2.450E+00	1.337E+00	2.450E+00
TH-234	7.351E-01	2.815E-01	1.511E-01	2.815E-01
U-235	1.126E-01	1.419E-01	6.473E-02	1.419E-01
NP-236	5.374E-02	3.251E-02	1.931E-02	3.251E-02
NP-237	3.969E-01	1.192E-01	6.848E-02	1.192E-01
AM-243	1.408E-01	2.595E-02	1.469E-02	2.595E-02
CM-243	3.353E-02	4.050E-02	2.908E-02	4.050E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.123E-02	1.783E-02	1.592E-02	1.783E-02	NOT IDENT.
RH-101	3.037E-03	1.436E-02	1.217E-02	1.436E-02	NOT IDENT.
SB-125	1.969E-02	3.587E-02	3.272E-02	3.587E-02	NOT IDENT.
PO-209	1.061E-01	3.349E+00	2.620E+00	3.349E+00	NOT IDENT.
BI-211	3.168E-01	4.069E-01	3.408E-01	4.069E-01	NOT IDENT.
PA-233	-7.398E-03	2.770E-02	2.302E-02	2.770E-02	NOT IDENT.
NP-239	-6.228E-03	8.745E-02	7.560E-02	8.745E-02	NOT IDENT.
AM-241	-1.849E-03	4.717E-02	3.719E-02	4.717E-02	NOT IDENT.
AM-246	2.294E-02	5.423E-02	4.810E-02	5.423E-02	NOT IDENT.
CF-249	-1.097E-04	1.590E-02	1.415E-02	1.590E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	271.5198
63.29	284.4383
74.66	356.0282
74.81	356.1484
74.81	356.1484
77.11	358.0007
77.11	358.0007
86.48	346.2300
87.30	346.8140
87.30	346.8140
92.58	350.5168
98.44	298.6700
103.76	254.1956
105.31	306.0741
129.07	282.1020
143.76	273.1378
198.00	265.2732
209.25	248.9600
228.18	224.4262
238.63	202.2275
242.00	202.9101
269.46	166.9761
270.25	167.0994
277.36	173.1768
295.22	158.9979
300.09	174.9472
312.17	181.8672
338.32	143.6552
351.93	146.9243
387.59	138.0469
409.46	125.3750
427.87	103.5730
463.00	99.1996
510.77	104.9510
583.19	107.6561
609.31	96.0510
661.66	78.3450
727.33	67.5665
763.13	67.2533
768.36	95.3301
785.37	71.4297
794.95	78.4253
806.17	71.1193
831.80	40.9131
860.56	53.3045
896.60	53.0757
911.20	52.4166
934.06	42.4578
964.77	37.1843
968.97	37.2376
1001.03	41.4946
1078.86	43.5187
1120.29	42.0636
1155.19	48.5695
1173.23	47.8055
1238.11	41.4297
1280.96	34.5775
1332.51	37.1704
1377.67	32.2280
1401.50	25.2155
1407.98	25.2554
1460.80	28.5035
1509.23	22.1768
1588.20	26.3389
1620.50	14.2108
1729.60	14.5435
1764.49	23.4355

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683002

Total Uranium Activity	5.2083E-02	ug/g
Total Uranium Counting Unc.	6.5669E-02	ug/g
Total Uranium Tpu	6.5669E-08	ug/g
Total Uranium Mda	2.9950E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:59:41.73

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683003.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:58:47
Sample ID        : G198683003           Sample quantity  : 1.09300E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.69  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.49*	45	504	1.09	92.49	88	9	3.15E-03	98.1	
2	0	53.53	76	359	1.38	106.56	104	7	5.26E-03	42.9	
3	0	63.26*	101	646	1.09	126.03	122	9	7.05E-03	48.6	
4	3	75.04*	586	552	1.13	149.57	143	18	4.07E-02	8.1	1.74E+00
5	3	77.27*	1021	501	1.16	154.04	143	18	7.09E-02	5.1	
6	3	84.02*	117	566	1.34	167.53	163	29	8.11E-03	38.1	2.38E+00
7	3	87.38	338	423	1.07	174.25	163	29	2.35E-02	11.1	
8	3	90.06	197	421	0.97	179.61	163	29	1.37E-02	17.9	
9	3	92.92*	275	489	1.15	185.32	163	29	1.91E-02	16.6	
10	0	99.23	72	351	1.73	197.94	195	7	5.00E-03	44.7	
11	0	129.26	115	390	1.05	257.98	254	8	7.97E-03	31.2	
12	0	144.23*	47	312	1.58	287.92	285	7	3.28E-03	68.5	
13	0	153.97	33	231	1.30	307.39	306	5	2.31E-03	70.4	
14	0	158.83	38	379	2.26	317.11	313	8	2.61E-03	91.0	
15	0	186.05*	320	448	1.23	371.52	366	11	2.22E-02	14.8	
16	0	205.63	55	315	1.37	410.68	406	8	3.83E-03	57.4	
17	0	209.37	197	325	1.30	418.16	414	9	1.37E-02	17.9	
18	6	238.86*	1577	189	1.18	477.12	470	20	1.10E-01	3.1	2.72E+00
19	6	241.75	441	327	2.14	482.90	470	20	3.06E-02	13.5	
20	0	270.24	125	261	1.83	539.86	535	11	8.68E-03	26.5	
21	0	277.96	63	261	1.21	555.30	551	9	4.36E-03	48.7	
22	2	295.53*	517	159	1.35	590.42	585	21	3.59E-02	6.5	1.72E+00
23	2	300.27	128	183	1.57	599.91	585	21	8.92E-03	20.9	
24	0	327.98*	125	243	0.78	655.31	650	12	8.67E-03	27.3	
25	0	338.54*	264	275	1.11	676.44	671	11	1.83E-02	14.1	
26	0	352.21*	764	296	1.24	703.77	697	13	5.31E-02	6.1	
27	0	378.02	6	102	0.86	755.37	753	6	4.12E-04	263.1	
28	0	409.51	56	107	1.76	818.33	815	8	3.86E-03	35.0	
29	0	463.09	123	174	1.89	925.45	919	15	8.54E-03	25.2	
30	0	511.06*	90	215	1.95	1021.37	1015	16	6.24E-03	46.6	
31	0	553.51	17	90	0.78	1106.26	1105	8	1.21E-03	95.5	
32	0	583.50*	427	132	1.39	1166.23	1161	12	2.96E-02	7.7	
33	0	609.64*	619	133	1.36	1218.50	1212	13	4.30E-02	5.8	
34	0	662.59*	36	111	1.39	1324.38	1317	12	2.48E-03	64.6	
35	0	706.62	5	79	1.18	1412.41	1409	8	3.17E-04	331.2	
36	0	727.67	143	65	1.76	1454.51	1450	11	9.96E-03	13.6	
37	0	768.93*	72	76	1.67	1537.00	1532	11	4.97E-03	28.1	
38	0	773.49	17	57	0.83	1546.13	1542	9	1.21E-03	81.5	

Sample ID : G198683003 Acquisition date : 14-DEC-2007 14:58:47

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	795.03	69	54	1.92	1589.19	1583	12	4.79E-03	24.5	
40	0	861.47*	19	60	1.96	1722.05	1715	10	1.34E-03	85.7	
41	0	899.00	15	52	1.36	1797.10	1792	10	1.04E-03	93.6	
42	0	906.58	15	76	4.34	1812.24	1801	15	1.04E-03	128.7	
43	0	911.60*	354	67	1.42	1822.28	1815	15	2.46E-02	7.7	
44	0	935.13	61	35	2.49	1869.33	1861	14	4.24E-03	24.2	
45	1	964.98*	32	96	1.94	1929.03	1919	33	2.24E-03	62.0	2.09E+00
46	1	969.33	182	62	1.65	1937.72	1919	33	1.26E-02	11.2	
47	1	974.29	24	38	1.97	1947.64	1919	33	1.65E-03	52.8	
48	0	1014.05	31	56	3.44	2027.16	2020	13	2.17E-03	52.3	
49	0	1087.51	26	23	3.30	2174.04	2169	10	1.79E-03	41.0	
50	2	1110.80	37	35	2.26	2220.62	2216	36	2.56E-03	32.4	2.92E+00
51	2	1120.60*	136	49	2.26	2240.21	2216	36	9.42E-03	14.6	
52	0	1173.58*	20	58	9.75	2346.16	2333	23	1.38E-03	112.1	
53	0	1222.42	14	31	2.81	2443.82	2437	11	9.55E-04	84.7	
54	0	1238.64	64	42	2.81	2476.26	2469	13	4.44E-03	24.4	
55	0	1278.23	40	36	8.64	2555.43	2543	24	2.78E-03	42.7	
56	2	1378.21*	60	15	2.42	2755.36	2747	33	4.17E-03	20.4	1.39E+00
57	2	1387.24	23	13	2.43	2773.42	2747	33	1.61E-03	40.0	
58	0	1418.89	23	16	1.61	2836.70	2828	16	1.60E-03	44.1	
59	0	1427.85	6	20	2.82	2854.62	2844	13	4.41E-04	149.0	
60	0	1461.21*	553	8	1.52	2921.33	2913	15	3.84E-02	4.6	
61	0	1477.54*	6	13	4.85	2954.00	2947	13	4.10E-04	155.1	
62	3	1509.73	17	32	2.74	3018.37	2995	33	1.18E-03	80.2	6.19E-01
63	3	1513.29	17	10	1.50	3025.48	2995	33	1.19E-03	33.3	
64	0	1575.18	8	10	0.92	3149.25	3145	10	5.56E-04	82.0	
65	0	1588.36	17	16	0.86	3175.60	3172	8	1.16E-03	48.5	
66	0	1621.02	21	20	0.66	3240.91	3235	13	1.45E-03	48.8	
67	0	1700.79	7	9	2.19	3400.45	3392	12	5.06E-04	90.1	
68	0	1729.91	42	15	2.33	3458.68	3453	12	2.90E-03	24.2	
69	0	1764.96*	98	22	2.43	3528.78	3522	14	6.81E-03	15.2	
70	0	1848.37	27	18	1.60	3695.58	3687	18	1.87E-03	41.7	
71	0	1943.85	11	10	1.53	3886.53	3878	13	7.84E-04	64.3	
72	0	1996.26	16	3	3.58	3991.34	3986	11	1.12E-03	31.9	

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]G198683003       *
* Acquisition date : 14-DEC-2007 14:58:47 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 04:00:27.69     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683003           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.0930E+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	7.637E+00	7.944E-01	3.093E-01	0.000E+00
CS-137	3.107E-02	3.942E-02	3.792E-02	0.000E+00
TL-208	3.341E-01	5.497E-02	3.656E-02	0.000E+00
BI-212	9.735E-01	2.691E-01	2.965E-01	0.000E+00
PB-212	1.204E+00	1.019E-01	5.600E-02	0.000E+00
BI-214	9.229E-01	1.223E-01	7.217E-02	0.000E+00
PB-214	8.942E-01	1.180E-01	7.226E-02	0.000E+00
RA-223	3.293E-01	1.721E-01	1.829E-01	0.000E+00
AC-228	1.340E+00	2.199E-01	1.275E-01	0.000E+00
TH-234	1.198E+00	3.992E-01	4.173E-01	0.000E+00
U-235	1.065E-01	1.431E-01	1.933E-01	0.000E+00
NP-236	4.401E-02	3.872E-02	6.008E-02	0.000E+00
NP-237	6.559E-01	1.514E-01	1.859E-01	0.000E+00
AM-243	2.285E-01	3.940E-02	4.038E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	2.482E-02		5.454E-02	4.017E-02	0.000E+00	FAIL ABUN
RH-101	1.619E-02		2.171E-02	3.631E-02	0.000E+00	NOT IDENT.
SB-125	-1.423E-02		5.821E-02	9.492E-02	0.000E+00	NOT IDENT.
EU-155	2.363E-02		6.363E-02	1.028E-01	0.000E+00	NOT IDENT.
PO-209	1.519E+00		5.677E+00	8.366E+00	0.000E+00	NOT IDENT.
BI-211	7.665E-02		7.076E-01	1.187E+00	0.000E+00	NOT IDENT.
PA-233	-6.421E-03		3.805E-02	6.386E-02	0.000E+00	NOT IDENT.
PA-234M	1.353E+00		2.759E+00	4.726E+00	0.000E+00	NOT IDENT.
NP-239	2.430E-02		1.335E-01	2.321E-01	0.000E+00	NOT IDENT.
AM-241	7.542E-03		6.119E-02	9.507E-02	0.000E+00	NOT IDENT.
CM-243	-1.549E-02		5.657E-02	8.944E-02	0.000E+00	NOT IDENT.
AM-246	-3.288E-02		7.747E-02	1.266E-01	0.000E+00	NOT IDENT.
CF-249	-1.458E-02		2.654E-02	4.019E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 18:59:42.77

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683003.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:58:47
Sample ID        : G198683003           Sample quantity  : 1.09300E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.69  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	553	10.66*	1.166E+00	7.637E+00	7.637E+00	10.61
CS-137	661.66	36	85.10*	2.327E+00	3.096E-02	3.107E-02	129.47
TL-208	277.36	63	6.31	4.662E+00	3.669E-01	3.669E-01	97.58
	510.77	90	22.60	2.899E+00	2.357E-01	2.357E-01	93.41
	583.19	427	84.50*	2.595E+00	3.341E-01	3.341E-01	16.79
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	19	12.42	1.847E+00	1.446E-01	1.446E-01	171.46
BI-212	727.33	143	11.80*	2.145E+00	9.735E-01	9.735E-01	28.20
	785.37	------	1.10	2.005E+00	------	Line Not Found	------
	1620.50	21	1.49	1.077E+00	2.241E+00	2.241E+00	97.74
PB-212	74.81	586	10.40	6.460E+00	1.498E+00	1.498E+00	17.60
	77.11	1021	17.50	6.620E+00	1.513E+00	1.513E+00	12.35
	87.30	338	7.81	7.134E+00	1.041E+00	1.041E+00	23.55
	238.63	1577	43.30*	5.194E+00	1.204E+00	1.204E+00	8.64
	300.09	128	3.28	4.404E+00	1.527E+00	1.527E+00	42.24
BI-214	609.31	619	46.10*	2.500E+00	9.228E-01	9.229E-01	13.53
	768.36	72	4.94	2.043E+00	1.218E+00	1.218E+00	56.62
	806.17	------	1.22	1.959E+00	------	Line Not Found	------
	934.06	61	3.03	1.716E+00	2.016E+00	2.017E+00	48.88
	1120.29	136	15.10	1.460E+00	1.056E+00	1.056E+00	29.77
	1155.19	------	1.63	1.422E+00	------	Line Not Found	------
	1238.11	64	5.79	1.338E+00	1.417E+00	1.418E+00	49.09
	1280.96	------	1.43	1.300E+00	------	Line Not Found	------
	1377.67	60	4.00	1.222E+00	2.109E+00	2.110E+00	41.22
	1401.50	------	1.27	1.206E+00	------	Line Not Found	------
	1407.98	------	2.15	1.201E+00	------	Line Not Found	------
	1509.23	17	2.11	1.136E+00	1.214E+00	1.214E+00	160.55
	1729.60	42	2.92	1.029E+00	2.383E+00	2.383E+00	48.76
	1764.49	98	15.40	1.016E+00	1.076E+00	1.077E+00	30.99
PB-214	74.81	586	6.44	6.460E+00	2.420E+00	2.420E+00	17.60
	77.11	1021	10.80	6.620E+00	2.452E+00	2.453E+00	12.35
	87.30	338	4.84	7.134E+00	1.680E+00	1.681E+00	23.55

Sample ID : G198683003 Acquisition date : 14-DEC-2007 14:58:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	441	7.43	5.150E+00	1.979E+00	1.979E+00	27.59
	295.22	517	19.30	4.456E+00	1.032E+00	1.032E+00	14.27
	351.93	764	37.60*	3.902E+00	8.942E-01	8.942E-01	13.46
RA-223	269.46	125	13.70*	4.758E+00	3.293E-01	3.293E-01	53.34
AC-228	129.07	115	2.42	7.223E+00	1.128E+00	1.128E+00	62.80
	209.25	197	3.89	5.674E+00	1.536E+00	1.536E+00	36.36
	270.25	125	3.46	4.758E+00	1.304E+00	1.304E+00	53.34
	338.32	264	11.27	4.022E+00	9.992E-01	9.992E-01	28.84
	409.46	56	1.92	3.468E+00	1.434E+00	1.434E+00	70.23
	463.00	123	4.40	3.142E+00	1.528E+00	1.528E+00	50.64
	794.95	69	4.25	1.984E+00	1.405E+00	1.405E+00	49.48
	911.20	354	25.80*	1.756E+00	1.340E+00	1.340E+00	16.74
	964.77	32	4.99	1.669E+00	6.644E-01	6.644E-01	124.14
	968.97	182	15.80	1.662E+00	1.190E+00	1.190E+00	23.31
	1588.20	17	3.22	1.093E+00	8.115E-01	8.115E-01	97.08
TH-234	63.29	101	4.80	5.269E+00	6.889E-01	6.889E-01	97.49
	92.58	275	5.41*	7.294E+00	1.198E+00	1.198E+00	34.00
U-235	143.76	47	10.96*	6.952E+00	1.065E-01	1.065E-01	137.19
NP-236	98.44	72	38.00*	7.397E+00	4.401E-02	4.401E-02	89.77
NP-237	86.48	338	12.40*	7.134E+00	6.559E-01	6.559E-01	23.55
AM-243	74.66	586	68.20*	6.460E+00	2.285E-01	2.285E-01	17.60

Flag: "*" = Keyline

Sample ID : G198683003 Acquisition date : 14-DEC-2007 14:58:47

Total number of lines in spectrum 72
Number of unidentified lines 31
Number of lines tentatively identified by NID 41 56.94%

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	7.637E+00	7.637E+00	0.811E+00	10.61	
CS-137	9.47E+08S	1.00	3.096E-02	3.107E-02	4.023E-02	129.47	
TL-208	4.43E+17S	1.00	3.341E-01	3.341E-01	0.561E-01	16.79	
BI-212	4.43E+17S	1.00	9.735E-01	9.735E-01	2.746E-01	28.20	
PB-212	4.43E+17S	1.00	1.204E+00	1.204E+00	0.104E+00	8.64	
BI-214	5.05E+10S	1.00	9.228E-01	9.229E-01	1.248E-01	13.53	
PB-214	5.05E+10S	1.00	8.942E-01	8.942E-01	1.204E-01	13.46	
RA-223	1.04E+12S	1.00	3.293E-01	3.293E-01	1.757E-01	53.34	
AC-228	4.43E+17S	1.00	1.340E+00	1.340E+00	0.224E+00	16.74	
TH-234	1.41E+17S	1.00	1.198E+00	1.198E+00	0.407E+00	34.00	
U-235	2.22E+16S	1.00	1.065E-01	1.065E-01	1.460E-01	137.19	
NP-236	4.89E+12S	1.00	4.401E-02	4.401E-02	3.951E-02	89.77	
NP-237	6.75E+13S	1.00	6.559E-01	6.559E-01	1.545E-01	23.55	
AM-243	2.33E+11S	1.00	2.285E-01	2.285E-01	0.402E-01	17.60	
			---	---			
	Total Activity :		1.590E+01	1.590E+01			

Grand Total Activity : 1.590E+01 1.590E+01

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

Sample ID : G198683003 Acquisition date : 14-DEC-2007 14:58:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.49	45	504	1.09	92.49	88	9	3.15E-03	****	2.59E+00	
0	53.53	76	359	1.38	106.56	104	7	5.26E-03	85.8	3.82E+00	
3	84.02	117	566	1.34	167.53	163	29	8.11E-03	76.1	7.00E+00	
3	90.06	197	421	0.97	179.61	163	29	1.37E-02	35.7	7.22E+00	
0	153.97	33	231	1.30	307.39	306	5	2.31E-03	****	6.76E+00	
0	158.83	38	379	2.26	317.11	313	8	2.61E-03	****	6.66E+00	
0	186.05	320	448	1.23	371.52	366	11	2.22E-02	29.6	6.11E+00	
0	205.63	55	315	1.37	410.68	406	8	3.83E-03	****	5.74E+00	
0	327.98	125	243	0.78	655.31	650	12	8.67E-03	54.6	4.12E+00	
0	378.02	6	102	0.86	755.37	753	6	4.12E-04	****	3.69E+00	
0	553.51	17	90	0.78	1106.26	1105	8	1.21E-03	****	2.71E+00	
0	706.62	5	79	1.18	1412.41	1409	8	3.17E-04	****	2.20E+00	
0	773.49	17	57	0.83	1546.13	1542	9	1.21E-03	****	2.03E+00	
0	899.00	15	52	1.36	1797.10	1792	10	1.04E-03	****	1.78E+00	
0	906.58	15	76	4.34	1812.24	1801	15	1.04E-03	****	1.76E+00	
1	974.29	24	38	1.97	1947.64	1919	33	1.65E-03	****	1.65E+00	
0	1014.05	31	56	3.44	2027.16	2020	13	2.17E-03	****	1.60E+00	
0	1087.51	26	23	3.30	2174.04	2169	10	1.79E-03	82.0	1.50E+00	
2	1110.80	37	35	2.26	2220.62	2216	36	2.56E-03	64.8	1.47E+00	
0	1173.58	20	58	9.75	2346.16	2333	23	1.38E-03	****	1.40E+00	T
0	1222.42	14	31	2.81	2443.82	2437	11	9.55E-04	****	1.35E+00	
0	1278.23	40	36	8.64	2555.43	2543	24	2.78E-03	85.4	1.30E+00	
2	1387.24	23	13	2.43	2773.42	2747	33	1.61E-03	80.1	1.22E+00	
0	1418.89	23	16	1.61	2836.70	2828	16	1.60E-03	88.3	1.19E+00	
0	1427.85	6	20	2.82	2854.62	2844	13	4.41E-04	****	1.19E+00	
0	1477.54	6	13	4.85	2954.00	2947	13	4.10E-04	****	1.16E+00	
3	1513.29	17	10	1.50	3025.48	2995	33	1.19E-03	66.6	1.13E+00	
0	1575.18	8	10	0.92	3149.25	3145	10	5.56E-04	****	1.10E+00	
0	1700.79	7	9	2.19	3400.45	3392	12	5.06E-04	****	1.04E+00	
0	1848.37	27	18	1.60	3695.58	3687	18	1.87E-03	83.4	9.87E-01	
0	1943.85	11	10	1.53	3886.53	3878	13	7.84E-04	****	9.58E-01	
0	1996.26	16	3	3.58	3991.34	3986	11	1.12E-03	63.8	9.45E-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]G198683003            *
* Acquisition date : 14-DEC-2007 14:58:47 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 04:00:27.69     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683003           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.0930E+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	7.637E+00	7.944E-01	1.547E-01	7.944E-01
CS-137	3.107E-02	3.942E-02	1.897E-02	3.942E-02
TL-208	3.341E-01	5.497E-02	1.829E-02	5.497E-02
BI-212	9.735E-01	2.691E-01	1.483E-01	2.691E-01
PB-212	1.204E+00	1.019E-01	2.801E-02	1.019E-01
BI-214	9.229E-01	1.223E-01	3.611E-02	1.223E-01
PB-214	8.942E-01	1.180E-01	3.615E-02	1.180E-01
RA-223	3.293E-01	1.721E-01	9.149E-02	1.721E-01
AC-228	1.340E+00	2.199E-01	6.379E-02	2.199E-01
TH-234	1.198E+00	3.992E-01	2.088E-01	3.992E-01
U-235	1.065E-01	1.431E-01	9.672E-02	1.431E-01
NP-236	4.401E-02	3.872E-02	3.006E-02	3.872E-02
NP-237	6.559E-01	1.514E-01	9.298E-02	1.514E-01
AM-243	2.285E-01	3.940E-02	2.020E-02	3.940E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.482E-02	5.454E-02	2.010E-02	5.454E-02	FAIL ABUN
RH-101	1.619E-02	2.171E-02	1.816E-02	2.171E-02	NOT IDENT.
SB-125	-1.423E-02	5.821E-02	4.749E-02	5.821E-02	NOT IDENT.
EU-155	2.363E-02	6.363E-02	5.145E-02	6.363E-02	NOT IDENT.
PO-209	1.519E+00	5.677E+00	4.186E+00	5.677E+00	NOT IDENT.
BI-211	7.665E-02	7.076E-01	5.941E-01	7.076E-01	NOT IDENT.
PA-233	-6.421E-03	3.805E-02	3.195E-02	3.805E-02	NOT IDENT.
PA-234M	1.353E+00	2.759E+00	2.365E+00	2.759E+00	NOT IDENT.
NP-239	2.430E-02	1.335E-01	1.161E-01	1.335E-01	NOT IDENT.
AM-241	7.542E-03	6.119E-02	4.756E-02	6.119E-02	NOT IDENT.
CM-243	-1.549E-02	5.657E-02	4.475E-02	5.657E-02	NOT IDENT.
AM-246	-3.288E-02	7.747E-02	6.334E-02	7.747E-02	NOT IDENT.
CF-249	-1.458E-02	2.654E-02	2.011E-02	2.654E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	393.4297
63.29	418.1633
74.66	477.5885
74.81	477.7381
74.81	477.7381
77.11	479.9955
77.11	479.9955
86.48	408.5976
87.30	409.2272
87.30	409.2272
92.58	413.2078
98.44	434.8895
103.76	369.8717
105.31	351.9670
129.07	334.6371
143.76	334.2987
198.00	290.0294
209.25	282.8677
228.18	268.8465
238.63	245.6632
242.00	246.4303
269.46	221.1822
270.25	221.3315
277.36	250.7566
295.22	168.7218
300.09	169.3749
312.17	178.8341
338.32	189.3547
351.93	175.0115
387.59	155.4428
409.46	142.9166
427.87	137.1038
463.00	111.7510
510.77	125.8534
583.19	100.7106
609.31	108.4980
661.66	88.0828
727.33	88.5564
763.13	79.8320
768.36	81.6587
785.37	70.4478
794.95	74.7425
806.17	76.0675
831.80	84.9737
860.56	58.9538
896.60	69.8145
911.20	52.6196
934.06	58.3220
964.77	72.8277
968.97	72.9257
1001.03	54.1650
1078.86	52.6768
1120.29	57.0485
1155.19	44.3857
1173.23	44.6075
1238.11	56.0081
1280.96	40.1702
1332.51	40.5479
1377.67	23.9971
1401.50	37.2048
1407.98	41.2903
1460.80	23.4473
1509.23	30.9167
1588.20	49.2739
1620.50	16.2849
1729.60	21.5828
1764.49	26.0771

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683003

Total Uranium Activity	4.9256E-02	ug/g
Total Uranium Counting Unc.	6.6225E-02	ug/g
Total Uranium Tpu	6.6225E-08	ug/g
Total Uranium Mda	4.4752E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 19:00:17.83

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683004.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:59:15
Sample ID        : G198683004           Sample quantity  : 1.23630E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.05  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.41*	49	443	0.68	126.04	123	7	3.41E-03	79.5	
2	2	73.03*	73	450	1.35	145.29	142	16	5.06E-03	49.8	2.68E+00
3	2	74.97*	481	594	1.30	149.18	142	16	3.34E-02	10.3	
4	2	77.17	646	437	1.02	153.58	142	16	4.49E-02	6.5	
5	3	81.19	58	240	0.93	161.62	160	32	4.00E-03	39.6	8.81E-01
6	3	84.00*	125	537	1.51	167.24	160	32	8.69E-03	36.2	
7	3	87.22	327	415	1.11	173.69	160	32	2.27E-02	11.7	
8	3	89.96	186	353	1.01	179.16	160	32	1.30E-02	17.5	
9	3	92.89*	271	467	1.35	185.04	160	32	1.88E-02	18.0	
10	0	128.91	102	413	1.26	257.10	254	8	7.08E-03	36.0	
11	0	143.69*	70	344	1.30	286.68	283	7	4.87E-03	48.6	
12	0	153.93	93	435	1.44	307.16	302	10	6.45E-03	43.5	
13	0	185.80*	302	444	1.15	370.93	366	10	2.10E-02	15.6	
14	0	208.89	124	324	1.89	417.13	414	8	8.58E-03	26.7	
15	3	238.57*	1393	275	1.19	476.50	471	19	9.68E-02	3.5	1.25E+00
16	3	241.52	410	328	1.64	482.40	471	19	2.85E-02	11.9	
17	0	270.52*	67	386	1.16	540.42	534	12	4.68E-03	62.0	
18	0	278.40	8	318	0.57	556.19	549	10	5.24E-04	444.7	
19	0	295.07*	557	316	1.28	589.54	585	11	3.87E-02	7.7	
20	0	300.19	56	232	0.63	599.79	597	8	3.89E-03	49.0	
21	0	327.89	93	262	0.94	655.19	650	11	6.47E-03	35.2	
22	0	338.20	295	333	1.27	675.82	669	14	2.05E-02	14.4	
23	0	351.84*	1002	229	1.23	703.10	698	12	6.96E-02	4.5	
24	0	357.68	60	213	4.34	714.79	709	12	4.15E-03	50.5	
25	0	409.18	21	168	1.39	817.81	814	8	1.46E-03	109.1	
26	0	452.00	29	137	0.54	903.47	900	9	2.02E-03	75.0	
27	0	462.98	68	164	1.22	925.44	921	10	4.74E-03	37.2	
28	0	510.54*	117	180	1.81	1020.57	1013	14	8.16E-03	33.3	
29	0	557.87*	43	93	3.51	1115.24	1109	12	3.01E-03	50.1	
30	0	583.07*	445	154	1.39	1165.66	1158	16	3.09E-02	8.2	
31	0	604.47	6	162	2.68	1208.45	1197	13	4.09E-04	447.7	
32	0	609.05*	689	123	1.55	1217.61	1211	13	4.79E-02	5.4	
33	0	640.05	19	70	0.47	1279.63	1275	8	1.30E-03	80.8	
34	0	661.25*	131	136	1.50	1322.02	1317	11	9.10E-03	20.2	
35	0	670.08	18	46	0.94	1339.68	1336	6	1.24E-03	64.6	
36	0	727.21	143	62	1.55	1453.96	1448	14	9.93E-03	14.4	
37	0	767.75*	27	85	2.46	1535.02	1528	11	1.84E-03	77.2	
38	0	794.73	77	84	1.85	1589.00	1581	14	5.36E-03	27.6	

Sample ID : G198683004 Acquisition date : 14-DEC-2007 14:59:15

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	802.99*	10	48	1.89	1605.51	1600	9	7.24E-04	147.0	
40	0	840.94	28	88	1.66	1681.39	1672	14	1.97E-03	73.4	
41	0	860.16	100	67	2.10	1719.84	1712	15	6.98E-03	20.4	
42	0	910.91*	283	72	1.27	1821.33	1815	13	1.96E-02	9.2	
43	0	934.75	29	75	0.71	1869.00	1861	16	2.04E-03	68.9	
44	0	941.32	33	18	2.85	1882.15	1878	8	2.30E-03	28.2	
45	1	961.43	28	14	1.96	1922.36	1920	25	1.93E-03	24.9	1.89E+00
46	1	964.07	78	45	1.96	1927.64	1920	25	5.40E-03	21.7	
47	1	968.63	224	50	1.96	1936.76	1920	25	1.56E-02	9.1	
48	0	995.61	20	38	3.74	1990.70	1984	12	1.39E-03	65.9	
49	0	1000.79*	34	39	2.00	2001.06	1996	11	2.36E-03	45.3	
50	0	1120.02*	147	70	1.78	2239.47	2231	18	1.02E-02	16.5	
51	0	1155.16	65	58	6.47	2309.74	2302	20	4.53E-03	31.5	
52	0	1194.01	33	53	5.77	2387.42	2377	20	2.28E-03	57.8	
53	0	1237.88	77	42	2.09	2475.14	2468	13	5.33E-03	20.9	
54	0	1318.38	18	36	6.07	2636.09	2630	13	1.22E-03	80.8	
55	0	1377.48	47	59	2.18	2754.24	2744	17	3.29E-03	40.0	
56	0	1408.48	17	32	2.55	2816.21	2810	11	1.21E-03	69.9	
57	0	1459.99*	370	47	1.91	2919.20	2911	17	2.57E-02	7.0	
58	0	1480.69	17	16	0.88	2960.57	2954	13	1.19E-03	54.1	
59	0	1587.89	33	24	1.42	3174.85	3168	12	2.30E-03	34.3	
60	0	1592.74	10	20	0.59	3184.56	3180	9	7.07E-04	85.4	
61	0	1728.83	50	4	3.10	3456.57	3449	16	3.47E-03	16.8	
62	0	1763.64*	122	8	2.16	3526.15	3519	16	8.48E-03	11.7	
63	0	1873.30	16	0	1.54	3745.31	3739	11	1.11E-03	25.0	
64	0	1927.12	6	13	3.90	3852.88	3843	13	4.26E-04	127.6	
65	0	1971.77*	11	3	1.67	3942.11	3938	11	7.61E-04	49.4	
66	0	1991.23	8	5	0.64	3981.00	3976	9	5.21E-04	62.7	
67	0	1999.96	9	3	0.70	3998.44	3992	11	6.45E-04	47.6	

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]G198683004       *
* Acquisition date : 14-DEC-2007 14:59:15 Detector SN#    :                 *
* Detector ID      : GAM12                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 04:00:02.05     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683004           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2363E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 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	4.646E+00	6.948E-01	3.450E-01	0.000E+00
CS-137	1.043E-01	4.224E-02	3.569E-02	0.000E+00
TL-208	3.201E-01	5.690E-02	3.372E-02	0.000E+00
BI-212	8.877E-01	2.639E-01	2.416E-01	0.000E+00
PB-212	9.870E-01	8.972E-02	5.666E-02	0.000E+00
BI-214	9.416E-01	1.248E-01	6.389E-02	0.000E+00
PB-214	1.084E+00	1.148E-01	7.139E-02	0.000E+00
RA-223	1.648E-01	2.005E-01	1.801E-01	0.000E+00
AC-228	9.791E-01	2.026E-01	1.299E-01	0.000E+00
PA-234M	3.926E+00	3.505E+00	3.904E+00	0.000E+00
TH-234	1.262E+00	4.547E-01	4.810E-01	0.000E+00
U-235	1.503E-01	1.434E-01	2.061E-01	0.000E+00
NP-237	7.033E-01	1.710E-01	2.222E-01	0.000E+00
AM-243	2.293E-01	4.904E-02	5.358E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-1.774E-03	2.139E-02	3.621E-02	0.000E+00	NOT IDENT.
RH-101	4.394E-03	2.143E-02	3.660E-02	0.000E+00	NOT IDENT.
SB-125	5.873E-02	5.933E-02	1.039E-01	0.000E+00	NOT IDENT.
EU-155	-8.047E-03	6.070E-02	1.083E-01	0.000E+00	NOT IDENT.
PO-209	1.037E-01	4.192E+00	6.997E+00	0.000E+00	NOT IDENT.
BI-211	2.253E-01	6.131E-01	1.002E+00	0.000E+00	NOT IDENT.
PA-233	3.467E-02	3.885E-02	6.855E-02	0.000E+00	NOT IDENT.
NP-236	2.082E-02	4.152E-02	6.316E-02	0.000E+00	NOT IDENT.
NP-239	-5.327E-02	1.416E-01	2.407E-01	0.000E+00	NOT IDENT.
AM-241	5.262E-02	9.392E-02	1.469E-01	0.000E+00	NOT IDENT.
CM-243	-6.300E-02	5.871E-02	9.339E-02	0.000E+00	NOT IDENT.
AM-246	-2.876E-02	7.257E-02	1.200E-01	0.000E+00	NOT IDENT.
CF-249	1.690E-02	2.370E-02	4.117E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 19:00:18.95

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683004.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 14:59:15
Sample ID        : G198683004           Sample quantity  : 1.23630E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.05  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	370	10.66*	1.134E+00	4.646E+00	4.646E+00	15.26
CS-137	661.66	131	85.10*	2.249E+00	1.039E-01	1.043E-01	41.32
TL-208	277.36	8	6.31	4.442E+00	4.088E-02	4.088E-02	889.39
	510.77	117	22.60	2.788E+00	2.830E-01	2.830E-01	66.97
	583.19	445	84.50*	2.500E+00	3.201E-01	3.201E-01	18.14
	763.13	------	1.81	1.987E+00	------	Line Not Found	------
	860.56	100	12.42	1.788E+00	6.866E-01	6.866E-01	42.09
BI-212	727.33	143	11.80*	2.072E+00	8.877E-01	8.877E-01	30.34
	785.37	------	1.10	1.938E+00	------	Line Not Found	------
	1620.50	------	1.49	1.052E+00	------	Line Not Found	------
PB-212	74.81	481	10.40	4.673E+00	1.504E+00	1.504E+00	21.82
	77.11	646	17.50	4.893E+00	1.145E+00	1.145E+00	15.00
	87.30	327	7.81	5.699E+00	1.117E+00	1.117E+00	24.80
	238.63	1393	43.30*	4.950E+00	9.870E-01	9.870E-01	9.28
	300.09	56	3.28	4.204E+00	6.165E-01	6.165E-01	98.13
BI-214	609.31	689	46.10*	2.410E+00	9.415E-01	9.416E-01	13.53
	768.36	27	4.94	1.977E+00	4.128E-01	4.128E-01	154.70
	806.17	------	1.22	1.894E+00	------	Line Not Found	------
	934.06	29	3.03	1.661E+00	8.844E-01	8.845E-01	138.19
	1120.29	147	15.10	1.414E+00	1.044E+00	1.044E+00	33.76
	1155.19	65	1.63	1.377E+00	4.415E+00	4.415E+00	63.38
	1238.11	77	5.79	1.297E+00	1.552E+00	1.552E+00	42.17
	1280.96	------	1.43	1.260E+00	------	Line Not Found	------
	1377.67	47	4.00	1.187E+00	1.515E+00	1.515E+00	80.22
	1401.50	------	1.27	1.171E+00	------	Line Not Found	------
	1407.98	17	2.15	1.166E+00	1.051E+00	1.051E+00	139.99
	1509.23	------	2.11	1.106E+00	------	Line Not Found	------
	1729.60	50	2.92	1.009E+00	2.571E+00	2.571E+00	34.03
	1764.49	122	15.40	9.976E-01	1.207E+00	1.207E+00	24.03
PB-214	74.81	481	6.44	4.673E+00	2.428E+00	2.428E+00	21.82
	77.11	646	10.80	4.893E+00	1.855E+00	1.856E+00	15.00
	87.30	327	4.84	5.699E+00	1.802E+00	1.802E+00	24.80

Sample ID : G198683004 Acquisition date : 14-DEC-2007 14:59:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	410	7.43	4.909E+00	1.707E+00	1.707E+00	24.66
	295.22	557	19.30	4.258E+00	1.030E+00	1.030E+00	16.63
	351.93	1002	37.60*	3.733E+00	1.084E+00	1.084E+00	10.81
RA-223	269.46	67	13.70*	4.534E+00	1.648E-01	1.648E-01	124.13
AC-228	129.07	102	2.42	6.595E+00	9.693E-01	9.693E-01	72.24
	209.25	124	3.89	5.398E+00	8.932E-01	8.932E-01	53.84
	270.25	67	3.46	4.534E+00	6.525E-01	6.525E-01	124.13
	338.32	295	11.27	3.846E+00	1.032E+00	1.032E+00	29.33
	409.46	21	1.92	3.323E+00	4.996E-01	4.996E-01	218.29
	463.00	68	4.40	3.015E+00	7.804E-01	7.804E-01	74.72
	794.95	77	4.25	1.918E+00	1.439E+00	1.439E+00	56.12
	911.20	283	25.80*	1.699E+00	9.792E-01	9.791E-01	21.12
	964.77	78	4.99	1.615E+00	1.464E+00	1.464E+00	44.52
	968.97	224	15.80	1.609E+00	1.338E+00	1.338E+00	20.54
	1588.20	33	3.22	1.067E+00	1.463E+00	1.463E+00	68.88
PA-234M	1001.03	34	0.84*	1.563E+00	3.926E+00	3.926E+00	91.10
TH-234	63.29	49	4.80	3.272E+00	4.747E-01	4.747E-01	159.12
	92.58	271	5.41*	6.019E+00	1.262E+00	1.262E+00	36.76
U-235	143.76	70	10.96*	6.457E+00	1.503E-01	1.503E-01	97.35
NP-237	86.48	327	12.40*	5.699E+00	7.033E-01	7.033E-01	24.80
AM-243	74.66	481	68.20*	4.673E+00	2.293E-01	2.293E-01	21.82

Flag: "*" = Keyline

Sample ID : G198683004 Acquisition date : 14-DEC-2007 14:59:15

Total number of lines in spectrum 67
Number of unidentified lines 27
Number of lines tentatively identified by NID 40 59.70%

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	4.646E+00	4.646E+00	0.709E+00	15.26	
CS-137	9.47E+08S	1.00	1.039E-01	1.043E-01	0.431E-01	41.32	
TL-208	4.43E+17S	1.00	3.201E-01	3.201E-01	0.581E-01	18.14	
BI-212	4.43E+17S	1.00	8.877E-01	8.877E-01	2.693E-01	30.34	
PB-212	4.43E+17S	1.00	9.870E-01	9.870E-01	0.916E-01	9.28	
BI-214	5.05E+10S	1.00	9.415E-01	9.416E-01	1.274E-01	13.53	
PB-214	5.05E+10S	1.00	1.084E+00	1.084E+00	0.117E+00	10.81	
RA-223	1.04E+12S	1.00	1.648E-01	1.648E-01	2.046E-01	124.13	
AC-228	4.43E+17S	1.00	9.792E-01	9.791E-01	2.068E-01	21.12	
PA-234M	1.41E+17S	1.00	3.926E+00	3.926E+00	3.577E+00	91.10	
TH-234	1.41E+17S	1.00	1.262E+00	1.262E+00	0.464E+00	36.76	
U-235	2.22E+16S	1.00	1.503E-01	1.503E-01	1.463E-01	97.35	
NP-237	6.75E+13S	1.00	7.033E-01	7.033E-01	1.745E-01	24.80	
AM-243	2.33E+11S	1.00	2.293E-01	2.293E-01	0.500E-01	21.82	
			---	---			
	Total Activity :		1.638E+01	1.639E+01			

Grand Total Activity : 1.638E+01 1.639E+01

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

Sample ID : G198683004 Acquisition date : 14-DEC-2007 14:59:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	73.03	73	450	1.35	145.29	142	16	5.06E-03	99.6	4.47E+00	
3	81.19	58	240	0.93	161.62	160	32	4.00E-03	79.3	5.25E+00	
3	84.00	125	537	1.51	167.24	160	32	8.69E-03	72.3	5.48E+00	
3	89.96	186	353	1.01	179.16	160	32	1.30E-02	35.1	5.86E+00	
0	153.93	93	435	1.44	307.16	302	10	6.45E-03	87.0	6.31E+00	
0	185.80	302	444	1.15	370.93	366	10	2.10E-02	31.3	5.78E+00	
0	327.89	93	262	0.94	655.19	650	11	6.47E-03	70.3	3.94E+00	
0	357.68	60	213	4.34	714.79	709	12	4.15E-03	****	3.69E+00	
0	452.00	29	137	0.54	903.47	900	9	2.02E-03	****	3.07E+00	
0	557.87	43	93	3.51	1115.24	1109	12	3.01E-03	****	2.59E+00	
0	604.47	6	162	2.68	1208.45	1197	13	4.09E-04	****	2.43E+00	
0	640.05	19	70	0.47	1279.63	1275	8	1.30E-03	****	2.31E+00	
0	670.08	18	46	0.94	1339.68	1336	6	1.24E-03	****	2.22E+00	
0	802.99	10	48	1.89	1605.51	1600	9	7.24E-04	****	1.90E+00	
0	840.94	28	88	1.66	1681.39	1672	14	1.97E-03	****	1.82E+00	
0	941.32	33	18	2.85	1882.15	1878	8	2.30E-03	56.4	1.65E+00	
1	961.43	28	14	1.96	1922.36	1920	25	1.93E-03	49.7	1.62E+00	
0	995.61	20	38	3.74	1990.70	1984	12	1.39E-03	****	1.57E+00	
0	1194.01	33	53	5.77	2387.42	2377	20	2.28E-03	****	1.34E+00	
0	1318.38	18	36	6.07	2636.09	2630	13	1.22E-03	****	1.23E+00	
0	1480.69	17	16	0.88	2960.57	2954	13	1.19E-03	****	1.12E+00	
0	1592.74	10	20	0.59	3184.56	3180	9	7.07E-04	****	1.06E+00	
0	1873.30	16	0	1.54	3745.31	3739	11	1.11E-03	50.0	9.66E-01	
0	1927.12	6	13	3.90	3852.88	3843	13	4.26E-04	****	9.53E-01	
0	1971.77	11	3	1.67	3942.11	3938	11	7.61E-04	98.9	9.44E-01	
0	1991.23	8	5	0.64	3981.00	3976	9	5.21E-04	****	9.41E-01	
0	1999.96	9	3	0.70	3998.44	3992	11	6.45E-04	95.2	9.39E-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]G198683004            *
* Acquisition date : 14-DEC-2007 14:59:15 Detector SN#    :                 *
* Detector ID      : GAM12                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 04:00:02.05     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683004           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2363E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 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	4.646E+00	6.948E-01	1.726E-01	6.948E-01
CS-137	1.043E-01	4.224E-02	1.786E-02	4.224E-02
TL-208	3.201E-01	5.690E-02	1.687E-02	5.690E-02
BI-212	8.877E-01	2.639E-01	1.209E-01	2.639E-01
PB-212	9.870E-01	8.972E-02	2.835E-02	8.972E-02
BI-214	9.416E-01	1.248E-01	3.197E-02	1.248E-01
PB-214	1.084E+00	1.148E-01	3.571E-02	1.148E-01
RA-223	1.648E-01	2.005E-01	9.010E-02	2.005E-01
AC-228	9.791E-01	2.026E-01	6.499E-02	2.026E-01
PA-234M	3.926E+00	3.505E+00	1.953E+00	3.505E+00
TH-234	1.262E+00	4.547E-01	2.406E-01	4.547E-01
U-235	1.503E-01	1.434E-01	1.031E-01	1.434E-01
NP-237	7.033E-01	1.710E-01	1.112E-01	1.710E-01
AM-243	2.293E-01	4.904E-02	2.681E-02	4.904E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.774E-03	2.139E-02	1.811E-02	2.139E-02	NOT IDENT.
RH-101	4.394E-03	2.143E-02	1.831E-02	2.143E-02	NOT IDENT.
SB-125	5.873E-02	5.933E-02	5.198E-02	5.933E-02	NOT IDENT.
EU-155	-8.047E-03	6.070E-02	5.417E-02	6.070E-02	NOT IDENT.
PO-209	1.037E-01	4.192E+00	3.500E+00	4.192E+00	NOT IDENT.
BI-211	2.253E-01	6.131E-01	5.013E-01	6.131E-01	NOT IDENT.
PA-233	3.467E-02	3.885E-02	3.430E-02	3.885E-02	NOT IDENT.
NP-236	2.082E-02	4.152E-02	3.160E-02	4.152E-02	NOT IDENT.
NP-239	-5.327E-02	1.416E-01	1.204E-01	1.416E-01	NOT IDENT.
AM-241	5.262E-02	9.392E-02	7.349E-02	9.392E-02	NOT IDENT.
CM-243	-6.300E-02	5.871E-02	4.672E-02	5.871E-02	NOT IDENT.
AM-246	-2.876E-02	7.257E-02	6.004E-02	7.257E-02	NOT IDENT.
CF-249	1.690E-02	2.370E-02	2.060E-02	2.370E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	350.6390
63.29	415.5865
74.66	534.8004
74.81	534.9243
74.81	534.9243
77.11	536.7947
77.11	536.7947
86.48	452.5390
87.30	453.0562
87.30	453.0562
92.58	456.3392
98.44	389.0178
103.76	413.8029
105.31	400.2951
129.07	387.1622
143.76	402.3285
198.00	369.8728
209.25	347.0747
228.18	353.1606
238.63	282.5343
242.00	283.2235
269.46	241.9332
270.25	242.0645
277.36	261.8238
295.22	268.6117
300.09	224.8018
312.17	189.4204
338.32	206.0985
351.93	194.2704
387.59	146.5727
409.46	182.2540
427.87	141.8145
463.00	145.9899
510.77	152.7952
583.19	99.5424
609.31	98.9487
661.66	91.0980
727.33	68.8787
763.13	80.7930
768.36	99.4737
785.37	67.1247
794.95	69.3646
806.17	69.9466
831.80	64.4745
860.56	68.6651
896.60	63.0732
911.20	64.3881
934.06	54.8820
964.77	70.6938
968.97	70.7728
1001.03	52.2675
1078.86	55.1440
1120.29	55.7007
1155.19	60.8423
1173.23	47.9370
1238.11	49.0534
1280.96	32.7341
1332.51	40.8806
1377.67	37.0529
1401.50	32.1553
1407.98	26.6891
1460.80	34.9587
1509.23	22.1799
1588.20	30.6921
1620.50	22.6392
1729.60	15.7324
1764.49	18.9902

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683004

Total Uranium Activity	6.9537E-02	ug/g
Total Uranium Counting Unc.	6.6342E-02	ug/g
Total Uranium Tpu	6.6342E-08	ug/g
Total Uranium Mda	4.7716E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 23:57:02.95

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683005.CNF;1
Sample date      : 18-OCT-2007 07:00:00 Acquisition date : 14-DEC-2007 15:36:25
Sample ID        : G198683005           Sample quantity  : 1.45120E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:06.10  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.25*	113	1245	1.46	126.45	123	9	3.78E-03	63.7	
2	1	74.91*	671	1271	1.33	149.76	143	18	2.24E-02	11.1	2.45E+00
3	1	77.16*	1018	1098	1.19	154.24	143	18	3.39E-02	7.1	
4	8	84.13*	362	1840	2.56	168.19	162	31	1.21E-02	26.0	2.01E+00
5	8	87.28	536	1100	1.34	174.48	162	31	1.79E-02	11.6	
6	8	89.88	323	932	1.20	179.68	162	31	1.08E-02	17.0	
7	8	92.85*	473	1274	1.60	185.62	162	31	1.58E-02	19.5	
8	8	94.83	157	743	2.67	189.56	162	31	5.24E-03	30.4	
9	0	106.55	47	889	1.36	213.01	209	7	1.57E-03	105.6	
10	0	112.71*	13	753	0.85	225.31	223	6	4.44E-04	369.0	
11	0	128.85	91	774	0.92	257.59	256	6	3.03E-03	49.5	
12	0	144.15*	46	981	1.14	288.16	285	8	1.52E-03	134.1	
13	0	159.22	76	635	1.15	318.29	316	6	2.54E-03	53.5	
14	0	186.02*	494	1153	1.48	371.87	367	11	1.65E-02	16.5	
15	0	209.44	156	830	1.01	418.69	415	8	5.22E-03	33.0	
16	4	238.66*	2207	649	1.25	477.11	472	17	7.36E-02	3.5	1.77E+00
17	4	241.64	682	916	1.82	483.07	472	17	2.27E-02	10.6	
18	0	271.13	151	928	1.75	542.03	533	13	5.02E-03	42.5	
19	0	277.59	135	571	2.36	554.95	551	9	4.51E-03	33.1	
20	0	295.10*	1008	711	1.49	589.96	583	12	3.36E-02	6.5	
21	0	300.26*	113	657	0.96	600.27	596	10	3.77E-03	47.5	
22	0	328.45	96	655	2.45	656.62	649	11	3.20E-03	52.6	
23	0	338.27*	408	560	1.26	676.26	672	10	1.36E-02	13.1	
24	0	351.88*	1708	636	1.34	703.48	698	12	5.69E-02	4.1	
25	0	386.22	140	697	6.17	772.14	762	19	4.66E-03	46.1	
26	0	410.05	145	524	4.20	819.79	814	14	4.85E-03	34.4	
27	0	462.61	126	270	1.38	924.89	921	8	4.20E-03	24.2	
28	0	510.85*	230	656	2.29	1021.34	1012	21	7.68E-03	35.0	
29	0	583.11*	825	342	1.58	1165.84	1158	16	2.75E-02	6.7	
30	0	609.22*	1364	366	1.57	1218.05	1213	14	4.55E-02	4.5	
31	0	623.73	17	226	1.96	1247.07	1247	10	5.60E-04	170.4	
32	0	656.54	59	173	3.75	1312.67	1307	11	1.98E-03	44.9	
33	0	661.50*	476	190	1.50	1322.61	1318	9	1.59E-02	7.6	
34	0	727.37*	107	205	1.22	1454.32	1450	10	3.58E-03	32.7	
35	2	768.32*	129	228	2.22	1536.23	1529	20	4.30E-03	29.2	2.24E+00
36	2	772.56	43	125	1.68	1544.70	1529	20	1.42E-03	49.5	
37	0	786.30	60	218	1.05	1572.20	1564	13	1.99E-03	52.7	
38	0	794.91	119	181	1.09	1589.41	1585	13	3.98E-03	25.2	

Sample ID : G198683005 Acquisition date : 14-DEC-2007 15:36:25

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	805.82	51	207	1.45	1611.22	1604	13	1.69E-03	60.2	
40	0	835.69	49	160	1.75	1670.96	1665	10	1.62E-03	50.9	
41	0	839.75	80	117	0.76	1679.09	1675	9	2.65E-03	27.0	
42	0	860.58	151	173	1.59	1720.76	1713	14	5.04E-03	20.2	
43	0	911.05*	525	236	1.66	1821.70	1814	17	1.75E-02	8.7	
44	0	934.02*	50	139	1.82	1867.63	1863	12	1.67E-03	57.9	
45	3	964.62*	42	155	2.06	1928.85	1921	25	1.39E-03	88.1	6.41E-01
46	3	968.88	314	130	1.88	1937.37	1921	25	1.05E-02	9.1	
47	1	1001.39*	21	93	2.16	2002.39	1994	21	6.85E-04	127.3	2.13E+00
48	1	1004.69	60	70	1.96	2009.00	1994	21	2.00E-03	33.7	
49	0	1012.88	42	106	0.79	2025.37	2020	12	1.41E-03	51.0	
50	0	1032.11	44	70	2.04	2063.85	2058	10	1.48E-03	38.4	
51	0	1063.81	36	126	2.72	2127.25	2124	12	1.20E-03	64.5	
52	0	1088.01	2	135	1.19	2175.67	2166	12	6.00E-05	*****	
53	0	1103.55	25	127	0.91	2206.75	2201	13	8.18E-04	96.8	
54	0	1120.23*	270	232	2.09	2240.12	2232	20	8.98E-03	16.9	
55	0	1155.61	79	116	3.18	2310.89	2304	13	2.63E-03	30.4	
56	0	1213.46	30	269	9.80	2426.61	2403	28	9.91E-04	158.1	
57	0	1238.11	137	96	2.25	2475.93	2470	11	4.56E-03	16.3	
58	0	1266.84	19	113	4.39	2533.41	2521	15	6.17E-04	127.1	
59	0	1282.44	24	94	1.89	2564.61	2561	11	7.90E-04	82.5	
60	0	1377.92*	82	76	2.15	2755.65	2749	12	2.73E-03	26.9	
61	0	1401.57	57	61	1.15	2802.95	2795	14	1.89E-03	32.4	
62	0	1407.87	81	55	1.88	2815.56	2809	13	2.69E-03	22.0	
63	0	1425.25	27	111	4.20	2850.33	2832	21	8.86E-04	102.6	
64	0	1439.54	14	47	0.51	2878.92	2872	11	4.82E-04	95.2	
65	0	1460.65*	868	46	2.24	2921.16	2914	14	2.89E-02	4.2	
66	0	1577.64	11	52	3.36	3155.25	3144	14	3.59E-04	146.0	
67	0	1588.18	42	82	1.71	3176.34	3170	13	1.41E-03	46.6	
68	0	1620.39*	34	42	1.36	3240.79	3233	15	1.14E-03	50.8	
69	0	1631.03	49	24	2.65	3262.09	3256	11	1.64E-03	24.2	
70	0	1729.47*	47	43	2.13	3459.08	3450	17	1.57E-03	49.6	
71	0	1764.48*	235	56	2.50	3529.14	3520	19	7.83E-03	12.0	
72	0	1781.70	10	32	1.35	3563.60	3554	14	3.31E-04	134.1	
73	0	1848.28	34	38	0.89	3696.85	3690	14	1.13E-03	42.3	
74	0	1905.01	27	104	3.46	3810.39	3792	34	9.14E-04	115.2	
75	0	2014.99	17	11	2.60	4030.50	4026	9	5.54E-04	47.9	

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]G198683005       *
* Acquisition date : 14-DEC-2007 15:36:25 Detector SN#    :                 *
* Detector ID      : GAMAN                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:06.10     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 07:00:00 Nuclide Library :                 *
* Sample ID        : G198683005           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4512E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.539E+00	4.557E-01	2.231E-01	0.000E+00
CS-137	1.674E-01	2.816E-02	2.707E-02	0.000E+00
EU-155	2.541E-02	5.264E-02	8.394E-02	0.000E+00
TL-208	2.644E-01	3.988E-02	2.423E-02	0.000E+00
BI-212	2.919E-01	1.887E-01	1.917E-01	0.000E+00
PB-212	7.584E-01	7.081E-02	4.537E-02	0.000E+00
BI-214	8.284E-01	9.515E-02	4.856E-02	0.000E+00
PB-214	8.650E-01	8.647E-02	5.424E-02	0.000E+00
RA-223	1.771E-01	1.479E-01	1.403E-01	0.000E+00
AC-228	7.818E-01	1.551E-01	9.289E-02	0.000E+00
PA-234M	1.015E+00	2.534E+00	2.550E+00	0.000E+00
TH-234	1.014E+00	3.949E-01	3.273E-01	0.000E+00
U-235	4.832E-02	1.270E-01	1.645E-01	0.000E+00
NP-237	5.188E-01	1.254E-01	1.478E-01	0.000E+00
AM-243	1.350E-01	3.129E-02	3.385E-02	0.000E+00
CF-249	4.293E-02	3.888E-02	3.007E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-1.888E-03	1.451E-02	2.425E-02	0.000E+00	NOT IDENT.
RH-101	5.524E-04	1.805E-02	2.830E-02	0.000E+00	NOT IDENT.
SB-125	5.880E-03	4.066E-02	7.158E-02	0.000E+00	NOT IDENT.
PO-209	8.115E-01	2.909E+00	5.092E+00	0.000E+00	NOT IDENT.
BI-211	-4.523E-02	4.820E-01	7.174E-01	0.000E+00	NOT IDENT.
PA-233	1.759E-02	2.832E-02	5.156E-02	0.000E+00	NOT IDENT.
NP-236	1.572E-02	2.880E-02	4.683E-02	0.000E+00	NOT IDENT.
NP-239	-1.151E-02	1.037E-01	1.789E-01	0.000E+00	NOT IDENT.
AM-241	2.360E-02	5.038E-02	8.408E-02	0.000E+00	NOT IDENT.
CM-243	-5.078E-03	4.729E-02	7.524E-02	0.000E+00	NOT IDENT.
AM-246	1.156E-02	5.899E-02	9.096E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 23:57:04.09

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683005.CNF;1
Sample date      : 18-OCT-2007 07:00:00 Acquisition date : 14-DEC-2007 15:36:25
Sample ID        : G198683005           Sample quantity  : 1.45120E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:06.10  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	868	10.66*	1.114E+00	4.539E+00	4.539E+00	10.24
CS-137	661.66	476	85.10*	2.083E+00	1.667E-01	1.674E-01	17.17
EU-155	105.31	47	21.20*	5.559E+00	2.486E-02	2.541E-02	211.41
TL-208	277.36	135	6.31	3.800E+00	3.505E-01	3.505E-01	66.58
	510.77	230	22.60	2.523E+00	2.509E-01	2.509E-01	70.35
	583.19	825	84.50*	2.291E+00	2.644E-01	2.644E-01	15.39
	763.13	------	1.81	1.863E+00	------	Line Not Found	------
	860.56	151	12.42	1.692E+00	4.467E-01	4.467E-01	41.68
BI-212	727.33	107	11.80*	1.935E+00	2.919E-01	2.919E-01	65.95
	785.37	60	1.10	1.820E+00	1.856E+00	1.856E+00	105.89
	1620.50	34	1.49	1.039E+00	1.368E+00	1.368E+00	101.72
PB-212	74.81	671	10.40	4.528E+00	8.851E-01	8.851E-01	23.65
	77.11	1018	17.50	4.676E+00	7.720E-01	7.720E-01	16.30
	87.30	536	7.81	5.175E+00	8.237E-01	8.237E-01	24.67
	238.63	2207	43.30*	4.171E+00	7.584E-01	7.584E-01	9.53
	300.09	113	3.28	3.615E+00	5.921E-01	5.921E-01	95.22
BI-214	609.31	1364	46.10*	2.217E+00	8.283E-01	8.284E-01	11.72
	768.36	129	4.94	1.853E+00	8.752E-01	8.752E-01	59.19
	806.17	51	1.22	1.784E+00	1.447E+00	1.447E+00	120.82
	934.06	50	3.03	1.583E+00	6.486E-01	6.486E-01	116.31
	1120.29	270	15.10	1.365E+00	8.116E-01	8.117E-01	34.53
	1155.19	79	1.63	1.332E+00	2.259E+00	2.259E+00	61.11
	1238.11	137	5.79	1.261E+00	1.164E+00	1.164E+00	33.19
	1280.96	24	1.43	1.226E+00	8.391E-01	8.392E-01	165.14
	1377.67	82	4.00	1.162E+00	1.096E+00	1.096E+00	54.17
	1401.50	57	1.27	1.147E+00	2.417E+00	2.418E+00	65.14
	1407.98	81	2.15	1.143E+00	2.041E+00	2.041E+00	44.36
	1509.23	------	2.11	1.088E+00	------	Line Not Found	------
	1729.60	47	2.92	9.999E-01	9.993E-01	9.994E-01	99.45
	1764.49	235	15.40	9.891E-01	9.576E-01	9.577E-01	24.71
PB-214	74.81	671	6.44	4.528E+00	1.429E+00	1.430E+00	23.65
	77.11	1018	10.80	4.676E+00	1.251E+00	1.251E+00	16.30

Sample ID : G198683005 Acquisition date : 14-DEC-2007 15:36:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	536	4.84	5.175E+00	1.329E+00	1.329E+00	24.67
	242.00	682	7.43	4.140E+00	1.376E+00	1.376E+00	22.18
	295.22	1008	19.30	3.655E+00	8.874E-01	8.874E-01	14.54
	351.93	1708	37.60*	3.260E+00	8.649E-01	8.650E-01	10.20
RA-223	269.46	151	13.70*	3.857E+00	1.771E-01	1.771E-01	85.21
AC-228	129.07	91	2.42	5.513E+00	4.235E-01	4.235E-01	99.16
	209.25	156	3.89	4.501E+00	5.547E-01	5.547E-01	66.21
	270.25	151	3.46	3.857E+00	7.012E-01	7.012E-01	85.21
	338.32	408	11.27	3.346E+00	6.714E-01	6.714E-01	26.88
	409.46	145	1.92	2.941E+00	1.598E+00	1.598E+00	69.11
	463.00	126	4.40	2.706E+00	6.574E-01	6.574E-01	48.83
	794.95	119	4.25	1.804E+00	9.664E-01	9.664E-01	51.19
	911.20	525	25.80*	1.616E+00	7.818E-01	7.818E-01	20.25
	964.77	42	4.99	1.542E+00	3.353E-01	3.353E-01	176.37
	968.97	314	15.80	1.537E+00	8.016E-01	8.016E-01	20.58
	1588.20	42	3.22	1.052E+00	7.740E-01	7.740E-01	93.45
PA-234M	1001.03	21	0.84*	1.496E+00	1.015E+00	1.015E+00	254.86
TH-234	63.29	113	4.80	3.505E+00	4.181E-01	4.181E-01	127.71
	92.58	473	5.41*	5.349E+00	1.014E+00	1.014E+00	39.73
U-235	143.76	46	10.96*	5.354E+00	4.832E-02	4.832E-02	268.19
NP-237	86.48	536	12.40*	5.175E+00	5.188E-01	5.188E-01	24.67
AM-243	74.66	671	68.20*	4.528E+00	1.350E-01	1.350E-01	23.65
CF-249	387.59	140	66.00*	3.063E+00	4.291E-02	4.293E-02	92.41

Flag: "*" = Keyline

Sample ID : G198683005 Acquisition date : 14-DEC-2007 15:36:25

Total number of lines in spectrum 75
Number of unidentified lines 28
Number of lines tentatively identified by NID 47 62.67%

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	4.539E+00	4.539E+00	0.465E+00	10.24	
CS-137	9.47E+08S	1.00	1.667E-01	1.674E-01	0.287E-01	17.17	
EU-155	1.57E+08S	1.02	2.486E-02	2.541E-02	5.372E-02	211.41	
TL-208	4.43E+17S	1.00	2.644E-01	2.644E-01	0.407E-01	15.39	
BI-212	4.43E+17S	1.00	2.919E-01	2.919E-01	1.925E-01	65.95	
PB-212	4.43E+17S	1.00	7.584E-01	7.584E-01	0.723E-01	9.53	
BI-214	5.05E+10S	1.00	8.283E-01	8.284E-01	0.971E-01	11.72	
PB-214	5.05E+10S	1.00	8.649E-01	8.650E-01	0.882E-01	10.20	
RA-223	1.04E+12S	1.00	1.771E-01	1.771E-01	1.509E-01	85.21	
AC-228	4.43E+17S	1.00	7.818E-01	7.818E-01	1.583E-01	20.25	
PA-234M	1.41E+17S	1.00	1.015E+00	1.015E+00	2.586E+00	254.86	
TH-234	1.41E+17S	1.00	1.014E+00	1.014E+00	0.403E+00	39.73	
U-235	2.22E+16S	1.00	4.832E-02	4.832E-02	12.96E-02	268.19	
NP-237	6.75E+13S	1.00	5.188E-01	5.188E-01	1.280E-01	24.67	
AM-243	2.33E+11S	1.00	1.350E-01	1.350E-01	0.319E-01	23.65	
CF-249	1.11E+10S	1.00	4.291E-02	4.293E-02	3.967E-02	92.41	
			---	---			
	Total Activity :		1.147E+01	1.147E+01			

Grand Total Activity : 1.147E+01 1.147E+01

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

Sample ID : G198683005 Acquisition date : 14-DEC-2007 15:36:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
8	84.13	362	1840	2.56	168.19	162	31	1.21E-02	51.9	5.05E+00	
8	89.88	323	932	1.20	179.68	162	31	1.08E-02	34.0	5.26E+00	
8	94.83	157	743	2.67	189.56	162	31	5.24E-03	60.9	5.40E+00	
0	112.71	13	753	0.85	225.31	223	6	4.44E-04	****	5.58E+00	
0	159.22	76	635	1.15	318.29	316	6	2.54E-03	****	5.16E+00	
0	186.02	494	1153	1.48	371.87	367	11	1.65E-02	33.0	4.80E+00	
0	328.45	96	655	2.45	656.62	649	11	3.20E-03	****	3.41E+00	
0	623.73	17	226	1.96	1247.07	1247	10	5.60E-04	****	2.18E+00	
0	656.54	59	173	3.75	1312.67	1307	11	1.98E-03	89.7	2.10E+00	
2	772.56	43	125	1.68	1544.70	1529	20	1.42E-03	98.9	1.85E+00	
0	835.69	49	160	1.75	1670.96	1665	10	1.62E-03	****	1.73E+00	
0	839.75	80	117	0.76	1679.09	1675	9	2.65E-03	53.9	1.73E+00	
1	1004.69	60	70	1.96	2009.00	1994	21	2.00E-03	67.3	1.49E+00	
0	1012.88	42	106	0.79	2025.37	2020	12	1.41E-03	****	1.48E+00	
0	1032.11	44	70	2.04	2063.85	2058	10	1.48E-03	76.8	1.46E+00	
0	1063.81	36	126	2.72	2127.25	2124	12	1.20E-03	****	1.42E+00	
0	1088.01	2	135	1.19	2175.67	2166	12	6.00E-05	****	1.40E+00	
0	1103.55	25	127	0.91	2206.75	2201	13	8.18E-04	****	1.38E+00	
0	1213.46	30	269	9.80	2426.61	2403	28	9.91E-04	****	1.28E+00	
0	1266.84	19	113	4.39	2533.41	2521	15	6.17E-04	****	1.24E+00	
0	1425.25	27	111	4.20	2850.33	2832	21	8.86E-04	****	1.13E+00	
0	1439.54	14	47	0.51	2878.92	2872	11	4.82E-04	****	1.13E+00	
0	1577.64	11	52	3.36	3155.25	3144	14	3.59E-04	****	1.06E+00	
0	1631.03	49	24	2.65	3262.09	3256	11	1.64E-03	48.4	1.03E+00	
0	1781.70	10	32	1.35	3563.60	3554	14	3.31E-04	****	9.84E-01	
0	1848.28	34	38	0.89	3696.85	3690	14	1.13E-03	84.6	9.66E-01	
0	1905.01	27	104	3.46	3810.39	3792	34	9.14E-04	****	9.53E-01	
0	2014.99	17	11	2.60	4030.50	4026	9	5.54E-04	95.8	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]G198683005            *
* Acquisition date : 14-DEC-2007 15:36:25 Detector SN#    :                 *
* Detector ID      : GAMAN                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:06.10     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 07:00:00 Nuclide Library :                 *
* Sample ID        : G198683005           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4512E+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	4.539E+00	4.557E-01	1.116E-01	4.557E-01
CS-137	1.674E-01	2.816E-02	1.354E-02	2.816E-02
EU-155	2.541E-02	5.264E-02	4.199E-02	5.264E-02
TL-208	2.644E-01	3.988E-02	1.212E-02	3.988E-02
BI-212	2.919E-01	1.887E-01	9.589E-02	1.887E-01
PB-212	7.584E-01	7.081E-02	2.270E-02	7.081E-02
BI-214	8.284E-01	9.515E-02	2.430E-02	9.515E-02
PB-214	8.650E-01	8.647E-02	2.714E-02	8.647E-02
RA-223	1.771E-01	1.479E-01	7.020E-02	1.479E-01
AC-228	7.818E-01	1.551E-01	4.647E-02	1.551E-01
PA-234M	1.015E+00	2.534E+00	1.276E+00	2.534E+00
TH-234	1.014E+00	3.949E-01	1.637E-01	3.949E-01
U-235	4.832E-02	1.270E-01	8.229E-02	1.270E-01
NP-237	5.188E-01	1.254E-01	7.397E-02	1.254E-01
AM-243	1.350E-01	3.129E-02	1.694E-02	3.129E-02
CF-249	4.293E-02	3.888E-02	1.504E-02	3.888E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.888E-03	1.451E-02	1.213E-02	1.451E-02	NOT IDENT.
RH-101	5.524E-04	1.805E-02	1.416E-02	1.805E-02	NOT IDENT.
SB-125	5.880E-03	4.066E-02	3.581E-02	4.066E-02	NOT IDENT.
PO-209	8.115E-01	2.909E+00	2.547E+00	2.909E+00	NOT IDENT.
BI-211	-4.523E-02	4.820E-01	3.589E-01	4.820E-01	NOT IDENT.
PA-233	1.759E-02	2.832E-02	2.580E-02	2.832E-02	NOT IDENT.
NP-236	1.572E-02	2.880E-02	2.343E-02	2.880E-02	NOT IDENT.
NP-239	-1.151E-02	1.037E-01	8.951E-02	1.037E-01	NOT IDENT.
AM-241	2.360E-02	5.038E-02	4.207E-02	5.038E-02	NOT IDENT.
CM-243	-5.078E-03	4.729E-02	3.764E-02	4.729E-02	NOT IDENT.
AM-246	1.156E-02	5.899E-02	4.551E-02	5.899E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	855.7109
63.29	1048.2620
74.66	1128.6177
74.81	1128.8835
74.81	1128.8835
77.11	1132.9103
77.11	1132.9103
86.48	931.6801
87.30	932.7700
87.30	932.7700
92.58	939.6600
98.44	944.0836
103.76	971.7703
105.31	985.7977
129.07	1012.3064
143.76	998.2848
198.00	874.4996
209.25	946.6486
228.18	750.9612
238.63	734.3325
242.00	736.1537
269.46	609.0045
270.25	609.3347
277.36	607.8438
295.22	593.7674
300.09	568.7405
312.17	506.2628
338.32	529.8239
351.93	491.4831
387.59	410.7245
409.46	428.7524
427.87	376.9507
463.00	336.4120
510.77	320.7375
583.19	250.1844
609.31	280.8171
661.66	261.5714
727.33	220.2322
763.13	203.0845
768.36	207.8262
785.37	190.7144
794.95	174.2613
806.17	162.1534
831.80	200.2869
860.56	172.5231
896.60	167.6712
911.20	174.1130
934.06	160.1014
964.77	146.6130
968.97	146.7820
1001.03	119.7880
1078.86	141.0172
1120.29	123.2609
1155.19	129.3875
1173.23	118.6810
1238.11	125.6478
1280.96	86.2567
1332.51	100.6940
1377.67	93.0853
1401.50	32.2559
1407.98	83.0504
1460.80	83.2330
1509.23	80.0166
1588.20	111.7849
1620.50	60.5479
1729.60	53.8874
1764.49	54.2078

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683005

Total Uranium Activity	2.2358E-02	ug/g
Total Uranium Counting Unc.	5.8764E-02	ug/g
Total Uranium Tpu	5.8764E-08	ug/g
Total Uranium Mda	3.8073E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:57:08.92

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683006.CNF;1
Sample date       : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 16:36:26
Sample ID         : G198683006           Sample quantity  : 1.20830E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00         Elapsed real time: 0 08:20:06.04  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708123               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.30*	270	1249	1.04	93.38	89	10	9.01E-03	30.9	
2	0	52.88	120	1045	1.17	106.54	103	8	4.00E-03	47.4	
3	0	63.06*	455	1691	1.19	126.87	122	10	1.52E-02	18.9	
4	1	74.70*	1867	1631	1.29	150.15	143	16	6.22E-02	4.7	5.87E+00
5	1	77.01*	2987	1404	1.12	154.77	143	16	9.96E-02	3.1	
6	2	84.10*	366	1267	1.17	168.95	162	30	1.22E-02	18.2	3.90E+00
7	2	87.13*	994	1185	1.18	175.00	162	30	3.31E-02	6.9	
8	2	89.75	617	1095	1.18	180.24	162	30	2.06E-02	10.0	
9	2	92.67*	1035	1155	1.36	186.07	162	30	3.45E-02	7.6	
10	0	105.26	208	1032	1.19	211.24	208	8	6.93E-03	27.6	
11	0	128.88	218	1377	0.75	258.44	255	10	7.26E-03	32.6	
12	0	143.59*	50	1036	1.50	287.84	285	8	1.68E-03	121.3	
13	0	154.37	121	933	1.97	309.39	306	8	4.03E-03	44.9	
14	0	170.29	92	740	1.39	341.20	338	7	3.07E-03	50.0	
15	0	186.10*	655	1067	1.49	372.81	368	10	2.18E-02	11.7	
16	0	209.22	423	862	1.18	419.02	415	9	1.41E-02	13.4	
17	3	238.74*	3854	512	1.23	478.01	469	22	1.28E-01	2.0	2.63E+00
18	3	241.79	994	768	1.78	484.10	469	22	3.31E-02	7.2	
19	0	270.10	408	740	1.50	540.69	535	13	1.36E-02	14.6	
20	0	276.74	192	767	1.22	553.96	549	12	6.38E-03	29.8	
21	3	295.36*	1258	452	1.27	591.16	587	18	4.19E-02	4.5	1.80E+00
22	3	300.08	243	537	1.45	600.60	587	18	8.10E-03	18.0	
23	0	327.83	151	736	1.44	656.05	651	13	5.04E-03	37.8	
24	0	338.33*	716	579	1.44	677.05	672	11	2.39E-02	7.9	
25	0	352.06*	1871	527	1.27	704.47	699	10	6.24E-02	3.6	
26	0	378.16	44	398	2.22	756.63	752	9	1.47E-03	83.3	
27	0	409.56	126	254	1.16	819.38	816	7	4.20E-03	22.8	
28	0	463.31	191	382	1.61	926.78	922	11	6.35E-03	21.2	
29	0	511.18*	420	513	2.03	1022.43	1013	18	1.40E-02	16.9	
30	0	583.25	1114	411	1.60	1166.44	1158	15	3.71E-02	5.0	
31	0	609.66*	1427	335	1.52	1219.21	1213	14	4.76E-02	4.1	
32	0	661.86	511	319	1.53	1323.49	1317	13	1.70E-02	8.4	
33	0	727.69	252	294	1.74	1455.01	1446	15	8.41E-03	16.1	
34	0	754.90	83	173	1.76	1509.37	1504	12	2.78E-03	33.5	
35	0	759.83	38	103	0.63	1519.21	1516	8	1.25E-03	49.7	
36	5	768.79	156	201	1.99	1537.10	1532	18	5.21E-03	18.0	2.65E+00
37	5	772.86	54	161	2.04	1545.24	1532	18	1.80E-03	48.6	
38	0	786.04	200	233	1.83	1571.56	1562	20	6.66E-03	20.1	

Sample ID : G198683006 Acquisition date : 14-DEC-2007 16:36:26

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	795.46	38	144	0.77	1590.38	1590	6	1.26E-03	59.1	
40	3	836.37	75	132	2.72	1672.09	1667	18	2.49E-03	31.1	1.42E+00
41	3	840.31*	16	114	2.13	1679.97	1667	18	5.29E-04	172.3	
42	0	861.26	198	244	1.84	1721.82	1712	19	6.59E-03	20.3	
43	0	911.46*	640	240	1.85	1822.10	1817	15	2.13E-02	6.8	
44	0	934.67*	53	166	1.63	1868.46	1862	14	1.76E-03	61.3	
45	0	942.35	59	179	4.64	1883.79	1876	17	1.95E-03	53.9	
46	2	965.18	204	114	2.01	1929.39	1922	30	6.79E-03	12.7	8.21E-01
47	2	969.39	430	105	1.83	1937.79	1922	30	1.43E-02	6.7	
48	2	973.74	47	105	2.58	1946.48	1922	30	1.55E-03	45.2	
49	0	1001.12	19	124	1.34	2001.17	1998	10	6.24E-04	113.2	
50	0	1070.62	58	142	6.65	2139.98	2130	17	1.95E-03	48.8	
51	0	1098.71	152	226	11.75	2196.07	2182	32	5.06E-03	30.7	
52	0	1120.76*	331	191	1.85	2240.10	2231	17	1.10E-02	11.5	
53	0	1239.82	84	170	1.09	2477.86	2470	13	2.81E-03	34.2	
54	0	1378.96	72	70	1.76	2755.69	2750	12	2.38E-03	26.4	
55	0	1390.32	62	137	3.87	2778.36	2766	30	2.07E-03	56.0	
56	0	1403.50	18	67	1.76	2804.69	2798	14	5.94E-04	100.0	
57	0	1408.65*	33	33	1.40	2814.96	2811	11	1.09E-03	47.9	
58	0	1461.56*	1227	65	1.85	2920.61	2911	20	4.09E-02	3.4	
59	0	1496.60	24	48	2.16	2990.55	2984	12	8.07E-04	60.7	
60	0	1510.28	40	69	2.75	3017.87	3009	16	1.34E-03	48.7	
61	1	1588.74	55	87	2.73	3174.50	3164	26	1.84E-03	39.0	4.89E+00
62	1	1593.25	51	58	2.63	3183.50	3164	26	1.71E-03	33.5	
63	0	1731.15	53	44	1.53	3458.77	3451	13	1.76E-03	29.7	
64	0	1765.48*	246	14	2.32	3527.29	3517	17	8.19E-03	8.3	
65	0	1849.40	46	49	2.67	3694.78	3687	19	1.54E-03	38.7	
66	0	2044.65	33	11	0.71	4084.43	4076	15	1.09E-03	28.3	

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]G198683006       *
* Acquisition date : 14-DEC-2007 16:36:26 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:06.04     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683006           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2083E+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	8.786E+00	8.954E-01	2.594E-01	0.000E+00
CS-137	2.381E-01	4.380E-02	3.807E-02	0.000E+00
EU-155	1.086E-01	5.960E-02	8.279E-02	0.000E+00
TL-208	4.664E-01	5.624E-02	3.360E-02	0.000E+00
BI-212	9.172E-01	2.987E-01	2.475E-01	0.000E+00
PB-212	1.486E+00	1.360E-01	4.831E-02	0.000E+00
BI-214	1.138E+00	1.237E-01	6.633E-02	0.000E+00
PB-214	1.134E+00	1.012E-01	6.456E-02	0.000E+00
RA-223	5.459E-01	1.606E-01	1.584E-01	0.000E+00
AC-228	1.286E+00	2.068E-01	1.329E-01	0.000E+00
PA-234M	1.250E+00	2.775E+00	3.911E+00	0.000E+00
TH-234	2.008E+00	3.482E-01	3.293E-01	0.000E+00
U-235	5.622E-02	1.338E-01	1.722E-01	0.000E+00
NP-237	8.313E-01	1.327E-01	1.412E-01	0.000E+00
AM-243	2.784E-01	3.385E-02	2.802E-02	0.000E+00
CM-243	9.828E-02	5.395E-02	7.357E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-6.891E-03	2.146E-02	3.566E-02	0.000E+00	NOT IDENT.
RH-101	2.205E-03	2.167E-02	3.087E-02	0.000E+00	NOT IDENT.
SB-125	1.038E-02	5.324E-02	9.046E-02	0.000E+00	NOT IDENT.
PO-209	7.850E-01	4.252E+00	7.154E+00	0.000E+00	NOT IDENT.
BI-211	6.781E-01	6.575E-01	1.012E+00	0.000E+00	NOT IDENT.
PA-233	-1.977E-02	3.348E-02	5.671E-02	0.000E+00	NOT IDENT.
NP-236	3.594E-02	2.784E-02	4.618E-02	0.000E+00	NOT IDENT.
NP-239	1.317E-01	1.181E-01	2.015E-01	0.000E+00	NOT IDENT.
AM-241	3.528E-02	2.903E-02	4.704E-02	0.000E+00	NOT IDENT.
AM-246	5.475E-02	7.836E-02	1.279E-01	0.000E+00	NOT IDENT.
CF-249	2.213E-02	2.320E-02	4.054E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:57:10.03

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683006.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 16:36:26
Sample ID        : G198683006           Sample quantity  : 1.20830E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:06.04  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	1227	10.66*	9.764E-01	8.786E+00	8.786E+00	10.40
CS-137	661.66	511	85.10*	1.887E+00	2.373E-01	2.381E-01	18.77
EU-155	105.31	208	21.20*	6.885E+00	1.062E-01	1.086E-01	56.01
TL-208	277.36	192	6.31	3.988E+00	5.674E-01	5.674E-01	59.92
	510.77	420	22.60	2.366E+00	5.859E-01	5.859E-01	34.42
	583.19	1114	84.50*	2.108E+00	4.664E-01	4.664E-01	12.30
	763.13	------	1.81	1.670E+00	------	Line Not Found	------
	860.56	198	12.42	1.507E+00	7.874E-01	7.874E-01	41.69
BI-212	727.33	252	11.80*	1.739E+00	9.172E-01	9.172E-01	33.23
	785.37	200	1.10	1.628E+00	8.314E+00	8.314E+00	41.13
	1620.50	------	1.49	8.967E-01	------	Line Not Found	------
PB-212	74.81	1867	10.40	7.332E+00	1.825E+00	1.825E+00	12.41
	77.11	2987	17.50	7.311E+00	1.740E+00	1.740E+00	10.28
	87.30	994	7.81	7.189E+00	1.320E+00	1.320E+00	16.28
	238.63	3854	43.30*	4.465E+00	1.486E+00	1.486E+00	9.33
	300.09	243	3.28	3.738E+00	1.478E+00	1.478E+00	36.54
BI-214	609.31	1427	46.10*	2.027E+00	1.138E+00	1.138E+00	11.09
	768.36	156	4.94	1.659E+00	1.422E+00	1.422E+00	37.09
	806.17	------	1.22	1.594E+00	------	Line Not Found	------
	934.06	53	3.03	1.407E+00	9.252E-01	9.252E-01	122.86
	1120.29	331	15.10	1.212E+00	1.349E+00	1.349E+00	23.80
	1155.19	------	1.63	1.183E+00	------	Line Not Found	------
	1238.11	84	5.79	1.116E+00	9.740E-01	9.740E-01	68.76
	1280.96	------	1.43	1.087E+00	------	Line Not Found	------
	1377.67	72	4.00	1.024E+00	1.302E+00	1.302E+00	53.54
	1401.50	------	1.27	1.011E+00	------	Line Not Found	------
	1407.98	33	2.15	1.006E+00	1.131E+00	1.131E+00	96.13
	1509.23	40	2.11	9.505E-01	1.489E+00	1.490E+00	97.75
	1729.60	53	2.92	8.483E-01	1.588E+00	1.588E+00	59.69
	1764.49	246	15.40	8.342E-01	1.426E+00	1.426E+00	17.67
PB-214	74.81	1867	6.44	7.332E+00	2.948E+00	2.948E+00	12.41
	77.11	2987	10.80	7.311E+00	2.820E+00	2.820E+00	10.28

Sample ID : G198683006 Acquisition date : 14-DEC-2007 16:36:26

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	994	4.84	7.189E+00	2.130E+00	2.130E+00	16.28
	242.00	994	7.43	4.423E+00	2.255E+00	2.255E+00	16.67
	295.22	1258	19.30	3.786E+00	1.284E+00	1.284E+00	11.01
	351.93	1871	37.60*	3.273E+00	1.133E+00	1.134E+00	9.11
RA-223	269.46	408	13.70*	4.065E+00	5.459E-01	5.459E-01	30.01
AC-228	129.07	218	2.42	6.413E+00	1.046E+00	1.046E+00	65.96
	209.25	423	3.89	4.903E+00	1.652E+00	1.652E+00	28.46
	270.25	408	3.46	4.065E+00	2.162E+00	2.162E+00	30.01
	338.32	716	11.27	3.385E+00	1.400E+00	1.400E+00	16.82
	409.46	126	1.92	2.874E+00	1.703E+00	1.703E+00	45.82
	463.00	191	4.40	2.580E+00	1.252E+00	1.252E+00	42.77
	794.95	38	4.25	1.612E+00	4.108E-01	4.108E-01	118.47
	911.20	640	25.80*	1.437E+00	1.286E+00	1.286E+00	16.41
	964.77	204	4.99	1.370E+00	2.221E+00	2.221E+00	26.79
	968.97	430	15.80	1.366E+00	1.485E+00	1.485E+00	15.93
	1588.20	55	3.22	9.116E-01	1.405E+00	1.405E+00	78.32
PA-234M	1001.03	19	0.84*	1.330E+00	1.250E+00	1.250E+00	226.47
TH-234	63.29	455	4.80	7.386E+00	9.570E-01	9.570E-01	38.61
	92.58	1035	5.41*	7.106E+00	2.008E+00	2.008E+00	17.70
U-235	143.76	50	10.96*	6.111E+00	5.622E-02	5.622E-02	242.89
NP-237	86.48	994	12.40*	7.189E+00	8.313E-01	8.313E-01	16.28
AM-243	74.66	1867	68.20*	7.332E+00	2.784E-01	2.784E-01	12.41
CM-243	103.76	208	23.00*	6.885E+00	9.790E-02	9.828E-02	56.01

Flag: "*" = Keyline

Sample ID : G198683006 Acquisition date : 14-DEC-2007 16:36:26

Total number of lines in spectrum 66
Number of unidentified lines 24
Number of lines tentatively identified by NID 42 63.64%

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	8.786E+00	8.786E+00	0.914E+00	10.40	
CS-137	9.47E+08S	1.00	2.373E-01	2.381E-01	0.447E-01	18.77	
EU-155	1.57E+08S	1.02	1.062E-01	1.086E-01	0.608E-01	56.01	
TL-208	4.43E+17S	1.00	4.664E-01	4.664E-01	0.574E-01	12.30	
BI-212	4.43E+17S	1.00	9.172E-01	9.172E-01	3.048E-01	33.23	
PB-212	4.43E+17S	1.00	1.486E+00	1.486E+00	0.139E+00	9.33	
BI-214	5.05E+10S	1.00	1.138E+00	1.138E+00	0.126E+00	11.09	
PB-214	5.05E+10S	1.00	1.133E+00	1.134E+00	0.103E+00	9.11	
RA-223	1.04E+12S	1.00	5.459E-01	5.459E-01	1.639E-01	30.01	
AC-228	4.43E+17S	1.00	1.286E+00	1.286E+00	0.211E+00	16.41	
PA-234M	1.41E+17S	1.00	1.250E+00	1.250E+00	2.832E+00	226.47	
TH-234	1.41E+17S	1.00	2.008E+00	2.008E+00	0.355E+00	17.70	
U-235	2.22E+16S	1.00	5.622E-02	5.622E-02	13.65E-02	242.89	
NP-237	6.75E+13S	1.00	8.313E-01	8.313E-01	1.354E-01	16.28	
AM-243	2.33E+11S	1.00	2.784E-01	2.784E-01	0.345E-01	12.41	
CM-243	8.99E+08S	1.00	9.790E-02	9.828E-02	5.505E-02	56.01	
			---	---			
		Total Activity :	2.063E+01	2.063E+01			

Grand Total Activity : 2.063E+01 2.063E+01

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

Sample ID : G198683006 Acquisition date : 14-DEC-2007 16:36:26

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.30	270	1249	1.04	93.38	89	10	9.01E-03	61.8	7.29E+00	
0	52.88	120	1045	1.17	106.54	103	8	4.00E-03	94.8	7.35E+00	
2	84.10	366	1267	1.17	168.95	162	30	1.22E-02	36.3	7.23E+00	
2	89.75	617	1095	1.18	180.24	162	30	2.06E-02	19.9	7.15E+00	
0	154.37	121	933	1.97	309.39	306	8	4.03E-03	89.7	5.89E+00	
0	170.29	92	740	1.39	341.20	338	7	3.07E-03	****	5.58E+00	
0	186.10	655	1067	1.49	372.81	368	10	2.18E-02	23.3	5.29E+00	
0	327.83	151	736	1.44	656.05	651	13	5.04E-03	75.6	3.48E+00	
0	378.16	44	398	2.22	756.63	752	9	1.47E-03	****	3.08E+00	
0	754.90	83	173	1.76	1509.37	1504	12	2.78E-03	67.0	1.69E+00	
0	759.83	38	103	0.63	1519.21	1516	8	1.25E-03	99.3	1.68E+00	
5	772.86	54	161	2.04	1545.24	1532	18	1.80E-03	97.3	1.65E+00	
3	836.37	75	132	2.72	1672.09	1667	18	2.49E-03	62.1	1.54E+00	
3	840.31	16	114	2.13	1679.97	1667	18	5.29E-04	****	1.54E+00	
0	942.35	59	179	4.64	1883.79	1876	17	1.95E-03	****	1.40E+00	
2	973.74	47	105	2.58	1946.48	1922	30	1.55E-03	90.3	1.36E+00	
0	1070.62	58	142	6.65	2139.98	2130	17	1.95E-03	97.6	1.26E+00	
0	1098.71	152	226	11.75	2196.07	2182	32	5.06E-03	61.4	1.23E+00	
0	1390.32	62	137	3.87	2778.36	2766	30	2.07E-03	****	1.02E+00	
0	1403.50	18	67	1.76	2804.69	2798	14	5.94E-04	****	1.01E+00	
0	1496.60	24	48	2.16	2990.55	2984	12	8.07E-04	****	9.58E-01	
1	1593.25	51	58	2.63	3183.50	3164	26	1.71E-03	66.9	9.09E-01	
0	1849.40	46	49	2.67	3694.78	3687	19	1.54E-03	77.4	8.02E-01	
0	2044.65	33	11	0.71	4084.43	4076	15	1.09E-03	56.7	7.33E-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]G198683006            *
* Acquisition date : 14-DEC-2007 16:36:26 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:06.04     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683006           Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.2083E+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	8.786E+00	8.954E-01	1.298E-01	8.954E-01
CS-137	2.381E-01	4.380E-02	1.905E-02	4.380E-02
EU-155	1.086E-01	5.960E-02	4.142E-02	5.960E-02
TL-208	4.664E-01	5.624E-02	1.681E-02	5.624E-02
BI-212	9.172E-01	2.987E-01	1.238E-01	2.987E-01
PB-212	1.486E+00	1.360E-01	2.417E-02	1.360E-01
BI-214	1.138E+00	1.237E-01	3.319E-02	1.237E-01
PB-214	1.134E+00	1.012E-01	3.230E-02	1.012E-01
RA-223	5.459E-01	1.606E-01	7.926E-02	1.606E-01
AC-228	1.286E+00	2.068E-01	6.651E-02	2.068E-01
PA-234M	1.250E+00	2.775E+00	1.957E+00	2.775E+00
TH-234	2.008E+00	3.482E-01	1.647E-01	3.482E-01
U-235	5.622E-02	1.338E-01	8.613E-02	1.338E-01
NP-237	8.313E-01	1.327E-01	7.066E-02	1.327E-01
AM-243	2.784E-01	3.385E-02	1.402E-02	3.385E-02
CM-243	9.828E-02	5.395E-02	3.681E-02	5.395E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-6.891E-03	2.146E-02	1.784E-02	2.146E-02	NOT IDENT.
RH-101	2.205E-03	2.167E-02	1.544E-02	2.167E-02	NOT IDENT.
SB-125	1.038E-02	5.324E-02	4.526E-02	5.324E-02	NOT IDENT.
PO-209	7.850E-01	4.252E+00	3.579E+00	4.252E+00	NOT IDENT.
BI-211	6.781E-01	6.575E-01	5.062E-01	6.575E-01	NOT IDENT.
PA-233	-1.977E-02	3.348E-02	2.837E-02	3.348E-02	NOT IDENT.
NP-236	3.594E-02	2.784E-02	2.310E-02	2.784E-02	NOT IDENT.
NP-239	1.317E-01	1.181E-01	1.008E-01	1.181E-01	NOT IDENT.
AM-241	3.528E-02	2.903E-02	2.353E-02	2.903E-02	NOT IDENT.
AM-246	5.475E-02	7.836E-02	6.400E-02	7.836E-02	NOT IDENT.
CF-249	2.213E-02	2.320E-02	2.028E-02	2.320E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	1076.9233
63.29	1297.1761
74.66	1527.6647
74.81	1528.0930
74.81	1528.0930
77.11	1494.2505
77.11	1494.2505
86.48	1240.5840
87.30	1242.3121
87.30	1242.3121
92.58	1253.2323
98.44	1055.8173
103.76	1064.4801
105.31	1095.1953
129.07	1042.5682
143.76	1048.7170
198.00	893.7820
209.25	886.9784
228.18	711.2009
238.63	697.8373
242.00	699.8472
269.46	626.5197
270.25	626.9120
277.36	602.4373
295.22	550.7985
300.09	593.8264
312.17	541.9653
338.32	553.7401
351.93	509.6299
387.59	466.9129
409.46	462.8314
427.87	405.0187
463.00	384.2167
510.77	362.9271
583.19	292.5019
609.31	314.5967
661.66	304.3230
727.33	212.0713
763.13	208.9233
768.36	232.3887
785.37	161.4586
794.95	174.2243
806.17	188.9061
831.80	174.7035
860.56	169.7769
896.60	190.5170
911.20	200.8125
934.06	180.5838
964.77	161.6268
968.97	161.8309
1001.03	158.0029
1078.86	138.4585
1120.29	151.4581
1155.19	133.6333
1173.23	148.7524
1238.11	187.2905
1280.96	120.0547
1332.51	95.4142
1377.67	94.1248
1401.50	85.7051
1407.98	92.9805
1460.80	60.9878
1509.23	82.2464
1588.20	80.6758
1620.50	56.6267
1729.60	45.8291
1764.49	33.6360

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683006

Total Uranium Activity	2.6011E-02	ug/g
Total Uranium Counting Unc.	6.1914E-02	ug/g
Total Uranium Tpu	6.1914E-08	ug/g
Total Uranium Mda	3.9851E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:57:47.46

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473818.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:36:57
Sample ID        : G1201473818          Sample quantity  : 1.45130E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:06.63  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.44*	9	970	0.95	126.36	123	9	3.04E-04	911.5	
2	2	90.06	85	596	1.03	179.64	175	17	2.83E-03	46.2	2.32E+00
3	0	112.27*	49	904	1.47	224.11	219	11	1.63E-03	143.4	
4	0	143.76*	11	455	0.98	287.14	284	6	3.59E-04	448.7	
5	0	185.86*	22	713	1.02	371.42	367	10	7.18E-04	325.2	
6	0	198.56*	5	620	0.61	396.83	392	9	1.75E-04	*****	
7	0	205.70*	31	577	1.41	411.13	407	9	1.03E-03	167.2	
8	0	209.14	64	383	1.34	418.00	416	6	2.13E-03	50.0	
9	0	221.02	54	333	1.36	441.79	440	6	1.81E-03	54.8	
10	0	224.74	57	349	0.78	449.24	447	6	1.90E-03	53.3	
11	0	238.81*	13	594	1.23	477.39	473	9	4.33E-04	420.9	
12	0	335.73	24	358	1.05	671.38	665	8	8.14E-04	135.9	
13	1	356.06*	13	346	1.28	712.07	700	17	4.47E-04	305.6	1.70E+00
14	0	365.23	21	322	1.32	730.42	728	8	7.15E-04	146.2	
15	0	462.76*	17	253	1.24	925.63	921	10	5.65E-04	202.6	
16	0	487.09	8	385	4.72	974.32	966	13	2.71E-04	497.9	
17	0	597.95	34	196	1.76	1196.18	1193	8	1.15E-03	72.3	
18	0	731.43	42	173	3.58	1463.29	1458	11	1.41E-03	62.3	
19	0	785.51*	40	207	2.51	1571.50	1564	13	1.32E-03	85.6	
20	0	802.92*	11	186	3.79	1606.33	1600	12	3.74E-04	287.9	
21	0	880.24	19	190	0.58	1761.03	1755	12	6.39E-04	145.4	
22	0	911.38*	32	141	1.83	1823.35	1819	11	1.08E-03	99.5	
23	2	961.14	25	77	1.59	1922.90	1920	15	8.29E-04	57.7	7.47E+00
24	2	964.10	48	152	2.27	1928.82	1920	15	1.61E-03	53.2	
25	2	969.29*	25	99	2.28	1939.21	1934	41	8.36E-04	116.8	2.31E+00
26	2	977.79	58	119	2.29	1956.21	1934	41	1.92E-03	43.1	
27	2	983.79	50	105	2.29	1968.20	1934	41	1.66E-03	49.9	
28	0	1001.37*	10	95	1.41	2003.38	2000	8	3.37E-04	247.7	
29	0	1245.19	45	182	8.23	2491.15	2472	27	1.49E-03	85.6	
30	0	1357.06	57	64	4.16	2714.93	2707	15	1.91E-03	33.2	
31	0	1441.00	34	39	2.34	2882.82	2877	11	1.14E-03	40.1	
32	0	1461.03	22	59	1.52	2922.88	2917	11	7.45E-04	70.4	
33	0	1487.37	19	90	5.87	2975.56	2961	17	6.48E-04	113.6	
34	0	1562.20*	2	51	1.24	3125.23	3116	14	6.35E-05	940.8	
35	0	1670.62	6	23	0.66	3342.06	3336	8	2.15E-04	136.1	
36	0	1715.55	35	26	5.69	3431.92	3424	17	1.17E-03	37.1	
37	0	1756.62	17	63	3.41	3514.05	3496	23	5.73E-04	122.5	
38	0	1765.52	46	42	2.10	3531.83	3525	15	1.55E-03	33.6	

Sample ID : G1201473818 Acquisition date : 14-DEC-2007 16:36:57

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1797.84	7	37	5.18	3596.46	3583	15	2.43E-04	186.2	
40	0	1822.97	13	29	5.21	3646.72	3631	20	4.26E-04	108.4	
41	0	1879.73	19	33	0.82	3760.22	3749	19	6.43E-04	75.2	
42	0	1899.84	15	20	4.70	3800.43	3792	14	4.99E-04	69.6	
43	0	1920.86	34	16	3.82	3842.46	3833	21	1.13E-03	34.0	
44	0	1937.91	11	12	1.00	3876.55	3868	12	3.67E-04	69.8	

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]G1201473818      *
* Acquisition date : 14-DEC-2007 16:36:57 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:06.63     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473818          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4513E+02 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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.227E-01	1.694E-01	2.213E-01	0.000E+00
RH-101	8.243E-04	1.616E-02	1.579E-02	0.000E+00
PA-234M	5.176E-01	2.513E+00	3.056E+00	0.000E+00
U-235	9.361E-03	8.233E-02	9.261E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	5.108E-03		1.623E-02	2.791E-02	0.000E+00	NOT IDENT.
SB-125	3.864E-02		3.272E-02	5.885E-02	0.000E+00	NOT IDENT.
CS-137	1.473E-02		1.463E-02	2.634E-02	0.000E+00	NOT IDENT.
EU-155	5.394E-03		2.382E-02	4.414E-02	0.000E+00	NOT IDENT.
TL-208	-1.994E-02		1.920E-02	2.580E-02	0.000E+00	NOT IDENT.
PO-209	1.090E+00		2.937E+00	5.001E+00	0.000E+00	NOT IDENT.
BI-211	-1.642E-01		4.258E-01	7.009E-01	0.000E+00	NOT IDENT.
BI-212	-3.736E-02		1.347E-01	1.955E-01	0.000E+00	FAIL ABUN
PB-212	3.864E-03		3.188E-02	3.749E-02	0.000E+00	FAIL ABUN
BI-214	5.678E-03		3.867E-02	5.362E-02	0.000E+00	FAIL ABUN
PB-214	-5.840E-03		3.157E-02	4.626E-02	0.000E+00	NOT IDENT.
RA-223	4.979E-02		5.525E-02	1.024E-01	0.000E+00	NOT IDENT.
AC-228	4.965E-02		9.685E-02	1.123E-01	0.000E+00	FAIL ABUN
PA-233	-4.562E-03		2.107E-02	3.718E-02	0.000E+00	NOT IDENT.
TH-234	1.359E-02		2.090E-01	3.770E-01	0.000E+00	FAIL ABUN
NP-236	-7.078E-03		1.862E-02	2.477E-02	0.000E+00	NOT IDENT.
NP-237	-1.521E-01		4.912E-02	7.144E-02	0.000E+00	NOT IDENT.
NP-239	9.644E-02		7.305E-02	1.179E-01	0.000E+00	NOT IDENT.
AM-241	1.170E-03		1.592E-02	2.570E-02	0.000E+00	NOT IDENT.
AM-243	6.161E-04		8.537E-03	1.465E-02	0.000E+00	NOT IDENT.
CM-243	-8.360E-03		2.161E-02	3.938E-02	0.000E+00	NOT IDENT.
AM-246	2.409E-02		5.108E-02	8.958E-02	0.000E+00	NOT IDENT.
CF-249	3.313E-03		1.418E-02	2.486E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:57:48.35

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473818.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:36:57
Sample ID        : G1201473818          Sample quantity  : 1.45130E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:06.63  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	22	10.66*	1.060E+00	1.227E-01	1.227E-01	140.92
RH-101	198.00	5	73.00*	5.459E+00	8.197E-04	8.243E-04	2000.94
PA-234M	1001.03	10	0.84*	1.443E+00	5.176E-01	5.176E-01	495.35
U-235	143.76	11	10.96*	6.522E+00	9.361E-03	9.361E-03	897.48

Flag: "*" = Keyline

Sample ID : G1201473818 Acquisition date : 14-DEC-2007 16:36:57

Total number of lines in spectrum 44
Number of unidentified lines 31
Number of lines tentatively identified by NID 13 29.55%

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	1.227E-01	1.227E-01	1.729E-01	140.92	
RH-101	1.04E+08S	1.01	8.197E-04	8.243E-04	164.9E-04	2000.94	
PA-234M	1.41E+17S	1.00	5.176E-01	5.176E-01	25.64E-01	495.35	
U-235	2.22E+16S	1.00	9.361E-03	9.361E-03	84.01E-03	897.48	
			---	---			
	Total Activity :		6.505E-01	6.505E-01			
	Grand Total Activity :		6.505E-01	6.505E-01			

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

Sample ID : G1201473818 Acquisition date : 14-DEC-2007 16:36:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.44	9	970	0.95	126.36	123	9	3.04E-04	****	7.67E+00	T
2	90.06	85	596	1.03	179.64	175	17	2.83E-03	92.3	7.56E+00	
0	112.27	49	904	1.47	224.11	219	11	1.63E-03	****	7.18E+00	
0	185.86	22	713	1.02	371.42	367	10	7.18E-04	****	5.69E+00	
0	205.70	31	577	1.41	411.13	407	9	1.03E-03	****	5.34E+00	
0	209.14	64	383	1.34	418.00	416	6	2.13E-03	****	5.28E+00	T
0	221.02	54	333	1.36	441.79	440	6	1.81E-03	****	5.09E+00	
0	224.74	57	349	0.78	449.24	447	6	1.90E-03	****	5.03E+00	
0	238.81	13	594	1.23	477.39	473	9	4.33E-04	****	4.82E+00	T
0	335.73	24	358	1.05	671.38	665	8	8.14E-04	****	3.71E+00	
1	356.06	13	346	1.28	712.07	700	17	4.47E-04	****	3.53E+00	
0	365.23	21	322	1.32	730.42	728	8	7.15E-04	****	3.46E+00	
0	462.76	17	253	1.24	925.63	921	10	5.65E-04	****	2.82E+00	T
0	487.09	8	385	4.72	974.32	966	13	2.71E-04	****	2.70E+00	
0	597.95	34	196	1.76	1196.18	1193	8	1.15E-03	****	2.26E+00	
0	731.43	42	173	3.58	1463.29	1458	11	1.41E-03	****	1.89E+00	
0	785.51	40	207	2.51	1571.50	1564	13	1.32E-03	****	1.78E+00	T
0	802.92	11	186	3.79	1606.33	1600	12	3.74E-04	****	1.74E+00	
0	880.24	19	190	0.58	1761.03	1755	12	6.39E-04	****	1.61E+00	
0	911.38	32	141	1.83	1823.35	1819	11	1.08E-03	****	1.56E+00	T
2	961.14	25	77	1.59	1922.90	1920	15	8.29E-04	****	1.49E+00	
2	964.10	48	152	2.27	1928.82	1920	15	1.61E-03	****	1.49E+00	T
2	969.29	25	99	2.28	1939.21	1934	41	8.36E-04	****	1.48E+00	T
2	977.79	58	119	2.29	1956.21	1934	41	1.92E-03	86.2	1.47E+00	
2	983.79	50	105	2.29	1968.20	1934	41	1.66E-03	99.8	1.47E+00	
0	1245.19	45	182	8.23	2491.15	2472	27	1.49E-03	****	1.21E+00	
0	1357.06	57	64	4.16	2714.93	2707	15	1.91E-03	66.4	1.12E+00	
0	1441.00	34	39	2.34	2882.82	2877	11	1.14E-03	80.1	1.07E+00	
0	1487.37	19	90	5.87	2975.56	2961	17	6.48E-04	****	1.05E+00	
0	1562.20	2	51	1.24	3125.23	3116	14	6.35E-05	****	1.01E+00	
0	1670.62	6	23	0.66	3342.06	3336	8	2.15E-04	****	9.54E-01	
0	1715.55	35	26	5.69	3431.92	3424	17	1.17E-03	74.2	9.35E-01	
0	1756.62	17	63	3.41	3514.05	3496	23	5.73E-04	****	9.17E-01	
0	1765.52	46	42	2.10	3531.83	3525	15	1.55E-03	67.1	9.14E-01	T
0	1797.84	7	37	5.18	3596.46	3583	15	2.43E-04	****	9.01E-01	
0	1822.97	13	29	5.21	3646.72	3631	20	4.26E-04	****	8.91E-01	
0	1879.73	19	33	0.82	3760.22	3749	19	6.43E-04	****	8.70E-01	
0	1899.84	15	20	4.70	3800.43	3792	14	4.99E-04	****	8.63E-01	
0	1920.86	34	16	3.82	3842.46	3833	21	1.13E-03	68.1	8.56E-01	
0	1937.91	11	12	1.00	3876.55	3868	12	3.67E-04	****	8.50E-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]G1201473818           *
* Acquisition date : 14-DEC-2007 16:36:57 Detector SN#    :                 *
* Detector ID      : GAM13                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:06.63     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473818          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.4513E+02 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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	1.227E-01	1.694E-01	1.107E-01	1.694E-01
RH-101	8.243E-04	1.616E-02	7.900E-03	1.616E-02
PA-234M	5.176E-01	2.513E+00	1.529E+00	2.513E+00
U-235	9.361E-03	8.233E-02	4.633E-02	8.233E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	5.108E-03	1.623E-02	1.396E-02	1.623E-02	NOT IDENT.
SB-125	3.864E-02	3.272E-02	2.944E-02	3.272E-02	NOT IDENT.
CS-137	1.473E-02	1.463E-02	1.318E-02	1.463E-02	NOT IDENT.
EU-155	5.394E-03	2.382E-02	2.208E-02	2.382E-02	NOT IDENT.
TL-208	-1.994E-02	1.920E-02	1.291E-02	1.920E-02	NOT IDENT.
PO-209	1.090E+00	2.937E+00	2.502E+00	2.937E+00	NOT IDENT.
BI-211	-1.642E-01	4.258E-01	3.507E-01	4.258E-01	NOT IDENT.
BI-212	-3.736E-02	1.347E-01	9.782E-02	1.347E-01	FAIL ABUN
PB-212	3.864E-03	3.188E-02	1.875E-02	3.188E-02	FAIL ABUN
BI-214	5.678E-03	3.867E-02	2.683E-02	3.867E-02	FAIL ABUN
PB-214	-5.840E-03	3.157E-02	2.314E-02	3.157E-02	NOT IDENT.
RA-223	4.979E-02	5.525E-02	5.124E-02	5.525E-02	NOT IDENT.
AC-228	4.965E-02	9.685E-02	5.620E-02	9.685E-02	FAIL ABUN
PA-233	-4.562E-03	2.107E-02	1.860E-02	2.107E-02	NOT IDENT.
TH-234	1.359E-02	2.090E-01	1.886E-01	2.090E-01	FAIL ABUN
NP-236	-7.078E-03	1.862E-02	1.239E-02	1.862E-02	NOT IDENT.
NP-237	-1.521E-01	4.912E-02	3.574E-02	4.912E-02	NOT IDENT.
NP-239	9.644E-02	7.305E-02	5.899E-02	7.305E-02	NOT IDENT.
AM-241	1.170E-03	1.592E-02	1.286E-02	1.592E-02	NOT IDENT.
AM-243	6.161E-04	8.537E-03	7.330E-03	8.537E-03	NOT IDENT.
CM-243	-8.360E-03	2.161E-02	1.970E-02	2.161E-02	NOT IDENT.
AM-246	2.409E-02	5.108E-02	4.482E-02	5.108E-02	NOT IDENT.
CF-249	3.313E-03	1.418E-02	1.244E-02	1.418E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	504.6461
63.29	549.4438
74.66	610.2375
74.81	619.0450
74.81	619.0450
77.11	615.3069
77.11	615.3069
86.48	705.8405
87.30	538.2852
87.30	538.2852
92.58	468.9195
98.44	455.1974
103.76	488.1165
105.31	476.8248
129.07	485.3659
143.76	468.9390
198.00	426.2713
209.25	471.3007
228.18	352.1031
238.63	443.4467
242.00	387.9429
269.46	372.7047
270.25	367.7540
277.36	353.0686
295.22	354.1530
300.09	399.2567
312.17	363.7107
338.32	315.1659
351.93	322.7868
387.59	313.8072
409.46	286.2207
427.87	255.4330
463.00	254.2260
510.77	271.2137
583.19	252.9680
609.31	252.4115
661.66	202.8305
727.33	234.1892
763.13	203.8781
768.36	199.2527
785.37	182.1991
794.95	183.0579
806.17	177.0377
831.80	191.6213
860.56	179.0701
896.60	147.9825
911.20	190.6873
934.06	142.9557
964.77	33.8467
968.97	33.9045
1001.03	160.2720
1078.86	118.9223
1120.29	124.7203
1155.19	128.2867
1173.23	135.1864
1238.11	117.5303
1280.96	92.6836
1332.51	115.5894
1377.67	95.7830
1401.50	96.4583
1407.98	75.9968
1460.80	74.2975
1509.23	80.1283
1588.20	67.0442
1620.50	64.6237
1729.60	50.0544
1764.49	54.7994

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473818

Total Uranium Activity	4.3314E-03	ug/g
Total Uranium Counting Unc.	3.8096E-02	ug/g
Total Uranium Tpu	3.8096E-08	ug/g
Total Uranium Mda	2.1437E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:58:24.26

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473819.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 16:37:24
Sample ID        : G1201473819          Sample quantity  : 1.35530E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:11.78  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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*	106	763	0.83	93.73	90	7	3.52E-03	55.9	
2	0	53.66*	85	762	1.03	107.79	105	7	2.83E-03	63.2	
3	0	63.32*	197	1138	0.85	127.10	123	8	6.58E-03	37.4	
4	3	74.92*	1119	989	0.82	150.29	146	16	3.73E-02	5.5	3.32E+00
5	3	77.20*	1701	899	0.83	154.84	146	16	5.67E-02	3.9	
6	4	84.16*	304	1155	1.33	168.75	165	30	1.01E-02	21.4	5.87E+00
7	4	87.33*	672	937	1.11	175.08	165	30	2.24E-02	9.0	
8	4	90.05	468	750	0.95	180.51	165	30	1.56E-02	10.3	
9	4	92.79*	815	787	1.14	185.99	165	30	2.72E-02	9.1	
10	0	99.13*	168	864	1.82	198.67	195	8	5.61E-03	34.0	
11	0	105.29*	69	674	0.93	210.96	209	6	2.31E-03	68.6	
12	0	108.60	138	784	1.31	217.58	215	7	4.61E-03	34.6	
13	0	128.81	124	886	0.93	257.97	255	8	4.15E-03	42.3	
14	0	143.69*	13	736	1.03	287.70	284	7	4.25E-04	421.9	
15	0	154.23	97	856	1.01	308.75	304	9	3.23E-03	55.5	
16	0	186.04*	386	928	1.03	372.32	368	10	1.29E-02	17.4	
17	0	198.19*	12	592	1.32	396.61	395	7	4.00E-04	386.9	
18	0	209.53	338	734	1.10	419.25	415	10	1.13E-02	16.0	
19	0	216.64	26	451	1.22	433.46	431	6	8.76E-04	129.3	
20	6	238.76*	2757	441	0.98	477.66	471	17	9.19E-02	2.5	5.44E+00
21	6	241.77	607	526	1.63	483.69	471	17	2.02E-02	7.8	
22	0	270.38	284	451	1.49	540.87	537	9	9.46E-03	14.7	
23	0	278.18	186	451	0.90	556.45	552	9	6.21E-03	21.9	
24	0	287.78*	34	278	0.69	575.63	573	6	1.13E-03	90.3	
25	0	295.33*	618	450	1.17	590.72	586	9	2.06E-02	8.1	
26	0	300.29	163	449	1.04	600.63	596	9	5.42E-03	24.9	
27	0	327.85	108	380	0.77	655.71	652	8	3.59E-03	32.8	
28	2	336.08	47	70	1.40	672.15	671	17	1.58E-03	24.0	2.49E+00
29	2	338.47*	554	218	1.05	676.94	671	17	1.85E-02	7.2	
30	2	341.05*	14	338	1.48	682.08	671	17	4.54E-04	290.5	
31	0	352.07*	1064	612	1.18	704.11	698	13	3.55E-02	6.1	
32	0	408.93	12	292	0.86	817.73	816	7	3.93E-04	242.9	
33	0	463.06	177	350	1.44	925.91	921	12	5.90E-03	22.4	
34	0	511.01*	221	340	2.18	1021.76	1016	14	7.37E-03	26.1	
35	0	583.28*	797	222	1.33	1166.18	1161	11	2.66E-02	5.4	
36	0	598.81*	65	352	4.83	1197.22	1188	17	2.18E-03	70.5	
37	0	609.38*	810	272	1.31	1218.36	1212	13	2.70E-02	6.1	
38	0	661.76*	192	195	1.40	1323.04	1317	12	6.39E-03	17.8	

Sample ID : G1201473819 Acquisition date : 14-DEC-2007 16:37:24

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	665.30	18	220	3.71	1330.12	1329	11	5.90E-04	163.3	
40	0	727.24	248	188	1.11	1453.93	1448	12	8.28E-03	12.8	
41	0	768.04	123	170	2.25	1535.47	1530	11	4.09E-03	22.5	
42	0	772.05	45	134	2.04	1543.49	1541	8	1.50E-03	46.7	
43	0	787.52	22	224	3.82	1574.40	1566	13	7.44E-04	140.6	
44	0	794.94	94	161	1.16	1589.24	1586	11	3.15E-03	27.9	
45	0	860.51	128	161	2.10	1720.30	1714	14	4.27E-03	22.8	
46	0	911.31*	546	133	1.44	1821.85	1815	13	1.82E-02	6.6	
47	0	936.42	39	231	1.92	1872.04	1861	18	1.31E-03	92.5	
48	1	964.80	112	97	1.76	1928.78	1924	20	3.75E-03	18.9	1.26E+00
49	1	969.08*	327	73	1.74	1937.33	1924	20	1.09E-02	8.2	
50	0	1001.39*	15	88	0.76	2001.91	1998	8	4.94E-04	151.4	
51	0	1120.05*	139	143	1.40	2239.12	2232	15	4.62E-03	23.3	
52	0	1238.03	61	139	1.77	2474.99	2471	12	2.04E-03	40.6	
53	0	1281.07*	19	59	3.26	2561.03	2554	12	6.30E-04	116.7	
54	0	1314.16	52	307	20.73	2627.20	2584	46	1.73E-03	121.0	
55	0	1378.41	84	67	1.42	2755.65	2748	16	2.80E-03	24.5	
56	0	1415.68	6	41	1.33	2830.17	2824	8	1.84E-04	204.5	
57	0	1424.86	36	28	4.20	2848.53	2843	11	1.20E-03	33.7	
58	0	1460.81*	980	49	1.95	2920.42	2911	17	3.27E-02	3.8	
59	0	1532.27	32	29	5.61	3063.28	3057	14	1.08E-03	39.0	
60	0	1590.37	70	77	5.09	3179.46	3171	19	2.33E-03	32.2	
61	0	1661.86	18	24	4.06	3322.41	3315	12	6.13E-04	58.0	
62	0	1683.79	17	10	0.90	3366.26	3362	8	5.70E-04	41.7	
63	0	1764.65*	132	31	2.04	3527.97	3519	15	4.39E-03	14.6	
64	0	1813.55	13	29	5.65	3625.74	3612	17	4.37E-04	99.0	
65	0	1847.40*	31	27	0.78	3693.44	3682	18	1.03E-03	50.9	
66	0	1881.28	13	25	2.21	3761.19	3754	11	4.49E-04	76.5	
67	0	1955.21	9	17	1.34	3909.04	3903	10	3.01E-04	92.4	

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]G1201473819      *
* Acquisition date : 14-DEC-2007 16:37:24 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:11.78     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473819          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3553E+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	6.847E+00	6.227E-01	2.305E-01	0.000E+00
RH-101	2.237E-03	1.696E-02	2.100E-02	0.000E+00
CS-137	8.397E-02	2.995E-02	2.609E-02	0.000E+00
EU-155	3.272E-02	4.406E-02	6.040E-02	0.000E+00
TL-208	3.114E-01	3.931E-02	2.649E-02	0.000E+00
BI-212	8.535E-01	2.220E-01	2.062E-01	0.000E+00
PB-212	9.571E-01	8.789E-02	3.746E-02	0.000E+00
BI-214	6.044E-01	8.376E-02	4.859E-02	0.000E+00
PB-214	5.862E-01	7.951E-02	4.665E-02	0.000E+00
RA-223	3.432E-01	1.024E-01	1.164E-01	0.000E+00
AC-228	1.055E+00	1.538E-01	1.048E-01	0.000E+00
PA-234M	9.556E-01	2.837E+00	3.441E+00	0.000E+00
TH-234	1.436E+00	2.754E-01	2.579E-01	0.000E+00
U-235	1.276E-02	1.055E-01	1.257E-01	0.000E+00
NP-236	4.274E-02	2.869E-02	2.936E-02	0.000E+00
NP-237	5.125E-01	9.663E-02	1.110E-01	0.000E+00
AM-243	1.539E-01	1.919E-02	2.130E-02	0.000E+00
CM-243	2.962E-02	3.988E-02	5.187E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-1.854E-03	1.943E-02	3.217E-02	0.000E+00	NOT IDENT.
SB-125	-7.250E-03	3.939E-02	6.773E-02	0.000E+00	NOT IDENT.
PO-209	-1.433E+00	3.449E+00	5.762E+00	0.000E+00	NOT IDENT.
BI-211	-1.308E-01	4.669E-01	7.926E-01	0.000E+00	NOT IDENT.
PA-233	1.644E-03	2.426E-02	4.322E-02	0.000E+00	NOT IDENT.
NP-239	1.523E-02	8.339E-02	1.423E-01	0.000E+00	NOT IDENT.
AM-241	1.926E-02	2.116E-02	3.621E-02	0.000E+00	NOT IDENT.
AM-246	6.312E-03	5.978E-02	1.012E-01	0.000E+00	NOT IDENT.
CF-249	3.801E-03	1.629E-02	2.872E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 00:58:25.20

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473819.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 14-DEC-2007 16:37:24
Sample ID        : G1201473819          Sample quantity  : 1.35530E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 08:20:00.00        Elapsed real time: 0 08:20:11.78  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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	980	10.66*	8.924E-01	6.847E+00	6.847E+00	9.28
RH-101	198.00	12	73.00*	5.047E+00	2.164E-03	2.237E-03	773.81
CS-137	661.66	192	85.10*	1.790E+00	8.366E-02	8.397E-02	36.40
EU-155	105.31	69	21.20*	6.796E+00	3.201E-02	3.272E-02	137.40
TL-208	277.36	186	6.31	3.923E+00	4.999E-01	4.999E-01	44.44
	510.77	221	22.60	2.281E+00	2.850E-01	2.850E-01	52.60
	583.19	797	84.50*	2.015E+00	3.114E-01	3.114E-01	12.88
	763.13	------	1.81	1.568E+00	------	Line Not Found	------
	860.56	128	12.42	1.404E+00	4.878E-01	4.878E-01	46.14
BI-212	727.33	248	11.80*	1.639E+00	8.535E-01	8.535E-01	26.55
	785.37	------	1.10	1.527E+00	------	Line Not Found	------
	1620.50	------	1.49	8.223E-01	------	Line Not Found	------
PB-212	74.81	1119	10.40	7.088E+00	1.009E+00	1.009E+00	12.72
	77.11	1701	17.50	7.087E+00	9.117E-01	9.117E-01	10.22
	87.30	672	7.81	7.032E+00	8.137E-01	8.137E-01	19.24
	238.63	2757	43.30*	4.422E+00	9.571E-01	9.571E-01	9.37
	300.09	163	3.28	3.682E+00	8.952E-01	8.952E-01	50.27
BI-214	609.31	810	46.10*	1.933E+00	6.043E-01	6.044E-01	14.14
	768.36	123	4.94	1.558E+00	1.061E+00	1.061E+00	45.52
	806.17	------	1.22	1.490E+00	------	Line Not Found	------
	934.06	------	3.03	1.304E+00	------	Line Not Found	------
	1120.29	139	15.10	1.113E+00	5.482E-01	5.483E-01	47.03
	1155.19	------	1.63	1.083E+00	------	Line Not Found	------
	1238.11	61	5.79	1.022E+00	6.865E-01	6.865E-01	81.30
	1280.96	19	1.43	9.932E-01	8.838E-01	8.839E-01	233.55
	1377.67	84	4.00	9.352E-01	1.494E+00	1.494E+00	49.21
	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	132	15.40	7.701E-01	7.388E-01	7.389E-01	29.79
PB-214	74.81	1119	6.44	7.088E+00	1.629E+00	1.630E+00	12.72

Sample ID : G1201473819 Acquisition date : 14-DEC-2007 16:37:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	1701	10.80	7.087E+00	1.477E+00	1.477E+00	10.22
	87.30	672	4.84	7.032E+00	1.313E+00	1.313E+00	19.24
	242.00	607	7.43	4.381E+00	1.241E+00	1.241E+00	17.53
	295.22	618	19.30	3.734E+00	5.698E-01	5.698E-01	17.82
	351.93	1064	37.60*	3.210E+00	5.861E-01	5.862E-01	13.84
RA-223	269.46	284	13.70*	4.014E+00	3.432E-01	3.432E-01	30.46
AC-228	129.07	124	2.42	6.362E+00	5.374E-01	5.374E-01	85.14
	209.25	338	3.89	4.861E+00	1.189E+00	1.189E+00	33.00
	270.25	284	3.46	4.014E+00	1.359E+00	1.359E+00	30.46
	338.32	554	11.27	3.323E+00	9.836E-01	9.836E-01	15.97
	409.46	12	1.92	2.805E+00	1.453E-01	1.453E-01	485.91
	463.00	177	4.40	2.501E+00	1.070E+00	1.070E+00	45.17
	794.95	94	4.25	1.510E+00	9.779E-01	9.779E-01	56.26
	911.20	546	25.80*	1.334E+00	1.055E+00	1.055E+00	14.87
	964.77	112	4.99	1.267E+00	1.182E+00	1.182E+00	38.44
	968.97	327	15.80	1.262E+00	1.091E+00	1.091E+00	17.67
	1588.20	------	3.22	8.353E-01	------	Line Not Found	------
PA-234M	1001.03	15	0.84*	1.226E+00	9.556E-01	9.556E-01	302.96
TH-234	63.29	197	4.80	7.001E+00	3.902E-01	3.902E-01	75.02
	92.58	815	5.41*	6.975E+00	1.436E+00	1.436E+00	19.57
U-235	143.76	13	10.96*	6.066E+00	1.276E-02	1.276E-02	843.88
NP-236	98.44	168	38.00*	6.891E+00	4.274E-02	4.274E-02	68.50
NP-237	86.48	672	12.40*	7.032E+00	5.125E-01	5.125E-01	19.24
AM-243	74.66	1119	68.20*	7.088E+00	1.539E-01	1.539E-01	12.72
CM-243	103.76	69	23.00*	6.796E+00	2.950E-02	2.962E-02	137.40

Flag: "*" = Keyline

Sample ID : G1201473819 Acquisition date : 14-DEC-2007 16:37:24

Total number of lines in spectrum 67
Number of unidentified lines 28
Number of lines tentatively identified by NID 39 58.21%

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	6.847E+00	6.847E+00	0.635E+00	9.28	
RH-101	1.04E+08S	1.03	2.164E-03	2.237E-03	17.31E-03	773.81	
CS-137	9.47E+08S	1.00	8.366E-02	8.397E-02	3.056E-02	36.40	
EU-155	1.57E+08S	1.02	3.201E-02	3.272E-02	4.496E-02	137.40	
TL-208	4.43E+17S	1.00	3.114E-01	3.114E-01	0.401E-01	12.88	
BI-212	4.43E+17S	1.00	8.535E-01	8.535E-01	2.266E-01	26.55	
PB-212	4.43E+17S	1.00	9.571E-01	9.571E-01	0.897E-01	9.37	
BI-214	5.05E+10S	1.00	6.043E-01	6.044E-01	0.855E-01	14.14	
PB-214	5.05E+10S	1.00	5.861E-01	5.862E-01	0.811E-01	13.84	
RA-223	1.04E+12S	1.00	3.432E-01	3.432E-01	1.045E-01	30.46	
AC-228	4.43E+17S	1.00	1.055E+00	1.055E+00	0.157E+00	14.87	
PA-234M	1.41E+17S	1.00	9.556E-01	9.556E-01	28.95E-01	302.96	
TH-234	1.41E+17S	1.00	1.436E+00	1.436E+00	0.281E+00	19.57	
U-235	2.22E+16S	1.00	1.276E-02	1.276E-02	10.77E-02	843.88	
NP-236	4.89E+12S	1.00	4.274E-02	4.274E-02	2.928E-02	68.50	
NP-237	6.75E+13S	1.00	5.125E-01	5.125E-01	0.986E-01	19.24	
AM-243	2.33E+11S	1.00	1.539E-01	1.539E-01	0.196E-01	12.72	
CM-243	8.99E+08S	1.00	2.950E-02	2.962E-02	4.070E-02	137.40	
		Total Activity :	1.482E+01	1.482E+01			
		Grand Total Activity :	1.482E+01	1.482E+01			

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

Sample ID : G1201473819 Acquisition date : 14-DEC-2007 16:37:24

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.62	106	763	0.83	93.73	90	7	3.52E-03	****	6.48E+00	
0	53.66	85	762	1.03	107.79	105	7	2.83E-03	****	6.77E+00	
4	84.16	304	1155	1.33	168.75	165	30	1.01E-02	42.8	7.06E+00	
4	90.05	468	750	0.95	180.51	165	30	1.56E-02	20.6	7.01E+00	
0	108.60	138	784	1.31	217.58	215	7	4.61E-03	69.2	6.74E+00	
0	154.23	97	856	1.01	308.75	304	9	3.23E-03	****	5.86E+00	
0	186.04	386	928	1.03	372.32	368	10	1.29E-02	34.9	5.26E+00	
0	216.64	26	451	1.22	433.46	431	6	8.76E-04	****	4.75E+00	
0	287.78	34	278	0.69	575.63	573	6	1.13E-03	****	3.82E+00	
0	327.85	108	380	0.77	655.71	652	8	3.59E-03	65.7	3.42E+00	
2	336.08	47	70	1.40	672.15	671	17	1.58E-03	48.0	3.34E+00	
2	341.05	14	338	1.48	682.08	671	17	4.54E-04	****	3.30E+00	
0	598.81	65	352	4.83	1197.22	1188	17	2.18E-03	****	1.97E+00	
0	665.30	18	220	3.71	1330.12	1329	11	5.90E-04	****	1.78E+00	
0	772.05	45	134	2.04	1543.49	1541	8	1.50E-03	93.5	1.55E+00	
0	787.52	22	224	3.82	1574.40	1566	13	7.44E-04	****	1.52E+00	
0	936.42	39	231	1.92	1872.04	1861	18	1.31E-03	****	1.30E+00	
0	1314.16	52	307	20.73	2627.20	2584	46	1.73E-03	****	9.73E-01	
0	1415.68	6	41	1.33	2830.17	2824	8	1.84E-04	****	9.15E-01	
0	1424.86	36	28	4.20	2848.53	2843	11	1.20E-03	67.4	9.10E-01	
0	1532.27	32	29	5.61	3063.28	3057	14	1.08E-03	78.0	8.59E-01	
0	1590.37	70	77	5.09	3179.46	3171	19	2.33E-03	64.5	8.34E-01	
0	1661.86	18	24	4.06	3322.41	3315	12	6.13E-04	****	8.06E-01	
0	1683.79	17	10	0.90	3366.26	3362	8	5.70E-04	83.5	7.98E-01	
0	1813.55	13	29	5.65	3625.74	3612	17	4.37E-04	****	7.54E-01	
0	1847.40	31	27	0.78	3693.44	3682	18	1.03E-03	****	7.44E-01	
0	1881.28	13	25	2.21	3761.19	3754	11	4.49E-04	****	7.34E-01	
0	1955.21	9	17	1.34	3909.04	3903	10	3.01E-04	****	7.13E-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]G1201473819           *
* Acquisition date : 14-DEC-2007 16:37:24 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 08:20:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 08:20:11.78     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473819          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.3553E+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	6.847E+00	6.227E-01	1.153E-01	6.227E-01
RH-101	2.237E-03	1.696E-02	1.050E-02	1.696E-02
CS-137	8.397E-02	2.995E-02	1.305E-02	2.995E-02
EU-155	3.272E-02	4.406E-02	3.022E-02	4.406E-02
TL-208	3.114E-01	3.931E-02	1.325E-02	3.931E-02
BI-212	8.535E-01	2.220E-01	1.031E-01	2.220E-01
PB-212	9.571E-01	8.789E-02	1.874E-02	8.789E-02
BI-214	6.044E-01	8.376E-02	2.431E-02	8.376E-02
PB-214	5.862E-01	7.951E-02	2.334E-02	7.951E-02
RA-223	3.432E-01	1.024E-01	5.822E-02	1.024E-01
AC-228	1.055E+00	1.538E-01	5.243E-02	1.538E-01
PA-234M	9.556E-01	2.837E+00	1.722E+00	2.837E+00
TH-234	1.436E+00	2.754E-01	1.290E-01	2.754E-01
U-235	1.276E-02	1.055E-01	6.289E-02	1.055E-01
NP-236	4.274E-02	2.869E-02	1.469E-02	2.869E-02
NP-237	5.125E-01	9.663E-02	5.553E-02	9.663E-02
AM-243	1.539E-01	1.919E-02	1.065E-02	1.919E-02
CM-243	2.962E-02	3.988E-02	2.595E-02	3.988E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.854E-03	1.943E-02	1.609E-02	1.943E-02	NOT IDENT.
SB-125	-7.250E-03	3.939E-02	3.389E-02	3.939E-02	NOT IDENT.
PO-209	-1.433E+00	3.449E+00	2.883E+00	3.449E+00	NOT IDENT.
BI-211	-1.308E-01	4.669E-01	3.965E-01	4.669E-01	NOT IDENT.
PA-233	1.644E-03	2.426E-02	2.162E-02	2.426E-02	NOT IDENT.
NP-239	1.523E-02	8.339E-02	7.117E-02	8.339E-02	NOT IDENT.
AM-241	1.926E-02	2.116E-02	1.812E-02	2.116E-02	NOT IDENT.
AM-246	6.312E-03	5.978E-02	5.063E-02	5.978E-02	NOT IDENT.
CF-249	3.801E-03	1.629E-02	1.437E-02	1.629E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	680.4793
63.29	785.1632
74.66	990.2043
74.81	990.5301
74.81	990.5301
77.11	995.5106
77.11	995.5106
86.48	881.5751
87.30	883.0170
87.30	883.0170
92.58	892.1355
98.44	559.3567
103.76	621.2073
105.31	685.1891
129.07	682.7797
143.76	667.5379
198.00	542.2977
209.25	501.8018
228.18	465.2881
238.63	501.4980
242.00	417.7924
269.46	402.6873
270.25	378.1823
277.36	412.4789
295.22	384.5453
300.09	377.5888
312.17	344.0508
338.32	318.2053
351.93	313.1312
387.59	297.4366
409.46	243.1751
427.87	279.1348
463.00	248.4360
510.77	219.5650
583.19	204.6914
609.31	189.0571
661.66	158.4800
727.33	161.2256
763.13	143.9911
768.36	138.1531
785.37	142.1740
794.95	142.7056
806.17	143.9464
831.80	155.7268
860.56	129.7246
896.60	150.7289
911.20	133.0465
934.06	105.7087
964.77	103.8362
968.97	103.9797
1001.03	129.0850
1078.86	104.5699
1120.29	107.9406
1155.19	109.0324
1173.23	120.1286
1238.11	116.2150
1280.96	84.9924
1332.51	78.0653
1377.67	65.7911
1401.50	67.1074
1407.98	57.2554
1460.80	50.1037
1509.23	53.5345
1588.20	55.0430
1620.50	33.3138
1729.60	44.1038
1764.49	32.8789

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473819

Total Uranium Activity	5.9041E-03	ug/g
Total Uranium Counting Unc.	4.8827E-02	ug/g
Total Uranium Tpu	4.8827E-08	ug/g
Total Uranium Mda	2.9097E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:01:19.27

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473820.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:00:46
Sample ID        : G1201473820          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:04.32  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.56	2235	763	0.81	119.08	114	10	6.21E-01	3.1	
2	2	74.86	100	555	0.98	149.67	145	14	2.77E-02	38.7	1.55E+00
3	2	77.14*	186	478	0.80	154.23	145	14	5.17E-02	18.9	
4	3	88.10	4276	398	0.85	176.16	170	13	1.19E+00	1.7	4.34E+00
5	3	89.99	53	286	0.85	179.95	170	13	1.47E-02	87.6	
6	0	92.78*	96	353	1.19	185.51	182	7	2.68E-02	34.8	
7	0	116.26	43	352	0.92	232.49	229	7	1.21E-02	73.1	
8	0	122.10	1635	453	0.91	244.17	240	9	4.54E-01	3.4	
9	0	136.28	243	316	0.98	272.53	269	9	6.74E-02	14.7	
10	2	163.72	33	199	1.20	327.42	325	11	9.26E-03	64.6	1.62E+00
11	2	165.90	779	235	0.96	331.77	325	11	2.16E-01	4.7	
12	0	185.94*	91	419	1.08	371.86	367	11	2.54E-02	45.1	
13	2	237.09*	18	31	0.91	474.17	473	8	4.98E-03	39.7	5.62E-01
14	2	238.63*	425	209	0.93	477.27	473	8	1.18E-01	7.4	
15	5	241.31	58	139	0.96	482.62	481	7	1.62E-02	31.6	3.57E+00
16	5	242.57	50	160	0.88	485.14	481	7	1.40E-02	43.2	
17	0	251.02	13	295	0.67	502.05	497	9	3.49E-03	248.6	
18	0	279.35	36	187	0.88	558.71	556	7	9.90E-03	65.7	
19	0	295.18*	82	187	1.05	590.38	587	7	2.29E-02	30.2	
20	0	337.94	78	236	1.33	675.92	672	9	2.17E-02	37.3	
21	0	351.87*	181	312	1.43	703.79	697	14	5.02E-02	22.2	
22	0	391.60	426	236	1.21	783.27	776	12	1.18E-01	8.7	
23	0	407.83	61	182	2.09	815.74	811	11	1.68E-02	45.0	
24	0	455.70	25	172	1.62	911.49	905	10	6.94E-03	100.4	
25	0	510.15*	4	217	1.18	1020.44	1016	11	1.05E-03	795.1	
26	0	569.61*	3	144	1.28	1139.39	1134	12	8.32E-04	888.6	
27	0	583.09*	151	111	1.53	1166.34	1161	11	4.21E-02	16.0	
28	0	609.15*	112	169	1.28	1218.48	1213	12	3.12E-02	25.5	
29	0	661.42*	2089	212	1.45	1323.06	1315	16	5.80E-01	2.7	
30	0	708.37	26	190	5.23	1417.00	1401	18	7.09E-03	129.2	
31	0	722.67*	45	108	0.94	1445.61	1442	10	1.26E-02	45.9	
32	0	774.99	15	67	1.27	1550.28	1545	8	4.20E-03	98.5	
33	0	788.29	21	138	3.06	1576.90	1566	13	5.73E-03	120.1	
34	0	847.62	29	144	5.22	1695.62	1684	15	8.08E-03	92.3	
35	0	897.61	372	168	1.26	1795.64	1789	14	1.03E-01	9.0	
36	0	910.32*	97	105	2.37	1821.06	1816	11	2.70E-02	22.9	
37	0	1019.95	34	50	2.41	2040.43	2037	8	9.40E-03	40.5	
38	0	1063.85*	2	178	1.87	2128.27	2120	20	6.74E-04	*****	
39	0	1172.71	2211	106	1.89	2346.10	2338	18	6.14E-01	2.4	

Sample ID : G1201473820 Acquisition date : 14-DEC-2007 16:00:46

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
40	0	1331.90	1939	63	2.04	2664.68	2656	20	5.39E-01	2.5	
41	0	1405.30	11	36	7.34	2811.56	2787	29	3.06E-03	159.6	
42	0	1478.57	7	9	2.56	2958.21	2951	12	1.89E-03	96.3	
43	0	1590.48	25	12	5.44	3182.18	3174	16	7.02E-03	36.5	
44	0	1730.84	19	6	2.96	3463.10	3456	14	5.27E-03	37.1	
45	0	1764.67	16	9	1.80	3530.81	3526	10	4.46E-03	44.1	
46	0	1769.87*	7	6	0.69	3541.24	3535	11	1.98E-03	84.1	
47	0	1835.42	192	5	2.10	3672.43	3664	18	5.34E-02	7.7	

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]G1201473820      *
* Acquisition date : 14-DEC-2007 16:00:46 Detector SN#    :                 *
* Detector ID      : GAM23                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 01:00:04.32     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473820          Analyst initials: MJH1            *
* Batch Number     : 708123               Sample Quantity : 1.5544E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-60	8.553E+00	6.218E-01	1.487E-01	0.000E+00
CS-137	5.643E+00	4.415E-01	1.411E-01	0.000E+00
TL-208	3.697E-01	1.176E-01	1.330E-01	0.000E+00
PO-209	2.386E+02	4.627E+01	3.547E+01	0.000E+00
PB-212	9.950E-01	1.546E-01	2.104E-01	0.000E+00
PB-214	6.571E-01	2.881E-01	2.383E-01	0.000E+00
NP-237	3.062E+01	2.456E+00	8.445E-01	0.000E+00
AM-241	1.427E+01	1.410E+00	6.353E-01	0.000E+00
AM-243	1.701E-01	1.297E-01	1.902E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
K-40	5.628E-01		6.302E-01	1.217E+00	0.000E+00	NOT IDENT.
RH-101	1.037E-02		5.289E-02	9.349E-02	0.000E+00	NOT IDENT.
SB-125	-1.330E-01		1.954E-01	3.283E-01	0.000E+00	NOT IDENT.
EU-155	1.885E-02		1.629E-01	3.060E-01	0.000E+00	NOT IDENT.
BI-211	-7.278E-01		2.637E+00	4.424E+00	0.000E+00	NOT IDENT.
BI-212	1.908E-01		7.471E-01	1.150E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00		2.619E-01	3.526E-01	0.000E+00	FAIL ABUN
RA-223	9.196E-03		3.521E-01	6.016E-01	0.000E+00	NOT IDENT.
AC-228	0.000E+00		5.255E-01	8.197E-01	0.000E+00	FAIL ABUN
PA-233	6.335E-02		1.213E-01	2.242E-01	0.000E+00	NOT IDENT.
PA-234M	-3.562E+00		1.248E+01	2.054E+01	0.000E+00	NOT IDENT.
TH-234	1.495E+00		1.024E+00	1.568E+00	0.000E+00	FAIL ABUN
U-235	-1.204E-01		3.066E-01	5.460E-01	0.000E+00	NOT IDENT.
NP-236	9.676E-02		9.615E-02	1.869E-01	0.000E+00	NOT IDENT.
NP-239	-4.295E-01		4.108E-01	6.768E-01	0.000E+00	NOT IDENT.
CM-243	6.296E-02		1.517E-01	2.883E-01	0.000E+00	NOT IDENT.
AM-246	2.483E-02		3.610E-01	6.277E-01	0.000E+00	NOT IDENT.
CF-249	6.328E-02		8.868E-02	1.447E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-DEC-2007 17:01:20.11

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473820.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 14-DEC-2007 16:00:46
Sample ID        : G1201473820          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:04.32  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708123               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
CO-60	1173.23	2211	100.00*	1.253E+00	8.523E+00	8.553E+00	7.42
	1332.51	1939	100.00	1.120E+00	8.365E+00	8.394E+00	8.80
CS-137	661.66	2089	85.10*	2.103E+00	5.639E+00	5.643E+00	7.98
TL-208	277.36	36	6.31	4.230E+00	6.447E-01	6.447E-01	131.51
	510.77	4	22.60	2.617E+00	3.089E-02	3.089E-02	1590.22
	583.19	151	84.50*	2.341E+00	3.697E-01	3.697E-01	32.46
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	------	12.42	1.664E+00	------	Line Not Found	------
PO-209	896.60	372	0.47*	1.601E+00	2.385E+02	2.386E+02	19.79
PB-212	74.81	100	10.40	4.154E+00	1.116E+00	1.116E+00	77.80
	77.11	186	17.50	4.416E+00	1.163E+00	1.163E+00	38.51
	87.30	4276	7.81	5.439E+00	4.862E+01	4.862E+01	8.18
	238.63	425	43.30*	4.767E+00	9.950E-01	9.950E-01	15.86
	300.09	------	3.28	4.001E+00	------	Line Not Found	------
PB-214	74.81	100	6.44	4.154E+00	1.801E+00	1.802E+00	77.80
	77.11	186	10.80	4.416E+00	1.885E+00	1.885E+00	38.51
	87.30	4276	4.84	5.439E+00	7.846E+01	7.846E+01	8.18
	242.00	50	7.43	4.709E+00	6.964E-01	6.964E-01	86.53
	295.22	82	19.30	4.053E+00	5.080E-01	5.080E-01	60.76
	351.93	181	37.60*	3.530E+00	6.571E-01	6.571E-01	44.73
NP-237	86.48	4276	12.40*	5.439E+00	3.062E+01	3.062E+01	8.18
AM-241	59.54	2235	35.90*	2.106E+00	1.427E+01	1.427E+01	10.08
AM-243	74.66	100	68.20*	4.154E+00	1.701E-01	1.701E-01	77.80

Flag: "*" = Keyline

Sample ID : G1201473820 Acquisition date : 14-DEC-2007 16:00:46

Total number of lines in spectrum	47	
Number of unidentified lines	25	
Number of lines tentatively identified by NID	22	46.81%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-60	1.66E+08S	1.00	8.523E+00	8.553E+00	0.634E+00	7.42	
CS-137	9.47E+08S	1.00	5.639E+00	5.643E+00	0.451E+00	7.98	
TL-208	4.43E+17S	1.00	3.697E-01	3.697E-01	1.200E-01	32.46	
PO-209	3.22E+09S	1.00	2.385E+02	2.386E+02	0.472E+02	19.79	
PB-212	4.43E+17S	1.00	9.950E-01	9.950E-01	1.578E-01	15.86	
PB-214	5.05E+10S	1.00	6.571E-01	6.571E-01	2.939E-01	44.73	
NP-237	6.75E+13S	1.00	3.062E+01	3.062E+01	0.251E+01	8.18	
AM-241	1.36E+10S	1.00	1.427E+01	1.427E+01	0.144E+01	10.08	
AM-243	2.33E+11S	1.00	1.701E-01	1.701E-01	1.323E-01	77.80	
			---	---			
		Total Activity :	2.998E+02	2.999E+02			

Grand Total Activity : 2.998E+02 2.999E+02

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

Sample ID : G1201473820 Acquisition date : 14-DEC-2007 16:00:46

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	89.99	53	286	0.85	179.95	170	13	1.47E-02	****	5.58E+00	
0	92.78	96	353	1.19	185.51	182	7	2.68E-02	69.5	5.76E+00	T
0	116.26	43	352	0.92	232.49	229	7	1.21E-02	****	6.51E+00	
0	122.10	1635	453	0.91	244.17	240	9	4.54E-01	6.8	6.54E+00	
0	136.28	243	316	0.98	272.53	269	9	6.74E-02	29.5	6.48E+00	
2	163.72	33	199	1.20	327.42	325	11	9.26E-03	****	6.07E+00	
2	165.90	779	235	0.96	331.77	325	11	2.16E-01	9.5	6.03E+00	
0	185.94	91	419	1.08	371.86	367	11	2.54E-02	90.3	5.66E+00	
2	237.09	18	31	0.91	474.17	473	8	4.98E-03	79.3	4.79E+00	
5	241.31	58	139	0.96	482.62	481	7	1.62E-02	63.2	4.73E+00	
0	251.02	13	295	0.67	502.05	497	9	3.49E-03	****	4.59E+00	
0	337.94	78	236	1.33	675.92	672	9	2.17E-02	74.5	3.64E+00	T
0	391.60	426	236	1.21	783.27	776	12	1.18E-01	17.3	3.24E+00	
0	407.83	61	182	2.09	815.74	811	11	1.68E-02	90.0	3.14E+00	T
0	455.70	25	172	1.62	911.49	905	10	6.94E-03	****	2.87E+00	
0	569.61	3	144	1.28	1139.39	1134	12	8.32E-04	****	2.39E+00	
0	609.15	112	169	1.28	1218.48	1213	12	3.12E-02	51.0	2.26E+00	T
0	708.37	26	190	5.23	1417.00	1401	18	7.09E-03	****	1.98E+00	
0	722.67	45	108	0.94	1445.61	1442	10	1.26E-02	91.9	1.95E+00	
0	774.99	15	67	1.27	1550.28	1545	8	4.20E-03	****	1.83E+00	
0	788.29	21	138	3.06	1576.90	1566	13	5.73E-03	****	1.80E+00	
0	847.62	29	144	5.22	1695.62	1684	15	8.08E-03	****	1.69E+00	
0	910.32	97	105	2.37	1821.06	1816	11	2.70E-02	45.8	1.58E+00	T
0	1019.95	34	50	2.41	2040.43	2037	8	9.40E-03	81.1	1.42E+00	
0	1063.85	2	178	1.87	2128.27	2120	20	6.74E-04	****	1.37E+00	
0	1405.30	11	36	7.34	2811.56	2787	29	3.06E-03	****	1.07E+00	
0	1478.57	7	9	2.56	2958.21	2951	12	1.89E-03	****	1.03E+00	
0	1590.48	25	12	5.44	3182.18	3174	16	7.02E-03	72.9	9.72E-01	
0	1730.84	19	6	2.96	3463.10	3456	14	5.27E-03	74.2	9.19E-01	T
0	1764.67	16	9	1.80	3530.81	3526	10	4.46E-03	88.2	9.09E-01	T
0	1769.87	7	6	0.69	3541.24	3535	11	1.98E-03	****	9.07E-01	
0	1835.42	192	5	2.10	3672.43	3664	18	5.34E-02	15.3	8.89E-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]G1201473820          *
* Acquisition date : 14-DEC-2007 16:00:46 Detector SN#    :                *
* Detector ID      : GAM23                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 01:00:04.32     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473820          Analyst initials: MJH1           *
* Batch Number     : 708123               Sample Quantity : 1.5544E+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    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
CO-60	8.553E+00	6.218E-01	7.438E-02	6.218E-01
CS-137	5.643E+00	4.415E-01	7.057E-02	4.415E-01
TL-208	3.697E-01	1.176E-01	6.652E-02	1.176E-01
PO-209	2.386E+02	4.627E+01	1.774E+01	4.627E+01
PB-212	9.950E-01	1.546E-01	1.053E-01	1.546E-01
PB-214	6.571E-01	2.881E-01	1.192E-01	2.881E-01
NP-237	3.062E+01	2.456E+00	4.225E-01	2.456E+00
AM-241	1.427E+01	1.410E+00	3.179E-01	1.410E+00
AM-243	1.701E-01	1.297E-01	9.515E-02	1.297E-01

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
K-40	5.628E-01	6.302E-01	6.087E-01	6.302E-01	NOT IDENT.
RH-101	1.037E-02	5.289E-02	4.677E-02	5.289E-02	NOT IDENT.
SB-125	-1.330E-01	1.954E-01	1.643E-01	1.954E-01	NOT IDENT.
EU-155	1.885E-02	1.629E-01	1.531E-01	1.629E-01	NOT IDENT.
BI-211	-7.278E-01	2.637E+00	2.213E+00	2.637E+00	NOT IDENT.
BI-212	1.908E-01	7.471E-01	5.753E-01	7.471E-01	NOT IDENT.
BI-214	5.210E-01	2.619E-01	1.764E-01	2.619E-01	FAIL ABUN
RA-223	9.196E-03	3.521E-01	3.010E-01	3.521E-01	NOT IDENT.
AC-228	1.152E+00	5.255E-01	4.101E-01	5.255E-01	FAIL ABUN
PA-233	6.335E-02	1.213E-01	1.122E-01	1.213E-01	NOT IDENT.
PA-234M	-3.562E+00	1.248E+01	1.027E+01	1.248E+01	NOT IDENT.
TH-234	1.495E+00	1.024E+00	7.844E-01	1.024E+00	FAIL ABUN
U-235	-1.204E-01	3.066E-01	2.732E-01	3.066E-01	NOT IDENT.
NP-236	9.676E-02	9.615E-02	9.351E-02	9.615E-02	NOT IDENT.
NP-239	-4.295E-01	4.108E-01	3.386E-01	4.108E-01	NOT IDENT.
CM-243	6.296E-02	1.517E-01	1.442E-01	1.517E-01	NOT IDENT.
AM-246	2.483E-02	3.610E-01	3.140E-01	3.610E-01	NOT IDENT.
CF-249	6.328E-02	8.868E-02	7.237E-02	8.868E-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	379.6377
63.29	290.8240
74.66	478.8176
74.81	479.0466
74.81	479.0466
77.11	482.5303
77.11	482.5303
86.48	520.0806
87.30	521.2966
87.30	521.2966
92.58	263.2224
98.44	266.4843
103.76	272.7466
105.31	276.4381
129.07	259.2856
143.76	257.5317
198.00	225.7714
209.25	249.8342
228.18	274.0479
238.63	333.4290
242.00	219.3474
269.46	227.4446
270.25	209.1671
277.36	207.9849
295.22	192.5695
300.09	211.0006
312.17	182.4630
338.32	220.8856
351.93	180.3521
387.59	148.2380
409.46	165.3260
427.87	181.5463
463.00	179.2985
510.77	175.9054
583.19	128.1769
609.31	137.0691
661.66	118.6357
727.33	120.2319
763.13	118.0965
768.36	116.5480
785.37	105.3230
794.95	88.6725
806.17	111.4233
831.80	127.0879
860.56	116.2711
896.60	135.3108
911.20	146.7529
934.06	162.7803
964.77	192.9970
968.97	141.1877
1001.03	123.1672
1078.86	104.7084
1120.29	78.4932
1155.19	82.3438
1173.23	66.2762
1238.11	29.8633
1280.96	28.2495
1332.51	42.0160
1377.67	25.9613
1401.50	23.0026
1407.98	23.3449
1460.80	17.0085
1509.23	20.4635
1588.20	26.3857
1620.50	18.0511
1729.60	11.9496
1764.49	18.9318

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473820

Total Uranium Activity	-5.5728E-02	ug/g
Total Uranium Counting Unc.	1.4184E-01	ug/g
Total Uranium Tpu	1.4184E-07	ug/g
Total Uranium Mda	1.2639E-01	ug/g

Radiochemistry Batch Checklist, Rev 6

Batch# 708124 Product: Gamma / Solid Date: 12/17/07

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

GEL Laboratories, LLC

1/2/2007

Primary Review Performed By: 12/17/07

Secondary Review Performed By: 12/17/07

Gamma Spec Que Sheet

12/05/2007

Batch #:708124 Analyst: MJH1 First Client DueDate12/18/2007 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: 1.0mL Nominal Concentration: Am241 - 15.96 Cs137 - 6.103 Co60 - 8.520

Initials: MJH Prep Date: ~~12/12~~ MJH 12/12/07 12/5/07 Witness: N/A

Sample ID	Client Description / Container ID	Type	Hazard Code	RDL	Client	Matrix	Collect Date	Wet/Dry Aliquot (I/G/F)	Detector	Sealing Date/Time (if Applicable)
198683007-1	SB-CZ-SS-2121-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	115.57	12	
198683008-1	SB-CZ-SS-2122-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	141.20	14	
198683009-1	SB-CZ-SS-2123-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	136.01	1	
198683010-1	SB-CZ-SS-2124-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	135.19	2	
198683011-1	SB-CZ-SS-2125-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	117.85	4	
198683012-1	SB-CZ-SS-2126-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	106.42	5	
198683013-1	SB-CZ-SS-2127-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	115.26	6	
198683014-1	SB-CZ-SS-2128-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	112.97	7	
198683015-1	SB-CZ-SS-2115-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	152.46	11	
198683016-1	SB-CZ-SS-2116-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	117.94	13	
198683017-1	SB-CZ-SS-2117-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	117.64	16	
198683018-1	SB-CZ-SS-2118-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	134.55	17	
198683019-1	SB-CZ-SS-2119-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	142.55	19	
198683020-1	SB-CZ-SS-2120-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	115.17	20	
198683021-1	SB-CZ-SS-2121-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	113.30	21	
198683022-1	SB-CZ-SS-2122-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	131.88	22	
198683023-1	SB-CZ-SS-2123-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	142.76	23	
198683024-1	SB-CZ-SS-2124-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	121.33	12	
198683025-1	SB-CZ-SS-2125-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	104.86	14	
198683026-1	SB-CZ-SS-2126-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	144.71	1	
1201473821-1	MB for batch 708124	MB		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07	152.46	4	
1201473822-1	SB-CZ-SS-2121-BA(198683007DUP	DUP		.08 pCi/g	QC ACCOUNT	SOIL	18-OCT-07 00:00:00	117.69	5	
1201473823-1	LCS for batch 708124	LCS		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07	155.44	GAMMA	

MJH 12/12/07

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 12/7/07

12/11/07

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
708124	198683007	SAMPLE	15-DEC-07				
708124	198683008	SAMPLE	15-DEC-07				
708124	198683009	SAMPLE	15-DEC-07				
708124	198683010	SAMPLE	15-DEC-07				
708124	198683011	SAMPLE	15-DEC-07	Americium-241	0.02034	0.2036	0.200
708124	198683012	SAMPLE	15-DEC-07				
708124	198683013	SAMPLE	15-DEC-07				
708124	198683014	SAMPLE	15-DEC-07				
708124	198683015	SAMPLE	15-DEC-07				
708124	198683016	SAMPLE	15-DEC-07				
708124	198683017	SAMPLE	15-DEC-07				
708124	198683018	SAMPLE	15-DEC-07				
708124	198683019	SAMPLE	15-DEC-07				
708124	198683020	SAMPLE	15-DEC-07				
708124	198683021	SAMPLE	15-DEC-07				
708124	198683022	SAMPLE	15-DEC-07				
708124	198683023	SAMPLE	15-DEC-07				
708124	198683024	SAMPLE	15-DEC-07				
708124	198683025	SAMPLE	15-DEC-07				
708124	198683026	SAMPLE	16-DEC-07				
708124	1201473821	MB	16-DEC-07				
708124	1201473822	DUP	16-DEC-07				
708124	1201473823	LCS	16-DEC-07	Actinium-228	0.7683	0.8649	0.800
				Antimony-125	-0.00123	0.4032	0.200
				Bismuth-212	0.2995	1.143	0.500
				Thorium-234	0.342	1.997	0.500
				Uranium-235	0.1068	0.7909	0.500

GEL QUALS

Batch ID: 708124

Report run on: December 17, 2007 1:40 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198683017-1 15-DEC-2007 10:54	Radium-223	UI	UI	UI	Data rejected due to interference.		.5811			
	Uranium 235				Data rejected due to no valid peak		0.2715			
198683018-1 15-DEC-2007 10:55	Americium-243	UI	UI	UI	Data rejected due to interference.		.183			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.05174			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4933			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1779			
198683019-1 15-DEC-2007 10:55	Americium-243	UI	UI	UI	Data rejected due to interference.		.1454			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4028			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2578			
198683020-1 15-DEC-2007 10:56	Americium-243	UI	UI	UI	Data rejected due to interference.		.2532			
	Bismuth-211	UI	UI	UI	Data rejected due to interference.		.8793			
	Curium-243	UI	UI	UI	Data rejected due to no valid peak.		.1132			
	Europium-155	UI	UI	UI	Data rejected due to no valid peak.		.1251		.5	.5
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.06233			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.72			
	Polonium-209	UI	UI	UI	Data rejected due to no valid peak.		7.887			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4895			
198683021-1 15-DEC-2007 10:57	Americium-243	UI	UI	UI	Data rejected due to interference.		.3255			
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.06274			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.801			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3544			

GEL QUALS

Batch ID: 708124

Report run on: December 17, 2007 1:40 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198683012-1 15-DEC-2007 10:51	Rhodium-101	UI	UI	UI	Data rejected due to a high counting uncertainty.		.04042			
198683013-1 15-DEC-2007 10:51	Americium-243	UI	UI	UI	Data rejected due to interference.		.1267			
	Neptunium-237	UI	UI	UI	Data rejected due to low abundance.		.4397			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.242			
198683014-1 15-DEC-2007 10:52	Americium-243	UI	UI	UI	Data rejected due to interference.		.1155			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3011			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1953			
198683015-1 15-DEC-2007 10:53	Americium-243	UI	UI	UI	Data rejected due to interference.		.1507			
	Curium-243	UI	UI	UI	Data rejected due to no valid peak.		.0551			
	Europium-155	UI	UI	UI	Data rejected due to no valid peak.		.06064		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4885			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		2.764			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2668			
198683016-1 15-DEC-2007 10:53	Americium-243	UI	UI	UI	Data rejected due to interference.		.1398			
	Curium-243	UI	UI	UI	Data rejected due to no valid peak.		.08792			
	Europium-155	UI	UI	UI	Data rejected due to no valid peak.		.09716		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.361			
198683017-1 15-DEC-2007 10:54	Americium-243	UI	UI	UI	Data rejected due to interference.		.2726			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6415			

GEL QUALS

Batch ID: 708124

Report run on: December 17, 2007 1:40 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198683007-1 15-DEC-2007 08:26	Americium-243	UI	UI	UI	Data rejected due to interference.		.3091			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.9875			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.4373			
198683008-1 15-DEC-2007 08:27	Americium-243	UI	UI	UI	Data rejected due to interference.		.1825			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.479			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3198			
198683009-1 15-DEC-2007 10:48	Americium-243	UI	UI	UI	Data rejected due to interference.		.2211			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5408			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.5039			
198683010-1 15-DEC-2007 10:49	Americium-243	UI	UI	UI	Data rejected due to interference.		.149			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.568			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2729			
	Thorium-234	UI	UI	UI	Data rejected due to low abundance.		1.308		.5	.5
198683011-1 15-DEC-2007 10:50	Americium-243	UI	UI	UI	Data rejected due to interference.		.1639			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.592			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2992			
198683012-1 15-DEC-2007 10:51	Americium-243	UI	UI	UI	Data rejected due to interference.		.09597			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3172			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2697			

GEL QUALS

Batch ID: 708124

Report run on: December 17, 2007 1:40 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198683022-1 15-DEC-2007 10:58	Americium-243	UI	UI	UI	Data rejected due to interference.		.171			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5588			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2415			
198683023-1 15-DEC-2007 10:58	Americium-243	UI	UI	UI	Data rejected due to interference.		.38			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6394			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2453			
	Thorium-234	UI	UI	UI	Data rejected due to low abundance.		1.106		.5	.5
198683024-1 15-DEC-2007 12:31	Americium-243	UI	UI	UI	Data rejected due to interference.		.2044			
	Neptunium-237	UI	UI	UI	Data rejected due to low abundance.		.5337			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.398			
198683025-1 15-DEC-2007 12:31	Americium-243	UI	UI	UI	Data rejected due to interference.		.2099			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6116			
	Protactinium-233	UI	UI	UI	Data rejected due to no valid peak.		.08558			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3733			
198683026-1 16-DEC-2007 12:08	Actinium-228	UI	UI	UI	Data rejected due to low abundance.		.3481		.8	.8
	Americium-243	UI	UI	UI	Data rejected due to interference.		.1212			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2438			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2013			
1201473821-1 MB 16-DEC-2007 12:09	Neptunium-236	UI	UI	UI	Data rejected due to no valid peak.		.02965			

GEL QUALS

Batch ID: 708124

Report run on: December 17, 2007 1:40 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
1201473822-1 DUP 16-DEC-2007 12:09	Americium-243	UI	UI	UI	Data rejected due to interference.		.3267			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		1.031			
	Protactinium-234m	UI	UI	UI	Data rejected due to no valid peak.		7.011			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3972			

Gamma Review Report based on Result > MDA for Batch:708124

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198683007	18-OCT-07 00:00	15-DEC-07 08:26	58.4	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	**1.52**	0.2632	pCi/g	**0.1314**	**0.800**	910.8	1	1.931	IDENTIFIED		7.138	☐	GOOD
Americium-243	**0.3091**	0.05455	pCi/g	**0.05977**	**Y**	74.92	1	1.181	IDENTIFIED		8.243	☑ UI	Data rejected due to interference.
Bismuth-212	**1.125**	0.2762	pCi/g	**0.3033**	**0.500**	726.9	1	1.31	IDENTIFIED		11.61	☐	GOOD
Bismuth-214	**1.276**	0.1609	pCi/g	**0.0791**	**0.200**	609	1	1.611	IDENTIFIED		4.966	☐	GOOD
Cesium-137	**0.3473**	0.0651	pCi/g	**0.0416**	**0.100**	661.3	1	1.473	IDENTIFIED		8.476	☐	GOOD
Lead-212	**1.408**	0.1178	pCi/g	**0.06844**	**0.100**	238.6	1	1.152	IDENTIFIED		2.959	☐	GOOD
Lead-214	**1.291**	0.1326	pCi/g	**0.08112**	**0.100**	351.8	1	1.316	IDENTIFIED		4.339	☐	GOOD
Neptunium-237	**0.9875**	0.2247	pCi/g	**0.2507**	**Y**	87.23	1	1.384	IDENTIFIED		10.9	☑ UI	Data rejected due to interference.
Potassium-40	**8.854**	1.012	pCi/g	**0.3464**	**1.00**	1460	1	2.05	IDENTIFIED		4.973	☐	GOOD
Radium-223	**0.4373**	0.2106	pCi/g	**0.2064**	**Y**	269.8	1	1.164	IDENTIFIED		24.37	☑ UI	Data rejected due to interference.
Thallium-208	**0.4415**	0.06474	pCi/g	**0.03897**	**0.080**	582.9	1	1.517	IDENTIFIED		6.369	☐	GOOD
Thorium-234	**1.74**	0.5715	pCi/g	**0.5428**	**0.500**	92.9	1	1.545	IDENTIFIED		16.32	☐	GOOD

*** = 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
198683008	18-OCT-07 00:00	15-DEC-07 08:27	58.4	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	**0.9316**	0.178	pCi/g	**0.1132**	**0.800**	911.5	1	1.872	IDENTIFIED		8.691	☐	GOOD
Americium-243	**0.1825**	0.03958	pCi/g	**0.03861**	**Y**	74.81	1	1.678	IDENTIFIED		10.43	☑ UI	Data rejected due to interference.
Bismuth-212	**0.5832**	0.2319	pCi/g	**0.2263**	**0.500**	727.6	1	1.842	IDENTIFIED		19.87	☐	GOOD
Bismuth-214	**0.7343**	0.1023	pCi/g	**0.06051**	**0.200**	609.4	1	1.62	IDENTIFIED		6.07	☐	GOOD
Cesium-137	**0.2192**	0.0333	pCi/g	**0.02941**	**0.100**	661.7	1	1.584	IDENTIFIED		6.701	☐	GOOD
Lead-212	**0.865**	0.07648	pCi/g	**0.04897**	**0.100**	238.5	1	1.38	IDENTIFIED		3.262	☐	GOOD
Lead-214	**0.8543**	0.09569	pCi/g	**0.06433**	**0.100**	351.7	1	1.521	IDENTIFIED		4.876	☐	GOOD
Neptunium-237	**0.479**	0.122	pCi/g	**0.179**	**Y**	87.44	1	1.545	IDENTIFIED		12.31	☑ UI	Data rejected due to interference.
Potassium-40	**4.706**	0.5992	pCi/g	**0.2969**	**1.00**	1461	1	2.008	IDENTIFIED		5.872	☐	GOOD
Radium-223	**0.3198**	0.1355	pCi/g	**0.1544**	**Y**	270	1	1.408	IDENTIFIED		21.39	☑ UI	Data rejected due to interference.
Thallium-208	**0.2516**	0.04206	pCi/g	**0.03109**	**0.080**	583.2	1	1.756	IDENTIFIED		7.732	☐	GOOD
Thorium-234	**1.042**	0.3402	pCi/g	**0.3761**	**0.500**	92.89	1	1.505	IDENTIFIED		16.17	☐	GOOD

*** = 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
198683009	18-OCT-07 00:00	15-DEC-07 10:48	58.5	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	**1.193**	0.2105	pCi/g	**0.1293**	**0.800**	911.4	1	1.631	IDENTIFIED		7.604	☐	GOOD
Americium-243	**0.2211**	0.05576	pCi/g	**0.05239**	**Y**	74.96	1	1.969	IDENTIFIED		12.24	☑ UI	Data rejected due to interference.
Bismuth-212	**0.6241**	0.3614	pCi/g	**0.2796**	**0.500**	728.2	1	1.59	IDENTIFIED		29.25	☐	GOOD
Bismuth-214	**0.7587**	0.09915	pCi/g	**0.06903**	**0.200**	609.3	1	2.081	IDENTIFIED		5.579	☐	GOOD
Cesium-137	**0.06355**	0.03433	pCi/g	**0.0426**	**0.100**	660.7	1	1.347	IDENTIFIED		27.3	☐	GOOD
Lead-212	**1.096**	0.1006	pCi/g	**0.0604**	**0.100**	238.7	1	1.41	IDENTIFIED		3.171	☐	GOOD
Lead-214	**0.7521**	0.0963	pCi/g	**0.07404**	**0.100**	352	1	1.689	IDENTIFIED		5.725	☐	GOOD
Neptunium-237	**0.5408**	0.2059	pCi/g	**0.2282**	**Y**	87.36	1	1.834	IDENTIFIED		18.96	☑ UI	Data rejected due to interference.
Potassium-40	**3.842**	0.5459	pCi/g	**0.2988**	**1.00**	1461	1	2.108	IDENTIFIED		6.639	☐	GOOD
Radium-223	**0.5039**	0.1928	pCi/g	**0.1863**	**Y**	270.2	1	1.914	IDENTIFIED		19.22	☑ UI	Data rejected due to interference.
Thallium-208	**0.3136**	0.0533	pCi/g	**0.03766**	**0.080**	583.4	1	1.428	IDENTIFIED		7.902	☐	GOOD
Thorium-234	**1.366**	0.4418	pCi/g	**0.4913**	**0.500**	93.07	1	1.67	IDENTIFIED		16.03	☐	GOOD

*** = 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
198683010	18-OCT-07 00:00	15-DEC-07 10:49	58.5	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	**0.8937**	0.183	pCi/g	**0.1152**	**0.800**	911	1	1.537	IDENTIFIED		9.696	☐	GOOD
Americium-243	**0.149**	0.04259	pCi/g	**0.04718**	**Y**	74.92	1	1.097	IDENTIFIED		13.99	☑ UI	Data rejected due to interference.
Bismuth-212	**0.5582**	0.2026	pCi/g	**0.2186**	**0.500**	727.1	1	0.8752	IDENTIFIED		18.22	☐	GOOD
Bismuth-214	**0.7084**	0.09533	pCi/g	**0.06137**	**0.200**	609.3	1	1.226	IDENTIFIED		6.168	☐	GOOD
Cesium-137	**0.2279**	0.04137	pCi/g	**0.03104**	**0.100**	661.5	1	1.366	IDENTIFIED		8.732	☐	GOOD
Lead-212	**0.7852**	0.07473	pCi/g	**0.04974**	**0.100**	238.6	1	1.145	IDENTIFIED		3.746	☐	GOOD
Lead-214	**0.7767**	0.09806	pCi/g	**0.06083**	**0.100**	351.9	1	1.226	IDENTIFIED		5.726	☐	GOOD
Neptunium-237	**0.568**	0.1697	pCi/g	**0.1911**	**Y**	87.29	1	1.373	IDENTIFIED		14.62	☑ UI	Data rejected due to interference.
Potassium-40	**3.958**	0.5991	pCi/g	**0.2474**	**1.00**	1461	1	2.067	IDENTIFIED		6.984	☐	GOOD
Radium-223	**0.2729**	0.1196	pCi/g	**0.1451**	**Y**	270	1	1.342	IDENTIFIED		22.1	☑ UI	Data rejected due to interference.
Thallium-208	**0.2323**	0.04515	pCi/g	**0.03122**	**0.080**	583	1	1.431	IDENTIFIED		9.459	☐	GOOD
Thorium-234	**1.308**	0.4509	pCi/g	**0.6946**	**0.500**	92.66	1	1.433	FAIL_ABUND		17.12	☑ 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
198683011	18-OCT-07 00:00	15-DEC-07 10:50	58.5	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	**1.023**	0.1892	pCi/g	**0.1354**	**0.800**	911.1	1	1.681	IDENTIFIED		8.04	☐	GOOD
Americium-243	**0.1639**	0.05155	pCi/g	**0.05605**	**Y**	74.71	1	1.286	IDENTIFIED		15.33	☑ UI	Data rejected due to interference.
Bismuth-212	**0.655**	0.2466	pCi/g	**0.2411**	**0.500**	727.3	1	1.386	IDENTIFIED		18.83	☐	GOOD
Bismuth-214	**0.4545**	0.09739	pCi/g	**0.06809**	**0.200**	609.4	1	1.77	IDENTIFIED		10.42	☐	GOOD
Cesium-137	**0.1454**	0.03498	pCi/g	**0.03533**	**0.100**	661.8	1	2.21	IDENTIFIED		11.81	☐	GOOD
Lead-212	**0.8958**	0.1128	pCi/g	**0.05602**	**0.100**	238.6	1	1.379	IDENTIFIED		3.904	☐	GOOD
Lead-214	**0.5445**	0.1058	pCi/g	**0.0661**	**0.100**	351.8	1	1.638	IDENTIFIED		9.194	☐	GOOD
Neptunium-237	**0.592**	0.1911	pCi/g	**0.2129**	**Y**	87.21	1	1.405	IDENTIFIED		15.8	☑ UI	Data rejected due to interference.
Potassium-40	**4.428**	0.63	pCi/g	**0.3254**	**1.00**	1461	1	2.2	IDENTIFIED		6.558	☐	GOOD
Radium-223	**0.2992**	0.1783	pCi/g	**0.1709**	**Y**	270	1	1.979	IDENTIFIED		30.02	☑ UI	Data rejected due to interference.
Thallium-208	**0.285**	0.04813	pCi/g	**0.03139**	**0.080**	583	1	1.621	IDENTIFIED		7.966	☐	GOOD
Thorium-234	**1.434**	0.5543	pCi/g	**0.4476**	**0.500**	92.83	1	1.772	IDENTIFIED		19.19	☐	GOOD

*** = 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
198683012	18-OCT-07 00:00	15-DEC-07 10:51	58.5	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	**0.5747**	0.1961	pCi/g	**0.168**	**0.800**	911.6	1	1.439	IDENTIFIED		16.79	☐	GOOD
Americium-243	**0.09597**	0.02706	pCi/g	**0.03534**	**Y**	74.74	1	0.9253	IDENTIFIED		13.8	☑ UI	Data rejected due to interference.
Bismuth-212	**0.7447**	0.3091	pCi/g	**0.3326**	**0.500**	728	1	1.316	IDENTIFIED		20.74	☐	GOOD
Bismuth-214	**0.3734**	0.1094	pCi/g	**0.1029**	**0.200**	609.4	1	1.346	IDENTIFIED		14.47	☐	GOOD
Cesium-137	**0.2701**	0.05935	pCi/g	**0.04943**	**0.100**	662	1	1.588	IDENTIFIED		10.44	☐	GOOD
Lead-212	**0.6196**	0.0823	pCi/g	**0.06507**	**0.100**	238.7	1	1.154	IDENTIFIED		5.311	☐	GOOD
Lead-214	**0.4917**	0.1024	pCi/g	**0.08309**	**0.100**	352.1	1	1.468	IDENTIFIED		10.26	☐	GOOD
Neptunium-237	**0.3172**	0.1357	pCi/g	**0.1789**	**Y**	87.18	1	1.136	IDENTIFIED		21.37	☑ UI	Data rejected due to interference.
Potassium-40	**5.489**	0.8436	pCi/g	**0.308**	**1.00**	1462	1	2.195	IDENTIFIED		6.761	☐	GOOD
Radium-223	**0.2697**	0.1914	pCi/g	**0.2093**	**Y**	270.4	1	1.065	IDENTIFIED		36.05	☑ UI	Data rejected due to interference.
Rhodium-101	**0.04042**	0.03683	pCi/g	**0.03464**	**Y**	197.4	1	2.232	IDENTIFIED		46.22	☑ UI	Data rejected due to a high counting un
Thallium-208	**0.2007**	0.05025	pCi/g	**0.04095**	**0.080**	583.5	1	1.146	IDENTIFIED		12.26	☐	GOOD
Thorium-234	**1.001**	0.3819	pCi/g	**0.4172**	**0.500**	92.64	1	1.312	IDENTIFIED		18.95	☐	GOOD

*** = 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
198683013	18-OCT-07 00:00	15-DEC-07 10:51	58.5	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	**0.4252**	0.1608	pCi/g	**0.1268**	**0.800**	911	1	1.568	IDENTIFIED		18.61	☐	GOOD
Americium-243	**0.1267**	0.04247	pCi/g	**0.04984**	**Y**	74.41	1	1.114	IDENTIFIED		16.6	☑ UI	Data rejected due to interference.
Bismuth-212	**0.3461**	0.3061	pCi/g	**0.269**	**0.500**	727.5	1	1.811	IDENTIFIED		44.97	☐	GOOD
Bismuth-214	**0.5263**	0.116	pCi/g	**0.07535**	**0.200**	608.8	1	1.533	IDENTIFIED		10.73	☐	GOOD
Cesium-137	**0.2066**	0.04482	pCi/g	**0.03904**	**0.100**	661.3	1	1.348	IDENTIFIED		10.54	☐	GOOD
Lead-212	**0.6287**	0.07319	pCi/g	**0.05825**	**0.100**	238.3	1	1.073	IDENTIFIED		5.052	☐	GOOD

Lead-214	**0.692**	0.1087	pCi/g	**0.06682**	**0.100**	351.6	1	1.127	IDENTIFIED	7.382	☐	GOOD
Neptunium-237	**0.4397**	0.1403	pCi/g	**0.2583**	**Y**	92.48	2	1.17	NOT_IDENTI	20.63	☑ UI	Data rejected due to low abundance.
Potassium-40	**5.84**	0.8261	pCi/g	**0.2805**	**1.00**	1460	1	2.156	IDENTIFIED	6.468	☐	GOOD
Radium-223	**0.242**	0.1959	pCi/g	**0.188**	**Y**	270.3	1	0.9909	IDENTIFIED	41.17	☑ UI	Data rejected due to interference.
Thallium-208	**0.1909**	0.04415	pCi/g	**0.03776**	**0.080**	583	1	1.421	IDENTIFIED	11.32	☐	GOOD
Thorium-234	**1.007**	0.4154	pCi/g	**0.4389**	**0.500**	92.48	2	1.17	IDENTIFIED	20.63	☐	GOOD

*** = 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
198683014	18-OCT-07 00:00	15-DEC-07 10:52	58.5	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	**0.577**	0.1539	pCi/g	**0.1119**	**0.800**	911.6	1	1.645	IDENTIFIED	13.18	☐	GOOD
Americium-243	**0.1155**	0.02899	pCi/g	**0.03226**	**Y**	74.95	1	1.199	IDENTIFIED	12.35	☑ UI	Data rejected due to interference.
Bismuth-212	**0.4959**	0.244	pCi/g	**0.2387**	**0.500**	727.5	1	1.234	IDENTIFIED	24.84	☐	GOOD
Bismuth-214	**0.4598**	0.08396	pCi/g	**0.05886**	**0.200**	609.5	1	1.365	IDENTIFIED	8.652	☐	GOOD
Cesium-137	**0.114**	0.04173	pCi/g	**0.03116**	**0.100**	662	1	1.421	IDENTIFIED	18.32	☐	GOOD
Lead-212	**0.5873**	0.06642	pCi/g	**0.04488**	**0.100**	238.9	1	1.189	IDENTIFIED	4.935	☐	GOOD
Lead-214	**0.4796**	0.08147	pCi/g	**0.06244**	**0.100**	352.1	1	1.203	IDENTIFIED	8.201	☐	GOOD
Neptunium-237	**0.3011**	0.1111	pCi/g	**0.1455**	**Y**	87.17	1	0.9404	IDENTIFIED	18.42	☑ UI	Data rejected due to interference.
Potassium-40	**4.058**	0.5651	pCi/g	**0.265**	**1.00**	1461	1	1.803	IDENTIFIED	6.563	☐	GOOD
Radium-223	**0.1953**	0.1366	pCi/g	**0.1535**	**Y**	270	1	1.62	IDENTIFIED	35.55	☑ UI	Data rejected due to interference.
Thallium-208	**0.1523**	0.04342	pCi/g	**0.03205**	**0.080**	583.3	1	1.257	IDENTIFIED	14.16	☐	GOOD
Thorium-234	**0.7403**	0.3521	pCi/g	**0.3341**	**0.500**	92.94	1	1.399	IDENTIFIED	23.96	☐	GOOD

*** = 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
198683015	18-OCT-07 00:00	15-DEC-07 10:53	58.5	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	**0.8604**	0.1498	pCi/g	**0.07963**	**0.800**	911.3	1	1.412	IDENTIFIED	7.724	☐	GOOD
Americium-243	**0.1507**	0.02548	pCi/g	**0.02819**	**Y**	74.77	1	1.02	IDENTIFIED	7.971	☑ UI	Data rejected due to interference.
Bismuth-212	**0.5417**	0.2022	pCi/g	**0.1825**	**0.500**	727.5	1	1.26	IDENTIFIED	18.62	☐	GOOD
Bismuth-214	**0.5345**	0.0779	pCi/g	**0.04642**	**0.200**	609.4	1	1.229	IDENTIFIED	6.535	☐	GOOD
Cesium-137	**0.04568**	0.01995	pCi/g	**0.02751**	**0.100**	661.6	1	1.075	IDENTIFIED	21.96	☐	GOOD
Curium-243	**0.0551**	0.03757	pCi/g	**0.0542**	**Y**	102.4	1	1.616	IDENTIFIED	34.64	☑ UI	Data rejected due to no valid peak.
Europium-155	**0.06064**	0.04721	pCi/g	**0.05978**	**0.500**	105.7	1	1.19	IDENTIFIED	39.6	☑ UI	Data rejected due to no valid peak.
Lead-212	**0.8293**	0.06777	pCi/g	**0.03902**	**0.100**	238.6	1	0.9808	IDENTIFIED	2.958	☐	GOOD
Lead-214	**0.5446**	0.06948	pCi/g	**0.04515**	**0.100**	351.9	1	1.155	IDENTIFIED	5.897	☐	GOOD
Neptunium-237	**0.4885**	0.122	pCi/g	**0.1312**	**Y**	87.19	1	1.395	IDENTIFIED	12.2	☑ UI	Data rejected due to interference.
Potassium-40	**5.765**	0.6399	pCi/g	**0.2**	**1.00**	1461	1	1.928	IDENTIFIED	4.443	☐	GOOD
Protactinium-234m	**2.764**	2.651	pCi/g	**2.697**	**Y**	1001	1	1.787	IDENTIFIED	48.76	☑ UI	Data rejected due to no valid peak.
Radium-223	**0.2668**	0.1394	pCi/g	**0.1118**	**Y**	269.8	1	1.437	IDENTIFIED	26.48	☑ UI	Data rejected due to interference.
Thallium-208	**0.2474**	0.03687	pCi/g	**0.02348**	**0.080**	583.3	1	1.104	IDENTIFIED	6.792	☐	GOOD
Thorium-234	**1.07**	0.2861	pCi/g	**0.2894**	**0.500**	92.71	1	1.322	IDENTIFIED	13.19	☐	GOOD

*** = 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
198683016	18-OCT-07 00:00	15-DEC-07 10:53	58.5	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	**0.8371**	0.2146	pCi/g	**0.1712**	**0.800**	911.5	1	1.526	IDENTIFIED	12.72	☐	GOOD
Americium-243	**0.1398**	0.02562	pCi/g	**0.03182**	**Y**	74.97	1	0.89	IDENTIFIED	8.478	☑ UI	Data rejected due to interference.
Bismuth-212	**0.5606**	0.362	pCi/g	**0.3654**	**0.500**	727.4	1	1.817	IDENTIFIED	32.72	☐	GOOD
Bismuth-214	**0.4447**	0.1247	pCi/g	**0.08846**	**0.200**	609.5	1	1.352	IDENTIFIED	13.81	☐	GOOD
Curium-243	**0.08792**	0.06334	pCi/g	**0.082**	**Y**	105.6	2	0.6377	IDENTIFIED	36.48	☑ UI	Data rejected due to no valid peak.
Europium-155	**0.09716**	0.07	pCi/g	**0.0936**	**0.500**	105.6	2	0.6377	IDENTIFIED	36.48	☑ UI	Data rejected due to no valid peak.
Lead-212	**0.8007**	0.08508	pCi/g	**0.06151**	**0.100**	238.7	1	0.9982	IDENTIFIED	4.263	☐	GOOD
Lead-214	**0.4955**	0.09597	pCi/g	**0.08204**	**0.100**	351.8	1	1.257	IDENTIFIED	9.526	☐	GOOD
Neptunium-237	**0.361**	0.118	pCi/g	**0.1902**	**Y**	87.33	1	0.8232	IDENTIFIED	16.19	☑ UI	Data rejected due to interference.
Potassium-40	**4.076**	0.6051	pCi/g	**0.3861**	**1.00**	1461	1	1.908	IDENTIFIED	7.045	☐	GOOD
Thallium-208	**0.2526**	0.05757	pCi/g	**0.04607**	**0.080**	583.3	1	1.36	IDENTIFIED	11.06	☐	GOOD

Thorium-234	1.002	0.4818	pCi/g	0.4059	0.500	92.78	1	1.29	IDENTIFIED	24.19	☐	GOOD

*** = 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
198683017	18-OCT-07 00:00	15-DEC-07 10:54	58.5	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	1.378	0.2138	pCi/g	0.1306	0.800	910.9	1	1.698	IDENTIFIED	6.731	☐	GOOD
Americium-243	0.2726	0.04462	pCi/g	0.04682	Y	74.88	1	1.381	IDENTIFIED	7.663	☑ UI	Data rejected due to interference.
Bismuth-212	0.8223	0.2942	pCi/g	0.277	0.500	726.9	1	1.41	IDENTIFIED	17.74	☐	GOOD
Bismuth-214	0.9247	0.1187	pCi/g	0.06349	0.200	609.3	1	1.389	IDENTIFIED	5.3	☐	GOOD
Gross Gamma	6.259	1.337	pCi/g	2.272	N		0				☐	
Lead-212	1.298	0.09762	pCi/g	0.05568	0.100	238.7	1	1.08	IDENTIFIED	2.625	☐	GOOD
Lead-214	1.026	0.1078	pCi/g	0.06474	0.100	352	1	1.168	IDENTIFIED	4.684	☐	GOOD
Neptunium-237	0.6415	0.1592	pCi/g	0.1931	Y	87.22	1	1.151	IDENTIFIED	12.11	☑ UI	Data rejected due to interference.
Potassium-40	7.186	0.7623	pCi/g	0.3802	1.00	1460	1	2.045	IDENTIFIED	4.482	☐	GOOD
Radium-223	0.5811	0.1682	pCi/g	0.135	Y	270.5	1	2.047	IDENTIFIED	14.51	☑ UI	Data rejected due to interference.
Thallium-208	0.409	0.05486	pCi/g	0.03437	0.080	583.2	1	1.292	IDENTIFIED	5.776	☐	GOOD
Thorium-234	1.604	0.4061	pCi/g	0.4244	0.500	92.82	1	1.264	IDENTIFIED	12.4	☐	GOOD
Uranium-235 N↑P	0.2715	0.1803	pCi/g	0.1913	0.500	144.3	1	1.928	IDENTIFIED	33.74	☑ UJ ~~GOOD~~ HW 12/19/07	

*** = 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
198683018	18-OCT-07 00:00	15-DEC-07 10:55	58.5	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	1.113	0.1995	pCi/g	0.1341	0.800	911.4	1	1.524	IDENTIFIED	8.512	☐	GOOD
Americium-243	0.183	0.02562	pCi/g	0.03019	Y	74.96	1	0.9156	IDENTIFIED	6.367	☑ UI	Data rejected due to interference.
Bismuth-212	0.814	0.3049	pCi/g	0.288	0.500	727.3	1	1.259	IDENTIFIED	18.75	☐	GOOD
Bismuth-214	0.6228	0.1179	pCi/g	0.08019	0.200	609.5	1	1.308	IDENTIFIED	8.981	☐	GOOD
Cesium-137	0.05567	0.0528	pCi/g	0.03996	0.100	663.1	1	0.7691	IDENTIFIED	48.25	☐	GOOD
Lead-212	1.024	0.1039	pCi/g	0.05453	0.100	238.8	1	0.9871	IDENTIFIED	3.307	☐	GOOD
Lead-214	0.6634	0.09018	pCi/g	0.06583	0.100	352.1	1	1.107	IDENTIFIED	6.111	☐	GOOD
Neptunium-236	0.05174	0.04007	pCi/g	0.04437	Y	98.84	1	1.345	IDENTIFIED	39.33	☑ UI	Data rejected due to interference.
Neptunium-237	0.4933	0.1242	pCi/g	0.1471	Y	87.3	1	1.001	IDENTIFIED	12.4	☑ UI	Data rejected due to interference.
Potassium-40	4.331	0.6638	pCi/g	0.3186	1.00	1461	1	1.906	IDENTIFIED	7.331	☐	GOOD
Radium-223	0.1779	0.159	pCi/g	0.1699	Y	270.5	1	1.489	IDENTIFIED	45.44	☑ UI	Data rejected due to interference.
Thallium-208	0.3627	0.05701	pCi/g	0.03999	0.080	583.4	1	1.187	IDENTIFIED	7.223	☐	GOOD
Thorium-234	1.3	0.3195	pCi/g	0.3661	0.500	92.79	1	1.189	IDENTIFIED	12.01	☐	GOOD

*** = 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
198683019	18-OCT-07 00:00	15-DEC-07 10:55	58.5	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	0.7984	0.1667	pCi/g	0.1232	0.800	911.8	1	1.789	IDENTIFIED	9.295	☐	GOOD
Americium-243	0.1454	0.04046	pCi/g	0.04452	Y	74.96	1	1.479	IDENTIFIED	13.83	☑ UI	Data rejected due to interference.
Bismuth-212	0.4889	0.2455	pCi/g	0.2475	0.500	728.4	1	1.408	IDENTIFIED	25.24	☐	GOOD
Bismuth-214	0.7045	0.1018	pCi/g	0.06001	0.200	609.5	1	1.601	IDENTIFIED	6.314	☐	GOOD
Cesium-137	0.0381	0.02424	pCi/g	0.03668	0.100	661.7	1	1.81	IDENTIFIED	32.21	☐	GOOD
Lead-212	0.7385	0.07381	pCi/g	0.05235	0.100	238.7	1	1.29	IDENTIFIED	4.012	☐	GOOD
Lead-214	0.7944	0.09171	pCi/g	0.06053	0.100	351.8	1	1.394	IDENTIFIED	5.067	☐	GOOD
Neptunium-237	0.4028	0.1513	pCi/g	0.203	Y	87.43	1	1.361	IDENTIFIED	18.85	☑ UI	Data rejected due to interference.
Potassium-40	5.92	0.6583	pCi/g	0.2746	1.00	1462	1	2.179	IDENTIFIED	4.744	☐	GOOD
Radium-223	0.2578	0.1754	pCi/g	0.1605	Y	269.8	1	1.19	IDENTIFIED	34.57	☑ UI	Data rejected due to interference.
Thallium-208	0.2529	0.04443	pCi/g	0.03161	0.080	583.6	1	1.508	IDENTIFIED	8.163	☐	GOOD
Thorium-234	0.924	0.3834	pCi/g	0.4042	0.500	92.98	1	1.545	IDENTIFIED	20.91	☐	GOOD

*** = 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
198683020	18-OCT-07 00:00	15-DEC-07 10:56	58.5	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	**1.372**	0.2178	pCi/g	**0.114**	**0.800**	911.5	1	1.544	IDENTIFIED		6.602	☐	GOOD
Americium-243	**0.2532**	0.04573	pCi/g	**0.0443**	**Y**	74.97	1	1.119	IDENTIFIED		7.443	☑ UI	Data rejected due to interference.
Bismuth-211	**0.8793**	0.5335	pCi/g	**0.6425**	**Y**	830.8	1	1.902	IDENTIFIED		30.65	☑ UI	Data rejected due to interference.
Bismuth-212	**1.022**	0.2732	pCi/g	**0.2474**	**0.500**	727.6	1	1.518	IDENTIFIED		13.1	☐	GOOD
Bismuth-214	**0.6999**	0.1052	pCi/g	**0.07286**	**0.200**	609.5	1	1.393	IDENTIFIED		6.947	☐	GOOD
Curium-243	**0.1132**	0.06885	pCi/g	**0.08592**	**Y**	105.2	2	1.935	IDENTIFIED		30.75	☑ UI	Data rejected due to no valid peak.
Europium-155	**0.1251**	0.07608	pCi/g	**0.1037**	**0.500**	105.2	2	1.935	IDENTIFIED		30.75	☑ UI	Data rejected due to no valid peak.
Lead-212	**1.488**	0.1141	pCi/g	**0.05563**	**0.100**	238.7	1	1.122	IDENTIFIED		2.609	☐	GOOD
Lead-214	**0.8116**	0.09999	pCi/g	**0.06427**	**0.100**	351.9	1	1.241	IDENTIFIED		5.641	☐	GOOD
Neptunium-236	**0.06233**	0.04692	pCi/g	**0.05397**	**Y**	98.89	1	2.232	IDENTIFIED		38.11	☑ UI	Data rejected due to interference.
Neptunium-237	**0.72**	0.1937	pCi/g	**0.1955**	**Y**	87.34	1	1.31	IDENTIFIED		12.39	☑ UI	Data rejected due to interference.
Polonium-209	**7.887**	7.068	pCi/g	**5.882**	**Y**	896	1	1.93	IDENTIFIED		45.48	☑ UI	Data rejected due to no valid peak.
Potassium-40	**7.552**	0.9059	pCi/g	**0.2627**	**1.00**	1462	1	1.974	IDENTIFIED		4.448	☐	GOOD
Radium-223	**0.4895**	0.184	pCi/g	**0.1756**	**Y**	270	1	1.386	IDENTIFIED		18.93	☑ UI	Data rejected due to interference.
Thallium-208	**0.4537**	0.05864	pCi/g	**0.03281**	**0.080**	583.4	1	1.466	IDENTIFIED		5.789	☐	GOOD
Thorium-234	**1.396**	0.4173	pCi/g	**0.4319**	**0.500**	92.78	1	1.244	IDENTIFIED		14.27	☐	GOOD

*** = 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
198683021	18-OCT-07 00:00	15-DEC-07 10:57	58.5	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	**1.697**	0.3017	pCi/g	**0.2015**	**0.800**	911.3	1	1.741	IDENTIFIED		8.42	☐	GOOD
Americium-243	**0.3255**	0.04647	pCi/g	**0.03733**	**Y**	74.95	1	1.86	IDENTIFIED		6.407	☑ UI	Data rejected due to interference.
Bismuth-212	**1.083**	0.4023	pCi/g	**0.4792**	**0.500**	727.6	1	1.323	IDENTIFIED		18.51	☐	GOOD
Bismuth-214	**1.015**	0.1679	pCi/g	**0.09519**	**0.200**	609.3	1	1.574	IDENTIFIED		7.534	☐	GOOD
Gross Gamma	**8.063**	1.695	pCi/g	**3.612**	**N**		0					☐	
Lead-212	**1.596**	0.1327	pCi/g	**0.07285**	**0.100**	238.7	1	1.429	IDENTIFIED		2.933	☐	GOOD
Lead-214	**1.096**	0.1259	pCi/g	**0.09557**	**0.100**	352	1	1.483	IDENTIFIED		5.257	☐	GOOD
Neptunium-236	**0.06274**	0.04712	pCi/g	**0.05912**	**Y**	99.35	1	2.44	IDENTIFIED		38.12	☑ UI	Data rejected due to interference.
Neptunium-237	**0.801**	0.1648	pCi/g	**0.1869**	**Y**	87.3	1	1.352	IDENTIFIED		9.829	☑ UI	Data rejected due to interference.
Potassium-40	**8.783**	1.078	pCi/g	**0.5231**	**1.00**	1461	1	2.141	IDENTIFIED		5.616	☐	GOOD
Radium-223	**0.3544**	0.2026	pCi/g	**0.2231**	**Y**	270.2	1	1.242	IDENTIFIED		29.05	☑ UI	Data rejected due to interference.
Thallium-208	**0.582**	0.09034	pCi/g	**0.05119**	**0.080**	583.4	1	1.793	IDENTIFIED		7.03	☐	GOOD
Thorium-234	**1.764**	0.4096	pCi/g	**0.4557**	**0.500**	93.04	1	1.433	IDENTIFIED		11.22	☐	GOOD

*** = 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
198683022	18-OCT-07 00:00	15-DEC-07 10:58	58.5	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	**0.9281**	0.1761	pCi/g	**0.09034**	**0.800**	910.6	1	2.067	IDENTIFIED		8.315	☐	GOOD
Americium-243	**0.171**	0.03467	pCi/g	**0.03734**	**Y**	74.72	1	1.383	IDENTIFIED		9.566	☑ UI	Data rejected due to interference.
Bismuth-212	**0.7133**	0.1711	pCi/g	**0.2018**	**0.500**	726.8	1	2.017	IDENTIFIED		11.35	☐	GOOD
Bismuth-214	**0.8165**	0.09874	pCi/g	**0.05291**	**0.200**	608.9	1	1.748	IDENTIFIED		4.665	☐	GOOD
Cesium-137	**0.06401**	0.02387	pCi/g	**0.02831**	**0.100**	660.9	1	1.278	IDENTIFIED		18.51	☐	GOOD
Lead-212	**0.85**	0.07055	pCi/g	**0.04538**	**0.100**	238.4	1	1.232	IDENTIFIED		2.999	☐	GOOD
Lead-214	**0.935**	0.08812	pCi/g	**0.05118**	**0.100**	351.7	1	1.439	IDENTIFIED		3.856	☐	GOOD
Neptunium-237	**0.5588**	0.1452	pCi/g	**0.1572**	**Y**	87.13	1	1.475	IDENTIFIED		12.52	☑ UI	Data rejected due to interference.
Potassium-40	**4.875**	0.5242	pCi/g	**0.2313**	**1.00**	1460	1	2.629	IDENTIFIED		4.631	☐	GOOD
Radium-223	**0.2415**	0.1151	pCi/g	**0.14**	**Y**	269.9	1	1.899	IDENTIFIED		24.14	☑ UI	Data rejected due to interference.
Thallium-208	**0.2608**	0.03865	pCi/g	**0.02501**	**0.080**	583	1	1.782	IDENTIFIED		6.495	☐	GOOD
Thorium-234	**1.093**	0.349	pCi/g	**0.3448**	**0.500**	92.63	1	1.538	IDENTIFIED		15.75	☐	GOOD

*** = 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
198683023	18-OCT-07 00:00	15-DEC-07 10:58	58.5	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	**1.094**	0.2018	pCi/g	**0.1245**	**0.800**	910.8	1	1.575	IDENTIFIED		8.52	☐	GOOD
Americium-243	**0.38**	0.08044	pCi/g	**0.04616**	**Y**	76.25	1	2.87	IDENTIFIED		10.2	☑ UI	Data rejected due to interference.

Bismuth-212	**0.6958**	0.2345	pCi/g	**0.2777**	**0.500**	727.2	1	1.253	IDENTIFIED	16.88	☐	GOOD
Bismuth-214	**0.8661**	0.108	pCi/g	**0.06762**	**0.200**	609	1	1.328	IDENTIFIED	5.669	☐	GOOD
Cesium-137	**0.1376**	0.03695	pCi/g	**0.03596**	**0.100**	661.4	1	1.516	IDENTIFIED	13.38	☐	GOOD
Lead-212	**0.9877**	0.08241	pCi/g	**0.05556**	**0.100**	238.6	1	0.9813	IDENTIFIED	3.19	☐	GOOD
Lead-214	**0.9015**	0.1038	pCi/g	**0.07037**	**0.100**	351.8	1	1.221	IDENTIFIED	5.221	☐	GOOD
Neptunium-237	**0.6394**	0.1491	pCi/g	**0.1805**	**Y**	87.16	1	1.081	IDENTIFIED	11.31	☑ UI	Data rejected due to interference.
Potassium-40	**3.392**	0.5596	pCi/g	**0.3269**	**1.00**	1460	1	1.54	IDENTIFIED	7.622	☐	GOOD
Radium-223	**0.2453**	0.1309	pCi/g	**0.1611**	**Y**	270	1	1.132	IDENTIFIED	27.07	☑ UI	Data rejected due to interference.
Thallium-208	**0.3014**	0.04539	pCi/g	**0.03346**	**0.080**	583	1	1.299	IDENTIFIED	7.136	☐	GOOD
Thorium-234	**1.106**	0.3981	pCi/g	**0.5691**	**0.500**	92.81	1	1.307	FAIL_ABUND	18.01	☑ 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
198683024	18-OCT-07 00:00	15-DEC-07 12:31	58.5	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	**1.325**	0.3164	pCi/g	**0.1484**	**0.800**	911.3	1	1.938	IDENTIFIED		11.02	☐	GOOD
Americium-243	**0.2044**	0.06065	pCi/g	**0.0708**	**Y**	74.97	1	1.304	IDENTIFIED		14.7	☑ UI	Data rejected due to interference.
Bismuth-212	**0.9311**	0.3287	pCi/g	**0.3606**	**0.500**	727.1	1	2.28	IDENTIFIED		17.39	☐	GOOD
Bismuth-214	**0.7055**	0.1448	pCi/g	**0.09597**	**0.200**	609	1	1.375	IDENTIFIED		9.636	☐	GOOD
Cesium-137	**0.07758**	0.06049	pCi/g	**0.04812**	**0.100**	661.8	1	1.104	IDENTIFIED		39.53	☐	GOOD
Gross Gamma	**5.484**	1.457	pCi/g	**3.199**	**N**		0					☐	
Lead-212	**1.222**	0.118	pCi/g	**0.07464**	**0.100**	238.6	1	1.16	IDENTIFIED		3.851	☐	GOOD
Lead-214	**0.8337**	0.1071	pCi/g	**0.08727**	**0.100**	351.8	1	1.31	IDENTIFIED		5.856	☐	GOOD
Neptunium-237	**0.5337**	0.2246	pCi/g	**0.3682**	**Y**	99.14	1	0.8251	NOT_IDENTI		47.5	☑ UI	Data rejected due to low abundance.
Potassium-40	**4.259**	0.7192	pCi/g	**0.4936**	**1.00**	1460	1	2.126	IDENTIFIED		8.059	☐	GOOD
Radium-223	**0.398**	0.2351	pCi/g	**0.2242**	**Y**	269.9	1	1.144	IDENTIFIED		29.98	☑ UI	Data rejected due to interference.
Thallium-208	**0.3897**	0.06038	pCi/g	**0.04608**	**0.080**	582.9	1	1.566	IDENTIFIED		6.859	☐	GOOD
Thorium-234	**1.233**	0.5714	pCi/g	**0.6567**	**0.500**	92.99	1	1.39	IDENTIFIED		23.34	☐	GOOD

*** = 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
198683025	18-OCT-07 00:00	15-DEC-07 12:31	58.5	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	**1.341**	0.2602	pCi/g	**0.2012**	**0.800**	911.7	1	1.83	IDENTIFIED		8.858	☐	GOOD
Americium-243	**0.2099**	0.06198	pCi/g	**0.05828**	**Y**	74.98	1	1.846	IDENTIFIED		14.6	☑ UI	Data rejected due to interference.
Bismuth-212	**0.6907**	0.5139	pCi/g	**0.3613**	**0.500**	728.2	1	2.26	IDENTIFIED		37.74	☐	GOOD
Bismuth-214	**0.5946**	0.1491	pCi/g	**0.08318**	**0.200**	609.4	1	1.67	IDENTIFIED		12.25	☐	GOOD
Lead-212	**1.108**	0.1133	pCi/g	**0.07076**	**0.100**	238.6	1	1.533	IDENTIFIED		4.184	☐	GOOD
Lead-214	**0.6372**	0.1124	pCi/g	**0.09617**	**0.100**	351.6	1	1.575	IDENTIFIED		8.495	☐	GOOD
Neptunium-237	**0.6116**	0.2644	pCi/g	**0.2437**	**Y**	87.37	1	1.825	IDENTIFIED		21.66	☑ UI	Data rejected due to interference.
Potassium-40	**5.667**	0.8928	pCi/g	**0.4861**	**1.00**	1462	1	1.952	IDENTIFIED		7.541	☐	GOOD
Protactinium-233	**0.08558**	0.06708	pCi/g	**0.07939**	**Y**	310.9	1	1.416	IDENTIFIED		39.87	☑ UI	Data rejected due to no valid peak.
Radium-223	**0.3733**	0.2649	pCi/g	**0.2388**	**Y**	269.8	1	1.504	IDENTIFIED		36.08	☑ UI	Data rejected due to interference.
Thallium-208	**0.3384**	0.06946	pCi/g	**0.04649**	**0.080**	583.3	1	1.615	IDENTIFIED		9.834	☐	GOOD
Thorium-234	**1.568**	0.618	pCi/g	**0.5382**	**0.500**	92.99	1	1.899	IDENTIFIED		19.71	☐	GOOD

*** = 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
198683026	18-OCT-07 00:00	16-DEC-07 12:08	59.5	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	**0.3481**	0.1151	pCi/g	**0.1945**	**0.800**	911.8	1	1.495	FAIL_ABUND		16.17	☑ UI	Data rejected due to low abundance.
Americium-243	**0.1212**	0.04171	pCi/g	**0.03983**	**Y**	74.91	1	1.926	IDENTIFIED		17.11	☑ UI	Data rejected due to interference.
Bismuth-212	**0.4356**	0.2675	pCi/g	**0.2157**	**0.500**	726.9	1	1.918	IDENTIFIED		31.06	☐	GOOD
Bismuth-214	**0.225**	0.06441	pCi/g	**0.05861**	**0.200**	609.6	1	1.624	IDENTIFIED		14.14	☐	GOOD
Cesium-137	**0.06962**	0.02098	pCi/g	**0.03149**	**0.100**	662.1	1	1.146	IDENTIFIED		14.9	☐	GOOD
Lead-212	**0.3938**	0.05196	pCi/g	**0.04714**	**0.100**	238.7	1	1.366	IDENTIFIED		5.783	☐	GOOD
Lead-214	**0.2658**	0.06815	pCi/g	**0.05844**	**0.100**	351.9	1	1.491	IDENTIFIED		12.69	☐	GOOD
Neptunium-237	**0.2438**	0.1234	pCi/g	**0.193**	**Y**	87.27	1	1.877	IDENTIFIED		25.48	☑ UI	Data rejected due to interference.
Potassium-40	**3.993**	0.5492	pCi/g	**0.2714**	**1.00**	1461	1	2.033	IDENTIFIED		6.387	☐	GOOD

Radium-223	**0.2013**	0.1398	pCi/g	**0.1468**	Y	270.5	1	2.129	IDENTIFIED	35.28	☑ UI	Data rejected due to interference.
Thallium-208	**0.1192**	0.03056	pCi/g	**0.03002**	**0.080**	583.3	1	1.61	IDENTIFIED	12.58	☐	GOOD
Thorium-234	**0.4924**	0.4004	pCi/g	**0.4002**	**0.500**	93	1	1.624	IDENTIFIED	41.31	☐	GOOD

*** = 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
1201473821		16-DEC-07 12:09	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act Rpt Err(%)	Qual	Qual Comment
Iodine-123	**6755**	19860	pCi/g	**0**	N	526.7	1	13.09	NOT_IDENTI	40.96	☐	
Iodine-133	**64.58**	117	pCi/g	**0**	N	511.2	2	1.965	FAIL_DECAY	70.36	☐	
Iodine-135	**2.98E+10**	2.07E+11	pCi/g	**0**	N	511.2	2	1.965	NOT_IDENTI	70.36	☐	
Krypton-85	**9.857**	3.158	pCi/g	**6.38**	N	98.35	2	2.703	NOT_IDENTI	38.11	☐	HE
Neptunium-236	**0.02965**	0.0223	pCi/g	**0.02551**	Y	98.35	2	2.703	IDENTIFIED	38.11	☑ UI	Data rejected due to no valid peak.
Sodium-24	**4493**	5157	pCi/g	**0**	N	0	1	0	NOT_IDENTI	0	☐	
Thallium-200	**18.51**	27.64	pCi/g	**0**	N	368.9	1	0.7671	FAIL_DECAY	76.1	☐	
Zirconium-97	**19890**	23020	pCi/g	**0**	N	767.6	1	4.939	NOT_IDENTI	55.58	☐	

*** = 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
1201473822	18-OCT-07 00:00	16-DEC-07 12:09	59.5	DUP	LOAD	1		SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act Rpt Err(%)	Qual	Qual Comment
Actinium-228	**1.619**	0.2821	pCi/g	**0.226**	**0.800**	911.6	1	1.957	IDENTIFIED	7.609	☐	GOOD
Americium-243	**0.3267**	0.04333	pCi/g	**0.04091**	Y	74.63	1	1.176	IDENTIFIED	5.407	☑ UI	Data rejected due to interference.
Antimony-122	**20920**	1.62E+05	pCi/g	**0**	N	158.6	2	2.248	NOT_IDENTI	35.09	☐	
Antimony-127	**1264**	4345	pCi/g	**0**	N	543.7	1	1.585	FAIL_DECAY	65.54	☐	
Bismuth-212	**1.168**	0.3083	pCi/g	**0.3824**	**0.500**	727.7	1	2.04	IDENTIFIED	12.77	☐	GOOD
Bismuth-214	**1.329**	0.1725	pCi/g	**0.1045**	**0.200**	609.5	1	1.572	IDENTIFIED	5.456	☐	GOOD
Bromine-77	**7.92E+05**	3.87E+06	pCi/g	**0**	N	238.6	3	1.309	FAIL_DECAY	2.78	☐	
Cadmium-115	**9.17E+06**	9.53E+06	pCi/g	**0**	N	86.97	3	1.288	NOT_IDENTI	8.741	☐	
Cerium-143	**8.15E+12**	3.42E+12	pCi/g	**0**	N	295.2	1	1.35	FAIL_DECAY	5.155	☐	
Cesium-137	**0.3429**	0.06362	pCi/g	**0.05563**	**0.100**	661.9	1	1.788	IDENTIFIED	8.541	☐	GOOD
Gross Gamma	**8.793**	1.87	pCi/g	**7.368**	N		0				☐	
Indium-111	**35660**	46160	pCi/g	**0**	N	86.97	3	1.288	NOT_IDENTI	8.741	☐	
Iodine-123	**1.82E+31**	0	pCi/g	**0**	N	158.6	2	2.248	FAIL_DECAY	35.09	☐	
Iodine-133	**4.32E+18**	0	pCi/g	**0**	N	511	2	1.937	FAIL_DECAY	29.46	☐	
Iodine-135	**1.00E+41**	0	pCi/g	**0**	N	511	2	1.937	NOT_IDENTI	29.46	☐	
Krypton-85	**27.8**	7.956	pCi/g	**13.62**	N	238.6	3	1.309	NOT_IDENTI	2.78	☐	LA/NR
Lead-212	**1.645**	0.1627	pCi/g	**0.07535**	**0.100**	238.6	3	1.309	IDENTIFIED	2.78	☐	GOOD
Lead-214	**1.536**	0.1544	pCi/g	**0.09362**	**0.100**	351.9	1	1.517	IDENTIFIED	4.3	☐	GOOD
Lutetium-177	**372.4**	133.6	pCi/g	**0**	N	209.3	1	1.443	FAIL_DECAY	17.68	☐	
Neptunium-237	**1.031**	0.1974	pCi/g	**0.2078**	Y	86.97	3	1.288	IDENTIFIED	8.741	☑ UI	Data rejected due to interference.
Niobium-95m	**23920**	10360	pCi/g	**0**	N	1078	3	1.254	NOT_IDENTI	96.11	☐	
Niobium-97	**9.72E+22**	0	pCi/g	**0**	N	1078	3	1.254	NOT_IDENTI	96.11	☐	
Potassium-40	**8.71**	1.116	pCi/g	**0.3887**	**1.00**	1461	1	2.3	IDENTIFIED	5.192	☐	GOOD
Protactinium-234m	**7.011**	4.032	pCi/g	**5.805**	Y	1002	1	1.032	IDENTIFIED	29.06	☑ UI	Data rejected due to no valid peak.
Radium-223	**0.3972**	0.2791	pCi/g	**0.2353**	Y	270.6	1	1.44	IDENTIFIED	35.69	☑ UI	Data rejected due to interference.
Tellurium-132	**2033**	6913	pCi/g	**0**	N	114.9	1	0.9729	FAIL_DECAY	66.2	☐	
Thallium-201	**29620**	1.40E+05	pCi/g	**0**	N	72.65	1	1.271	FAIL_DECAY	52.06	☐	
Thallium-208	**0.5065**	0.08127	pCi/g	**0.04634**	**0.080**	583.3	1	1.544	IDENTIFIED	7.358	☐	GOOD
Thorium-234	**1.92**	0.5014	pCi/g	**0.4844**	**0.500**	92.62	2	1.446	IDENTIFIED	12.55	☐	GOOD
Uranium-231	**1902**	1421	pCi/g	**0**	N	92.62	2	1.446	FAIL_DECAY	12.55	☐	
Zirconium-97	**4.75E+25**	0	pCi/g	**0**	N	1078	3	1.254	NOT_IDENTI	96.11	☐	

*** = 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
1201473823		16-DEC-07 12:47	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act Rpt Err(%)	Qual	Qual Comment
Americium-241	**12.94**	1.303	pCi/g	**0.6682**	**0.200**	59.5	1	1.11	IDENTIFIED	3.037	☐	
Bismuth-214	**0.8598**	0.2577	pCi/g	**0.269**	**0.200**	609.2	1	1.335	IDENTIFIED	14.81	☐	

Cesium-137	**6.121**	0.5746	pCi/g	**0.1511**	**0.100**	661.4	1	1.672	IDENTIFIED	2.609	☐
Cobalt-60	**9.202**	0.6956	pCi/g	**0.1346**	**0.100**	1173	1	1.906	IDENTIFIED	2.192	☐
Gross Gamma	**42.04**	7.027	pCi/g	**9.482**	**N**		0				☐
Lead-212	**1.106**	0.2011	pCi/g	**0.2217**	**0.100**	238.6	1	1.415	IDENTIFIED	8.706	☐
Lead-214	**0.8595**	0.3123	pCi/g	**0.2867**	**0.100**	351.7	1	1.36	IDENTIFIED	18.29	☐
Neptunium-237	**31.46**	2.994	pCi/g	**1.175**	**Y**	88.02	1	1.218	IDENTIFIED	2.245	☐
Polonium-209	**244.3**	54.16	pCi/g	**36.62**	**Y**	897.7	1	1.466	IDENTIFIED	10.06	☐
Potassium-40	**1.274**	0.6275	pCi/g	**0.8242**	**1.00**	1461	1	3.187	IDENTIFIED	24.95	☐
Thallium-208	**0.4582**	0.1777	pCi/g	**0.1345**	**0.080**	583.7	1	1.546	IDENTIFIED	19.44	☐

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

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 12:26:51.86

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683007.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 08:26:21
Sample ID        : G198683007           Sample quantity  : 1.15570E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.35  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	63.26*	93	687	1.19	125.75	121	9	6.44E-03	54.8	
2	2	74.92*	606	627	1.18	149.07	141	18	4.21E-02	8.2	1.01E+00
3	2	77.17	953	497	0.95	153.57	141	18	6.62E-02	5.0	
4	5	84.38*	79	581	1.18	168.01	162	31	5.46E-03	52.6	2.36E+00
5	5	87.23	430	623	1.38	173.72	162	31	2.98E-02	10.9	
6	5	90.04	241	511	1.22	179.34	162	31	1.68E-02	16.9	
7	5	92.90*	349	614	1.54	185.06	162	31	2.42E-02	16.3	
8	5	94.76	90	580	1.86	188.78	162	31	6.26E-03	57.5	
9	0	129.29	145	511	0.97	257.87	254	9	1.00E-02	29.4	
10	0	140.21*	82	493	2.26	279.71	276	9	5.70E-03	50.3	
11	0	143.78*	18	475	1.37	286.86	285	8	1.23E-03	224.8	
12	0	153.10	60	638	3.11	305.50	302	11	4.19E-03	82.1	
13	0	185.99*	321	632	1.25	371.31	366	12	2.23E-02	17.7	
14	0	209.23	150	437	1.26	417.80	414	9	1.04E-02	26.5	
15	3	238.58*	1858	353	1.15	476.52	471	18	1.29E-01	3.0	1.48E+00
16	3	241.72	494	416	1.76	482.81	471	18	3.43E-02	10.4	
17	0	258.88	46	197	0.94	517.13	515	7	3.17E-03	53.3	
18	0	269.84*	168	342	1.16	539.06	533	12	1.16E-02	24.4	
19	0	277.51	112	301	1.92	554.40	550	10	7.81E-03	30.7	
20	0	295.13*	660	285	1.34	589.65	585	10	4.58E-02	6.4	
21	0	299.62	112	313	1.37	598.63	595	10	7.81E-03	30.8	
22	0	327.77	135	248	2.08	654.96	650	11	9.34E-03	24.2	
23	0	338.07	451	225	1.34	675.56	671	10	3.13E-02	7.8	
24	0	351.80*	1116	294	1.32	703.03	698	11	7.75E-02	4.3	
25	0	388.22	38	210	2.72	775.89	770	10	2.61E-03	74.0	
26	0	409.74	76	179	1.63	818.94	814	10	5.25E-03	35.3	
27	0	418.92	5	167	0.86	837.30	833	9	3.78E-04	421.1	
28	0	462.90	109	193	1.60	925.27	920	11	7.58E-03	26.4	
29	0	510.67*	127	304	1.71	1020.83	1015	16	8.84E-03	37.2	
30	0	582.87*	574	155	1.52	1165.25	1160	13	3.99E-02	6.4	
31	5	599.36	41	131	2.56	1198.23	1193	16	2.83E-03	55.6	1.02E+00
32	5	602.93	24	63	1.46	1205.38	1193	16	1.64E-03	64.0	
33	0	609.01*	873	153	1.61	1217.53	1209	18	6.06E-02	5.0	
34	0	661.28*	408	161	1.47	1322.08	1315	14	2.83E-02	8.5	
35	0	726.92	170	62	1.31	1453.36	1449	10	1.18E-02	11.6	
36	3	743.68	41	87	2.23	1486.89	1479	24	2.86E-03	47.7	1.94E+00
37	3	749.26	37	49	2.23	1498.06	1479	24	2.59E-03	44.4	
38	1	768.07*	84	76	1.72	1535.66	1529	19	5.81E-03	24.9	6.91E-01

Sample ID : G198683007 Acquisition date : 15-DEC-2007 08:26:21

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	771.63	36	79	1.86	1542.80	1529	19	2.50E-03	54.0	
40	0	795.18	124	101	2.20	1589.88	1582	19	8.58E-03	21.7	
41	0	805.75	37	115	3.95	1611.02	1601	17	2.57E-03	68.4	
42	0	826.81	23	68	3.84	1653.15	1646	12	1.60E-03	75.0	
43	0	839.51	32	65	2.00	1678.54	1674	8	2.22E-03	47.4	
44	0	860.38	95	54	1.60	1720.28	1714	12	6.61E-03	18.5	
45	0	903.30	38	29	1.25	1806.11	1802	8	2.64E-03	29.6	
46	0	910.78*	410	72	1.93	1821.08	1813	16	2.85E-02	7.1	
47	0	933.14	60	69	1.89	1865.79	1857	14	4.15E-03	32.4	
48	5	964.00	94	55	2.06	1927.49	1923	19	6.53E-03	16.3	3.13E+00
49	5	968.59	242	53	1.79	1936.68	1923	19	1.68E-02	8.7	
50	1	981.19	30	49	1.97	1961.87	1954	38	2.07E-03	49.9	2.70E+00
51	1	984.93	23	46	1.97	1969.36	1954	38	1.63E-03	61.4	
52	0	1001.87*	28	86	5.17	2003.23	1996	16	1.97E-03	81.9	
53	0	1053.38	54	95	2.85	2106.24	2094	24	3.75E-03	49.9	
54	0	1067.81	24	130	5.15	2135.08	2117	27	1.67E-03	133.0	
55	0	1120.01*	124	72	1.40	2239.47	2234	10	8.62E-03	16.6	
56	0	1155.03	62	39	3.89	2309.49	2303	13	4.33E-03	24.2	
57	0	1225.65	43	24	3.58	2450.67	2445	12	2.99E-03	27.4	
58	0	1237.89	68	63	2.45	2475.15	2466	14	4.72E-03	27.6	
59	0	1252.06	24	66	5.59	2503.49	2491	19	1.69E-03	82.9	
60	0	1281.11	36	36	1.30	2561.58	2555	13	2.53E-03	37.7	
61	0	1377.46	78	55	2.23	2754.20	2744	20	5.44E-03	25.8	
62	0	1409.63	28	55	4.01	2818.50	2808	19	1.96E-03	66.7	
63	0	1421.59	12	26	1.49	2842.42	2835	13	8.33E-04	92.2	
64	0	1460.07*	659	58	2.05	2919.34	2909	21	4.58E-02	5.0	
65	1	1491.21	31	18	2.21	2981.60	2976	17	2.14E-03	29.8	5.58E+00
66	1	1495.22	26	13	2.21	2989.61	2976	17	1.77E-03	26.4	
67	0	1521.52	17	9	4.14	3042.20	3036	12	1.18E-03	42.9	
68	3	1588.14	56	23	2.72	3175.35	3169	24	3.86E-03	19.3	1.72E+00
69	3	1592.32	34	16	2.72	3183.70	3169	24	2.37E-03	37.9	
70	0	1639.23	15	10	0.91	3277.48	3273	12	1.06E-03	47.4	
71	0	1763.71*	129	30	1.62	3526.30	3518	17	8.93E-03	14.0	
72	0	1795.39	8	5	2.06	3589.61	3586	8	5.61E-04	56.7	
73	0	1814.31	12	0	1.41	3627.42	3623	10	8.33E-04	28.9	
74	0	1820.45	12	2	1.94	3639.69	3635	9	8.11E-04	37.4	
75	0	1847.13	23	18	0.94	3693.02	3686	11	1.59E-03	42.4	
76	0	2020.72	8	13	1.37	4039.94	4034	11	5.39E-04	98.8	

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]G198683007       *
* Acquisition date : 15-DEC-2007 08:26:21 Detector SN#    :                 *
* Detector ID      : GAM12                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 04:00:02.35     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683007           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1557E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 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	8.854E+00	1.012E+00	3.464E-01	0.000E+00
CS-137	3.473E-01	6.510E-02	4.160E-02	0.000E+00
TL-208	4.415E-01	6.474E-02	3.897E-02	0.000E+00
BI-212	1.125E+00	2.762E-01	3.033E-01	0.000E+00
PB-212	1.408E+00	1.178E-01	6.844E-02	0.000E+00
BI-214	1.276E+00	1.609E-01	7.910E-02	0.000E+00
PB-214	1.291E+00	1.326E-01	8.112E-02	0.000E+00
RA-223	4.373E-01	2.106E-01	2.064E-01	0.000E+00
AC-228	1.520E+00	2.632E-01	1.314E-01	0.000E+00
PA-234M	3.518E+00	5.654E+00	5.240E+00	0.000E+00
TH-234	1.740E+00	5.715E-01	5.428E-01	0.000E+00
U-235	4.051E-02	1.785E-01	2.211E-01	0.000E+00
NP-237	9.875E-01	2.247E-01	2.507E-01	0.000E+00
AM-243	3.091E-01	5.455E-02	5.977E-02	0.000E+00
CF-249	2.671E-02	3.877E-02	4.581E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.739E-02		2.664E-02	4.765E-02	0.000E+00	NOT IDENT.
RH-101	-4.533E-03		2.402E-02	4.016E-02	0.000E+00	NOT IDENT.
SB-125	-1.930E-02		6.365E-02	1.030E-01	0.000E+00	NOT IDENT.
EU-155	7.055E-02		7.106E-02	1.291E-01	0.000E+00	NOT IDENT.
PO-209	2.582E+00		5.461E+00	8.883E+00	0.000E+00	NOT IDENT.
BI-211	-5.345E-01		8.238E-01	1.099E+00	0.000E+00	NOT IDENT.
PA-233	1.361E-02		4.504E-02	7.668E-02	0.000E+00	NOT IDENT.
NP-236	4.106E-02		4.788E-02	7.291E-02	0.000E+00	NOT IDENT.
NP-239	-6.296E-03		1.641E-01	2.800E-01	0.000E+00	NOT IDENT.
AM-241	3.092E-02		1.108E-01	1.685E-01	0.000E+00	NOT IDENT.
CM-243	-1.954E-02		7.049E-02	1.150E-01	0.000E+00	NOT IDENT.
AM-246	4.009E-02		8.243E-02	1.467E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 12:26:52.92

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683007.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 08:26:21
Sample ID        : G198683007           Sample quantity  : 1.15570E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.35  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	659	10.66*	1.134E+00	8.854E+00	8.854E+00	11.67
CS-137	661.66	408	85.10*	2.249E+00	3.460E-01	3.473E-01	19.13
TL-208	277.36	112	6.31	4.452E+00	6.499E-01	6.499E-01	61.63
	510.77	127	22.60	2.787E+00	3.283E-01	3.283E-01	74.73
	583.19	574	84.50*	2.501E+00	4.415E-01	4.415E-01	14.96
	763.13	------	1.81	1.987E+00	------	Line Not Found	------
	860.56	95	12.42	1.788E+00	6.957E-01	6.957E-01	38.48
BI-212	727.33	170	11.80*	2.073E+00	1.125E+00	1.125E+00	25.04
	785.37	------	1.10	1.938E+00	------	Line Not Found	------
	1620.50	------	1.49	1.052E+00	------	Line Not Found	------
PB-212	74.81	606	10.40	4.667E+00	2.027E+00	2.027E+00	18.01
	77.11	953	17.50	4.893E+00	1.807E+00	1.807E+00	12.44
	87.30	430	7.81	5.700E+00	1.568E+00	1.568E+00	23.22
	238.63	1858	43.30*	4.950E+00	1.408E+00	1.408E+00	8.54
	300.09	112	3.28	4.210E+00	1.322E+00	1.322E+00	61.93
BI-214	609.31	873	46.10*	2.411E+00	1.275E+00	1.276E+00	12.87
	768.36	84	4.94	1.976E+00	1.393E+00	1.393E+00	50.66
	806.17	37	1.22	1.894E+00	2.599E+00	2.599E+00	137.14
	934.06	60	3.03	1.663E+00	1.924E+00	1.924E+00	65.58
	1120.29	124	15.10	1.414E+00	9.439E-01	9.440E-01	33.89
	1155.19	62	1.63	1.377E+00	4.514E+00	4.514E+00	48.83
	1238.11	68	5.79	1.297E+00	1.471E+00	1.471E+00	55.48
	1280.96	36	1.43	1.260E+00	3.282E+00	3.282E+00	75.60
	1377.67	78	4.00	1.187E+00	2.678E+00	2.678E+00	51.95
	1401.50	------	1.27	1.171E+00	------	Line Not Found	------
	1407.98	28	2.15	1.165E+00	1.827E+00	1.827E+00	133.62
	1509.23	------	2.11	1.106E+00	------	Line Not Found	------
	1729.60	------	2.92	1.009E+00	------	Line Not Found	------
	1764.49	129	15.40	9.976E-01	1.359E+00	1.359E+00	28.64
PB-214	74.81	606	6.44	4.667E+00	3.273E+00	3.273E+00	18.01
	77.11	953	10.80	4.893E+00	2.928E+00	2.928E+00	12.44
	87.30	430	4.84	5.700E+00	2.530E+00	2.530E+00	23.22

Sample ID : G198683007 Acquisition date : 15-DEC-2007 08:26:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	494	7.43	4.906E+00	2.200E+00	2.201E+00	21.67
	295.22	660	19.30	4.257E+00	1.304E+00	1.304E+00	14.18
	351.93	1116	37.60*	3.733E+00	1.291E+00	1.291E+00	10.48
RA-223	269.46	168	13.70*	4.542E+00	4.373E-01	4.373E-01	49.14
AC-228	129.07	145	2.42	6.593E+00	1.473E+00	1.473E+00	59.19
	209.25	150	3.89	5.393E+00	1.159E+00	1.159E+00	53.42
	270.25	168	3.46	4.542E+00	1.731E+00	1.731E+00	49.14
	338.32	451	11.27	3.848E+00	1.689E+00	1.689E+00	16.67
	409.46	76	1.92	3.320E+00	1.926E+00	1.926E+00	70.78
	463.00	109	4.40	3.016E+00	1.336E+00	1.336E+00	53.22
	794.95	124	4.25	1.917E+00	2.463E+00	2.463E+00	44.59
	911.20	410	25.80*	1.699E+00	1.520E+00	1.520E+00	17.67
	964.77	94	4.99	1.616E+00	1.894E+00	1.894E+00	34.12
	968.97	242	15.80	1.609E+00	1.545E+00	1.545E+00	20.01
	1588.20	56	3.22	1.066E+00	2.627E+00	2.627E+00	39.08
PA-234M	1001.03	28	0.84*	1.561E+00	3.518E+00	3.518E+00	164.00
TH-234	63.29	93	4.80	3.252E+00	9.641E-01	9.641E-01	109.89
	92.58	349	5.41*	6.019E+00	1.740E+00	1.740E+00	33.52
U-235	143.76	18	10.96*	6.456E+00	4.051E-02	4.051E-02	449.57
NP-237	86.48	430	12.40*	5.700E+00	9.875E-01	9.875E-01	23.22
AM-243	74.66	606	68.20*	4.667E+00	3.091E-01	3.091E-01	18.01
CF-249	387.59	38	66.00*	3.462E+00	2.670E-02	2.671E-02	148.13

Flag: "*" = Keyline

Sample ID : G198683007 Acquisition date : 15-DEC-2007 08:26:21

Total number of lines in spectrum	76	
Number of unidentified lines	34	
Number of lines tentatively identified by NID	42	55.26%

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	8.854E+00	8.854E+00	1.033E+00	11.67	
CS-137	9.47E+08S	1.00	3.460E-01	3.473E-01	0.664E-01	19.13	
TL-208	4.43E+17S	1.00	4.415E-01	4.415E-01	0.661E-01	14.96	
BI-212	4.43E+17S	1.00	1.125E+00	1.125E+00	0.282E+00	25.04	
PB-212	4.43E+17S	1.00	1.408E+00	1.408E+00	0.120E+00	8.54	
BI-214	5.05E+10S	1.00	1.275E+00	1.276E+00	0.164E+00	12.87	
PB-214	5.05E+10S	1.00	1.291E+00	1.291E+00	0.135E+00	10.48	
RA-223	1.04E+12S	1.00	4.373E-01	4.373E-01	2.149E-01	49.14	
AC-228	4.43E+17S	1.00	1.520E+00	1.520E+00	0.269E+00	17.67	
PA-234M	1.41E+17S	1.00	3.518E+00	3.518E+00	5.769E+00	164.00	
TH-234	1.41E+17S	1.00	1.740E+00	1.740E+00	0.583E+00	33.52	
U-235	2.22E+16S	1.00	4.051E-02	4.051E-02	18.21E-02	449.57	
NP-237	6.75E+13S	1.00	9.875E-01	9.875E-01	2.293E-01	23.22	
AM-243	2.33E+11S	1.00	3.091E-01	3.091E-01	0.557E-01	18.01	
CF-249	1.11E+10S	1.00	2.670E-02	2.671E-02	3.956E-02	148.13	
			---	---			
		Total Activity :	2.332E+01	2.332E+01			

Grand Total Activity : 2.332E+01 2.332E+01

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

Sample ID : G198683007 Acquisition date : 15-DEC-2007 08:26:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	84.38	79	581	1.18	168.01	162	31	5.46E-03	****	5.50E+00	
5	90.04	241	511	1.22	179.34	162	31	1.68E-02	33.9	5.87E+00	
5	94.76	90	580	1.86	188.78	162	31	6.26E-03	****	6.11E+00	
0	140.21	82	493	2.26	279.71	276	9	5.70E-03	****	6.50E+00	
0	153.10	60	638	3.11	305.50	302	11	4.19E-03	****	6.33E+00	
0	185.99	321	632	1.25	371.31	366	12	2.23E-02	35.4	5.78E+00	
0	258.88	46	197	0.94	517.13	515	7	3.17E-03	****	4.68E+00	
0	327.77	135	248	2.08	654.96	650	11	9.34E-03	48.5	3.94E+00	
0	418.92	5	167	0.86	837.30	833	9	3.78E-04	****	3.26E+00	
5	599.36	41	131	2.56	1198.23	1193	16	2.83E-03	****	2.44E+00	
5	602.93	24	63	1.46	1205.38	1193	16	1.64E-03	****	2.43E+00	
3	743.68	41	87	2.23	1486.89	1479	24	2.86E-03	95.4	2.03E+00	
3	749.26	37	49	2.23	1498.06	1479	24	2.59E-03	88.7	2.02E+00	
1	771.63	36	79	1.86	1542.80	1529	19	2.50E-03	****	1.97E+00	
0	826.81	23	68	3.84	1653.15	1646	12	1.60E-03	****	1.85E+00	
0	839.51	32	65	2.00	1678.54	1674	8	2.22E-03	94.8	1.83E+00	
0	903.30	38	29	1.25	1806.11	1802	8	2.64E-03	59.2	1.71E+00	
1	981.19	30	49	1.97	1961.87	1954	38	2.07E-03	99.8	1.59E+00	
1	984.93	23	46	1.97	1969.36	1954	38	1.63E-03	****	1.58E+00	
0	1053.38	54	95	2.85	2106.24	2094	24	3.75E-03	99.8	1.49E+00	
0	1067.81	24	130	5.15	2135.08	2117	27	1.67E-03	****	1.48E+00	
0	1225.65	43	24	3.58	2450.67	2445	12	2.99E-03	54.8	1.31E+00	
0	1252.06	24	66	5.59	2503.49	2491	19	1.69E-03	****	1.28E+00	
0	1421.59	12	26	1.49	2842.42	2835	13	8.33E-04	****	1.16E+00	
1	1491.21	31	18	2.21	2981.60	2976	17	2.14E-03	59.5	1.12E+00	
1	1495.22	26	13	2.21	2989.61	2976	17	1.77E-03	52.8	1.11E+00	
0	1521.52	17	9	4.14	3042.20	3036	12	1.18E-03	85.7	1.10E+00	
3	1592.32	34	16	2.72	3183.70	3169	24	2.37E-03	75.8	1.06E+00	
0	1639.23	15	10	0.91	3277.48	3273	12	1.06E-03	94.8	1.04E+00	
0	1795.39	8	5	2.06	3589.61	3586	8	5.61E-04	****	9.88E-01	
0	1814.31	12	0	1.41	3627.42	3623	10	8.33E-04	57.7	9.82E-01	
0	1820.45	12	2	1.94	3639.69	3635	9	8.11E-04	74.8	9.80E-01	
0	1847.13	23	18	0.94	3693.02	3686	11	1.59E-03	84.7	9.73E-01	
0	2020.72	8	13	1.37	4039.94	4034	11	5.39E-04	****	9.35E-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]G198683007            *
* Acquisition date : 15-DEC-2007 08:26:21 Detector SN#    :                 *
* Detector ID      : GAM12                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 04:00:02.35     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683007           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1557E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 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	8.854E+00	1.012E+00	1.733E-01	1.012E+00
CS-137	3.473E-01	6.510E-02	2.081E-02	6.510E-02
TL-208	4.415E-01	6.474E-02	1.950E-02	6.474E-02
BI-212	1.125E+00	2.762E-01	1.518E-01	2.762E-01
PB-212	1.408E+00	1.178E-01	3.424E-02	1.178E-01
BI-214	1.276E+00	1.609E-01	3.957E-02	1.609E-01
PB-214	1.291E+00	1.326E-01	4.058E-02	1.326E-01
RA-223	4.373E-01	2.106E-01	1.033E-01	2.106E-01
AC-228	1.520E+00	2.632E-01	6.574E-02	2.632E-01
PA-234M	3.518E+00	5.654E+00	2.621E+00	5.654E+00
TH-234	1.740E+00	5.715E-01	2.716E-01	5.715E-01
U-235	4.051E-02	1.785E-01	1.106E-01	1.785E-01
NP-237	9.875E-01	2.247E-01	1.254E-01	2.247E-01
AM-243	3.091E-01	5.455E-02	2.990E-02	5.455E-02
CF-249	2.671E-02	3.877E-02	2.292E-02	3.877E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.739E-02	2.664E-02	2.384E-02	2.664E-02	NOT IDENT.
RH-101	-4.533E-03	2.402E-02	2.009E-02	2.402E-02	NOT IDENT.
SB-125	-1.930E-02	6.365E-02	5.151E-02	6.365E-02	NOT IDENT.
EU-155	7.055E-02	7.106E-02	6.457E-02	7.106E-02	NOT IDENT.
PO-209	2.582E+00	5.461E+00	4.444E+00	5.461E+00	NOT IDENT.
BI-211	-5.345E-01	8.238E-01	5.499E-01	8.238E-01	NOT IDENT.
PA-233	1.361E-02	4.504E-02	3.836E-02	4.504E-02	NOT IDENT.
NP-236	4.106E-02	4.788E-02	3.648E-02	4.788E-02	NOT IDENT.
NP-239	-6.296E-03	1.641E-01	1.401E-01	1.641E-01	NOT IDENT.
AM-241	3.092E-02	1.108E-01	8.429E-02	1.108E-01	NOT IDENT.
CM-243	-1.954E-02	7.049E-02	5.754E-02	7.049E-02	NOT IDENT.
AM-246	4.009E-02	8.243E-02	7.340E-02	8.243E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	435.8411
63.29	526.6295
74.66	596.8354
74.81	596.9737
74.81	596.9737
77.11	599.0612
77.11	599.0612
86.48	516.1133
87.30	516.7031
87.30	516.7031
92.58	520.4473
98.44	442.8551
103.76	496.5634
105.31	441.4633
129.07	448.3879
143.76	413.3011
198.00	420.7904
209.25	421.7249
228.18	404.3147
238.63	366.7989
242.00	367.6937
269.46	282.5931
270.25	282.7463
277.36	281.0242
295.22	280.1472
300.09	262.8197
312.17	237.2959
338.32	228.2937
351.93	222.6015
387.59	188.9160
409.46	187.7436
427.87	165.0809
463.00	164.0133
510.77	151.8747
583.19	117.5548
609.31	134.0596
661.66	109.3176
727.33	95.8313
763.13	97.6248
768.36	100.1481
785.37	78.3122
794.95	73.1049
806.17	73.3586
831.80	98.0012
860.56	58.9549
896.60	77.5275
911.20	58.0548
934.06	72.5858
964.77	71.7649
968.97	62.5517
1001.03	82.9071
1078.86	52.3868
1120.29	66.8408
1155.19	68.3306
1173.23	56.3965
1238.11	60.4992
1280.96	44.2874
1332.51	40.8806
1377.67	45.1933
1401.50	35.5400
1407.98	42.5048
1460.80	30.9634
1509.23	39.3190
1588.20	36.8306
1620.50	38.0750
1729.60	22.0254
1764.49	24.2653

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683007

Total Uranium Activity	1.8743E-02	ug/g
Total Uranium Counting Unc.	8.2579E-02	ug/g
Total Uranium Tpu	8.2579E-08	ug/g
Total Uranium Mda	5.1179E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 12:27:38.06

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683008.CNF;1
Sample date       : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 08:27:01
Sample ID         : G198683008           Sample quantity  : 1.41200E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:02.07  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708124               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	47.06*	117	715	1.56	94.10	88	15	8.14E-03	52.6	
2	0	64.09*	98	721	2.16	128.14	124	11	6.80E-03	56.3	
3	2	74.81*	599	734	1.68	149.58	141	19	4.16E-02	10.4	2.54E+00
4	2	77.24*	830	649	1.43	154.44	141	19	5.76E-02	7.1	
5	0	83.55	48	665	0.87	167.05	164	8	3.37E-03	93.2	
6	1	87.44	331	516	1.54	174.83	171	22	2.30E-02	12.3	2.17E+00
7	1	90.10	194	612	1.55	180.15	171	22	1.35E-02	24.8	
8	1	92.89*	325	565	1.51	185.72	171	22	2.25E-02	16.2	
9	0	129.57	94	435	1.91	259.07	255	8	6.53E-03	39.9	
10	0	186.09*	300	502	1.65	372.07	367	11	2.08E-02	16.8	
11	0	209.15	151	388	1.28	418.18	414	9	1.05E-02	24.9	
12	2	238.53*	1591	271	1.38	476.92	469	23	1.10E-01	3.3	1.78E+00
13	2	241.64	415	342	1.88	483.14	469	23	2.88E-02	11.6	
14	0	270.04	170	308	1.41	539.92	534	11	1.18E-02	21.4	
15	0	277.48	95	300	1.92	554.81	550	11	6.60E-03	36.8	
16	0	295.19*	651	452	1.59	590.22	582	16	4.52E-02	8.4	
17	0	300.72	120	301	0.91	601.28	597	12	8.35E-03	30.3	
18	0	314.22	47	107	1.78	628.27	626	6	3.24E-03	37.9	
19	0	327.71	57	280	1.56	655.25	650	10	3.93E-03	56.8	
20	0	338.25	345	261	1.16	676.33	670	13	2.40E-02	11.0	
21	0	351.70*	1022	292	1.52	703.22	696	13	7.09E-02	4.9	
22	0	409.05	54	234	2.00	817.91	814	13	3.75E-03	60.0	
23	0	462.79	98	178	1.60	925.37	920	11	6.84E-03	28.1	
24	0	510.81*	156	261	2.24	1021.42	1012	21	1.08E-02	31.0	
25	0	538.26	30	121	4.09	1076.31	1071	12	2.05E-03	77.2	
26	0	568.96*	151	279	2.95	1137.70	1130	23	1.05E-02	31.9	
27	0	583.15*	447	141	1.76	1166.09	1160	14	3.10E-02	7.7	
28	0	609.41*	685	201	1.62	1218.61	1210	15	4.76E-02	6.1	
29	0	628.78	54	86	4.54	1257.35	1251	13	3.72E-03	39.0	
30	2	661.72	350	65	1.58	1323.25	1315	31	2.43E-02	6.7	1.31E+00
31	2	665.56	46	88	2.17	1330.92	1315	31	3.18E-03	52.6	
32	0	727.55	119	97	1.84	1454.93	1449	14	8.26E-03	19.9	
33	0	768.56*	49	95	2.06	1536.96	1532	10	3.38E-03	44.1	
34	0	794.89	69	76	4.09	1589.62	1583	14	4.79E-03	29.5	
35	0	812.84*	20	39	1.66	1625.53	1620	9	1.36E-03	68.3	
36	3	860.88	85	73	2.50	1721.63	1712	28	5.88E-03	24.5	1.58E+00
37	3	868.56	31	22	1.88	1737.00	1712	28	2.18E-03	31.5	
38	0	911.52*	338	85	1.87	1822.93	1814	19	2.35E-02	8.7	

Sample ID : G198683008 Acquisition date : 15-DEC-2007 08:27:01

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	923.25	12	23	0.90	1846.41	1843	6	8.04E-04	72.8	
40	0	936.41	32	102	3.15	1872.73	1863	17	2.22E-03	76.8	
41	1	964.72	85	53	2.11	1929.38	1924	23	5.91E-03	19.4	1.05E+00
42	1	969.40*	176	57	2.11	1938.74	1924	23	1.22E-02	12.6	
43	0	980.67*	11	35	1.23	1961.29	1955	9	7.61E-04	117.5	
44	0	1059.39	16	46	0.77	2118.78	2114	11	1.13E-03	83.0	
45	0	1090.91	25	41	3.11	2181.85	2174	13	1.71E-03	57.9	
46	0	1098.65*	7	64	5.51	2197.35	2186	15	4.92E-04	253.6	
47	0	1120.11	202	70	1.95	2240.29	2230	20	1.40E-02	12.3	
48	0	1205.30	15	45	0.56	2410.74	2407	13	1.04E-03	93.4	
49	0	1239.74	88	101	2.56	2479.67	2470	24	6.12E-03	32.1	
50	0	1331.15	33	37	7.78	2662.60	2652	20	2.26E-03	50.5	
51	0	1377.83	57	28	2.81	2756.00	2749	16	3.93E-03	24.8	
52	0	1385.77	18	23	3.13	2771.90	2765	13	1.28E-03	58.0	
53	0	1401.81	34	25	1.47	2804.00	2797	13	2.33E-03	35.7	
54	0	1408.49	27	20	1.90	2817.37	2812	10	1.87E-03	36.5	
55	0	1438.32	21	37	5.04	2877.08	2867	17	1.47E-03	70.3	
56	0	1461.35*	464	48	2.01	2923.17	2914	17	3.22E-02	5.9	
57	0	1468.74	10	25	0.95	2937.96	2930	11	7.08E-04	103.1	
58	0	1493.94	13	17	0.51	2988.39	2982	13	9.20E-04	68.7	
59	0	1497.92	9	4	1.19	2996.37	2994	6	6.22E-04	49.6	
60	0	1509.71	39	16	1.27	3019.97	3014	13	2.68E-03	26.9	
61	0	1591.38	68	57	7.82	3183.43	3168	33	4.74E-03	35.9	
62	0	1621.56*	10	23	0.92	3243.85	3239	14	6.92E-04	129.7	
63	0	1633.71	13	26	0.66	3268.16	3262	14	8.69E-04	93.5	
64	0	1648.83	28	10	4.95	3298.44	3290	19	1.91E-03	33.0	
65	0	1703.79	15	37	5.56	3408.45	3393	22	1.07E-03	105.8	
66	0	1730.15	34	25	1.22	3461.22	3452	14	2.38E-03	35.2	
67	0	1765.23*	124	27	2.40	3531.45	3523	19	8.61E-03	14.6	
68	0	1817.68	12	3	1.50	3636.44	3631	11	8.45E-04	39.0	
69	0	1839.65	19	28	8.02	3680.44	3664	23	1.32E-03	76.7	
70	0	1852.06	18	15	4.44	3705.27	3699	13	1.24E-03	58.0	

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]G198683008       *
* Acquisition date : 15-DEC-2007 08:27:01 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 04:00:02.07     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683008           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.4120E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.706E+00	5.992E-01	2.969E-01	0.000E+00
CS-137	2.192E-01	3.330E-02	2.941E-02	0.000E+00
TL-208	2.516E-01	4.206E-02	3.109E-02	0.000E+00
BI-212	5.832E-01	2.319E-01	2.263E-01	0.000E+00
PB-212	8.650E-01	7.648E-02	4.897E-02	0.000E+00
BI-214	7.343E-01	1.023E-01	6.051E-02	0.000E+00
PB-214	8.543E-01	9.569E-02	6.433E-02	0.000E+00
RA-223	3.198E-01	1.355E-01	1.544E-01	0.000E+00
AC-228	9.316E-01	1.780E-01	1.132E-01	0.000E+00
TH-234	1.042E+00	3.402E-01	3.761E-01	0.000E+00
NP-237	4.790E-01	1.220E-01	1.790E-01	0.000E+00
AM-243	1.825E-01	3.958E-02	3.861E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-7.643E-04		2.250E-02	3.707E-02	0.000E+00	FAIL ABUN
RH-101	1.676E-02		1.687E-02	3.118E-02	0.000E+00	NOT IDENT.
SB-125	-1.601E-03		4.931E-02	8.507E-02	0.000E+00	NOT IDENT.
EU-155	4.154E-02		5.073E-02	9.091E-02	0.000E+00	NOT IDENT.
PO-209	1.446E+00		3.326E+00	5.938E+00	0.000E+00	NOT IDENT.
BI-211	-4.129E-02		4.882E-01	8.417E-01	0.000E+00	NOT IDENT.
PA-233	1.633E-03		3.717E-02	5.689E-02	0.000E+00	NOT IDENT.
PA-234M	2.487E+00		2.455E+00	4.125E+00	0.000E+00	NOT IDENT.
U-235	8.898E-02		1.113E-01	1.849E-01	0.000E+00	NOT IDENT.
NP-236	4.252E-02		3.167E-02	5.123E-02	0.000E+00	NOT IDENT.
NP-239	1.003E-02		1.131E-01	2.027E-01	0.000E+00	NOT IDENT.
AM-241	1.746E-02		6.758E-02	1.017E-01	0.000E+00	NOT IDENT.
CM-243	1.358E-02		4.620E-02	8.160E-02	0.000E+00	NOT IDENT.
AM-246	3.936E-02		6.726E-02	1.200E-01	0.000E+00	NOT IDENT.
CF-249	1.040E-02		2.016E-02	3.588E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 12:27:39.13

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683008.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 08:27:01
Sample ID        : G198683008           Sample quantity  : 1.41200E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.07  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	464	10.66*	1.229E+00	4.706E+00	4.706E+00	12.99
CS-137	661.66	350	85.10*	2.502E+00	2.184E-01	2.192E-01	15.50
TL-208	277.36	95	6.31	5.061E+00	3.954E-01	3.954E-01	73.79
	510.77	156	22.60	3.129E+00	2.932E-01	2.932E-01	62.33
	583.19	447	84.50*	2.795E+00	2.516E-01	2.516E-01	17.06
	763.13	------	1.81	2.201E+00	------	Line Not Found	------
	860.56	85	12.42	1.970E+00	4.598E-01	4.598E-01	49.73
BI-212	727.33	119	11.80*	2.298E+00	5.832E-01	5.832E-01	40.57
	785.37	------	1.10	2.144E+00	------	Line Not Found	------
	1620.50	10	1.49	1.139E+00	7.804E-01	7.804E-01	259.39
PB-212	74.81	599	10.40	6.400E+00	1.197E+00	1.197E+00	22.13
	77.11	830	17.50	6.644E+00	9.489E-01	9.489E-01	16.12
	87.30	331	7.81	7.401E+00	7.605E-01	7.605E-01	25.99
	238.63	1591	43.30*	5.645E+00	8.650E-01	8.650E-01	9.02
	300.09	120	3.28	4.766E+00	1.023E+00	1.023E+00	60.94
BI-214	609.31	685	46.10*	2.690E+00	7.342E-01	7.343E-01	14.22
	768.36	49	4.94	2.187E+00	5.996E-01	5.997E-01	88.62
	806.17	------	1.22	2.093E+00	------	Line Not Found	------
	934.06	------	3.03	1.826E+00	------	Line Not Found	------
	1120.29	202	15.10	1.544E+00	1.153E+00	1.153E+00	25.65
	1155.19	------	1.63	1.502E+00	------	Line Not Found	------
	1238.11	88	5.79	1.410E+00	1.434E+00	1.434E+00	64.54
	1280.96	------	1.43	1.371E+00	------	Line Not Found	------
	1377.67	57	4.00	1.289E+00	1.461E+00	1.461E+00	49.85
	1401.50	34	1.27	1.271E+00	2.761E+00	2.761E+00	71.69
	1407.98	27	2.15	1.266E+00	1.319E+00	1.319E+00	73.16
	1509.23	39	2.11	1.199E+00	2.026E+00	2.026E+00	54.14
	1729.60	34	2.92	1.093E+00	1.425E+00	1.425E+00	70.54
	1764.49	124	15.40	1.080E+00	9.900E-01	9.901E-01	29.73
PB-214	74.81	599	6.44	6.400E+00	1.933E+00	1.933E+00	22.13
	77.11	830	10.80	6.644E+00	1.538E+00	1.538E+00	16.12
	87.30	331	4.84	7.401E+00	1.227E+00	1.227E+00	25.99

Sample ID : G198683008 Acquisition date : 15-DEC-2007 08:27:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	415	7.43	5.594E+00	1.327E+00	1.328E+00	23.94
	295.22	651	19.30	4.833E+00	9.276E-01	9.277E-01	17.92
	351.93	1022	37.60*	4.227E+00	8.543E-01	8.543E-01	11.43
RA-223	269.46	170	13.70*	5.163E+00	3.198E-01	3.198E-01	43.23
AC-228	129.07	94	2.42	7.828E+00	6.600E-01	6.600E-01	80.09
	209.25	151	3.89	6.175E+00	8.344E-01	8.344E-01	50.18
	270.25	170	3.46	5.163E+00	1.266E+00	1.266E+00	43.23
	338.32	345	11.27	4.357E+00	9.352E-01	9.352E-01	22.87
	409.46	54	1.92	3.753E+00	9.962E-01	9.962E-01	120.07
	463.00	98	4.40	3.396E+00	8.757E-01	8.757E-01	56.64
	794.95	69	4.25	2.120E+00	1.018E+00	1.018E+00	59.63
	911.20	338	25.80*	1.868E+00	9.316E-01	9.316E-01	19.50
	964.77	85	4.99	1.772E+00	1.280E+00	1.280E+00	39.66
	968.97	176	15.80	1.764E+00	8.408E-01	8.408E-01	26.53
	1588.20	------	3.22	1.156E+00	------	Line Not Found	------
TH-234	63.29	98	4.80	4.996E+00	5.425E-01	5.425E-01	112.84
	92.58	325	5.41*	7.654E+00	1.042E+00	1.042E+00	33.32
NP-237	86.48	331	12.40*	7.401E+00	4.790E-01	4.790E-01	25.99
AM-243	74.66	599	68.20*	6.400E+00	1.825E-01	1.825E-01	22.13

Flag: "*" = Keyline

Sample ID : G198683008 Acquisition date : 15-DEC-2007 08:27:01

Total number of lines in spectrum	70	
Number of unidentified lines	31	
Number of lines tentatively identified by NID	39	55.71%

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	4.706E+00	4.706E+00	0.611E+00	12.99	
CS-137	9.47E+08S	1.00	2.184E-01	2.192E-01	0.340E-01	15.50	
TL-208	4.43E+17S	1.00	2.516E-01	2.516E-01	0.429E-01	17.06	
BI-212	4.43E+17S	1.00	5.832E-01	5.832E-01	2.366E-01	40.57	
PB-212	4.43E+17S	1.00	8.650E-01	8.650E-01	0.780E-01	9.02	
BI-214	5.05E+10S	1.00	7.342E-01	7.343E-01	1.044E-01	14.22	
PB-214	5.05E+10S	1.00	8.543E-01	8.543E-01	0.976E-01	11.43	
RA-223	1.04E+12S	1.00	3.198E-01	3.198E-01	1.383E-01	43.23	
AC-228	4.43E+17S	1.00	9.316E-01	9.316E-01	1.816E-01	19.50	
TH-234	1.41E+17S	1.00	1.042E+00	1.042E+00	0.347E+00	33.32	
NP-237	6.75E+13S	1.00	4.790E-01	4.790E-01	1.245E-01	25.99	
AM-243	2.33E+11S	1.00	1.825E-01	1.825E-01	0.404E-01	22.13	
			---	---			
		Total Activity :	1.117E+01	1.117E+01			
		Grand Total Activity :	1.117E+01	1.117E+01			

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

Sample ID : G198683008 Acquisition date : 15-DEC-2007 08:27:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	47.06	117	715	1.56	94.10	88	15	8.14E-03	****	1.99E+00	
0	83.55	48	665	0.87	167.05	164	8	3.37E-03	****	7.16E+00	
1	90.10	194	612	1.55	180.15	171	22	1.35E-02	49.6	7.54E+00	
0	186.09	300	502	1.65	372.07	367	11	2.08E-02	33.6	6.65E+00	
0	314.22	47	107	1.78	628.27	626	6	3.24E-03	75.9	4.61E+00	
0	327.71	57	280	1.56	655.25	650	10	3.93E-03	****	4.46E+00	
0	538.26	30	121	4.09	1076.31	1071	12	2.05E-03	****	2.99E+00	
0	568.96	151	279	2.95	1137.70	1130	23	1.05E-02	63.8	2.86E+00	
0	628.78	54	86	4.54	1257.35	1251	13	3.72E-03	78.0	2.62E+00	
2	665.56	46	88	2.17	1330.92	1315	31	3.18E-03	****	2.49E+00	
0	812.84	20	39	1.66	1625.53	1620	9	1.36E-03	****	2.08E+00	
3	868.56	31	22	1.88	1737.00	1712	28	2.18E-03	63.1	1.95E+00	
0	923.25	12	23	0.90	1846.41	1843	6	8.04E-04	****	1.85E+00	
0	936.41	32	102	3.15	1872.73	1863	17	2.22E-03	****	1.82E+00	
0	980.67	11	35	1.23	1961.29	1955	9	7.61E-04	****	1.75E+00	
0	1059.39	16	46	0.77	2118.78	2114	11	1.13E-03	****	1.63E+00	
0	1090.91	25	41	3.11	2181.85	2174	13	1.71E-03	****	1.58E+00	
0	1098.65	7	64	5.51	2197.35	2186	15	4.92E-04	****	1.57E+00	
0	1205.30	15	45	0.56	2410.74	2407	13	1.04E-03	****	1.45E+00	
0	1331.15	33	37	7.78	2662.60	2652	20	2.26E-03	****	1.33E+00	T
0	1385.77	18	23	3.13	2771.90	2765	13	1.28E-03	****	1.28E+00	
0	1438.32	21	37	5.04	2877.08	2867	17	1.47E-03	****	1.24E+00	
0	1468.74	10	25	0.95	2937.96	2930	11	7.08E-04	****	1.22E+00	
0	1493.94	13	17	0.51	2988.39	2982	13	9.20E-04	****	1.21E+00	
0	1497.92	9	4	1.19	2996.37	2994	6	6.22E-04	99.2	1.21E+00	
0	1591.38	68	57	7.82	3183.43	3168	33	4.74E-03	71.9	1.15E+00	
0	1633.71	13	26	0.66	3268.16	3262	14	8.69E-04	****	1.13E+00	
0	1648.83	28	10	4.95	3298.44	3290	19	1.91E-03	65.9	1.13E+00	
0	1703.79	15	37	5.56	3408.45	3393	22	1.07E-03	****	1.10E+00	
0	1817.68	12	3	1.50	3636.44	3631	11	8.45E-04	78.1	1.06E+00	
0	1839.65	19	28	8.02	3680.44	3664	23	1.32E-03	****	1.06E+00	
0	1852.06	18	15	4.44	3705.27	3699	13	1.24E-03	****	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]G198683008            *
* Acquisition date : 15-DEC-2007 08:27:01 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 04:00:02.07     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683008           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.4120E+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	4.706E+00	5.992E-01	1.485E-01	5.992E-01
CS-137	2.192E-01	3.330E-02	1.471E-02	3.330E-02
TL-208	2.516E-01	4.206E-02	1.556E-02	4.206E-02
BI-212	5.832E-01	2.319E-01	1.132E-01	2.319E-01
PB-212	8.650E-01	7.648E-02	2.450E-02	7.648E-02
BI-214	7.343E-01	1.023E-01	3.027E-02	1.023E-01
PB-214	8.543E-01	9.569E-02	3.218E-02	9.569E-02
RA-223	3.198E-01	1.355E-01	7.724E-02	1.355E-01
AC-228	9.316E-01	1.780E-01	5.665E-02	1.780E-01
TH-234	1.042E+00	3.402E-01	1.881E-01	3.402E-01
NP-237	4.790E-01	1.220E-01	8.954E-02	1.220E-01
AM-243	1.825E-01	3.958E-02	1.932E-02	3.958E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-7.643E-04	2.250E-02	1.855E-02	2.250E-02	FAIL ABUN
RH-101	1.676E-02	1.687E-02	1.560E-02	1.687E-02	NOT IDENT.
SB-125	-1.601E-03	4.931E-02	4.256E-02	4.931E-02	NOT IDENT.
EU-155	4.154E-02	5.073E-02	4.548E-02	5.073E-02	NOT IDENT.
PO-209	1.446E+00	3.326E+00	2.971E+00	3.326E+00	NOT IDENT.
BI-211	-4.129E-02	4.882E-01	4.211E-01	4.882E-01	NOT IDENT.
PA-233	1.633E-03	3.717E-02	2.846E-02	3.717E-02	NOT IDENT.
PA-234M	2.487E+00	2.455E+00	2.064E+00	2.455E+00	NOT IDENT.
U-235	8.898E-02	1.113E-01	9.251E-02	1.113E-01	NOT IDENT.
NP-236	4.252E-02	3.167E-02	2.563E-02	3.167E-02	NOT IDENT.
NP-239	1.003E-02	1.131E-01	1.014E-01	1.131E-01	NOT IDENT.
AM-241	1.746E-02	6.758E-02	5.087E-02	6.758E-02	NOT IDENT.
CM-243	1.358E-02	4.620E-02	4.082E-02	4.620E-02	NOT IDENT.
AM-246	3.936E-02	6.726E-02	6.005E-02	6.726E-02	NOT IDENT.
CF-249	1.040E-02	2.016E-02	1.795E-02	2.016E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	512.6569
63.29	595.3667
74.66	648.9844
74.81	649.0796
74.81	649.0796
77.11	650.5364
77.11	650.5364
86.48	614.1932
87.30	614.6476
87.30	614.6476
92.58	560.0029
98.44	443.7892
103.76	492.0688
105.31	470.2443
129.07	508.1839
143.76	483.7006
198.00	416.2897
209.25	441.7074
228.18	382.3587
238.63	344.4431
242.00	345.0137
269.46	289.2291
270.25	294.0463
277.36	294.0491
295.22	263.6574
300.09	210.0930
312.17	249.5645
338.32	226.0401
351.93	255.2080
387.59	190.7713
409.46	205.2179
427.87	192.4945
463.00	148.7739
510.77	133.8610
583.19	134.6094
609.31	140.8741
661.66	97.7250
727.33	94.9651
763.13	106.9402
768.36	103.7879
785.37	86.6754
794.95	93.3334
806.17	90.5257
831.80	82.9233
860.56	78.7551
896.60	61.4070
911.20	75.8073
934.06	81.6023
964.77	66.0955
968.97	66.1517
1001.03	53.0608
1078.86	59.7168
1120.29	58.1958
1155.19	67.4881
1173.23	66.7028
1238.11	57.3757
1280.96	55.7542
1332.51	41.9076
1377.67	49.4102
1401.50	28.3382
1407.98	42.5491
1460.80	39.3133
1509.23	37.7930
1588.20	36.0959
1620.50	27.4219
1729.60	31.5370
1764.49	28.8852

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683008

Total Uranium Activity	4.1173E-02	ug/g
Total Uranium Counting Unc.	5.1518E-02	ug/g
Total Uranium Tpu	5.1518E-08	ug/g
Total Uranium Mda	4.2806E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:49:21.39

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683009.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:48:58
Sample ID        : G198683009           Sample quantity  : 1.36010E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.93  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.41*	42	429	0.59	126.87	124	7	2.90E-03	91.0	
2	3	74.96	515	709	1.97	149.98	144	15	3.58E-02	12.2	2.90E+00
3	3	77.29	651	504	1.30	154.63	144	15	4.52E-02	7.4	
4	4	84.01	109	644	1.56	168.08	163	31	7.60E-03	40.7	2.36E+00
5	4	87.36	284	725	1.83	174.79	163	31	1.97E-02	19.0	
6	4	90.08	158	366	0.98	180.22	163	31	1.09E-02	21.2	
7	4	93.07*	332	554	1.67	186.22	163	31	2.30E-02	16.0	
8	0	99.06	78	544	3.02	198.20	194	10	5.44E-03	56.7	
9	0	104.83	75	426	1.59	209.73	207	8	5.20E-03	48.9	
10	0	129.67	142	646	1.63	259.44	253	12	9.86E-03	37.1	
11	0	139.80	67	296	1.22	279.69	277	6	4.69E-03	42.1	
12	0	154.22	39	544	1.82	308.55	303	9	2.72E-03	108.3	
13	0	185.74*	327	606	1.62	371.60	365	13	2.27E-02	17.2	
14	0	202.18	66	425	3.62	404.50	400	10	4.59E-03	59.9	
15	3	238.69*	1673	276	1.41	477.53	469	21	1.16E-01	3.2	2.95E+00
16	3	241.62*	348	401	1.86	483.39	469	21	2.41E-02	15.0	
17	0	270.18	221	375	1.91	540.53	534	13	1.54E-02	19.2	
18	0	277.61	73	350	2.20	555.38	548	12	5.05E-03	53.1	
19	1	295.24*	526	228	1.64	590.66	584	24	3.65E-02	7.4	2.70E+00
20	1	299.84	155	266	1.87	599.86	584	24	1.07E-02	21.6	
21	0	315.24	6	246	2.20	630.66	630	10	4.30E-04	476.2	
22	0	328.40*	32	294	0.63	656.99	651	12	2.25E-03	112.0	
23	0	338.25	330	375	1.31	676.70	669	15	2.29E-02	13.9	
24	0	352.01*	735	239	1.69	704.22	699	11	5.11E-02	5.7	
25	0	379.33	15	182	3.37	758.87	757	10	1.01E-03	174.4	
26	0	408.89	54	201	2.18	818.02	813	12	3.73E-03	54.5	
27	0	425.38	6	179	0.52	851.00	848	11	4.15E-04	434.9	
28	0	463.24	92	112	1.87	926.74	922	9	6.37E-03	23.3	
29	0	511.20*	106	246	1.81	1022.67	1015	18	7.35E-03	42.7	
30	0	583.36*	453	175	1.43	1167.02	1161	13	3.15E-02	7.9	
31	1	609.33*	576	104	2.08	1218.96	1213	44	4.00E-02	5.6	4.14E+00
32	1	613.54	61	101	2.08	1227.38	1213	44	4.22E-03	40.0	
33	0	660.66	83	98	1.35	1321.65	1315	13	5.74E-03	27.3	
34	0	699.64	35	122	4.29	1399.60	1391	14	2.41E-03	69.7	
35	0	712.09	15	95	0.82	1424.51	1419	11	1.08E-03	123.8	
36	0	728.24	104	145	1.59	1456.83	1448	18	7.19E-03	29.3	
37	0	767.95	75	65	1.31	1536.26	1531	10	5.21E-03	23.2	
38	0	795.05	61	58	1.40	1590.47	1585	10	4.27E-03	26.4	

Sample ID : G198683009 Acquisition date : 15-DEC-2007 10:48:58

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	860.75	77	50	1.57	1721.87	1716	11	5.38E-03	20.9	
40	0	911.42*	353	64	1.63	1823.23	1815	16	2.45E-02	7.6	
41	0	934.17	36	53	1.66	1868.72	1864	11	2.47E-03	42.9	
42	1	964.68	71	63	2.26	1929.75	1921	32	4.94E-03	27.7	1.04E+00
43	1	969.01*	161	50	1.85	1938.41	1921	32	1.11E-02	12.2	
44	0	1001.62	22	47	0.56	2003.63	1997	13	1.52E-03	70.4	
45	0	1120.46*	123	49	1.96	2241.33	2233	15	8.52E-03	16.2	
46	0	1238.32	61	24	1.47	2477.04	2471	11	4.23E-03	20.3	
47	0	1307.39	20	16	0.82	2615.19	2611	9	1.38E-03	42.4	
48	0	1350.18	26	29	3.31	2700.76	2692	19	1.79E-03	53.7	
49	0	1380.23	17	57	3.72	2760.86	2749	16	1.15E-03	104.4	
50	0	1382.94	9	10	0.70	2766.28	2764	6	6.29E-04	60.8	
51	0	1407.46	38	10	1.45	2815.33	2808	14	2.61E-03	24.5	
52	0	1432.92	25	3	1.16	2866.23	2860	12	1.74E-03	24.3	
53	0	1461.06*	311	11	2.11	2922.52	2916	15	2.16E-02	6.6	
54	0	1475.03	12	16	3.97	2950.46	2940	13	8.07E-04	77.3	
55	0	1495.75	35	12	3.86	2991.89	2983	15	2.46E-03	26.7	
56	0	1501.00	24	5	1.49	3002.38	2998	10	1.65E-03	27.1	
57	0	1620.59	28	25	2.43	3241.55	3231	17	1.93E-03	45.7	
58	0	1661.84	13	10	4.43	3324.04	3316	13	9.33E-04	55.0	
59	0	1676.72	10	14	0.51	3353.80	3343	14	6.94E-04	85.4	
60	0	1729.98	48	11	2.59	3460.31	3452	17	3.32E-03	22.2	
61	0	1764.83*	87	34	2.11	3530.00	3522	20	6.04E-03	20.3	
62	0	1841.17*	6	9	1.65	3682.66	3674	14	4.09E-04	135.5	
63	0	1847.44	28	7	0.98	3695.19	3689	13	1.97E-03	26.5	

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]G198683009       *
* Acquisition date : 15-DEC-2007 10:48:58 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 04:00:01.93     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683009           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.3601E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.842E+00	5.459E-01	2.988E-01	0.000E+00
CS-137	6.355E-02	3.433E-02	4.260E-02	0.000E+00
EU-155	7.522E-02	7.226E-02	1.181E-01	0.000E+00
TL-208	3.136E-01	5.330E-02	3.766E-02	0.000E+00
BI-212	6.241E-01	3.614E-01	2.796E-01	0.000E+00
PB-212	1.096E+00	1.006E-01	6.040E-02	0.000E+00
BI-214	7.587E-01	9.915E-02	6.903E-02	0.000E+00
PB-214	7.521E-01	9.630E-02	7.404E-02	0.000E+00
RA-223	5.039E-01	1.928E-01	1.863E-01	0.000E+00
AC-228	1.193E+00	2.105E-01	1.293E-01	0.000E+00
PA-234M	2.481E+00	3.432E+00	4.156E+00	0.000E+00
TH-234	1.366E+00	4.418E-01	4.913E-01	0.000E+00
NP-236	4.401E-02	4.904E-02	5.861E-02	0.000E+00
NP-237	5.408E-01	2.059E-01	2.282E-01	0.000E+00
AM-243	2.211E-01	5.576E-02	5.239E-02	0.000E+00
CM-243	6.807E-02	6.539E-02	9.726E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-7.656E-03	2.466E-02	3.974E-02	0.000E+00	NOT IDENT.
RH-101	8.580E-03	2.598E-02	3.862E-02	0.000E+00	NOT IDENT.
SB-125	1.318E-02	6.641E-02	9.836E-02	0.000E+00	NOT IDENT.
PO-209	-9.807E-01	4.017E+00	6.646E+00	0.000E+00	NOT IDENT.
BI-211	3.774E-01	6.567E-01	1.160E+00	0.000E+00	NOT IDENT.
PA-233	4.926E-03	4.539E-02	6.798E-02	0.000E+00	NOT IDENT.
U-235	1.424E-01	1.374E-01	2.216E-01	0.000E+00	NOT IDENT.
NP-239	7.813E-02	1.413E-01	2.514E-01	0.000E+00	NOT IDENT.
AM-241	2.783E-02	1.067E-01	1.643E-01	0.000E+00	NOT IDENT.
AM-246	3.104E-03	7.556E-02	1.267E-01	0.000E+00	NOT IDENT.
CF-249	2.805E-02	2.651E-02	4.499E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:49:22.41

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683009.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:48:58
Sample ID        : G198683009           Sample quantity  : 1.36010E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.93  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	311	10.66*	1.047E+00	3.842E+00	3.842E+00	14.50
CS-137	661.66	83	85.10*	2.116E+00	6.331E-02	6.355E-02	55.12
EU-155	105.31	75	21.20*	6.628E+00	7.356E-02	7.522E-02	98.03
TL-208	277.36	73	6.31	4.334E+00	3.670E-01	3.670E-01	106.50
	510.77	106	22.60	2.640E+00	2.450E-01	2.450E-01	85.73
	583.19	453	84.50*	2.358E+00	3.136E-01	3.136E-01	17.34
	763.13	------	1.81	1.860E+00	------	Line Not Found	------
	860.56	77	12.42	1.667E+00	5.164E-01	5.164E-01	42.92
BI-212	727.33	104	11.80*	1.940E+00	6.242E-01	6.241E-01	59.08
	785.37	------	1.10	1.812E+00	------	Line Not Found	------
	1620.50	28	1.49	9.727E-01	2.644E+00	2.644E+00	91.66
PB-212	74.81	515	10.40	4.716E+00	1.450E+00	1.450E+00	25.73
	77.11	651	17.50	4.971E+00	1.032E+00	1.032E+00	16.78
	87.30	284	7.81	5.850E+00	8.587E-01	8.587E-01	38.84
	238.63	1673	43.30*	4.864E+00	1.096E+00	1.096E+00	9.37
	300.09	155	3.28	4.080E+00	1.594E+00	1.594E+00	43.70
BI-214	609.31	576	46.10*	2.271E+00	7.587E-01	7.587E-01	13.33
	768.36	75	4.94	1.849E+00	1.133E+00	1.133E+00	47.16
	806.17	------	1.22	1.770E+00	------	Line Not Found	------
	934.06	36	3.03	1.546E+00	1.047E+00	1.047E+00	86.39
	1120.29	123	15.10	1.310E+00	8.565E-01	8.565E-01	33.24
	1155.19	------	1.63	1.274E+00	------	Line Not Found	------
	1238.11	61	5.79	1.199E+00	1.210E+00	1.211E+00	41.12
	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	38	2.15	1.078E+00	2.236E+00	2.236E+00	49.38
	1509.23	------	2.11	1.022E+00	------	Line Not Found	------
	1729.60	48	2.92	9.348E-01	2.420E+00	2.420E+00	44.83
	1764.49	87	15.40	9.246E-01	8.435E-01	8.436E-01	40.99
PB-214	74.81	515	6.44	4.716E+00	2.341E+00	2.342E+00	25.73
	77.11	651	10.80	4.971E+00	1.672E+00	1.673E+00	16.78

Sample ID : G198683009 Acquisition date : 15-DEC-2007 10:48:58

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	284	4.84	5.850E+00	1.386E+00	1.386E+00	38.84
	242.00	348	7.43	4.820E+00	1.339E+00	1.340E+00	30.80
	295.22	526	19.30	4.130E+00	9.103E-01	9.104E-01	16.22
	351.93	735	37.60*	3.589E+00	7.520E-01	7.521E-01	13.07
RA-223	269.46	221	13.70*	4.426E+00	5.039E-01	5.039E-01	39.05
AC-228	129.07	142	2.42	6.745E+00	1.200E+00	1.200E+00	74.38
	209.25	------	3.89	5.348E+00	------	Line Not Found	------
	270.25	221	3.46	4.426E+00	1.995E+00	1.995E+00	39.05
	338.32	330	11.27	3.706E+00	1.091E+00	1.091E+00	28.57
	409.46	54	1.92	3.178E+00	1.215E+00	1.215E+00	109.23
	463.00	92	4.40	2.867E+00	1.003E+00	1.003E+00	47.05
	794.95	61	4.25	1.792E+00	1.114E+00	1.114E+00	53.46
	911.20	353	25.80*	1.581E+00	1.193E+00	1.193E+00	18.01
	964.77	71	4.99	1.501E+00	1.312E+00	1.312E+00	56.20
	968.97	161	15.80	1.495E+00	9.377E-01	9.377E-01	26.13
	1588.20	------	3.22	9.858E-01	------	Line Not Found	------
PA-234M	1001.03	22	0.84*	1.450E+00	2.481E+00	2.481E+00	141.18
TH-234	63.29	42	4.80	3.194E+00	3.757E-01	3.757E-01	182.28
	92.58	332	5.41*	6.197E+00	1.366E+00	1.366E+00	33.01
NP-236	98.44	78	38.00*	6.459E+00	4.401E-02	4.401E-02	113.69
NP-237	86.48	284	12.40*	5.850E+00	5.408E-01	5.408E-01	38.84
AM-243	74.66	515	68.20*	4.716E+00	2.211E-01	2.211E-01	25.73
CM-243	103.76	75	23.00*	6.628E+00	6.780E-02	6.807E-02	98.03

Flag: "*" = Keyline

Sample ID : G198683009 Acquisition date : 15-DEC-2007 10:48:58

Total number of lines in spectrum 63
Number of unidentified lines 25
Number of lines tentatively identified by NID 38 60.32%

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	3.842E+00	3.842E+00	0.557E+00	14.50	
CS-137	9.47E+08S	1.00	6.331E-02	6.355E-02	3.503E-02	55.12	
EU-155	1.57E+08S	1.02	7.356E-02	7.522E-02	7.373E-02	98.03	
TL-208	4.43E+17S	1.00	3.136E-01	3.136E-01	0.544E-01	17.34	
BI-212	4.43E+17S	1.00	6.242E-01	6.241E-01	3.687E-01	59.08	
PB-212	4.43E+17S	1.00	1.096E+00	1.096E+00	0.103E+00	9.37	
BI-214	5.05E+10S	1.00	7.587E-01	7.587E-01	1.012E-01	13.33	
PB-214	5.05E+10S	1.00	7.520E-01	7.521E-01	0.983E-01	13.07	
RA-223	1.04E+12S	1.00	5.039E-01	5.039E-01	1.968E-01	39.05	
AC-228	4.43E+17S	1.00	1.193E+00	1.193E+00	0.215E+00	18.01	
PA-234M	1.41E+17S	1.00	2.481E+00	2.481E+00	3.502E+00	141.18	
TH-234	1.41E+17S	1.00	1.366E+00	1.366E+00	0.451E+00	33.01	
NP-236	4.89E+12S	1.00	4.401E-02	4.401E-02	5.004E-02	113.69	
NP-237	6.75E+13S	1.00	5.408E-01	5.408E-01	2.101E-01	38.84	
AM-243	2.33E+11S	1.00	2.211E-01	2.211E-01	0.569E-01	25.73	
CM-243	8.99E+08S	1.00	6.780E-02	6.807E-02	6.672E-02	98.03	
		Total Activity :	1.394E+01	1.394E+01			

Grand Total Activity : 1.394E+01 1.394E+01

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

Sample ID : G198683009 Acquisition date : 15-DEC-2007 10:48:58

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.01	109	644	1.56	168.08	163	31	7.60E-03	81.3	5.60E+00	
4	90.08	158	366	0.98	180.22	163	31	1.09E-02	42.3	6.03E+00	
0	139.80	67	296	1.22	279.69	277	6	4.69E-03	84.3	6.63E+00	
0	154.22	39	544	1.82	308.55	303	9	2.72E-03	****	6.39E+00	
0	185.74	327	606	1.62	371.60	365	13	2.27E-02	34.3	5.78E+00	
0	202.18	66	425	3.62	404.50	400	10	4.59E-03	****	5.47E+00	
0	315.24	6	246	2.20	630.66	630	10	4.30E-04	****	3.92E+00	
0	328.40	32	294	0.63	656.99	651	12	2.25E-03	****	3.80E+00	
0	379.33	15	182	3.37	758.87	757	10	1.01E-03	****	3.38E+00	
0	425.38	6	179	0.52	851.00	848	11	4.15E-04	****	3.08E+00	
1	613.54	61	101	2.08	1227.38	1213	44	4.22E-03	79.9	2.26E+00	
0	699.64	35	122	4.29	1399.60	1391	14	2.41E-03	****	2.01E+00	
0	712.09	15	95	0.82	1424.51	1419	11	1.08E-03	****	1.98E+00	
0	1307.39	20	16	0.82	2615.19	2611	9	1.38E-03	84.9	1.14E+00	
0	1350.18	26	29	3.31	2700.76	2692	19	1.79E-03	****	1.11E+00	
0	1380.23	17	57	3.72	2760.86	2749	16	1.15E-03	****	1.09E+00	
0	1382.94	9	10	0.70	2766.28	2764	6	6.29E-04	****	1.09E+00	
0	1432.92	25	3	1.16	2866.23	2860	12	1.74E-03	48.6	1.06E+00	
0	1475.03	12	16	3.97	2950.46	2940	13	8.07E-04	****	1.04E+00	
0	1495.75	35	12	3.86	2991.89	2983	15	2.46E-03	53.4	1.03E+00	
0	1501.00	24	5	1.49	3002.38	2998	10	1.65E-03	54.2	1.03E+00	
0	1661.84	13	10	4.43	3324.04	3316	13	9.33E-04	****	9.57E-01	
0	1676.72	10	14	0.51	3353.80	3343	14	6.94E-04	****	9.52E-01	
0	1841.17	6	9	1.65	3682.66	3674	14	4.09E-04	****	9.05E-01	
0	1847.44	28	7	0.98	3695.19	3689	13	1.97E-03	52.9	9.04E-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]G198683009            *
* Acquisition date : 15-DEC-2007 10:48:58 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 04:00:01.93     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683009           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.3601E+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	3.842E+00	5.459E-01	1.495E-01	5.459E-01
CS-137	6.355E-02	3.433E-02	2.131E-02	3.433E-02
EU-155	7.522E-02	7.226E-02	5.908E-02	7.226E-02
TL-208	3.136E-01	5.330E-02	1.884E-02	5.330E-02
BI-212	6.241E-01	3.614E-01	1.399E-01	3.614E-01
PB-212	1.096E+00	1.006E-01	3.022E-02	1.006E-01
BI-214	7.587E-01	9.915E-02	3.454E-02	9.915E-02
PB-214	7.521E-01	9.630E-02	3.704E-02	9.630E-02
RA-223	5.039E-01	1.928E-01	9.321E-02	1.928E-01
AC-228	1.193E+00	2.105E-01	6.470E-02	2.105E-01
PA-234M	2.481E+00	3.432E+00	2.079E+00	3.432E+00
TH-234	1.366E+00	4.418E-01	2.458E-01	4.418E-01
NP-236	4.401E-02	4.904E-02	2.932E-02	4.904E-02
NP-237	5.408E-01	2.059E-01	1.142E-01	2.059E-01
AM-243	2.211E-01	5.576E-02	2.621E-02	5.576E-02
CM-243	6.807E-02	6.539E-02	4.866E-02	6.539E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-7.656E-03	2.466E-02	1.988E-02	2.466E-02	NOT IDENT.
RH-101	8.580E-03	2.598E-02	1.932E-02	2.598E-02	NOT IDENT.
SB-125	1.318E-02	6.641E-02	4.921E-02	6.641E-02	NOT IDENT.
PO-209	-9.807E-01	4.017E+00	3.325E+00	4.017E+00	NOT IDENT.
BI-211	3.774E-01	6.567E-01	5.803E-01	6.567E-01	NOT IDENT.
PA-233	4.926E-03	4.539E-02	3.401E-02	4.539E-02	NOT IDENT.
U-235	1.424E-01	1.374E-01	1.109E-01	1.374E-01	NOT IDENT.
NP-239	7.813E-02	1.413E-01	1.258E-01	1.413E-01	NOT IDENT.
AM-241	2.783E-02	1.067E-01	8.219E-02	1.067E-01	NOT IDENT.
AM-246	3.104E-03	7.556E-02	6.341E-02	7.556E-02	NOT IDENT.
CF-249	2.805E-02	2.651E-02	2.251E-02	2.651E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	494.4597
63.29	552.6953
74.66	605.9625
74.81	606.0541
74.81	606.0541
77.11	611.8935
77.11	611.8935
86.48	583.7106
87.30	584.1510
87.30	584.1510
92.58	586.9420
98.44	449.2675
103.76	474.0795
105.31	579.0141
129.07	529.9880
143.76	490.1069
198.00	469.6039
209.25	470.3695
228.18	386.1292
238.63	365.3564
242.00	365.9740
269.46	290.5648
270.25	290.6704
277.36	313.5382
295.22	278.3387
300.09	278.9319
312.17	239.6480
338.32	234.6405
351.93	228.6107
387.59	178.5697
409.46	186.6617
427.87	162.8251
463.00	164.0466
510.77	146.1608
583.19	131.4807
609.31	122.0372
661.66	136.5048
727.33	96.5629
763.13	82.6396
768.36	114.2630
785.37	88.0168
794.95	83.2549
806.17	77.5081
831.80	86.9522
860.56	65.3769
896.60	64.8711
911.20	66.0870
934.06	49.0352
964.77	59.6213
968.97	59.6721
1001.03	61.0886
1078.86	53.5961
1120.29	50.8281
1155.19	51.1484
1173.23	64.1382
1238.11	45.4009
1280.96	48.5269
1332.51	52.6992
1377.67	59.7129
1401.50	19.9783
1407.98	46.6621
1460.80	26.8789
1509.23	38.1487
1588.20	54.7637
1620.50	24.0685
1729.60	13.9590
1764.49	16.0268

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683009

Total Uranium Activity	6.5869E-02	ug/g
Total Uranium Counting Unc.	6.3560E-02	ug/g
Total Uranium Tpu	6.3560E-08	ug/g
Total Uranium Mda	5.1306E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:50:17.99

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683010.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:49:47
Sample ID        : G198683010           Sample quantity  : 1.35190E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.01  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.92*	304	421	1.10	149.36	144	15	2.11E-02	14.0	1.87E+00
2	2	77.13*	523	366	1.00	153.78	144	15	3.63E-02	7.6	
3	5	84.45*	112	386	1.49	168.40	165	28	7.76E-03	33.0	1.70E+00
4	5	87.29	274	435	1.37	174.08	165	28	1.90E-02	14.6	
5	5	89.91	201	376	1.14	179.32	165	28	1.40E-02	17.8	
6	5	92.66*	295	473	1.43	184.80	165	28	2.05E-02	17.1	
7	5	94.82*	57	415	1.39	189.12	165	28	3.93E-03	77.0	
8	0	128.97	74	338	1.02	257.36	254	7	5.12E-03	42.9	
9	0	139.94	32	338	0.57	279.27	277	7	2.24E-03	96.2	
10	0	143.83*	51	431	1.00	287.06	284	9	3.55E-03	79.2	
11	0	154.14	55	393	0.94	307.66	304	8	3.81E-03	63.9	
12	0	163.55*	23	294	1.36	326.46	323	7	1.62E-03	135.9	
13	0	185.82*	277	487	1.18	370.95	365	13	1.92E-02	19.3	
14	0	205.23	71	285	1.34	409.74	406	8	4.93E-03	43.1	
15	0	209.67	142	331	0.73	418.62	414	10	9.87E-03	25.3	
16	0	216.55	37	236	0.58	432.37	429	7	2.57E-03	70.7	
17	4	238.62*	1191	228	1.15	476.46	469	19	8.27E-02	3.7	1.40E+00
18	4	241.64*	340	271	1.73	482.50	469	19	2.36E-02	13.4	
19	1	270.04	120	183	1.34	539.24	535	11	8.31E-03	22.1	2.61E+00
20	1	271.45	48	187	1.34	542.06	535	11	3.32E-03	55.2	
21	0	277.06	50	224	1.11	553.28	550	9	3.50E-03	55.1	
22	0	295.16*	439	282	1.16	589.44	583	13	3.05E-02	9.5	
23	0	300.75	122	222	1.08	600.61	596	11	8.49E-03	25.3	
24	0	328.21	135	232	2.46	655.48	650	13	9.40E-03	24.7	
25	0	338.24	225	264	1.09	675.53	670	12	1.56E-02	16.0	
26	0	351.92*	764	228	1.23	702.87	696	14	5.31E-02	5.7	
27	0	409.99	28	177	1.43	818.91	812	11	1.93E-03	95.2	
28	0	462.81	90	107	1.38	924.46	921	8	6.22E-03	22.6	
29	0	492.62	56	175	6.42	984.02	975	18	3.88E-03	57.2	
30	0	510.64*	163	222	2.02	1020.04	1011	20	1.13E-02	27.3	
31	0	562.28	41	89	2.26	1123.23	1119	10	2.84E-03	45.7	
32	0	582.99*	344	119	1.43	1164.63	1157	13	2.39E-02	9.5	
33	0	609.27*	551	115	1.23	1217.15	1210	14	3.82E-02	6.2	
34	0	661.48	304	93	1.37	1321.48	1314	13	2.11E-02	8.7	
35	0	668.87	44	134	7.27	1336.25	1327	18	3.06E-03	63.6	
36	0	727.07	95	55	0.88	1452.55	1447	11	6.62E-03	18.2	
37	3	768.28*	26	98	2.23	1534.92	1526	29	1.80E-03	82.1	1.29E+00
38	3	772.88	39	61	2.23	1544.11	1526	29	2.68E-03	51.4	

Sample ID : G198683010 Acquisition date : 15-DEC-2007 10:49:47

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	782.20	16	33	1.75	1562.75	1558	7	1.08E-03	66.3	
40	0	795.37	49	62	3.53	1589.07	1583	12	3.41E-03	35.3	
41	2	802.70	33	26	2.05	1603.71	1600	16	2.29E-03	32.0	1.21E+00
42	2	806.69	30	15	2.06	1611.68	1600	16	2.08E-03	32.4	
43	0	860.31	77	28	1.76	1718.84	1713	11	5.31E-03	17.5	
44	0	898.99	27	48	0.62	1796.15	1790	12	1.86E-03	55.1	
45	0	911.00	271	77	1.54	1820.14	1811	18	1.88E-02	9.7	
46	0	934.11	28	72	1.06	1866.34	1857	19	1.97E-03	74.0	
47	1	964.56	33	43	1.99	1927.20	1923	19	2.28E-03	38.0	1.48E+00
48	1	968.79*	159	58	1.99	1935.64	1923	19	1.11E-02	13.1	
49	0	1120.25	79	52	0.95	2238.36	2233	10	5.49E-03	20.5	
50	0	1125.22	13	19	0.85	2248.29	2245	7	9.15E-04	61.5	
51	3	1237.55	67	43	2.63	2472.80	2463	21	4.64E-03	25.9	1.14E+00
52	3	1241.55	18	12	1.44	2480.80	2463	21	1.22E-03	44.0	
53	0	1244.50	10	16	1.14	2486.70	2483	7	6.92E-04	73.5	
54	0	1265.02	8	20	0.96	2527.71	2520	9	5.42E-04	109.9	
55	0	1280.29	47	52	10.73	2558.23	2540	30	3.28E-03	47.0	
56	0	1301.47	12	18	2.36	2600.57	2596	10	8.48E-04	70.3	
57	0	1377.48	34	33	1.01	2752.49	2745	16	2.38E-03	40.7	
58	0	1460.61*	324	27	2.07	2918.66	2912	18	2.25E-02	7.0	
59	0	1510.65	10	26	2.61	3018.68	3007	13	7.21E-04	105.7	
60	0	1551.04	8	14	1.69	3099.41	3093	9	5.84E-04	90.1	
61	0	1558.88	12	11	2.10	3115.08	3110	11	8.33E-04	60.8	
62	0	1589.02	45	24	2.39	3175.33	3167	19	3.12E-03	30.0	
63	3	1607.18	9	2	1.58	3211.63	3210	16	6.07E-04	30.5	1.32E+00
64	3	1610.80	25	7	2.63	3218.87	3210	16	1.72E-03	28.5	
65	0	1631.32	17	16	2.24	3259.88	3251	13	1.19E-03	54.2	
66	0	1684.80	7	7	1.01	3366.80	3359	11	4.66E-04	90.2	
67	0	1733.47	8	16	4.61	3464.07	3457	12	5.24E-04	141.6	
68	0	1764.58*	98	13	2.14	3526.27	3519	18	6.82E-03	14.8	
69	0	1839.01	23	0	1.54	3675.04	3668	15	1.60E-03	20.9	
70	0	1847.13	7	16	2.48	3691.28	3684	12	4.65E-04	123.2	
71	0	1878.38	12	3	5.41	3753.76	3747	14	8.40E-04	43.1	
72	4	1934.61	11	1	2.75	3866.16	3864	13	7.89E-04	27.2	5.65E-01
73	4	1938.13	14	3	1.79	3873.20	3864	13	9.60E-04	28.1	

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]G198683010       *
* Acquisition date : 15-DEC-2007 10:49:47 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 04:00:04.01     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683010           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.3519E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.958E+00	5.991E-01	2.474E-01	0.000E+00
CS-137	2.279E-01	4.137E-02	3.104E-02	0.000E+00
TL-208	2.323E-01	4.515E-02	3.122E-02	0.000E+00
BI-212	5.582E-01	2.026E-01	2.186E-01	0.000E+00
PB-212	7.852E-01	7.473E-02	4.974E-02	0.000E+00
BI-214	7.084E-01	9.533E-02	6.137E-02	0.000E+00
PB-214	7.767E-01	9.806E-02	6.083E-02	0.000E+00
RA-223	2.729E-01	1.196E-01	1.451E-01	0.000E+00
AC-228	8.937E-01	1.830E-01	1.152E-01	0.000E+00
U-235	1.003E-01	1.559E-01	1.667E-01	0.000E+00
NP-237	5.680E-01	1.697E-01	1.911E-01	0.000E+00
AM-243	1.490E-01	4.259E-02	4.718E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	6.086E-03		1.878E-02	3.308E-02	0.000E+00	NOT IDENT.
RH-101	4.536E-03		1.849E-02	2.993E-02	0.000E+00	NOT IDENT.
SB-125	1.769E-02		5.190E-02	9.014E-02	0.000E+00	NOT IDENT.
EU-155	1.402E-02		5.135E-02	9.217E-02	0.000E+00	NOT IDENT.
PO-209	-4.063E-01		4.595E+00	6.558E+00	0.000E+00	NOT IDENT.
BI-211	-4.727E-02		5.493E-01	9.197E-01	0.000E+00	NOT IDENT.
PA-233	2.685E-02		3.249E-02	5.918E-02	0.000E+00	NOT IDENT.
PA-234M	-1.518E+00		2.563E+00	3.951E+00	0.000E+00	NOT IDENT.
TH-234	0.000E+00		4.509E-01	6.946E-01	0.000E+00	FAIL ABUN
NP-236	1.278E-02		3.732E-02	5.759E-02	0.000E+00	NOT IDENT.
NP-239	-1.191E-01		1.202E-01	1.908E-01	0.000E+00	NOT IDENT.
AM-241	3.930E-02		8.770E-02	1.640E-01	0.000E+00	NOT IDENT.
CM-243	-2.902E-03		4.795E-02	8.510E-02	0.000E+00	NOT IDENT.
AM-246	3.234E-02		6.632E-02	1.191E-01	0.000E+00	NOT IDENT.
CF-249	6.857E-03		2.112E-02	3.695E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:50:18.91

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683010.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:49:47
Sample ID        : G198683010           Sample quantity  : 1.35190E+02 GRAM
Detector name    : GAM02                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.01  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	324	10.66*	1.065E+00	3.958E+00	3.958E+00	15.44
CS-137	661.66	304	85.10*	2.182E+00	2.271E-01	2.279E-01	18.52
TL-208	277.36	50	6.31	4.358E+00	2.544E-01	2.544E-01	110.37
	510.77	163	22.60	2.711E+00	3.702E-01	3.702E-01	54.98
	583.19	344	84.50*	2.430E+00	2.323E-01	2.323E-01	19.83
	763.13	------	1.81	1.923E+00	------	Line Not Found	------
	860.56	77	12.42	1.723E+00	4.963E-01	4.963E-01	35.85
BI-212	727.33	95	11.80*	2.008E+00	5.582E-01	5.582E-01	37.04
	785.37	------	1.10	1.873E+00	------	Line Not Found	------
	1620.50	------	1.49	9.857E-01	------	Line Not Found	------
PB-212	74.81	304	10.40	4.160E+00	9.769E-01	9.769E-01	29.18
	77.11	523	17.50	4.420E+00	9.386E-01	9.386E-01	17.35
	87.30	274	7.81	5.403E+00	9.018E-01	9.018E-01	30.48
	238.63	1191	43.30*	4.862E+00	7.852E-01	7.852E-01	9.71
	300.09	122	3.28	4.097E+00	1.263E+00	1.263E+00	51.02
BI-214	609.31	551	46.10*	2.341E+00	7.084E-01	7.084E-01	13.73
	768.36	26	4.94	1.911E+00	3.808E-01	3.808E-01	164.34
	806.17	30	1.22	1.828E+00	1.861E+00	1.861E+00	65.24
	934.06	28	3.03	1.596E+00	8.127E-01	8.128E-01	148.12
	1120.29	79	15.10	1.346E+00	5.402E-01	5.402E-01	41.41
	1155.19	------	1.63	1.308E+00	------	Line Not Found	------
	1238.11	67	5.79	1.228E+00	1.305E+00	1.306E+00	52.06
	1280.96	47	1.43	1.191E+00	3.853E+00	3.853E+00	94.12
	1377.67	34	4.00	1.118E+00	1.066E+00	1.066E+00	81.62
	1401.50	------	1.27	1.102E+00	------	Line Not Found	------
	1407.98	------	2.15	1.098E+00	------	Line Not Found	------
	1509.23	10	2.11	1.037E+00	6.589E-01	6.590E-01	211.43
	1729.60	------	2.92	9.455E-01	------	Line Not Found	------
	1764.49	98	15.40	9.347E-01	9.477E-01	9.478E-01	30.14
PB-214	74.81	304	6.44	4.160E+00	1.578E+00	1.578E+00	29.18
	77.11	523	10.80	4.420E+00	1.521E+00	1.521E+00	17.35
	87.30	274	4.84	5.403E+00	1.455E+00	1.455E+00	30.48

Sample ID : G198683010 Acquisition date : 15-DEC-2007 10:49:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	340	7.43	4.819E+00	1.319E+00	1.319E+00	27.52
	295.22	439	19.30	4.155E+00	7.597E-01	7.597E-01	20.13
	351.93	764	37.60*	3.634E+00	7.767E-01	7.767E-01	12.88
RA-223	269.46	120	13.70*	4.442E+00	2.729E-01	2.729E-01	44.71
AC-228	129.07	74	2.42	6.597E+00	6.416E-01	6.416E-01	85.94
	209.25	142	3.89	5.319E+00	9.538E-01	9.538E-01	51.01
	270.25	120	3.46	4.442E+00	1.081E+00	1.081E+00	44.71
	338.32	225	11.27	3.746E+00	7.392E-01	7.392E-01	32.54
	409.46	28	1.92	3.228E+00	6.211E-01	6.211E-01	190.44
	463.00	90	4.40	2.934E+00	9.633E-01	9.633E-01	45.49
	794.95	49	4.25	1.852E+00	8.650E-01	8.650E-01	71.00
	911.20	271	25.80*	1.634E+00	8.937E-01	8.937E-01	20.89
	964.77	33	4.99	1.549E+00	5.892E-01	5.892E-01	76.28
	968.97	159	15.80	1.542E+00	9.084E-01	9.084E-01	27.19
	1588.20	45	3.22	9.993E-01	1.938E+00	1.938E+00	60.40
U-235	143.76	51	10.96*	6.461E+00	1.003E-01	1.003E-01	158.57
NP-237	86.48	274	12.40*	5.403E+00	5.680E-01	5.680E-01	30.48
AM-243	74.66	304	68.20*	4.160E+00	1.490E-01	1.490E-01	29.18

Flag: "*" = Keyline

Sample ID : G198683010 Acquisition date : 15-DEC-2007 10:49:47

Total number of lines in spectrum	73	
Number of unidentified lines	35	
Number of lines tentatively identified by NID	38	52.05%

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	3.958E+00	3.958E+00	0.611E+00	15.44	
CS-137	9.47E+08S	1.00	2.271E-01	2.279E-01	0.422E-01	18.52	
TL-208	4.43E+17S	1.00	2.323E-01	2.323E-01	0.461E-01	19.83	
BI-212	4.43E+17S	1.00	5.582E-01	5.582E-01	2.067E-01	37.04	
PB-212	4.43E+17S	1.00	7.852E-01	7.852E-01	0.763E-01	9.71	
BI-214	5.05E+10S	1.00	7.084E-01	7.084E-01	0.973E-01	13.73	
PB-214	5.05E+10S	1.00	7.767E-01	7.767E-01	1.001E-01	12.88	
RA-223	1.04E+12S	1.00	2.729E-01	2.729E-01	1.220E-01	44.71	
AC-228	4.43E+17S	1.00	8.937E-01	8.937E-01	1.867E-01	20.89	
U-235	2.22E+16S	1.00	1.003E-01	1.003E-01	1.590E-01	158.57	
NP-237	6.75E+13S	1.00	5.680E-01	5.680E-01	1.731E-01	30.48	
AM-243	2.33E+11S	1.00	1.490E-01	1.490E-01	0.435E-01	29.18	
			---	---			
		Total Activity :	9.230E+00	9.231E+00			
		Grand Total Activity :	9.230E+00	9.231E+00			

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

Sample ID : G198683010 Acquisition date : 15-DEC-2007 10:49:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	84.45	112	386	1.49	168.40	165	28	7.76E-03	66.0	5.16E+00	
5	89.91	201	376	1.14	179.32	165	28	1.40E-02	35.6	5.60E+00	
5	92.66	295	473	1.43	184.80	165	28	2.05E-02	34.2	5.78E+00	T
5	94.82	57	415	1.39	189.12	165	28	3.93E-03	****	5.91E+00	
0	139.94	32	338	0.57	279.27	277	7	2.24E-03	****	6.51E+00	
0	154.14	55	393	0.94	307.66	304	8	3.81E-03	****	6.31E+00	
0	163.55	23	294	1.36	326.46	323	7	1.62E-03	****	6.15E+00	
0	185.82	277	487	1.18	370.95	365	13	1.92E-02	38.6	5.74E+00	
0	205.23	71	285	1.34	409.74	406	8	4.93E-03	86.2	5.40E+00	
0	216.55	37	236	0.58	432.37	429	7	2.57E-03	****	5.20E+00	
1	271.45	48	187	1.34	542.06	535	11	3.32E-03	****	4.42E+00	
0	328.21	135	232	2.46	655.48	650	13	9.40E-03	49.4	3.83E+00	
0	492.62	56	175	6.42	984.02	975	18	3.88E-03	****	2.79E+00	
0	562.28	41	89	2.26	1123.23	1119	10	2.84E-03	91.4	2.50E+00	
0	668.87	44	134	7.27	1336.25	1327	18	3.06E-03	****	2.16E+00	
3	772.88	39	61	2.23	1544.11	1526	29	2.68E-03	****	1.90E+00	
0	782.20	16	33	1.75	1562.75	1558	7	1.08E-03	****	1.88E+00	
2	802.70	33	26	2.05	1603.71	1600	16	2.29E-03	64.0	1.84E+00	
0	898.99	27	48	0.62	1796.15	1790	12	1.86E-03	****	1.65E+00	
0	1125.22	13	19	0.85	2248.29	2245	7	9.15E-04	****	1.34E+00	
3	1241.55	18	12	1.44	2480.80	2463	21	1.22E-03	88.1	1.22E+00	
0	1244.50	10	16	1.14	2486.70	2483	7	6.92E-04	****	1.22E+00	
0	1265.02	8	20	0.96	2527.71	2520	9	5.42E-04	****	1.20E+00	
0	1301.47	12	18	2.36	2600.57	2596	10	8.48E-04	****	1.17E+00	
0	1551.04	8	14	1.69	3099.41	3093	9	5.84E-04	****	1.02E+00	
0	1558.88	12	11	2.10	3115.08	3110	11	8.33E-04	****	1.01E+00	
3	1607.18	9	2	1.58	3211.63	3210	16	6.07E-04	61.1	9.91E-01	
3	1610.80	25	7	2.63	3218.87	3210	16	1.72E-03	56.9	9.90E-01	
0	1631.32	17	16	2.24	3259.88	3251	13	1.19E-03	****	9.81E-01	
0	1684.80	7	7	1.01	3366.80	3359	11	4.66E-04	****	9.61E-01	
0	1733.47	8	16	4.61	3464.07	3457	12	5.24E-04	****	9.44E-01	
0	1839.01	23	0	1.54	3675.04	3668	15	1.60E-03	41.7	9.15E-01	
0	1847.13	7	16	2.48	3691.28	3684	12	4.65E-04	****	9.13E-01	
0	1878.38	12	3	5.41	3753.76	3747	14	8.40E-04	86.3	9.06E-01	
4	1934.61	11	1	2.75	3866.16	3864	13	7.89E-04	54.5	8.95E-01	
4	1938.13	14	3	1.79	3873.20	3864	13	9.60E-04	56.2	8.95E-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]G198683010            *
* Acquisition date : 15-DEC-2007 10:49:47 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 04:00:04.01     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683010           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.3519E+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    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.958E+00	5.991E-01	1.238E-01	5.991E-01
CS-137	2.279E-01	4.137E-02	1.553E-02	4.137E-02
TL-208	2.323E-01	4.515E-02	1.562E-02	4.515E-02
BI-212	5.582E-01	2.026E-01	1.094E-01	2.026E-01
PB-212	7.852E-01	7.473E-02	2.488E-02	7.473E-02
BI-214	7.084E-01	9.533E-02	3.070E-02	9.533E-02
PB-214	7.767E-01	9.806E-02	3.044E-02	9.806E-02
RA-223	2.729E-01	1.196E-01	7.257E-02	1.196E-01
AC-228	8.937E-01	1.830E-01	5.761E-02	1.830E-01
U-235	1.003E-01	1.559E-01	8.339E-02	1.559E-01
NP-237	5.680E-01	1.697E-01	9.562E-02	1.697E-01
AM-243	1.490E-01	4.259E-02	2.361E-02	4.259E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	6.086E-03	1.878E-02	1.655E-02	1.878E-02	NOT IDENT.
RH-101	4.536E-03	1.849E-02	1.497E-02	1.849E-02	NOT IDENT.
SB-125	1.769E-02	5.190E-02	4.510E-02	5.190E-02	NOT IDENT.
EU-155	1.402E-02	5.135E-02	4.611E-02	5.135E-02	NOT IDENT.
PO-209	-4.063E-01	4.595E+00	3.281E+00	4.595E+00	NOT IDENT.
BI-211	-4.727E-02	5.493E-01	4.601E-01	5.493E-01	NOT IDENT.
PA-233	2.685E-02	3.249E-02	2.961E-02	3.249E-02	NOT IDENT.
PA-234M	-1.518E+00	2.563E+00	1.977E+00	2.563E+00	NOT IDENT.
TH-234	1.308E+00	4.509E-01	3.475E-01	4.509E-01	FAIL ABUN
NP-236	1.278E-02	3.732E-02	2.881E-02	3.732E-02	NOT IDENT.
NP-239	-1.191E-01	1.202E-01	9.547E-02	1.202E-01	NOT IDENT.
AM-241	3.930E-02	8.770E-02	8.207E-02	8.770E-02	NOT IDENT.
CM-243	-2.902E-03	4.795E-02	4.257E-02	4.795E-02	NOT IDENT.
AM-246	3.234E-02	6.632E-02	5.961E-02	6.632E-02	NOT IDENT.
CF-249	6.857E-03	2.112E-02	1.849E-02	2.112E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	295.2873
63.29	308.2145
74.66	378.5489
74.81	378.6956
74.81	378.6956
77.11	380.9109
77.11	380.9109
86.48	344.8727
87.30	345.5257
87.30	345.5257
92.58	349.6621
98.44	334.4984
103.76	330.9559
105.31	306.7567
129.07	313.6010
143.76	305.8074
198.00	273.0734
209.25	210.2539
228.18	283.1688
238.63	244.9448
242.00	245.8536
269.46	175.3770
270.25	172.7751
277.36	177.6804
295.22	172.3203
300.09	155.0406
312.17	156.9434
338.32	183.9012
351.93	156.4647
387.59	142.6911
409.46	142.9620
427.87	136.5090
463.00	134.4595
510.77	115.4742
583.19	94.7710
609.31	101.3732
661.66	76.4043
727.33	62.3886
763.13	86.7450
768.36	65.2063
785.37	53.8945
794.95	62.9067
806.17	66.2616
831.80	70.0536
860.56	52.1057
896.60	63.4058
911.20	55.2563
934.06	40.7248
964.77	57.7969
968.97	60.7783
1001.03	39.5147
1078.86	41.3127
1120.29	66.8767
1155.19	31.7418
1173.23	35.7865
1238.11	42.2555
1280.96	28.9445
1332.51	31.3847
1377.67	30.7410
1401.50	46.4008
1407.98	22.7233
1460.80	18.8438
1509.23	45.4067
1588.20	23.7519
1620.50	15.4260
1729.60	21.7328
1764.49	15.3996

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683010

Total Uranium Activity	4.6406E-02	ug/g
Total Uranium Counting Unc.	7.2117E-02	ug/g
Total Uranium Tpu	7.2117E-08	ug/g
Total Uranium Mda	3.8586E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:51:26.45

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683011.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:50:32
Sample ID        : G198683011           Sample quantity  : 1.17850E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:29.86  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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*	43	336	0.98	127.57	124	8	3.00E-03	83.7	
2	2	74.71	251	406	1.29	150.34	146	15	1.74E-02	15.3	7.73E-01
3	2	77.04	421	396	1.29	154.99	146	15	2.92E-02	10.0	
4	5	84.30*	102	442	1.64	169.51	164	29	7.05E-03	40.7	7.31E-01
5	5	87.21	223	343	1.40	175.32	164	29	1.55E-02	15.8	
6	5	89.88	179	328	1.31	180.66	164	29	1.24E-02	19.7	
7	5	92.83*	256	431	1.77	186.55	164	29	1.78E-02	19.2	
8	0	105.33	50	196	1.54	211.54	209	6	3.48E-03	46.4	
9	0	124.46	33	244	1.33	249.79	246	6	2.32E-03	75.9	
10	0	144.07*	48	230	1.33	288.98	286	6	3.37E-03	57.3	
11	0	164.13	32	312	4.23	329.09	322	9	2.22E-03	101.5	
12	0	186.03*	181	377	1.38	372.86	367	11	1.26E-02	23.9	
13	0	210.28	49	358	1.23	421.34	414	9	3.42E-03	70.7	
14	5	238.61*	1136	229	1.38	477.97	471	22	7.89E-02	3.9	1.31E+00
15	5	241.33	233	363	2.12	483.40	471	22	1.62E-02	23.0	
16	0	264.63	26	163	1.29	529.99	526	8	1.80E-03	87.5	
17	4	270.05*	110	211	1.98	540.80	535	34	7.65E-03	30.0	1.26E+00
18	4	275.19*	38	213	1.99	551.08	535	34	2.62E-03	84.9	
19	4	277.68	49	161	1.50	556.06	535	34	3.40E-03	50.2	
20	0	295.12*	275	187	1.53	590.93	585	11	1.91E-02	11.9	
21	0	299.90	96	160	1.88	600.49	596	9	6.66E-03	25.9	
22	0	306.46	44	89	1.13	613.61	611	6	3.06E-03	37.2	
23	0	329.15	95	230	1.56	658.95	653	14	6.57E-03	35.8	
24	0	338.42	198	214	1.46	677.48	672	11	1.38E-02	16.0	
25	0	351.84*	456	241	1.64	704.30	697	16	3.16E-02	9.2	
26	0	410.43	33	104	1.36	821.43	818	8	2.26E-03	57.4	
27	0	463.01	86	76	1.31	926.56	921	11	5.99E-03	22.4	
28	0	510.96*	50	171	1.75	1022.41	1016	14	3.49E-03	72.2	
29	0	583.00*	365	83	1.62	1166.43	1158	15	2.53E-02	8.0	
30	0	609.40*	306	120	1.77	1219.22	1213	14	2.13E-02	10.4	
31	0	615.69	38	45	1.72	1231.79	1228	9	2.64E-03	35.7	
32	0	661.80	168	59	2.21	1323.99	1319	11	1.17E-02	11.8	
33	0	709.60	45	124	7.12	1419.54	1408	20	3.10E-03	65.0	
34	0	727.34	97	53	1.39	1455.01	1449	14	6.74E-03	18.8	
35	0	796.11	17	77	1.81	1592.50	1582	12	1.16E-03	108.0	
36	0	803.94*	15	58	1.31	1608.16	1601	13	1.03E-03	115.4	
37	0	911.07*	270	30	1.68	1822.36	1814	17	1.87E-02	8.0	
38	0	934.14	26	27	1.55	1868.49	1863	9	1.81E-03	40.8	

Sample ID : G198683011 Acquisition date : 15-DEC-2007 10:50:32

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	964.72*	33	38	2.08	1929.62	1924	25	2.27E-03	42.0	1.59E+00
40	1	969.00*	86	37	2.08	1938.18	1924	25	5.99E-03	20.1	
41	0	1000.83*	6	26	2.41	2001.83	1998	10	4.12E-04	195.5	
42	0	1026.23	21	36	0.63	2052.62	2046	13	1.47E-03	62.2	
43	1	1093.13	26	7	2.16	2186.39	2182	31	1.79E-03	30.9	1.82E+00
44	1	1096.24	32	16	2.17	2192.61	2182	31	2.20E-03	34.5	
45	0	1120.10	83	63	2.14	2240.31	2231	21	5.76E-03	26.3	
46	0	1148.57	7	15	1.44	2297.25	2294	8	4.70E-04	104.4	
47	0	1154.04	23	31	1.67	2308.19	2301	15	1.59E-03	56.2	
48	0	1189.36	18	56	8.36	2378.81	2362	19	1.22E-03	105.7	
49	0	1226.69	14	46	3.52	2453.45	2442	19	9.58E-04	127.3	
50	0	1232.86	24	12	1.44	2465.80	2460	12	1.66E-03	35.4	
51	0	1238.08	35	31	1.02	2476.24	2471	11	2.45E-03	34.7	
52	0	1363.05	18	12	3.85	2726.14	2720	10	1.22E-03	44.6	
53	3	1455.68	22	13	2.87	2911.37	2905	29	1.53E-03	41.9	6.01E-01
54	3	1460.68*	314	16	2.20	2921.38	2905	29	2.18E-02	6.6	
55	0	1486.10	10	10	1.35	2972.21	2967	12	7.27E-04	65.4	
56	0	1567.86	10	5	0.93	3135.71	3129	12	6.81E-04	58.6	
57	0	1675.42	12	3	0.85	3350.83	3344	12	8.38E-04	40.6	
58	0	1690.69*	6	2	1.45	3381.37	3376	9	4.49E-04	68.4	
59	0	1705.07	18	4	3.64	3410.14	3403	16	1.22E-03	35.0	
60	0	1715.63	4	11	1.41	3431.25	3424	11	2.78E-04	168.2	
61	0	1764.48	72	5	1.17	3528.96	3519	20	5.00E-03	14.0	
62	0	1851.79	6	24	3.39	3703.57	3691	14	4.22E-04	176.9	
63	0	1867.06	7	13	1.12	3734.11	3722	14	4.62E-04	124.9	

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]G198683011       *
* Acquisition date : 15-DEC-2007 10:50:32 Detector SN#    :                 *
* Detector ID      : GAM04                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 04:00:29.86     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683011           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1785E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2007 17:58:01 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	4.428E+00	6.300E-01	3.254E-01	0.000E+00
CS-137	1.454E-01	3.498E-02	3.533E-02	0.000E+00
EU-155	6.584E-02	6.021E-02	1.069E-01	0.000E+00
TL-208	2.850E-01	4.813E-02	3.139E-02	0.000E+00
BI-212	6.550E-01	2.466E-01	2.411E-01	0.000E+00
PB-212	8.958E-01	1.128E-01	5.602E-02	0.000E+00
BI-214	4.545E-01	9.739E-02	6.809E-02	0.000E+00
PB-214	5.445E-01	1.058E-01	6.610E-02	0.000E+00
RA-223	2.992E-01	1.783E-01	1.709E-01	0.000E+00
AC-228	1.023E+00	1.892E-01	1.354E-01	0.000E+00
PA-234M	7.569E-01	2.901E+00	3.978E+00	0.000E+00
TH-234	1.434E+00	5.543E-01	4.476E-01	0.000E+00
U-235	1.158E-01	1.305E-01	2.069E-01	0.000E+00
NP-237	5.920E-01	1.911E-01	2.129E-01	0.000E+00
AM-243	1.639E-01	5.155E-02	5.605E-02	0.000E+00
CM-243	5.958E-02	5.449E-02	9.073E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	1.662E-02	2.278E-02	4.099E-02	0.000E+00	NOT IDENT.
RH-101	8.683E-03	2.087E-02	3.456E-02	0.000E+00	NOT IDENT.
SB-125	1.202E-02	5.635E-02	9.903E-02	0.000E+00	NOT IDENT.
PO-209	1.213E+00	3.659E+00	6.472E+00	0.000E+00	NOT IDENT.
BI-211	-7.158E-01	6.531E-01	9.626E-01	0.000E+00	NOT IDENT.
PA-233	-7.278E-03	3.651E-02	6.064E-02	0.000E+00	NOT IDENT.
NP-236	6.012E-02	3.915E-02	6.316E-02	0.000E+00	NOT IDENT.
NP-239	1.071E-01	1.320E-01	2.337E-01	0.000E+00	NOT IDENT.
AM-241	2.034E-02	1.314E-01	2.036E-01	0.000E+00	NOT IDENT.
AM-246	5.296E-02	6.837E-02	1.249E-01	0.000E+00	NOT IDENT.
CF-249	9.363E-03	2.315E-02	3.932E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:51:27.40

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683011.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:50:32
Sample ID        : G198683011           Sample quantity  : 1.17850E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:29.86  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	314	10.66*	1.060E+00	4.428E+00	4.428E+00	14.52
CS-137	661.66	168	85.10*	2.171E+00	1.448E-01	1.454E-01	24.56
EU-155	105.31	50	21.20*	5.855E+00	6.439E-02	6.584E-02	93.32
TL-208	277.36	49	6.31	4.198E+00	2.941E-01	2.941E-01	100.81
	510.77	50	22.60	2.681E+00	1.319E-01	1.319E-01	144.51
	583.19	365	84.50*	2.413E+00	2.850E-01	2.850E-01	17.23
	763.13	------	1.81	1.915E+00	------	Line Not Found	------
	860.56	------	12.42	1.716E+00	------	Line Not Found	------
BI-212	727.33	97	11.80*	1.999E+00	6.550E-01	6.550E-01	38.41
	785.37	------	1.10	1.866E+00	------	Line Not Found	------
	1620.50	------	1.49	9.849E-01	------	Line Not Found	------
PB-212	74.81	251	10.40	3.578E+00	1.075E+00	1.075E+00	32.09
	77.11	421	17.50	3.847E+00	9.953E-01	9.953E-01	22.06
	87.30	223	7.81	4.840E+00	9.399E-01	9.399E-01	32.93
	238.63	1136	43.30*	4.664E+00	8.958E-01	8.958E-01	12.85
	300.09	96	3.28	3.975E+00	1.171E+00	1.171E+00	52.56
BI-214	609.31	306	46.10*	2.327E+00	4.544E-01	4.545E-01	21.87
	768.36	------	4.94	1.904E+00	------	Line Not Found	------
	806.17	------	1.22	1.822E+00	------	Line Not Found	------
	934.06	26	3.03	1.588E+00	8.647E-01	8.647E-01	82.20
	1120.29	83	15.10	1.337E+00	6.545E-01	6.546E-01	53.15
	1155.19	23	1.63	1.301E+00	1.724E+00	1.724E+00	112.70
	1238.11	35	5.79	1.219E+00	7.946E-01	7.947E-01	69.67
	1280.96	------	1.43	1.183E+00	------	Line Not Found	------
	1377.67	------	4.00	1.111E+00	------	Line Not Found	------
	1401.50	------	1.27	1.095E+00	------	Line Not Found	------
	1407.98	------	2.15	1.091E+00	------	Line Not Found	------
	1509.23	------	2.11	1.034E+00	------	Line Not Found	------
	1729.60	------	2.92	9.490E-01	------	Line Not Found	------
	1764.49	72	15.40	9.397E-01	7.928E-01	7.929E-01	28.67
PB-214	74.81	251	6.44	3.578E+00	1.736E+00	1.736E+00	32.09
	77.11	421	10.80	3.847E+00	1.613E+00	1.613E+00	22.06

Sample ID : G198683011 Acquisition date : 15-DEC-2007 10:50:32

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	223	4.84	4.840E+00	1.517E+00	1.517E+00	32.93
	242.00	233	7.43	4.628E+00	1.078E+00	1.079E+00	47.02
	295.22	275	19.30	4.021E+00	5.634E-01	5.634E-01	25.50
	351.93	456	37.60*	3.544E+00	5.445E-01	5.445E-01	19.83
RA-223	269.46	110	13.70*	4.281E+00	2.992E-01	2.992E-01	60.82
AC-228	129.07	------	2.42	6.175E+00	------	Line Not Found	------
	209.25	49	3.89	5.068E+00	3.975E-01	3.975E-01	141.88
	270.25	110	3.46	4.281E+00	1.185E+00	1.185E+00	60.82
	338.32	198	11.27	3.645E+00	7.694E-01	7.694E-01	32.98
	409.46	33	1.92	3.166E+00	8.529E-01	8.529E-01	114.93
	463.00	86	4.40	2.892E+00	1.079E+00	1.079E+00	45.27
	794.95	17	4.25	1.843E+00	3.408E-01	3.408E-01	216.21
	911.20	270	25.80*	1.626E+00	1.023E+00	1.023E+00	18.87
	964.77	33	4.99	1.541E+00	6.768E-01	6.768E-01	84.58
	968.97	86	15.80	1.534E+00	5.662E-01	5.662E-01	41.29
	1588.20	------	3.22	9.978E-01	------	Line Not Found	------
PA-234M	1001.03	6	0.84*	1.488E+00	7.569E-01	7.569E-01	391.10
TH-234	63.29	43	4.80	2.125E+00	6.737E-01	6.737E-01	167.76
	92.58	256	5.41*	5.252E+00	1.434E+00	1.434E+00	39.44
U-235	143.76	48	10.96*	6.079E+00	1.158E-01	1.158E-01	114.96
NP-237	86.48	223	12.40*	4.840E+00	5.920E-01	5.920E-01	32.93
AM-243	74.66	251	68.20*	3.578E+00	1.639E-01	1.639E-01	32.09
CM-243	103.76	50	23.00*	5.855E+00	5.935E-02	5.958E-02	93.32

Flag: "*" = Keyline

Sample ID : G198683011 Acquisition date : 15-DEC-2007 10:50:32

Total number of lines in spectrum	63	
Number of unidentified lines	29	
Number of lines tentatively identified by NID	34	53.97%

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	4.428E+00	4.428E+00	0.643E+00	14.52	
CS-137	9.47E+08S	1.00	1.448E-01	1.454E-01	0.357E-01	24.56	
EU-155	1.57E+08S	1.02	6.439E-02	6.584E-02	6.144E-02	93.32	
TL-208	4.43E+17S	1.00	2.850E-01	2.850E-01	0.491E-01	17.23	
BI-212	4.43E+17S	1.00	6.550E-01	6.550E-01	2.516E-01	38.41	
PB-212	4.43E+17S	1.00	8.958E-01	8.958E-01	1.151E-01	12.85	
BI-214	5.05E+10S	1.00	4.544E-01	4.545E-01	0.994E-01	21.87	
PB-214	5.05E+10S	1.00	5.445E-01	5.445E-01	1.080E-01	19.83	
RA-223	1.04E+12S	1.00	2.992E-01	2.992E-01	1.820E-01	60.82	
AC-228	4.43E+17S	1.00	1.023E+00	1.023E+00	0.193E+00	18.87	
PA-234M	1.41E+17S	1.00	7.569E-01	7.569E-01	29.60E-01	391.10	
TH-234	1.41E+17S	1.00	1.434E+00	1.434E+00	0.566E+00	39.44	
U-235	2.22E+16S	1.00	1.158E-01	1.158E-01	1.331E-01	114.96	
NP-237	6.75E+13S	1.00	5.920E-01	5.920E-01	1.950E-01	32.93	
AM-243	2.33E+11S	1.00	1.639E-01	1.639E-01	0.526E-01	32.09	
CM-243	8.99E+08S	1.00	5.935E-02	5.958E-02	5.560E-02	93.32	
			---	---			
		Total Activity :	1.192E+01	1.192E+01			

Grand Total Activity : 1.192E+01 1.192E+01

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

Sample ID : G198683011 Acquisition date : 15-DEC-2007 10:50:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	84.30	102	442	1.64	169.51	164	29	7.05E-03	81.4	4.59E+00	
5	89.88	179	328	1.31	180.66	164	29	1.24E-02	39.4	5.05E+00	
0	124.46	33	244	1.33	249.79	246	6	2.32E-03	****	6.17E+00	
0	164.13	32	312	4.23	329.09	322	9	2.22E-03	****	5.81E+00	
0	186.03	181	377	1.38	372.86	367	11	1.26E-02	47.8	5.45E+00	
0	264.63	26	163	1.29	529.99	526	8	1.80E-03	****	4.34E+00	
4	275.19	38	213	1.99	551.08	535	34	2.62E-03	****	4.22E+00	
0	306.46	44	89	1.13	613.61	611	6	3.06E-03	74.4	3.91E+00	
0	329.15	95	230	1.56	658.95	653	14	6.57E-03	71.6	3.72E+00	
0	615.69	38	45	1.72	1231.79	1228	9	2.64E-03	71.4	2.31E+00	
0	709.60	45	124	7.12	1419.54	1408	20	3.10E-03	****	2.04E+00	
0	803.94	15	58	1.31	1608.16	1601	13	1.03E-03	****	1.83E+00	
0	1026.23	21	36	0.63	2052.62	2046	13	1.47E-03	****	1.45E+00	
1	1093.13	26	7	2.16	2186.39	2182	31	1.79E-03	61.8	1.37E+00	
1	1096.24	32	16	2.17	2192.61	2182	31	2.20E-03	69.1	1.36E+00	
0	1148.57	7	15	1.44	2297.25	2294	8	4.70E-04	****	1.31E+00	
0	1189.36	18	56	8.36	2378.81	2362	19	1.22E-03	****	1.26E+00	
0	1226.69	14	46	3.52	2453.45	2442	19	9.58E-04	****	1.23E+00	
0	1232.86	24	12	1.44	2465.80	2460	12	1.66E-03	70.9	1.22E+00	
0	1363.05	18	12	3.85	2726.14	2720	10	1.22E-03	89.1	1.12E+00	
3	1455.68	22	13	2.87	2911.37	2905	29	1.53E-03	83.9	1.06E+00	
0	1486.10	10	10	1.35	2972.21	2967	12	7.27E-04	****	1.05E+00	
0	1567.86	10	5	0.93	3135.71	3129	12	6.81E-04	****	1.01E+00	
0	1675.42	12	3	0.85	3350.83	3344	12	8.38E-04	81.2	9.65E-01	
0	1690.69	6	2	1.45	3381.37	3376	9	4.49E-04	****	9.61E-01	
0	1705.07	18	4	3.64	3410.14	3403	16	1.22E-03	69.9	9.56E-01	
0	1715.63	4	11	1.41	3431.25	3424	11	2.78E-04	****	9.53E-01	
0	1851.79	6	24	3.39	3703.57	3691	14	4.22E-04	****	9.21E-01	
0	1867.06	7	13	1.12	3734.11	3722	14	4.62E-04	****	9.19E-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]G198683011            *
* Acquisition date : 15-DEC-2007 10:50:32 Detector SN#    :                 *
* Detector ID      : GAM04                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 04:00:29.86     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683011           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1785E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2007 17:58:01 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	4.428E+00	6.300E-01	1.628E-01	6.300E-01
CS-137	1.454E-01	3.498E-02	1.767E-02	3.498E-02
EU-155	6.584E-02	6.021E-02	5.348E-02	6.021E-02
TL-208	2.850E-01	4.813E-02	1.570E-02	4.813E-02
BI-212	6.550E-01	2.466E-01	1.206E-01	2.466E-01
PB-212	8.958E-01	1.128E-01	2.803E-02	1.128E-01
BI-214	4.545E-01	9.739E-02	3.407E-02	9.739E-02
PB-214	5.445E-01	1.058E-01	3.307E-02	1.058E-01
RA-223	2.992E-01	1.783E-01	8.549E-02	1.783E-01
AC-228	1.023E+00	1.892E-01	6.772E-02	1.892E-01
PA-234M	7.569E-01	2.901E+00	1.990E+00	2.901E+00
TH-234	1.434E+00	5.543E-01	2.239E-01	5.543E-01
U-235	1.158E-01	1.305E-01	1.035E-01	1.305E-01
NP-237	5.920E-01	1.911E-01	1.065E-01	1.911E-01
AM-243	1.639E-01	5.155E-02	2.804E-02	5.155E-02
CM-243	5.958E-02	5.449E-02	4.539E-02	5.449E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.662E-02	2.278E-02	2.051E-02	2.278E-02	NOT IDENT.
RH-101	8.683E-03	2.087E-02	1.729E-02	2.087E-02	NOT IDENT.
SB-125	1.202E-02	5.635E-02	4.954E-02	5.635E-02	NOT IDENT.
PO-209	1.213E+00	3.659E+00	3.238E+00	3.659E+00	NOT IDENT.
BI-211	-7.158E-01	6.531E-01	4.816E-01	6.531E-01	NOT IDENT.
PA-233	-7.278E-03	3.651E-02	3.034E-02	3.651E-02	NOT IDENT.
NP-236	6.012E-02	3.915E-02	3.160E-02	3.915E-02	NOT IDENT.
NP-239	1.071E-01	1.320E-01	1.169E-01	1.320E-01	NOT IDENT.
AM-241	2.034E-02	1.314E-01	1.019E-01	1.314E-01	NOT IDENT.
AM-246	5.296E-02	6.837E-02	6.248E-02	6.837E-02	NOT IDENT.
CF-249	9.363E-03	2.315E-02	1.967E-02	2.315E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	239.0880
63.29	285.2253
74.66	320.8781
74.81	320.9764
74.81	320.9764
77.11	322.4494
77.11	322.4494
86.48	274.9790
87.30	275.3907
87.30	275.3907
92.58	277.9940
98.44	229.7449
103.76	251.9234
105.31	291.8401
129.07	314.0339
143.76	331.8816
198.00	250.1325
209.25	269.8867
228.18	222.5641
238.63	225.7119
242.00	226.4020
269.46	178.1941
270.25	178.3123
277.36	179.3623
295.22	170.3599
300.09	166.0229
312.17	151.8478
338.32	163.3002
351.93	137.9180
387.59	118.0435
409.46	144.9437
427.87	128.4674
463.00	101.5486
510.77	97.5596
583.19	73.6157
609.31	96.0295
661.66	76.2341
727.33	58.4691
763.13	76.2223
768.36	67.8875
785.37	67.2528
794.95	66.4199
806.17	41.2345
831.80	83.5928
860.56	46.0564
896.60	39.7780
911.20	58.5626
934.06	38.3966
964.77	49.1774
968.97	49.2430
1001.03	44.9518
1078.86	29.3616
1120.29	41.5916
1155.19	41.1362
1173.23	35.1652
1238.11	26.2803
1280.96	29.9617
1332.51	20.9269
1377.67	30.6733
1401.50	32.9716
1407.98	25.5645
1460.80	24.7959
1509.23	20.5483
1588.20	33.2471
1620.50	22.9520
1729.60	18.5713
1764.49	10.8247

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683011

Total Uranium Activity	5.3591E-02	ug/g
Total Uranium Counting Unc.	6.0376E-02	ug/g
Total Uranium Tpu	6.0376E-08	ug/g
Total Uranium Mda	4.7885E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:52:10.18

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683012.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:51:08
Sample ID        : G198683012           Sample quantity  : 1.06420E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.33  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.35*	33	403	1.09	93.49	89	9	2.31E-03	139.6	
2	0	53.13	83	359	1.44	107.04	102	10	5.76E-03	44.2	
3	0	63.14*	107	507	1.06	127.05	122	10	7.43E-03	43.7	
4	4	74.74*	272	394	0.93	150.23	146	13	1.89E-02	13.8	8.42E-01
5	4	76.99*	511	359	1.03	154.72	146	13	3.55E-02	8.0	
6	1	84.26*	86	369	1.38	169.25	165	27	6.01E-03	43.3	1.30E+00
7	1	87.18*	160	324	1.14	175.10	165	27	1.11E-02	21.4	
8	1	89.71	145	326	1.14	180.15	165	27	1.01E-02	22.1	
9	1	92.64*	218	374	1.31	186.01	165	27	1.51E-02	18.9	
10	0	105.39	36	217	1.36	211.50	208	6	2.49E-03	67.6	
11	0	113.95	39	368	0.62	228.61	224	10	2.68E-03	94.8	
12	0	128.23	87	319	1.54	257.15	253	9	6.04E-03	38.6	
13	2	185.72*	168	232	1.73	372.04	365	25	1.17E-02	21.9	3.62E+00
14	2	191.90	96	205	1.75	384.39	365	25	6.66E-03	31.6	
15	0	197.45*	82	284	2.23	395.48	390	12	5.73E-03	46.2	
16	0	209.06	83	239	0.72	418.69	415	9	5.76E-03	35.2	
17	3	238.71*	679	149	1.15	477.95	469	27	4.72E-02	5.3	1.76E+00
18	3	241.78	216	246	1.99	484.08	469	27	1.50E-02	19.3	
19	0	270.36	85	228	1.07	541.21	535	11	5.91E-03	36.0	
20	0	276.97	45	151	1.02	554.42	550	9	3.14E-03	51.4	
21	0	295.16*	234	247	1.42	590.77	583	15	1.63E-02	16.9	
22	0	300.75	51	183	0.90	601.93	597	11	3.56E-03	53.0	
23	0	307.24	28	217	5.73	614.91	608	14	1.94E-03	113.2	
24	0	328.13	45	125	2.18	656.66	653	8	3.14E-03	45.2	
25	0	338.38*	119	188	1.14	677.13	672	11	8.24E-03	25.3	
26	0	352.08*	343	167	1.47	704.52	699	12	2.38E-02	10.3	
27	0	462.87	51	150	3.92	925.91	920	13	3.52E-03	51.8	
28	0	511.39*	146	169	2.71	1022.85	1015	22	1.01E-02	29.3	
29	0	583.50	203	97	1.15	1166.92	1160	13	1.41E-02	12.3	
30	0	597.01	126	247	17.49	1193.93	1173	38	8.77E-03	41.3	
31	0	609.44*	198	125	1.35	1218.75	1212	12	1.37E-02	14.5	
32	0	662.00	245	91	1.59	1323.77	1319	14	1.70E-02	10.4	
33	0	727.99	87	52	1.32	1455.60	1448	14	6.02E-03	20.7	
34	0	770.17	50	62	4.87	1539.86	1533	14	3.45E-03	37.4	
35	0	791.87	63	135	11.34	1583.21	1566	30	4.37E-03	55.2	
36	0	838.95	17	95	4.41	1677.26	1663	17	1.16E-03	137.3	
37	0	861.72	26	61	0.89	1722.74	1717	12	1.83E-03	61.9	
38	0	911.63*	121	56	1.44	1822.43	1815	14	8.39E-03	16.8	

Sample ID : G198683012 Acquisition date : 15-DEC-2007 10:51:08

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	921.40	16	41	1.65	1841.94	1834	12	1.09E-03	86.2	
40	2	965.13	26	26	1.74	1929.29	1926	35	1.81E-03	35.6	1.10E+00
41	2	969.34	72	61	2.47	1937.71	1926	35	5.00E-03	26.8	
42	0	1084.73	23	79	8.23	2168.15	2147	27	1.60E-03	110.6	
43	0	1121.45*	36	49	1.79	2241.50	2232	15	2.53E-03	47.5	
44	0	1341.16	9	28	3.79	2680.22	2669	13	6.13E-04	130.2	
45	0	1368.54	9	23	0.83	2734.89	2724	16	6.34E-04	124.0	
46	0	1461.61*	324	21	2.20	2920.70	2911	21	2.25E-02	6.8	
47	0	1568.03	9	11	1.36	3133.15	3125	14	6.55E-04	79.9	
48	2	1588.86	24	8	3.00	3174.74	3169	22	1.65E-03	32.1	3.72E-01
49	2	1594.11	28	10	2.69	3185.23	3169	22	1.96E-03	27.6	
50	0	1658.08*	3	14	0.85	3312.92	3302	15	1.98E-04	312.3	
51	0	1719.88	7	5	1.81	3436.28	3432	9	5.03E-04	64.9	
52	0	1729.55	20	17	2.65	3455.57	3447	17	1.40E-03	51.9	
53	0	1765.65*	28	10	2.44	3527.64	3522	13	1.92E-03	36.3	
54	0	1849.33	9	5	1.13	3694.65	3690	9	5.90E-04	56.6	
55	0	1937.02	11	2	1.57	3869.65	3866	8	7.85E-04	36.5	

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]G198683012       *
* Acquisition date : 15-DEC-2007 10:51:08 Detector SN#    :                 *
* Detector ID      : GAM05                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 04:00:02.33     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683012           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.0642E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.489E+00	8.436E-01	3.080E-01	0.000E+00
RH-101	4.042E-02	3.683E-02	3.464E-02	0.000E+00
CS-137	2.701E-01	5.935E-02	4.943E-02	0.000E+00
EU-155	4.428E-02	5.879E-02	9.949E-02	0.000E+00
TL-208	2.007E-01	5.025E-02	4.095E-02	0.000E+00
BI-212	7.447E-01	3.091E-01	3.326E-01	0.000E+00
PB-212	6.196E-01	8.230E-02	6.507E-02	0.000E+00
BI-214	3.734E-01	1.094E-01	1.029E-01	0.000E+00
PB-214	4.917E-01	1.024E-01	8.309E-02	0.000E+00
RA-223	2.697E-01	1.914E-01	2.093E-01	0.000E+00
AC-228	5.747E-01	1.961E-01	1.680E-01	0.000E+00
TH-234	1.001E+00	3.819E-01	4.172E-01	0.000E+00
NP-237	3.172E-01	1.357E-01	1.789E-01	0.000E+00
AM-243	9.597E-02	2.706E-02	3.534E-02	0.000E+00
CM-243	4.007E-02	5.320E-02	9.718E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.821E-02	2.954E-02	5.257E-02	0.000E+00	NOT IDENT.
SB-125	1.500E-02	7.085E-02	1.196E-01	0.000E+00	NOT IDENT.
PO-209	4.630E+00	5.599E+00	9.917E+00	0.000E+00	NOT IDENT.
BI-211	1.099E+00	8.633E-01	1.419E+00	0.000E+00	NOT IDENT.
PA-233	-2.534E-02	5.445E-02	7.765E-02	0.000E+00	NOT IDENT.
PA-234M	4.161E+00	3.343E+00	6.086E+00	0.000E+00	NOT IDENT.
U-235	4.169E-02	1.471E-01	2.328E-01	0.000E+00	NOT IDENT.
NP-236	3.690E-02	3.586E-02	5.914E-02	0.000E+00	NOT IDENT.
NP-239	-2.211E-02	1.573E-01	2.555E-01	0.000E+00	NOT IDENT.
AM-241	3.899E-02	3.520E-02	5.697E-02	0.000E+00	NOT IDENT.
AM-246	3.093E-02	1.010E-01	1.757E-01	0.000E+00	NOT IDENT.
CF-249	3.118E-02	3.008E-02	5.328E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:52:11.32

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683012.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:51:08
Sample ID        : G198683012           Sample quantity  : 1.06420E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.33  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	324	10.66*	9.764E-01	5.489E+00	5.489E+00	15.68
RH-101	198.00	82	73.00*	5.096E+00	3.908E-02	4.042E-02	92.97
CS-137	661.66	245	85.10*	1.887E+00	2.691E-01	2.701E-01	22.42
EU-155	105.31	36	21.20*	6.882E+00	4.330E-02	4.428E-02	135.48
TL-208	277.36	45	6.31	3.986E+00	3.170E-01	3.170E-01	103.04
	510.77	146	22.60	2.366E+00	4.805E-01	4.805E-01	59.00
	583.19	203	84.50*	2.107E+00	2.007E-01	2.007E-01	25.55
	763.13	------	1.81	1.670E+00	------	Line Not Found	------
	860.56	26	12.42	1.506E+00	2.489E-01	2.489E-01	124.12
BI-212	727.33	87	11.80*	1.738E+00	7.447E-01	7.447E-01	42.35
	785.37	------	1.10	1.629E+00	------	Line Not Found	------
	1620.50	------	1.49	8.967E-01	------	Line Not Found	------
PB-212	74.81	272	10.40	7.332E+00	6.293E-01	6.293E-01	28.77
	77.11	511	17.50	7.311E+00	7.050E-01	7.050E-01	17.96
	87.30	160	7.81	7.189E+00	5.037E-01	5.037E-01	43.63
	238.63	679	43.30*	4.465E+00	6.196E-01	6.196E-01	13.56
	300.09	51	3.28	3.731E+00	7.396E-01	7.396E-01	106.24
BI-214	609.31	198	46.10*	2.028E+00	3.734E-01	3.734E-01	29.90
	768.36	50	4.94	1.657E+00	1.069E+00	1.069E+00	75.35
	806.17	------	1.22	1.594E+00	------	Line Not Found	------
	934.06	------	3.03	1.408E+00	------	Line Not Found	------
	1120.29	36	15.10	1.211E+00	3.509E-01	3.509E-01	95.12
	1155.19	------	1.63	1.183E+00	------	Line Not Found	------
	1238.11	------	5.79	1.118E+00	------	Line Not Found	------
	1280.96	------	1.43	1.087E+00	------	Line Not Found	------
	1377.67	------	4.00	1.025E+00	------	Line Not Found	------
	1401.50	------	1.27	1.011E+00	------	Line Not Found	------
	1407.98	------	2.15	1.007E+00	------	Line Not Found	------
	1509.23	------	2.11	9.511E-01	------	Line Not Found	------
	1729.60	20	2.92	8.490E-01	1.432E+00	1.432E+00	104.10
	1764.49	28	15.40	8.342E-01	3.801E-01	3.802E-01	72.89
PB-214	74.81	272	6.44	7.332E+00	1.016E+00	1.016E+00	28.77

Sample ID : G198683012 Acquisition date : 15-DEC-2007 10:51:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	511	10.80	7.311E+00	1.142E+00	1.142E+00	17.96
	87.30	160	4.84	7.189E+00	8.128E-01	8.128E-01	43.63
	242.00	216	7.43	4.423E+00	1.158E+00	1.158E+00	39.52
	295.22	234	19.30	3.788E+00	5.656E-01	5.656E-01	34.32
	351.93	343	37.60*	3.273E+00	4.917E-01	4.917E-01	21.26
RA-223	269.46	85	13.70*	4.062E+00	2.697E-01	2.697E-01	72.42
AC-228	129.07	87	2.42	6.426E+00	9.865E-01	9.865E-01	77.78
	209.25	83	3.89	4.906E+00	7.665E-01	7.665E-01	71.08
	270.25	85	3.46	4.062E+00	1.068E+00	1.068E+00	72.42
	338.32	119	11.27	3.384E+00	5.484E-01	5.484E-01	50.99
	409.46	------	1.92	2.874E+00	------ Line Not Found		------
	463.00	51	4.40	2.582E+00	7.860E-01	7.860E-01	103.68
	794.95	------	4.25	1.613E+00	------ Line Not Found		------
	911.20	121	25.80*	1.437E+00	5.747E-01	5.747E-01	34.82
	964.77	26	4.99	1.371E+00	6.719E-01	6.719E-01	71.71
	968.97	72	15.80	1.366E+00	5.889E-01	5.889E-01	54.23
	1588.20	24	3.22	9.115E-01	1.427E+00	1.427E+00	64.55
TH-234	63.29	107	4.80	7.386E+00	5.322E-01	5.322E-01	87.73
	92.58	218	5.41*	7.106E+00	1.001E+00	1.001E+00	38.94
NP-237	86.48	160	12.40*	7.189E+00	3.172E-01	3.172E-01	43.63
AM-243	74.66	272	68.20*	7.332E+00	9.597E-02	9.597E-02	28.77
CM-243	103.76	36	23.00*	6.882E+00	3.991E-02	4.007E-02	135.48

Flag: "*" = Keyline

Sample ID : G198683012 Acquisition date : 15-DEC-2007 10:51:08

Total number of lines in spectrum 55
Number of unidentified lines 22
Number of lines tentatively identified by NID 33 60.00%

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	5.489E+00	5.489E+00	0.861E+00	15.68	
RH-101	1.04E+08S	1.03	3.908E-02	4.042E-02	3.758E-02	92.97	
CS-137	9.47E+08S	1.00	2.691E-01	2.701E-01	0.606E-01	22.42	
EU-155	1.57E+08S	1.02	4.330E-02	4.428E-02	5.999E-02	135.48	
TL-208	4.43E+17S	1.00	2.007E-01	2.007E-01	0.513E-01	25.55	
BI-212	4.43E+17S	1.00	7.447E-01	7.447E-01	3.154E-01	42.35	
PB-212	4.43E+17S	1.00	6.196E-01	6.196E-01	0.840E-01	13.56	
BI-214	5.05E+10S	1.00	3.734E-01	3.734E-01	1.117E-01	29.90	
PB-214	5.05E+10S	1.00	4.917E-01	4.917E-01	1.045E-01	21.26	
RA-223	1.04E+12S	1.00	2.697E-01	2.697E-01	1.953E-01	72.42	
AC-228	4.43E+17S	1.00	5.747E-01	5.747E-01	2.001E-01	34.82	
TH-234	1.41E+17S	1.00	1.001E+00	1.001E+00	0.390E+00	38.94	
NP-237	6.75E+13S	1.00	3.172E-01	3.172E-01	1.384E-01	43.63	
AM-243	2.33E+11S	1.00	9.597E-02	9.597E-02	2.761E-02	28.77	
CM-243	8.99E+08S	1.00	3.991E-02	4.007E-02	5.428E-02	135.48	
			---	---			
		Total Activity :	1.057E+01	1.057E+01			

Grand Total Activity : 1.057E+01 1.057E+01

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

Sample ID : G198683012 Acquisition date : 15-DEC-2007 10:51:08

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.35	33	403	1.09	93.49	89	9	2.31E-03	****	7.29E+00	
0	53.13	83	359	1.44	107.04	102	10	5.76E-03	88.4	7.35E+00	
1	84.26	86	369	1.38	169.25	165	27	6.01E-03	86.6	7.23E+00	
1	89.71	145	326	1.14	180.15	165	27	1.01E-02	44.2	7.15E+00	
0	113.95	39	368	0.62	228.61	224	10	2.68E-03	****	6.72E+00	
2	185.72	168	232	1.73	372.04	365	25	1.17E-02	43.9	5.30E+00	
2	191.90	96	205	1.75	384.39	365	25	6.66E-03	63.3	5.19E+00	
0	307.24	28	217	5.73	614.91	608	14	1.94E-03	****	3.67E+00	
0	328.13	45	125	2.18	656.66	653	8	3.14E-03	90.4	3.47E+00	
0	597.01	126	247	17.49	1193.93	1173	38	8.77E-03	82.6	2.06E+00	
0	791.87	63	135	11.34	1583.21	1566	30	4.37E-03	****	1.62E+00	
0	838.95	17	95	4.41	1677.26	1663	17	1.16E-03	****	1.54E+00	
0	921.40	16	41	1.65	1841.94	1834	12	1.09E-03	****	1.42E+00	
0	1084.73	23	79	8.23	2168.15	2147	27	1.60E-03	****	1.24E+00	
0	1341.16	9	28	3.79	2680.22	2669	13	6.13E-04	****	1.05E+00	
0	1368.54	9	23	0.83	2734.89	2724	16	6.34E-04	****	1.03E+00	
0	1568.03	9	11	1.36	3133.15	3125	14	6.55E-04	****	9.22E-01	
2	1594.11	28	10	2.69	3185.23	3169	22	1.96E-03	55.3	9.09E-01	
0	1658.08	3	14	0.85	3312.92	3302	15	1.98E-04	****	8.80E-01	
0	1719.88	7	5	1.81	3436.28	3432	9	5.03E-04	****	8.53E-01	
0	1849.33	9	5	1.13	3694.65	3690	9	5.90E-04	****	8.02E-01	
0	1937.02	11	2	1.57	3869.65	3866	8	7.85E-04	72.9	7.70E-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]G198683012            *
* Acquisition date : 15-DEC-2007 10:51:08 Detector SN#    :                 *
* Detector ID      : GAM05                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 04:00:02.33     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683012           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.0642E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.489E+00	8.436E-01	1.541E-01	8.436E-01
RH-101	4.042E-02	3.683E-02	1.733E-02	3.683E-02
CS-137	2.701E-01	5.935E-02	2.473E-02	5.935E-02
EU-155	4.428E-02	5.879E-02	4.977E-02	5.879E-02
TL-208	2.007E-01	5.025E-02	2.049E-02	5.025E-02
BI-212	7.447E-01	3.091E-01	1.664E-01	3.091E-01
PB-212	6.196E-01	8.230E-02	3.255E-02	8.230E-02
BI-214	3.734E-01	1.094E-01	5.146E-02	1.094E-01
PB-214	4.917E-01	1.024E-01	4.157E-02	1.024E-01
RA-223	2.697E-01	1.914E-01	1.047E-01	1.914E-01
AC-228	5.747E-01	1.961E-01	8.404E-02	1.961E-01
TH-234	1.001E+00	3.819E-01	2.087E-01	3.819E-01
NP-237	3.172E-01	1.357E-01	8.949E-02	1.357E-01
AM-243	9.597E-02	2.706E-02	1.768E-02	2.706E-02
CM-243	4.007E-02	5.320E-02	4.862E-02	5.320E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.821E-02	2.954E-02	2.630E-02	2.954E-02	NOT IDENT.
SB-125	1.500E-02	7.085E-02	5.983E-02	7.085E-02	NOT IDENT.
PO-209	4.630E+00	5.599E+00	4.961E+00	5.599E+00	NOT IDENT.
BI-211	1.099E+00	8.633E-01	7.100E-01	8.633E-01	NOT IDENT.
PA-233	-2.534E-02	5.445E-02	3.885E-02	5.445E-02	NOT IDENT.
PA-234M	4.161E+00	3.343E+00	3.045E+00	3.343E+00	NOT IDENT.
U-235	4.169E-02	1.471E-01	1.165E-01	1.471E-01	NOT IDENT.
NP-236	3.690E-02	3.586E-02	2.959E-02	3.586E-02	NOT IDENT.
NP-239	-2.211E-02	1.573E-01	1.278E-01	1.573E-01	NOT IDENT.
AM-241	3.899E-02	3.520E-02	2.850E-02	3.520E-02	NOT IDENT.
AM-246	3.093E-02	1.010E-01	8.790E-02	1.010E-01	NOT IDENT.
CF-249	3.118E-02	3.008E-02	2.666E-02	3.008E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	272.8206
63.29	367.2618
74.66	455.1278
74.81	455.2554
74.81	455.2554
77.11	420.7690
77.11	420.7690
86.48	372.2292
87.30	372.7477
87.30	372.7477
92.58	376.0242
98.44	306.9834
103.76	346.5388
105.31	294.9726
129.07	310.7578
143.76	317.7931
198.00	227.9035
209.25	259.3890
228.18	243.7764
238.63	233.8161
242.00	234.4895
269.46	201.6385
270.25	203.8236
277.36	190.9788
295.22	152.6499
300.09	180.0431
312.17	194.3556
338.32	180.0385
351.93	155.1474
387.59	131.5389
409.46	135.2892
427.87	126.4399
463.00	136.2223
510.77	96.6374
583.19	79.3405
609.31	138.0373
661.66	93.5117
727.33	69.7086
763.13	69.9254
768.36	82.0195
785.37	79.0818
794.95	68.4247
806.17	70.7135
831.80	47.1700
860.56	58.2092
896.60	51.0128
911.20	58.1900
934.06	50.5635
964.77	47.3943
968.97	61.7513
1001.03	42.9940
1078.86	49.9204
1120.29	52.3912
1155.19	49.9923
1173.23	42.5007
1238.11	50.0751
1280.96	37.7031
1332.51	40.4255
1377.67	25.1364
1401.50	33.6699
1407.98	32.6964
1460.80	15.5054
1509.23	20.8880
1588.20	26.0073
1620.50	22.4370
1729.60	21.8234
1764.49	10.2510

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683012

Total Uranium Activity	1.9291E-02	ug/g
Total Uranium Counting Unc.	6.8055E-02	ug/g
Total Uranium Tpu	6.8055E-08	ug/g
Total Uranium Mda	5.3898E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:52:50.36

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683013.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:51:44
Sample ID        : G198683013           Sample quantity  : 1.15260E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.47  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.43*	87	422	1.10	124.90	120	10	6.05E-03	48.1	
2	4	74.41*	219	341	1.11	148.84	146	11	1.52E-02	16.6	1.91E+00
3	4	76.71*	407	274	1.08	153.43	146	11	2.82E-02	8.7	
4	2	83.49*	91	328	1.19	166.98	163	27	6.29E-03	36.6	5.90E+00
5	2	89.44	107	323	1.20	178.86	163	27	7.40E-03	29.9	
6	2	92.48*	185	321	1.17	184.93	163	27	1.28E-02	20.6	
7	0	128.58*	37	350	0.79	257.07	254	8	2.57E-03	93.1	
8	0	185.65*	189	409	1.23	371.11	366	12	1.31E-02	24.4	
9	0	208.77	63	415	1.05	417.30	411	12	4.38E-03	65.8	
10	7	238.31*	735	175	1.07	476.32	471	17	5.11E-02	5.1	5.26E-01
11	7	241.39	249	291	1.77	482.50	471	17	1.73E-02	16.6	
12	0	270.32	82	278	0.99	540.30	535	11	5.67E-03	41.2	
13	0	294.83*	269	230	1.33	589.28	586	10	1.87E-02	13.0	
14	0	300.22	44	155	0.95	600.05	597	7	3.04E-03	49.7	
15	0	327.92	79	186	1.07	655.40	651	10	5.49E-03	34.3	
16	0	337.91*	147	192	1.33	675.36	671	10	1.02E-02	20.4	
17	0	351.59*	526	202	1.13	702.71	697	13	3.65E-02	7.4	
18	0	429.73	31	76	1.04	858.87	856	8	2.15E-03	51.7	
19	0	443.78	22	113	0.72	886.95	883	9	1.49E-03	91.5	
20	0	463.16	34	200	1.56	925.68	919	16	2.36E-03	94.6	
21	0	540.21	96	97	4.33	1079.68	1072	19	6.67E-03	26.4	
22	0	582.96*	218	80	1.42	1165.13	1160	12	1.51E-02	11.3	
23	0	608.79*	316	157	1.53	1216.76	1212	14	2.20E-02	10.7	
24	0	661.27	213	68	1.35	1321.66	1315	13	1.48E-02	10.5	
25	0	727.50	46	80	1.81	1454.04	1445	14	3.16E-03	45.0	
26	0	767.63	43	59	1.06	1534.27	1528	12	2.98E-03	39.2	
27	0	780.76	15	51	1.34	1560.51	1554	11	1.01E-03	99.2	
28	0	835.68	24	45	0.72	1670.32	1662	12	1.67E-03	59.4	
29	0	859.85	37	41	1.76	1718.62	1713	11	2.54E-03	37.8	
30	0	911.03*	100	47	1.57	1820.95	1815	12	6.91E-03	18.6	
31	0	969.26*	2	39	0.84	1937.36	1937	5	1.19E-04	761.4	
32	0	1002.42*	2	34	0.55	2003.66	1999	9	1.52E-04	567.1	
33	0	1119.42*	81	55	1.67	2237.60	2229	18	5.66E-03	25.2	
34	0	1155.56	14	19	1.27	2309.87	2305	8	9.41E-04	63.1	
35	0	1193.86	17	16	1.29	2386.46	2382	8	1.16E-03	49.6	
36	0	1279.15	31	35	3.89	2557.02	2549	14	2.15E-03	44.3	
37	0	1303.00	17	10	0.71	2604.71	2599	11	1.16E-03	45.4	
38	0	1386.49	25	25	6.76	2771.70	2759	22	1.71E-03	57.6	

Sample ID : G198683013 Acquisition date : 15-DEC-2007 10:51:44

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1392.45*	2	2	0.64	2783.62	2780	9	1.56E-04	312.7	
40	0	1460.28*	367	25	2.16	2919.27	2911	17	2.55E-02	6.5	
41	0	1559.57	8	13	0.67	3117.87	3110	9	5.32E-04	98.0	
42	0	1597.45	7	11	2.27	3193.64	3189	10	4.98E-04	91.5	
43	0	1631.83	12	18	0.76	3262.42	3254	15	8.23E-04	84.5	
44	0	1648.42	7	10	1.76	3295.60	3291	8	5.11E-04	82.7	
45	0	1658.89	19	4	4.03	3316.55	3310	14	1.35E-03	30.5	
46	0	1764.08*	58	13	1.64	3526.98	3518	18	4.03E-03	22.7	
47	0	1823.76	6	6	0.74	3646.38	3642	8	4.43E-04	76.8	
48	0	1917.31	4	7	1.26	3833.54	3827	8	2.65E-04	136.1	

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]G198683013       *
* Acquisition date : 15-DEC-2007 10:51:44 Detector SN#    :                 *
* Detector ID      : GAM06                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 04:00:01.47     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683013           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1526E+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	5.840E+00	8.261E-01	2.805E-01	0.000E+00
SB-125	6.237E-02	6.330E-02	1.006E-01	0.000E+00
CS-137	2.066E-01	4.482E-02	3.904E-02	0.000E+00
TL-208	1.909E-01	4.415E-02	3.776E-02	0.000E+00
BI-212	3.461E-01	3.061E-01	2.690E-01	0.000E+00
PB-212	6.287E-01	7.319E-02	5.825E-02	0.000E+00
BI-214	5.263E-01	1.160E-01	7.535E-02	0.000E+00
PB-214	6.920E-01	1.087E-01	6.682E-02	0.000E+00
RA-223	2.420E-01	1.959E-01	1.880E-01	0.000E+00
AC-228	4.252E-01	1.608E-01	1.268E-01	0.000E+00
PA-234M	3.149E-01	3.500E+00	4.764E+00	0.000E+00
TH-234	1.007E+00	4.154E-01	4.389E-01	0.000E+00
AM-243	1.267E-01	4.247E-02	4.984E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-1.757E-02		2.819E-02	4.284E-02	0.000E+00	NOT IDENT.
RH-101	1.785E-02		2.018E-02	3.665E-02	0.000E+00	NOT IDENT.
EU-155	5.925E-02		6.078E-02	1.075E-01	0.000E+00	NOT IDENT.
PO-209	-5.267E+00		4.682E+00	6.767E+00	0.000E+00	NOT IDENT.
BI-211	-1.965E-01		7.313E-01	1.014E+00	0.000E+00	NOT IDENT.
PA-233	7.250E-03		3.971E-02	6.844E-02	0.000E+00	NOT IDENT.
U-235	1.094E-02		1.221E-01	2.049E-01	0.000E+00	NOT IDENT.
NP-236	6.056E-03		3.556E-02	5.886E-02	0.000E+00	NOT IDENT.
NP-237	0.000E+00		1.403E-01	2.583E-01	0.000E+00	NOT IDENT.
NP-239	3.707E-02		1.399E-01	2.465E-01	0.000E+00	NOT IDENT.
AM-241	1.880E-02		9.504E-02	1.513E-01	0.000E+00	NOT IDENT.
CM-243	2.646E-02		5.511E-02	9.581E-02	0.000E+00	NOT IDENT.
AM-246	3.499E-03		8.167E-02	1.398E-01	0.000E+00	NOT IDENT.
CF-249	7.803E-03		2.612E-02	4.465E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:52:52.31

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683013.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:51:44
Sample ID        : G198683013           Sample quantity  : 1.15260E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.47  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	367	10.66*	9.605E-01	5.840E+00	5.840E+00	14.43
SB-125	427.87	31	29.80*	2.819E+00	5.988E-02	6.237E-02	103.57
CS-137	661.66	213	85.10*	1.977E+00	2.058E-01	2.066E-01	22.13
TL-208	277.36	------	6.31	3.937E+00	------	Line Not Found	------
	510.77	------	22.60	2.456E+00	------	Line Not Found	------
	583.19	218	84.50*	2.202E+00	1.909E-01	1.909E-01	23.60
	763.13	------	1.81	1.741E+00	------	Line Not Found	------
	860.56	37	12.42	1.560E+00	3.073E-01	3.073E-01	76.31
BI-212	727.33	46	11.80*	1.817E+00	3.461E-01	3.461E-01	90.27
	785.37	------	1.10	1.696E+00	------	Line Not Found	------
	1620.50	------	1.49	8.878E-01	------	Line Not Found	------
PB-212	74.81	219	10.40	4.119E+00	8.306E-01	8.306E-01	34.21
	77.11	407	17.50	4.355E+00	8.688E-01	8.688E-01	19.27
	87.30	------	7.81	5.219E+00	------	Line Not Found	------
	238.63	735	43.30*	4.398E+00	6.287E-01	6.287E-01	11.88
	300.09	44	3.28	3.711E+00	5.861E-01	5.861E-01	99.68
BI-214	609.31	316	46.10*	2.123E+00	5.263E-01	5.263E-01	22.49
	768.36	43	4.94	1.731E+00	8.164E-01	8.165E-01	78.75
	806.17	------	1.22	1.656E+00	------	Line Not Found	------
	934.06	------	3.03	1.443E+00	------	Line Not Found	------
	1120.29	81	15.10	1.217E+00	7.219E-01	7.220E-01	50.87
	1155.19	14	1.63	1.181E+00	1.146E+00	1.146E+00	126.34
	1238.11	------	5.79	1.108E+00	------	Line Not Found	------
	1280.96	31	1.43	1.076E+00	3.281E+00	3.281E+00	88.81
	1377.67	------	4.00	1.008E+00	------	Line Not Found	------
	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	------	2.92	8.509E-01	------	Line Not Found	------
	1764.49	58	15.40	8.411E-01	7.288E-01	7.289E-01	45.85
PB-214	74.81	219	6.44	4.119E+00	1.341E+00	1.341E+00	34.21
	77.11	407	10.80	4.355E+00	1.408E+00	1.408E+00	19.27

Sample ID : G198683013 Acquisition date : 15-DEC-2007 10:51:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	------	4.84	5.219E+00	------	Line Not Found	------
	242.00	249	7.43	4.357E+00	1.253E+00	1.253E+00	33.88
	295.22	269	19.30	3.761E+00	6.042E-01	6.043E-01	26.82
	351.93	526	37.60*	3.292E+00	6.919E-01	6.920E-01	16.03
RA-223	269.46	82	13.70*	4.012E+00	2.420E-01	2.420E-01	82.59
AC-228	129.07	37	2.42	6.054E+00	4.111E-01	4.111E-01	186.39
	209.25	63	3.89	4.821E+00	5.476E-01	5.476E-01	131.66
	270.25	82	3.46	4.012E+00	9.584E-01	9.584E-01	82.59
	338.32	147	11.27	3.393E+00	6.261E-01	6.261E-01	41.23
	409.46	------	1.92	2.927E+00	------	Line Not Found	------
	463.00	34	4.40	2.657E+00	4.736E-01	4.736E-01	189.26
	794.95	------	4.25	1.677E+00	------	Line Not Found	------
	911.20	100	25.80*	1.478E+00	4.252E-01	4.252E-01	38.59
	964.77	------	4.99	1.400E+00	------	Line Not Found	------
	968.97	2	15.80	1.394E+00	1.271E-02	1.271E-02	1522.76
	1588.20	------	3.22	9.005E-01	------	Line Not Found	------
PA-234M	1001.03	2	0.84*	1.350E+00	3.149E-01	3.149E-01	1134.22
TH-234	63.29	87	4.80	2.650E+00	1.115E+00	1.115E+00	96.58
	92.58	185	5.41*	5.513E+00	1.007E+00	1.007E+00	42.07
AM-243	74.66	219	68.20*	4.119E+00	1.267E-01	1.267E-01	34.21

Flag: "*" = Keyline

Sample ID : G198683013 Acquisition date : 15-DEC-2007 10:51:44

Total number of lines in spectrum 48
Number of unidentified lines 19
Number of lines tentatively identified by NID 29 60.42%

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	5.840E+00	5.840E+00	0.843E+00	14.43	
SB-125	8.62E+07S	1.04	5.988E-02	6.237E-02	6.459E-02	103.57	
CS-137	9.47E+08S	1.00	2.058E-01	2.066E-01	0.457E-01	22.13	
TL-208	4.43E+17S	1.00	1.909E-01	1.909E-01	0.450E-01	23.60	
BI-212	4.43E+17S	1.00	3.461E-01	3.461E-01	3.124E-01	90.27	
PB-212	4.43E+17S	1.00	6.287E-01	6.287E-01	0.747E-01	11.88	
BI-214	5.05E+10S	1.00	5.263E-01	5.263E-01	1.184E-01	22.49	
PB-214	5.05E+10S	1.00	6.919E-01	6.920E-01	1.109E-01	16.03	
RA-223	1.04E+12S	1.00	2.420E-01	2.420E-01	1.999E-01	82.59	
AC-228	4.43E+17S	1.00	4.252E-01	4.252E-01	1.641E-01	38.59	
PA-234M	1.41E+17S	1.00	3.149E-01	3.149E-01	35.71E-01	1134.22	
TH-234	1.41E+17S	1.00	1.007E+00	1.007E+00	0.424E+00	42.07	
AM-243	2.33E+11S	1.00	1.267E-01	1.267E-01	0.433E-01	34.21	
			---	---			
		Total Activity :	1.061E+01	1.061E+01			

Grand Total Activity : 1.061E+01 1.061E+01

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

Sample ID : G198683013 Acquisition date : 15-DEC-2007 10:51:44

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	83.49	91	328	1.19	166.98	163	27	6.29E-03	73.3	4.95E+00	
2	89.44	107	323	1.20	178.86	163	27	7.40E-03	59.8	5.35E+00	
0	185.65	189	409	1.23	371.11	366	12	1.31E-02	48.7	5.20E+00	
0	327.92	79	186	1.07	655.40	651	10	5.49E-03	68.5	3.47E+00	
0	443.78	22	113	0.72	886.95	883	9	1.49E-03	****	2.75E+00	
0	540.21	96	97	4.33	1079.68	1072	19	6.67E-03	52.9	2.35E+00	
0	780.76	15	51	1.34	1560.51	1554	11	1.01E-03	****	1.70E+00	
0	835.68	24	45	0.72	1670.32	1662	12	1.67E-03	****	1.60E+00	
0	1193.86	17	16	1.29	2386.46	2382	8	1.16E-03	99.2	1.15E+00	
0	1303.00	17	10	0.71	2604.71	2599	11	1.16E-03	90.9	1.06E+00	
0	1386.49	25	25	6.76	2771.70	2759	22	1.71E-03	****	1.00E+00	
0	1392.45	2	2	0.64	2783.62	2780	9	1.56E-04	****	9.99E-01	
0	1559.57	8	13	0.67	3117.87	3110	9	5.32E-04	****	9.13E-01	
0	1597.45	7	11	2.27	3193.64	3189	10	4.98E-04	****	8.97E-01	
0	1631.83	12	18	0.76	3262.42	3254	15	8.23E-04	****	8.84E-01	
0	1648.42	7	10	1.76	3295.60	3291	8	5.11E-04	****	8.77E-01	
0	1658.89	19	4	4.03	3316.55	3310	14	1.35E-03	61.1	8.74E-01	
0	1823.76	6	6	0.74	3646.38	3642	8	4.43E-04	****	8.26E-01	
0	1917.31	4	7	1.26	3833.54	3827	8	2.65E-04	****	8.07E-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]G198683013            *
* Acquisition date : 15-DEC-2007 10:51:44 Detector SN#    :                 *
* Detector ID      : GAM06                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 04:00:01.47     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683013           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1526E+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	5.840E+00	8.261E-01	1.403E-01	8.261E-01
SB-125	6.237E-02	6.330E-02	5.032E-02	6.330E-02
CS-137	2.066E-01	4.482E-02	1.953E-02	4.482E-02
TL-208	1.909E-01	4.415E-02	1.889E-02	4.415E-02
BI-212	3.461E-01	3.061E-01	1.346E-01	3.061E-01
PB-212	6.287E-01	7.319E-02	2.914E-02	7.319E-02
BI-214	5.263E-01	1.160E-01	3.770E-02	1.160E-01
PB-214	6.920E-01	1.087E-01	3.343E-02	1.087E-01
RA-223	2.420E-01	1.959E-01	9.407E-02	1.959E-01
AC-228	4.252E-01	1.608E-01	6.345E-02	1.608E-01
PA-234M	3.149E-01	3.500E+00	2.383E+00	3.500E+00
TH-234	1.007E+00	4.154E-01	2.196E-01	4.154E-01
AM-243	1.267E-01	4.247E-02	2.494E-02	4.247E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.757E-02	2.819E-02	2.143E-02	2.819E-02	NOT IDENT.
RH-101	1.785E-02	2.018E-02	1.834E-02	2.018E-02	NOT IDENT.
EU-155	5.925E-02	6.078E-02	5.380E-02	6.078E-02	NOT IDENT.
PO-209	-5.267E+00	4.682E+00	3.385E+00	4.682E+00	NOT IDENT.
BI-211	-1.965E-01	7.313E-01	5.071E-01	7.313E-01	NOT IDENT.
PA-233	7.250E-03	3.971E-02	3.424E-02	3.971E-02	NOT IDENT.
U-235	1.094E-02	1.221E-01	1.025E-01	1.221E-01	NOT IDENT.
NP-236	6.056E-03	3.556E-02	2.945E-02	3.556E-02	NOT IDENT.
NP-237	4.397E-01	1.403E-01	1.292E-01	1.403E-01	NOT IDENT.
NP-239	3.707E-02	1.399E-01	1.233E-01	1.399E-01	NOT IDENT.
AM-241	1.880E-02	9.504E-02	7.570E-02	9.504E-02	NOT IDENT.
CM-243	2.646E-02	5.511E-02	4.793E-02	5.511E-02	NOT IDENT.
AM-246	3.499E-03	8.167E-02	6.994E-02	8.167E-02	NOT IDENT.
CF-249	7.803E-03	2.612E-02	2.234E-02	2.612E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	239.8325
63.29	269.3574
74.66	329.7330
74.81	329.8444
74.81	329.8444
77.11	314.0826
77.11	314.0826
86.48	282.7852
87.30	283.2550
87.30	283.2550
92.58	286.2313
98.44	253.0047
103.76	259.5642
105.31	249.0117
129.07	290.9658
143.76	289.7604
198.00	243.3433
209.25	243.7574
228.18	234.2228
238.63	208.3732
242.00	209.0690
269.46	182.5618
270.25	182.6950
277.36	206.6070
295.22	180.1874
300.09	188.6592
312.17	148.3772
338.32	165.4200
351.93	116.7859
387.59	129.0970
409.46	141.4970
427.87	113.7119
463.00	123.5847
510.77	115.9003
583.19	85.2190
609.31	93.8281
661.66	74.0411
727.33	57.7224
763.13	70.2957
768.36	73.7988
785.37	48.9705
794.95	64.0720
806.17	61.2876
831.80	56.7322
860.56	60.8171
896.60	62.3173
911.20	40.6973
934.06	38.5233
964.77	117.3955
968.97	70.3812
1001.03	51.0645
1078.86	41.1157
1120.29	35.0052
1155.19	33.4519
1173.23	40.3508
1238.11	47.9313
1280.96	28.8357
1332.51	34.0941
1377.67	22.6031
1401.50	26.5258
1407.98	25.5463
1460.80	14.4882
1509.23	19.8860
1588.20	24.5030
1620.50	22.5313
1729.60	15.9968
1764.49	14.2153

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683013

Total Uranium Activity	5.0641E-03	ug/g
Total Uranium Counting Unc.	5.6491E-02	ug/g
Total Uranium Tpu	5.6491E-08	ug/g
Total Uranium Mda	4.7432E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:53:36.75

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683014.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:52:25
Sample ID        : G198683014           Sample quantity  : 1.12970E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.43  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.52*	4	272	0.77	92.56	90	7	2.78E-04	808.3	
2	6	61.13	47	138	1.48	121.77	120	11	3.25E-03	34.6	2.60E+00
3	6	63.33*	84	330	1.13	126.17	120	11	5.83E-03	41.8	
4	2	74.95*	306	348	1.20	149.40	143	16	2.13E-02	12.3	2.05E+00
5	2	77.29*	466	320	1.13	154.07	143	16	3.23E-02	8.6	
6	0	84.44*	80	346	1.43	168.38	164	8	5.56E-03	44.4	
7	0	87.17	160	287	0.94	173.82	172	6	1.11E-02	18.4	
8	4	90.04	75	252	1.09	179.58	177	13	5.22E-03	33.3	1.12E+00
9	4	92.94*	176	399	1.40	185.36	177	13	1.22E-02	24.0	
10	0	115.02	24	246	0.98	229.52	227	7	1.67E-03	109.9	
11	0	129.68*	6	264	0.89	258.81	255	7	4.08E-04	486.4	
12	2	186.05*	176	196	1.23	371.53	367	17	1.22E-02	17.5	1.72E+00
13	2	188.53	39	209	1.42	376.49	367	17	2.71E-03	73.2	
14	0	209.35	81	237	1.29	418.11	413	9	5.64E-03	35.9	
15	2	236.31	39	179	1.49	472.02	469	22	2.73E-03	57.1	2.61E+00
16	2	238.85*	795	163	1.19	477.11	469	22	5.52E-02	4.9	
17	2	240.95	79	172	1.30	481.30	469	22	5.50E-03	47.4	
18	2	242.25	138	167	1.34	483.91	469	22	9.57E-03	19.8	
19	0	269.99	77	191	1.62	539.36	535	10	5.32E-03	35.5	
20	0	295.50*	250	195	1.27	590.38	586	10	1.73E-02	13.1	
21	0	300.09	67	149	1.19	599.55	596	9	4.62E-03	35.2	
22	0	327.70*	14	205	0.98	654.76	650	11	9.52E-04	211.8	
23	0	338.47*	141	207	1.25	676.29	671	12	9.79E-03	23.1	
24	0	352.09*	424	165	1.20	703.53	698	11	2.94E-02	8.2	
25	0	401.60	7	82	0.55	802.51	801	8	4.65E-04	237.7	
26	1	407.48*	15	109	1.54	814.28	810	16	1.05E-03	131.9	3.23E+00
27	1	409.34	32	91	1.40	818.00	810	16	2.23E-03	54.6	
28	0	462.70	60	98	0.59	924.69	920	11	4.20E-03	34.0	
29	0	511.36*	69	157	2.34	1021.98	1014	20	4.81E-03	57.4	
30	0	571.02*	23	84	0.91	1141.27	1137	12	1.62E-03	86.8	
31	0	583.30*	201	116	1.26	1165.82	1160	13	1.40E-02	14.2	
32	0	609.50*	319	73	1.37	1218.21	1211	14	2.22E-02	8.7	
33	0	662.02*	135	100	1.42	1323.24	1318	13	9.41E-03	18.3	
34	0	727.47	76	65	1.23	1454.11	1448	13	5.25E-03	24.8	
35	0	769.22*	10	48	1.50	1537.59	1532	10	7.26E-04	144.6	
36	0	775.15	12	54	0.97	1549.45	1541	12	8.03E-04	130.6	
37	0	781.76	23	40	4.29	1562.67	1556	11	1.60E-03	57.7	
38	0	795.08	34	41	2.23	1589.30	1583	11	2.36E-03	40.5	

Sample ID : G198683014 Acquisition date : 15-DEC-2007 10:52:25

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	4	860.71*	22	38	2.09	1720.53	1712	27	1.54E-03	74.8	1.02E+00
40	4	864.05	24	37	2.53	1727.20	1712	27	1.68E-03	66.5	
41	0	887.49	28	39	1.53	1774.08	1767	14	1.97E-03	50.2	
42	0	911.60*	157	45	1.65	1822.29	1813	15	1.09E-02	13.2	
43	0	933.71	26	35	1.95	1866.50	1860	12	1.82E-03	49.7	
44	3	964.30*	28	42	2.38	1927.67	1919	26	1.98E-03	54.9	2.15E+00
45	3	969.54	118	25	2.05	1938.15	1919	26	8.20E-03	13.0	
46	0	1003.33	13	19	1.34	2005.71	2002	9	9.30E-04	65.8	
47	0	1121.76*	33	53	2.28	2242.54	2234	12	2.27E-03	50.5	
48	0	1173.58*	18	41	4.98	2346.15	2332	20	1.23E-03	104.8	
49	0	1203.20	17	24	0.58	2405.39	2396	12	1.15E-03	64.4	
50	0	1239.38	11	45	1.23	2477.73	2472	10	7.64E-04	118.0	
51	0	1327.36	9	7	1.26	2653.68	2650	7	6.55E-04	59.3	
52	0	1337.84	9	18	0.47	2674.62	2666	12	6.40E-04	97.6	
53	0	1378.13*	26	7	1.69	2755.20	2750	10	1.82E-03	32.5	
54	0	1461.23*	304	11	1.80	2921.38	2914	14	2.11E-02	6.6	
55	0	1509.87	11	7	1.33	3018.65	3012	10	7.47E-04	56.4	
56	0	1545.27	33	5	8.23	3089.44	3079	22	2.30E-03	25.0	
57	0	1581.04	11	12	1.05	3160.97	3155	10	7.49E-04	68.3	
58	0	1621.99	18	25	7.08	3242.86	3222	23	1.27E-03	72.1	
59	0	1730.96	31	15	2.94	3460.79	3451	20	2.19E-03	34.9	
60	0	1765.01*	60	19	2.49	3528.88	3519	19	4.14E-03	23.7	

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]G198683014       *
* Acquisition date : 15-DEC-2007 10:52:25 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 04:00:27.43     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683014           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1297E+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	4.058E+00	5.651E-01	2.650E-01	0.000E+00
CS-137	1.140E-01	4.173E-02	3.116E-02	0.000E+00
TL-208	1.523E-01	4.342E-02	3.205E-02	0.000E+00
BI-212	4.959E-01	2.440E-01	2.387E-01	0.000E+00
PB-212	5.873E-01	6.642E-02	4.488E-02	0.000E+00
BI-214	4.598E-01	8.396E-02	5.886E-02	0.000E+00
PB-214	4.796E-01	8.147E-02	6.244E-02	0.000E+00
RA-223	1.953E-01	1.366E-01	1.535E-01	0.000E+00
AC-228	5.770E-01	1.539E-01	1.119E-01	0.000E+00
TH-234	7.403E-01	3.521E-01	3.341E-01	0.000E+00
NP-237	3.011E-01	1.111E-01	1.455E-01	0.000E+00
AM-241	4.347E-02	2.963E-02	7.776E-02	0.000E+00
AM-243	1.155E-01	2.899E-02	3.226E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	2.146E-02	4.408E-02	4.049E-02	0.000E+00	FAIL ABUN
RH-101	-1.148E-02	1.818E-02	2.818E-02	0.000E+00	NOT IDENT.
SB-125	-6.815E-03	4.961E-02	8.164E-02	0.000E+00	NOT IDENT.
EU-155	-1.804E-03	5.105E-02	7.961E-02	0.000E+00	NOT IDENT.
PO-209	-1.134E-01	3.769E+00	6.227E+00	0.000E+00	NOT IDENT.
BI-211	1.828E-01	4.909E-01	8.503E-01	0.000E+00	NOT IDENT.
PA-233	-7.244E-03	3.296E-02	5.530E-02	0.000E+00	NOT IDENT.
PA-234M	1.709E-02	2.593E+00	3.672E+00	0.000E+00	NOT IDENT.
U-235	-5.330E-02	1.106E-01	1.691E-01	0.000E+00	NOT IDENT.
NP-236	1.605E-02	2.659E-02	4.619E-02	0.000E+00	NOT IDENT.
NP-239	3.946E-03	1.090E-01	1.893E-01	0.000E+00	NOT IDENT.
CM-243	-1.111E-02	4.174E-02	6.961E-02	0.000E+00	NOT IDENT.
AM-246	-3.016E-03	6.669E-02	1.133E-01	0.000E+00	NOT IDENT.
CF-249	1.110E-02	2.260E-02	3.609E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:53:37.69

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683014.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:52:25
Sample ID        : G198683014           Sample quantity  : 1.12970E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:27.43  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	304	10.66*	1.166E+00	4.058E+00	4.058E+00	14.21
CS-137	661.66	135	85.10*	2.329E+00	1.136E-01	1.140E-01	37.36
TL-208	277.36	------	6.31	4.669E+00	------	Line Not Found	------
	510.77	69	22.60	2.897E+00	1.756E-01	1.756E-01	115.00
	583.19	201	84.50*	2.595E+00	1.523E-01	1.523E-01	29.09
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	22	12.42	1.848E+00	1.607E-01	1.607E-01	149.80
BI-212	727.33	76	11.80*	2.145E+00	4.959E-01	4.959E-01	50.21
	785.37	------	1.10	2.005E+00	------	Line Not Found	------
	1620.50	18	1.49	1.077E+00	1.900E+00	1.900E+00	144.40
PB-212	74.81	306	10.40	6.453E+00	7.575E-01	7.575E-01	25.61
	77.11	466	17.50	6.621E+00	6.678E-01	6.678E-01	18.51
	87.30	160	7.81	7.126E+00	4.781E-01	4.781E-01	37.66
	238.63	795	43.30*	5.194E+00	5.873E-01	5.873E-01	11.54
	300.09	67	3.28	4.406E+00	7.646E-01	7.646E-01	70.74
BI-214	609.31	319	46.10*	2.500E+00	4.598E-01	4.598E-01	18.63
	768.36	10	4.94	2.043E+00	1.722E-01	1.722E-01	289.29
	806.17	------	1.22	1.959E+00	------	Line Not Found	------
	934.06	26	3.03	1.718E+00	8.343E-01	8.343E-01	99.66
	1120.29	33	15.10	1.459E+00	2.465E-01	2.465E-01	101.19
	1155.19	------	1.63	1.422E+00	------	Line Not Found	------
	1238.11	11	5.79	1.337E+00	2.361E-01	2.361E-01	236.08
	1280.96	------	1.43	1.300E+00	------	Line Not Found	------
	1377.67	26	4.00	1.222E+00	8.893E-01	8.894E-01	65.14
	1401.50	------	1.27	1.206E+00	------	Line Not Found	------
	1407.98	------	2.15	1.201E+00	------	Line Not Found	------
	1509.23	11	2.11	1.136E+00	7.450E-01	7.451E-01	112.92
	1729.60	31	2.92	1.029E+00	1.741E+00	1.741E+00	70.11
	1764.49	60	15.40	1.016E+00	6.326E-01	6.327E-01	47.71
PB-214	74.81	306	6.44	6.453E+00	1.223E+00	1.223E+00	25.61
	77.11	466	10.80	6.621E+00	1.082E+00	1.082E+00	18.51
	87.30	160	4.84	7.126E+00	7.714E-01	7.715E-01	37.66

Sample ID : G198683014 Acquisition date : 15-DEC-2007 10:52:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	138	7.43	5.143E+00	5.994E-01	5.994E-01	40.13
	295.22	250	19.30	4.456E+00	4.825E-01	4.826E-01	26.91
	351.93	424	37.60*	3.903E+00	4.795E-01	4.796E-01	17.34
RA-223	269.46	77	13.70*	4.761E+00	1.953E-01	1.953E-01	71.36
AC-228	129.07	6	2.42	7.216E+00	5.589E-02	5.589E-02	972.84
	209.25	81	3.89	5.675E+00	6.118E-01	6.118E-01	71.95
	270.25	77	3.46	4.761E+00	7.733E-01	7.733E-01	71.36
	338.32	141	11.27	4.023E+00	5.165E-01	5.165E-01	46.61
	409.46	32	1.92	3.469E+00	8.011E-01	8.011E-01	109.24
	463.00	60	4.40	3.144E+00	7.258E-01	7.258E-01	68.27
	794.95	34	4.25	1.984E+00	6.683E-01	6.683E-01	81.27
	911.20	157	25.80*	1.756E+00	5.770E-01	5.770E-01	27.22
	964.77	28	4.99	1.670E+00	5.681E-01	5.681E-01	109.91
	968.97	118	15.80	1.661E+00	7.477E-01	7.477E-01	26.78
	1588.20	------	3.22	1.093E+00	------	Line Not Found	------
TH-234	63.29	84	4.80	5.278E+00	5.507E-01	5.507E-01	83.80
	92.58	176	5.41*	7.294E+00	7.403E-01	7.403E-01	48.53
NP-237	86.48	160	12.40*	7.126E+00	3.011E-01	3.011E-01	37.66
AM-241	59.54	47	35.90*	4.987E+00	4.346E-02	4.347E-02	69.55
AM-243	74.66	306	68.20*	6.453E+00	1.155E-01	1.155E-01	25.61

Flag: "*" = Keyline

Sample ID : G198683014 Acquisition date : 15-DEC-2007 10:52:25

Total number of lines in spectrum	60	
Number of unidentified lines	22	
Number of lines tentatively identified by NID	38	63.33%

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	4.058E+00	4.058E+00	0.577E+00	14.21	
CS-137	9.47E+08S	1.00	1.136E-01	1.140E-01	0.426E-01	37.36	
TL-208	4.43E+17S	1.00	1.523E-01	1.523E-01	0.443E-01	29.09	
BI-212	4.43E+17S	1.00	4.959E-01	4.959E-01	2.490E-01	50.21	
PB-212	4.43E+17S	1.00	5.873E-01	5.873E-01	0.678E-01	11.54	
BI-214	5.05E+10S	1.00	4.598E-01	4.598E-01	0.857E-01	18.63	
PB-214	5.05E+10S	1.00	4.795E-01	4.796E-01	0.831E-01	17.34	
RA-223	1.04E+12S	1.00	1.953E-01	1.953E-01	1.394E-01	71.36	
AC-228	4.43E+17S	1.00	5.770E-01	5.770E-01	1.570E-01	27.22	
TH-234	1.41E+17S	1.00	7.403E-01	7.403E-01	3.593E-01	48.53	
NP-237	6.75E+13S	1.00	3.011E-01	3.011E-01	1.134E-01	37.66	
AM-241	1.36E+10S	1.00	4.346E-02	4.347E-02	3.023E-02	69.55	
AM-243	2.33E+11S	1.00	1.155E-01	1.155E-01	0.296E-01	25.61	
			---	---			
		Total Activity :	8.320E+00	8.320E+00			
		Grand Total Activity :	8.320E+00	8.320E+00			

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

Sample ID : G198683014 Acquisition date : 15-DEC-2007 10:52:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.52	4	272	0.77	92.56	90	7	2.78E-04	****	2.60E+00	
0	84.44	80	346	1.43	168.38	164	8	5.56E-03	88.7	7.02E+00	
4	90.04	75	252	1.09	179.58	177	13	5.22E-03	66.6	7.22E+00	
0	115.02	24	246	0.98	229.52	227	7	1.67E-03	****	7.40E+00	
2	186.05	176	196	1.23	371.53	367	17	1.22E-02	35.0	6.11E+00	
2	188.53	39	209	1.42	376.49	367	17	2.71E-03	****	6.06E+00	
2	236.31	39	179	1.49	472.02	469	22	2.73E-03	****	5.23E+00	
2	240.95	79	172	1.30	481.30	469	22	5.50E-03	94.7	5.16E+00	
0	327.70	14	205	0.98	654.76	650	11	9.52E-04	****	4.12E+00	
0	401.60	7	82	0.55	802.51	801	8	4.65E-04	****	3.52E+00	
1	407.48	15	109	1.54	814.28	810	16	1.05E-03	****	3.48E+00	
0	571.02	23	84	0.91	1141.27	1137	12	1.62E-03	****	2.64E+00	
0	775.15	12	54	0.97	1549.45	1541	12	8.03E-04	****	2.03E+00	
0	781.76	23	40	4.29	1562.67	1556	11	1.60E-03	****	2.01E+00	
4	864.05	24	37	2.53	1727.20	1712	27	1.68E-03	****	1.84E+00	
0	887.49	28	39	1.53	1774.08	1767	14	1.97E-03	****	1.80E+00	
0	1003.33	13	19	1.34	2005.71	2002	9	9.30E-04	****	1.61E+00	
0	1173.58	18	41	4.98	2346.15	2332	20	1.23E-03	****	1.40E+00	T
0	1203.20	17	24	0.58	2405.39	2396	12	1.15E-03	****	1.37E+00	
0	1327.36	9	7	1.26	2653.68	2650	7	6.55E-04	****	1.26E+00	
0	1337.84	9	18	0.47	2674.62	2666	12	6.40E-04	****	1.25E+00	
0	1545.27	33	5	8.23	3089.44	3079	22	2.30E-03	49.9	1.12E+00	
0	1581.04	11	12	1.05	3160.97	3155	10	7.49E-04	****	1.10E+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]G198683014            *
* Acquisition date : 15-DEC-2007 10:52:25 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 04:00:27.43     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683014           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1297E+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	4.058E+00	5.651E-01	1.326E-01	5.651E-01
CS-137	1.140E-01	4.173E-02	1.559E-02	4.173E-02
TL-208	1.523E-01	4.342E-02	1.603E-02	4.342E-02
BI-212	4.959E-01	2.440E-01	1.194E-01	2.440E-01
PB-212	5.873E-01	6.642E-02	2.245E-02	6.642E-02
BI-214	4.598E-01	8.396E-02	2.945E-02	8.396E-02
PB-214	4.796E-01	8.147E-02	3.124E-02	8.147E-02
RA-223	1.953E-01	1.366E-01	7.681E-02	1.366E-01
AC-228	5.770E-01	1.539E-01	5.600E-02	1.539E-01
TH-234	7.403E-01	3.521E-01	1.672E-01	3.521E-01
NP-237	3.011E-01	1.111E-01	7.281E-02	1.111E-01
AM-241	4.347E-02	2.963E-02	3.890E-02	2.963E-02
AM-243	1.155E-01	2.899E-02	1.614E-02	2.899E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.146E-02	4.408E-02	2.026E-02	4.408E-02	FAIL ABUN
RH-101	-1.148E-02	1.818E-02	1.410E-02	1.818E-02	NOT IDENT.
SB-125	-6.815E-03	4.961E-02	4.084E-02	4.961E-02	NOT IDENT.
EU-155	-1.804E-03	5.105E-02	3.983E-02	5.105E-02	NOT IDENT.
PO-209	-1.134E-01	3.769E+00	3.115E+00	3.769E+00	NOT IDENT.
BI-211	1.828E-01	4.909E-01	4.254E-01	4.909E-01	NOT IDENT.
PA-233	-7.244E-03	3.296E-02	2.766E-02	3.296E-02	NOT IDENT.
PA-234M	1.709E-02	2.593E+00	1.837E+00	2.593E+00	NOT IDENT.
U-235	-5.330E-02	1.106E-01	8.461E-02	1.106E-01	NOT IDENT.
NP-236	1.605E-02	2.659E-02	2.311E-02	2.659E-02	NOT IDENT.
NP-239	3.946E-03	1.090E-01	9.473E-02	1.090E-01	NOT IDENT.
CM-243	-1.111E-02	4.174E-02	3.483E-02	4.174E-02	NOT IDENT.
AM-246	-3.016E-03	6.669E-02	5.668E-02	6.669E-02	NOT IDENT.
CF-249	1.110E-02	2.260E-02	1.806E-02	2.260E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	282.8674
63.29	300.3436
74.66	321.7584
74.81	321.8593
74.81	321.8593
77.11	323.3800
77.11	323.3800
86.48	264.4940
87.30	341.0227
87.30	341.0227
92.58	279.7761
98.44	244.3665
103.76	238.2225
105.31	233.5972
129.07	244.4590
143.76	260.5645
198.00	230.6044
209.25	201.0227
228.18	193.8621
238.63	167.1618
242.00	167.6838
269.46	165.1747
270.25	165.2862
277.36	176.7911
295.22	153.5950
300.09	147.9597
312.17	144.4429
338.32	115.2158
351.93	138.5929
387.59	98.4471
409.46	100.8823
427.87	105.2192
463.00	86.7969
510.77	80.1898
583.19	82.2316
609.31	76.6968
661.66	63.1898
727.33	61.0055
763.13	59.8740
768.36	44.9956
785.37	28.5146
794.95	58.9187
806.17	56.7971
831.80	40.9512
860.56	47.5768
896.60	46.0775
911.20	43.1481
934.06	38.8813
964.77	38.5559
968.97	38.6077
1001.03	41.5265
1078.86	38.8145
1120.29	48.6315
1155.19	36.8307
1173.23	43.6584
1238.11	40.5576
1280.96	20.5035
1332.51	11.8677
1377.67	25.9968
1401.50	28.1549
1407.98	19.1345
1460.80	18.3501
1509.23	21.6417
1588.20	27.6772
1620.50	14.4754
1729.60	9.7123
1764.49	15.8326

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683014

Total Uranium Activity	-2.4662E-02	ug/g
Total Uranium Counting Unc.	5.1186E-02	ug/g
Total Uranium Tpu	5.1186E-08	ug/g
Total Uranium Mda	3.9151E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:54:19.24

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683015.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:53:04
Sample ID        : G198683015           Sample quantity  : 1.52460E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.22  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.23*	74	485	0.85	125.96	122	8	5.17E-03	56.3	
2	2	74.77*	509	417	1.02	149.05	144	14	3.53E-02	8.0	2.43E+00
3	2	77.07*	718	298	0.91	153.65	144	14	4.99E-02	5.5	
4	5	84.12*	116	444	1.25	167.77	164	29	8.07E-03	31.9	2.31E+00
5	5	87.19*	349	466	1.39	173.91	164	29	2.43E-02	12.2	
6	5	89.92	259	431	1.40	179.38	164	29	1.80E-02	15.6	
7	5	92.71*	346	384	1.32	184.96	164	29	2.41E-02	13.2	
8	0	102.39	78	265	1.62	204.34	202	6	5.45E-03	34.6	
9	0	105.75	79	325	1.19	211.06	208	7	5.46E-03	39.6	
10	0	129.02	98	396	1.32	257.64	255	8	6.82E-03	36.3	
11	0	143.95*	13	394	0.62	287.52	284	8	9.12E-04	278.8	
12	0	153.67	41	386	1.03	306.98	304	8	2.83E-03	85.0	
13	0	185.98*	287	502	1.21	371.66	367	11	1.99E-02	17.3	
14	0	198.69*	24	289	0.69	397.11	394	7	1.67E-03	125.5	
15	0	209.24	174	386	0.87	418.22	413	10	1.21E-02	22.5	
16	0	232.26	48	219	0.98	464.29	461	7	3.31E-03	53.7	
17	5	238.57*	1633	226	0.98	476.93	473	16	1.13E-01	3.0	2.93E+00
18	5	241.52	352	345	1.62	482.84	473	16	2.44E-02	12.7	
19	0	269.76*	153	337	1.44	539.36	534	13	1.06E-02	26.5	
20	0	277.60	90	240	1.86	555.06	550	10	6.22E-03	34.3	
21	0	295.24*	471	259	1.22	590.36	585	11	3.27E-02	8.5	
22	0	299.93	115	166	0.81	599.75	596	8	7.97E-03	21.6	
23	0	328.34	100	281	1.39	656.62	652	13	6.96E-03	36.1	
24	3	338.21	395	133	1.22	676.38	670	15	2.75E-02	6.9	1.96E+00
25	3	340.64	30	136	1.56	681.23	670	15	2.10E-03	69.4	
26	0	351.85*	702	229	1.16	703.67	697	12	4.88E-02	5.9	
27	0	391.76	33	138	1.66	783.55	778	9	2.29E-03	66.8	
28	0	409.37	26	154	1.09	818.79	815	8	1.78E-03	86.5	
29	1	460.06*	22	48	1.40	920.25	918	14	1.55E-03	51.2	1.55E+00
30	1	463.05*	119	82	1.17	926.23	918	14	8.29E-03	16.2	
31	0	510.97*	221	161	1.58	1022.15	1016	15	1.54E-02	18.0	
32	0	562.30	27	104	4.24	1124.88	1117	11	1.90E-03	74.6	
33	0	583.33*	479	109	1.10	1166.96	1162	11	3.33E-02	6.8	
34	0	597.74	20	70	0.85	1195.81	1191	7	1.40E-03	72.7	
35	0	609.43*	544	145	1.23	1219.20	1213	13	3.78E-02	6.5	
36	0	623.51	32	62	0.92	1247.39	1243	9	2.24E-03	47.6	
37	0	661.63	80	69	1.07	1323.67	1319	9	5.53E-03	22.0	
38	0	727.48	121	91	1.26	1455.46	1448	13	8.41E-03	18.6	

Sample ID : G198683015 Acquisition date : 15-DEC-2007 10:53:04

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	8	768.65	28	89	2.02	1537.85	1534	16	1.91E-03	61.1	2.34E+00
40	8	772.60	19	67	1.99	1545.76	1534	16	1.32E-03	82.3	
41	0	783.20	12	61	1.27	1566.96	1560	10	8.40E-04	123.5	
42	0	795.44	60	129	1.47	1591.47	1584	16	4.15E-03	44.3	
43	0	860.20*	71	58	1.21	1721.05	1715	11	4.91E-03	26.0	
44	0	911.34*	344	71	1.41	1823.41	1817	14	2.39E-02	7.7	
45	0	936.47	33	71	4.08	1873.69	1864	14	2.28E-03	57.8	
46	1	964.63	40	68	1.75	1930.03	1925	24	2.77E-03	38.1	2.41E+00
47	1	969.11	261	44	1.61	1939.01	1925	24	1.81E-02	7.8	
48	0	1001.01*	33	46	1.79	2002.83	1996	13	2.29E-03	48.8	
49	0	1018.98	36	46	4.27	2038.81	2031	14	2.50E-03	45.4	
50	0	1120.72*	99	58	1.64	2242.39	2233	14	6.85E-03	18.7	
51	0	1157.54	23	82	2.26	2316.07	2306	16	1.58E-03	92.0	
52	0	1238.64	55	56	1.70	2478.33	2472	14	3.82E-03	31.9	
53	0	1264.76	23	24	3.77	2530.59	2525	11	1.63E-03	45.7	
54	0	1322.09	22	8	3.28	2645.31	2641	9	1.56E-03	31.6	
55	0	1378.46	37	30	2.00	2758.09	2749	15	2.57E-03	36.2	
56	0	1408.69	17	32	0.96	2818.59	2811	14	1.19E-03	73.5	
57	0	1461.01*	632	22	1.93	2923.27	2913	17	4.39E-02	4.4	
58	0	1569.55	13	2	2.21	3140.41	3137	7	9.14E-04	32.3	
59	1	1588.65	41	5	2.07	3178.62	3173	22	2.88E-03	20.4	1.48E+00
60	1	1592.52	21	6	2.07	3186.38	3173	22	1.49E-03	38.7	
61	0	1606.86*	7	8	4.29	3215.06	3208	11	4.91E-04	101.6	
62	0	1613.85	10	6	2.29	3229.06	3225	8	6.86E-04	53.6	
63	0	1620.80	30	9	1.72	3242.95	3237	10	2.05E-03	27.1	
64	0	1631.52	14	14	1.75	3264.41	3258	11	1.00E-03	56.1	
65	0	1719.97	7	15	4.70	3441.34	3428	15	5.18E-04	118.7	
66	3	1728.29	21	9	1.94	3458.00	3448	19	1.47E-03	38.6	2.66E+00
67	3	1730.62	25	5	2.11	3462.65	3448	19	1.76E-03	28.0	
68	0	1764.94	114	0	1.90	3531.31	3526	15	7.92E-03	9.4	
69	0	1848.49*	15	14	1.03	3698.46	3693	11	1.05E-03	58.9	
70	0	1883.07	22	17	0.68	3767.63	3760	17	1.51E-03	48.4	
71	0	1920.61	19	7	2.06	3842.73	3837	12	1.31E-03	38.5	
72	0	1940.06	16	10	3.38	3881.64	3874	13	1.14E-03	46.2	

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]G198683015       *
* Acquisition date : 15-DEC-2007 10:53:04 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 04:00:02.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683015           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.5246E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.765E+00	6.399E-01	2.000E-01	0.000E+00
RH-101	6.638E-03	1.633E-02	2.179E-02	0.000E+00
CS-137	4.568E-02	1.995E-02	2.751E-02	0.000E+00
EU-155	6.064E-02	4.721E-02	5.978E-02	0.000E+00
TL-208	2.474E-01	3.687E-02	2.348E-02	0.000E+00
BI-212	5.417E-01	2.022E-01	1.825E-01	0.000E+00
PB-212	8.293E-01	6.777E-02	3.902E-02	0.000E+00
BI-214	5.345E-01	7.790E-02	4.642E-02	0.000E+00
PB-214	5.446E-01	6.948E-02	4.515E-02	0.000E+00
RA-223	2.668E-01	1.394E-01	1.118E-01	0.000E+00
AC-228	8.604E-01	1.498E-01	7.963E-02	0.000E+00
PA-234M	2.764E+00	2.651E+00	2.697E+00	0.000E+00
TH-234	1.070E+00	2.861E-01	2.894E-01	0.000E+00
U-235	1.989E-02	1.087E-01	1.286E-01	0.000E+00
NP-237	4.885E-01	1.220E-01	1.312E-01	0.000E+00
AM-243	1.507E-01	2.548E-02	2.819E-02	0.000E+00
CM-243	5.510E-02	3.757E-02	5.420E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	8.966E-03	1.512E-02	2.716E-02	0.000E+00	NOT IDENT.
SB-125	1.929E-02	3.694E-02	6.750E-02	0.000E+00	NOT IDENT.
PO-209	6.676E-01	3.235E+00	5.174E+00	0.000E+00	NOT IDENT.
BI-211	-2.984E-01	4.106E-01	6.782E-01	0.000E+00	NOT IDENT.
PA-233	-3.555E-03	2.542E-02	4.283E-02	0.000E+00	NOT IDENT.
NP-236	3.291E-02	2.512E-02	3.984E-02	0.000E+00	NOT IDENT.
NP-239	-1.264E-02	9.532E-02	1.473E-01	0.000E+00	NOT IDENT.
AM-241	8.749E-03	4.661E-02	7.525E-02	0.000E+00	NOT IDENT.
AM-246	3.452E-03	5.242E-02	9.016E-02	0.000E+00	NOT IDENT.
CF-249	-7.184E-04	1.704E-02	2.683E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:54:20.28

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683015.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:53:04
Sample ID        : G198683015           Sample quantity  : 1.52460E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.22  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	632	10.66*	1.266E+00	5.765E+00	5.765E+00	11.33
RH-101	198.00	24	73.00*	6.309E+00	6.418E-03	6.638E-03	251.00
CS-137	661.66	80	85.10*	2.532E+00	4.551E-02	4.568E-02	44.57
EU-155	105.31	79	21.20*	7.704E+00	5.930E-02	6.064E-02	79.45
TL-208	277.36	90	6.31	5.033E+00	3.470E-01	3.470E-01	68.87
	510.77	221	22.60	3.147E+00	3.827E-01	3.827E-01	36.52
	583.19	479	84.50*	2.820E+00	2.474E-01	2.474E-01	15.21
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	71	12.42	2.007E+00	3.494E-01	3.494E-01	52.69
BI-212	727.33	121	11.80*	2.331E+00	5.417E-01	5.417E-01	38.09
	785.37	------	1.10	2.178E+00	------	Line Not Found	------
	1620.50	30	1.49	1.175E+00	2.075E+00	2.075E+00	54.62
PB-212	74.81	509	10.40	6.095E+00	9.881E-01	9.881E-01	17.25
	77.11	718	17.50	6.327E+00	7.987E-01	7.987E-01	12.91
	87.30	349	7.81	7.099E+00	7.756E-01	7.756E-01	25.48
	238.63	1633	43.30*	5.600E+00	8.293E-01	8.293E-01	8.34
	300.09	115	3.28	4.758E+00	9.057E-01	9.057E-01	43.55
BI-214	609.31	544	46.10*	2.717E+00	5.345E-01	5.345E-01	14.87
	768.36	28	4.94	2.220E+00	3.087E-01	3.087E-01	122.40
	806.17	------	1.22	2.128E+00	------	Line Not Found	------
	934.06	------	3.03	1.863E+00	------	Line Not Found	------
	1120.29	99	15.10	1.582E+00	5.085E-01	5.085E-01	37.92
	1155.19	------	1.63	1.540E+00	------	Line Not Found	------
	1238.11	55	5.79	1.449E+00	8.069E-01	8.070E-01	64.00
	1280.96	------	1.43	1.408E+00	------	Line Not Found	------
	1377.67	37	4.00	1.326E+00	8.592E-01	8.593E-01	72.76
	1401.50	------	1.27	1.308E+00	------	Line Not Found	------
	1407.98	17	2.15	1.303E+00	7.543E-01	7.544E-01	147.22
	1509.23	------	2.11	1.236E+00	------	Line Not Found	------
	1729.60	25	2.92	1.128E+00	9.456E-01	9.456E-01	56.37
	1764.49	114	15.40	1.115E+00	8.173E-01	8.173E-01	19.71
PB-214	74.81	509	6.44	6.095E+00	1.596E+00	1.596E+00	17.25

Sample ID : G198683015 Acquisition date : 15-DEC-2007 10:53:04

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	718	10.80	6.327E+00	1.294E+00	1.294E+00	12.91
	87.30	349	4.84	7.099E+00	1.252E+00	1.252E+00	25.48
	242.00	352	7.43	5.553E+00	1.051E+00	1.051E+00	26.11
	295.22	471	19.30	4.813E+00	6.248E-01	6.249E-01	17.95
	351.93	702	37.60*	4.222E+00	5.446E-01	5.446E-01	13.02
RA-223	269.46	153	13.70*	5.138E+00	2.668E-01	2.668E-01	53.31
AC-228	129.07	98	2.42	7.654E+00	6.528E-01	6.528E-01	72.90
	209.25	174	3.89	6.108E+00	9.019E-01	9.019E-01	45.27
	270.25	153	3.46	5.138E+00	1.056E+00	1.056E+00	53.31
	338.32	395	11.27	4.350E+00	9.926E-01	9.926E-01	14.99
	409.46	26	1.92	3.757E+00	4.377E-01	4.377E-01	173.03
	463.00	119	4.40	3.408E+00	9.804E-01	9.804E-01	32.94
	794.95	60	4.25	2.154E+00	8.038E-01	8.038E-01	89.00
	911.20	344	25.80*	1.905E+00	8.604E-01	8.604E-01	17.77
	964.77	40	4.99	1.810E+00	5.431E-01	5.431E-01	76.74
	968.97	261	15.80	1.802E+00	1.129E+00	1.129E+00	17.55
	1588.20	41	3.22	1.191E+00	1.331E+00	1.331E+00	41.34
PA-234M	1001.03	33	0.84*	1.750E+00	2.764E+00	2.764E+00	97.85
TH-234	63.29	74	4.80	4.586E+00	4.165E-01	4.165E-01	112.72
	92.58	346	5.41*	7.370E+00	1.070E+00	1.070E+00	27.29
U-235	143.76	13	10.96*	7.419E+00	1.989E-02	1.989E-02	557.72
NP-237	86.48	349	12.40*	7.099E+00	4.885E-01	4.885E-01	25.48
AM-243	74.66	509	68.20*	6.095E+00	1.507E-01	1.507E-01	17.25
CM-243	103.76	78	23.00*	7.653E+00	5.489E-02	5.510E-02	69.58

Flag: "*" = Keyline

Sample ID : G198683015 Acquisition date : 15-DEC-2007 10:53:04

Total number of lines in spectrum 72
Number of unidentified lines 30
Number of lines tentatively identified by NID 42 58.33%

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	5.765E+00	5.765E+00	0.653E+00	11.33	
RH-101	1.04E+08S	1.03	6.418E-03	6.638E-03	16.66E-03	251.00	
CS-137	9.47E+08S	1.00	4.551E-02	4.568E-02	2.036E-02	44.57	
EU-155	1.57E+08S	1.02	5.930E-02	6.064E-02	4.818E-02	79.45	
TL-208	4.43E+17S	1.00	2.474E-01	2.474E-01	0.376E-01	15.21	
BI-212	4.43E+17S	1.00	5.417E-01	5.417E-01	2.063E-01	38.09	
PB-212	4.43E+17S	1.00	8.293E-01	8.293E-01	0.692E-01	8.34	
BI-214	5.05E+10S	1.00	5.345E-01	5.345E-01	0.795E-01	14.87	
PB-214	5.05E+10S	1.00	5.446E-01	5.446E-01	0.709E-01	13.02	
RA-223	1.04E+12S	1.00	2.668E-01	2.668E-01	1.422E-01	53.31	
AC-228	4.43E+17S	1.00	8.604E-01	8.604E-01	1.529E-01	17.77	
PA-234M	1.41E+17S	1.00	2.764E+00	2.764E+00	2.705E+00	97.85	
TH-234	1.41E+17S	1.00	1.070E+00	1.070E+00	0.292E+00	27.29	
U-235	2.22E+16S	1.00	1.989E-02	1.989E-02	11.09E-02	557.72	
NP-237	6.75E+13S	1.00	4.885E-01	4.885E-01	1.245E-01	25.48	
AM-243	2.33E+11S	1.00	1.507E-01	1.507E-01	0.260E-01	17.25	
CM-243	8.99E+08S	1.00	5.489E-02	5.510E-02	3.834E-02	69.58	
			---	---			
	Total Activity :		1.425E+01	1.425E+01			

Grand Total Activity : 1.425E+01 1.425E+01

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

Sample ID : G198683015 Acquisition date : 15-DEC-2007 10:53:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	84.12	116	444	1.25	167.77	164	29	8.07E-03	63.9	6.90E+00	
5	89.92	259	431	1.40	179.38	164	29	1.80E-02	31.3	7.24E+00	
0	153.67	41	386	1.03	306.98	304	8	2.83E-03	****	7.23E+00	
0	185.98	287	502	1.21	371.66	367	11	1.99E-02	34.6	6.56E+00	
0	232.26	48	219	0.98	464.29	461	7	3.31E-03	****	5.70E+00	
0	328.34	100	281	1.39	656.62	652	13	6.96E-03	72.2	4.45E+00	
3	340.64	30	136	1.56	681.23	670	15	2.10E-03	****	4.33E+00	
0	391.76	33	138	1.66	783.55	778	9	2.29E-03	****	3.89E+00	
1	460.06	22	48	1.40	920.25	918	14	1.55E-03	****	3.43E+00	
0	562.30	27	104	4.24	1124.88	1117	11	1.90E-03	****	2.91E+00	
0	597.74	20	70	0.85	1195.81	1191	7	1.40E-03	****	2.76E+00	
0	623.51	32	62	0.92	1247.39	1243	9	2.24E-03	95.1	2.66E+00	
8	772.60	19	67	1.99	1545.76	1534	16	1.32E-03	****	2.21E+00	
0	783.20	12	61	1.27	1566.96	1560	10	8.40E-04	****	2.18E+00	
0	936.47	33	71	4.08	1873.69	1864	14	2.28E-03	****	1.86E+00	
0	1018.98	36	46	4.27	2038.81	2031	14	2.50E-03	90.7	1.72E+00	
0	1157.54	23	82	2.26	2316.07	2306	16	1.58E-03	****	1.54E+00	
0	1264.76	23	24	3.77	2530.59	2525	11	1.63E-03	91.5	1.42E+00	
0	1322.09	22	8	3.28	2645.31	2641	9	1.56E-03	63.1	1.37E+00	
0	1569.55	13	2	2.21	3140.41	3137	7	9.14E-04	64.6	1.20E+00	
1	1592.52	21	6	2.07	3186.38	3173	22	1.49E-03	77.4	1.19E+00	
0	1606.86	7	8	4.29	3215.06	3208	11	4.91E-04	****	1.18E+00	
0	1613.85	10	6	2.29	3229.06	3225	8	6.86E-04	****	1.18E+00	
0	1631.52	14	14	1.75	3264.41	3258	11	1.00E-03	****	1.17E+00	
0	1719.97	7	15	4.70	3441.34	3428	15	5.18E-04	****	1.13E+00	
3	1728.29	21	9	1.94	3458.00	3448	19	1.47E-03	77.2	1.13E+00	
0	1848.49	15	14	1.03	3698.46	3693	11	1.05E-03	****	1.09E+00	
0	1883.07	22	17	0.68	3767.63	3760	17	1.51E-03	96.7	1.08E+00	
0	1920.61	19	7	2.06	3842.73	3837	12	1.31E-03	77.0	1.07E+00	
0	1940.06	16	10	3.38	3881.64	3874	13	1.14E-03	92.5	1.06E+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]G198683015            *
* Acquisition date : 15-DEC-2007 10:53:04 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 04:00:02.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683015           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.5246E+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	5.765E+00	6.399E-01	1.001E-01	6.399E-01
RH-101	6.638E-03	1.633E-02	1.090E-02	1.633E-02
CS-137	4.568E-02	1.995E-02	1.376E-02	1.995E-02
EU-155	6.064E-02	4.721E-02	2.991E-02	4.721E-02
TL-208	2.474E-01	3.687E-02	1.175E-02	3.687E-02
BI-212	5.417E-01	2.022E-01	9.129E-02	2.022E-01
PB-212	8.293E-01	6.777E-02	1.952E-02	6.777E-02
BI-214	5.345E-01	7.790E-02	2.322E-02	7.790E-02
PB-214	5.446E-01	6.948E-02	2.259E-02	6.948E-02
RA-223	2.668E-01	1.394E-01	5.593E-02	1.394E-01
AC-228	8.604E-01	1.498E-01	3.984E-02	1.498E-01
PA-234M	2.764E+00	2.651E+00	1.349E+00	2.651E+00
TH-234	1.070E+00	2.861E-01	1.448E-01	2.861E-01
U-235	1.989E-02	1.087E-01	6.432E-02	1.087E-01
NP-237	4.885E-01	1.220E-01	6.563E-02	1.220E-01
AM-243	1.507E-01	2.548E-02	1.410E-02	2.548E-02
CM-243	5.510E-02	3.757E-02	2.711E-02	3.757E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	8.966E-03	1.512E-02	1.359E-02	1.512E-02	NOT IDENT.
SB-125	1.929E-02	3.694E-02	3.377E-02	3.694E-02	NOT IDENT.
PO-209	6.676E-01	3.235E+00	2.589E+00	3.235E+00	NOT IDENT.
BI-211	-2.984E-01	4.106E-01	3.393E-01	4.106E-01	NOT IDENT.
PA-233	-3.555E-03	2.542E-02	2.143E-02	2.542E-02	NOT IDENT.
NP-236	3.291E-02	2.512E-02	1.993E-02	2.512E-02	NOT IDENT.
NP-239	-1.264E-02	9.532E-02	7.370E-02	9.532E-02	NOT IDENT.
AM-241	8.749E-03	4.661E-02	3.765E-02	4.661E-02	NOT IDENT.
AM-246	3.452E-03	5.242E-02	4.511E-02	5.242E-02	NOT IDENT.
CF-249	-7.184E-04	1.704E-02	1.342E-02	1.704E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	287.7785
63.29	316.4530
74.66	354.3408
74.81	354.4604
74.81	354.4604
77.11	356.3040
77.11	356.3040
86.48	343.6333
87.30	344.2129
87.30	344.2129
92.58	347.8879
98.44	248.1531
103.76	238.9797
105.31	239.6533
129.07	289.5749
143.76	292.2383
198.00	256.5673
209.25	263.4826
228.18	235.0123
238.63	245.0270
242.00	245.8540
269.46	170.8336
270.25	170.9598
277.36	180.9475
295.22	174.2211
300.09	174.9472
312.17	166.9976
338.32	151.5387
351.93	143.3839
387.59	136.5938
409.46	144.7344
427.87	122.2348
463.00	114.4611
510.77	108.8744
583.19	89.7134
609.31	97.0838
661.66	100.5780
727.33	73.0154
763.13	82.5918
768.36	90.4528
785.37	66.0725
794.95	57.1384
806.17	73.8200
831.80	79.0986
860.56	67.3965
896.60	53.0757
911.20	44.9285
934.06	41.5143
964.77	45.7652
968.97	45.8309
1001.03	46.3195
1078.86	48.4641
1120.29	45.0681
1155.19	43.5102
1173.23	37.6341
1238.11	55.9301
1280.96	36.6731
1332.51	37.1704
1377.67	36.5251
1401.50	25.2155
1407.98	28.1417
1460.80	21.9258
1509.23	24.9489
1588.20	30.6391
1620.50	20.4636
1729.60	21.1541
1764.49	15.0657

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683015

Total Uranium Activity	9.2023E-03	ug/g
Total Uranium Counting Unc.	5.0296E-02	ug/g
Total Uranium Tpu	5.0296E-08	ug/g
Total Uranium Mda	2.9760E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:55:04.55

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683016.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:53:52
Sample ID        : G198683016           Sample quantity  : 1.17940E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.93  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.66*	67	554	1.05	92.77	89	9	4.65E-03	74.7	
2	0	53.09*	28	417	1.82	105.64	103	6	1.97E-03	130.5	
3	0	63.47*	161	833	0.97	126.42	122	10	1.12E-02	40.7	
4	4	73.19	81	485	1.17	145.87	143	15	5.61E-03	41.7	1.12E+00
5	4	74.97	461	469	0.89	149.44	143	15	3.20E-02	8.5	
6	4	77.22*	708	535	0.93	153.93	143	15	4.92E-02	6.7	
7	3	84.14*	59	422	0.91	167.80	165	18	4.07E-03	63.8	6.63E+00
8	3	87.33	214	450	0.82	174.17	165	18	1.48E-02	16.2	
9	3	90.06	125	470	0.83	179.65	165	18	8.69E-03	26.5	
10	0	92.78*	256	673	1.29	185.09	182	9	1.78E-02	24.2	
11	0	98.74*	34	432	0.78	197.01	194	7	2.35E-03	113.1	
12	0	105.59	92	381	0.64	210.74	208	7	6.42E-03	36.5	
13	7	113.07*	87	418	1.67	225.71	222	12	6.02E-03	47.6	1.16E+00
14	7	115.66	75	308	0.93	230.89	222	12	5.22E-03	39.0	
15	0	129.21	116	504	0.81	258.02	254	9	8.06E-03	36.1	
16	0	143.56*	44	453	0.83	286.75	282	8	3.07E-03	93.9	
17	0	168.66	70	388	0.96	336.98	334	9	4.84E-03	52.3	
18	0	185.88*	103	537	1.09	371.46	367	10	7.16E-03	50.6	
19	0	205.23*	53	335	1.88	410.19	407	8	3.67E-03	67.0	
20	0	209.06	94	347	1.35	417.85	415	8	6.53E-03	35.8	
21	7	238.71*	1050	271	1.00	477.20	470	18	7.29E-02	4.3	1.16E+00
22	7	241.52	271	429	1.81	482.83	470	18	1.88E-02	20.1	
23	0	270.13	66	405	1.11	540.09	533	12	4.57E-03	62.3	
24	0	277.20	20	275	1.38	554.24	552	7	1.39E-03	139.4	
25	0	287.91	38	129	0.66	575.67	573	5	2.66E-03	48.0	
26	0	295.31*	215	299	1.13	590.49	586	10	1.50E-02	17.6	
27	0	300.10	79	268	1.36	600.08	596	9	5.46E-03	39.3	
28	0	328.17	83	338	2.12	656.25	651	13	5.79E-03	46.9	
29	0	338.37*	155	297	1.15	676.67	672	10	1.08E-02	24.9	
30	0	351.85*	418	267	1.26	703.65	698	11	2.90E-02	9.5	
31	0	356.05*	10	175	1.56	712.06	709	7	7.14E-04	254.7	
32	0	372.00	128	340	6.38	743.98	735	18	8.92E-03	34.9	
33	0	403.79	47	136	1.76	807.61	804	7	3.28E-03	43.8	
34	0	440.44	15	168	1.40	880.95	874	9	1.05E-03	156.8	
35	0	463.35*	44	141	0.98	926.80	923	8	3.04E-03	53.2	
36	0	474.20	27	95	1.37	948.51	946	6	1.87E-03	61.2	
37	0	511.17*	23	242	1.78	1022.50	1016	14	1.61E-03	194.0	
38	0	546.92	14	119	1.85	1094.05	1089	9	9.63E-04	145.4	

Sample ID : G198683016 Acquisition date : 15-DEC-2007 10:53:52

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	570.43*	28	145	1.66	1141.09	1137	9	1.94E-03	89.4	
40	0	583.26*	309	177	1.36	1166.78	1161	12	2.15E-02	11.1	
41	0	609.51*	286	236	1.35	1219.31	1212	15	1.98E-02	13.8	
42	0	662.27	44	120	1.09	1324.89	1321	9	3.09E-03	46.7	
43	0	727.45	79	147	1.82	1455.31	1448	12	5.48E-03	32.7	
44	0	769.48	10	175	5.29	1539.42	1535	15	6.90E-04	292.9	
45	0	795.69	16	150	0.59	1591.86	1586	11	1.12E-03	148.9	
46	0	822.26	15	91	1.37	1645.02	1640	10	1.07E-03	118.5	
47	0	860.91	44	128	1.49	1722.36	1715	12	3.05E-03	53.7	
48	0	911.48*	212	96	1.53	1823.54	1818	12	1.47E-02	12.7	
49	0	922.94	25	66	1.20	1846.48	1839	10	1.77E-03	63.2	
50	0	926.28	41	50	2.95	1853.15	1849	11	2.82E-03	37.1	
51	0	969.30*	85	112	1.61	1939.23	1934	13	5.88E-03	31.3	
52	0	1001.62*	13	130	1.56	2003.88	1996	17	9.14E-04	211.2	
53	0	1120.06*	98	57	3.65	2240.83	2234	16	6.82E-03	21.7	
54	0	1197.51	22	35	0.76	2395.77	2391	10	1.53E-03	54.6	
55	0	1271.65	5	52	0.64	2544.08	2536	10	3.43E-04	277.8	
56	0	1460.82	290	28	1.91	2922.46	2915	14	2.01E-02	7.0	
57	0	1510.17	24	20	2.37	3021.17	3016	9	1.66E-03	39.6	
58	0	1657.05	25	18	0.88	3314.93	3307	14	1.77E-03	40.1	
59	0	1764.09	76	14	3.35	3528.98	3521	18	5.28E-03	16.1	
60	0	1847.98	10	11	1.72	3696.74	3690	9	6.89E-04	68.5	
61	0	1880.87*	5	27	4.41	3762.50	3743	21	3.73E-04	258.2	
62	0	1975.38	14	11	0.87	3951.47	3943	15	9.49E-04	60.0	

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]G198683016       *
* Acquisition date : 15-DEC-2007 10:53:52 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 04:00:03.93     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683016           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1794E+02 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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.076E+00	6.051E-01	3.861E-01	0.000E+00
CS-137	4.051E-02	3.724E-02	4.715E-02	0.000E+00
EU-155	9.716E-02	7.000E-02	9.360E-02	0.000E+00
TL-208	2.526E-01	5.757E-02	4.607E-02	0.000E+00
BI-212	5.606E-01	3.620E-01	3.654E-01	0.000E+00
PB-212	8.007E-01	8.508E-02	6.151E-02	0.000E+00
BI-214	4.447E-01	1.247E-01	8.846E-02	0.000E+00
PB-214	4.955E-01	9.597E-02	8.204E-02	0.000E+00
RA-223	1.738E-01	2.126E-01	1.894E-01	0.000E+00
AC-228	8.371E-01	2.146E-01	1.712E-01	0.000E+00
PA-234M	1.729E+00	7.156E+00	5.845E+00	0.000E+00
TH-234	1.002E+00	4.818E-01	4.059E-01	0.000E+00
U-235	9.832E-02	1.813E-01	1.931E-01	0.000E+00
NP-236	1.911E-02	4.239E-02	5.185E-02	0.000E+00
NP-237	3.610E-01	1.180E-01	1.902E-01	0.000E+00
AM-243	1.398E-01	2.562E-02	3.182E-02	0.000E+00
CM-243	8.792E-02	6.334E-02	8.200E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-1.164E-02	3.050E-02	4.928E-02	0.000E+00	NOT IDENT.
RH-101	-1.008E-02	2.333E-02	3.566E-02	0.000E+00	NOT IDENT.
SB-125	1.410E-02	6.814E-02	1.157E-01	0.000E+00	NOT IDENT.
PO-209	4.502E+00	6.203E+00	1.070E+01	0.000E+00	NOT IDENT.
BI-211	1.186E-01	8.490E-01	1.420E+00	0.000E+00	NOT IDENT.
PA-233	-1.324E-02	4.175E-02	7.124E-02	0.000E+00	NOT IDENT.
NP-239	9.076E-02	1.415E-01	2.412E-01	0.000E+00	NOT IDENT.
AM-241	2.743E-03	3.469E-02	5.361E-02	0.000E+00	NOT IDENT.
AM-246	-2.786E-03	1.024E-01	1.722E-01	0.000E+00	NOT IDENT.
CF-249	-5.042E-03	2.891E-02	4.861E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:55:05.65

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683016.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:53:52
Sample ID        : G198683016           Sample quantity  : 1.17940E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.93  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	290	10.66*	1.060E+00	4.076E+00	4.076E+00	15.15
CS-137	661.66	44	85.10*	2.062E+00	4.036E-02	4.051E-02	93.80
EU-155	105.31	92	21.20*	7.303E+00	9.502E-02	9.716E-02	73.51
TL-208	277.36	20	6.31	4.317E+00	1.167E-01	1.167E-01	278.89
	510.77	23	22.60	2.589E+00	6.304E-02	6.304E-02	388.02
	583.19	309	84.50*	2.305E+00	2.526E-01	2.526E-01	23.25
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	44	12.42	1.641E+00	3.434E-01	3.434E-01	107.70
BI-212	727.33	79	11.80*	1.899E+00	5.606E-01	5.606E-01	65.89
	785.37	------	1.10	1.777E+00	------	Line Not Found	------
	1620.50	------	1.49	9.772E-01	------	Line Not Found	------
PB-212	74.81	461	10.40	7.694E+00	9.166E-01	9.166E-01	18.70
	77.11	708	17.50	7.683E+00	8.385E-01	8.385E-01	15.63
	87.30	214	7.81	7.592E+00	5.732E-01	5.732E-01	33.34
	238.63	1050	43.30*	4.822E+00	8.007E-01	8.007E-01	10.84
	300.09	79	3.28	4.058E+00	9.400E-01	9.400E-01	78.77
BI-214	609.31	286	46.10*	2.218E+00	4.447E-01	4.447E-01	28.62
	768.36	10	4.94	1.808E+00	1.769E-01	1.769E-01	585.86
	806.17	------	1.22	1.737E+00	------	Line Not Found	------
	934.06	------	3.03	1.531E+00	------	Line Not Found	------
	1120.29	98	15.10	1.315E+00	7.875E-01	7.876E-01	43.84
	1155.19	------	1.63	1.282E+00	------	Line Not Found	------
	1238.11	------	5.79	1.211E+00	------	Line Not Found	------
	1280.96	------	1.43	1.178E+00	------	Line Not Found	------
	1377.67	------	4.00	1.111E+00	------	Line Not Found	------
	1401.50	------	1.27	1.096E+00	------	Line Not Found	------
	1407.98	------	2.15	1.092E+00	------	Line Not Found	------
	1509.23	24	2.11	1.033E+00	1.746E+00	1.746E+00	79.36
	1729.60	------	2.92	9.286E-01	------	Line Not Found	------
	1764.49	76	15.40	9.145E-01	8.591E-01	8.592E-01	32.79
PB-214	74.81	461	6.44	7.694E+00	1.480E+00	1.480E+00	18.70
	77.11	708	10.80	7.683E+00	1.359E+00	1.359E+00	15.63

Sample ID : G198683016 Acquisition date : 15-DEC-2007 10:53:52

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	214	4.84	7.592E+00	9.250E-01	9.250E-01	33.34
	242.00	271	7.43	4.782E+00	1.212E+00	1.212E+00	40.71
	295.22	215	19.30	4.110E+00	4.320E-01	4.320E-01	35.58
	351.93	418	37.60*	3.567E+00	4.955E-01	4.955E-01	19.76
RA-223	269.46	66	13.70*	4.403E+00	1.738E-01	1.738E-01	124.81
AC-228	129.07	116	2.42	6.828E+00	1.117E+00	1.117E+00	72.86
	209.25	94	3.89	5.281E+00	7.288E-01	7.288E-01	71.94
	270.25	66	3.46	4.403E+00	6.881E-01	6.881E-01	124.81
	338.32	155	11.27	3.684E+00	5.938E-01	5.938E-01	50.14
	409.46	------	1.92	3.139E+00	------ Line Not Found		------
	463.00	44	4.40	2.821E+00	5.621E-01	5.621E-01	106.54
	794.95	16	4.25	1.757E+00	3.452E-01	3.452E-01	297.99
	911.20	212	25.80*	1.563E+00	8.371E-01	8.371E-01	26.16
	964.77	------	4.99	1.490E+00	------ Line Not Found		------
	968.97	85	15.80	1.484E+00	5.749E-01	5.749E-01	62.99
	1588.20	------	3.22	9.927E-01	------ Line Not Found		------
PA-234M	1001.03	13	0.84*	1.443E+00	1.729E+00	1.729E+00	422.40
TH-234	63.29	161	4.80	7.667E+00	6.973E-01	6.973E-01	81.78
	92.58	256	5.41*	7.518E+00	1.002E+00	1.002E+00	49.08
U-235	143.76	44	10.96*	6.526E+00	9.832E-02	9.832E-02	188.11
NP-236	98.44	34	38.00*	7.425E+00	1.911E-02	1.911E-02	226.35
NP-237	86.48	214	12.40*	7.592E+00	3.610E-01	3.610E-01	33.34
AM-243	74.66	461	68.20*	7.694E+00	1.398E-01	1.398E-01	18.70
CM-243	103.76	92	23.00*	7.303E+00	8.758E-02	8.792E-02	73.51

Flag: "*" = Keyline

Sample ID : G198683016 Acquisition date : 15-DEC-2007 10:53:52

Total number of lines in spectrum 62
Number of unidentified lines 28
Number of lines tentatively identified by NID 34 54.84%

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	4.076E+00	4.076E+00	0.617E+00	15.15	
CS-137	9.47E+08S	1.00	4.036E-02	4.051E-02	3.800E-02	93.80	
EU-155	1.57E+08S	1.02	9.502E-02	9.716E-02	7.143E-02	73.51	
TL-208	4.43E+17S	1.00	2.526E-01	2.526E-01	0.587E-01	23.25	
BI-212	4.43E+17S	1.00	5.606E-01	5.606E-01	3.694E-01	65.89	
PB-212	4.43E+17S	1.00	8.007E-01	8.007E-01	0.868E-01	10.84	
BI-214	5.05E+10S	1.00	4.447E-01	4.447E-01	1.273E-01	28.62	
PB-214	5.05E+10S	1.00	4.955E-01	4.955E-01	0.979E-01	19.76	
RA-223	1.04E+12S	1.00	1.738E-01	1.738E-01	2.169E-01	124.81	
AC-228	4.43E+17S	1.00	8.371E-01	8.371E-01	2.190E-01	26.16	
PA-234M	1.41E+17S	1.00	1.729E+00	1.729E+00	7.302E+00	422.40	
TH-234	1.41E+17S	1.00	1.002E+00	1.002E+00	0.492E+00	49.08	
U-235	2.22E+16S	1.00	9.832E-02	9.832E-02	18.50E-02	188.11	
NP-236	4.89E+12S	1.00	1.911E-02	1.911E-02	4.326E-02	226.35	
NP-237	6.75E+13S	1.00	3.610E-01	3.610E-01	1.204E-01	33.34	
AM-243	2.33E+11S	1.00	1.398E-01	1.398E-01	0.261E-01	18.70	
CM-243	8.99E+08S	1.00	8.758E-02	8.792E-02	6.463E-02	73.51	
			---	---			
	Total Activity :		1.121E+01	1.122E+01			

Grand Total Activity : 1.121E+01 1.122E+01

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

Sample ID : G198683016 Acquisition date : 15-DEC-2007 10:53:52

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.66	67	554	1.05	92.77	89	9	4.65E-03	****	7.27E+00	
0	53.09	28	417	1.82	105.64	103	6	1.97E-03	****	7.49E+00	
4	73.19	81	485	1.17	145.87	143	15	5.61E-03	83.4	7.70E+00	
3	84.14	59	422	0.91	167.80	165	18	4.07E-03	****	7.63E+00	
3	90.06	125	470	0.83	179.65	165	18	8.69E-03	53.1	7.56E+00	
7	113.07	87	418	1.67	225.71	222	12	6.02E-03	95.2	7.16E+00	
7	115.66	75	308	0.93	230.89	222	12	5.22E-03	78.0	7.11E+00	
0	168.66	70	388	0.96	336.98	334	9	4.84E-03	****	6.01E+00	
0	185.88	103	537	1.09	371.46	367	10	7.16E-03	****	5.69E+00	
0	205.23	53	335	1.88	410.19	407	8	3.67E-03	****	5.34E+00	
0	287.91	38	129	0.66	575.67	573	5	2.66E-03	96.0	4.19E+00	
0	328.17	83	338	2.12	656.25	651	13	5.79E-03	93.8	3.78E+00	
0	356.05	10	175	1.56	712.06	709	7	7.14E-04	****	3.53E+00	
0	372.00	128	340	6.38	743.98	735	18	8.92E-03	69.8	3.41E+00	
0	403.79	47	136	1.76	807.61	804	7	3.28E-03	87.5	3.18E+00	
0	440.44	15	168	1.40	880.95	874	9	1.05E-03	****	2.95E+00	
0	474.20	27	95	1.37	948.51	946	6	1.87E-03	****	2.76E+00	
0	546.92	14	119	1.85	1094.05	1089	9	9.63E-04	****	2.44E+00	
0	570.43	28	145	1.66	1141.09	1137	9	1.94E-03	****	2.35E+00	
0	822.26	15	91	1.37	1645.02	1640	10	1.07E-03	****	1.71E+00	
0	922.94	25	66	1.20	1846.48	1839	10	1.77E-03	****	1.55E+00	
0	926.28	41	50	2.95	1853.15	1849	11	2.82E-03	74.2	1.54E+00	
0	1197.51	22	35	0.76	2395.77	2391	10	1.53E-03	****	1.24E+00	
0	1271.65	5	52	0.64	2544.08	2536	10	3.43E-04	****	1.19E+00	
0	1657.05	25	18	0.88	3314.93	3307	14	1.77E-03	80.2	9.60E-01	
0	1847.98	10	11	1.72	3696.74	3690	9	6.89E-04	****	8.82E-01	
0	1880.87	5	27	4.41	3762.50	3743	21	3.73E-04	****	8.70E-01	
0	1975.38	14	11	0.87	3951.47	3943	15	9.49E-04	****	8.38E-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]G198683016            *
* Acquisition date : 15-DEC-2007 10:53:52 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 04:00:03.93     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683016           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1794E+02 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	4.076E+00	6.051E-01	1.932E-01	6.051E-01
CS-137	4.051E-02	3.724E-02	2.359E-02	3.724E-02
EU-155	9.716E-02	7.000E-02	4.683E-02	7.000E-02
TL-208	2.526E-01	5.757E-02	2.305E-02	5.757E-02
BI-212	5.606E-01	3.620E-01	1.828E-01	3.620E-01
PB-212	8.007E-01	8.508E-02	3.077E-02	8.508E-02
BI-214	4.447E-01	1.247E-01	4.425E-02	1.247E-01
PB-214	4.955E-01	9.597E-02	4.105E-02	9.597E-02
RA-223	1.738E-01	2.126E-01	9.475E-02	2.126E-01
AC-228	8.371E-01	2.146E-01	8.563E-02	2.146E-01
PA-234M	1.729E+00	7.156E+00	2.924E+00	7.156E+00
TH-234	1.002E+00	4.818E-01	2.031E-01	4.818E-01
U-235	9.832E-02	1.813E-01	9.659E-02	1.813E-01
NP-236	1.911E-02	4.239E-02	2.594E-02	4.239E-02
NP-237	3.610E-01	1.180E-01	9.517E-02	1.180E-01
AM-243	1.398E-01	2.562E-02	1.592E-02	2.562E-02
CM-243	8.792E-02	6.334E-02	4.102E-02	6.334E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.164E-02	3.050E-02	2.466E-02	3.050E-02	NOT IDENT.
RH-101	-1.008E-02	2.333E-02	1.784E-02	2.333E-02	NOT IDENT.
SB-125	1.410E-02	6.814E-02	5.787E-02	6.814E-02	NOT IDENT.
PO-209	4.502E+00	6.203E+00	5.355E+00	6.203E+00	NOT IDENT.
BI-211	1.186E-01	8.490E-01	7.102E-01	8.490E-01	NOT IDENT.
PA-233	-1.324E-02	4.175E-02	3.564E-02	4.175E-02	NOT IDENT.
NP-239	9.076E-02	1.415E-01	1.206E-01	1.415E-01	NOT IDENT.
AM-241	2.743E-03	3.469E-02	2.682E-02	3.469E-02	NOT IDENT.
AM-246	-2.786E-03	1.024E-01	8.617E-02	1.024E-01	NOT IDENT.
CF-249	-5.042E-03	2.891E-02	2.432E-02	2.891E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	363.9569
63.29	388.8013
74.66	480.4255
74.81	480.6703
74.81	480.6703
77.11	484.4166
77.11	484.4166
86.48	555.8494
87.30	557.2390
87.30	557.2390
92.58	472.3423
98.44	371.5009
103.76	329.6773
105.31	349.1989
129.07	318.2574
143.76	332.8111
198.00	320.5048
209.25	304.9593
228.18	263.7979
238.63	291.4727
242.00	292.8086
269.46	231.9445
270.25	232.1724
277.36	255.6396
295.22	208.8407
300.09	240.8390
312.17	220.4589
338.32	238.0956
351.93	215.5789
387.59	205.5286
409.46	169.6880
427.87	171.3270
463.00	169.8400
510.77	168.2632
583.19	145.0846
609.31	147.4764
661.66	122.8685
727.33	121.3066
763.13	120.6205
768.36	113.5637
785.37	113.4840
794.95	120.2952
806.17	100.9641
831.80	109.6500
860.56	102.4799
896.60	94.2704
911.20	86.6760
934.06	80.4513
964.77	101.5400
968.97	140.4617
1001.03	91.5840
1078.86	77.6435
1120.29	71.8389
1155.19	65.6586
1173.23	77.2494
1238.11	70.6369
1280.96	65.2998
1332.51	55.6541
1377.67	55.7959
1401.50	51.5069
1407.98	40.3440
1460.80	35.0056
1509.23	38.6161
1588.20	52.2551
1620.50	34.7974
1729.60	25.5380
1764.49	27.8117

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683016

Total Uranium Activity	4.5492E-02	ug/g
Total Uranium Counting Unc.	8.3866E-02	ug/g
Total Uranium Tpu	8.3866E-08	ug/g
Total Uranium Mda	4.4692E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:55:56.36

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683017.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:54:28
Sample ID        : G198683017           Sample quantity  : 1.17640E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.83  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.35*	11	436	0.91	92.92	90	7	7.91E-04	329.6	
2	0	63.44*	83	519	0.92	127.09	124	7	5.80E-03	51.1	
3	4	74.88*	714	652	1.38	149.97	144	16	4.96E-02	7.7	3.03E+00
4	4	77.14*	979	472	1.07	154.49	144	16	6.80E-02	5.3	
5	3	84.45*	134	518	1.14	169.11	160	32	9.33E-03	30.6	1.15E+00
6	3	87.22*	357	508	1.15	174.66	160	32	2.48E-02	12.1	
7	3	89.92	258	426	0.94	180.05	160	32	1.79E-02	14.1	
8	3	92.82*	406	552	1.26	185.85	160	32	2.82E-02	12.4	
9	0	128.94	89	564	0.93	258.10	254	9	6.16E-03	49.4	
10	0	144.26*	142	534	1.93	288.73	284	11	9.84E-03	33.7	
11	0	153.98	82	466	1.03	308.16	304	9	5.66E-03	49.0	
12	0	163.85	102	410	2.98	327.92	324	9	7.06E-03	37.3	
13	0	185.90*	354	556	1.23	372.01	365	13	2.46E-02	15.5	
14	0	209.46	122	494	0.88	419.14	414	10	8.44E-03	35.5	
15	3	238.66*	2035	244	1.08	477.53	473	17	1.41E-01	2.6	2.61E+00
16	3	241.52	523	381	1.95	483.25	473	17	3.63E-02	12.4	
17	0	257.73	91	277	3.78	515.68	511	11	6.33E-03	36.9	
18	0	265.80	46	253	1.03	531.83	526	10	3.19E-03	65.1	
19	0	270.49	264	287	2.05	541.20	536	13	1.84E-02	14.5	
20	0	277.56	145	284	0.74	555.35	550	12	1.00E-02	24.9	
21	3	295.28*	616	217	1.15	590.77	584	21	4.28E-02	5.9	1.31E+00
22	3	299.98	152	227	1.56	600.19	584	21	1.05E-02	20.3	
23	0	327.18	153	289	1.33	654.58	647	13	1.06E-02	24.3	
24	0	338.39	317	351	1.02	677.01	671	12	2.20E-02	13.1	
25	0	351.96*	1054	268	1.17	704.15	698	13	7.32E-02	4.7	
26	0	409.60	86	202	1.25	819.45	814	12	5.97E-03	34.7	
27	0	462.74	106	142	1.01	925.75	920	10	7.39E-03	23.1	
28	0	510.55*	137	281	2.07	1021.38	1013	18	9.55E-03	34.6	
29	0	583.21*	631	142	1.29	1166.73	1160	13	4.38E-02	5.8	
30	0	609.34*	750	160	1.39	1219.01	1213	14	5.21E-02	5.3	
31	0	726.87*	147	106	1.41	1454.13	1448	14	1.02E-02	17.7	
32	0	743.33	54	104	6.09	1487.07	1479	16	3.75E-03	44.4	
33	0	767.68	87	82	1.08	1535.79	1530	11	6.07E-03	22.8	
34	0	772.26	31	99	2.16	1544.94	1541	12	2.12E-03	66.8	
35	0	781.72	17	30	1.16	1563.88	1561	5	1.15E-03	55.5	
36	0	786.09	41	82	1.26	1572.62	1567	11	2.86E-03	45.4	
37	0	794.73	56	79	2.01	1589.92	1584	11	3.88E-03	33.7	
38	0	836.43*	6	80	1.33	1673.35	1669	9	4.14E-04	285.0	

Sample ID : G198683017 Acquisition date : 15-DEC-2007 10:54:28

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	860.58	106	65	1.59	1721.65	1716	12	7.33E-03	18.2	
40	0	910.92*	440	77	1.70	1822.39	1815	14	3.05E-02	6.7	
41	0	933.53	48	48	1.28	1867.61	1862	11	3.31E-03	31.9	
42	1	964.51	73	68	2.12	1929.61	1924	22	5.07E-03	25.4	2.88E+00
43	1	968.70*	215	73	1.78	1937.99	1924	22	1.49E-02	10.9	
44	2	1119.88*	142	76	2.08	2240.50	2234	26	9.87E-03	15.2	3.53E+00
45	2	1124.12	25	50	2.01	2249.00	2234	26	1.76E-03	68.4	
46	0	1157.18	77	70	8.31	2315.15	2303	24	5.36E-03	31.2	
47	0	1237.48*	65	54	1.48	2475.85	2469	12	4.55E-03	27.8	
48	1	1373.26	32	15	2.32	2747.58	2744	23	2.21E-03	22.9	2.89E+00
49	1	1377.17*	51	21	2.32	2755.40	2744	23	3.51E-03	26.9	
50	0	1391.52	26	82	6.65	2784.13	2767	34	1.82E-03	105.1	
51	0	1460.24*	629	32	2.04	2921.68	2914	15	4.37E-02	4.5	
52	0	1479.93	9	32	3.34	2961.08	2950	13	6.44E-04	130.6	
53	0	1495.05	37	13	1.49	2991.35	2985	13	2.57E-03	26.0	
54	0	1543.24	20	22	0.66	3087.80	3079	17	1.39E-03	61.4	
55	0	1587.63	38	12	2.60	3176.66	3173	9	2.64E-03	22.9	
56	0	1619.10	51	8	1.74	3239.65	3231	16	3.54E-03	18.7	
57	0	1630.86	28	17	1.08	3263.18	3255	17	1.94E-03	38.7	
58	0	1662.03	11	17	1.30	3325.58	3320	8	7.84E-04	73.1	
59	0	1729.77	43	19	2.02	3461.19	3453	19	2.99E-03	28.7	
60	0	1764.07*	124	22	2.17	3529.85	3519	17	8.62E-03	13.0	
61	0	1847.48	23	4	1.69	3696.81	3692	10	1.57E-03	27.8	

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

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683017       *
* Acquisition date : 15-DEC-2007 10:54:28 Detector SN#    :                 *
* Detector ID      : GAM16                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 04:00:01.83     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683017           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1764E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 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	7.186E+00	7.623E-01	3.802E-01	0.000E+00
TL-208	4.090E-01	5.486E-02	3.437E-02	0.000E+00
BI-212	8.223E-01	2.942E-01	2.770E-01	0.000E+00
PB-212	1.298E+00	9.762E-02	5.568E-02	0.000E+00
BI-214	9.247E-01	1.187E-01	6.349E-02	0.000E+00
PB-214	1.026E+00	1.078E-01	6.474E-02	0.000E+00
RA-223	5.811E-01	1.682E-01	1.350E-01	0.000E+00
AC-228	1.378E+00	2.138E-01	1.306E-01	0.000E+00
TH-234	1.604E+00	4.061E-01	4.244E-01	0.000E+00
U-235	2.715E-01	1.803E-01	1.913E-01	0.000E+00
NP-237	6.415E-01	1.592E-01	1.931E-01	0.000E+00
AM-243	2.726E-01	4.462E-02	4.682E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	3.341E-03		2.276E-02	3.851E-02	0.000E+00	NOT IDENT.
RH-101	4.343E-03		2.159E-02	3.489E-02	0.000E+00	NOT IDENT.
SB-125	3.147E-02		5.406E-02	9.493E-02	0.000E+00	NOT IDENT.
CS-137	-9.688E-04		2.163E-02	3.581E-02	0.000E+00	NOT IDENT.
EU-155	2.903E-02		6.012E-02	1.054E-01	0.000E+00	NOT IDENT.
PO-209	-9.138E-01		4.248E+00	7.119E+00	0.000E+00	NOT IDENT.
BI-211	2.336E-01		6.903E-01	1.053E+00	0.000E+00	NOT IDENT.
PA-233	4.176E-02		3.500E-02	6.375E-02	0.000E+00	NOT IDENT.
PA-234M	2.888E-01		2.659E+00	4.074E+00	0.000E+00	NOT IDENT.
NP-236	8.544E-03		3.921E-02	5.862E-02	0.000E+00	NOT IDENT.
NP-239	-7.098E-02		1.300E-01	2.121E-01	0.000E+00	NOT IDENT.
AM-241	2.271E-02		7.819E-02	1.229E-01	0.000E+00	NOT IDENT.
CM-243	3.931E-05		5.442E-02	9.411E-02	0.000E+00	NOT IDENT.
AM-246	2.399E-02		7.898E-02	1.360E-01	0.000E+00	NOT IDENT.
CF-249	4.999E-03		2.358E-02	4.086E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:55:59.45

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683017.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:54:28
Sample ID        : G198683017           Sample quantity  : 1.17640E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.83  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	629	10.66*	1.310E+00	7.186E+00	7.186E+00	10.82
TL-208	277.36	145	6.31	5.198E+00	7.029E-01	7.029E-01	50.07
	510.77	137	22.60	3.252E+00	2.984E-01	2.984E-01	69.43
	583.19	631	84.50*	2.913E+00	4.090E-01	4.090E-01	13.69
	763.13	------	1.81	2.311E+00	------	Line Not Found	------
	860.56	106	12.42	2.077E+00	6.530E-01	6.530E-01	37.37
BI-212	727.33	147	11.80*	2.412E+00	8.223E-01	8.223E-01	36.50
	785.37	41	1.10	2.251E+00	2.655E+00	2.655E+00	91.18
	1620.50	51	1.49	1.213E+00	4.496E+00	4.496E+00	37.93
PB-212	74.81	714	10.40	6.131E+00	1.788E+00	1.788E+00	16.70
	77.11	979	17.50	6.365E+00	1.402E+00	1.402E+00	12.48
	87.30	357	7.81	7.164E+00	1.018E+00	1.018E+00	25.32
	238.63	2035	43.30*	5.778E+00	1.298E+00	1.298E+00	7.68
	300.09	152	3.28	4.913E+00	1.503E+00	1.503E+00	40.94
BI-214	609.31	750	46.10*	2.808E+00	9.246E-01	9.247E-01	13.10
	768.36	87	4.94	2.299E+00	1.228E+00	1.228E+00	46.34
	806.17	------	1.22	2.201E+00	------	Line Not Found	------
	934.06	48	3.03	1.930E+00	1.302E+00	1.302E+00	64.36
	1120.29	142	15.10	1.640E+00	9.154E-01	9.155E-01	30.94
	1155.19	77	1.63	1.593E+00	4.746E+00	4.746E+00	62.56
	1238.11	65	5.79	1.502E+00	1.201E+00	1.201E+00	55.92
	1280.96	------	1.43	1.458E+00	------	Line Not Found	------
	1377.67	51	4.00	1.373E+00	1.468E+00	1.468E+00	54.04
	1401.50	------	1.27	1.353E+00	------	Line Not Found	------
	1407.98	------	2.15	1.348E+00	------	Line Not Found	------
	1509.23	------	2.11	1.277E+00	------	Line Not Found	------
	1729.60	43	2.92	1.161E+00	2.024E+00	2.025E+00	57.69
	1764.49	124	15.40	1.147E+00	1.121E+00	1.121E+00	26.59
PB-214	74.81	714	6.44	6.131E+00	2.887E+00	2.887E+00	16.70
	77.11	979	10.80	6.365E+00	2.271E+00	2.271E+00	12.48
	87.30	357	4.84	7.164E+00	1.643E+00	1.644E+00	25.32
	242.00	523	7.43	5.731E+00	1.958E+00	1.958E+00	25.49

Sample ID : G198683017 Acquisition date : 15-DEC-2007 10:54:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.22	616	19.30	4.970E+00	1.024E+00	1.024E+00	12.95
	351.93	1054	37.60*	4.360E+00	1.026E+00	1.026E+00	10.72
RA-223	269.46	264	13.70*	5.295E+00	5.811E-01	5.811E-01	29.54
AC-228	129.07	89	2.42	7.822E+00	7.478E-01	7.478E-01	98.95
	209.25	122	3.89	6.294E+00	7.922E-01	7.922E-01	71.17
	270.25	264	3.46	5.295E+00	2.301E+00	2.301E+00	29.54
	338.32	317	11.27	4.492E+00	1.001E+00	1.001E+00	26.74
	409.46	86	1.92	3.878E+00	1.843E+00	1.843E+00	69.60
	463.00	106	4.40	3.521E+00	1.096E+00	1.096E+00	46.54
	794.95	56	4.25	2.229E+00	9.403E-01	9.403E-01	67.96
	911.20	440	25.80*	1.973E+00	1.378E+00	1.378E+00	15.83
	964.77	73	4.99	1.874E+00	1.246E+00	1.246E+00	51.51
	968.97	215	15.80	1.867E+00	1.164E+00	1.164E+00	23.23
	1588.20	38	3.22	1.230E+00	1.530E+00	1.530E+00	46.10
TH-234	63.29	83	4.80	4.617E+00	6.010E-01	6.010E-01	102.30
	92.58	406	5.41*	7.457E+00	1.604E+00	1.604E+00	25.83
U-235	143.76	142	10.96*	7.597E+00	2.715E-01	2.715E-01	67.76
NP-237	86.48	357	12.40*	7.164E+00	6.415E-01	6.415E-01	25.32
AM-243	74.66	714	68.20*	6.131E+00	2.726E-01	2.726E-01	16.70

Flag: "*" = Keyline

Sample ID : G198683017 Acquisition date : 15-DEC-2007 10:54:28

Total number of lines in spectrum 61
Number of unidentified lines 22
Number of lines tentatively identified by NID 39 63.93%

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	7.186E+00	7.186E+00	0.778E+00	10.82	
TL-208	4.43E+17S	1.00	4.090E-01	4.090E-01	0.560E-01	13.69	
BI-212	4.43E+17S	1.00	8.223E-01	8.223E-01	3.002E-01	36.50	
PB-212	4.43E+17S	1.00	1.298E+00	1.298E+00	0.010E+01	7.68	
BI-214	5.05E+10S	1.00	9.246E-01	9.247E-01	1.211E-01	13.10	
PB-214	5.05E+10S	1.00	1.026E+00	1.026E+00	0.110E+00	10.72	
RA-223	1.04E+12S	1.00	5.811E-01	5.811E-01	1.717E-01	29.54	
AC-228	4.43E+17S	1.00	1.378E+00	1.378E+00	0.218E+00	15.83	
TH-234	1.41E+17S	1.00	1.604E+00	1.604E+00	0.414E+00	25.83	
U-235	2.22E+16S	1.00	2.715E-01	2.715E-01	1.840E-01	67.76	
NP-237	6.75E+13S	1.00	6.415E-01	6.415E-01	1.624E-01	25.32	
AM-243	2.33E+11S	1.00	2.726E-01	2.726E-01	0.455E-01	16.70	
			---	---			
		Total Activity :	1.641E+01	1.641E+01			
		Grand Total Activity :	1.641E+01	1.641E+01			

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

Sample ID : G198683017 Acquisition date : 15-DEC-2007 10:54:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.35	11	436	0.91	92.92	90	7	7.91E-04	****	1.72E+00	
3	84.45	134	518	1.14	169.11	160	32	9.33E-03	61.1	6.98E+00	
3	89.92	258	426	0.94	180.05	160	32	1.79E-02	28.2	7.32E+00	
0	153.98	82	466	1.03	308.16	304	9	5.66E-03	98.0	7.41E+00	
0	163.85	102	410	2.98	327.92	324	9	7.06E-03	74.6	7.22E+00	
0	185.90	354	556	1.23	372.01	365	13	2.46E-02	31.1	6.76E+00	
0	257.73	91	277	3.78	515.68	511	11	6.33E-03	73.8	5.48E+00	
0	265.80	46	253	1.03	531.83	526	10	3.19E-03	****	5.36E+00	
0	327.18	153	289	1.33	654.58	647	13	1.06E-02	48.7	4.61E+00	
0	743.33	54	104	6.09	1487.07	1479	16	3.75E-03	88.7	2.37E+00	
0	772.26	31	99	2.16	1544.94	1541	12	2.12E-03	****	2.29E+00	
0	781.72	17	30	1.16	1563.88	1561	5	1.15E-03	****	2.26E+00	
0	836.43	6	80	1.33	1673.35	1669	9	4.14E-04	****	2.13E+00	
2	1124.12	25	50	2.01	2249.00	2234	26	1.76E-03	****	1.63E+00	
1	1373.26	32	15	2.32	2747.58	2744	23	2.21E-03	45.8	1.38E+00	
0	1391.52	26	82	6.65	2784.13	2767	34	1.82E-03	****	1.36E+00	
0	1479.93	9	32	3.34	2961.08	2950	13	6.44E-04	****	1.30E+00	
0	1495.05	37	13	1.49	2991.35	2985	13	2.57E-03	51.9	1.29E+00	
0	1543.24	20	22	0.66	3087.80	3079	17	1.39E-03	****	1.26E+00	
0	1630.86	28	17	1.08	3263.18	3255	17	1.94E-03	77.3	1.21E+00	
0	1662.03	11	17	1.30	3325.58	3320	8	7.84E-04	****	1.19E+00	
0	1847.48	23	4	1.69	3696.81	3692	10	1.57E-03	55.5	1.12E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198683017            *
* Acquisition date : 15-DEC-2007 10:54:28 Detector SN#    :                 *
* Detector ID      : GAM16                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 04:00:01.83     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683017           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1764E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 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	7.186E+00	7.623E-01	1.902E-01	7.623E-01
TL-208	4.090E-01	5.486E-02	1.719E-02	5.486E-02
BI-212	8.223E-01	2.942E-01	1.386E-01	2.942E-01
PB-212	1.298E+00	9.762E-02	2.786E-02	9.762E-02
BI-214	9.247E-01	1.187E-01	3.176E-02	1.187E-01
PB-214	1.026E+00	1.078E-01	3.239E-02	1.078E-01
RA-223	5.811E-01	1.682E-01	6.756E-02	1.682E-01
AC-228	1.378E+00	2.138E-01	6.536E-02	2.138E-01
TH-234	1.604E+00	4.061E-01	2.123E-01	4.061E-01
U-235	2.715E-01	1.803E-01	9.572E-02	1.803E-01
NP-237	6.415E-01	1.592E-01	9.662E-02	1.592E-01
AM-243	2.726E-01	4.462E-02	2.342E-02	4.462E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	3.341E-03	2.276E-02	1.926E-02	2.276E-02	NOT IDENT.
RH-101	4.343E-03	2.159E-02	1.746E-02	2.159E-02	NOT IDENT.
SB-125	3.147E-02	5.406E-02	4.749E-02	5.406E-02	NOT IDENT.
CS-137	-9.688E-04	2.163E-02	1.791E-02	2.163E-02	NOT IDENT.
EU-155	2.903E-02	6.012E-02	5.272E-02	6.012E-02	NOT IDENT.
PO-209	-9.138E-01	4.248E+00	3.562E+00	4.248E+00	NOT IDENT.
BI-211	2.336E-01	6.903E-01	5.266E-01	6.903E-01	NOT IDENT.
PA-233	4.176E-02	3.500E-02	3.189E-02	3.500E-02	NOT IDENT.
PA-234M	2.888E-01	2.659E+00	2.038E+00	2.659E+00	NOT IDENT.
NP-236	8.544E-03	3.921E-02	2.933E-02	3.921E-02	NOT IDENT.
NP-239	-7.098E-02	1.300E-01	1.061E-01	1.300E-01	NOT IDENT.
AM-241	2.271E-02	7.819E-02	6.150E-02	7.819E-02	NOT IDENT.
CM-243	3.931E-05	5.442E-02	4.708E-02	5.442E-02	NOT IDENT.
AM-246	2.399E-02	7.898E-02	6.803E-02	7.898E-02	NOT IDENT.
CF-249	4.999E-03	2.358E-02	2.044E-02	2.358E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	508.3155
63.29	575.9321
74.66	652.7250
74.81	652.8595
74.81	652.8595
77.11	654.9108
77.11	654.9108
86.48	500.2978
87.30	500.8131
87.30	500.8131
92.58	504.0803
98.44	467.1149
103.76	487.5971
105.31	474.7149
129.07	487.6864
143.76	442.5461
198.00	392.4768
209.25	419.4006
228.18	353.0921
238.63	341.3165
242.00	342.0782
269.46	170.1256
270.25	183.6467
277.36	223.1243
295.22	255.4864
300.09	238.5728
312.17	195.5247
338.32	232.7515
351.93	199.7083
387.59	203.2652
409.46	178.3674
427.87	163.3386
463.00	162.8932
510.77	154.0282
583.19	128.2897
609.31	121.1316
661.66	114.7948
727.33	111.7912
763.13	89.6021
768.36	65.9312
785.37	64.6831
794.95	72.7734
806.17	82.3981
831.80	89.5234
860.56	84.5966
896.60	86.3660
911.20	80.0283
934.06	67.3586
964.77	75.3356
968.97	75.4133
1001.03	55.5469
1078.86	67.4964
1120.29	64.1276
1155.19	65.6321
1173.23	60.8228
1238.11	49.3301
1280.96	51.8392
1332.51	32.4720
1377.67	32.6062
1401.50	76.4238
1407.98	39.3215
1460.80	51.5137
1509.23	32.4792
1588.20	48.9259
1620.50	26.4902
1729.60	21.1905
1764.49	20.3401

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683017

Total Uranium Activity	1.2563E-01	ug/g
Total Uranium Counting Unc.	8.3425E-02	ug/g
Total Uranium Tpu	8.3425E-08	ug/g
Total Uranium Mda	4.4290E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:56:45.71

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683018.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:55:09
Sample ID        : G198683018           Sample quantity  : 1.34550E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:05.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.47*	96	458	0.97	93.44	90	9	6.65E-03	46.3	
2	0	63.33*	158	630	0.90	127.12	122	9	1.10E-02	33.5	
3	4	72.93*	12	307	1.30	146.30	144	15	8.37E-04	230.4	1.71E+00
4	4	74.96*	634	382	0.92	150.37	144	15	4.40E-02	6.4	
5	4	77.21*	904	378	0.92	154.86	144	15	6.28E-02	4.9	
6	0	84.14*	169	469	0.95	168.71	166	7	1.18E-02	24.0	
7	0	87.30*	308	413	1.00	175.02	173	6	2.14E-02	12.4	
8	0	90.03	178	432	1.08	180.48	178	6	1.23E-02	19.9	
9	5	92.79*	352	352	1.19	185.99	183	11	2.44E-02	12.0	5.16E+00
10	0	98.84*	97	410	1.34	198.09	194	8	6.75E-03	39.3	
11	0	105.65*	80	410	1.68	211.69	208	8	5.56E-03	47.3	
12	0	129.20	143	470	0.78	258.74	254	9	9.92E-03	28.7	
13	0	143.46*	11	359	0.94	287.23	285	7	7.83E-04	309.7	
14	0	153.70	5	433	1.26	307.71	305	8	3.19E-04	786.3	
15	0	163.44*	34	302	1.20	327.16	324	7	2.35E-03	93.3	
16	0	185.98*	193	341	1.04	372.21	368	8	1.34E-02	20.2	
17	0	204.23*	42	366	1.88	408.68	405	10	2.93E-03	89.6	
18	0	209.47	178	323	1.23	419.13	415	10	1.24E-02	20.4	
19	0	221.17	31	234	1.41	442.52	439	7	2.16E-03	83.9	
20	6	238.76*	1406	214	0.99	477.67	473	15	9.77E-02	3.3	2.77E+00
21	6	241.63	339	252	1.54	483.40	473	15	2.35E-02	11.4	
22	0	248.39	60	193	2.58	496.91	493	8	4.18E-03	42.1	
23	0	270.52	70	291	1.49	541.14	537	9	4.87E-03	45.4	
24	4	276.90	82	207	1.70	553.88	550	12	5.66E-03	33.0	2.15E+00
25	4	278.84	40	226	1.28	557.77	550	12	2.75E-03	68.1	
26	0	295.28*	316	262	1.14	590.62	586	10	2.19E-02	11.6	
27	0	300.27	89	234	0.91	600.60	596	9	6.20E-03	32.7	
28	0	328.10	102	180	1.23	656.21	652	9	7.06E-03	25.8	
29	0	338.33*	212	251	1.16	676.65	671	11	1.47E-02	16.9	
30	0	352.06*	574	154	1.11	704.08	699	9	3.99E-02	6.1	
31	0	397.44	40	67	1.48	794.78	793	5	2.77E-03	34.9	
32	0	399.77	27	73	1.10	799.44	798	6	1.87E-03	53.9	
33	0	406.02	16	137	1.47	811.93	806	8	1.10E-03	130.7	
34	0	409.12	52	154	0.94	818.11	814	10	3.59E-03	47.2	
35	0	455.36	24	104	0.61	910.53	907	8	1.69E-03	76.0	
36	0	463.40	123	116	1.20	926.59	922	12	8.51E-03	19.8	
37	0	481.64	19	124	0.52	963.06	958	9	1.33E-03	108.6	
38	0	510.96*	155	172	1.65	1021.65	1014	17	1.07E-02	25.4	

Sample ID : G198683018 Acquisition date : 15-DEC-2007 10:55:09

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	583.36*	443	137	1.19	1166.34	1161	11	3.07E-02	7.2	
40	0	609.49*	398	175	1.31	1218.57	1212	13	2.76E-02	9.0	
41	0	657.02	19	59	1.40	1313.57	1309	8	1.29E-03	76.0	
42	0	663.06*	60	148	0.77	1325.64	1318	16	4.20E-03	48.2	
43	0	705.55	26	84	3.29	1410.57	1405	10	1.79E-03	69.5	
44	0	727.29	113	83	1.26	1454.01	1449	12	7.84E-03	18.8	
45	0	763.70	35	47	1.97	1526.80	1524	8	2.46E-03	36.8	
46	0	768.11	37	79	1.05	1535.61	1532	8	2.57E-03	44.6	
47	1	785.97	38	64	1.70	1571.31	1563	36	2.62E-03	42.4	8.92E-01
48	1	795.37	56	61	1.71	1590.09	1563	36	3.86E-03	30.5	
49	0	832.22	16	49	1.25	1663.76	1657	9	1.13E-03	81.4	
50	3	835.92	50	51	2.10	1671.16	1667	36	3.45E-03	29.0	1.89E+00
51	3	839.64	42	77	2.10	1678.58	1667	36	2.89E-03	46.7	
52	3	843.49	26	80	2.10	1686.28	1667	36	1.77E-03	75.1	
53	0	860.52	78	65	1.16	1720.32	1714	12	5.39E-03	23.8	
54	0	911.43*	275	56	1.52	1822.10	1815	12	1.91E-02	8.5	
55	0	935.71	40	79	2.64	1870.62	1864	17	2.81E-03	53.2	
56	0	966.32	29	74	0.90	1931.81	1923	11	2.00E-03	60.9	
57	0	969.21*	159	94	1.55	1937.58	1933	14	1.11E-02	15.3	
58	0	1001.11*	15	40	2.53	2001.36	1996	9	1.04E-03	95.8	
59	0	1028.15	31	36	2.26	2055.40	2048	13	2.18E-03	43.2	
60	0	1121.32*	88	96	2.00	2241.68	2231	20	6.09E-03	31.1	
61	0	1238.35	45	26	1.84	2475.64	2471	12	3.10E-03	27.6	
62	0	1338.32	8	22	0.88	2675.50	2671	8	5.82E-04	102.6	
63	0	1377.64	36	23	1.54	2754.12	2750	10	2.47E-03	30.2	
64	0	1384.97	10	24	0.78	2768.78	2760	11	6.60E-04	105.8	
65	0	1460.86*	295	32	1.91	2920.51	2913	14	2.05E-02	7.3	
66	0	1577.80	10	35	4.77	3154.33	3140	17	7.21E-04	138.7	
67	0	1588.14	26	18	1.86	3175.00	3168	11	1.82E-03	37.6	
68	0	1593.90	14	31	0.96	3186.52	3180	14	9.97E-04	86.8	
69	0	1620.64	14	11	1.35	3239.99	3236	9	9.90E-04	49.7	
70	0	1709.22	4	12	0.81	3417.13	3411	8	2.78E-04	158.1	
71	0	1742.45	12	3	2.37	3483.57	3480	8	8.29E-04	40.2	
72	0	1764.44*	50	18	1.79	3527.54	3521	14	3.49E-03	25.2	
73	0	1807.49	11	11	1.03	3613.64	3606	15	7.83E-04	71.1	
74	0	1832.39	10	4	1.42	3663.42	3659	8	7.14E-04	45.6	
75	0	1878.77	9	9	0.55	3756.18	3751	10	6.29E-04	72.4	
76	0	1957.83	10	3	1.48	3914.28	3906	12	6.76E-04	48.2	
77	0	1974.39	5	14	4.34	3947.40	3936	14	3.47E-04	164.9	
78	0	2020.47	9	4	1.27	4039.56	4034	11	6.09E-04	60.5	

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]G198683018       *
* Acquisition date : 15-DEC-2007 10:55:09 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 04:00:05.65     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683018           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.3455E+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	4.331E+00	6.638E-01	3.186E-01	0.000E+00
CS-137	5.567E-02	5.280E-02	3.996E-02	0.000E+00
EU-155	7.928E-02	7.380E-02	9.063E-02	0.000E+00
TL-208	3.627E-01	5.701E-02	3.999E-02	0.000E+00
BI-211	4.761E-01	7.607E-01	8.444E-01	0.000E+00
BI-212	8.140E-01	3.049E-01	2.880E-01	0.000E+00
PB-212	1.024E+00	1.039E-01	5.453E-02	0.000E+00
BI-214	6.228E-01	1.179E-01	8.019E-02	0.000E+00
PB-214	6.634E-01	9.018E-02	6.583E-02	0.000E+00
RA-223	1.779E-01	1.590E-01	1.699E-01	0.000E+00
AC-228	1.113E+00	1.995E-01	1.341E-01	0.000E+00
PA-234M	2.029E+00	3.812E+00	4.582E+00	0.000E+00
TH-234	1.300E+00	3.195E-01	3.661E-01	0.000E+00
U-235	2.365E-02	1.435E-01	1.866E-01	0.000E+00
NP-236	5.174E-02	4.007E-02	4.437E-02	0.000E+00
NP-237	4.933E-01	1.242E-01	1.471E-01	0.000E+00
AM-243	1.830E-01	2.562E-02	3.019E-02	0.000E+00
CM-243	7.174E-02	6.678E-02	7.366E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-7.882E-03	2.498E-02	4.016E-02	0.000E+00	NOT IDENT.
RH-101	-1.192E-02	2.028E-02	3.179E-02	0.000E+00	NOT IDENT.
SB-125	1.310E-02	5.582E-02	9.800E-02	0.000E+00	NOT IDENT.
PO-209	-3.636E+00	5.118E+00	8.236E+00	0.000E+00	NOT IDENT.
PA-233	-4.805E-03	3.507E-02	6.186E-02	0.000E+00	NOT IDENT.
NP-239	8.005E-02	1.220E-01	2.130E-01	0.000E+00	NOT IDENT.
AM-241	1.720E-02	3.014E-02	5.143E-02	0.000E+00	NOT IDENT.
AM-246	-2.599E-02	8.906E-02	1.453E-01	0.000E+00	NOT IDENT.
CF-249	1.839E-02	2.544E-02	4.599E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:56:46.91

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683018.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:55:09
Sample ID        : G198683018           Sample quantity  : 1.34550E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:05.65  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	295	10.66*	8.924E-01	4.331E+00	4.331E+00	15.64
CS-137	661.66	60	85.10*	1.786E+00	5.547E-02	5.567E-02	96.78
EU-155	105.31	80	21.20*	6.790E+00	7.753E-02	7.928E-02	94.99
TL-208	277.36	82	6.31	3.937E+00	4.578E-01	4.578E-01	66.36
	510.77	155	22.60	2.281E+00	4.187E-01	4.187E-01	51.27
	583.19	443	84.50*	2.014E+00	3.627E-01	3.627E-01	16.04
	763.13	35	1.81	1.566E+00	1.742E+00	1.742E+00	73.99
	860.56	78	12.42	1.404E+00	6.206E-01	6.206E-01	48.09
BI-211	831.80	16	3.30*	1.448E+00	4.761E-01	4.761E-01	163.03
BI-212	727.33	113	11.80*	1.639E+00	8.140E-01	8.140E-01	38.22
	785.37	38	1.10	1.526E+00	3.132E+00	3.132E+00	85.10
	1620.50	14	1.49	8.222E-01	1.624E+00	1.624E+00	99.64
PB-212	74.81	634	10.40	7.088E+00	1.200E+00	1.200E+00	14.29
	77.11	904	17.50	7.087E+00	1.017E+00	1.017E+00	11.79
	87.30	308	7.81	7.032E+00	7.832E-01	7.832E-01	25.69
	238.63	1406	43.30*	4.422E+00	1.024E+00	1.024E+00	10.35
	300.09	89	3.28	3.682E+00	1.031E+00	1.031E+00	65.90
BI-214	609.31	398	46.10*	1.933E+00	6.228E-01	6.228E-01	19.32
	768.36	37	4.94	1.558E+00	6.697E-01	6.697E-01	89.56
	806.17	------	1.22	1.490E+00	------	Line Not Found	------
	934.06	40	3.03	1.302E+00	1.429E+00	1.429E+00	106.54
	1120.29	88	15.10	1.111E+00	7.286E-01	7.286E-01	62.47
	1155.19	------	1.63	1.083E+00	------	Line Not Found	------
	1238.11	45	5.79	1.022E+00	1.053E+00	1.053E+00	55.52
	1280.96	------	1.43	9.933E-01	------	Line Not Found	------
	1377.67	36	4.00	9.357E-01	1.323E+00	1.324E+00	60.70
	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	50	15.40	7.702E-01	5.910E-01	5.911E-01	50.80
PB-214	74.81	634	6.44	7.088E+00	1.938E+00	1.938E+00	14.29

Sample ID : G198683018 Acquisition date : 15-DEC-2007 10:55:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	904	10.80	7.087E+00	1.647E+00	1.648E+00	11.79
	87.30	308	4.84	7.032E+00	1.264E+00	1.264E+00	25.69
	242.00	339	7.43	4.383E+00	1.451E+00	1.451E+00	24.19
	295.22	316	19.30	3.734E+00	6.113E-01	6.113E-01	24.42
	351.93	574	37.60*	3.210E+00	6.634E-01	6.634E-01	13.87
RA-223	269.46	70	13.70*	4.012E+00	1.779E-01	1.779E-01	91.20
AC-228	129.07	143	2.42	6.355E+00	1.296E+00	1.296E+00	58.31
	209.25	178	3.89	4.862E+00	1.313E+00	1.313E+00	41.49
	270.25	70	3.46	4.012E+00	7.042E-01	7.042E-01	91.20
	338.32	212	11.27	3.324E+00	7.902E-01	7.902E-01	34.41
	409.46	52	1.92	2.804E+00	1.338E+00	1.338E+00	94.52
	463.00	123	4.40	2.499E+00	1.554E+00	1.554E+00	40.13
	794.95	56	4.25	1.509E+00	1.208E+00	1.208E+00	61.47
	911.20	275	25.80*	1.333E+00	1.113E+00	1.113E+00	18.29
	964.77	29	4.99	1.266E+00	6.360E-01	6.360E-01	121.91
	968.97	159	15.80	1.262E+00	1.115E+00	1.115E+00	31.36
	1588.20	26	3.22	8.353E-01	1.360E+00	1.360E+00	75.31
PA-234M	1001.03	15	0.84*	1.227E+00	2.029E+00	2.029E+00	191.74
TH-234	63.29	158	4.80	7.001E+00	6.548E-01	6.548E-01	67.32
	92.58	352	5.41*	6.975E+00	1.300E+00	1.300E+00	25.07
U-235	143.76	11	10.96*	6.071E+00	2.365E-02	2.365E-02	619.42
NP-236	98.44	97	38.00*	6.895E+00	5.174E-02	5.174E-02	79.03
NP-237	86.48	308	12.40*	7.032E+00	4.933E-01	4.933E-01	25.69
AM-243	74.66	634	68.20*	7.088E+00	1.830E-01	1.830E-01	14.29
CM-243	103.76	80	23.00*	6.790E+00	7.146E-02	7.174E-02	94.99

Flag: "*" = Keyline

Sample ID : G198683018 Acquisition date : 15-DEC-2007 10:55:09

Total number of lines in spectrum 78
Number of unidentified lines 35
Number of lines tentatively identified by NID 43 55.13%

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	4.331E+00	4.331E+00	0.677E+00	15.64	
CS-137	9.47E+08S	1.00	5.547E-02	5.567E-02	5.388E-02	96.78	
EU-155	1.57E+08S	1.02	7.753E-02	7.928E-02	7.531E-02	94.99	
TL-208	4.43E+17S	1.00	3.627E-01	3.627E-01	0.582E-01	16.04	
BI-211	2.22E+16S	1.00	4.761E-01	4.761E-01	7.762E-01	163.03	
BI-212	4.43E+17S	1.00	8.140E-01	8.140E-01	3.111E-01	38.22	
PB-212	4.43E+17S	1.00	1.024E+00	1.024E+00	0.106E+00	10.35	
BI-214	5.05E+10S	1.00	6.228E-01	6.228E-01	1.203E-01	19.32	
PB-214	5.05E+10S	1.00	6.634E-01	6.634E-01	0.920E-01	13.87	
RA-223	1.04E+12S	1.00	1.779E-01	1.779E-01	1.622E-01	91.20	
AC-228	4.43E+17S	1.00	1.113E+00	1.113E+00	0.204E+00	18.29	
PA-234M	1.41E+17S	1.00	2.029E+00	2.029E+00	3.890E+00	191.74	
TH-234	1.41E+17S	1.00	1.300E+00	1.300E+00	0.326E+00	25.07	
U-235	2.22E+16S	1.00	2.365E-02	2.365E-02	14.65E-02	619.42	
NP-236	4.89E+12S	1.00	5.174E-02	5.174E-02	4.089E-02	79.03	
NP-237	6.75E+13S	1.00	4.933E-01	4.933E-01	1.267E-01	25.69	
AM-243	2.33E+11S	1.00	1.830E-01	1.830E-01	0.261E-01	14.29	
CM-243	8.99E+08S	1.00	7.146E-02	7.174E-02	6.815E-02	94.99	
			---	---			
		Total Activity :	1.387E+01	1.387E+01			

Grand Total Activity : 1.387E+01 1.387E+01

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

Sample ID : G198683018 Acquisition date : 15-DEC-2007 10:55:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.47	96	458	0.97	93.44	90	9	6.65E-03	92.6	6.47E+00	
4	72.93	12	307	1.30	146.30	144	15	8.37E-04	****	7.08E+00	
0	84.14	169	469	0.95	168.71	166	7	1.18E-02	48.1	7.06E+00	
0	90.03	178	432	1.08	180.48	178	6	1.23E-02	39.8	7.01E+00	
0	153.70	5	433	1.26	307.71	305	8	3.19E-04	****	5.87E+00	
0	163.44	34	302	1.20	327.16	324	7	2.35E-03	****	5.68E+00	
0	185.98	193	341	1.04	372.21	368	8	1.34E-02	40.5	5.26E+00	
0	204.23	42	366	1.88	408.68	405	10	2.93E-03	****	4.95E+00	
0	221.17	31	234	1.41	442.52	439	7	2.16E-03	****	4.68E+00	
0	248.39	60	193	2.58	496.91	493	8	4.18E-03	84.2	4.29E+00	
4	278.84	40	226	1.28	557.77	550	12	2.75E-03	****	3.92E+00	
0	328.10	102	180	1.23	656.21	652	9	7.06E-03	51.6	3.41E+00	
0	397.44	40	67	1.48	794.78	793	5	2.77E-03	69.8	2.88E+00	
0	399.77	27	73	1.10	799.44	798	6	1.87E-03	****	2.86E+00	
0	406.02	16	137	1.47	811.93	806	8	1.10E-03	****	2.82E+00	
0	455.36	24	104	0.61	910.53	907	8	1.69E-03	****	2.54E+00	
0	481.64	19	124	0.52	963.06	958	9	1.33E-03	****	2.41E+00	
0	657.02	19	59	1.40	1313.57	1309	8	1.29E-03	****	1.80E+00	
0	705.55	26	84	3.29	1410.57	1405	10	1.79E-03	****	1.69E+00	
3	835.92	50	51	2.10	1671.16	1667	36	3.45E-03	58.0	1.44E+00	
3	839.64	42	77	2.10	1678.58	1667	36	2.89E-03	93.4	1.44E+00	
3	843.49	26	80	2.10	1686.28	1667	36	1.77E-03	****	1.43E+00	
0	1028.15	31	36	2.26	2055.40	2048	13	2.18E-03	86.4	1.20E+00	
0	1338.32	8	22	0.88	2675.50	2671	8	5.82E-04	****	9.58E-01	
0	1384.97	10	24	0.78	2768.78	2760	11	6.60E-04	****	9.32E-01	
0	1577.80	10	35	4.77	3154.33	3140	17	7.21E-04	****	8.40E-01	
0	1593.90	14	31	0.96	3186.52	3180	14	9.97E-04	****	8.33E-01	
0	1709.22	4	12	0.81	3417.13	3411	8	2.78E-04	****	7.89E-01	
0	1742.45	12	3	2.37	3483.57	3480	8	8.29E-04	80.4	7.78E-01	
0	1807.49	11	11	1.03	3613.64	3606	15	7.83E-04	****	7.56E-01	
0	1832.39	10	4	1.42	3663.42	3659	8	7.14E-04	91.2	7.48E-01	
0	1878.77	9	9	0.55	3756.18	3751	10	6.29E-04	****	7.35E-01	
0	1957.83	10	3	1.48	3914.28	3906	12	6.76E-04	96.4	7.12E-01	
0	1974.39	5	14	4.34	3947.40	3936	14	3.47E-04	****	7.08E-01	
0	2020.47	9	4	1.27	4039.56	4034	11	6.09E-04	****	6.96E-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]G198683018            *
* Acquisition date : 15-DEC-2007 10:55:09 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 04:00:05.65     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683018           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.3455E+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	4.331E+00	6.638E-01	1.594E-01	6.638E-01
CS-137	5.567E-02	5.280E-02	1.999E-02	5.280E-02
EU-155	7.928E-02	7.380E-02	4.534E-02	7.380E-02
TL-208	3.627E-01	5.701E-02	2.001E-02	5.701E-02
BI-211	4.761E-01	7.607E-01	4.224E-01	7.607E-01
BI-212	8.140E-01	3.049E-01	1.441E-01	3.049E-01
PB-212	1.024E+00	1.039E-01	2.728E-02	1.039E-01
BI-214	6.228E-01	1.179E-01	4.012E-02	1.179E-01
PB-214	6.634E-01	9.018E-02	3.294E-02	9.018E-02
RA-223	1.779E-01	1.590E-01	8.500E-02	1.590E-01
AC-228	1.113E+00	1.995E-01	6.710E-02	1.995E-01
PA-234M	2.029E+00	3.812E+00	2.293E+00	3.812E+00
TH-234	1.300E+00	3.195E-01	1.831E-01	3.195E-01
U-235	2.365E-02	1.435E-01	9.334E-02	1.435E-01
NP-236	5.174E-02	4.007E-02	2.220E-02	4.007E-02
NP-237	4.933E-01	1.242E-01	7.359E-02	1.242E-01
AM-243	1.830E-01	2.562E-02	1.510E-02	2.562E-02
CM-243	7.174E-02	6.678E-02	3.685E-02	6.678E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-7.882E-03	2.498E-02	2.009E-02	2.498E-02	NOT IDENT.
RH-101	-1.192E-02	2.028E-02	1.590E-02	2.028E-02	NOT IDENT.
SB-125	1.310E-02	5.582E-02	4.903E-02	5.582E-02	NOT IDENT.
PO-209	-3.636E+00	5.118E+00	4.120E+00	5.118E+00	NOT IDENT.
PA-233	-4.805E-03	3.507E-02	3.095E-02	3.507E-02	NOT IDENT.
NP-239	8.005E-02	1.220E-01	1.066E-01	1.220E-01	NOT IDENT.
AM-241	1.720E-02	3.014E-02	2.573E-02	3.014E-02	NOT IDENT.
AM-246	-2.599E-02	8.906E-02	7.271E-02	8.906E-02	NOT IDENT.
CF-249	1.839E-02	2.544E-02	2.301E-02	2.544E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	315.1558
63.29	381.7607
74.66	453.3251
74.81	453.4743
74.81	453.4743
77.11	455.7544
77.11	455.7544
86.48	352.6301
87.30	418.9197
87.30	418.9197
92.58	409.4141
98.44	290.8655
103.76	285.1906
105.31	351.0886
129.07	330.5988
143.76	334.7713
198.00	286.4362
209.25	223.2041
228.18	214.9188
238.63	241.7937
242.00	217.3194
269.46	195.2947
270.25	217.9160
277.36	205.3693
295.22	193.6864
300.09	194.4724
312.17	166.6496
338.32	168.2465
351.93	141.8789
387.59	154.4018
409.46	126.1050
427.87	121.5744
463.00	102.3556
510.77	112.3356
583.19	106.0577
609.31	117.0865
661.66	84.5227
727.33	71.5552
763.13	65.8682
768.36	102.8473
785.37	78.8138
794.95	79.1085
806.17	87.8634
831.80	37.7520
860.56	72.4932
896.60	80.1955
911.20	49.5283
934.06	47.3079
964.77	163.1711
968.97	19.8057
1001.03	52.0343
1078.86	56.3857
1120.29	50.8566
1155.19	46.1291
1173.23	47.4192
1238.11	39.3343
1280.96	35.8053
1332.51	36.6504
1377.67	20.6507
1401.50	27.9614
1407.98	27.0719
1460.80	21.7431
1509.23	24.8553
1588.20	35.0273
1620.50	20.5762
1729.60	18.0425
1764.49	17.1605

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683018

Total Uranium Activity	1.0941E-02	ug/g
Total Uranium Counting Unc.	6.6417E-02	ug/g
Total Uranium Tpu	6.6417E-08	ug/g
Total Uranium Mda	4.3187E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:57:26.37

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683019.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:55:46
Sample ID        : G198683019           Sample quantity  : 1.42550E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.23  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	47.18*	40	338	1.65	94.00	90	8	2.77E-03	90.3	
2	0	64.02*	87	723	1.11	127.65	122	12	6.03E-03	65.7	
3	3	74.96*	383	689	1.48	149.52	145	33	2.66E-02	13.8	3.79E+00
4	3	77.27*	548	532	1.18	154.12	145	33	3.81E-02	8.5	
5	3	84.47*	50	451	1.01	168.51	145	33	3.47E-03	70.8	
6	3	87.43	234	598	1.36	174.42	145	33	1.63E-02	18.9	
7	2	89.97	153	347	1.21	179.50	177	13	1.07E-02	19.6	2.12E+00
8	2	92.98*	246	612	1.55	185.52	177	13	1.71E-02	20.9	
9	0	105.75	54	347	0.67	211.03	208	7	3.72E-03	59.5	
10	0	129.30	68	386	1.27	258.09	254	8	4.71E-03	51.8	
11	0	153.26	15	516	0.43	305.98	304	9	1.02E-03	278.6	
12	0	185.92*	321	592	1.30	371.24	363	14	2.23E-02	17.8	
13	0	209.34	130	304	0.82	418.04	414	8	9.05E-03	24.8	
14	3	238.70*	1248	328	1.29	476.72	472	24	8.67E-02	4.0	1.13E+00
15	3	241.78	363	309	1.72	482.88	472	24	2.52E-02	12.1	
16	0	269.76	126	422	1.19	538.80	533	13	8.78E-03	34.6	
17	0	276.78	111	265	3.15	552.83	548	11	7.71E-03	29.9	
18	0	295.34*	559	234	1.43	589.92	585	11	3.88E-02	7.0	
19	0	299.91	107	213	1.94	599.04	596	9	7.44E-03	26.2	
20	0	328.08	56	200	1.46	655.35	652	8	3.89E-03	46.0	
21	0	338.23	208	312	1.62	675.63	671	11	1.45E-02	17.8	
22	0	351.84*	879	238	1.39	702.84	697	12	6.10E-02	5.1	
23	0	463.42	73	147	1.37	925.86	921	10	5.05E-03	33.7	
24	0	511.06*	164	165	2.02	1021.07	1013	15	1.14E-02	23.6	
25	0	525.36	12	94	0.85	1049.66	1042	9	8.64E-04	143.5	
26	5	568.51*	159	186	2.64	1135.92	1127	26	1.10E-02	21.5	2.41E+00
27	5	573.10	38	141	2.19	1145.09	1127	26	2.62E-03	68.4	
28	0	583.60*	424	153	1.51	1166.08	1160	13	2.94E-02	8.2	
29	0	596.37	55	45	1.95	1191.61	1188	8	3.82E-03	25.5	
30	0	609.49*	621	165	1.60	1217.84	1210	15	4.31E-02	6.3	
31	0	659.63	12	68	1.28	1318.06	1312	8	8.12E-04	125.7	
32	0	661.71	58	90	1.81	1322.23	1319	9	4.01E-03	32.2	
33	0	728.39	95	120	1.41	1455.53	1448	12	6.60E-03	25.2	
34	0	786.42	27	57	1.81	1571.54	1568	8	1.88E-03	52.2	
35	0	796.40	53	95	2.10	1591.49	1581	14	3.69E-03	41.1	
36	5	830.17	14	18	1.29	1659.01	1657	10	9.45E-04	49.8	1.26E+00
37	5	832.69	18	21	1.16	1664.04	1657	10	1.23E-03	44.4	
38	0	861.15	85	67	1.62	1720.94	1714	14	5.92E-03	23.0	

Sample ID : G198683019 Acquisition date : 15-DEC-2007 10:55:46

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	911.81*	279	73	1.79	1822.23	1816	14	1.94E-02	9.3	
40	0	940.00	105	92	10.47	1878.61	1864	29	7.26E-03	28.4	
41	1	965.19	73	59	2.00	1928.96	1924	21	5.10E-03	21.8	1.06E+00
42	1	969.67	222	50	2.01	1937.93	1924	21	1.54E-02	9.6	
43	0	1048.36	58	127	13.84	2095.28	2078	32	4.03E-03	59.9	
44	0	1120.92	162	63	1.51	2240.38	2231	18	1.13E-02	13.9	
45	0	1134.46	35	26	1.77	2267.45	2263	12	2.40E-03	34.4	
46	0	1155.35	46	66	2.99	2309.23	2300	19	3.22E-03	44.5	
47	0	1239.21	45	59	2.22	2476.93	2469	15	3.10E-03	40.7	
48	0	1378.31	33	27	1.55	2755.14	2749	12	2.31E-03	35.7	
49	0	1408.39	25	25	1.26	2815.30	2810	11	1.70E-03	44.2	
50	0	1446.36	21	7	2.83	2891.25	2886	10	1.43E-03	33.1	
51	2	1461.75*	570	28	2.18	2922.03	2914	21	3.96E-02	4.7	1.26E+00
52	2	1466.77	21	5	2.43	2932.06	2914	21	1.44E-03	26.5	
53	1	1522.73	18	7	2.02	3044.00	3040	13	1.23E-03	32.3	3.40E+00
54	1	1525.06	19	6	2.23	3048.67	3040	13	1.29E-03	33.7	
55	0	1544.35	26	27	5.07	3087.26	3077	18	1.82E-03	50.4	
56	0	1597.20	66	11	10.46	3192.97	3181	25	4.56E-03	18.9	
57	0	1614.44	13	10	0.72	3227.46	3218	13	9.03E-04	56.9	
58	0	1631.43	30	19	1.71	3261.45	3252	15	2.09E-03	36.3	
59	0	1731.37	27	29	1.60	3461.39	3453	13	1.87E-03	45.6	
60	0	1765.45	126	25	2.41	3529.57	3521	17	8.74E-03	12.8	
61	0	1787.30	11	7	1.32	3573.29	3570	9	7.41E-04	54.0	
62	0	1817.70	11	7	1.00	3634.10	3628	10	7.87E-04	53.5	
63	0	1862.34	15	6	0.63	3723.43	3719	11	1.05E-03	39.6	
64	0	1953.87	6	6	0.70	3906.55	3902	8	4.05E-04	84.0	
65	0	1987.36	16	7	0.67	3973.58	3966	13	1.08E-03	42.4	
66	0	2001.74	13	11	0.57	4002.35	3993	14	9.29E-04	58.3	

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]G198683019       *
* Acquisition date : 15-DEC-2007 10:55:46 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 04:00:02.23     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683019           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.4255E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	5.920E+00	6.583E-01	2.746E-01	0.000E+00
CS-137	3.810E-02	2.424E-02	3.668E-02	0.000E+00
EU-155	4.922E-02	5.753E-02	9.395E-02	0.000E+00
TL-208	2.529E-01	4.443E-02	3.161E-02	0.000E+00
BI-211	3.653E-01	3.198E-01	9.156E-01	0.000E+00
BI-212	4.889E-01	2.455E-01	2.475E-01	0.000E+00
PB-212	7.385E-01	7.381E-02	5.235E-02	0.000E+00
BI-214	7.045E-01	1.018E-01	6.001E-02	0.000E+00
PB-214	7.944E-01	9.171E-02	6.053E-02	0.000E+00
RA-223	2.578E-01	1.754E-01	1.605E-01	0.000E+00
AC-228	7.984E-01	1.667E-01	1.232E-01	0.000E+00
TH-234	9.240E-01	3.834E-01	4.042E-01	0.000E+00
NP-237	4.028E-01	1.513E-01	2.030E-01	0.000E+00
AM-243	1.454E-01	4.046E-02	4.452E-02	0.000E+00
CM-243	4.454E-02	5.206E-02	8.840E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	2.555E-02	2.165E-02	4.037E-02	0.000E+00	NOT IDENT.
RH-101	-5.577E-03	1.864E-02	3.020E-02	0.000E+00	NOT IDENT.
SB-125	1.835E-02	4.663E-02	8.374E-02	0.000E+00	NOT IDENT.
PO-209	-5.561E-01	3.587E+00	5.914E+00	0.000E+00	NOT IDENT.
PA-233	-7.822E-03	3.395E-02	5.689E-02	0.000E+00	NOT IDENT.
PA-234M	-2.919E-01	2.426E+00	3.919E+00	0.000E+00	NOT IDENT.
U-235	-5.885E-02	1.083E-01	1.777E-01	0.000E+00	NOT IDENT.
NP-236	1.052E-02	3.309E-02	5.561E-02	0.000E+00	NOT IDENT.
NP-239	-3.565E-02	1.144E-01	1.950E-01	0.000E+00	NOT IDENT.
AM-241	8.370E-03	7.731E-02	1.258E-01	0.000E+00	NOT IDENT.
AM-246	3.013E-02	6.522E-02	1.168E-01	0.000E+00	NOT IDENT.
CF-249	8.548E-03	2.021E-02	3.650E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:57:27.53

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683019.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:55:46
Sample ID        : G198683019           Sample quantity  : 1.42550E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.23  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	570	10.66*	1.188E+00	5.920E+00	5.920E+00	11.35
CS-137	661.66	58	85.10*	2.352E+00	3.796E-02	3.810E-02	64.93
EU-155	105.31	54	21.20*	6.908E+00	4.813E-02	4.922E-02	119.26
TL-208	277.36	111	6.31	4.626E+00	5.007E-01	5.007E-01	60.14
	510.77	164	22.60	2.904E+00	3.285E-01	3.285E-01	47.69
	583.19	424	84.50*	2.609E+00	2.529E-01	2.529E-01	17.92
	763.13	------	1.81	2.083E+00	------	Line Not Found	------
	860.56	85	12.42	1.874E+00	4.824E-01	4.824E-01	47.11
BI-211	831.80	18	3.30*	1.930E+00	3.653E-01	3.653E-01	89.33
BI-212	727.33	95	11.80*	2.168E+00	4.889E-01	4.889E-01	51.25
	785.37	27	1.10	2.029E+00	1.597E+00	1.597E+00	104.90
	1620.50	------	1.49	1.102E+00	------	Line Not Found	------
PB-212	74.81	383	10.40	5.079E+00	9.537E-01	9.537E-01	28.39
	77.11	548	17.50	5.323E+00	7.750E-01	7.750E-01	18.26
	87.30	234	7.81	6.170E+00	6.395E-01	6.395E-01	38.32
	238.63	1248	43.30*	5.139E+00	7.385E-01	7.385E-01	10.20
	300.09	107	3.28	4.363E+00	9.856E-01	9.856E-01	52.71
BI-214	609.31	621	46.10*	2.518E+00	7.045E-01	7.045E-01	14.75
	768.36	------	4.94	2.070E+00	------	Line Not Found	------
	806.17	------	1.22	1.986E+00	------	Line Not Found	------
	934.06	------	3.03	1.744E+00	------	Line Not Found	------
	1120.29	162	15.10	1.484E+00	9.523E-01	9.524E-01	28.75
	1155.19	46	1.63	1.445E+00	2.596E+00	2.596E+00	89.33
	1238.11	45	5.79	1.360E+00	7.460E-01	7.460E-01	81.54
	1280.96	------	1.43	1.322E+00	------	Line Not Found	------
	1377.67	33	4.00	1.245E+00	8.789E-01	8.790E-01	71.73
	1401.50	------	1.27	1.228E+00	------	Line Not Found	------
	1407.98	25	2.15	1.223E+00	1.226E+00	1.227E+00	88.54
	1509.23	------	2.11	1.160E+00	------	Line Not Found	------
	1729.60	27	2.92	1.057E+00	1.149E+00	1.149E+00	91.48
	1764.49	126	15.40	1.045E+00	1.030E+00	1.030E+00	26.25
PB-214	74.81	383	6.44	5.079E+00	1.540E+00	1.540E+00	28.39

Sample ID : G198683019 Acquisition date : 15-DEC-2007 10:55:46

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	548	10.80	5.323E+00	1.256E+00	1.256E+00	18.26
	87.30	234	4.84	6.170E+00	1.032E+00	1.032E+00	38.32
	242.00	363	7.43	5.093E+00	1.262E+00	1.262E+00	25.03
	295.22	559	19.30	4.413E+00	8.649E-01	8.650E-01	15.43
	351.93	879	37.60*	3.874E+00	7.944E-01	7.944E-01	11.78
RA-223	269.46	126	13.70*	4.713E+00	2.578E-01	2.578E-01	69.44
AC-228	129.07	68	2.42	6.983E+00	5.283E-01	5.283E-01	103.80
	209.25	130	3.89	5.611E+00	7.863E-01	7.863E-01	49.91
	270.25	126	3.46	4.713E+00	1.021E+00	1.021E+00	69.44
	338.32	208	11.27	3.990E+00	6.099E-01	6.099E-01	36.11
	409.46	------	1.92	3.452E+00	------	Line Not Found	------
	463.00	73	4.40	3.137E+00	6.941E-01	6.941E-01	67.70
	794.95	53	4.25	2.007E+00	8.211E-01	8.211E-01	82.81
	911.20	279	25.80*	1.782E+00	7.984E-01	7.984E-01	21.31
	964.77	73	4.99	1.694E+00	1.144E+00	1.144E+00	44.64
	968.97	222	15.80	1.687E+00	1.099E+00	1.099E+00	21.57
	1588.20	------	3.22	1.118E+00	------	Line Not Found	------
TH-234	63.29	87	4.80	3.660E+00	6.505E-01	6.505E-01	131.52
	92.58	246	5.41*	6.487E+00	9.240E-01	9.240E-01	42.35
NP-237	86.48	234	12.40*	6.170E+00	4.028E-01	4.028E-01	38.32
AM-243	74.66	383	68.20*	5.079E+00	1.454E-01	1.454E-01	28.39
CM-243	103.76	54	23.00*	6.908E+00	4.437E-02	4.454E-02	119.26

Flag: "*" = Keyline

Sample ID : G198683019 Acquisition date : 15-DEC-2007 10:55:46

Total number of lines in spectrum 66
Number of unidentified lines 29
Number of lines tentatively identified by NID 37 56.06%

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	5.920E+00	5.920E+00	0.672E+00	11.35	
CS-137	9.47E+08S	1.00	3.796E-02	3.810E-02	2.474E-02	64.93	
EU-155	1.57E+08S	1.02	4.813E-02	4.922E-02	5.870E-02	119.26	
TL-208	4.43E+17S	1.00	2.529E-01	2.529E-01	0.453E-01	17.92	
BI-211	2.22E+16S	1.00	3.653E-01	3.653E-01	3.263E-01	89.33	
BI-212	4.43E+17S	1.00	4.889E-01	4.889E-01	2.506E-01	51.25	
PB-212	4.43E+17S	1.00	7.385E-01	7.385E-01	0.753E-01	10.20	
BI-214	5.05E+10S	1.00	7.045E-01	7.045E-01	1.039E-01	14.75	
PB-214	5.05E+10S	1.00	7.944E-01	7.944E-01	0.936E-01	11.78	
RA-223	1.04E+12S	1.00	2.578E-01	2.578E-01	1.790E-01	69.44	
AC-228	4.43E+17S	1.00	7.984E-01	7.984E-01	1.701E-01	21.31	
TH-234	1.41E+17S	1.00	9.240E-01	9.240E-01	3.913E-01	42.35	
NP-237	6.75E+13S	1.00	4.028E-01	4.028E-01	1.544E-01	38.32	
AM-243	2.33E+11S	1.00	1.454E-01	1.454E-01	0.413E-01	28.39	
CM-243	8.99E+08S	1.00	4.437E-02	4.454E-02	5.312E-02	119.26	
			---	---			
	Total Activity :		1.192E+01	1.193E+01			

Grand Total Activity : 1.192E+01 1.193E+01

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

Sample ID : G198683019 Acquisition date : 15-DEC-2007 10:55:46

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	47.18	40	338	1.65	94.00	90	8	2.77E-03	****	1.17E+00	
3	84.47	50	451	1.01	168.51	145	33	3.47E-03	****	5.96E+00	
2	89.97	153	347	1.21	179.50	177	13	1.07E-02	39.3	6.33E+00	
0	153.26	15	516	0.43	305.98	304	9	1.02E-03	****	6.65E+00	
0	185.92	321	592	1.30	371.24	363	14	2.23E-02	35.5	6.04E+00	
0	328.08	56	200	1.46	655.35	652	8	3.89E-03	92.0	4.08E+00	
0	525.36	12	94	0.85	1049.66	1042	9	8.64E-04	****	2.84E+00	
5	568.51	159	186	2.64	1135.92	1127	26	1.10E-02	43.0	2.67E+00	
5	573.10	38	141	2.19	1145.09	1127	26	2.62E-03	****	2.65E+00	
0	596.37	55	45	1.95	1191.61	1188	8	3.82E-03	50.9	2.56E+00	
0	659.63	12	68	1.28	1318.06	1312	8	8.12E-04	****	2.36E+00	
5	830.17	14	18	1.29	1659.01	1657	10	9.45E-04	99.6	1.94E+00	
0	940.00	105	92	10.47	1878.61	1864	29	7.26E-03	56.8	1.73E+00	
0	1048.36	58	127	13.84	2095.28	2078	32	4.03E-03	****	1.57E+00	
0	1134.46	35	26	1.77	2267.45	2263	12	2.40E-03	68.9	1.47E+00	
0	1446.36	21	7	2.83	2891.25	2886	10	1.43E-03	66.2	1.20E+00	
2	1466.77	21	5	2.43	2932.06	2914	21	1.44E-03	53.0	1.19E+00	
1	1522.73	18	7	2.02	3044.00	3040	13	1.23E-03	64.6	1.15E+00	
1	1525.06	19	6	2.23	3048.67	3040	13	1.29E-03	67.4	1.15E+00	
0	1544.35	26	27	5.07	3087.26	3077	18	1.82E-03	****	1.14E+00	
0	1597.20	66	11	10.46	3192.97	3181	25	4.56E-03	37.9	1.11E+00	
0	1614.44	13	10	0.72	3227.46	3218	13	9.03E-04	****	1.11E+00	
0	1631.43	30	19	1.71	3261.45	3252	15	2.09E-03	72.7	1.10E+00	
0	1787.30	11	7	1.32	3573.29	3570	9	7.41E-04	****	1.04E+00	
0	1817.70	11	7	1.00	3634.10	3628	10	7.87E-04	****	1.03E+00	
0	1862.34	15	6	0.63	3723.43	3719	11	1.05E-03	79.1	1.01E+00	
0	1953.87	6	6	0.70	3906.55	3902	8	4.05E-04	****	9.93E-01	
0	1987.36	16	7	0.67	3973.58	3966	13	1.08E-03	84.7	9.86E-01	
0	2001.74	13	11	0.57	4002.35	3993	14	9.29E-04	****	9.83E-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]G198683019            *
* Acquisition date : 15-DEC-2007 10:55:46 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 04:00:02.23     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683019           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.4255E+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	5.920E+00	6.583E-01	1.374E-01	6.583E-01
CS-137	3.810E-02	2.424E-02	1.835E-02	2.424E-02
EU-155	4.922E-02	5.753E-02	4.700E-02	5.753E-02
TL-208	2.529E-01	4.443E-02	1.582E-02	4.443E-02
BI-211	3.653E-01	3.198E-01	4.581E-01	3.198E-01
BI-212	4.889E-01	2.455E-01	1.238E-01	2.455E-01
PB-212	7.385E-01	7.381E-02	2.619E-02	7.381E-02
BI-214	7.045E-01	1.018E-01	3.002E-02	1.018E-01
PB-214	7.944E-01	9.171E-02	3.029E-02	9.171E-02
RA-223	2.578E-01	1.754E-01	8.028E-02	1.754E-01
AC-228	7.984E-01	1.667E-01	6.161E-02	1.667E-01
TH-234	9.240E-01	3.834E-01	2.022E-01	3.834E-01
NP-237	4.028E-01	1.513E-01	1.016E-01	1.513E-01
AM-243	1.454E-01	4.046E-02	2.227E-02	4.046E-02
CM-243	4.454E-02	5.206E-02	4.422E-02	5.206E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.555E-02	2.165E-02	2.020E-02	2.165E-02	NOT IDENT.
RH-101	-5.577E-03	1.864E-02	1.511E-02	1.864E-02	NOT IDENT.
SB-125	1.835E-02	4.663E-02	4.189E-02	4.663E-02	NOT IDENT.
PO-209	-5.561E-01	3.587E+00	2.959E+00	3.587E+00	NOT IDENT.
PA-233	-7.822E-03	3.395E-02	2.846E-02	3.395E-02	NOT IDENT.
PA-234M	-2.919E-01	2.426E+00	1.961E+00	2.426E+00	NOT IDENT.
U-235	-5.885E-02	1.083E-01	8.891E-02	1.083E-01	NOT IDENT.
NP-236	1.052E-02	3.309E-02	2.782E-02	3.309E-02	NOT IDENT.
NP-239	-3.565E-02	1.144E-01	9.754E-02	1.144E-01	NOT IDENT.
AM-241	8.370E-03	7.731E-02	6.292E-02	7.731E-02	NOT IDENT.
AM-246	3.013E-02	6.522E-02	5.844E-02	6.522E-02	NOT IDENT.
CF-249	8.548E-03	2.021E-02	1.826E-02	2.021E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	412.7443
63.29	442.2621
74.66	547.1432
74.81	547.2385
74.81	547.2385
77.11	548.6852
77.11	548.6852
86.48	554.3660
87.30	821.5706
87.30	821.5706
92.58	470.2957
98.44	439.4959
103.76	456.8628
105.31	426.9944
129.07	402.3242
143.76	437.2900
198.00	363.5001
209.25	359.7794
228.18	317.0911
238.63	331.8607
242.00	332.4969
269.46	264.2096
270.25	264.3206
277.36	246.3552
295.22	210.0600
300.09	238.8768
312.17	223.5978
338.32	217.1148
351.93	193.0676
387.59	172.1213
409.46	170.8806
427.87	146.8732
463.00	143.1569
510.77	116.6929
583.19	123.4741
609.31	123.4884
661.66	136.5590
727.33	103.0371
763.13	110.2700
768.36	98.9614
785.37	76.3809
794.95	86.0079
806.17	83.0985
831.80	87.8673
860.56	63.9653
896.60	68.8172
911.20	83.0795
934.06	61.4618
964.77	87.3711
968.97	67.7762
1001.03	62.3831
1078.86	55.0220
1120.29	41.3789
1155.19	56.8164
1173.23	56.0663
1238.11	66.3805
1280.96	42.6644
1332.51	33.2723
1377.67	39.4531
1401.50	28.2252
1407.98	45.6051
1460.80	32.0065
1509.23	38.3077
1588.20	34.9972
1620.50	17.5851
1729.60	25.0225
1764.49	26.1963

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683019

Total Uranium Activity	-2.7231E-02	ug/g
Total Uranium Counting Unc.	5.0100E-02	ug/g
Total Uranium Tpu	5.0100E-08	ug/g
Total Uranium Mda	4.1140E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:58:52.85

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683020.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:56:42
Sample ID        : G198683020           Sample quantity  : 1.15170E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:01.74  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	58.29	91	523	1.53	116.52	112	9	6.33E-03	46.4	
2	3	63.39*	156	692	1.48	126.71	121	12	1.09E-02	33.2	1.37E+00
3	2	74.97*	661	582	1.12	149.84	143	17	4.59E-02	7.4	7.94E-01
4	2	77.23*	1072	552	1.13	154.35	143	17	7.44E-02	5.0	
5	3	84.22*	69	714	1.26	168.31	163	29	4.78E-03	68.0	3.85E+00
6	3	87.34*	394	671	1.31	174.55	163	29	2.74E-02	12.4	
7	3	90.13	251	548	1.19	180.12	163	29	1.74E-02	16.9	
8	3	92.78*	345	507	1.24	185.42	163	29	2.40E-02	14.3	
9	0	98.89*	111	484	2.23	197.62	194	9	7.70E-03	38.1	
10	0	105.20	123	438	1.94	210.23	206	8	8.55E-03	30.7	
11	0	124.77	67	365	1.82	249.33	246	7	4.67E-03	48.4	
12	0	129.27	166	673	1.15	258.31	253	12	1.15E-02	32.2	
13	0	144.15*	29	461	1.35	288.03	284	9	2.03E-03	143.4	
14	0	186.06*	324	647	1.58	371.76	366	13	2.25E-02	18.2	
15	0	209.00	152	417	1.02	417.59	414	9	1.06E-02	25.4	
16	5	238.65*	2211	327	1.12	476.84	472	17	1.54E-01	2.6	1.23E+00
17	5	241.59	444	388	1.86	482.72	472	17	3.08E-02	13.6	
18	0	270.04	212	347	1.39	539.56	534	12	1.47E-02	18.9	
19	0	277.70	35	344	0.84	554.86	550	10	2.41E-03	101.6	
20	0	295.17*	505	312	1.27	589.76	583	11	3.51E-02	8.4	
21	0	300.12	124	286	1.06	599.67	596	10	8.61E-03	26.9	
22	0	328.51	82	296	1.24	656.38	650	10	5.69E-03	41.0	
23	0	331.83	41	189	1.70	663.02	660	8	2.84E-03	60.3	
24	0	338.25	373	325	1.21	675.86	670	12	2.59E-02	11.0	
25	0	351.89*	797	268	1.24	703.12	698	12	5.53E-02	5.6	
26	0	393.54	23	170	1.41	786.35	780	9	1.57E-03	106.4	
27	0	400.88	23	170	1.36	801.02	800	9	1.61E-03	103.1	
28	0	409.63	116	145	1.65	818.51	814	11	8.07E-03	22.0	
29	0	427.23	10	121	1.26	853.67	851	8	6.75E-04	198.2	
30	0	439.57	62	154	1.38	878.35	872	13	4.32E-03	43.5	
31	0	463.20	126	185	1.17	925.58	920	12	8.76E-03	23.4	
32	0	501.19	36	148	3.86	1001.51	992	15	2.49E-03	76.1	
33	0	510.89*	121	252	1.96	1020.91	1014	16	8.43E-03	36.5	
34	0	518.92	24	90	1.01	1036.96	1034	8	1.69E-03	70.5	
35	0	583.42*	676	167	1.47	1165.89	1160	14	4.69E-02	5.8	
36	0	609.48*	548	182	1.39	1218.00	1211	13	3.81E-02	6.9	
37	0	661.84	45	78	1.69	1322.67	1319	8	3.10E-03	37.4	
38	0	682.21	34	91	2.14	1363.41	1357	11	2.39E-03	56.3	

Sample ID : G198683020 Acquisition date : 15-DEC-2007 10:56:42

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	727.58*	176	87	1.52	1454.13	1450	10	1.22E-02	13.1	
40	0	757.16	21	92	1.93	1513.27	1506	11	1.49E-03	90.9	
41	9	763.25*	16	69	2.67	1525.45	1521	20	1.14E-03	98.7	1.86E+00
42	9	768.07	65	97	2.46	1535.09	1521	20	4.51E-03	32.0	
43	0	795.47	101	60	2.28	1589.88	1583	12	7.03E-03	18.2	
44	0	814.79	59	67	7.34	1628.52	1619	18	4.08E-03	35.3	
45	0	830.82	38	29	1.90	1660.59	1656	9	2.61E-03	30.6	
46	0	835.34*	30	86	2.40	1669.63	1665	12	2.07E-03	71.2	
47	0	841.14*	13	69	2.25	1681.23	1677	9	8.73E-04	133.2	
48	2	860.98*	93	77	1.67	1720.90	1715	20	6.47E-03	20.4	4.37E+00
49	2	866.18	24	37	2.02	1731.30	1715	20	1.65E-03	54.1	
50	0	895.96*	45	62	1.93	1790.87	1783	18	3.11E-03	45.5	
51	0	911.54*	422	71	1.54	1822.04	1814	14	2.93E-02	6.6	
52	0	935.44	37	70	2.44	1869.84	1860	14	2.57E-03	50.7	
53	2	965.27	88	45	2.07	1929.51	1922	25	6.11E-03	19.2	1.71E+00
54	2	969.50	297	30	1.75	1937.97	1922	25	2.06E-02	6.9	
55	0	1002.28*	20	59	1.04	2003.56	1999	11	1.40E-03	83.9	
56	0	1112.81	27	47	5.35	2224.69	2217	15	1.86E-03	59.7	
57	0	1121.07*	131	33	1.86	2241.23	2236	13	9.09E-03	13.2	
58	1	1238.90	54	33	2.00	2477.01	2471	32	3.73E-03	25.9	2.16E+00
59	1	1246.20	26	27	2.01	2491.64	2471	32	1.78E-03	49.9	
60	1	1250.38	23	10	1.83	2500.00	2471	32	1.60E-03	27.3	
61	0	1378.10	33	24	0.70	2755.63	2750	10	2.27E-03	29.8	
62	0	1409.21	33	15	1.26	2817.92	2812	11	2.26E-03	29.7	
63	0	1461.57*	635	25	1.97	2922.74	2914	16	4.41E-02	4.4	
64	0	1496.40	15	11	0.96	2992.48	2989	8	1.07E-03	44.1	
65	0	1534.94	9	13	1.10	3069.65	3065	8	6.41E-04	76.6	
66	0	1565.14	9	17	0.90	3130.13	3122	12	6.17E-04	100.7	
67	0	1588.95	39	23	2.33	3177.80	3173	12	2.72E-03	28.5	
68	0	1595.30	6	26	1.53	3190.52	3184	12	4.24E-04	174.0	
69	0	1703.33	15	8	1.48	3406.86	3402	10	1.06E-03	45.4	
70	0	1712.01	16	0	3.00	3424.25	3420	10	1.11E-03	25.0	
71	0	1731.43	19	19	1.43	3463.15	3460	11	1.33E-03	53.7	
72	0	1765.35*	81	32	1.48	3531.09	3523	16	5.62E-03	20.3	
73	0	1794.22	6	17	3.41	3588.93	3581	12	4.26E-04	151.3	
74	0	1800.08	9	9	1.41	3600.66	3593	12	6.39E-04	73.0	
75	0	1826.81	11	7	0.67	3654.21	3646	15	7.72E-04	61.1	
76	0	1836.49	8	19	6.09	3673.61	3663	18	5.89E-04	122.5	
77	0	1938.45	8	19	4.41	3877.88	3867	15	5.44E-04	125.9	
78	0	2011.05	14	0	1.66	4023.36	4018	11	9.72E-04	26.7	

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]G198683020       *
* Acquisition date : 15-DEC-2007 10:56:42 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 04:01:01.74     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683020           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1517E+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	7.552E+00	9.059E-01	2.627E-01	0.000E+00
SB-125	1.504E-02	5.843E-02	8.442E-02	0.000E+00
CS-137	3.328E-02	2.447E-02	3.635E-02	0.000E+00
EU-155	1.251E-01	7.608E-02	1.037E-01	0.000E+00
TL-208	4.537E-01	5.864E-02	3.281E-02	0.000E+00
PO-209	7.887E+00	7.068E+00	5.882E+00	0.000E+00
BI-211	8.793E-01	5.335E-01	6.425E-01	0.000E+00
BI-212	1.022E+00	2.732E-01	2.474E-01	0.000E+00
PB-212	1.488E+00	1.141E-01	5.563E-02	0.000E+00
BI-214	6.999E-01	1.052E-01	7.286E-02	0.000E+00
PB-214	8.116E-01	9.999E-02	6.427E-02	0.000E+00
RA-223	4.895E-01	1.840E-01	1.756E-01	0.000E+00
AC-228	1.372E+00	2.178E-01	1.140E-01	0.000E+00
PA-234M	2.204E+00	3.628E+00	3.392E+00	0.000E+00
TH-234	1.396E+00	4.173E-01	4.319E-01	0.000E+00
U-235	5.890E-02	1.655E-01	1.880E-01	0.000E+00
NP-236	6.233E-02	4.692E-02	5.397E-02	0.000E+00
NP-237	7.200E-01	1.937E-01	1.955E-01	0.000E+00
AM-241	1.060E-01	9.701E-02	1.076E-01	0.000E+00
AM-243	2.532E-01	4.573E-02	4.430E-02	0.000E+00
CM-243	1.132E-01	6.885E-02	8.592E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	1.798E-02	2.179E-02	3.868E-02	0.000E+00	NOT IDENT.
RH-101	9.465E-04	2.118E-02	3.502E-02	0.000E+00	NOT IDENT.
PA-233	-2.212E-02	3.710E-02	6.072E-02	0.000E+00	NOT IDENT.
NP-239	-4.284E-02	1.296E-01	2.192E-01	0.000E+00	NOT IDENT.
AM-246	6.974E-03	7.933E-02	1.322E-01	0.000E+00	NOT IDENT.
CF-249	6.465E-03	2.672E-02	3.964E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:58:53.85

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683020.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:56:42
Sample ID        : G198683020           Sample quantity  : 1.15170E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:01.74  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	635	10.66*	1.286E+00	7.552E+00	7.552E+00	12.24
SB-125	427.87	10	29.80*	3.681E+00	1.444E-02	1.504E-02	396.46
CS-137	661.66	45	85.10*	2.582E+00	3.316E-02	3.328E-02	75.03
EU-155	105.31	123	21.20*	7.737E+00	1.223E-01	1.251E-01	62.06
TL-208	277.36	35	6.31	5.041E+00	1.781E-01	1.781E-01	203.31
	510.77	121	22.60	3.200E+00	2.736E-01	2.736E-01	73.21
	583.19	676	84.50*	2.872E+00	4.537E-01	4.537E-01	13.19
	763.13	16	1.81	2.279E+00	6.471E-01	6.471E-01	197.64
	860.56	93	12.42	2.045E+00	5.979E-01	5.979E-01	41.76
PO-209	896.60	45	0.47*	1.972E+00	7.878E+00	7.887E+00	91.45
BI-211	831.80	38	3.30*	2.112E+00	8.793E-01	8.793E-01	61.91
BI-212	727.33	176	11.80*	2.378E+00	1.022E+00	1.022E+00	27.27
	785.37	------	1.10	2.222E+00	------	Line Not Found	------
	1620.50	------	1.49	1.195E+00	------	Line Not Found	------
PB-212	74.81	661	10.40	6.243E+00	1.660E+00	1.660E+00	18.43
	77.11	1072	17.50	6.464E+00	1.544E+00	1.544E+00	14.91
	87.30	394	7.81	7.201E+00	1.143E+00	1.143E+00	27.45
	238.63	2211	43.30*	5.590E+00	1.488E+00	1.488E+00	7.82
	300.09	124	3.28	4.773E+00	1.291E+00	1.291E+00	54.21
BI-214	609.31	548	46.10*	2.769E+00	6.999E-01	6.999E-01	15.34
	768.36	65	4.94	2.266E+00	9.452E-01	9.452E-01	64.42
	806.17	------	1.22	2.170E+00	------	Line Not Found	------
	934.06	37	3.03	1.896E+00	1.050E+00	1.050E+00	101.82
	1120.29	131	15.10	1.608E+00	8.788E-01	8.789E-01	27.12
	1155.19	------	1.63	1.566E+00	------	Line Not Found	------
	1238.11	54	5.79	1.472E+00	1.027E+00	1.027E+00	52.14
	1280.96	------	1.43	1.431E+00	------	Line Not Found	------
	1377.67	33	4.00	1.347E+00	9.873E-01	9.874E-01	60.21
	1401.50	------	1.27	1.329E+00	------	Line Not Found	------
	1407.98	33	2.15	1.323E+00	1.865E+00	1.865E+00	60.01
	1509.23	------	2.11	1.256E+00	------	Line Not Found	------
	1729.60	19	2.92	1.148E+00	9.318E-01	9.319E-01	107.66

Sample ID : G198683020 Acquisition date : 15-DEC-2007 10:56:42

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	81	15.40	1.136E+00	7.537E-01	7.538E-01	41.16
PB-214	74.81	661	6.44	6.243E+00	2.681E+00	2.681E+00	18.43
	77.11	1072	10.80	6.464E+00	2.502E+00	2.502E+00	14.91
	87.30	394	4.84	7.201E+00	1.845E+00	1.845E+00	27.45
	242.00	444	7.43	5.544E+00	1.757E+00	1.757E+00	27.78
	295.22	505	19.30	4.829E+00	8.828E-01	8.829E-01	17.93
	351.93	797	37.60*	4.255E+00	8.115E-01	8.116E-01	12.57
RA-223	269.46	212	13.70*	5.139E+00	4.895E-01	4.895E-01	38.35
AC-228	129.07	166	2.42	7.642E+00	1.463E+00	1.463E+00	64.69
	209.25	152	3.89	6.091E+00	1.047E+00	1.047E+00	51.17
	270.25	212	3.46	5.139E+00	1.938E+00	1.938E+00	38.35
	338.32	373	11.27	4.380E+00	1.231E+00	1.231E+00	22.65
	409.46	116	1.92	3.800E+00	2.596E+00	2.596E+00	44.30
	463.00	126	4.40	3.458E+00	1.351E+00	1.351E+00	47.07
	794.95	101	4.25	2.196E+00	1.767E+00	1.767E+00	37.42
	911.20	422	25.80*	1.941E+00	1.372E+00	1.372E+00	16.20
	964.77	88	4.99	1.842E+00	1.560E+00	1.560E+00	39.29
	968.97	297	15.80	1.835E+00	1.670E+00	1.670E+00	16.24
	1588.20	39	3.22	1.211E+00	1.639E+00	1.639E+00	57.54
PA-234M	1001.03	20	0.84*	1.780E+00	2.204E+00	2.204E+00	167.96
TH-234	63.29	156	4.80	4.742E+00	1.120E+00	1.120E+00	67.20
	92.58	345	5.41*	7.451E+00	1.396E+00	1.396E+00	30.49
U-235	143.76	29	10.96*	7.391E+00	5.890E-02	5.890E-02	286.77
NP-236	98.44	111	38.00*	7.633E+00	6.233E-02	6.233E-02	76.82
NP-237	86.48	394	12.40*	7.201E+00	7.200E-01	7.200E-01	27.45
AM-241	59.54	91	35.90*	3.902E+00	1.060E-01	1.060E-01	93.37
AM-243	74.66	661	68.20*	6.243E+00	2.532E-01	2.532E-01	18.43
CM-243	103.76	123	23.00*	7.737E+00	1.128E-01	1.132E-01	62.06

Flag: "*" = Keyline

Sample ID : G198683020 Acquisition date : 15-DEC-2007 10:56:42

Total number of lines in spectrum	78	
Number of unidentified lines	32	
Number of lines tentatively identified by NID	46	58.97%

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	7.552E+00	7.552E+00	0.924E+00	12.24	
SB-125	8.62E+07S	1.04	1.444E-02	1.504E-02	5.962E-02	396.46	
CS-137	9.47E+08S	1.00	3.316E-02	3.328E-02	2.497E-02	75.03	
EU-155	1.57E+08S	1.02	1.223E-01	1.251E-01	0.776E-01	62.06	
TL-208	4.43E+17S	1.00	4.537E-01	4.537E-01	0.598E-01	13.19	
PO-209	3.22E+09S	1.00	7.878E+00	7.887E+00	7.213E+00	91.45	
BI-211	2.22E+16S	1.00	8.793E-01	8.793E-01	5.444E-01	61.91	
BI-212	4.43E+17S	1.00	1.022E+00	1.022E+00	0.279E+00	27.27	
PB-212	4.43E+17S	1.00	1.488E+00	1.488E+00	0.116E+00	7.82	
BI-214	5.05E+10S	1.00	6.999E-01	6.999E-01	1.073E-01	15.34	
PB-214	5.05E+10S	1.00	8.115E-01	8.116E-01	1.020E-01	12.57	
RA-223	1.04E+12S	1.00	4.895E-01	4.895E-01	1.878E-01	38.35	
AC-228	4.43E+17S	1.00	1.372E+00	1.372E+00	0.222E+00	16.20	
PA-234M	1.41E+17S	1.00	2.204E+00	2.204E+00	3.702E+00	167.96	
TH-234	1.41E+17S	1.00	1.396E+00	1.396E+00	0.426E+00	30.49	
U-235	2.22E+16S	1.00	5.890E-02	5.890E-02	16.89E-02	286.77	
NP-236	4.89E+12S	1.00	6.233E-02	6.233E-02	4.788E-02	76.82	
NP-237	6.75E+13S	1.00	7.200E-01	7.200E-01	1.977E-01	27.45	
AM-241	1.36E+10S	1.00	1.060E-01	1.060E-01	0.990E-01	93.37	
AM-243	2.33E+11S	1.00	2.532E-01	2.532E-01	0.467E-01	18.43	
CM-243	8.99E+08S	1.00	1.128E-01	1.132E-01	0.703E-01	62.06	
			---	---			
		Total Activity :	2.773E+01	2.774E+01			

Grand Total Activity : 2.773E+01 2.774E+01

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

Sample ID : G198683020 Acquisition date : 15-DEC-2007 10:56:42

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	84.22	69	714	1.26	168.31	163	29	4.78E-03	****	7.01E+00	
3	90.13	251	548	1.19	180.12	163	29	1.74E-02	33.9	7.34E+00	
0	124.77	67	365	1.82	249.33	246	7	4.67E-03	96.9	7.70E+00	
0	186.06	324	647	1.58	371.76	366	13	2.25E-02	36.5	6.53E+00	
0	328.51	82	296	1.24	656.38	650	10	5.69E-03	82.0	4.47E+00	
0	331.83	41	189	1.70	663.02	660	8	2.84E-03	****	4.44E+00	
0	393.54	23	170	1.41	786.35	780	9	1.57E-03	****	3.92E+00	
0	400.88	23	170	1.36	801.02	800	9	1.61E-03	****	3.86E+00	
0	439.57	62	154	1.38	878.35	872	13	4.32E-03	87.1	3.60E+00	
0	501.19	36	148	3.86	1001.51	992	15	2.49E-03	****	3.25E+00	
0	518.92	24	90	1.01	1036.96	1034	8	1.69E-03	****	3.16E+00	
0	682.21	34	91	2.14	1363.41	1357	11	2.39E-03	****	2.52E+00	
0	757.16	21	92	1.93	1513.27	1506	11	1.49E-03	****	2.30E+00	
0	814.79	59	67	7.34	1628.52	1619	18	4.08E-03	70.5	2.15E+00	
0	835.34	30	86	2.40	1669.63	1665	12	2.07E-03	****	2.10E+00	
0	841.14	13	69	2.25	1681.23	1677	9	8.73E-04	****	2.09E+00	
2	866.18	24	37	2.02	1731.30	1715	20	1.65E-03	****	2.03E+00	
0	1112.81	27	47	5.35	2224.69	2217	15	1.86E-03	****	1.62E+00	
1	1246.20	26	27	2.01	2491.64	2471	32	1.78E-03	99.7	1.46E+00	
1	1250.38	23	10	1.83	2500.00	2471	32	1.60E-03	54.6	1.46E+00	
0	1496.40	15	11	0.96	2992.48	2989	8	1.07E-03	88.3	1.26E+00	
0	1534.94	9	13	1.10	3069.65	3065	8	6.41E-04	****	1.24E+00	
0	1565.14	9	17	0.90	3130.13	3122	12	6.17E-04	****	1.22E+00	
0	1595.30	6	26	1.53	3190.52	3184	12	4.24E-04	****	1.21E+00	
0	1703.33	15	8	1.48	3406.86	3402	10	1.06E-03	90.8	1.16E+00	
0	1712.01	16	0	3.00	3424.25	3420	10	1.11E-03	50.0	1.16E+00	
0	1794.22	6	17	3.41	3588.93	3581	12	4.26E-04	****	1.13E+00	
0	1800.08	9	9	1.41	3600.66	3593	12	6.39E-04	****	1.12E+00	
0	1826.81	11	7	0.67	3654.21	3646	15	7.72E-04	****	1.12E+00	
0	1836.49	8	19	6.09	3673.61	3663	18	5.89E-04	****	1.11E+00	
0	1938.45	8	19	4.41	3877.88	3867	15	5.44E-04	****	1.09E+00	
0	2011.05	14	0	1.66	4023.36	4018	11	9.72E-04	53.5	1.08E+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]G198683020            *
* Acquisition date : 15-DEC-2007 10:56:42 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 04:01:01.74     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683020           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1517E+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    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	7.552E+00	9.059E-01	1.314E-01	9.059E-01
SB-125	1.504E-02	5.843E-02	4.223E-02	5.843E-02
CS-137	3.328E-02	2.447E-02	1.819E-02	2.447E-02
EU-155	1.251E-01	7.608E-02	5.187E-02	7.608E-02
TL-208	4.537E-01	5.864E-02	1.641E-02	5.864E-02
PO-209	7.887E+00	7.068E+00	2.943E+00	7.068E+00
BI-211	8.793E-01	5.335E-01	3.215E-01	5.335E-01
BI-212	1.022E+00	2.732E-01	1.238E-01	2.732E-01
PB-212	1.488E+00	1.141E-01	2.783E-02	1.141E-01
BI-214	6.999E-01	1.052E-01	3.645E-02	1.052E-01
PB-214	8.116E-01	9.999E-02	3.216E-02	9.999E-02
RA-223	4.895E-01	1.840E-01	8.783E-02	1.840E-01
AC-228	1.372E+00	2.178E-01	5.705E-02	2.178E-01
PA-234M	2.204E+00	3.628E+00	1.697E+00	3.628E+00
TH-234	1.396E+00	4.173E-01	2.161E-01	4.173E-01
U-235	5.890E-02	1.655E-01	9.403E-02	1.655E-01
NP-236	6.233E-02	4.692E-02	2.700E-02	4.692E-02
NP-237	7.200E-01	1.937E-01	9.779E-02	1.937E-01
AM-241	1.060E-01	9.701E-02	5.381E-02	9.701E-02
AM-243	2.532E-01	4.573E-02	2.216E-02	4.573E-02
CM-243	1.132E-01	6.885E-02	4.299E-02	6.885E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.798E-02	2.179E-02	1.935E-02	2.179E-02	NOT IDENT.
RH-101	9.465E-04	2.118E-02	1.752E-02	2.118E-02	NOT IDENT.
PA-233	-2.212E-02	3.710E-02	3.038E-02	3.710E-02	NOT IDENT.
NP-239	-4.284E-02	1.296E-01	1.097E-01	1.296E-01	NOT IDENT.
AM-246	6.974E-03	7.933E-02	6.613E-02	7.933E-02	NOT IDENT.
CF-249	6.465E-03	2.672E-02	1.983E-02	2.672E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	417.0001
63.29	569.1309
74.66	583.9370
74.81	584.0542
74.81	584.0542
77.11	585.8379
77.11	585.8379
86.48	499.9091
87.30	500.4112
87.30	500.4112
92.58	503.5837
98.44	407.4112
103.76	385.3139
105.31	461.7567
129.07	427.0608
143.76	389.9126
198.00	368.3191
209.25	388.5756
228.18	328.5257
238.63	307.3018
242.00	307.9678
269.46	260.3748
270.25	260.4942
277.36	243.5525
295.22	275.4282
300.09	251.8107
312.17	225.8863
338.32	227.9861
351.93	180.5207
387.59	173.2581
409.46	161.9236
427.87	135.1433
463.00	141.5681
510.77	143.1836
583.19	109.3777
609.31	149.3299
661.66	109.4778
727.33	83.4844
763.13	80.3187
768.36	121.8781
785.37	74.4655
794.95	68.7729
806.17	77.4377
831.80	34.7402
860.56	78.0248
896.60	51.5018
911.20	56.7643
934.06	48.9375
964.77	62.6680
968.97	62.7320
1001.03	44.9107
1078.86	63.3164
1120.29	42.6016
1155.19	52.5841
1173.23	43.0918
1238.11	54.5972
1280.96	33.9588
1332.51	47.2833
1377.67	27.1179
1401.50	25.0477
1407.98	56.4258
1460.80	22.7881
1509.23	22.0276
1588.20	31.6198
1620.50	32.2104
1729.60	25.5458
1764.49	23.9736

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683020

Total Uranium Activity	2.7253E-02	ug/g
Total Uranium Counting Unc.	7.6591E-02	ug/g
Total Uranium Tpu	7.6591E-08	ug/g
Total Uranium Mda	4.3509E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:58:11.61

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683021.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:57:17
Sample ID        : G198683021           Sample quantity  : 1.13300E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.39  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	46.45	179	503	1.67	91.99	87	10	1.24E-02	24.6	
2	0	62.65	227	1360	1.68	124.35	118	16	1.58E-02	36.8	
3	3	74.95	1158	996	1.86	148.92	140	25	8.05E-02	6.4	3.67E+00
4	3	77.26*	1430	701	1.34	153.52	140	25	9.93E-02	4.5	
5	0	84.15	121	609	1.42	167.30	164	7	8.42E-03	34.9	
6	3	87.30	512	704	1.35	173.58	170	21	3.55E-02	9.8	3.22E+00
7	3	89.97	340	800	1.72	178.91	170	21	2.36E-02	17.2	
8	3	93.04*	486	633	1.43	185.06	170	21	3.37E-02	11.2	
9	0	99.35	119	556	2.44	197.64	193	10	8.29E-03	38.1	
10	0	105.22	102	582	1.75	209.38	205	10	7.07E-03	45.5	
11	0	129.38	132	561	1.38	257.64	253	9	9.18E-03	33.4	
12	0	154.69	188	676	1.61	308.19	301	14	1.30E-02	30.3	
13	0	161.60	54	442	2.24	321.98	320	9	3.77E-03	70.7	
14	0	186.45*	267	706	1.51	371.62	363	13	1.85E-02	22.0	
15	0	209.14	171	613	1.43	416.95	410	13	1.19E-02	30.8	
16	3	238.70*	1964	345	1.43	475.99	467	22	1.36E-01	2.9	1.99E+00
17	3	241.57	392	408	1.83	481.73	467	22	2.73E-02	14.7	
18	0	270.20	123	307	1.24	538.92	534	11	8.52E-03	29.0	
19	0	277.84	192	427	2.91	554.19	546	17	1.33E-02	25.8	
20	3	295.27*	558	208	1.71	589.02	581	25	3.88E-02	6.8	2.08E+00
21	3	300.20	183	254	2.16	598.86	581	25	1.27E-02	19.8	
22	0	327.77	144	245	2.35	653.94	648	13	1.00E-02	23.8	
23	0	338.40	360	205	1.25	675.19	671	10	2.50E-02	9.1	
24	0	352.01*	797	211	1.48	702.39	697	12	5.53E-02	5.3	
25	0	409.30	73	135	1.29	816.86	813	8	5.09E-03	29.8	
26	0	445.80*	15	273	6.93	889.81	876	21	1.02E-03	287.0	
27	0	462.77	119	140	1.65	923.72	916	13	8.26E-03	22.4	
28	0	511.03*	160	168	1.75	1020.16	1012	18	1.11E-02	24.3	
29	0	546.47	23	92	0.84	1091.01	1086	9	1.59E-03	78.9	
30	0	568.47	155	178	2.97	1134.97	1127	14	1.07E-02	20.0	
31	0	583.38*	557	161	1.79	1164.79	1155	19	3.86E-02	7.0	
32	0	609.30*	506	176	1.57	1216.60	1210	16	3.51E-02	7.5	
33	0	662.44	22	77	1.50	1322.83	1319	8	1.50E-03	74.3	
34	0	727.57	115	84	1.32	1453.05	1446	12	7.97E-03	18.5	
35	0	770.95*	22	122	0.62	1539.79	1533	14	1.51E-03	116.8	
36	1	795.24	81	63	2.10	1588.36	1579	37	5.59E-03	22.1	2.22E+00
37	1	798.56	41	52	1.91	1595.00	1579	37	2.88E-03	37.0	
38	0	860.59	62	34	1.92	1719.06	1714	9	4.34E-03	21.0	

Sample ID : G198683021 Acquisition date : 15-DEC-2007 10:57:17

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	911.35	312	71	1.74	1820.57	1811	17	2.17E-02	8.4	
40	0	935.27	40	58	2.04	1868.42	1862	13	2.79E-03	42.2	
41	2	964.84	59	38	2.40	1927.57	1922	24	4.07E-03	22.1	1.03E+00
42	2	969.38	166	42	2.33	1936.65	1922	24	1.15E-02	11.8	
43	0	1121.11	124	80	2.28	2240.19	2230	19	8.64E-03	19.5	
44	0	1212.71	18	79	2.85	2423.49	2410	21	1.22E-03	128.5	
45	0	1240.45	43	81	2.49	2479.00	2468	17	3.02E-03	50.7	
46	1	1280.92	33	51	2.10	2560.00	2555	19	2.28E-03	41.1	1.11E+01
47	1	1283.42	25	46	2.11	2565.00	2555	19	1.70E-03	62.2	
48	0	1378.14*	39	12	2.88	2754.60	2749	12	2.72E-03	25.9	
49	0	1439.55	18	7	0.92	2877.54	2872	10	1.27E-03	36.3	
50	0	1461.42*	420	18	2.14	2921.31	2913	18	2.92E-02	5.6	
51	0	1621.58	19	12	0.98	3242.02	3235	12	1.34E-03	42.5	
52	0	1633.11	30	25	5.64	3265.11	3254	22	2.08E-03	47.9	
53	3	1639.57	13	3	2.42	3278.06	3275	14	9.36E-04	28.8	2.67E-01
54	3	1643.11	16	1	2.09	3285.13	3275	14	1.09E-03	24.6	
55	0	1669.43	9	6	1.25	3337.84	3334	8	6.44E-04	60.1	
56	0	1731.01	32	4	5.30	3461.20	3454	15	2.23E-03	22.0	
57	0	1745.63	17	3	3.83	3490.48	3483	14	1.16E-03	34.0	
58	0	1765.20	100	18	2.49	3529.68	3520	17	6.96E-03	13.8	
59	0	1819.61	9	0	0.63	3638.67	3636	8	6.25E-04	33.3	
60	0	1847.62	31	12	6.75	3694.78	3686	16	2.15E-03	30.8	
61	0	1885.64	20	11	1.25	3770.95	3761	18	1.36E-03	48.9	
62	0	1924.89	13	6	2.48	3849.61	3844	11	9.36E-04	43.4	
63	0	1947.95	22	0	0.83	3895.82	3889	14	1.53E-03	21.3	

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]G198683021       *
* Acquisition date : 15-DEC-2007 10:57:17 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 04:00:24.39     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683021           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1330E+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)	
K-40	8.783E+00	1.078E+00	5.231E-01	0.000E+00
CS-137	2.582E-02	3.765E-02	5.854E-02	0.000E+00
EU-155	9.988E-02	8.935E-02	1.081E-01	0.000E+00
TL-208	5.820E-01	9.034E-02	5.119E-02	0.000E+00
BI-212	1.083E+00	4.023E-01	4.792E-01	0.000E+00
PB-212	1.596E+00	1.327E-01	7.285E-02	0.000E+00
BI-214	1.015E+00	1.679E-01	9.519E-02	0.000E+00
PB-214	1.096E+00	1.259E-01	9.557E-02	0.000E+00
RA-223	3.544E-01	2.026E-01	2.231E-01	0.000E+00
AC-228	1.697E+00	3.017E-01	2.015E-01	0.000E+00
TH-234	1.764E+00	4.096E-01	4.557E-01	0.000E+00
NP-236	6.274E-02	4.712E-02	5.912E-02	0.000E+00
NP-237	8.010E-01	1.648E-01	1.869E-01	0.000E+00
AM-243	3.255E-01	4.647E-02	3.733E-02	0.000E+00
CM-243	9.038E-02	8.085E-02	9.198E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-4.385E-03	3.829E-02	6.289E-02	0.000E+00	NOT IDENT.
RH-101	-2.212E-03	2.563E-02	4.194E-02	0.000E+00	NOT IDENT.
SB-125	-7.234E-04	7.974E-02	1.337E-01	0.000E+00	NOT IDENT.
PO-209	9.637E-01	6.863E+00	1.171E+01	0.000E+00	NOT IDENT.
BI-211	-4.529E-01	9.433E-01	1.539E+00	0.000E+00	NOT IDENT.
PA-233	-1.105E-02	5.012E-02	8.448E-02	0.000E+00	NOT IDENT.
PA-234M	-1.003E+00	4.035E+00	6.618E+00	0.000E+00	NOT IDENT.
U-235	1.278E-02	1.411E-01	2.348E-01	0.000E+00	NOT IDENT.
NP-239	-2.083E-02	1.671E-01	2.868E-01	0.000E+00	NOT IDENT.
AM-241	5.216E-02	4.263E-02	6.655E-02	0.000E+00	NOT IDENT.
AM-246	-3.663E-02	1.193E-01	1.930E-01	0.000E+00	NOT IDENT.
CF-249	-1.034E-02	3.203E-02	5.306E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:58:12.69

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683021.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:57:17
Sample ID        : G198683021           Sample quantity  : 1.13300E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:24.39  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	420	10.66*	7.431E-01	8.783E+00	8.783E+00	12.52
CS-137	661.66	22	85.10*	1.639E+00	2.573E-02	2.582E-02	148.78
EU-155	105.31	102	21.20*	8.141E+00	9.767E-02	9.988E-02	91.29
TL-208	277.36	192	6.31	4.073E+00	1.236E+00	1.236E+00	51.80
	510.77	160	22.60	2.158E+00	5.442E-01	5.442E-01	49.06
	583.19	557	84.50*	1.875E+00	5.820E-01	5.820E-01	15.84
	763.13	------	1.81	1.415E+00	------	Line Not Found	------
	860.56	62	12.42	1.251E+00	6.656E-01	6.656E-01	42.61
BI-212	727.33	115	11.80*	1.486E+00	1.083E+00	1.083E+00	37.89
	785.37	------	1.10	1.374E+00	------	Line Not Found	------
	1620.50	19	1.49	6.718E-01	3.187E+00	3.187E+00	85.19
PB-212	74.81	1158	10.40	8.644E+00	2.135E+00	2.135E+00	14.56
	77.11	1430	17.50	8.639E+00	1.566E+00	1.566E+00	11.32
	87.30	512	7.81	8.537E+00	1.272E+00	1.272E+00	20.99
	238.63	1964	43.30*	4.707E+00	1.596E+00	1.596E+00	8.48
	300.09	183	3.28	3.772E+00	2.445E+00	2.445E+00	40.02
BI-214	609.31	506	46.10*	1.790E+00	1.015E+00	1.015E+00	16.87
	768.36	------	4.94	1.405E+00	------	Line Not Found	------
	806.17	------	1.22	1.337E+00	------	Line Not Found	------
	934.06	40	3.03	1.150E+00	1.912E+00	1.912E+00	84.64
	1120.29	124	15.10	9.613E-01	1.420E+00	1.420E+00	39.40
	1155.19	------	1.63	9.335E-01	------	Line Not Found	------
	1238.11	------	5.79	8.725E-01	------	Line Not Found	------
	1280.96	33	1.43	8.442E-01	4.505E+00	4.505E+00	82.37
	1377.67	39	4.00	7.865E-01	2.060E+00	2.061E+00	52.16
	1401.50	------	1.27	7.738E-01	------	Line Not Found	------
	1407.98	------	2.15	7.704E-01	------	Line Not Found	------
	1509.23	------	2.11	7.203E-01	------	Line Not Found	------
	1729.60	32	2.92	6.303E-01	2.889E+00	2.889E+00	44.45
	1764.49	100	15.40	6.183E-01	1.744E+00	1.744E+00	28.10
PB-214	74.81	1158	6.44	8.644E+00	3.448E+00	3.448E+00	14.56
	77.11	1430	10.80	8.639E+00	2.538E+00	2.538E+00	11.32

Sample ID : G198683021 Acquisition date : 15-DEC-2007 10:57:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	512	4.84	8.537E+00	2.052E+00	2.052E+00	20.99
	242.00	392	7.43	4.655E+00	1.879E+00	1.880E+00	29.95
	295.22	558	19.30	3.835E+00	1.250E+00	1.250E+00	14.50
	351.93	797	37.60*	3.204E+00	1.096E+00	1.096E+00	11.72
RA-223	269.46	123	13.70*	4.185E+00	3.544E-01	3.544E-01	58.35
AC-228	129.07	132	2.42	7.435E+00	1.217E+00	1.217E+00	67.43
	209.25	171	3.89	5.296E+00	1.379E+00	1.379E+00	61.85
	270.25	123	3.46	4.185E+00	1.403E+00	1.403E+00	58.35
	338.32	360	11.27	3.338E+00	1.587E+00	1.587E+00	18.90
	409.46	73	1.92	2.734E+00	2.311E+00	2.311E+00	59.80
	463.00	119	4.40	2.399E+00	1.867E+00	1.867E+00	45.28
	794.95	81	4.25	1.356E+00	2.314E+00	2.314E+00	44.81
	911.20	312	25.80*	1.181E+00	1.697E+00	1.697E+00	18.15
	964.77	59	4.99	1.115E+00	1.743E+00	1.743E+00	44.67
	968.97	166	15.80	1.110E+00	1.564E+00	1.564E+00	24.50
	1588.20	------	3.22	6.855E-01	------	Line Not Found	------
TH-234	63.29	227	4.80	8.498E+00	9.232E-01	9.232E-01	73.89
	92.58	486	5.41*	8.432E+00	1.764E+00	1.764E+00	23.69
NP-236	98.44	119	38.00*	8.291E+00	6.274E-02	6.274E-02	76.64
NP-237	86.48	512	12.40*	8.537E+00	8.010E-01	8.010E-01	20.99
AM-243	74.66	1158	68.20*	8.644E+00	3.255E-01	3.255E-01	14.56
CM-243	103.76	102	23.00*	8.141E+00	9.003E-02	9.038E-02	91.29

Flag: "*" = Keyline

Sample ID : G198683021 Acquisition date : 15-DEC-2007 10:57:17

Total number of lines in spectrum 63
Number of unidentified lines 26
Number of lines tentatively identified by NID 37 58.73%

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	8.783E+00	8.783E+00	1.100E+00	12.52	
CS-137	9.47E+08S	1.00	2.573E-02	2.582E-02	3.842E-02	148.78	
EU-155	1.57E+08S	1.02	9.767E-02	9.988E-02	9.117E-02	91.29	
TL-208	4.43E+17S	1.00	5.820E-01	5.820E-01	0.922E-01	15.84	
BI-212	4.43E+17S	1.00	1.083E+00	1.083E+00	0.410E+00	37.89	
PB-212	4.43E+17S	1.00	1.596E+00	1.596E+00	0.135E+00	8.48	
BI-214	5.05E+10S	1.00	1.015E+00	1.015E+00	0.171E+00	16.87	
PB-214	5.05E+10S	1.00	1.096E+00	1.096E+00	0.128E+00	11.72	
RA-223	1.04E+12S	1.00	3.544E-01	3.544E-01	2.068E-01	58.35	
AC-228	4.43E+17S	1.00	1.697E+00	1.697E+00	0.308E+00	18.15	
TH-234	1.41E+17S	1.00	1.764E+00	1.764E+00	0.418E+00	23.69	
NP-236	4.89E+12S	1.00	6.274E-02	6.274E-02	4.808E-02	76.64	
NP-237	6.75E+13S	1.00	8.010E-01	8.010E-01	1.681E-01	20.99	
AM-243	2.33E+11S	1.00	3.255E-01	3.255E-01	0.474E-01	14.56	
CM-243	8.99E+08S	1.00	9.003E-02	9.038E-02	8.250E-02	91.29	
			---	---			
		Total Activity :	1.937E+01	1.938E+01			

Grand Total Activity : 1.937E+01 1.938E+01

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

Sample ID : G198683021 Acquisition date : 15-DEC-2007 10:57:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.45	179	503	1.67	91.99	87	10	1.24E-02	49.3	7.64E+00	
0	84.15	121	609	1.42	167.30	164	7	8.42E-03	69.8	8.58E+00	
3	89.97	340	800	1.72	178.91	170	21	2.36E-02	34.5	8.49E+00	
0	154.69	188	676	1.61	308.19	301	14	1.30E-02	60.6	6.68E+00	
0	161.60	54	442	2.24	321.98	320	9	3.77E-03	****	6.48E+00	
0	186.45	267	706	1.51	371.62	363	13	1.85E-02	44.0	5.82E+00	
0	327.77	144	245	2.35	653.94	648	13	1.00E-02	47.7	3.45E+00	
0	445.80	15	273	6.93	889.81	876	21	1.02E-03	****	2.50E+00	
0	546.47	23	92	0.84	1091.01	1086	9	1.59E-03	****	2.01E+00	
0	568.47	155	178	2.97	1134.97	1127	14	1.07E-02	40.0	1.93E+00	
0	770.95	22	122	0.62	1539.79	1533	14	1.51E-03	****	1.40E+00	
1	798.56	41	52	1.91	1595.00	1579	37	2.88E-03	73.9	1.35E+00	
0	1212.71	18	79	2.85	2423.49	2410	21	1.22E-03	****	8.90E-01	
0	1240.45	43	81	2.49	2479.00	2468	17	3.02E-03	****	8.71E-01	
1	1283.42	25	46	2.11	2565.00	2555	19	1.70E-03	****	8.43E-01	
0	1439.55	18	7	0.92	2877.54	2872	10	1.27E-03	72.6	7.54E-01	
0	1633.11	30	25	5.64	3265.11	3254	22	2.08E-03	95.9	6.67E-01	
3	1639.57	13	3	2.42	3278.06	3275	14	9.36E-04	57.6	6.65E-01	
3	1643.11	16	1	2.09	3285.13	3275	14	1.09E-03	49.3	6.63E-01	
0	1669.43	9	6	1.25	3337.84	3334	8	6.44E-04	****	6.53E-01	
0	1745.63	17	3	3.83	3490.48	3483	14	1.16E-03	68.0	6.25E-01	
0	1819.61	9	0	0.63	3638.67	3636	8	6.25E-04	66.7	6.00E-01	
0	1847.62	31	12	6.75	3694.78	3686	16	2.15E-03	61.5	5.91E-01	
0	1885.64	20	11	1.25	3770.95	3761	18	1.36E-03	97.8	5.79E-01	
0	1924.89	13	6	2.48	3849.61	3844	11	9.36E-04	86.7	5.67E-01	
0	1947.95	22	0	0.83	3895.82	3889	14	1.53E-03	42.6	5.61E-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]G198683021            *
* Acquisition date : 15-DEC-2007 10:57:17 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 04:00:24.39     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683021           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1330E+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
K-40	8.783E+00	1.078E+00	2.617E-01	1.078E+00
CS-137	2.582E-02	3.765E-02	2.929E-02	3.765E-02
EU-155	9.988E-02	8.935E-02	5.409E-02	8.935E-02
TL-208	5.820E-01	9.034E-02	2.561E-02	9.034E-02
BI-212	1.083E+00	4.023E-01	2.397E-01	4.023E-01
PB-212	1.596E+00	1.327E-01	3.644E-02	1.327E-01
BI-214	1.015E+00	1.679E-01	4.762E-02	1.679E-01
PB-214	1.096E+00	1.259E-01	4.781E-02	1.259E-01
RA-223	3.544E-01	2.026E-01	1.116E-01	2.026E-01
AC-228	1.697E+00	3.017E-01	1.008E-01	3.017E-01
TH-234	1.764E+00	4.096E-01	2.280E-01	4.096E-01
NP-236	6.274E-02	4.712E-02	2.958E-02	4.712E-02
NP-237	8.010E-01	1.648E-01	9.352E-02	1.648E-01
AM-243	3.255E-01	4.647E-02	1.868E-02	4.647E-02
CM-243	9.038E-02	8.085E-02	4.602E-02	8.085E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-4.385E-03	3.829E-02	3.146E-02	3.829E-02	NOT IDENT.
RH-101	-2.212E-03	2.563E-02	2.098E-02	2.563E-02	NOT IDENT.
SB-125	-7.234E-04	7.974E-02	6.690E-02	7.974E-02	NOT IDENT.
PO-209	9.637E-01	6.863E+00	5.860E+00	6.863E+00	NOT IDENT.
BI-211	-4.529E-01	9.433E-01	7.698E-01	9.433E-01	NOT IDENT.
PA-233	-1.105E-02	5.012E-02	4.226E-02	5.012E-02	NOT IDENT.
PA-234M	-1.003E+00	4.035E+00	3.311E+00	4.035E+00	NOT IDENT.
U-235	1.278E-02	1.411E-01	1.174E-01	1.411E-01	NOT IDENT.
NP-239	-2.083E-02	1.671E-01	1.435E-01	1.671E-01	NOT IDENT.
AM-241	5.216E-02	4.263E-02	3.329E-02	4.263E-02	NOT IDENT.
AM-246	-3.663E-02	1.193E-01	9.657E-02	1.193E-01	NOT IDENT.
CF-249	-1.034E-02	3.203E-02	2.654E-02	3.203E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	553.0854
63.29	703.7912
74.66	782.1851
74.81	782.3105
74.81	782.3105
77.11	784.2316
77.11	784.2316
86.48	635.7971
87.30	1069.0044
87.30	1069.0044
92.58	702.1022
98.44	565.9045
103.76	482.4719
105.31	540.6492
129.07	543.3201
143.76	523.7985
198.00	436.1681
209.25	413.0835
228.18	383.7471
238.63	363.2827
242.00	363.9336
269.46	271.6258
270.25	263.7375
277.36	266.2646
295.22	259.1582
300.09	259.7448
312.17	240.6398
338.32	251.3366
351.93	219.9452
387.59	182.7543
409.46	189.3921
427.87	166.0896
463.00	147.0829
510.77	128.7233
583.19	110.0858
609.31	103.3218
661.66	111.2982
727.33	118.7402
763.13	63.7564
768.36	81.0669
785.37	74.0787
794.95	78.0595
806.17	70.3624
831.80	84.5106
860.56	74.4418
896.60	70.1763
911.20	63.5586
934.06	45.4853
964.77	44.0899
968.97	46.5334
1001.03	65.7825
1078.86	54.6680
1120.29	54.0869
1155.19	51.3611
1173.23	56.6852
1238.11	62.5684
1280.96	55.8350
1332.51	36.0365
1377.67	33.1040
1401.50	32.1606
1407.98	36.4875
1460.80	29.2192
1509.23	25.2343
1588.20	46.3442
1620.50	31.7242
1729.60	18.5786
1764.49	35.8812

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683021

Total Uranium Activity	5.9120E-03	ug/g
Total Uranium Counting Unc.	6.5308E-02	ug/g
Total Uranium Tpu	6.5308E-08	ug/g
Total Uranium Mda	5.4344E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:59:34.82

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683022.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:58:15
Sample ID        : G198683022           Sample quantity  : 1.31880E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.40  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	62.67*	43	700	1.24	124.78	121	9	3.02E-03	119.9	
2	2	74.72*	571	703	1.38	148.88	141	20	3.97E-02	9.6	1.28E+00
3	2	76.94*	817	594	1.11	153.31	141	20	5.68E-02	6.5	
4	2	79.20	58	496	0.97	157.82	141	20	4.00E-03	65.2	
5	3	83.98*	219	701	1.57	167.39	161	32	1.52E-02	23.4	3.01E+00
6	3	87.13	403	662	1.47	173.68	161	32	2.80E-02	12.5	
7	3	89.83	277	694	1.59	179.08	161	32	1.92E-02	20.0	
8	3	92.63*	360	581	1.54	184.67	161	32	2.50E-02	15.7	
9	0	99.72	62	506	1.40	198.85	195	8	4.28E-03	64.8	
10	0	105.00	66	491	1.74	209.39	207	7	4.61E-03	56.6	
11	0	129.36	153	839	1.16	258.09	252	12	1.06E-02	38.6	
12	0	143.92*	60	583	1.50	287.20	283	9	4.18E-03	77.8	
13	0	185.67*	393	529	1.32	370.67	366	10	2.73E-02	13.8	
14	0	197.54*	63	515	2.45	394.40	390	10	4.39E-03	73.9	
15	0	208.76	175	496	1.09	416.84	413	9	1.22E-02	24.1	
16	3	238.42*	1882	380	1.23	476.13	471	21	1.31E-01	3.0	2.05E+00
17	3	241.53	568	442	1.82	482.34	471	21	3.94E-02	9.9	
18	0	255.39	51	260	1.16	510.06	507	7	3.52E-03	54.6	
19	0	269.91	158	371	1.90	539.09	534	10	1.10E-02	24.1	
20	0	278.15	79	454	1.17	555.56	549	12	5.49E-03	55.8	
21	0	294.99*	762	387	1.45	589.23	584	11	5.29E-02	6.4	
22	0	299.80	141	328	1.08	598.84	595	10	9.81E-03	25.5	
23	0	327.75	77	303	1.35	654.72	651	9	5.32E-03	42.5	
24	0	338.10*	346	442	1.61	675.41	669	13	2.40E-02	14.1	
25	0	351.66*	1448	336	1.44	702.54	695	14	1.01E-01	3.9	
26	0	408.98	82	217	1.44	817.14	812	10	5.70E-03	35.5	
27	0	462.88	193	217	2.23	924.90	918	14	1.34E-02	17.8	
28	0	510.56*	218	396	2.52	1020.24	1010	24	1.52E-02	29.1	
29	0	561.87	57	164	0.98	1122.84	1116	13	3.96E-03	48.3	
30	0	582.95*	653	199	1.78	1165.01	1158	15	4.54E-02	6.5	
31	0	608.94*	1080	236	1.75	1216.98	1209	18	7.50E-02	4.7	
32	0	660.89	146	147	1.28	1320.86	1314	12	1.02E-02	18.5	
33	9	719.68	32	97	2.61	1438.42	1434	12	2.20E-03	60.7	4.65E+00
34	9	721.96	19	39	1.15	1442.99	1434	12	1.35E-03	55.8	
35	0	726.80	211	90	2.02	1452.67	1447	12	1.46E-02	11.4	
36	0	768.94	176	185	4.98	1536.94	1528	19	1.22E-02	20.2	
37	0	794.76	90	163	1.90	1588.58	1581	18	6.26E-03	35.5	
38	0	804.41*	71	144	4.58	1607.89	1598	22	4.95E-03	47.4	

Sample ID : G198683022 Acquisition date : 15-DEC-2007 10:58:15

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	831.00	20	76	0.90	1661.06	1657	8	1.41E-03	78.5	
40	0	835.48	66	92	1.66	1670.03	1665	11	4.60E-03	30.5	
41	0	839.08	25	127	1.03	1677.22	1675	12	1.74E-03	91.9	
42	0	860.06*	81	88	2.48	1719.19	1711	13	5.60E-03	30.6	
43	0	910.59*	495	164	2.07	1820.25	1810	21	3.44E-02	8.3	
44	0	934.07	93	92	2.32	1867.22	1860	18	6.48E-03	26.0	
45	3	964.35	157	101	2.95	1927.77	1920	25	1.09E-02	16.9	1.70E+00
46	3	968.47*	350	75	2.47	1936.01	1920	25	2.43E-02	8.4	
47	0	1087.47	14	74	1.11	2174.05	2166	12	9.57E-04	128.3	
48	0	1093.46	58	84	2.52	2186.03	2178	17	4.04E-03	38.6	
49	0	1119.99*	172	167	1.85	2239.10	2229	18	1.19E-02	19.9	
50	0	1172.99	14	59	1.35	2345.13	2337	11	9.37E-04	116.2	
51	0	1238.02*	61	79	1.76	2475.21	2469	14	4.26E-03	34.5	
52	0	1294.93	29	106	5.43	2589.07	2569	27	2.02E-03	101.2	
53	0	1377.90	44	92	1.70	2755.07	2746	18	3.06E-03	53.7	
54	0	1460.04*	729	55	2.63	2919.41	2909	20	5.06E-02	4.6	
55	0	1508.87	34	41	0.96	3017.11	3007	15	2.38E-03	44.3	
56	0	1587.28	43	64	1.90	3174.02	3165	15	3.00E-03	43.1	
57	0	1607.24	27	22	5.12	3213.95	3206	13	1.90E-03	40.5	
58	0	1697.82	23	56	5.41	3395.21	3374	25	1.59E-03	90.8	
59	0	1728.46	85	28	1.99	3456.54	3449	16	5.87E-03	17.7	
60	0	1763.98	225	39	2.35	3527.61	3519	18	1.56E-02	9.4	
61	0	2028.13	11	20	1.52	4056.30	4048	14	7.79E-04	77.0	

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]G198683022       *
* Acquisition date : 15-DEC-2007 10:58:15 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 04:00:02.40     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683022           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.3188E+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	4.875E+00	5.242E-01	2.313E-01	0.000E+00
RH-101	1.595E-02	2.314E-02	2.848E-02	0.000E+00
CS-137	6.401E-02	2.387E-02	2.831E-02	0.000E+00
EU-155	4.983E-02	5.544E-02	8.587E-02	0.000E+00
TL-208	2.608E-01	3.865E-02	2.501E-02	0.000E+00
BI-211	2.759E-01	4.254E-01	6.322E-01	0.000E+00
BI-212	7.133E-01	1.711E-01	2.018E-01	0.000E+00
PB-212	8.500E-01	7.055E-02	4.538E-02	0.000E+00
BI-214	8.165E-01	9.874E-02	5.291E-02	0.000E+00
PB-214	9.350E-01	8.812E-02	5.118E-02	0.000E+00
RA-223	2.415E-01	1.151E-01	1.400E-01	0.000E+00
AC-228	9.281E-01	1.761E-01	9.034E-02	0.000E+00
TH-234	1.093E+00	3.490E-01	3.448E-01	0.000E+00
U-235	8.637E-02	1.318E-01	1.613E-01	0.000E+00
NP-236	2.568E-02	3.266E-02	4.346E-02	0.000E+00
NP-237	5.588E-01	1.452E-01	1.572E-01	0.000E+00
AM-243	1.710E-01	3.467E-02	3.734E-02	0.000E+00
CM-243	4.509E-02	5.016E-02	7.162E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	8.294E-03	1.889E-02	2.726E-02	0.000E+00	FAIL ABUN
SB-125	5.025E-03	4.254E-02	7.226E-02	0.000E+00	NOT IDENT.
PO-209	-3.269E-01	3.133E+00	5.326E+00	0.000E+00	NOT IDENT.
PA-233	2.187E-02	2.790E-02	4.992E-02	0.000E+00	NOT IDENT.
PA-234M	2.354E+00	2.586E+00	3.688E+00	0.000E+00	NOT IDENT.
NP-239	-2.058E-02	1.185E-01	1.852E-01	0.000E+00	NOT IDENT.
AM-241	2.913E-02	6.279E-02	9.851E-02	0.000E+00	NOT IDENT.
AM-246	-1.134E-03	6.551E-02	9.341E-02	0.000E+00	NOT IDENT.
CF-249	1.121E-02	1.858E-02	3.245E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 14:59:35.77

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683022.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:58:15
Sample ID        : G198683022           Sample quantity  : 1.31880E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.40  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	729	10.66*	1.997E+00	4.875E+00	4.875E+00	10.97
RH-101	198.00	63	73.00*	8.000E+00	1.542E-02	1.595E-02	148.02
CS-137	661.66	146	85.10*	3.838E+00	6.378E-02	6.401E-02	38.04
EU-155	105.31	66	21.20*	9.138E+00	4.873E-02	4.983E-02	113.52
TL-208	277.36	79	6.31	6.698E+00	2.664E-01	2.664E-01	111.68
	510.77	218	22.60	4.633E+00	2.966E-01	2.966E-01	58.54
	583.19	653	84.50*	4.219E+00	2.608E-01	2.608E-01	15.12
	763.13	------	1.81	3.420E+00	------	Line Not Found	------
	860.56	81	12.42	3.093E+00	2.985E-01	2.985E-01	61.92
BI-211	831.80	20	3.30*	3.185E+00	2.759E-01	2.759E-01	157.36
BI-212	727.33	211	11.80*	3.560E+00	7.133E-01	7.133E-01	24.48
	785.37	------	1.10	3.340E+00	------	Line Not Found	------
	1620.50	------	1.49	1.873E+00	------	Line Not Found	------
PB-212	74.81	571	10.40	6.970E+00	1.122E+00	1.122E+00	20.69
	77.11	817	17.50	7.260E+00	9.156E-01	9.156E-01	15.20
	87.30	403	7.81	8.286E+00	8.872E-01	8.872E-01	26.52
	238.63	1882	43.30*	7.279E+00	8.500E-01	8.500E-01	8.47
	300.09	141	3.28	6.424E+00	9.541E-01	9.541E-01	51.27
BI-214	609.31	1080	46.10*	4.085E+00	8.164E-01	8.165E-01	12.34
	768.36	176	4.94	3.399E+00	1.494E+00	1.495E+00	41.40
	806.17	71	1.22	3.274E+00	2.538E+00	2.538E+00	95.22
	934.06	93	3.03	2.880E+00	1.522E+00	1.523E+00	52.93
	1120.29	172	15.10	2.461E+00	6.570E-01	6.571E-01	40.48
	1155.19	------	1.63	2.397E+00	------	Line Not Found	------
	1238.11	61	5.79	2.262E+00	6.664E-01	6.665E-01	69.24
	1280.96	------	1.43	2.201E+00	------	Line Not Found	------
	1377.67	44	4.00	2.081E+00	7.540E-01	7.540E-01	107.62
	1401.50	------	1.27	2.055E+00	------	Line Not Found	------
	1407.98	------	2.15	2.048E+00	------	Line Not Found	------
	1509.23	34	2.11	1.954E+00	1.182E+00	1.182E+00	88.74
	1729.60	85	2.92	1.816E+00	2.269E+00	2.269E+00	35.95
	1764.49	225	15.40	1.801E+00	1.153E+00	1.153E+00	19.63

Sample ID : G198683022 Acquisition date : 15-DEC-2007 10:58:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	571	6.44	6.970E+00	1.811E+00	1.811E+00	20.69
	77.11	817	10.80	7.260E+00	1.484E+00	1.484E+00	15.20
	87.30	403	4.84	8.286E+00	1.432E+00	1.432E+00	26.52
	242.00	568	7.43	7.229E+00	1.504E+00	1.504E+00	20.76
	295.22	762	19.30	6.483E+00	8.668E-01	8.668E-01	14.05
	351.93	1448	37.60*	5.862E+00	9.349E-01	9.350E-01	9.62
RA-223	269.46	158	13.70*	6.810E+00	2.415E-01	2.415E-01	48.65
AC-228	129.07	153	2.42	9.236E+00	9.752E-01	9.751E-01	77.56
	209.25	175	3.89	7.789E+00	8.229E-01	8.229E-01	48.52
	270.25	158	3.46	6.810E+00	9.562E-01	9.562E-01	48.65
	338.32	346	11.27	5.998E+00	7.279E-01	7.279E-01	28.72
	409.46	82	1.92	5.351E+00	1.136E+00	1.136E+00	71.27
	463.00	193	4.40	4.947E+00	1.265E+00	1.265E+00	36.09
	794.95	90	4.25	3.307E+00	9.121E-01	9.121E-01	71.64
	911.20	495	25.80*	2.945E+00	9.281E-01	9.281E-01	19.36
	964.77	157	4.99	2.802E+00	1.602E+00	1.602E+00	35.10
	968.97	350	15.80	2.791E+00	1.128E+00	1.128E+00	19.20
	1588.20	43	3.22	1.895E+00	1.007E+00	1.007E+00	86.37
TH-234	63.29	43	4.80	4.959E+00	2.600E-01	2.600E-01	239.99
	92.58	360	5.41*	8.656E+00	1.093E+00	1.093E+00	32.56
U-235	143.76	60	10.96*	9.042E+00	8.637E-02	8.637E-02	155.77
NP-236	98.44	62	38.00*	8.983E+00	2.568E-02	2.568E-02	129.78
NP-237	86.48	403	12.40*	8.286E+00	5.588E-01	5.588E-01	26.52
AM-243	74.66	571	68.20*	6.970E+00	1.710E-01	1.710E-01	20.69
CM-243	103.76	66	23.00*	9.138E+00	4.492E-02	4.509E-02	113.52

Flag: "*" = Keyline

Sample ID : G198683022 Acquisition date : 15-DEC-2007 10:58:15

Total number of lines in spectrum 61
Number of unidentified lines 17
Number of lines tentatively identified by NID 44 72.13%

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	4.875E+00	4.875E+00	0.535E+00	10.97	
RH-101	1.04E+08S	1.03	1.542E-02	1.595E-02	2.361E-02	148.02	
CS-137	9.47E+08S	1.00	6.378E-02	6.401E-02	2.435E-02	38.04	
EU-155	1.57E+08S	1.02	4.873E-02	4.983E-02	5.657E-02	113.52	
TL-208	4.43E+17S	1.00	2.608E-01	2.608E-01	0.394E-01	15.12	
BI-211	2.22E+16S	1.00	2.759E-01	2.759E-01	4.341E-01	157.36	
BI-212	4.43E+17S	1.00	7.133E-01	7.133E-01	1.746E-01	24.48	
PB-212	4.43E+17S	1.00	8.500E-01	8.500E-01	0.720E-01	8.47	
BI-214	5.05E+10S	1.00	8.164E-01	8.165E-01	1.008E-01	12.34	
PB-214	5.05E+10S	1.00	9.349E-01	9.350E-01	0.899E-01	9.62	
RA-223	1.04E+12S	1.00	2.415E-01	2.415E-01	1.175E-01	48.65	
AC-228	4.43E+17S	1.00	9.281E-01	9.281E-01	1.797E-01	19.36	
TH-234	1.41E+17S	1.00	1.093E+00	1.093E+00	0.356E+00	32.56	
U-235	2.22E+16S	1.00	8.637E-02	8.637E-02	13.45E-02	155.77	
NP-236	4.89E+12S	1.00	2.568E-02	2.568E-02	3.333E-02	129.78	
NP-237	6.75E+13S	1.00	5.588E-01	5.588E-01	1.482E-01	26.52	
AM-243	2.33E+11S	1.00	1.710E-01	1.710E-01	0.354E-01	20.69	
CM-243	8.99E+08S	1.00	4.492E-02	4.509E-02	5.119E-02	113.52	
			---	---			
	Total Activity :		1.200E+01	1.201E+01			

Grand Total Activity : 1.200E+01 1.201E+01

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

Sample ID : G198683022 Acquisition date : 15-DEC-2007 10:58:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	79.20	58	496	0.97	157.82	141	20	4.00E-03	****	7.53E+00	
3	83.98	219	701	1.57	167.39	161	32	1.52E-02	46.9	8.02E+00	
3	89.83	277	694	1.59	179.08	161	32	1.92E-02	40.0	8.48E+00	
0	185.67	393	529	1.32	370.67	366	10	2.73E-02	27.5	8.23E+00	
0	255.39	51	260	1.16	510.06	507	7	3.52E-03	****	7.02E+00	
0	327.75	77	303	1.35	654.72	651	9	5.32E-03	85.0	6.11E+00	
0	561.87	57	164	0.98	1122.84	1116	13	3.96E-03	96.6	4.33E+00	
9	719.68	32	97	2.61	1438.42	1434	12	2.20E-03	****	3.59E+00	
9	721.96	19	39	1.15	1442.99	1434	12	1.35E-03	****	3.58E+00	
0	835.48	66	92	1.66	1670.03	1665	11	4.60E-03	61.0	3.17E+00	
0	839.08	25	127	1.03	1677.22	1675	12	1.74E-03	****	3.16E+00	
0	1087.47	14	74	1.11	2174.05	2166	12	9.57E-04	****	2.52E+00	
0	1093.46	58	84	2.52	2186.03	2178	17	4.04E-03	77.1	2.51E+00	
0	1172.99	14	59	1.35	2345.13	2337	11	9.37E-04	****	2.37E+00	T
0	1294.93	29	106	5.43	2589.07	2569	27	2.02E-03	****	2.18E+00	
0	1607.24	27	22	5.12	3213.95	3206	13	1.90E-03	81.1	1.88E+00	
0	1697.82	23	56	5.41	3395.21	3374	25	1.59E-03	****	1.83E+00	
0	2028.13	11	20	1.52	4056.30	4048	14	7.79E-04	****	1.75E+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]G198683022            *
* Acquisition date : 15-DEC-2007 10:58:15 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 04:00:02.40     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683022           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.3188E+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    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	4.875E+00	5.242E-01	1.157E-01	5.242E-01
RH-101	1.595E-02	2.314E-02	1.425E-02	2.314E-02
CS-137	6.401E-02	2.387E-02	1.416E-02	2.387E-02
EU-155	4.983E-02	5.544E-02	4.296E-02	5.544E-02
TL-208	2.608E-01	3.865E-02	1.251E-02	3.865E-02
BI-211	2.759E-01	4.254E-01	3.163E-01	4.254E-01
BI-212	7.133E-01	1.711E-01	1.010E-01	1.711E-01
PB-212	8.500E-01	7.055E-02	2.271E-02	7.055E-02
BI-214	8.165E-01	9.874E-02	2.647E-02	9.874E-02
PB-214	9.350E-01	8.812E-02	2.560E-02	8.812E-02
RA-223	2.415E-01	1.151E-01	7.005E-02	1.151E-01
AC-228	9.281E-01	1.761E-01	4.519E-02	1.761E-01
TH-234	1.093E+00	3.490E-01	1.725E-01	3.490E-01
U-235	8.637E-02	1.318E-01	8.067E-02	1.318E-01
NP-236	2.568E-02	3.266E-02	2.174E-02	3.266E-02
NP-237	5.588E-01	1.452E-01	7.863E-02	1.452E-01
AM-243	1.710E-01	3.467E-02	1.868E-02	3.467E-02
CM-243	4.509E-02	5.016E-02	3.583E-02	5.016E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	8.294E-03	1.889E-02	1.364E-02	1.889E-02	FAIL ABUN
SB-125	5.025E-03	4.254E-02	3.615E-02	4.254E-02	NOT IDENT.
PO-209	-3.269E-01	3.133E+00	2.665E+00	3.133E+00	NOT IDENT.
PA-233	2.187E-02	2.790E-02	2.497E-02	2.790E-02	NOT IDENT.
PA-234M	2.354E+00	2.586E+00	1.845E+00	2.586E+00	NOT IDENT.
NP-239	-2.058E-02	1.185E-01	9.267E-02	1.185E-01	NOT IDENT.
AM-241	2.913E-02	6.279E-02	4.929E-02	6.279E-02	NOT IDENT.
AM-246	-1.134E-03	6.551E-02	4.674E-02	6.551E-02	NOT IDENT.
CF-249	1.121E-02	1.858E-02	1.623E-02	1.858E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	448.9699
63.29	538.2711
74.66	647.9273
74.81	648.1762
74.81	648.1762
77.11	651.9814
77.11	651.9814
86.48	533.5419
87.30	534.5558
87.30	534.5558
92.58	540.9805
98.44	452.9285
103.76	465.3614
105.31	552.5745
129.07	520.0866
143.76	538.0386
198.00	549.2344
209.25	487.3716
228.18	476.1480
238.63	437.6521
242.00	439.2776
269.46	367.4628
270.25	389.1707
277.36	356.3010
295.22	333.8544
300.09	328.9872
312.17	279.0246
338.32	326.0843
351.93	275.6613
387.59	276.2932
409.46	284.6497
427.87	247.3605
463.00	204.4018
510.77	183.9560
583.19	175.2283
609.31	219.1591
661.66	187.7042
727.33	159.5556
763.13	138.4418
768.36	159.7534
785.37	139.0395
794.95	129.2651
806.17	115.0326
831.80	98.4393
860.56	82.9834
896.60	127.9114
911.20	105.4113
934.06	113.1396
964.77	112.4374
968.97	112.6064
1001.03	109.8907
1078.86	98.7073
1120.29	107.3012
1155.19	82.9979
1173.23	77.6477
1238.11	97.0591
1280.96	88.1873
1332.51	73.5415
1377.67	90.1077
1401.50	94.6172
1407.98	83.9157
1460.80	55.1481
1509.23	50.4112
1588.20	51.3728
1620.50	55.1091
1729.60	44.3206
1764.49	32.6321

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683022

Total Uranium Activity	3.9965E-02	ug/g
Total Uranium Counting Unc.	6.1007E-02	ug/g
Total Uranium Tpu	6.1007E-08	ug/g
Total Uranium Mda	3.7328E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 15:00:12.50

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683023.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:58:56
Sample ID        : G198683023           Sample quantity  : 1.42760E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.92  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	76.25*	851	1292	2.87	152.44	146	16	5.91E-02	10.2	
2	10	84.05*	111	499	1.20	168.05	164	28	7.68E-03	36.2	2.18E+00
3	10	87.16	324	413	1.08	174.28	164	28	2.25E-02	11.3	
4	10	89.84	155	401	1.07	179.64	164	28	1.08E-02	22.5	
5	10	92.81*	262	512	1.31	185.57	164	28	1.82E-02	18.0	
6	0	105.41	60	414	1.08	210.78	208	7	4.17E-03	57.5	
7	1	127.46	51	352	1.02	254.89	252	12	3.57E-03	59.3	2.01E+00
8	1	129.11	120	349	1.02	258.19	252	12	8.37E-03	26.4	
9	1	143.92*	38	357	1.05	287.81	283	9	2.61E-03	93.0	2.36E+00
10	0	154.23	33	403	0.67	308.44	305	7	2.29E-03	102.5	
11	0	159.31	77	372	1.39	318.59	315	8	5.38E-03	44.5	
12	0	162.11	26	376	1.57	324.20	323	7	1.80E-03	125.2	
13	0	186.02*	284	518	1.19	372.02	367	10	1.97E-02	17.3	
14	3	207.65	24	144	0.82	415.30	414	11	1.64E-03	69.7	2.40E+00
15	3	209.36	203	424	1.42	418.71	414	11	1.41E-02	19.7	
16	3	238.64*	1551	292	0.98	477.28	473	18	1.08E-01	3.2	1.77E+00
17	3	241.72	374	327	1.39	483.44	473	18	2.60E-02	10.4	
18	0	258.65	39	214	1.45	517.31	514	7	2.73E-03	64.0	
19	0	270.04	111	264	1.13	540.10	536	8	7.71E-03	27.1	
20	0	277.62	66	310	1.20	555.26	551	9	4.61E-03	49.5	
21	0	295.12*	539	339	1.17	590.25	584	12	3.74E-02	8.5	
22	0	300.16	118	247	1.31	600.34	596	9	8.19E-03	25.8	
23	0	327.98	51	244	1.43	656.00	652	8	3.54E-03	54.9	
24	2	338.28	313	168	1.09	676.60	671	14	2.17E-02	8.9	5.72E-01
25	2	340.49	47	192	1.39	681.03	671	14	3.26E-03	60.0	
26	0	351.83*	910	308	1.22	703.72	698	12	6.32E-02	5.2	
27	0	403.61	41	339	4.45	807.29	800	15	2.85E-03	99.3	
28	0	409.12	27	204	1.13	818.31	815	9	1.88E-03	96.9	
29	0	420.35	23	143	1.47	840.78	838	8	1.58E-03	94.2	
30	0	463.26	65	206	1.56	926.63	920	11	4.53E-03	44.3	
31	0	511.02*	158	281	1.92	1022.17	1013	19	1.10E-02	31.0	
32	6	569.61*	15	107	1.32	1139.38	1132	18	1.02E-03	216.1	1.71E+00
33	6	573.16	28	54	1.96	1146.48	1132	18	1.96E-03	49.5	
34	0	583.05*	454	125	1.30	1166.27	1160	11	3.15E-02	7.1	
35	0	592.73	37	56	1.06	1185.64	1181	8	2.54E-03	39.5	
36	0	609.03*	685	149	1.33	1218.25	1210	15	4.76E-02	5.7	
37	0	661.43*	187	101	1.52	1323.08	1317	12	1.30E-02	13.4	
38	0	665.86	32	62	2.32	1331.95	1329	7	2.25E-03	42.4	

Sample ID : G198683023 Acquisition date : 15-DEC-2007 10:58:56

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	727.21	121	83	1.25	1454.69	1450	10	8.39E-03	16.9	
40	0	755.70	29	73	2.00	1511.69	1507	9	2.03E-03	55.6	
41	0	767.94	74	88	1.12	1536.19	1531	10	5.16E-03	26.2	
42	0	794.77	65	73	1.58	1589.86	1585	10	4.53E-03	27.4	
43	0	817.16	22	32	0.95	1634.66	1631	7	1.55E-03	47.4	
44	0	835.42	36	77	1.05	1671.19	1667	9	2.50E-03	46.9	
45	0	860.12	54	77	1.05	1720.63	1716	10	3.78E-03	32.8	
46	0	878.66	15	26	1.31	1757.72	1754	6	1.01E-03	61.9	
47	0	888.59	32	105	5.33	1777.59	1767	22	2.20E-03	84.2	
48	0	910.85*	339	93	1.57	1822.12	1814	15	2.36E-02	8.5	
49	0	935.68	36	80	4.30	1871.81	1863	16	2.50E-03	55.8	
50	0	952.23	13	38	1.24	1904.92	1900	8	9.19E-04	86.5	
51	1	964.18	59	42	1.99	1928.83	1924	22	4.11E-03	25.4	1.23E+00
52	1	968.74	184	54	1.89	1937.96	1924	22	1.27E-02	10.7	
53	0	1000.02*	0	45	1.44	2000.55	1996	9	2.12E-05	*****	
54	0	1063.25*	4	60	1.62	2127.08	2121	13	2.62E-04	763.5	
55	0	1119.83	184	43	1.73	2240.30	2232	17	1.28E-02	11.0	
56	7	1214.30	35	2	3.18	2429.33	2424	15	2.40E-03	22.3	1.34E+00
57	7	1216.99	33	3	2.05	2434.72	2424	15	2.27E-03	20.3	
58	0	1221.16	7	21	0.77	2443.06	2438	9	4.94E-04	120.7	
59	0	1238.46*	66	67	1.59	2477.68	2469	18	4.56E-03	32.3	
60	0	1377.72	21	27	0.77	2756.37	2750	12	1.48E-03	53.4	
61	0	1460.15*	285	30	1.54	2921.34	2912	17	1.98E-02	7.6	
62	0	1489.78	13	24	4.29	2980.63	2969	14	8.93E-04	86.1	
63	2	1604.38	14	8	2.21	3210.00	3205	17	9.78E-04	46.7	1.94E+00
64	2	1608.29	16	13	2.67	3217.83	3205	17	1.09E-03	41.4	
65	0	1619.55	31	0	3.67	3240.35	3235	12	2.15E-03	18.0	
66	0	1631.09	11	12	1.88	3263.46	3257	10	7.43E-04	68.9	
67	0	1674.92	10	8	1.33	3351.18	3347	8	6.66E-04	64.3	
68	0	1728.94	35	4	2.96	3459.30	3451	14	2.44E-03	20.4	
69	0	1763.81	116	7	1.97	3529.10	3522	14	8.07E-03	10.4	
70	0	1770.19*	20	7	2.10	3541.88	3537	11	1.37E-03	54.2	
71	0	1825.39	11	19	3.01	3652.36	3637	19	7.59E-04	100.3	
72	5	1834.05	18	6	2.36	3669.70	3667	13	1.23E-03	27.0	2.52E+00
73	5	1837.56	10	7	1.49	3676.71	3667	13	7.03E-04	51.6	
74	0	1845.67	36	7	1.50	3692.96	3684	16	2.50E-03	24.1	

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]G198683023       *
* Acquisition date : 15-DEC-2007 10:58:56 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 04:00:08.92     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683023           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.4276E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.392E+00	5.596E-01	3.269E-01	0.000E+00
CS-137	1.376E-01	3.695E-02	3.596E-02	0.000E+00
EU-155	6.045E-02	6.822E-02	8.971E-02	0.000E+00
TL-208	3.014E-01	4.539E-02	3.346E-02	0.000E+00
BI-212	6.958E-01	2.345E-01	2.777E-01	0.000E+00
PB-212	9.877E-01	8.241E-02	5.556E-02	0.000E+00
BI-214	8.661E-01	1.080E-01	6.762E-02	0.000E+00
PB-214	9.015E-01	1.038E-01	7.037E-02	0.000E+00
RA-223	2.453E-01	1.309E-01	1.611E-01	0.000E+00
AC-228	1.094E+00	2.018E-01	1.245E-01	0.000E+00
PA-234M	3.289E-02	3.058E+00	3.582E+00	0.000E+00
U-235	7.045E-02	1.285E-01	1.737E-01	0.000E+00
NP-237	6.394E-01	1.491E-01	1.805E-01	0.000E+00
AM-243	3.800E-01	8.044E-02	4.616E-02	0.000E+00
CM-243	5.470E-02	6.173E-02	7.851E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-1.144E-02	1.923E-02	3.066E-02	0.000E+00	NOT IDENT.
RH-101	1.210E-02	2.008E-02	3.254E-02	0.000E+00	NOT IDENT.
SB-125	-1.676E-02	5.447E-02	9.251E-02	0.000E+00	NOT IDENT.
PO-209	-1.809E+00	5.051E+00	7.014E+00	0.000E+00	NOT IDENT.
BI-211	7.167E-01	6.918E-01	1.122E+00	0.000E+00	NOT IDENT.
PA-233	-7.579E-03	3.397E-02	6.002E-02	0.000E+00	NOT IDENT.
TH-234	0.000E+00	3.981E-01	5.691E-01	0.000E+00	FAIL ABUN
NP-236	2.766E-02	3.067E-02	5.592E-02	0.000E+00	NOT IDENT.
NP-239	7.714E-03	1.191E-01	2.048E-01	0.000E+00	NOT IDENT.
AM-241	-2.156E-02	8.390E-02	1.441E-01	0.000E+00	NOT IDENT.
AM-246	7.742E-02	6.719E-02	1.273E-01	0.000E+00	NOT IDENT.
CF-249	2.722E-02	2.350E-02	4.322E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 15:00:13.52

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683023.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 10:58:56
Sample ID        : G198683023           Sample quantity  : 1.42760E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:08.92  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	285	10.66*	1.038E+00	3.392E+00	3.392E+00	16.83
CS-137	661.66	187	85.10*	2.103E+00	1.371E-01	1.376E-01	27.40
EU-155	105.31	60	21.20*	6.307E+00	5.911E-02	6.045E-02	115.16
TL-208	277.36	66	6.31	4.250E+00	3.251E-01	3.251E-01	99.27
	510.77	158	22.60	2.613E+00	3.523E-01	3.523E-01	62.18
	583.19	454	84.50*	2.342E+00	3.014E-01	3.014E-01	15.37
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	54	12.42	1.665E+00	3.461E-01	3.461E-01	66.04
BI-212	727.33	121	11.80*	1.935E+00	6.958E-01	6.958E-01	34.39
	785.37	------	1.10	1.807E+00	------	Line Not Found	------
	1620.50	31	1.49	9.601E-01	2.849E+00	2.849E+00	36.55
PB-212	74.81	851	10.40	4.315E+00	2.492E+00	2.492E+00	21.60
	77.11	851	17.50	4.315E+00	1.481E+00	1.481E+00	21.60
	87.30	324	7.81	5.367E+00	1.015E+00	1.015E+00	23.80
	238.63	1551	43.30*	4.767E+00	9.877E-01	9.877E-01	8.51
	300.09	118	3.28	4.000E+00	1.181E+00	1.181E+00	51.83
BI-214	609.31	685	46.10*	2.257E+00	8.660E-01	8.661E-01	12.72
	768.36	74	4.94	1.844E+00	1.073E+00	1.073E+00	52.92
	806.17	------	1.22	1.765E+00	------	Line Not Found	------
	934.06	36	3.03	1.541E+00	1.014E+00	1.014E+00	111.94
	1120.29	184	15.10	1.306E+00	1.227E+00	1.227E+00	22.81
	1155.19	------	1.63	1.270E+00	------	Line Not Found	------
	1238.11	66	5.79	1.193E+00	1.251E+00	1.251E+00	64.97
	1280.96	------	1.43	1.158E+00	------	Line Not Found	------
	1377.67	21	4.00	1.088E+00	6.429E-01	6.429E-01	106.99
	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	35	2.92	9.198E-01	1.716E+00	1.716E+00	41.33
	1764.49	116	15.40	9.089E-01	1.092E+00	1.092E+00	21.80
PB-214	74.81	851	6.44	4.315E+00	4.024E+00	4.025E+00	21.60
	77.11	851	10.80	4.315E+00	2.400E+00	2.400E+00	21.60

Sample ID : G198683023 Acquisition date : 15-DEC-2007 10:58:56

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	324	4.84	5.367E+00	1.638E+00	1.638E+00	23.80
	242.00	374	7.43	4.721E+00	1.402E+00	1.402E+00	21.57
	295.22	539	19.30	4.053E+00	9.059E-01	9.059E-01	17.96
	351.93	910	37.60*	3.530E+00	9.014E-01	9.015E-01	11.75
RA-223	269.46	111	13.70*	4.342E+00	2.453E-01	2.453E-01	54.46
AC-228	129.07	120	2.42	6.529E+00	1.002E+00	1.002E+00	53.32
	209.25	203	3.89	5.235E+00	1.308E+00	1.308E+00	39.84
	270.25	111	3.46	4.342E+00	9.714E-01	9.714E-01	54.46
	338.32	313	11.27	3.641E+00	1.001E+00	1.001E+00	18.68
	409.46	27	1.92	3.130E+00	5.915E-01	5.915E-01	193.88
	463.00	65	4.40	2.831E+00	6.889E-01	6.889E-01	88.85
	794.95	65	4.25	1.788E+00	1.129E+00	1.129E+00	55.22
	911.20	339	25.80*	1.580E+00	1.094E+00	1.094E+00	18.82
	964.77	59	4.99	1.499E+00	1.039E+00	1.039E+00	51.40
	968.97	184	15.80	1.493E+00	1.023E+00	1.023E+00	22.64
	1588.20	------	3.22	9.734E-01	------	Line Not Found	------
PA-234M	1001.03	0	0.84*	1.450E+00	3.289E-02	3.289E-02	9486.92
U-235	143.76	38	10.96*	6.387E+00	7.045E-02	7.045E-02	186.16
NP-237	86.48	324	12.40*	5.367E+00	6.394E-01	6.394E-01	23.80
AM-243	74.66	851	68.20*	4.315E+00	3.800E-01	3.800E-01	21.60
CM-243	103.76	60	23.00*	6.307E+00	5.449E-02	5.470E-02	115.16

Flag: "*" = Keyline

Sample ID : G198683023 Acquisition date : 15-DEC-2007 10:58:56

Total number of lines in spectrum 74
Number of unidentified lines 37
Number of lines tentatively identified by NID 37 50.00%

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	3.392E+00	3.392E+00	0.571E+00	16.83	
CS-137	9.47E+08S	1.00	1.371E-01	1.376E-01	0.377E-01	27.40	
EU-155	1.57E+08S	1.02	5.911E-02	6.045E-02	6.961E-02	115.16	
TL-208	4.43E+17S	1.00	3.014E-01	3.014E-01	0.463E-01	15.37	
BI-212	4.43E+17S	1.00	6.958E-01	6.958E-01	2.393E-01	34.39	
PB-212	4.43E+17S	1.00	9.877E-01	9.877E-01	0.841E-01	8.51	
BI-214	5.05E+10S	1.00	8.660E-01	8.661E-01	1.102E-01	12.72	
PB-214	5.05E+10S	1.00	9.014E-01	9.015E-01	1.059E-01	11.75	
RA-223	1.04E+12S	1.00	2.453E-01	2.453E-01	1.336E-01	54.46	
AC-228	4.43E+17S	1.00	1.094E+00	1.094E+00	0.206E+00	18.82	
PA-234M	1.41E+17S	1.00	3.289E-02	3.289E-02	312.1E-02	9486.92	
U-235	2.22E+16S	1.00	7.045E-02	7.045E-02	13.12E-02	186.16	
NP-237	6.75E+13S	1.00	6.394E-01	6.394E-01	1.522E-01	23.80	
AM-243	2.33E+11S	1.00	3.800E-01	3.800E-01	0.821E-01	21.60	
CM-243	8.99E+08S	1.00	5.449E-02	5.470E-02	6.299E-02	115.16	
			---	---			
		Total Activity :	9.858E+00	9.860E+00			

Grand Total Activity : 9.858E+00 9.860E+00

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

Sample ID : G198683023 Acquisition date : 15-DEC-2007 10:58:56

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
10	84.05	111	499	1.20	168.05	164	28	7.68E-03	72.5	5.11E+00	
10	89.84	155	401	1.07	179.64	164	28	1.08E-02	45.1	5.56E+00	
10	92.81	262	512	1.31	185.57	164	28	1.82E-02	36.0	5.76E+00	T
1	127.46	51	352	1.02	254.89	252	12	3.57E-03	****	6.54E+00	
0	154.23	33	403	0.67	308.44	305	7	2.29E-03	****	6.23E+00	
0	159.31	77	372	1.39	318.59	315	8	5.38E-03	89.0	6.15E+00	
0	162.11	26	376	1.57	324.20	323	7	1.80E-03	****	6.10E+00	
0	186.02	284	518	1.19	372.02	367	10	1.97E-02	34.5	5.65E+00	
3	207.65	24	144	0.82	415.30	414	11	1.64E-03	****	5.26E+00	
0	258.65	39	214	1.45	517.31	514	7	2.73E-03	****	4.49E+00	
0	327.98	51	244	1.43	656.00	652	8	3.54E-03	****	3.73E+00	
2	340.49	47	192	1.39	681.03	671	14	3.26E-03	****	3.62E+00	
0	403.61	41	339	4.45	807.29	800	15	2.85E-03	****	3.16E+00	
0	420.35	23	143	1.47	840.78	838	8	1.58E-03	****	3.06E+00	
6	569.61	15	107	1.32	1139.38	1132	18	1.02E-03	****	2.39E+00	
6	573.16	28	54	1.96	1146.48	1132	18	1.96E-03	99.0	2.38E+00	
0	592.73	37	56	1.06	1185.64	1181	8	2.54E-03	79.0	2.31E+00	
0	665.86	32	62	2.32	1331.95	1329	7	2.25E-03	84.8	2.09E+00	
0	755.70	29	73	2.00	1511.69	1507	9	2.03E-03	****	1.87E+00	
0	817.16	22	32	0.95	1634.66	1631	7	1.55E-03	94.9	1.74E+00	
0	835.42	36	77	1.05	1671.19	1667	9	2.50E-03	93.9	1.71E+00	
0	878.66	15	26	1.31	1757.72	1754	6	1.01E-03	****	1.63E+00	
0	888.59	32	105	5.33	1777.59	1767	22	2.20E-03	****	1.62E+00	
0	952.23	13	38	1.24	1904.92	1900	8	9.19E-04	****	1.52E+00	
0	1063.25	4	60	1.62	2127.08	2121	13	2.62E-04	****	1.37E+00	
7	1214.30	35	2	3.18	2429.33	2424	15	2.40E-03	44.6	1.21E+00	
7	1216.99	33	3	2.05	2434.72	2424	15	2.27E-03	40.5	1.21E+00	
0	1221.16	7	21	0.77	2443.06	2438	9	4.94E-04	****	1.21E+00	
0	1489.78	13	24	4.29	2980.63	2969	14	8.93E-04	****	1.02E+00	
2	1604.38	14	8	2.21	3210.00	3205	17	9.78E-04	93.4	9.66E-01	
2	1608.29	16	13	2.67	3217.83	3205	17	1.09E-03	82.8	9.65E-01	
0	1631.09	11	12	1.88	3263.46	3257	10	7.43E-04	****	9.55E-01	
0	1674.92	10	8	1.33	3351.18	3347	8	6.66E-04	****	9.39E-01	
0	1770.19	20	7	2.10	3541.88	3537	11	1.37E-03	****	9.07E-01	
0	1825.39	11	19	3.01	3652.36	3637	19	7.59E-04	****	8.92E-01	
5	1834.05	18	6	2.36	3669.70	3667	13	1.23E-03	54.1	8.90E-01	
5	1837.56	10	7	1.49	3676.71	3667	13	7.03E-04	****	8.89E-01	
0	1845.67	36	7	1.50	3692.96	3684	16	2.50E-03	48.2	8.87E-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]G198683023            *
* Acquisition date : 15-DEC-2007 10:58:56 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 04:00:08.92     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683023           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.4276E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.392E+00	5.596E-01	1.635E-01	5.596E-01
CS-137	1.376E-01	3.695E-02	1.799E-02	3.695E-02
EU-155	6.045E-02	6.822E-02	4.488E-02	6.822E-02
TL-208	3.014E-01	4.539E-02	1.674E-02	4.539E-02
BI-212	6.958E-01	2.345E-01	1.389E-01	2.345E-01
PB-212	9.877E-01	8.241E-02	2.780E-02	8.241E-02
BI-214	8.661E-01	1.080E-01	3.383E-02	1.080E-01
PB-214	9.015E-01	1.038E-01	3.521E-02	1.038E-01
RA-223	2.453E-01	1.309E-01	8.059E-02	1.309E-01
AC-228	1.094E+00	2.018E-01	6.231E-02	2.018E-01
PA-234M	3.289E-02	3.058E+00	1.792E+00	3.058E+00
U-235	7.045E-02	1.285E-01	8.691E-02	1.285E-01
NP-237	6.394E-01	1.491E-01	9.031E-02	1.491E-01
AM-243	3.800E-01	8.044E-02	2.310E-02	8.044E-02
CM-243	5.470E-02	6.173E-02	3.928E-02	6.173E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.144E-02	1.923E-02	1.534E-02	1.923E-02	NOT IDENT.
RH-101	1.210E-02	2.008E-02	1.628E-02	2.008E-02	NOT IDENT.
SB-125	-1.676E-02	5.447E-02	4.628E-02	5.447E-02	NOT IDENT.
PO-209	-1.809E+00	5.051E+00	3.509E+00	5.051E+00	NOT IDENT.
BI-211	7.167E-01	6.918E-01	5.612E-01	6.918E-01	NOT IDENT.
PA-233	-7.579E-03	3.397E-02	3.003E-02	3.397E-02	NOT IDENT.
TH-234	1.106E+00	3.981E-01	2.847E-01	3.981E-01	FAIL ABUN
NP-236	2.766E-02	3.067E-02	2.798E-02	3.067E-02	NOT IDENT.
NP-239	7.714E-03	1.191E-01	1.024E-01	1.191E-01	NOT IDENT.
AM-241	-2.156E-02	8.390E-02	7.210E-02	8.390E-02	NOT IDENT.
AM-246	7.742E-02	6.719E-02	6.369E-02	6.719E-02	NOT IDENT.
CF-249	2.722E-02	2.350E-02	2.162E-02	2.350E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	286.4539
63.29	328.9267
74.66	395.1760
74.81	395.3651
74.81	395.3651
77.11	398.2402
77.11	398.2402
86.48	332.4830
87.30	333.2605
87.30	333.2605
92.58	338.1854
98.44	342.6227
103.76	299.9336
105.31	325.7392
129.07	327.1274
143.76	355.1831
198.00	327.6311
209.25	335.2476
228.18	285.0098
238.63	322.3146
242.00	323.7189
269.46	226.8673
270.25	237.4798
277.36	250.5140
295.22	211.1132
300.09	207.9277
312.17	208.7885
338.32	196.6534
351.93	217.1780
387.59	172.6193
409.46	157.3776
427.87	171.4604
463.00	155.4611
510.77	117.9853
583.19	111.5364
609.31	126.1036
661.66	105.1401
727.33	103.3345
763.13	72.7765
768.36	132.6563
785.37	95.2922
794.95	82.6266
806.17	73.9446
831.80	73.4513
860.56	84.0889
896.60	82.5923
911.20	66.8344
934.06	61.0426
964.77	58.5497
968.97	58.6472
1001.03	49.4868
1078.86	37.7327
1120.29	40.2039
1155.19	59.0938
1173.23	47.7579
1238.11	51.7630
1280.96	34.3030
1332.51	31.7682
1377.67	40.4996
1401.50	40.7773
1407.98	33.5208
1460.80	34.6244
1509.23	30.1567
1588.20	38.6363
1620.50	23.2764
1729.60	17.0709
1764.49	13.7686

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683023

Total Uranium Activity	3.2598E-02	ug/g
Total Uranium Counting Unc.	5.9470E-02	ug/g
Total Uranium Tpu	5.9470E-08	ug/g
Total Uranium Mda	4.0214E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 15:01:34.13

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683024.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 12:31:03
Sample ID        : G198683024           Sample quantity  : 1.21330E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:30:00.00        Elapsed real time: 0 02:30:01.28  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	6	63.17*	75	342	1.95	125.56	121	15	8.30E-03	51.1	5.91E-01
2	6	66.16*	53	339	1.76	131.55	121	15	5.94E-03	65.0	
3	3	74.97*	263	382	1.30	149.18	142	16	2.92E-02	14.7	4.21E-01
4	3	77.15	410	280	1.06	153.54	142	16	4.55E-02	8.5	
5	2	89.63	107	310	1.38	178.52	161	32	1.19E-02	31.6	5.41E+00
6	2	92.99*	162	265	1.39	185.24	161	32	1.80E-02	23.3	
7	0	99.14	61	259	0.83	197.53	194	8	6.76E-03	47.5	
8	0	143.92*	18	240	1.03	287.13	284	7	1.98E-03	152.1	
9	0	185.83*	146	308	1.42	370.99	367	10	1.62E-02	25.7	
10	0	209.20	74	219	0.88	417.75	415	8	8.19E-03	36.7	
11	5	238.60*	1058	194	1.16	476.56	471	20	1.18E-01	3.9	1.16E+00
12	5	241.55	252	200	1.72	482.47	471	20	2.80E-02	16.2	
13	0	269.93*	100	188	1.14	539.24	534	12	1.11E-02	30.0	
14	0	277.79	13	202	1.03	554.96	551	10	1.41E-03	213.8	
15	0	283.69	28	107	0.88	566.78	564	7	3.11E-03	64.1	
16	2	295.09*	257	135	1.42	589.58	583	21	2.85E-02	10.7	1.50E+00
17	2	299.77	92	165	1.67	598.93	583	21	1.02E-02	27.7	
18	0	327.47	82	174	1.59	654.35	648	12	9.09E-03	34.1	
19	0	338.39	224	141	1.30	676.20	671	11	2.49E-02	12.3	
20	5	351.81*	473	80	1.31	703.04	698	21	5.25E-02	5.9	7.99E-01
21	5	356.15	39	106	2.29	711.74	698	21	4.39E-03	66.3	
22	0	409.39	55	71	1.32	818.23	814	9	6.12E-03	31.1	
23	0	462.78	89	101	1.56	925.03	918	14	9.92E-03	26.2	
24	0	510.85*	132	104	1.92	1021.20	1015	15	1.47E-02	23.3	
25	0	551.43	20	49	1.37	1102.37	1097	9	2.24E-03	66.5	
26	3	582.93*	333	46	1.57	1165.38	1157	28	3.70E-02	6.9	1.81E+00
27	3	587.48	30	60	2.11	1174.48	1157	28	3.39E-03	58.6	
28	0	609.00*	317	119	1.38	1217.51	1210	14	3.52E-02	9.6	
29	0	661.79*	60	103	1.10	1323.10	1316	14	6.64E-03	39.5	
30	0	727.14	92	38	2.28	1453.81	1449	12	1.02E-02	17.4	
31	0	770.46	38	87	5.23	1540.45	1531	16	4.25E-03	58.1	
32	0	794.93	61	46	4.54	1589.39	1583	16	6.83E-03	27.4	
33	0	839.46	23	21	0.93	1678.45	1675	7	2.60E-03	38.3	
34	0	860.44	56	36	1.66	1720.40	1713	12	6.18E-03	25.4	
35	0	902.70	12	17	1.05	1804.92	1801	9	1.37E-03	65.3	
36	0	911.25*	235	61	1.94	1822.02	1812	21	2.61E-02	11.0	
37	3	964.36	48	40	1.80	1928.22	1921	23	5.31E-03	28.4	2.31E+00
38	3	968.46	164	30	1.91	1936.41	1921	23	1.82E-02	10.4	

Sample ID : G198683024 Acquisition date : 15-DEC-2007 12:31:03

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1018.86	10	18	0.67	2037.20	2031	9	1.12E-03	85.2	
40	0	1041.03	14	11	3.88	2081.53	2076	11	1.59E-03	52.1	
41	0	1119.96*	53	35	1.22	2239.36	2232	14	5.92E-03	28.6	
42	0	1128.12*	5	10	1.36	2255.68	2252	8	5.26E-04	143.2	
43	0	1142.17	18	12	1.39	2283.78	2277	10	1.97E-03	44.2	
44	0	1177.37	23	16	0.86	2354.15	2348	11	2.51E-03	42.5	
45	0	1181.55	7	7	0.94	2362.52	2358	6	7.42E-04	75.2	
46	0	1237.65	63	15	2.00	2474.67	2468	17	7.01E-03	18.2	
47	0	1256.18*	13	10	0.51	2511.73	2506	10	1.41E-03	58.6	
48	0	1425.76	18	6	3.10	2850.75	2845	12	2.00E-03	36.0	
49	0	1448.71	13	7	3.70	2896.64	2889	13	1.39E-03	50.7	
50	0	1459.99*	208	10	2.13	2919.18	2912	17	2.31E-02	8.1	
51	0	1512.30	13	23	2.91	3023.76	3010	17	1.48E-03	90.1	
52	0	1525.28	7	6	1.47	3049.71	3044	9	8.16E-04	72.3	
53	0	1544.58	6	4	0.72	3088.28	3083	9	7.11E-04	70.1	
54	0	1589.68	34	16	0.76	3178.45	3168	21	3.79E-03	33.8	
55	1	1728.25	15	0	2.31	3455.42	3448	15	1.66E-03	37.3	1.48E+00
56	1	1730.09	13	0	2.31	3459.10	3448	15	1.48E-03	34.4	
57	0	1763.83*	67	9	1.64	3526.53	3518	18	7.48E-03	17.4	
58	0	1809.58	5	4	0.95	3617.98	3613	8	6.05E-04	75.7	
59	0	1964.07	7	3	2.28	3926.72	3919	11	7.83E-04	59.4	

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]G198683024       *
* Acquisition date : 15-DEC-2007 12:31:03 Detector SN#    :                 *
* Detector ID      : GAM12                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 02:30:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:30:01.28     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683024           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.2133E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 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	4.259E+00	7.192E-01	4.936E-01	0.000E+00
CS-137	7.758E-02	6.049E-02	4.812E-02	0.000E+00
TL-208	3.897E-01	6.038E-02	4.608E-02	0.000E+00
BI-212	9.311E-01	3.287E-01	3.606E-01	0.000E+00
PB-212	1.222E+00	1.180E-01	7.464E-02	0.000E+00
BI-214	7.055E-01	1.448E-01	9.597E-02	0.000E+00
PB-214	8.337E-01	1.071E-01	8.727E-02	0.000E+00
RA-223	3.980E-01	2.351E-01	2.242E-01	0.000E+00
AC-228	1.325E+00	3.164E-01	1.484E-01	0.000E+00
TH-234	1.233E+00	5.714E-01	6.567E-01	0.000E+00
U-235	6.239E-02	1.861E-01	2.682E-01	0.000E+00
NP-236	6.318E-02	5.899E-02	6.970E-02	0.000E+00
AM-243	2.044E-01	6.065E-02	7.080E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	2.753E-02		3.310E-02	5.517E-02	0.000E+00	NOT IDENT.
RH-101	-8.602E-03		2.619E-02	4.412E-02	0.000E+00	NOT IDENT.
SB-125	-5.995E-03		7.662E-02	1.261E-01	0.000E+00	NOT IDENT.
EU-155	2.602E-02		8.161E-02	1.474E-01	0.000E+00	NOT IDENT.
PO-209	1.355E+00		5.475E+00	8.566E+00	0.000E+00	NOT IDENT.
BI-211	-3.477E-01		7.399E-01	1.171E+00	0.000E+00	NOT IDENT.
PA-233	-2.570E-02		4.941E-02	8.064E-02	0.000E+00	NOT IDENT.
PA-234M	1.534E+00		3.458E+00	5.635E+00	0.000E+00	NOT IDENT.
NP-237	0.000E+00		2.246E-01	3.682E-01	0.000E+00	NOT IDENT.
NP-239	-1.166E-01		1.764E-01	2.934E-01	0.000E+00	NOT IDENT.
AM-241	9.633E-03		1.258E-01	1.915E-01	0.000E+00	NOT IDENT.
CM-243	-2.105E-02		8.998E-02	1.308E-01	0.000E+00	NOT IDENT.
AM-246	-5.349E-02		8.981E-02	1.425E-01	0.000E+00	NOT IDENT.
CF-249	1.412E-02		3.173E-02	5.452E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 15:01:35.02

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683024.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 12:31:03
Sample ID        : G198683024           Sample quantity  : 1.21330E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:30:00.00        Elapsed real time: 0 02:30:01.28  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	208	10.66*	1.134E+00	4.259E+00	4.259E+00	17.23
CS-137	661.66	60	85.10*	2.247E+00	7.730E-02	7.758E-02	79.56
TL-208	277.36	13	6.31	4.449E+00	1.117E-01	1.117E-01	427.64
	510.77	132	22.60	2.786E+00	5.202E-01	5.202E-01	47.20
	583.19	333	84.50*	2.500E+00	3.897E-01	3.897E-01	15.81
	763.13	------	1.81	1.987E+00	------	Line Not Found	------
	860.56	56	12.42	1.788E+00	6.202E-01	6.202E-01	51.88
BI-212	727.33	92	11.80*	2.072E+00	9.311E-01	9.311E-01	36.03
	785.37	------	1.10	1.938E+00	------	Line Not Found	------
	1620.50	------	1.49	1.052E+00	------	Line Not Found	------
PB-212	74.81	263	10.40	4.673E+00	1.340E+00	1.340E+00	30.28
	77.11	410	17.50	4.891E+00	1.185E+00	1.185E+00	18.50
	87.30	------	7.81	5.704E+00	------	Line Not Found	------
	238.63	1058	43.30*	4.950E+00	1.222E+00	1.222E+00	9.86
	300.09	92	3.28	4.209E+00	1.642E+00	1.642E+00	55.81
BI-214	609.31	317	46.10*	2.411E+00	7.054E-01	7.055E-01	20.94
	768.36	------	4.94	1.975E+00	------	Line Not Found	------
	806.17	------	1.22	1.894E+00	------	Line Not Found	------
	934.06	------	3.03	1.662E+00	------	Line Not Found	------
	1120.29	53	15.10	1.414E+00	6.170E-01	6.171E-01	57.75
	1155.19	------	1.63	1.377E+00	------	Line Not Found	------
	1238.11	63	5.79	1.297E+00	2.079E+00	2.079E+00	36.97
	1280.96	------	1.43	1.260E+00	------	Line Not Found	------
	1377.67	------	4.00	1.187E+00	------	Line Not Found	------
	1401.50	------	1.27	1.171E+00	------	Line Not Found	------
	1407.98	------	2.15	1.166E+00	------	Line Not Found	------
	1509.23	------	2.11	1.106E+00	------	Line Not Found	------
	1729.60	13	2.92	1.009E+00	1.119E+00	1.119E+00	69.08
	1764.49	67	15.40	9.975E-01	1.085E+00	1.085E+00	35.36
PB-214	74.81	263	6.44	4.673E+00	2.164E+00	2.164E+00	30.28
	77.11	410	10.80	4.891E+00	1.920E+00	1.920E+00	18.50
	87.30	------	4.84	5.704E+00	------	Line Not Found	------

Sample ID : G198683024 Acquisition date : 15-DEC-2007 12:31:03

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	252	7.43	4.908E+00	1.710E+00	1.710E+00	32.96
	295.22	257	19.30	4.257E+00	7.728E-01	7.729E-01	22.25
	351.93	473	37.60*	3.733E+00	8.337E-01	8.337E-01	13.10
RA-223	269.46	100	13.70*	4.541E+00	3.980E-01	3.980E-01	60.28
AC-228	129.07	------	2.42	6.594E+00	------	Line Not Found	------
	209.25	74	3.89	5.393E+00	8.696E-01	8.696E-01	73.71
	270.25	100	3.46	4.541E+00	1.576E+00	1.576E+00	60.28
	338.32	224	11.27	3.845E+00	1.280E+00	1.280E+00	25.29
	409.46	55	1.92	3.322E+00	2.136E+00	2.136E+00	62.47
	463.00	89	4.40	3.016E+00	1.665E+00	1.665E+00	52.70
	794.95	61	4.25	1.917E+00	1.868E+00	1.868E+00	55.60
	911.20	235	25.80*	1.699E+00	1.325E+00	1.325E+00	24.36
	964.77	48	4.99	1.615E+00	1.469E+00	1.469E+00	57.68
	968.97	164	15.80	1.609E+00	1.598E+00	1.598E+00	22.91
	1588.20	34	3.22	1.066E+00	2.459E+00	2.459E+00	67.83
TH-234	63.29	75	4.80	3.240E+00	1.189E+00	1.189E+00	102.42
	92.58	162	5.41*	6.024E+00	1.233E+00	1.233E+00	47.30
U-235	143.76	18	10.96*	6.454E+00	6.239E-02	6.239E-02	304.33
NP-236	98.44	61	38.00*	6.276E+00	6.318E-02	6.318E-02	95.27
AM-243	74.66	263	68.20*	4.673E+00	2.044E-01	2.044E-01	30.28

Flag: "*" = Keyline

Sample ID : G198683024 Acquisition date : 15-DEC-2007 12:31:03

Total number of lines in spectrum	59	
Number of unidentified lines	26	
Number of lines tentatively identified by NID	33	55.93%

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	4.259E+00	4.259E+00	0.734E+00	17.23	
CS-137	9.47E+08S	1.00	7.730E-02	7.758E-02	6.172E-02	79.56	
TL-208	4.43E+17S	1.00	3.897E-01	3.897E-01	0.616E-01	15.81	
BI-212	4.43E+17S	1.00	9.311E-01	9.311E-01	3.355E-01	36.03	
PB-212	4.43E+17S	1.00	1.222E+00	1.222E+00	0.120E+00	9.86	
BI-214	5.05E+10S	1.00	7.054E-01	7.055E-01	1.477E-01	20.94	
PB-214	5.05E+10S	1.00	8.337E-01	8.337E-01	1.092E-01	13.10	
RA-223	1.04E+12S	1.00	3.980E-01	3.980E-01	2.399E-01	60.28	
AC-228	4.43E+17S	1.00	1.325E+00	1.325E+00	0.323E+00	24.36	
TH-234	1.41E+17S	1.00	1.233E+00	1.233E+00	0.583E+00	47.30	
U-235	2.22E+16S	1.00	6.239E-02	6.239E-02	18.99E-02	304.33	
NP-236	4.89E+12S	1.00	6.318E-02	6.318E-02	6.019E-02	95.27	
AM-243	2.33E+11S	1.00	2.044E-01	2.044E-01	0.619E-01	30.28	
			---	---			
		Total Activity :	1.170E+01	1.170E+01			

Grand Total Activity : 1.170E+01 1.170E+01

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

Sample ID : G198683024 Acquisition date : 15-DEC-2007 12:31:03

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
6	66.16	53	339	1.76	131.55	121	15	5.94E-03	****	3.64E+00	
2	89.63	107	310	1.38	178.52	161	32	1.19E-02	63.1	5.85E+00	
0	185.83	146	308	1.42	370.99	367	10	1.62E-02	51.4	5.78E+00	
0	283.69	28	107	0.88	566.78	564	7	3.11E-03	****	4.38E+00	
0	327.47	82	174	1.59	654.35	648	12	9.09E-03	68.2	3.94E+00	
5	356.15	39	106	2.29	711.74	698	21	4.39E-03	****	3.70E+00	
0	551.43	20	49	1.37	1102.37	1097	9	2.24E-03	****	2.62E+00	
3	587.48	30	60	2.11	1174.48	1157	28	3.39E-03	****	2.48E+00	
0	770.46	38	87	5.23	1540.45	1531	16	4.25E-03	****	1.97E+00	
0	839.46	23	21	0.93	1678.45	1675	7	2.60E-03	76.7	1.83E+00	
0	902.70	12	17	1.05	1804.92	1801	9	1.37E-03	****	1.71E+00	
0	1018.86	10	18	0.67	2037.20	2031	9	1.12E-03	****	1.54E+00	
0	1041.03	14	11	3.88	2081.53	2076	11	1.59E-03	****	1.51E+00	
0	1128.12	5	10	1.36	2255.68	2252	8	5.26E-04	****	1.41E+00	
0	1142.17	18	12	1.39	2283.78	2277	10	1.97E-03	88.4	1.39E+00	
0	1177.37	23	16	0.86	2354.15	2348	11	2.51E-03	84.9	1.35E+00	
0	1181.55	7	7	0.94	2362.52	2358	6	7.42E-04	****	1.35E+00	
0	1256.18	13	10	0.51	2511.73	2506	10	1.41E-03	****	1.28E+00	
0	1425.76	18	6	3.10	2850.75	2845	12	2.00E-03	72.0	1.16E+00	
0	1448.71	13	7	3.70	2896.64	2889	13	1.39E-03	****	1.14E+00	
0	1512.30	13	23	2.91	3023.76	3010	17	1.48E-03	****	1.10E+00	
0	1525.28	7	6	1.47	3049.71	3044	9	8.16E-04	****	1.10E+00	
0	1544.58	6	4	0.72	3088.28	3083	9	7.11E-04	****	1.09E+00	
1	1728.25	15	0	2.31	3455.42	3448	15	1.66E-03	74.6	1.01E+00	
0	1809.58	5	4	0.95	3617.98	3613	8	6.05E-04	****	9.83E-01	
0	1964.07	7	3	2.28	3926.72	3919	11	7.83E-04	****	9.46E-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]G198683024            *
* Acquisition date : 15-DEC-2007 12:31:03 Detector SN#    :                 *
* Detector ID      : GAM12                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 02:30:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:30:01.28     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683024           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.2133E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 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	4.259E+00	7.192E-01	2.469E-01	7.192E-01
CS-137	7.758E-02	6.049E-02	2.407E-02	6.049E-02
TL-208	3.897E-01	6.038E-02	2.305E-02	6.038E-02
BI-212	9.311E-01	3.287E-01	1.804E-01	3.287E-01
PB-212	1.222E+00	1.180E-01	3.734E-02	1.180E-01
BI-214	7.055E-01	1.448E-01	4.801E-02	1.448E-01
PB-214	8.337E-01	1.071E-01	4.366E-02	1.071E-01
RA-223	3.980E-01	2.351E-01	1.122E-01	2.351E-01
AC-228	1.325E+00	3.164E-01	7.422E-02	3.164E-01
TH-234	1.233E+00	5.714E-01	3.286E-01	5.714E-01
U-235	6.239E-02	1.861E-01	1.342E-01	1.861E-01
NP-236	6.318E-02	5.899E-02	3.487E-02	5.899E-02
AM-243	2.044E-01	6.065E-02	3.542E-02	6.065E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	2.753E-02	3.310E-02	2.760E-02	3.310E-02	NOT IDENT.
RH-101	-8.602E-03	2.619E-02	2.207E-02	2.619E-02	NOT IDENT.
SB-125	-5.995E-03	7.662E-02	6.310E-02	7.662E-02	NOT IDENT.
EU-155	2.602E-02	8.161E-02	7.377E-02	8.161E-02	NOT IDENT.
PO-209	1.355E+00	5.475E+00	4.286E+00	5.475E+00	NOT IDENT.
BI-211	-3.477E-01	7.399E-01	5.860E-01	7.399E-01	NOT IDENT.
PA-233	-2.570E-02	4.941E-02	4.034E-02	4.941E-02	NOT IDENT.
PA-234M	1.534E+00	3.458E+00	2.819E+00	3.458E+00	NOT IDENT.
NP-237	5.337E-01	2.246E-01	1.842E-01	2.246E-01	NOT IDENT.
NP-239	-1.166E-01	1.764E-01	1.468E-01	1.764E-01	NOT IDENT.
AM-241	9.633E-03	1.258E-01	9.582E-02	1.258E-01	NOT IDENT.
CM-243	-2.105E-02	8.998E-02	6.542E-02	8.998E-02	NOT IDENT.
AM-246	-5.349E-02	8.981E-02	7.129E-02	8.981E-02	NOT IDENT.
CF-249	1.412E-02	3.173E-02	2.728E-02	3.173E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	244.1365
63.29	275.9582
74.66	353.8461
74.81	353.9281
74.81	353.9281
77.11	355.1657
77.11	355.1657
86.48	319.5801
87.30	319.9453
87.30	319.9453
92.58	322.2637
98.44	194.5089
103.76	274.5086
105.31	261.8999
129.07	267.4120
143.76	257.8560
198.00	221.9237
209.25	238.4927
228.18	213.4703
238.63	185.3821
242.00	185.8344
269.46	141.8030
270.25	141.8799
277.36	169.4291
295.22	135.9538
300.09	130.5834
312.17	134.2595
338.32	132.1144
351.93	109.7031
387.59	100.9723
409.46	110.8895
427.87	100.8212
463.00	75.6984
510.77	95.7271
583.19	70.1537
609.31	84.2660
661.66	62.4672
727.33	57.8980
763.13	45.4460
768.36	53.6146
785.37	47.8009
794.95	46.9231
806.17	45.0388
831.80	46.4216
860.56	38.1473
896.60	31.5366
911.20	31.6663
934.06	32.9292
964.77	48.2003
968.97	48.2542
1001.03	25.9535
1078.86	34.0055
1120.29	31.5637
1155.19	29.0171
1173.23	25.7813
1238.11	16.2149
1280.96	25.9948
1332.51	26.2804
1377.67	20.6317
1401.50	23.6934
1407.98	23.7236
1460.80	26.9681
1509.23	15.1227
1588.20	17.3922
1620.50	15.4358
1729.60	10.7879
1764.49	12.6602

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683024

Total Uranium Activity	2.8869E-02	ug/g
Total Uranium Counting Unc.	8.6099E-02	ug/g
Total Uranium Tpu	8.6099E-08	ug/g
Total Uranium Mda	6.2088E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 15:02:14.74

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683025.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 12:31:42
Sample ID        : G198683025           Sample quantity  : 1.04860E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:30:00.00        Elapsed real time: 0 02:30:01.15  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.96*	46	213	1.15	93.90	90	9	5.06E-03	65.0	
2	0	63.51*	35	297	1.88	126.98	121	9	3.88E-03	95.5	
3	3	74.98*	321	393	1.85	149.92	143	16	3.56E-02	14.6	2.31E+00
4	3	77.23*	394	296	1.34	154.41	143	16	4.38E-02	10.1	
5	4	84.48	61	484	2.05	168.92	160	33	6.73E-03	72.7	1.00E+00
6	4	87.37	196	422	1.83	174.69	160	33	2.18E-02	21.7	
7	4	90.03	133	288	1.40	180.02	160	33	1.48E-02	24.7	
8	4	92.99*	227	369	1.90	185.92	160	33	2.52E-02	19.7	
9	0	185.75*	100	271	1.53	371.38	367	10	1.11E-02	34.8	
10	0	209.68	73	233	1.48	419.23	414	10	8.10E-03	40.9	
11	0	215.59	19	148	0.84	431.05	429	7	2.16E-03	106.1	
12	3	238.57*	945	147	1.53	476.99	468	20	1.05E-01	4.2	2.28E+00
13	3	241.56	183	177	1.87	482.97	468	20	2.03E-02	21.1	
14	0	269.84	92	214	1.50	539.53	531	15	1.02E-02	36.1	
15	0	295.09*	243	159	1.75	590.02	584	12	2.70E-02	12.4	
16	0	300.08	82	109	1.91	599.99	596	9	9.14E-03	25.5	
17	0	305.38	63	115	3.57	610.58	605	12	7.01E-03	36.5	
18	0	310.89	54	108	1.42	621.62	617	11	5.96E-03	39.9	
19	0	327.96	73	141	2.31	655.75	651	11	8.16E-03	33.3	
20	0	338.51	205	177	1.70	676.84	668	18	2.27E-02	17.0	
21	0	351.64*	354	122	1.57	703.10	698	11	3.93E-02	8.5	
22	0	408.75	60	123	0.58	817.31	808	17	6.70E-03	44.1	
23	0	462.84	64	49	2.80	925.47	921	9	7.11E-03	23.4	
24	0	511.13*	101	105	2.44	1022.05	1014	21	1.13E-02	32.3	
25	0	546.20	31	39	1.66	1092.20	1088	8	3.44E-03	39.5	
26	0	569.42*	131	114	2.20	1138.63	1130	19	1.46E-02	23.1	
27	0	583.27*	279	89	1.62	1166.32	1161	14	3.10E-02	9.8	
28	0	609.42*	257	126	1.67	1218.63	1210	18	2.86E-02	12.2	
29	0	653.69	12	58	1.03	1307.19	1299	11	1.34E-03	125.8	
30	0	662.08	28	59	1.06	1323.97	1318	11	3.08E-03	57.4	
31	0	728.18	65	98	2.26	1456.17	1448	18	7.26E-03	37.7	
32	0	768.07*	36	52	5.09	1535.98	1529	13	3.97E-03	44.1	
33	0	787.28	33	34	4.91	1574.41	1568	14	3.71E-03	41.2	
34	0	795.15	36	38	1.38	1590.14	1582	13	4.00E-03	39.4	
35	0	803.20	18	39	1.43	1606.26	1601	11	1.94E-03	72.7	
36	0	811.86*	29	20	3.84	1623.56	1618	13	3.26E-03	38.3	
37	0	861.06	53	34	4.49	1722.00	1714	17	5.89E-03	28.7	
38	0	911.72*	226	33	1.83	1823.35	1818	15	2.51E-02	8.9	

Sample ID : G198683025 Acquisition date : 15-DEC-2007 12:31:42

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	970.87	85	131	1.81	1941.68	1928	19	9.41E-03	34.8	
40	0	1003.52*	1	33	0.50	2007.00	1999	11	8.70E-05	*****	
41	0	1025.01*	7	9	1.56	2050.00	2047	6	7.68E-04	93.8	
42	0	1077.94	21	17	0.95	2155.91	2150	12	2.33E-03	45.7	
43	0	1120.53	81	25	0.84	2241.11	2233	17	9.04E-03	18.0	
44	0	1209.78	27	29	4.85	2419.71	2408	20	2.98E-03	53.6	
45	0	1241.14	25	32	5.68	2482.47	2472	16	2.76E-03	57.0	
46	0	1337.07	18	7	3.38	2674.44	2667	14	2.00E-03	39.1	
47	0	1461.50*	259	23	1.95	2923.47	2917	15	2.88E-02	7.5	
48	0	1510.38	17	6	0.57	3021.30	3016	11	1.83E-03	36.9	
49	0	1631.75	23	2	2.93	3264.24	3259	10	2.51E-03	24.7	
50	0	1765.19*	32	14	2.14	3531.37	3525	14	3.60E-03	33.1	

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]G198683025       *
* Acquisition date : 15-DEC-2007 12:31:42 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 02:30:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:30:01.15     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683025           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.0486E+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	5.667E+00	8.928E-01	4.861E-01	0.000E+00
CS-137	3.748E-02	4.223E-02	4.937E-02	0.000E+00
TL-208	3.384E-01	6.946E-02	4.649E-02	0.000E+00
BI-212	6.907E-01	5.139E-01	3.613E-01	0.000E+00
PB-212	1.108E+00	1.133E-01	7.076E-02	0.000E+00
BI-214	5.946E-01	1.491E-01	8.318E-02	0.000E+00
PB-214	6.372E-01	1.124E-01	9.617E-02	0.000E+00
RA-223	3.733E-01	2.649E-01	2.388E-01	0.000E+00
AC-228	1.341E+00	2.602E-01	2.012E-01	0.000E+00
PA-233	8.558E-02	6.708E-02	7.939E-02	0.000E+00
TH-234	1.568E+00	6.180E-01	5.382E-01	0.000E+00
NP-237	6.116E-01	2.644E-01	2.437E-01	0.000E+00
AM-243	2.099E-01	6.198E-02	5.828E-02	0.000E+00
AM-246	1.353E-01	1.215E-01	1.727E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	7.279E-03		3.167E-02	5.388E-02	0.000E+00	NOT IDENT.
RH-101	2.699E-02		2.602E-02	4.665E-02	0.000E+00	NOT IDENT.
SB-125	2.965E-02		7.695E-02	1.322E-01	0.000E+00	NOT IDENT.
EU-155	1.945E-02		7.969E-02	1.336E-01	0.000E+00	NOT IDENT.
PO-209	1.951E+00		5.752E+00	1.006E+01	0.000E+00	NOT IDENT.
BI-211	3.162E-01		8.559E-01	1.501E+00	0.000E+00	NOT IDENT.
PA-234M	1.719E-01		4.271E+00	6.070E+00	0.000E+00	NOT IDENT.
U-235	4.105E-02		1.672E-01	2.654E-01	0.000E+00	NOT IDENT.
NP-236	4.946E-02		4.887E-02	7.527E-02	0.000E+00	NOT IDENT.
NP-239	-6.532E-02		1.718E-01	2.891E-01	0.000E+00	NOT IDENT.
AM-241	4.863E-03		1.068E-01	1.526E-01	0.000E+00	NOT IDENT.
CM-243	-6.664E-02		7.348E-02	1.167E-01	0.000E+00	NOT IDENT.
CF-249	3.287E-03		3.287E-02	5.561E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-DEC-2007 15:02:15.62

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683025.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 15-DEC-2007 12:31:42
Sample ID        : G198683025           Sample quantity  : 1.04860E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:30:00.00        Elapsed real time: 0 02:30:01.15  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	259	10.66*	1.229E+00	5.667E+00	5.667E+00	16.07
CS-137	661.66	28	85.10*	2.501E+00	3.734E-02	3.748E-02	114.97
TL-208	277.36	------	6.31	5.062E+00	------	Line Not Found	------
	510.77	101	22.60	3.127E+00	4.107E-01	4.107E-01	64.92
	583.19	279	84.50*	2.795E+00	3.384E-01	3.384E-01	20.95
	763.13	------	1.81	2.201E+00	------	Line Not Found	------
	860.56	53	12.42	1.970E+00	6.205E-01	6.205E-01	58.08
BI-212	727.33	65	11.80*	2.297E+00	6.907E-01	6.907E-01	75.92
	785.37	33	1.10	2.139E+00	4.062E+00	4.062E+00	82.93
	1620.50	------	1.49	1.140E+00	------	Line Not Found	------
PB-212	74.81	321	10.40	6.418E+00	1.377E+00	1.377E+00	30.13
	77.11	394	17.50	6.642E+00	9.701E-01	9.701E-01	21.51
	87.30	196	7.81	7.397E+00	9.711E-01	9.711E-01	44.11
	238.63	945	43.30*	5.645E+00	1.108E+00	1.108E+00	10.43
	300.09	82	3.28	4.774E+00	1.505E+00	1.505E+00	51.32
BI-214	609.31	257	46.10*	2.690E+00	5.945E-01	5.946E-01	25.59
	768.36	36	4.94	2.188E+00	9.464E-01	9.465E-01	88.59
	806.17	------	1.22	2.093E+00	------	Line Not Found	------
	934.06	------	3.03	1.826E+00	------	Line Not Found	------
	1120.29	81	15.10	1.544E+00	9.994E-01	9.994E-01	36.68
	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	------	4.00	1.289E+00	------	Line Not Found	------
	1401.50	------	1.27	1.271E+00	------	Line Not Found	------
	1407.98	------	2.15	1.266E+00	------	Line Not Found	------
	1509.23	17	2.11	1.199E+00	1.868E+00	1.868E+00	74.07
	1729.60	------	2.92	1.093E+00	------	Line Not Found	------
	1764.49	32	15.40	1.080E+00	5.572E-01	5.572E-01	66.36
PB-214	74.81	321	6.44	6.418E+00	2.223E+00	2.223E+00	30.13
	77.11	394	10.80	6.642E+00	1.572E+00	1.572E+00	21.51
	87.30	196	4.84	7.397E+00	1.567E+00	1.567E+00	44.11

Sample ID : G198683025 Acquisition date : 15-DEC-2007 12:31:42

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	183	7.43	5.595E+00	1.259E+00	1.260E+00	42.67
	295.22	243	19.30	4.834E+00	7.452E-01	7.452E-01	25.64
	351.93	354	37.60*	4.228E+00	6.371E-01	6.372E-01	18.01
RA-223	269.46	92	13.70*	5.166E+00	3.733E-01	3.733E-01	72.43
AC-228	129.07	------	2.42	7.836E+00	------	Line Not Found	------
	209.25	73	3.89	6.165E+00	8.702E-01	8.702E-01	81.98
	270.25	92	3.46	5.166E+00	1.478E+00	1.478E+00	72.43
	338.32	205	11.27	4.355E+00	1.194E+00	1.194E+00	34.56
	409.46	60	1.92	3.755E+00	2.395E+00	2.395E+00	88.36
	463.00	64	4.40	3.395E+00	1.226E+00	1.226E+00	47.26
	794.95	36	4.25	2.120E+00	1.144E+00	1.144E+00	79.23
	911.20	226	25.80*	1.868E+00	1.341E+00	1.341E+00	19.80
	964.77	------	4.99	1.772E+00	------	Line Not Found	------
	968.97	85	15.80	1.762E+00	8.710E-01	8.710E-01	70.20
	1588.20	------	3.22	1.156E+00	------	Line Not Found	------
PA-233	312.17	54	38.60*	4.648E+00	8.558E-02	8.558E-02	79.99
TH-234	63.29	35	4.80	4.906E+00	4.251E-01	4.251E-01	191.15
	92.58	227	5.41*	7.658E+00	1.568E+00	1.568E+00	40.21
NP-237	86.48	196	12.40*	7.397E+00	6.116E-01	6.116E-01	44.11
AM-243	74.66	321	68.20*	6.418E+00	2.099E-01	2.099E-01	30.13
AM-246	1078.86	21	27.80*	1.600E+00	1.352E-01	1.353E-01	91.66

Flag: "*" = Keyline

Sample ID : G198683025 Acquisition date : 15-DEC-2007 12:31:42

Total number of lines in spectrum 50
Number of unidentified lines 18
Number of lines tentatively identified by NID 32 64.00%

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	5.667E+00	5.667E+00	0.911E+00	16.07	
CS-137	9.47E+08S	1.00	3.734E-02	3.748E-02	4.309E-02	114.97	
TL-208	4.43E+17S	1.00	3.384E-01	3.384E-01	0.709E-01	20.95	
BI-212	4.43E+17S	1.00	6.907E-01	6.907E-01	5.244E-01	75.92	
PB-212	4.43E+17S	1.00	1.108E+00	1.108E+00	0.116E+00	10.43	
BI-214	5.05E+10S	1.00	5.945E-01	5.946E-01	1.521E-01	25.59	
PB-214	5.05E+10S	1.00	6.371E-01	6.372E-01	1.147E-01	18.01	
RA-223	1.04E+12S	1.00	3.733E-01	3.733E-01	2.704E-01	72.43	
AC-228	4.43E+17S	1.00	1.341E+00	1.341E+00	0.266E+00	19.80	
PA-233	6.75E+13S	1.00	8.558E-02	8.558E-02	6.845E-02	79.99	
TH-234	1.41E+17S	1.00	1.568E+00	1.568E+00	0.631E+00	40.21	
NP-237	6.75E+13S	1.00	6.116E-01	6.116E-01	2.698E-01	44.11	
AM-243	2.33E+11S	1.00	2.099E-01	2.099E-01	0.632E-01	30.13	
AM-246	2.18E+11S	1.00	1.352E-01	1.353E-01	1.240E-01	91.66	
			---	---			
	Total Activity :		1.340E+01	1.340E+01			

Grand Total Activity : 1.340E+01 1.340E+01

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

Sample ID : G198683025 Acquisition date : 15-DEC-2007 12:31:42

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.96	46	213	1.15	93.90	90	9	5.06E-03	****	1.97E+00	
4	84.48	61	484	2.05	168.92	160	33	6.73E-03	****	7.22E+00	
4	90.03	133	288	1.40	180.02	160	33	1.48E-02	49.4	7.53E+00	
0	185.75	100	271	1.53	371.38	367	10	1.11E-02	69.6	6.66E+00	
0	215.59	19	148	0.84	431.05	429	7	2.16E-03	****	6.05E+00	
0	305.38	63	115	3.57	610.58	605	12	7.01E-03	73.0	4.71E+00	
0	327.96	73	141	2.31	655.75	651	11	8.16E-03	66.7	4.46E+00	
0	546.20	31	39	1.66	1092.20	1088	8	3.44E-03	79.0	2.96E+00	
0	569.42	131	114	2.20	1138.63	1130	19	1.46E-02	46.3	2.85E+00	
0	653.69	12	58	1.03	1307.19	1299	11	1.34E-03	****	2.53E+00	
0	803.20	18	39	1.43	1606.26	1601	11	1.94E-03	****	2.10E+00	
0	811.86	29	20	3.84	1623.56	1618	13	3.26E-03	76.6	2.08E+00	
0	1003.52	1	33	0.50	2007.00	1999	11	8.70E-05	****	1.71E+00	
0	1025.01	7	9	1.56	2050.00	2047	6	7.68E-04	****	1.68E+00	
0	1209.78	27	29	4.85	2419.71	2408	20	2.98E-03	****	1.44E+00	
0	1241.14	25	32	5.68	2482.47	2472	16	2.76E-03	****	1.41E+00	
0	1337.07	18	7	3.38	2674.44	2667	14	2.00E-03	78.2	1.32E+00	
0	1631.75	23	2	2.93	3264.24	3259	10	2.51E-03	49.5	1.13E+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]G198683025            *
* Acquisition date : 15-DEC-2007 12:31:42 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 3.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 02:30:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:30:01.15     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683025           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.0486E+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	5.667E+00	8.928E-01	2.432E-01	8.928E-01
CS-137	3.748E-02	4.223E-02	2.470E-02	4.223E-02
TL-208	3.384E-01	6.946E-02	2.326E-02	6.946E-02
BI-212	6.907E-01	5.139E-01	1.807E-01	5.139E-01
PB-212	1.108E+00	1.133E-01	3.540E-02	1.133E-01
BI-214	5.946E-01	1.491E-01	4.161E-02	1.491E-01
PB-214	6.372E-01	1.124E-01	4.811E-02	1.124E-01
RA-223	3.733E-01	2.649E-01	1.195E-01	2.649E-01
AC-228	1.341E+00	2.602E-01	1.007E-01	2.602E-01
PA-233	8.558E-02	6.708E-02	3.972E-02	6.708E-02
TH-234	1.568E+00	6.180E-01	2.693E-01	6.180E-01
NP-237	6.116E-01	2.644E-01	1.219E-01	2.644E-01
AM-243	2.099E-01	6.198E-02	2.916E-02	6.198E-02
AM-246	1.353E-01	1.215E-01	8.638E-02	1.215E-01

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	7.279E-03	3.167E-02	2.696E-02	3.167E-02	NOT IDENT.
RH-101	2.699E-02	2.602E-02	2.334E-02	2.602E-02	NOT IDENT.
SB-125	2.965E-02	7.695E-02	6.615E-02	7.695E-02	NOT IDENT.
EU-155	1.945E-02	7.969E-02	6.684E-02	7.969E-02	NOT IDENT.
PO-209	1.951E+00	5.752E+00	5.035E+00	5.752E+00	NOT IDENT.
BI-211	3.162E-01	8.559E-01	7.510E-01	8.559E-01	NOT IDENT.
PA-234M	1.719E-01	4.271E+00	3.037E+00	4.271E+00	NOT IDENT.
U-235	4.105E-02	1.672E-01	1.328E-01	1.672E-01	NOT IDENT.
NP-236	4.946E-02	4.887E-02	3.766E-02	4.887E-02	NOT IDENT.
NP-239	-6.532E-02	1.718E-01	1.446E-01	1.718E-01	NOT IDENT.
AM-241	4.863E-03	1.068E-01	7.632E-02	1.068E-01	NOT IDENT.
CM-243	-6.664E-02	7.348E-02	5.838E-02	7.348E-02	NOT IDENT.
CF-249	3.287E-03	3.287E-02	2.782E-02	3.287E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	288.2672
63.29	338.7998
74.66	357.7734
74.81	357.8259
74.81	357.8259
77.11	358.6290
77.11	358.6290
86.48	274.2835
87.30	274.4865
87.30	274.4865
92.58	275.7718
98.44	227.8458
103.76	292.4660
105.31	258.6344
129.07	282.9289
143.76	249.5455
198.00	206.3270
209.25	214.9094
228.18	198.5679
238.63	168.0437
242.00	158.0925
269.46	161.1015
270.25	161.1600
277.36	170.1892
295.22	154.0648
300.09	128.9207
312.17	113.5838
338.32	128.0571
351.93	131.6678
387.59	113.6720
409.46	103.6052
427.87	95.2447
463.00	85.2069
510.77	74.1384
583.19	68.3563
609.31	60.3746
661.66	62.2863
727.33	54.5776
763.13	45.6068
768.36	62.9813
785.37	61.6475
794.95	48.0528
806.17	27.7930
831.80	50.3130
860.56	37.5024
896.60	39.6783
911.20	53.6066
934.06	36.1770
964.77	39.4110
968.97	44.1011
1001.03	36.3846
1078.86	33.5645
1120.29	30.5774
1155.19	29.7742
1173.23	25.8847
1238.11	24.1582
1280.96	19.2605
1332.51	28.0357
1377.67	9.2644
1401.50	33.0612
1407.98	26.8887
1460.80	23.2306
1509.23	14.3973
1588.20	26.5411
1620.50	11.7305
1729.60	20.5609
1764.49	9.7837

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683025

Total Uranium Activity	1.8996E-02	ug/g
Total Uranium Counting Unc.	7.7384E-02	ug/g
Total Uranium Tpu	7.7384E-08	ug/g
Total Uranium Mda	6.1441E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 12:29:47.19

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683026.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:08:49
Sample ID        : G198683026           Sample quantity  : 1.44710E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.43  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.46*	20	347	1.14	126.98	123	9	1.41E-03	182.3	
2	4	74.91	300	544	1.93	149.89	144	16	2.08E-02	17.1	3.20E+00
3	4	77.36*	251	303	1.17	154.78	144	16	1.74E-02	14.6	
4	0	87.27	136	357	1.88	174.61	170	8	9.46E-03	25.5	
5	0	93.00*	127	529	1.62	186.06	181	12	8.83E-03	41.3	
6	0	185.92*	88	384	1.70	371.95	366	12	6.15E-03	49.5	
7	3	238.73*	639	186	1.37	477.61	471	19	4.44E-02	5.8	9.04E-01
8	3	241.73	177	258	2.21	483.62	471	19	1.23E-02	25.2	
9	0	270.55	94	250	2.13	541.26	534	12	6.53E-03	35.3	
10	0	277.96	40	256	2.91	556.09	552	12	2.75E-03	82.7	
11	1	295.28*	159	163	1.70	590.74	583	22	1.11E-02	18.7	1.13E+00
12	1	299.74	71	177	1.87	599.66	583	22	4.95E-03	38.3	
13	0	338.01	94	175	1.47	676.23	672	11	6.50E-03	29.2	
14	0	351.85*	277	193	1.49	703.91	697	14	1.92E-02	12.7	
15	0	458.00	18	47	1.26	916.25	913	6	1.23E-03	65.8	
16	0	462.99	76	107	0.88	926.24	919	13	5.29E-03	30.3	
17	0	511.14*	104	168	2.59	1022.55	1013	24	7.21E-03	41.2	
18	7	580.54	32	39	2.38	1161.37	1157	15	2.23E-03	40.3	2.94E+00
19	7	583.30*	183	63	1.61	1166.90	1157	15	1.27E-02	12.6	
20	0	609.58*	182	95	1.62	1219.46	1213	12	1.26E-02	14.1	
21	0	662.08	96	33	1.15	1324.48	1320	9	6.67E-03	14.9	
22	0	685.71	18	34	1.13	1371.75	1368	8	1.23E-03	62.0	
23	0	726.91	77	90	1.92	1454.17	1444	18	5.35E-03	31.1	
24	0	767.97*	27	63	1.43	1536.28	1529	12	1.91E-03	65.2	
25	0	862.27	37	69	3.93	1724.91	1716	19	2.58E-03	56.7	
26	0	911.80*	109	32	1.50	1823.98	1819	12	7.60E-03	16.2	
27	0	969.54*	81	60	1.79	1939.47	1932	13	5.62E-03	25.2	
28	0	990.56	20	12	1.57	1981.50	1976	10	1.42E-03	39.0	
29	0	1120.52*	59	40	1.69	2241.44	2233	16	4.10E-03	29.3	
30	0	1165.09	11	31	4.35	2330.59	2320	12	7.63E-04	100.9	
31	0	1312.17	18	7	3.94	2624.74	2618	13	1.27E-03	37.1	
32	0	1461.22*	344	16	2.03	2922.84	2914	20	2.39E-02	6.4	
33	0	1515.75	11	14	5.84	3031.89	3020	16	7.29E-04	89.3	
34	0	1601.47*	11	3	0.58	3203.32	3197	11	7.48E-04	52.9	
35	0	1621.50	18	9	0.97	3243.37	3235	13	1.22E-03	43.6	
36	0	1741.85	11	3	3.18	3484.05	3478	12	7.49E-04	44.5	
37	0	1765.84*	37	24	2.29	3532.02	3522	15	2.55E-03	38.2	
38	0	1953.66	5	8	0.52	3907.60	3902	8	3.47E-04	107.7	

Sample ID : G198683026 Acquisition date : 16-DEC-2007 12:08:49

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

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]G198683026       *
* Acquisition date : 16-DEC-2007 12:08:49 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 04:00:01.43     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683026           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.4471E+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	3.993E+00	5.492E-01	2.714E-01	0.000E+00
CS-137	6.962E-02	2.098E-02	3.149E-02	0.000E+00
TL-208	1.192E-01	3.056E-02	3.002E-02	0.000E+00
BI-212	4.356E-01	2.675E-01	2.157E-01	0.000E+00
PB-212	3.938E-01	5.196E-02	4.714E-02	0.000E+00
BI-214	2.250E-01	6.441E-02	5.861E-02	0.000E+00
PB-214	2.658E-01	6.815E-02	5.844E-02	0.000E+00
RA-223	2.013E-01	1.398E-01	1.468E-01	0.000E+00
TH-234	4.924E-01	4.004E-01	4.002E-01	0.000E+00
NP-237	2.438E-01	1.234E-01	1.930E-01	0.000E+00
AM-243	1.212E-01	4.171E-02	3.983E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-6.821E-03		2.018E-02	3.237E-02	0.000E+00	NOT IDENT.
RH-101	-1.035E-02		2.043E-02	2.897E-02	0.000E+00	NOT IDENT.
SB-125	-3.072E-02		4.822E-02	7.869E-02	0.000E+00	NOT IDENT.
EU-155	1.447E-02		4.709E-02	8.696E-02	0.000E+00	NOT IDENT.
PO-209	2.682E+00		3.335E+00	6.095E+00	0.000E+00	NOT IDENT.
BI-211	-3.330E-02		4.665E-01	7.917E-01	0.000E+00	NOT IDENT.
AC-228	0.000E+00		1.151E-01	1.945E-01	0.000E+00	FAIL ABUN
PA-233	-2.374E-02		3.190E-02	5.306E-02	0.000E+00	NOT IDENT.
PA-234M	-3.024E+00		2.451E+00	3.187E+00	0.000E+00	NOT IDENT.
U-235	5.320E-03		9.322E-02	1.684E-01	0.000E+00	NOT IDENT.
NP-236	3.861E-02		2.986E-02	5.056E-02	0.000E+00	NOT IDENT.
NP-239	2.725E-02		1.065E-01	1.899E-01	0.000E+00	NOT IDENT.
AM-241	-5.061E-02		7.737E-02	1.144E-01	0.000E+00	NOT IDENT.
CM-243	-1.999E-02		4.257E-02	7.650E-02	0.000E+00	NOT IDENT.
AM-246	1.874E-02		5.823E-02	1.013E-01	0.000E+00	NOT IDENT.
CF-249	6.981E-03		1.986E-02	3.474E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 12:29:48.20

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683026.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:08:49
Sample ID        : G198683026           Sample quantity  : 1.44710E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.43  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	344	10.66*	1.047E+00	3.993E+00	3.993E+00	14.03
CS-137	661.66	96	85.10*	2.112E+00	6.936E-02	6.962E-02	30.75
TL-208	277.36	40	6.31	4.330E+00	1.877E-01	1.877E-01	165.57
	510.77	104	22.60	2.640E+00	2.256E-01	2.256E-01	82.61
	583.19	183	84.50*	2.359E+00	1.192E-01	1.192E-01	26.15
	763.13	------	1.81	1.860E+00	------	Line Not Found	------
	860.56	37	12.42	1.664E+00	2.332E-01	2.332E-01	113.87
BI-212	727.33	77	11.80*	1.943E+00	4.356E-01	4.356E-01	62.66
	785.37	------	1.10	1.812E+00	------	Line Not Found	------
	1620.50	18	1.49	9.723E-01	1.572E+00	1.572E+00	87.47
PB-212	74.81	300	10.40	4.711E+00	7.945E-01	7.945E-01	35.13
	77.11	251	17.50	4.978E+00	3.740E-01	3.740E-01	30.28
	87.30	136	7.81	5.844E+00	3.871E-01	3.871E-01	51.65
	238.63	639	43.30*	4.863E+00	3.938E-01	3.938E-01	13.46
	300.09	71	3.28	4.081E+00	6.901E-01	6.901E-01	76.93
BI-214	609.31	182	46.10*	2.270E+00	2.250E-01	2.250E-01	29.21
	768.36	27	4.94	1.849E+00	3.904E-01	3.904E-01	130.78
	806.17	------	1.22	1.770E+00	------	Line Not Found	------
	934.06	------	3.03	1.546E+00	------	Line Not Found	------
	1120.29	59	15.10	1.310E+00	3.874E-01	3.874E-01	58.98
	1155.19	------	1.63	1.274E+00	------	Line Not Found	------
	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	------	2.92	9.349E-01	------	Line Not Found	------
	1764.49	37	15.40	9.243E-01	3.344E-01	3.344E-01	76.67
PB-214	74.81	300	6.44	4.711E+00	1.283E+00	1.283E+00	35.13
	77.11	251	10.80	4.978E+00	6.060E-01	6.060E-01	30.28
	87.30	136	4.84	5.844E+00	6.246E-01	6.247E-01	51.65

Sample ID : G198683026 Acquisition date : 16-DEC-2007 12:08:49

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	177	7.43	4.818E+00	6.397E-01	6.398E-01	50.84
	295.22	159	19.30	4.129E+00	2.592E-01	2.592E-01	37.99
	351.93	277	37.60*	3.591E+00	2.658E-01	2.658E-01	26.16
RA-223	269.46	94	13.70*	4.422E+00	2.013E-01	2.013E-01	70.89
TH-234	63.29	20	4.80	3.202E+00	1.709E-01	1.709E-01	364.72
	92.58	127	5.41*	6.193E+00	4.924E-01	4.924E-01	82.99
NP-237	86.48	136	12.40*	5.844E+00	2.438E-01	2.438E-01	51.65
AM-243	74.66	300	68.20*	4.711E+00	1.212E-01	1.212E-01	35.13

Flag: "*" = Keyline

Sample ID : G198683026 Acquisition date : 16-DEC-2007 12:08:49

Total number of lines in spectrum 38
Number of unidentified lines 11
Number of lines tentatively identified by NID 27 71.05%

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	3.993E+00	3.993E+00	0.560E+00	14.03	
CS-137	9.47E+08S	1.00	6.936E-02	6.962E-02	2.141E-02	30.75	
TL-208	4.43E+17S	1.00	1.192E-01	1.192E-01	0.312E-01	26.15	
BI-212	4.43E+17S	1.00	4.356E-01	4.356E-01	2.729E-01	62.66	
PB-212	4.43E+17S	1.00	3.938E-01	3.938E-01	0.530E-01	13.46	
BI-214	5.05E+10S	1.00	2.250E-01	2.250E-01	0.657E-01	29.21	
PB-214	5.05E+10S	1.00	2.658E-01	2.658E-01	0.695E-01	26.16	
RA-223	1.04E+12S	1.00	2.013E-01	2.013E-01	1.427E-01	70.89	
TH-234	1.41E+17S	1.00	4.924E-01	4.924E-01	4.086E-01	82.99	
NP-237	6.75E+13S	1.00	2.438E-01	2.438E-01	1.259E-01	51.65	
AM-243	2.33E+11S	1.00	1.212E-01	1.212E-01	0.426E-01	35.13	
			---	---			
	Total Activity :		6.560E+00	6.561E+00			

Grand Total Activity : 6.560E+00 6.561E+00

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

Sample ID : G198683026 Acquisition date : 16-DEC-2007 12:08:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.92	88	384	1.70	371.95	366	12	6.15E-03	99.1	5.78E+00	
0	338.01	94	175	1.47	676.23	672	11	6.50E-03	58.3	3.71E+00	T
0	458.00	18	47	1.26	916.25	913	6	1.23E-03	****	2.89E+00	
0	462.99	76	107	0.88	926.24	919	13	5.29E-03	60.5	2.87E+00	T
7	580.54	32	39	2.38	1161.37	1157	15	2.23E-03	80.7	2.37E+00	
0	685.71	18	34	1.13	1371.75	1368	8	1.23E-03	****	2.05E+00	
0	911.80	109	32	1.50	1823.98	1819	12	7.60E-03	32.3	1.58E+00	T
0	969.54	81	60	1.79	1939.47	1932	13	5.62E-03	50.4	1.49E+00	T
0	990.56	20	12	1.57	1981.50	1976	10	1.42E-03	78.0	1.47E+00	
0	1165.09	11	31	4.35	2330.59	2320	12	7.63E-04	****	1.26E+00	
0	1312.17	18	7	3.94	2624.74	2618	13	1.27E-03	74.1	1.14E+00	
0	1515.75	11	14	5.84	3031.89	3020	16	7.29E-04	****	1.02E+00	
0	1601.47	11	3	0.58	3203.32	3197	11	7.48E-04	****	9.80E-01	
0	1741.85	11	3	3.18	3484.05	3478	12	7.49E-04	88.9	9.31E-01	
0	1953.66	5	8	0.52	3907.60	3902	8	3.47E-04	****	8.84E-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]G198683026            *
* Acquisition date : 16-DEC-2007 12:08:49 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 04:00:01.43     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683026           Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.4471E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	3.993E+00	5.492E-01	1.358E-01	5.492E-01
CS-137	6.962E-02	2.098E-02	1.575E-02	2.098E-02
TL-208	1.192E-01	3.056E-02	1.502E-02	3.056E-02
BI-212	4.356E-01	2.675E-01	1.079E-01	2.675E-01
PB-212	3.938E-01	5.196E-02	2.358E-02	5.196E-02
BI-214	2.250E-01	6.441E-02	2.932E-02	6.441E-02
PB-214	2.658E-01	6.815E-02	2.924E-02	6.815E-02
RA-223	2.013E-01	1.398E-01	7.343E-02	1.398E-01
TH-234	4.924E-01	4.004E-01	2.002E-01	4.004E-01
NP-237	2.438E-01	1.234E-01	9.657E-02	1.234E-01
AM-243	1.212E-01	4.171E-02	1.993E-02	4.171E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-6.821E-03	2.018E-02	1.620E-02	2.018E-02	NOT IDENT.
RH-101	-1.035E-02	2.043E-02	1.450E-02	2.043E-02	NOT IDENT.
SB-125	-3.072E-02	4.822E-02	3.937E-02	4.822E-02	NOT IDENT.
EU-155	1.447E-02	4.709E-02	4.351E-02	4.709E-02	NOT IDENT.
PO-209	2.682E+00	3.335E+00	3.049E+00	3.335E+00	NOT IDENT.
BI-211	-3.330E-02	4.665E-01	3.961E-01	4.665E-01	NOT IDENT.
AC-228	3.481E-01	1.151E-01	9.730E-02	1.151E-01	FAIL ABUN
PA-233	-2.374E-02	3.190E-02	2.655E-02	3.190E-02	NOT IDENT.
PA-234M	-3.024E+00	2.451E+00	1.595E+00	2.451E+00	NOT IDENT.
U-235	5.320E-03	9.322E-02	8.426E-02	9.322E-02	NOT IDENT.
NP-236	3.861E-02	2.986E-02	2.530E-02	2.986E-02	NOT IDENT.
NP-239	2.725E-02	1.065E-01	9.501E-02	1.065E-01	NOT IDENT.
AM-241	-5.061E-02	7.737E-02	5.725E-02	7.737E-02	NOT IDENT.
CM-243	-1.999E-02	4.257E-02	3.827E-02	4.257E-02	NOT IDENT.
AM-246	1.874E-02	5.823E-02	5.068E-02	5.823E-02	NOT IDENT.
CF-249	6.981E-03	1.986E-02	1.738E-02	1.986E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	311.0030
63.29	328.9853
74.66	386.2178
74.81	386.2762
74.81	386.2762
77.11	387.1617
77.11	387.1617
86.48	460.9817
87.30	465.5234
87.30	465.5234
92.58	430.0479
98.44	296.4863
103.76	347.3544
105.31	331.3682
129.07	328.2206
143.76	357.9502
198.00	326.4557
209.25	295.2574
228.18	252.8109
238.63	247.2112
242.00	247.6292
269.46	200.5401
270.25	194.9004
277.36	202.2827
295.22	168.2267
300.09	161.7737
312.17	194.1149
338.32	145.3525
351.93	158.6704
387.59	136.5066
409.46	121.5967
427.87	142.7850
463.00	97.7761
510.77	89.1673
583.19	93.3781
609.31	98.3866
661.66	83.4653
727.33	64.3752
763.13	69.1475
768.36	91.1853
785.37	71.2046
794.95	62.4412
806.17	48.6910
831.80	54.9698
860.56	63.7963
896.60	40.5444
911.20	62.7464
934.06	49.0352
964.77	56.3906
968.97	73.0469
1001.03	53.8408
1078.86	33.6289
1120.29	41.2979
1155.19	20.7791
1173.23	49.1726
1238.11	42.1580
1280.96	35.4620
1332.51	33.8781
1377.67	20.8521
1401.50	31.3944
1407.98	39.0438
1460.80	24.9590
1509.23	20.3049
1588.20	25.4260
1620.50	20.6301
1729.60	16.9502
1764.49	16.0268

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683026

Total Uranium Activity	2.4616E-03	ug/g
Total Uranium Counting Unc.	4.3134E-02	ug/g
Total Uranium Tpu	4.3134E-08	ug/g
Total Uranium Mda	3.8989E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:54:50.55

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473821.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 16-DEC-2007 12:09:15
Sample ID        : G1201473821          Sample quantity  : 1.52460E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:28.69  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.61*	14	171	0.86	128.16	123	10	9.64E-04	199.6	
2	0	81.26	48	131	1.48	163.43	160	8	3.33E-03	44.1	
3	4	92.66*	33	125	1.61	186.22	180	15	2.32E-03	89.0	2.91E+00
4	4	94.63	45	122	1.62	190.15	180	15	3.11E-03	56.4	
5	0	98.35	51	110	2.70	197.59	195	8	3.54E-03	38.1	
6	0	310.22	22	126	3.39	621.12	610	14	1.55E-03	108.7	
7	0	368.91	28	106	0.77	738.44	733	12	1.93E-03	76.1	
8	0	511.18*	48	100	1.97	1022.84	1013	21	3.35E-03	70.4	
9	0	526.69	69	80	13.09	1053.85	1038	32	4.76E-03	41.0	
10	0	609.95*	8	93	3.25	1220.32	1212	15	5.38E-04	311.5	
11	0	620.38	24	33	0.67	1241.17	1235	11	1.64E-03	52.7	
12	0	767.58	23	26	4.94	1535.46	1527	17	1.57E-03	55.6	
13	3	802.70*	15	26	2.38	1605.68	1600	22	1.04E-03	82.4	2.41E+00
14	3	807.48	16	22	2.17	1615.25	1600	22	1.13E-03	68.7	
15	0	910.83*	29	24	2.28	1821.87	1815	16	1.99E-03	46.6	
16	0	970.24	5	10	0.76	1940.67	1936	6	3.61E-04	106.6	
17	0	1078.78	16	12	0.83	2157.69	2152	12	1.11E-03	50.0	
18	0	1158.22	16	10	0.77	2316.54	2309	13	1.14E-03	46.5	
19	0	1179.85	10	12	0.73	2359.79	2353	10	6.76E-04	75.0	
20	0	1257.31	6	2	1.44	2514.69	2509	9	4.04E-04	62.2	
21	0	1299.85	6	15	2.90	2599.76	2589	12	3.94E-04	143.4	
22	0	1345.15	5	12	0.72	2690.33	2684	9	3.80E-04	118.9	
23	0	1440.32	9	0	0.66	2880.67	2877	8	6.25E-04	33.3	
24	0	1454.89	15	9	0.52	2909.80	2902	12	1.05E-03	47.2	
25	0	1461.99*	13	5	4.08	2924.01	2915	19	8.83E-04	67.8	
26	0	1487.09	8	11	4.38	2974.20	2964	14	5.83E-04	88.9	
27	0	1544.30	11	3	1.39	3088.60	3083	11	7.76E-04	41.5	
28	0	1571.46*	1	6	1.18	3142.92	3134	12	5.88E-05	823.3	
29	0	1589.98	3	13	0.43	3179.96	3171	10	2.39E-04	200.0	
30	0	1695.90	6	5	1.39	3391.78	3386	9	3.95E-04	90.1	
31	0	1843.01	9	2	0.62	3686.01	3680	10	6.03E-04	47.8	

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]G1201473821      *
* Acquisition date : 16-DEC-2007 12:09:15 Detector SN#    :                 *
* Detector ID      : GAM04                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 04:00:28.69     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473821          Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.5246E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2007 17:58:01 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	1.386E-01	1.843E-01	2.302E-01	0.000E+00
PA-233	1.835E-02	3.913E-02	3.722E-02	0.000E+00
TH-234	1.449E-01	2.531E-01	2.490E-01	0.000E+00
NP-236	2.965E-02	2.230E-02	2.551E-02	0.000E+00
AM-246	5.113E-02	5.028E-02	5.974E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.825E-03		1.037E-02	1.591E-02	0.000E+00	NOT IDENT.
RH-101	-3.748E-03		1.306E-02	2.052E-02	0.000E+00	NOT IDENT.
SB-125	-1.605E-02		2.775E-02	4.711E-02	0.000E+00	NOT IDENT.
CS-137	2.186E-03		1.117E-02	1.962E-02	0.000E+00	NOT IDENT.
EU-155	-1.419E-02		3.556E-02	6.079E-02	0.000E+00	NOT IDENT.
TL-208	-1.421E-02		1.441E-02	2.041E-02	0.000E+00	FAIL ABUN
PO-209	-3.695E-01		2.184E+00	3.728E+00	0.000E+00	NOT IDENT.
BI-211	3.299E-02		3.210E-01	5.469E-01	0.000E+00	NOT IDENT.
BI-212	-8.090E-02		8.699E-02	1.301E-01	0.000E+00	NOT IDENT.
PB-212	-6.733E-03		2.500E-02	4.040E-02	0.000E+00	NOT IDENT.
BI-214	8.892E-03		5.429E-02	5.696E-02	0.000E+00	FAIL ABUN
PB-214	-3.185E-02		2.914E-02	4.249E-02	0.000E+00	NOT IDENT.
RA-223	-1.517E-02		5.965E-02	1.031E-01	0.000E+00	NOT IDENT.
AC-228	8.410E-02		7.732E-02	9.905E-02	0.000E+00	FAIL ABUN
PA-234M	1.371E+00		1.684E+00	3.144E+00	0.000E+00	NOT IDENT.
U-235	-4.989E-02		8.140E-02	1.203E-01	0.000E+00	NOT IDENT.
NP-237	4.414E-02		7.382E-02	1.298E-01	0.000E+00	NOT IDENT.
NP-239	6.835E-02		7.304E-02	1.370E-01	0.000E+00	NOT IDENT.
AM-241	-4.144E-02		7.084E-02	1.086E-01	0.000E+00	NOT IDENT.
AM-243	4.309E-03		1.697E-02	3.089E-02	0.000E+00	NOT IDENT.
CM-243	7.831E-03		3.334E-02	5.657E-02	0.000E+00	NOT IDENT.
CF-249	-4.727E-03		1.322E-02	2.180E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:54:51.33

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473821.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 16-DEC-2007 12:09:15
Sample ID        : G1201473821          Sample quantity  : 1.52460E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:28.69  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	13	10.66*	1.059E+00	1.386E-01	1.386E-01	135.67
PA-233	312.17	22	38.60*	3.880E+00	1.835E-02	1.835E-02	217.60
TH-234	63.29	14	4.80	2.164E+00	1.645E-01	1.645E-01	399.39
	92.58	33	5.41*	5.241E+00	1.449E-01	1.449E-01	178.26
NP-236	98.44	51	38.00*	5.568E+00	2.965E-02	2.965E-02	76.75
AM-246	1078.86	16	27.80*	1.386E+00	5.113E-02	5.113E-02	100.33

Flag: "*" = Keyline

Sample ID : G1201473821 Acquisition date : 16-DEC-2007 12:09:15

Total number of lines in spectrum	31	
Number of unidentified lines	18	
Number of lines tentatively identified by NID	13	41.94%

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	1.386E-01	1.386E-01	1.881E-01	135.67	
PA-233	6.75E+13S	1.00	1.835E-02	1.835E-02	3.993E-02	217.60	
TH-234	1.41E+17S	1.00	1.449E-01	1.449E-01	2.583E-01	178.26	
NP-236	4.89E+12S	1.00	2.965E-02	2.965E-02	2.275E-02	76.75	
AM-246	2.18E+11S	1.00	5.113E-02	5.113E-02	5.130E-02	100.33	
			---	---			
	Total Activity :		3.827E-01	3.827E-01			
	Grand Total Activity :		3.827E-01	3.827E-01			

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

Sample ID : G1201473821 Acquisition date : 16-DEC-2007 12:09:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	81.26	48	131	1.48	163.43	160	8	3.33E-03	88.2	4.30E+00	
4	94.63	45	122	1.62	190.15	180	15	3.11E-03	****	5.36E+00	
0	368.91	28	106	0.77	738.44	733	12	1.93E-03	****	3.42E+00	
0	511.18	48	100	1.97	1022.84	1013	21	3.35E-03	****	2.68E+00	T
0	526.69	69	80	13.09	1053.85	1038	32	4.76E-03	81.9	2.62E+00	
0	609.95	8	93	3.25	1220.32	1212	15	5.38E-04	****	2.32E+00	T
0	620.38	24	33	0.67	1241.17	1235	11	1.64E-03	****	2.29E+00	
0	767.58	23	26	4.94	1535.46	1527	17	1.57E-03	****	1.91E+00	T
3	802.70	15	26	2.38	1605.68	1600	22	1.04E-03	****	1.83E+00	
3	807.48	16	22	2.17	1615.25	1600	22	1.13E-03	****	1.82E+00	T
0	910.83	29	24	2.28	1821.87	1815	16	1.99E-03	93.3	1.63E+00	T
0	970.24	5	10	0.76	1940.67	1936	6	3.61E-04	****	1.53E+00	T
0	1158.22	16	10	0.77	2316.54	2309	13	1.14E-03	92.9	1.30E+00	
0	1179.85	10	12	0.73	2359.79	2353	10	6.76E-04	****	1.27E+00	
0	1257.31	6	2	1.44	2514.69	2509	9	4.04E-04	****	1.20E+00	
0	1299.85	6	15	2.90	2599.76	2589	12	3.94E-04	****	1.17E+00	
0	1345.15	5	12	0.72	2690.33	2684	9	3.80E-04	****	1.13E+00	
0	1440.32	9	0	0.66	2880.67	2877	8	6.25E-04	66.7	1.07E+00	
0	1454.89	15	9	0.52	2909.80	2902	12	1.05E-03	94.4	1.06E+00	
0	1487.09	8	11	4.38	2974.20	2964	14	5.83E-04	****	1.05E+00	
0	1544.30	11	3	1.39	3088.60	3083	11	7.76E-04	83.1	1.02E+00	
0	1571.46	1	6	1.18	3142.92	3134	12	5.88E-05	****	1.00E+00	
0	1589.98	3	13	0.43	3179.96	3171	10	2.39E-04	****	9.97E-01	T
0	1695.90	6	5	1.39	3391.78	3386	9	3.95E-04	****	9.59E-01	
0	1843.01	9	2	0.62	3686.01	3680	10	6.03E-04	95.7	9.23E-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]G1201473821           *
* Acquisition date : 16-DEC-2007 12:09:15 Detector SN#    :                 *
* Detector ID      : GAM04                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 04:00:28.69     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473821          Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.5246E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2007 17:58:01 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	1.386E-01	1.843E-01	1.152E-01	1.843E-01
PA-233	1.835E-02	3.913E-02	1.862E-02	3.913E-02
TH-234	1.449E-01	2.531E-01	1.246E-01	2.531E-01
NP-236	2.965E-02	2.230E-02	1.276E-02	2.230E-02
AM-246	5.113E-02	5.028E-02	2.989E-02	5.028E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.825E-03	1.037E-02	7.958E-03	1.037E-02	NOT IDENT.
RH-101	-3.748E-03	1.306E-02	1.027E-02	1.306E-02	NOT IDENT.
SB-125	-1.605E-02	2.775E-02	2.357E-02	2.775E-02	NOT IDENT.
CS-137	2.186E-03	1.117E-02	9.818E-03	1.117E-02	NOT IDENT.
EU-155	-1.419E-02	3.556E-02	3.041E-02	3.556E-02	NOT IDENT.
TL-208	-1.421E-02	1.441E-02	1.021E-02	1.441E-02	FAIL ABUN
PO-209	-3.695E-01	2.184E+00	1.865E+00	2.184E+00	NOT IDENT.
BI-211	3.299E-02	3.210E-01	2.736E-01	3.210E-01	NOT IDENT.
BI-212	-8.090E-02	8.699E-02	6.511E-02	8.699E-02	NOT IDENT.
PB-212	-6.733E-03	2.500E-02	2.021E-02	2.500E-02	NOT IDENT.
BI-214	8.892E-03	5.429E-02	2.850E-02	5.429E-02	FAIL ABUN
PB-214	-3.185E-02	2.914E-02	2.126E-02	2.914E-02	NOT IDENT.
RA-223	-1.517E-02	5.965E-02	5.159E-02	5.965E-02	NOT IDENT.
AC-228	8.410E-02	7.732E-02	4.955E-02	7.732E-02	FAIL ABUN
PA-234M	1.371E+00	1.684E+00	1.573E+00	1.684E+00	NOT IDENT.
U-235	-4.989E-02	8.140E-02	6.020E-02	8.140E-02	NOT IDENT.
NP-237	4.414E-02	7.382E-02	6.493E-02	7.382E-02	NOT IDENT.
NP-239	6.835E-02	7.304E-02	6.853E-02	7.304E-02	NOT IDENT.
AM-241	-4.144E-02	7.084E-02	5.436E-02	7.084E-02	NOT IDENT.
AM-243	4.309E-03	1.697E-02	1.545E-02	1.697E-02	NOT IDENT.
CM-243	7.831E-03	3.334E-02	2.830E-02	3.334E-02	NOT IDENT.
CF-249	-4.727E-03	1.322E-02	1.091E-02	1.322E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	124.9428
63.29	117.2017
74.66	138.1263
74.81	129.6660
74.81	129.6660
77.11	144.1413
77.11	144.1413
86.48	133.0333
87.30	155.1114
87.30	155.1114
92.58	130.2067
98.44	76.5816
103.76	141.0771
105.31	162.7570
129.07	143.0599
143.76	161.9368
198.00	143.0682
209.25	136.0934
228.18	108.3536
238.63	140.9467
242.00	157.1962
269.46	108.3339
270.25	95.2350
277.36	89.6812
295.22	94.0701
300.09	108.9526
312.17	85.4536
338.32	87.5204
351.93	77.5789
387.59	71.7087
409.46	57.0380
427.87	63.3290
463.00	46.1584
510.77	62.0929
583.19	53.9849
609.31	67.5518
661.66	34.5595
727.33	42.8078
763.13	29.9949
768.36	29.7008
785.37	37.3627
794.95	34.8169
806.17	35.4976
831.80	28.2261
860.56	21.9316
896.60	26.8270
911.20	29.7461
934.06	25.2856
964.77	17.8336
968.97	20.8336
1001.03	31.5619
1078.86	15.6595
1120.29	14.8541
1155.19	25.7101
1173.23	10.3343
1238.11	16.3522
1280.96	16.5306
1332.51	13.6025
1377.67	12.6924
1401.50	15.9540
1407.98	12.7822
1460.80	20.3296
1509.23	14.9442
1588.20	15.1987
1620.50	14.3450
1729.60	12.7066
1764.49	14.7609

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473821

Total Uranium Activity	-2.3083E-02	ug/g
Total Uranium Counting Unc.	3.7665E-02	ug/g
Total Uranium Tpu	3.7665E-08	ug/g
Total Uranium Mda	2.7852E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:55:21.55

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473822.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:09:43
Sample ID        : G1201473822          Sample quantity  : 1.17690E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.04  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.27*	151	483	1.17	93.31	89	8	1.05E-02	33.1	
2	0	52.84*	34	525	0.68	106.44	103	8	2.33E-03	125.2	
3	6	62.98*	354	673	1.57	126.72	121	17	2.46E-02	15.3	9.69E-01
4	6	66.45*	110	733	1.55	133.66	121	17	7.63E-03	46.0	
5	5	72.65*	79	588	1.27	146.06	143	18	5.50E-03	52.1	1.42E+00
6	5	74.63*	1024	680	1.18	150.01	143	18	7.11E-02	5.4	
7	5	76.90*	1480	572	1.04	154.54	143	18	1.03E-01	3.9	
8	4	83.78*	121	663	1.19	168.30	164	30	8.42E-03	36.5	2.68E+00
9	4	86.97	576	689	1.29	174.67	164	30	4.00E-02	8.7	
10	4	89.78	392	545	1.24	180.30	164	30	2.73E-02	11.2	
11	4	92.62*	463	621	1.45	185.97	164	30	3.21E-02	12.6	
12	0	99.14	64	481	0.70	199.00	196	7	4.41E-03	58.7	
13	0	105.15	103	494	1.01	211.01	208	8	7.18E-03	38.5	
14	0	114.89	55	460	0.97	230.47	227	7	3.83E-03	66.2	
15	0	128.74	196	588	1.67	258.17	254	10	1.36E-02	24.2	
16	0	154.47	75	664	1.73	309.58	303	11	5.19E-03	68.2	
17	0	158.64	90	324	2.25	317.92	315	7	6.24E-03	35.1	
18	0	185.80*	472	676	1.33	372.22	365	14	3.28E-02	13.1	
19	0	209.32	267	487	1.44	419.21	414	12	1.85E-02	17.7	
20	0	217.84	105	537	1.32	436.25	429	13	7.30E-03	46.4	
21	3	238.59*	1995	300	1.31	477.72	473	16	1.39E-01	2.8	5.45E+00
22	3	241.64	512	363	1.61	483.80	473	16	3.56E-02	9.2	
23	0	270.61	139	490	1.44	541.71	537	15	9.62E-03	35.7	
24	0	277.94	68	357	1.05	556.36	551	11	4.72E-03	55.5	
25	2	295.19*	731	191	1.35	590.83	585	26	5.08E-02	5.2	2.05E+00
26	2	300.34	178	260	1.80	601.13	585	26	1.23E-02	19.1	
27	0	327.70	70	271	0.92	655.80	653	9	4.88E-03	43.7	
28	0	338.36*	355	218	1.10	677.11	673	9	2.46E-02	9.7	
29	0	351.90*	1186	288	1.52	704.16	696	14	8.24E-02	4.3	
30	0	409.28	40	221	0.63	818.81	815	9	2.81E-03	68.3	
31	0	443.28	19	136	1.34	886.76	884	8	1.35E-03	106.2	
32	0	463.54	82	135	1.30	927.24	925	8	5.67E-03	27.2	
33	0	472.84	39	107	1.74	945.82	943	8	2.68E-03	49.1	
34	0	510.98*	151	232	1.94	1022.03	1014	16	1.05E-02	29.5	
35	0	543.66	26	87	1.59	1087.34	1083	8	1.80E-03	65.5	
36	0	583.28*	566	200	1.54	1166.49	1158	17	3.93E-02	7.4	
37	0	609.49*	779	220	1.57	1218.87	1213	13	5.41E-02	5.5	
38	0	661.88*	344	134	1.79	1323.52	1319	10	2.39E-02	8.5	

Sample ID : G1201473822 Acquisition date : 16-DEC-2007 12:09:43

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	676.45	40	135	3.40	1352.63	1347	16	2.78E-03	66.1	
40	0	727.66	150	62	2.04	1454.93	1450	10	1.04E-02	12.8	
41	0	734.61	18	77	2.63	1468.83	1462	10	1.23E-03	95.9	
42	0	768.90	69	108	1.19	1537.32	1530	12	4.79E-03	32.4	
43	0	799.46	147	204	9.75	1598.37	1583	34	1.02E-02	31.1	
44	0	861.40	78	104	1.54	1722.10	1713	18	5.41E-03	32.7	
45	0	911.58*	376	81	1.96	1822.33	1816	15	2.61E-02	7.6	
46	0	935.63	60	62	1.51	1870.37	1864	15	4.16E-03	31.7	
47	1	964.70	50	62	2.34	1928.43	1923	22	3.50E-03	31.5	1.36E+00
48	1	969.28*	236	64	2.08	1937.58	1923	22	1.64E-02	9.8	
49	0	1001.52	49	41	1.03	2001.97	1997	11	3.41E-03	29.1	
50	0	1065.74	25	56	2.05	2130.22	2120	14	1.76E-03	65.6	
51	0	1077.66	15	49	1.25	2154.04	2145	11	1.02E-03	96.1	
52	0	1120.99*	62	105	1.15	2240.56	2239	9	4.33E-03	38.8	
53	0	1155.38	62	48	5.33	2309.25	2300	16	4.32E-03	27.9	
54	0	1168.41	14	59	3.23	2335.26	2324	14	9.62E-04	121.1	
55	0	1229.95	33	66	4.29	2458.15	2448	16	2.31E-03	57.8	
56	0	1238.82	61	64	3.13	2475.87	2470	14	4.23E-03	30.5	
57	4	1281.42	29	47	3.39	2560.94	2553	25	1.99E-03	55.7	1.26E+00
58	4	1287.39	23	22	3.40	2572.85	2553	25	1.63E-03	44.9	
59	0	1292.10	23	24	0.67	2582.27	2577	12	1.57E-03	48.3	
60	0	1345.42	30	23	3.77	2688.71	2681	16	2.08E-03	40.7	
61	1	1378.00	52	49	2.61	2753.78	2744	32	3.61E-03	32.7	1.26E+00
62	1	1386.39	27	17	2.61	2770.53	2744	32	1.85E-03	39.4	
63	0	1461.47*	568	48	2.30	2920.42	2909	19	3.95E-02	5.2	
64	0	1494.83	35	68	12.59	2987.02	2967	30	2.46E-03	69.6	
65	0	1562.69	14	2	2.03	3122.51	3119	8	9.48E-04	32.7	
66	1	1589.74	49	41	2.73	3176.50	3165	26	3.40E-03	32.5	1.40E+00
67	1	1593.00	26	17	2.48	3183.00	3165	26	1.81E-03	54.6	
68	0	1663.12	20	27	1.73	3322.98	3313	15	1.37E-03	64.1	
69	0	1729.62	44	16	1.10	3455.72	3447	16	3.08E-03	25.1	
70	0	1765.53*	138	24	3.19	3527.39	3517	19	9.61E-03	12.5	
71	0	1867.11	13	17	0.72	3730.12	3718	18	8.89E-04	82.3	
72	0	1874.09	17	0	5.22	3744.06	3738	14	1.18E-03	24.3	
73	0	1890.70	19	3	4.26	3777.22	3771	14	1.33E-03	30.7	

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]G1201473822      *
* Acquisition date : 16-DEC-2007 12:09:43 Detector SN#    :                 *
* Detector ID      : GAM05                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 04:00:03.04     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473822          Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1769E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	8.710E+00	1.116E+00	3.887E-01	0.000E+00
CS-137	3.429E-01	6.362E-02	5.563E-02	0.000E+00
EU-155	1.155E-01	8.772E-02	1.285E-01	0.000E+00
TL-208	5.065E-01	8.127E-02	4.634E-02	0.000E+00
BI-212	1.168E+00	3.083E-01	3.824E-01	0.000E+00
PB-212	1.645E+00	1.627E-01	7.535E-02	0.000E+00
BI-214	1.329E+00	1.725E-01	1.045E-01	0.000E+00
PB-214	1.536E+00	1.544E-01	9.362E-02	0.000E+00
RA-223	3.972E-01	2.791E-01	2.353E-01	0.000E+00
AC-228	1.619E+00	2.821E-01	2.260E-01	0.000E+00
PA-234M	7.011E+00	4.032E+00	5.805E+00	0.000E+00
TH-234	1.920E+00	5.014E-01	4.844E-01	0.000E+00
NP-236	3.809E-02	4.392E-02	6.319E-02	0.000E+00
NP-237	1.031E+00	1.974E-01	2.078E-01	0.000E+00
AM-243	3.267E-01	4.333E-02	4.091E-02	0.000E+00
CM-243	1.044E-01	7.936E-02	1.071E-01	0.000E+00
AM-246	6.747E-02	1.272E-01	1.838E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	3.128E-02	3.596E-02	5.734E-02	0.000E+00	NOT IDENT.
RH-101	3.675E-03	3.036E-02	4.834E-02	0.000E+00	NOT IDENT.
SB-125	4.271E-02	8.196E-02	1.413E-01	0.000E+00	NOT IDENT.
PO-209	-1.531E+00	5.993E+00	9.770E+00	0.000E+00	NOT IDENT.
BI-211	-2.638E-01	9.629E-01	1.584E+00	0.000E+00	NOT IDENT.
PA-233	3.745E-02	5.273E-02	9.311E-02	0.000E+00	NOT IDENT.
U-235	1.152E-01	1.658E-01	2.742E-01	0.000E+00	NOT IDENT.
NP-239	5.130E-02	1.760E-01	2.950E-01	0.000E+00	NOT IDENT.
AM-241	3.832E-02	4.237E-02	6.859E-02	0.000E+00	NOT IDENT.
CF-249	2.008E-02	3.473E-02	6.033E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:55:22.43

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473822.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:09:43
Sample ID        : G1201473822          Sample quantity  : 1.17690E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:03.04  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	568	10.66*	9.765E-01	8.710E+00	8.710E+00	13.08
CS-137	661.66	344	85.10*	1.887E+00	3.416E-01	3.429E-01	18.93
EU-155	105.31	103	21.20*	6.887E+00	1.129E-01	1.155E-01	77.53
TL-208	277.36	68	6.31	3.975E+00	4.321E-01	4.321E-01	111.21
	510.77	151	22.60	2.367E+00	4.507E-01	4.507E-01	59.26
	583.19	566	84.50*	2.107E+00	5.065E-01	5.065E-01	16.37
	763.13	------	1.81	1.670E+00	------	Line Not Found	------
	860.56	78	12.42	1.507E+00	6.641E-01	6.641E-01	65.96
BI-212	727.33	150	11.80*	1.739E+00	1.168E+00	1.168E+00	26.94
	785.37	------	1.10	1.629E+00	------	Line Not Found	------
	1620.50	------	1.49	8.967E-01	------	Line Not Found	------
PB-212	74.81	1024	10.40	7.333E+00	2.142E+00	2.142E+00	13.53
	77.11	1480	17.50	7.312E+00	1.844E+00	1.844E+00	11.41
	87.30	576	7.81	7.192E+00	1.636E+00	1.636E+00	19.55
	238.63	1995	43.30*	4.467E+00	1.645E+00	1.645E+00	10.10
	300.09	178	3.28	3.735E+00	2.313E+00	2.313E+00	38.79
BI-214	609.31	779	46.10*	2.028E+00	1.329E+00	1.329E+00	13.24
	768.36	69	4.94	1.659E+00	1.343E+00	1.343E+00	65.47
	806.17	------	1.22	1.594E+00	------	Line Not Found	------
	934.06	60	3.03	1.406E+00	2.243E+00	2.243E+00	64.05
	1120.29	62	15.10	1.212E+00	5.440E-01	5.440E-01	77.86
	1155.19	62	1.63	1.182E+00	5.145E+00	5.146E+00	56.20
	1238.11	61	5.79	1.117E+00	1.501E+00	1.501E+00	61.44
	1280.96	29	1.43	1.087E+00	2.934E+00	2.935E+00	111.70
	1377.67	52	4.00	1.025E+00	2.024E+00	2.025E+00	65.88
	1401.50	------	1.27	1.011E+00	------	Line Not Found	------
	1407.98	------	2.15	1.007E+00	------	Line Not Found	------
	1509.23	------	2.11	9.511E-01	------	Line Not Found	------
	1729.60	44	2.92	8.489E-01	2.850E+00	2.850E+00	50.70
	1764.49	138	15.40	8.342E-01	1.718E+00	1.718E+00	25.69
PB-214	74.81	1024	6.44	7.333E+00	3.460E+00	3.460E+00	13.53
	77.11	1480	10.80	7.312E+00	2.988E+00	2.989E+00	11.41

Sample ID : G1201473822 Acquisition date : 16-DEC-2007 12:09:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	576	4.84	7.192E+00	2.641E+00	2.641E+00	19.55
	242.00	512	7.43	4.425E+00	2.484E+00	2.485E+00	20.26
	295.22	731	19.30	3.788E+00	1.595E+00	1.595E+00	12.08
	351.93	1186	37.60*	3.274E+00	1.536E+00	1.536E+00	10.26
RA-223	269.46	139	13.70*	4.059E+00	3.972E-01	3.972E-01	71.70
AC-228	129.07	196	2.42	6.416E+00	2.012E+00	2.012E+00	49.43
	209.25	267	3.89	4.902E+00	2.234E+00	2.234E+00	36.61
	270.25	139	3.46	4.059E+00	1.573E+00	1.573E+00	71.70
	338.32	355	11.27	3.385E+00	1.484E+00	1.484E+00	20.33
	409.46	40	1.92	2.876E+00	1.168E+00	1.168E+00	136.67
	463.00	82	4.40	2.579E+00	1.146E+00	1.146E+00	54.73
	794.95	------	4.25	1.613E+00	------	Line Not Found	------
	911.20	376	25.80*	1.437E+00	1.619E+00	1.619E+00	17.78
	964.77	50	4.99	1.371E+00	1.175E+00	1.175E+00	63.62
	968.97	236	15.80	1.366E+00	1.745E+00	1.745E+00	21.45
	1588.20	49	3.22	9.111E-01	2.661E+00	2.661E+00	65.40
PA-234M	1001.03	49	0.84*	1.329E+00	7.011E+00	7.011E+00	58.69
TH-234	63.29	354	4.80	7.386E+00	1.591E+00	1.591E+00	31.47
	92.58	463	5.41*	7.107E+00	1.920E+00	1.920E+00	26.65
NP-236	98.44	64	38.00*	6.997E+00	3.809E-02	3.809E-02	117.66
NP-237	86.48	576	12.40*	7.192E+00	1.031E+00	1.031E+00	19.55
AM-243	74.66	1024	68.20*	7.333E+00	3.267E-01	3.267E-01	13.53
CM-243	103.76	103	23.00*	6.887E+00	1.040E-01	1.044E-01	77.53
AM-246	1078.86	15	27.80*	1.252E+00	6.746E-02	6.747E-02	192.36

Flag: "*" = Keyline

Sample ID : G1201473822 Acquisition date : 16-DEC-2007 12:09:43

Total number of lines in spectrum 73
Number of unidentified lines 32
Number of lines tentatively identified by NID 41 56.16%

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	8.710E+00	8.710E+00	1.139E+00	13.08	
CS-137	9.47E+08S	1.00	3.416E-01	3.429E-01	0.649E-01	18.93	
EU-155	1.57E+08S	1.02	1.129E-01	1.155E-01	0.895E-01	77.53	
TL-208	4.43E+17S	1.00	5.065E-01	5.065E-01	0.829E-01	16.37	
BI-212	4.43E+17S	1.00	1.168E+00	1.168E+00	0.315E+00	26.94	
PB-212	4.43E+17S	1.00	1.645E+00	1.645E+00	0.166E+00	10.10	
BI-214	5.05E+10S	1.00	1.329E+00	1.329E+00	0.176E+00	13.24	
PB-214	5.05E+10S	1.00	1.536E+00	1.536E+00	0.158E+00	10.26	
RA-223	1.04E+12S	1.00	3.972E-01	3.972E-01	2.848E-01	71.70	
AC-228	4.43E+17S	1.00	1.619E+00	1.619E+00	0.288E+00	17.78	
PA-234M	1.41E+17S	1.00	7.011E+00	7.011E+00	4.115E+00	58.69	
TH-234	1.41E+17S	1.00	1.920E+00	1.920E+00	0.512E+00	26.65	
NP-236	4.89E+12S	1.00	3.809E-02	3.809E-02	4.482E-02	117.66	
NP-237	6.75E+13S	1.00	1.031E+00	1.031E+00	0.201E+00	19.55	
AM-243	2.33E+11S	1.00	3.267E-01	3.267E-01	0.442E-01	13.53	
CM-243	8.99E+08S	1.00	1.040E-01	1.044E-01	0.810E-01	77.53	
AM-246	2.18E+11S	1.00	6.746E-02	6.747E-02	12.98E-02	192.36	
			---	---			
	Total Activity :		2.786E+01	2.787E+01			

Grand Total Activity : 2.786E+01 2.787E+01

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

Sample ID : G1201473822 Acquisition date : 16-DEC-2007 12:09:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.27	151	483	1.17	93.31	89	8	1.05E-02	66.3	7.29E+00	
0	52.84	34	525	0.68	106.44	103	8	2.33E-03	****	7.35E+00	
6	66.45	110	733	1.55	133.66	121	17	7.63E-03	92.0	7.38E+00	
5	72.65	79	588	1.27	146.06	143	18	5.50E-03	****	7.35E+00	
4	83.78	121	663	1.19	168.30	164	30	8.42E-03	72.9	7.23E+00	
4	89.78	392	545	1.24	180.30	164	30	2.73E-02	22.4	7.15E+00	
0	114.89	55	460	0.97	230.47	227	7	3.83E-03	****	6.70E+00	
0	154.47	75	664	1.73	309.58	303	11	5.19E-03	****	5.89E+00	
0	158.64	90	324	2.25	317.92	315	7	6.24E-03	70.2	5.81E+00	
0	185.80	472	676	1.33	372.22	365	14	3.28E-02	26.2	5.30E+00	
0	217.84	105	537	1.32	436.25	429	13	7.30E-03	92.9	4.77E+00	
0	327.70	70	271	0.92	655.80	653	9	4.88E-03	87.4	3.48E+00	
0	443.28	19	136	1.34	886.76	884	8	1.35E-03	****	2.68E+00	
0	472.84	39	107	1.74	945.82	943	8	2.68E-03	98.2	2.53E+00	
0	543.66	26	87	1.59	1087.34	1083	8	1.80E-03	****	2.24E+00	
0	676.45	40	135	3.40	1352.63	1347	16	2.78E-03	****	1.85E+00	
0	734.61	18	77	2.63	1468.83	1462	10	1.23E-03	****	1.73E+00	
0	799.46	147	204	9.75	1598.37	1583	34	1.02E-02	62.1	1.60E+00	
0	1065.74	25	56	2.05	2130.22	2120	14	1.76E-03	****	1.26E+00	
0	1168.41	14	59	3.23	2335.26	2324	14	9.62E-04	****	1.17E+00	
0	1229.95	33	66	4.29	2458.15	2448	16	2.31E-03	****	1.12E+00	
4	1287.39	23	22	3.40	2572.85	2553	25	1.63E-03	89.8	1.08E+00	
0	1292.10	23	24	0.67	2582.27	2577	12	1.57E-03	96.6	1.08E+00	
0	1345.42	30	23	3.77	2688.71	2681	16	2.08E-03	81.3	1.04E+00	
1	1386.39	27	17	2.61	2770.53	2744	32	1.85E-03	78.7	1.02E+00	
0	1494.83	35	68	12.59	2987.02	2967	30	2.46E-03	****	9.59E-01	
0	1562.69	14	2	2.03	3122.51	3119	8	9.48E-04	65.5	9.24E-01	
1	1593.00	26	17	2.48	3183.00	3165	26	1.81E-03	****	9.10E-01	
0	1663.12	20	27	1.73	3322.98	3313	15	1.37E-03	****	8.77E-01	
0	1867.11	13	17	0.72	3730.12	3718	18	8.89E-04	****	7.95E-01	
0	1874.09	17	0	5.22	3744.06	3738	14	1.18E-03	48.5	7.92E-01	
0	1890.70	19	3	4.26	3777.22	3771	14	1.33E-03	61.3	7.86E-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]G1201473822           *
* Acquisition date : 16-DEC-2007 12:09:43 Detector SN#    :                 *
* Detector ID      : GAM05                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 04:00:03.04     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473822          Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.1769E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	8.710E+00	1.116E+00	1.944E-01	1.116E+00
CS-137	3.429E-01	6.362E-02	2.783E-02	6.362E-02
EU-155	1.155E-01	8.772E-02	6.428E-02	8.772E-02
TL-208	5.065E-01	8.127E-02	2.318E-02	8.127E-02
BI-212	1.168E+00	3.083E-01	1.913E-01	3.083E-01
PB-212	1.645E+00	1.627E-01	3.770E-02	1.627E-01
BI-214	1.329E+00	1.725E-01	5.227E-02	1.725E-01
PB-214	1.536E+00	1.544E-01	4.684E-02	1.544E-01
RA-223	3.972E-01	2.791E-01	1.177E-01	2.791E-01
AC-228	1.619E+00	2.821E-01	1.131E-01	2.821E-01
PA-234M	7.011E+00	4.032E+00	2.904E+00	4.032E+00
TH-234	1.920E+00	5.014E-01	2.424E-01	5.014E-01
NP-236	3.809E-02	4.392E-02	3.162E-02	4.392E-02
NP-237	1.031E+00	1.974E-01	1.039E-01	1.974E-01
AM-243	3.267E-01	4.333E-02	2.047E-02	4.333E-02
CM-243	1.044E-01	7.936E-02	5.357E-02	7.936E-02
AM-246	6.747E-02	1.272E-01	9.194E-02	1.272E-01

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	3.128E-02	3.596E-02	2.868E-02	3.596E-02	NOT IDENT.
RH-101	3.675E-03	3.036E-02	2.419E-02	3.036E-02	NOT IDENT.
SB-125	4.271E-02	8.196E-02	7.071E-02	8.196E-02	NOT IDENT.
PO-209	-1.531E+00	5.993E+00	4.888E+00	5.993E+00	NOT IDENT.
BI-211	-2.638E-01	9.629E-01	7.923E-01	9.629E-01	NOT IDENT.
PA-233	3.745E-02	5.273E-02	4.658E-02	5.273E-02	NOT IDENT.
U-235	1.152E-01	1.658E-01	1.372E-01	1.658E-01	NOT IDENT.
NP-239	5.130E-02	1.760E-01	1.476E-01	1.760E-01	NOT IDENT.
AM-241	3.832E-02	4.237E-02	3.432E-02	4.237E-02	NOT IDENT.
CF-249	2.008E-02	3.473E-02	3.018E-02	3.473E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	501.1284
63.29	633.2101
74.66	718.9011
74.81	719.1027
74.81	719.1027
77.11	722.1680
77.11	722.1680
86.48	592.5435
87.30	593.3690
87.30	593.3690
92.58	598.5848
98.44	489.3752
103.76	497.2754
105.31	581.1837
129.07	515.2461
143.76	524.8711
198.00	451.2403
209.25	420.8005
228.18	361.1917
238.63	373.7447
242.00	350.0745
269.46	304.0009
270.25	294.9266
277.36	285.6919
295.22	280.4352
300.09	281.4358
312.17	266.6814
338.32	261.7857
351.93	235.6670
387.59	230.9462
409.46	234.9760
427.87	201.4814
463.00	209.5728
510.77	162.1361
583.19	122.1843
609.31	171.3428
661.66	142.5916
727.33	111.0850
763.13	122.7958
768.36	128.5827
785.37	103.2934
794.95	93.5809
806.17	91.7832
831.80	127.3880
860.56	69.9687
896.60	87.4504
911.20	127.3008
934.06	83.0686
964.77	71.0915
968.97	75.5921
1001.03	76.3143
1078.86	74.1742
1120.29	108.3545
1155.19	65.6149
1173.23	55.7822
1238.11	71.4797
1280.96	46.8809
1332.51	56.2441
1377.67	41.6077
1401.50	54.0758
1407.98	61.3058
1460.80	29.9771
1509.23	46.9979
1588.20	43.5225
1620.50	36.3266
1729.60	11.8816
1764.49	14.4154

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473822

Total Uranium Activity	5.3300E-02	ug/g
Total Uranium Counting Unc.	7.6722E-02	ug/g
Total Uranium Tpu	7.6722E-08	ug/g
Total Uranium Mda	6.3476E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 16-DEC-2007 13:47:51.35

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473823.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 16-DEC-2007 12:47:22
Sample ID        : G1201473823          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.31  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	49.06	77	425	0.99	98.08	96	9	2.15E-02	39.6	3.51E+00
2	4	50.57	95	870	1.34	101.09	96	9	2.64E-02	55.2	
3	0	59.50	2969	1326	1.11	118.94	114	11	8.25E-01	3.0	
4	1	74.66*	116	661	1.33	149.24	146	13	3.23E-02	36.5	2.13E+00
5	1	77.14*	212	898	1.34	154.21	146	13	5.90E-02	25.6	
6	0	88.02	4202	1119	1.22	175.96	171	12	1.17E+00	2.2	
7	0	92.81*	20	422	0.98	185.53	183	7	5.69E-03	176.3	
8	0	122.00	1475	620	1.27	243.89	239	12	4.10E-01	4.3	
9	0	136.61	171	409	1.60	273.09	269	9	4.76E-02	22.7	
10	0	152.17	31	374	1.25	304.20	300	9	8.47E-03	115.7	
11	0	165.88	681	445	1.24	331.62	327	11	1.89E-01	7.1	
12	0	186.72*	47	429	2.31	373.28	365	12	1.31E-02	91.3	
13	0	208.77	97	217	1.32	417.36	414	7	2.70E-02	27.1	
14	0	220.09	49	295	2.28	440.00	437	8	1.35E-02	63.0	
15	2	238.58*	414	269	1.42	476.96	462	26	1.15E-01	8.7	1.53E+00
16	2	241.49	83	325	1.74	482.77	462	26	2.30E-02	45.3	
17	0	295.20*	151	274	1.70	590.16	584	11	4.20E-02	22.8	
18	0	301.42*	20	214	1.32	602.59	598	8	5.50E-03	132.2	
19	0	337.57*	90	168	1.44	674.86	672	8	2.49E-02	27.1	
20	0	351.73*	218	302	1.36	703.18	697	14	6.06E-02	18.3	
21	0	391.53	421	266	1.33	782.75	776	13	1.17E-01	9.4	
22	0	510.73*	47	181	2.53	1021.11	1016	13	1.30E-02	65.5	
23	0	583.65*	184	189	1.55	1166.93	1158	18	5.10E-02	19.4	
24	0	609.22*	182	138	1.33	1218.06	1213	11	5.05E-02	14.8	
25	0	661.39*	2245	225	1.67	1322.39	1314	17	6.24E-01	2.6	
26	0	715.00	34	94	3.86	1429.60	1423	11	9.31E-03	58.5	
27	0	897.73	389	227	1.47	1795.05	1787	16	1.08E-01	10.1	
28	0	910.95*	66	143	1.63	1821.49	1816	10	1.84E-02	36.2	
29	0	968.46	98	190	1.73	1936.53	1927	20	2.72E-02	35.9	
30	0	985.40	11	95	0.77	1970.41	1963	10	3.06E-03	168.5	
31	0	1120.72*	63	125	4.25	2241.10	2232	17	1.76E-02	42.9	
32	0	1172.93	2497	75	1.91	2345.53	2335	22	6.94E-01	2.2	
33	0	1182.81	13	27	1.67	2365.30	2359	9	3.66E-03	76.2	
34	0	1194.82	25	43	2.37	2389.33	2381	15	6.85E-03	64.2	
35	0	1218.10	18	45	3.17	2435.89	2425	15	5.00E-03	84.6	
36	0	1239.13	13	26	0.80	2477.97	2471	10	3.61E-03	82.1	
37	0	1332.16	2235	41	2.06	2664.10	2657	18	6.21E-01	2.2	
38	0	1378.54*	21	16	1.56	2756.87	2748	16	5.93E-03	51.4	

Sample ID : G1201473823 Acquisition date : 16-DEC-2007 12:47:22

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1447.75	8	9	0.48	2895.35	2888	12	2.30E-03	80.3	
40	4	1460.58*	31	2	3.19	2921.02	2915	18	8.70E-03	25.0	8.24E-01
41	4	1465.12	11	3	1.94	2930.11	2915	18	2.94E-03	34.4	
42	0	1513.08	13	29	5.75	3026.07	3009	20	3.70E-03	103.9	
43	0	1550.47	4	26	0.87	3100.89	3093	12	1.17E-03	240.5	
44	0	1569.02	13	7	4.24	3138.00	3131	14	3.57E-03	51.9	
45	0	1596.24	15	12	2.38	3192.47	3187	12	4.17E-03	52.9	
46	3	1750.54	7	0	1.67	3501.25	3500	12	1.97E-03	26.4	1.24E+00
47	3	1753.65	15	6	3.06	3507.47	3500	12	4.21E-03	31.3	
48	0	1764.08*	21	16	0.76	3528.34	3522	14	5.75E-03	47.7	
49	0	1835.47	236	12	2.44	3671.21	3663	16	6.56E-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]G1201473823      *
* Acquisition date : 16-DEC-2007 12:47:22 Detector SN#    :                 *
* Detector ID      : GAMAN                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 01:00:02.31     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473823          Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.5544E+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	1.274E+00	6.275E-01	8.242E-01	0.000E+00
CO-60	9.202E+00	6.956E-01	1.346E-01	0.000E+00
CS-137	6.121E+00	5.746E-01	1.511E-01	0.000E+00
TL-208	4.582E-01	1.777E-01	1.345E-01	0.000E+00
PO-209	2.443E+02	5.416E+01	3.662E+01	0.000E+00
PB-212	1.106E+00	2.011E-01	2.217E-01	0.000E+00
BI-214	8.598E-01	2.577E-01	2.690E-01	0.000E+00
PB-214	8.595E-01	3.123E-01	2.867E-01	0.000E+00
NP-237	3.146E+01	2.994E+00	1.175E+00	0.000E+00
AM-241	1.294E+01	1.303E+00	6.682E-01	0.000E+00
AM-243	1.829E-01	1.316E-01	2.278E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
RH-101	1.274E-02		7.550E-02	1.342E-01	0.000E+00	NOT IDENT.
SB-125	-1.233E-03		2.283E-01	4.032E-01	0.000E+00	NOT IDENT.
EU-155	6.785E-02		2.408E-01	4.465E-01	0.000E+00	NOT IDENT.
BI-211	8.827E-01		2.469E+00	4.405E+00	0.000E+00	NOT IDENT.
BI-212	2.995E-01		6.533E-01	1.143E+00	0.000E+00	NOT IDENT.
RA-223	4.427E-01		4.265E-01	7.698E-01	0.000E+00	NOT IDENT.
AC-228	7.683E-01		5.505E-01	8.649E-01	0.000E+00	FAIL ABUN
PA-233	7.117E-03		1.490E-01	2.700E-01	0.000E+00	NOT IDENT.
PA-234M	1.707E+00		1.155E+01	2.011E+01	0.000E+00	NOT IDENT.
TH-234	3.420E-01		1.182E+00	1.997E+00	0.000E+00	FAIL ABUN
U-235	1.068E-01		4.353E-01	7.909E-01	0.000E+00	NOT IDENT.
NP-236	5.156E-03		1.384E-01	2.472E-01	0.000E+00	NOT IDENT.
NP-239	-2.014E-01		6.123E-01	9.190E-01	0.000E+00	NOT IDENT.
CM-243	-1.981E-01		2.240E-01	3.999E-01	0.000E+00	NOT IDENT.
AM-246	1.975E-01		3.656E-01	6.448E-01	0.000E+00	NOT IDENT.
CF-249	4.273E-02		1.085E-01	1.723E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 16-DEC-2007 13:47:52.16

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473823.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 16-DEC-2007 12:47:22
Sample ID        : G1201473823          Sample quantity  : 1.55440E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.31  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708124               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	31	10.66*	1.114E+00	1.274E+00	1.274E+00	50.26
CO-60	1173.23	2497	100.00*	1.316E+00	9.164E+00	9.202E+00	7.71
	1332.51	2235	100.00	1.191E+00	9.060E+00	9.097E+00	7.39
CS-137	661.66	2245	85.10*	2.083E+00	6.117E+00	6.121E+00	9.58
TL-208	277.36	------	6.31	3.802E+00	------	Line Not Found	------
	510.77	47	22.60	2.523E+00	3.965E-01	3.965E-01	131.15
	583.19	184	84.50*	2.289E+00	4.582E-01	4.582E-01	39.57
	763.13	------	1.81	1.863E+00	------	Line Not Found	------
	860.56	------	12.42	1.692E+00	------	Line Not Found	------
PO-209	896.60	389	0.47*	1.635E+00	2.442E+02	2.443E+02	22.62
PB-212	74.81	116	10.40	4.510E+00	1.199E+00	1.199E+00	73.42
	77.11	212	17.50	4.675E+00	1.254E+00	1.254E+00	51.88
	87.30	4202	7.81	5.202E+00	4.996E+01	4.996E+01	9.71
	238.63	414	43.30*	4.172E+00	1.106E+00	1.106E+00	18.55
	300.09	20	3.28	3.606E+00	8.082E-01	8.082E-01	264.42
BI-214	609.31	182	46.10*	2.217E+00	8.598E-01	8.598E-01	30.59
	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	63	15.10	1.365E+00	1.488E+00	1.488E+00	86.13
	1155.19	------	1.63	1.332E+00	------	Line Not Found	------
	1238.11	13	5.79	1.260E+00	8.608E-01	8.608E-01	164.38
	1280.96	------	1.43	1.228E+00	------	Line Not Found	------
	1377.67	21	4.00	1.161E+00	2.219E+00	2.219E+00	102.96
	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	21	15.40	9.893E-01	6.559E-01	6.559E-01	95.49
PB-214	74.81	116	6.44	4.510E+00	1.937E+00	1.937E+00	73.42
	77.11	212	10.80	4.675E+00	2.032E+00	2.032E+00	51.88
	87.30	4202	4.84	5.202E+00	8.061E+01	8.061E+01	9.71

Sample ID : G1201473823 Acquisition date : 16-DEC-2007 12:47:22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	83	7.43	4.142E+00	1.301E+00	1.302E+00	90.82
	295.22	151	19.30	3.655E+00	1.035E+00	1.035E+00	46.10
	351.93	218	37.60*	3.261E+00	8.595E-01	8.595E-01	37.07
NP-237	86.48	4202	12.40*	5.202E+00	3.146E+01	3.146E+01	9.71
AM-241	59.54	2969	35.90*	3.087E+00	1.294E+01	1.294E+01	10.27
AM-243	74.66	116	68.20*	4.510E+00	1.829E-01	1.829E-01	73.42

Flag: "*" = Keyline

Sample ID : G1201473823 Acquisition date : 16-DEC-2007 12:47:22

Total number of lines in spectrum 49
Number of unidentified lines 23
Number of lines tentatively identified by NID 26 53.06%

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	1.274E+00	1.274E+00	0.640E+00	50.26	
CO-60	1.66E+08S	1.00	9.164E+00	9.202E+00	0.710E+00	7.71	
CS-137	9.47E+08S	1.00	6.117E+00	6.121E+00	0.586E+00	9.58	
TL-208	4.43E+17S	1.00	4.582E-01	4.582E-01	1.813E-01	39.57	
PO-209	3.22E+09S	1.00	2.442E+02	2.443E+02	0.553E+02	22.62	
PB-212	4.43E+17S	1.00	1.106E+00	1.106E+00	0.205E+00	18.55	
BI-214	5.05E+10S	1.00	8.598E-01	8.598E-01	2.630E-01	30.59	
PB-214	5.05E+10S	1.00	8.595E-01	8.595E-01	3.186E-01	37.07	
NP-237	6.75E+13S	1.00	3.146E+01	3.146E+01	0.306E+01	9.71	
AM-241	1.36E+10S	1.00	1.294E+01	1.294E+01	0.133E+01	10.27	
AM-243	2.33E+11S	1.00	1.829E-01	1.829E-01	1.343E-01	73.42	
			---	---			
	Total Activity :		3.087E+02	3.087E+02			

Grand Total Activity : 3.087E+02 3.087E+02

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

Sample ID : G1201473823 Acquisition date : 16-DEC-2007 12:47:22

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	49.06	77	425	0.99	98.08	96	9	2.15E-02	79.1	1.79E+00	
4	50.57	95	870	1.34	101.09	96	9	2.64E-02	****	1.98E+00	
0	92.81	20	422	0.98	185.53	183	7	5.69E-03	****	5.35E+00	T
0	122.00	1475	620	1.27	243.89	239	12	4.10E-01	8.6	5.56E+00	
0	136.61	171	409	1.60	273.09	269	9	4.76E-02	45.3	5.44E+00	
0	152.17	31	374	1.25	304.20	300	9	8.47E-03	****	5.25E+00	
0	165.88	681	445	1.24	331.62	327	11	1.89E-01	14.3	5.07E+00	
0	186.72	47	429	2.31	373.28	365	12	1.31E-02	****	4.79E+00	
0	208.77	97	217	1.32	417.36	414	7	2.70E-02	54.3	4.51E+00	T
0	220.09	49	295	2.28	440.00	437	8	1.35E-02	****	4.38E+00	
0	337.57	90	168	1.44	674.86	672	8	2.49E-02	54.2	3.35E+00	T
0	391.53	421	266	1.33	782.75	776	13	1.17E-01	18.7	3.04E+00	
0	715.00	34	94	3.86	1429.60	1423	11	9.31E-03	****	1.96E+00	
0	910.95	66	143	1.63	1821.49	1816	10	1.84E-02	72.4	1.62E+00	T
0	968.46	98	190	1.73	1936.53	1927	20	2.72E-02	71.8	1.54E+00	T
0	985.40	11	95	0.77	1970.41	1963	10	3.06E-03	****	1.52E+00	
0	1182.81	13	27	1.67	2365.30	2359	9	3.66E-03	****	1.31E+00	
0	1194.82	25	43	2.37	2389.33	2381	15	6.85E-03	****	1.30E+00	
0	1218.10	18	45	3.17	2435.89	2425	15	5.00E-03	****	1.28E+00	
0	1447.75	8	9	0.48	2895.35	2888	12	2.30E-03	****	1.12E+00	
4	1465.12	11	3	1.94	2930.11	2915	18	2.94E-03	68.9	1.11E+00	
0	1513.08	13	29	5.75	3026.07	3009	20	3.70E-03	****	1.09E+00	
0	1550.47	4	26	0.87	3100.89	3093	12	1.17E-03	****	1.07E+00	
0	1569.02	13	7	4.24	3138.00	3131	14	3.57E-03	****	1.06E+00	
0	1596.24	15	12	2.38	3192.47	3187	12	4.17E-03	****	1.05E+00	
3	1750.54	7	0	1.67	3501.25	3500	12	1.97E-03	52.8	9.93E-01	
3	1753.65	15	6	3.06	3507.47	3500	12	4.21E-03	62.7	9.92E-01	
0	1835.47	236	12	2.44	3671.21	3663	16	6.56E-02	14.6	9.70E-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]G1201473823           *
* Acquisition date : 16-DEC-2007 12:47:22 Detector SN#    :                 *
* Detector ID      : GAMAN                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 01:00:02.31     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473823          Analyst initials: MJH1            *
* Batch Number     : 708124               Sample Quantity : 1.5544E+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	1.274E+00	6.275E-01	4.123E-01	6.275E-01
CO-60	9.202E+00	6.956E-01	6.733E-02	6.956E-01
CS-137	6.121E+00	5.746E-01	7.560E-02	5.746E-01
TL-208	4.582E-01	1.777E-01	6.730E-02	1.777E-01
PO-209	2.443E+02	5.416E+01	1.832E+01	5.416E+01
PB-212	1.106E+00	2.011E-01	1.109E-01	2.011E-01
BI-214	8.598E-01	2.577E-01	1.346E-01	2.577E-01
PB-214	8.595E-01	3.123E-01	1.434E-01	3.123E-01
NP-237	3.146E+01	2.994E+00	5.876E-01	2.994E+00
AM-241	1.294E+01	1.303E+00	3.343E-01	1.303E+00
AM-243	1.829E-01	1.316E-01	1.139E-01	1.316E-01

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
RH-101	1.274E-02	7.550E-02	6.716E-02	7.550E-02	NOT IDENT.
SB-125	-1.233E-03	2.283E-01	2.017E-01	2.283E-01	NOT IDENT.
EU-155	6.785E-02	2.408E-01	2.234E-01	2.408E-01	NOT IDENT.
BI-211	8.827E-01	2.469E+00	2.204E+00	2.469E+00	NOT IDENT.
BI-212	2.995E-01	6.533E-01	5.718E-01	6.533E-01	NOT IDENT.
RA-223	4.427E-01	4.265E-01	3.851E-01	4.265E-01	NOT IDENT.
AC-228	7.683E-01	5.505E-01	4.327E-01	5.505E-01	FAIL ABUN
PA-233	7.117E-03	1.490E-01	1.351E-01	1.490E-01	NOT IDENT.
PA-234M	1.707E+00	1.155E+01	1.006E+01	1.155E+01	NOT IDENT.
TH-234	3.420E-01	1.182E+00	9.991E-01	1.182E+00	FAIL ABUN
U-235	1.068E-01	4.353E-01	3.957E-01	4.353E-01	NOT IDENT.
NP-236	5.156E-03	1.384E-01	1.237E-01	1.384E-01	NOT IDENT.
NP-239	-2.014E-01	6.123E-01	4.598E-01	6.123E-01	NOT IDENT.
CM-243	-1.981E-01	2.240E-01	2.001E-01	2.240E-01	NOT IDENT.
AM-246	1.975E-01	3.656E-01	3.226E-01	3.656E-01	NOT IDENT.
CF-249	4.273E-02	1.085E-01	8.618E-02	1.085E-01	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	907.8668
63.29	714.7403
74.66	818.7192
74.81	818.9121
74.81	818.9121
77.11	821.8332
77.11	821.8332
86.48	943.4922
87.30	867.7275
87.30	867.7275
92.58	400.5841
98.44	443.8458
103.76	491.1747
105.31	447.6597
129.07	389.3486
143.76	351.0213
198.00	342.1051
209.25	309.6024
228.18	335.7489
238.63	283.4266
242.00	261.7436
269.46	247.9910
270.25	271.1814
277.36	254.8310
295.22	258.9362
300.09	295.5659
312.17	240.0462
338.32	211.7462
351.93	222.6455
387.59	200.9662
409.46	187.6983
427.87	211.5540
463.00	207.3237
510.77	161.8675
583.19	125.6070
609.31	140.4086
661.66	133.6135
727.33	106.3190
763.13	127.3395
768.36	124.2559
785.37	133.5922
794.95	113.6659
806.17	101.0809
831.80	110.2913
860.56	124.4429
896.60	150.5230
911.20	134.8898
934.06	161.7520
964.77	159.7902
968.97	145.8099
1001.03	112.7469
1078.86	106.0129
1120.29	113.1575
1155.19	75.3911
1173.23	59.8521
1238.11	31.1523
1280.96	36.6890
1332.51	32.8580
1377.67	16.0492
1401.50	29.0303
1407.98	24.7613
1460.80	18.6516
1509.23	28.2411
1588.20	26.7520
1620.50	22.1048
1729.60	13.7168
1764.49	8.8704

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473823

Total Uranium Activity	4.9405E-02	ug/g
Total Uranium Counting Unc.	2.0141E-01	ug/g
Total Uranium Tpu	2.0141E-07	ug/g
Total Uranium Mda	1.8309E-01	ug/g

Radiochemistry Batch Checklist, Rev 6

Batch# 708126 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.		✓	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: KOster 12/17/07

Secondary Review Performed By: Meeu & Crow 12/17/07

SCAN
12/9 - 12/18

Gamma Spec Que Sheet

12/05/2007

Batch #:708126 Analyst: MJH1 First Client DueDate12/18/2007 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 8.728

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/3/08 Vol: 1.0ml Nominal Concentration: Cs-137 6.252 Am-241 16.35 ✓

Initials: MJH 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)
198683027-1	SB-CZ-SS-2127-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	113.19	6	
198683028-1	SB-CZ-SS-2128-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	122.64	7	
198683029-1	SB-CZ-SS-2129-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	117.96	8	
198683030-1	SB-CZ-SS-2130-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	111.68	11	
198683031-1	SB-CZ-SS-2131-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	114.93	12	
198683032-1	SB-CZ-SS-2132-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	111.62	13	
198683033-1	SB-CZ-SS-2133-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	119.04	14	
198683034-1	SB-CZ-SS-2134-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	120.98	16	
198683035-1	SB-CZ-SS-2135-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	120.45	17	
198683036-1	SB-CZ-SS-2129-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	117.45	19	
198683037-1	SB-CZ-SS-2130-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	117.65	20	
198683038-1	SB-CZ-SS-2131-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	112.87	21	
198683039-1	SB-CZ-SS-2132-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	115.61	22	
198683040-1	SB-CZ-SS-2133-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	132.72	23	
198683041-1	SB-CZ-SS-2134-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	131.34	5	
198683042-1	SB-CZ-SS-2135-BD	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	115.00	7	
198686001-1	SB-CZ-SS-2136-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	110.11	11	
198686002-1	SB-CZ-SS-2137-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	110.06	12	
198686003-1	SB-CZ-SS-2138-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	113.05	13	
198686004-1	SB-CZ-SS-2139-BA	SAMPLE		.08 pCi/g	SCAN001	SOIL	18-OCT-07 00:00:00	122.74	14	
1201473827-1	MB for batch 708126	MB		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07	132.72	16	
1201473828-1	SB-CZ-SS-2127-BD(198683027DUP	DUP		.08 pCi/g	QC ACCOUNT	SOIL	18-OCT-07 00:00:00	113.19	19	
1201473829-1	LCS for batch 708126	LCS		.08 pCi/g	QC ACCOUNT	SOIL	12/5/07	151.73	GAMMA	
							✓	✓	✓	MJH 12/12/07

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: KDeta 12/17/07

Heather G Cox 12/17/07

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	Parmname	Result	MDA	RDL
708126	198683027	SAMPLE	16-DEC-07				
708126	198683028	SAMPLE	16-DEC-07				
708126	198683029	SAMPLE	16-DEC-07				
708126	198683030	SAMPLE	16-DEC-07				
708126	198683031	SAMPLE	16-DEC-07				
708126	198683032	SAMPLE	16-DEC-07				
708126	198683033	SAMPLE	16-DEC-07				
708126	198683034	SAMPLE	16-DEC-07				
708126	198683035	SAMPLE	16-DEC-07				
708126	198683036	SAMPLE	16-DEC-07				
708126	198683037	SAMPLE	16-DEC-07				
708126	198683038	SAMPLE	16-DEC-07				
708126	198683039	SAMPLE	16-DEC-07				
708126	198683040	SAMPLE	16-DEC-07				
708126	198683041	SAMPLE	16-DEC-07				
708126	198683042	SAMPLE	16-DEC-07				
708126	198686001	SAMPLE	16-DEC-07				
708126	198686002	SAMPLE	16-DEC-07				
708126	198686003	SAMPLE	16-DEC-07				
708126	198686004	SAMPLE	16-DEC-07				
708126	1201473827	MB	16-DEC-07				
708126	1201473828	DUP	16-DEC-07				
708126	1201473829	LCS	16-DEC-07	Antimony-125	-0.02264	0.4176	0.200
				Bismuth-212	0.8821	1.212	0.500
				Potassium-40	0.4383	1.398	1.00
				Uranium-235	-0.05966	0.817	0.500

Gamma Review Report based on Result > MDA for Batch:708126

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
198683027	18-OCT-07 00:00	16-DEC-07 12:22	59.5	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 ✓	0.764	0.213	pCi/g	0.1398	0.800	911.1	1	1.742	IDENTIFIED	13.28	☐	
Americium-243 INT	0.1315	0.04256	pCi/g	0.05124	Y	74.29	1	1.167	IDENTIFIED	15.99	☑ UI	
Bismuth-212 NVP	0.5667	0.2524	pCi/g	0.2872	0.500	727.1	1	1.816	IDENTIFIED	22.4	☑ UI	
Bismuth-214 ✓	0.5118	0.1011	pCi/g	0.07228	0.200	609.1	1	1.682	IDENTIFIED	9.499	☐	
Cesium-137 ✓	0.07663	0.03375	pCi/g	0.03647	0.100	661.3	1	2.066	IDENTIFIED	22.22	☐	
Lead-212 ✓	0.6247	0.07405	pCi/g	0.06159	0.100	238.3	1	1.084	IDENTIFIED	5.179	☐	
Lead-214 ✓	0.607	0.1095	pCi/g	0.06906	0.100	351.6	1	1.223	IDENTIFIED	8.656	☐	
Neptunium-237 INT	0.4189	0.1846	pCi/g	0.2167	Y	86.73	1	1.317	IDENTIFIED	22.05	☑ UI	
Potassium-40 ✓	5.834	0.7604	pCi/g	0.2825	1.00	1461	1	2.223	IDENTIFIED	5.828	☐	
Radium-223 INT	0.1914	0.1256	pCi/g	0.19	Y	269.7	1	1.61	IDENTIFIED	33.35	☑ UI	
Thallium-208 ✓	0.2006	0.04421	pCi/g	0.0358	0.080	582.9	1	1.413	IDENTIFIED	10.73	☐	
Thorium-234 ✓	0.5217	0.4711	pCi/g	0.5019	0.500	92.6	1	1.291	IDENTIFIED	45.89	☐	

*** = 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
198683028	18-OCT-07 00:00	16-DEC-07 12:22	59.5	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 ✓	0.7216	0.1591	pCi/g	0.1178	0.800	911.7	1	1.758	IDENTIFIED	10.72	☐	
Americium-243 INT	0.1222	0.03033	pCi/g	0.03208	Y	75.04	1	1.2	IDENTIFIED	12.19	☑ UI	
Bismuth-212 ✓	0.2903	0.2014	pCi/g	0.2486	0.500	727.5	1	1.805	IDENTIFIED	35.21	☐	
Bismuth-214 ✓	0.6064	0.08968	pCi/g	0.05493	0.200	609.6	1	1.658	IDENTIFIED	6.71	☐	
Cesium-137 ✓	0.04476	0.02745	pCi/g	0.02954	0.100	662.1	1	1.756	IDENTIFIED	31.08	☐	
Lead-212 ✓	0.6288	0.06785	pCi/g	0.04459	0.100	238.8	1	1.172	IDENTIFIED	4.623	☐	
Lead-214 ✓	0.7296	0.09515	pCi/g	0.05478	0.100	352	1	1.346	IDENTIFIED	6.033	☐	
Neptunium-237 INT	0.3457	0.1478	pCi/g	0.1457	Y	87.4	1	1.351	IDENTIFIED	21.45	☑ UI	
Potassium-40 ✓	5.812	0.6414	pCi/g	0.2581	1.00	1461	1	2.151	IDENTIFIED	4.93	☐	
Radium-223 INT	0.2127	0.1388	pCi/g	0.1532	Y	270.5	1	1.726	IDENTIFIED	33.15	☑ UI	
Thallium-208 ✓	0.1616	0.04316	pCi/g	0.03379	0.080	583.3	1	1.304	IDENTIFIED	13.2	☐	
Thorium-234 ✓	0.76	0.3055	pCi/g	0.3269	0.500	92.88	1	1.216	IDENTIFIED	20.15	☐	

*** = 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
198683029	18-OCT-07 00:00	16-DEC-07 12:22	59.5	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 ✓	0.3486	0.1334	pCi/g	0.1008	0.800	911.1	1	1.454	IDENTIFIED	19.05	☐	
Americium-243 INT	0.07721	0.03163	pCi/g	0.03942	Y	74.99	1	1.113	IDENTIFIED	20.43	☑ UI	
Bismuth-212 NVP	0.2654	0.2	pCi/g	0.206	0.500	727.7	1	1.047	IDENTIFIED	38.27	☑ UI	
Bismuth-214 ✓	0.2663	0.07491	pCi/g	0.06292	0.200	609.4	1	1.69	IDENTIFIED	14	☐	
Cesium-137 ✓	0.177	0.03458	pCi/g	0.03449	0.100	661.6	1	1.759	IDENTIFIED	9.431	☐	
Lead-212 ✓	0.3372	0.05203	pCi/g	0.04669	0.100	238.7	1	1.204	IDENTIFIED	6.982	☐	
Lead-214 ✓	0.3265	0.07809	pCi/g	0.06154	0.100	352	1	1.263	IDENTIFIED	11.73	☐	
Neptunium-237 INT	0.3454	0.148	pCi/g	0.1719	Y	87.1	1	1.521	IDENTIFIED	21.34	☑ UI	
Potassium-40 ✓	2.758	0.4786	pCi/g	0.2509	1.00	1460	1	2.352	IDENTIFIED	8.209	☐	
Thallium-208 ✓	0.1221	0.03443	pCi/g	0.0308	0.080	583.1	1	1.732	IDENTIFIED	14.05	☐	
Thorium-234 ✓	0.6087	0.3407	pCi/g	0.3707	0.500	92.72	1	1.358	IDENTIFIED	28.22	☐	

*** = 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
198683030	18-OCT-07 00:00	16-DEC-07 12:23	59.5	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 ✓	**0.8589**	0.175	pCi/g	**0.1059**	**0.800**	911.6	1	1.547	IDENTIFIED	9.423	☐	
Americium-243 INT	**0.1775**	0.03219	pCi/g	**0.03472**	**Y**	74.77	1	0.9458	IDENTIFIED	8.645	☑ UI	
Bismuth-212 ✓	**0.4583**	0.2288	pCi/g	**0.2465**	**0.500**	727.5	1	1.669	IDENTIFIED	25.15	☐	
Bismuth-214 ✓	**0.5575**	0.08746	pCi/g	**0.05787**	**0.200**	609.3	1	1.265	IDENTIFIED	7.175	☐	
Cesium-137 ✓	**0.3855**	0.04997	pCi/g	**0.0307**	**0.100**	661.7	1	1.319	IDENTIFIED	5.408	☐	
Lead-212 ✓	**0.6585**	0.0665	pCi/g	**0.04701**	**0.100**	238.6	1	0.954	IDENTIFIED	4.233	☐	
Lead-214 ✓	**0.6694**	0.09225	pCi/g	**0.05295**	**0.100**	352	1	1.132	IDENTIFIED	6.469	☐	
Neptunium-237 INT	**0.3422**	0.123	pCi/g	**0.1483**	**Y**	87.12	1	0.9495	IDENTIFIED	17.96	☑ UI	
Potassium-40 ✓	**6.607**	0.796	pCi/g	**0.2697**	**1.00**	1461	1	1.943	IDENTIFIED	5.046	☐	
Thallium-208 ✓	**0.1877**	0.04327	pCi/g	**0.03235**	**0.080**	583.4	1	1.185	IDENTIFIED	11.26	☐	
Thorium-234 ✓	**1.146**	0.3514	pCi/g	**0.3043**	**0.500**	92.63	1	1.281	IDENTIFIED	15.25	☐	
Uranium-235 X NVP HG 12/17/07	**0.1809**	0.1392	pCi/g	**0.1581**	**0.500**	144.1	1	1.081	IDENTIFIED	39.18	☑ UJ	

*** = 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
198683031	18-OCT-07 00:00	16-DEC-07 12:23	59.5	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 ✓	**0.7211**	0.1841	pCi/g	**0.1083**	**0.800**	911	1	1.677	IDENTIFIED	11.94	☐	
Americium-243 INT	**0.1054**	0.03702	pCi/g	**0.04852**	**Y**	74.89	1	1.028	IDENTIFIED	17.55	☑ UI	
Bismuth-212 ✓	**0.4249**	0.3063	pCi/g	**0.2509**	**0.500**	727.9	1	1.524	IDENTIFIED	36.49	☐	
Bismuth-214 ✓	**0.4403**	0.1101	pCi/g	**0.07083**	**0.200**	609.4	1	1.39	IDENTIFIED	12.08	☐	
Cesium-137 ✓	**0.2373**	0.04591	pCi/g	**0.04238**	**0.100**	661.6	1	1.2	IDENTIFIED	8.822	☐	
Lead-212 ✓	**0.4557**	0.07689	pCi/g	**0.06708**	**0.100**	238.6	1	1.164	IDENTIFIED	8.04	☐	
Lead-214 ✓	**0.7174**	0.09683	pCi/g	**0.06552**	**0.100**	351.9	1	1.141	IDENTIFIED	6.229	☐	
Neptunium-237 INT	**0.4711**	0.1851	pCi/g	**0.204**	**Y**	87.25	1	1.517	IDENTIFIED	19.65	☑ UI	
Potassium-40 ✓	**6.616**	0.7881	pCi/g	**0.3856**	**1.00**	1461	1	1.996	IDENTIFIED	5.256	☐	
Radium-223 INT	**0.2608**	0.144	pCi/g	**0.1617**	**Y**	270.2	1	1.284	IDENTIFIED	28.01	☑ UI	
Thallium-208 ✓	**0.2059**	0.04249	pCi/g	**0.03429**	**0.080**	583.2	1	1.663	IDENTIFIED	9.767	☐	
Thorium-234 ✓	**0.929**	0.4565	pCi/g	**0.4415**	**0.500**	92.77	1	1.421	IDENTIFIED	24.78	☐	

*** = 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
198683032	18-OCT-07 00:00	16-DEC-07 12:24	59.5	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 ✓	**0.8626**	0.2363	pCi/g	**0.2042**	**0.800**	911.2	1	1.564	IDENTIFIED	13.63	☐	
Americium-243 INT	**0.2052**	0.03234	pCi/g	**0.03327**	**Y**	74.92	1	0.9768	IDENTIFIED	7.005	☑ UI	
Bismuth-212 ✓	**0.3968**	0.3416	pCi/g	**0.3955**	**0.500**	727.6	1	1.557	IDENTIFIED	43.75	☐	
Bismuth-214 ✓	**0.9086**	0.1584	pCi/g	**0.09598**	**0.200**	609.4	1	1.343	IDENTIFIED	8.07	☐	
Californium-249 INT	**0.04833**	0.03106	pCi/g	**0.04769**	**Y**	386.6	1	1.69	IDENTIFIED	32.69	☑ UI	
Cesium-137 ✓	**0.1713**	0.07365	pCi/g	**0.0566**	**0.100**	661.6	1	1.484	IDENTIFIED	21.57	☐	
Gross Gamma	**5.09**	1.861	pCi/g	**2.892**	**N**		0				☐	
Lead-212 ✓	**0.7681**	0.08649	pCi/g	**0.06735**	**0.100**	238.7	1	0.9769	IDENTIFIED	4.668	☐	
Lead-214 ✓	**0.8167**	0.1071	pCi/g	**0.0895**	**0.100**	352	1	1.229	IDENTIFIED	6.157	☐	
Neptunium-237 INT	**0.5223**	0.1552	pCi/g	**0.1605**	**Y**	87.35	1	1.12	IDENTIFIED	14.63	☑ UI	
Potassium-40 ✓	**7.499**	0.885	pCi/g	**0.5115**	**1.00**	1461	1	1.632	IDENTIFIED	5.34	☐	
Radium-223 INT	**0.2599**	0.1875	pCi/g	**0.2129**	**Y**	270.6	1	2.067	IDENTIFIED	36.71	☑ UI	
Thallium-208 ✓	**0.288**	0.06646	pCi/g	**0.05103**	**0.080**	583.3	1	1.549	IDENTIFIED	11.21	☐	
Thorium-234 ✓	**0.9494**	0.4567	pCi/g	**0.3751**	**0.500**	92.78	1	1.138	IDENTIFIED	24.2	☐	

*** = 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
198683033	18-OCT-07 00:00	16-DEC-07 12:24	59.5	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 ✓	**0.9492**	0.1884	pCi/g	**0.1233**	**0.800**	911.6	1	1.531	IDENTIFIED	9.11	☐	
Americium-243 INT	**0.1819**	0.04734	pCi/g	**0.04221**	**Y**	74.98	1	1.846	IDENTIFIED	12.75	☑ UI	

Bismuth-212 ✓	**0.6139**	0.2807	pCi/g	**0.2617**	**0.500**	728.3	1	2.194	IDENTIFIED	22.96	☐
Bismuth-214 ✓	**0.8006**	0.1104	pCi/g	**0.06309**	**0.200**	609.6	1	1.636	IDENTIFIED	5.987	☐
Cesium-137 ✓	**0.1576**	0.04375	pCi/g	**0.04013**	**0.100**	661.9	1	1.936	IDENTIFIED	13.62	☐
Lead-212 ✓	**0.789**	0.07917	pCi/g	**0.05827**	**0.100**	238.6	1	1.362	IDENTIFIED	4.062	☐
Lead-214 ✓	**1.034**	0.1123	pCi/g	**0.06566**	**0.100**	351.9	1	1.546	IDENTIFIED	4.672	☐
Neptunium-237 INT	**0.6831**	0.1964	pCi/g	**0.1892**	**Y**	87.29	1	1.781	IDENTIFIED	14.07	☑ UI
Potassium-40 ✓	**8.093**	0.8243	pCi/g	**0.3221**	**1.00**	1461	1	2.12	IDENTIFIED	4.39	☐
Radium-223 INT	**0.2987**	0.1529	pCi/g	**0.1673**	**Y**	270	1	1.583	IDENTIFIED	25.92	☑ UI
Thallium-208 ✓	**0.2711**	0.04321	pCi/g	**0.03686**	**0.080**	583.2	1	1.68	IDENTIFIED	7.292	☐
Thorium-234 ✓	**1.049**	0.4323	pCi/g	**0.4178**	**0.500**	92.88	1	1.861	IDENTIFIED	20.65	☐

*** = 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
198683034	18-OCT-07 00:00	16-DEC-07 12:24	59.5	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 ✓	**0.6278**	0.1346	pCi/g	**0.1058**	**0.800**	911.2	1	2.096	IDENTIFIED	10.12	☐	
Americium-243 INT	**0.1417**	0.0367	pCi/g	**0.03776**	**Y**	74.76	1	1.444	IDENTIFIED	12.79	☑ UI	
Antimony-125 INT	**0.0967**	0.05737	pCi/g	**0.08005**	**0.200**	426.5	1	2.632	IDENTIFIED	30.15	☑ UI	
Bismuth-212 ✓	**0.2543**	0.2433	pCi/g	**0.2257**	**0.500**	727.3	1	1.292	IDENTIFIED	48.62	☐	
Bismuth-214 ✓	**0.7126**	0.1005	pCi/g	**0.05831**	**0.200**	609.3	1	1.433	IDENTIFIED	6.08	☐	
Cesium-137 ✓	**0.1685**	0.04207	pCi/g	**0.03395**	**0.100**	661.8	1	1.424	IDENTIFIED	12.02	☐	
Lead-212 ✓	**0.6252**	0.06283	pCi/g	**0.04714**	**0.100**	238.7	1	1.326	IDENTIFIED	4.296	☐	
Lead-214 ✓	**0.8798**	0.09235	pCi/g	**0.05933**	**0.100**	352	1	1.249	IDENTIFIED	4.677	☐	
Neptunium-237 INT	**0.4015**	0.134	pCi/g	**0.1826**	**Y**	87.34	1	1.23	IDENTIFIED	16.63	☑ UI	
Potassium-40 ✓	**5.707**	0.7252	pCi/g	**0.2975**	**1.00**	1461	1	1.963	IDENTIFIED	5.729	☐	
Radium-223 INT	**0.2912**	0.1557	pCi/g	**0.1508**	**Y**	270.5	1	1.892	IDENTIFIED	27.15	☑ UI	
Thallium-208 ✓	**0.1986**	0.04328	pCi/g	**0.03097**	**0.080**	583.3	1	1.632	IDENTIFIED	10.5	☐	
Thorium-234 ✓	**0.8067**	0.348	pCi/g	**0.3926**	**0.500**	92.69	1	1.285	IDENTIFIED	21.71	☐	

*** = 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
198683035	18-OCT-07 00:00	16-DEC-07 12:31	59.5	SAMPLE	LOAD	1	SCAN	SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Americium-243 INT	**0.06251**	0.02033	pCi/g	**0.02561**	**Y**	74.87	1	0.9789	IDENTIFIED	16.28	☑ UI	
Bismuth-214 ✓	**0.3202**	0.08297	pCi/g	**0.06689**	**0.200**	609.3	1	1.505	IDENTIFIED	12.73	☐	
Cesium-137 ✓	**0.2486**	0.05349	pCi/g	**0.03459**	**0.100**	661.8	1	1.126	IDENTIFIED	10.34	☐	
Lead-212 ✓	**0.2375**	0.04911	pCi/g	**0.04376**	**0.100**	238.7	1	0.9295	IDENTIFIED	9.771	☐	
Lead-214 ✓	**0.2022**	0.07966	pCi/g	**0.05592**	**0.100**	352	1	1.126	IDENTIFIED	19.83	☐	
Neptunium-237 INT	**0.1887**	0.09928	pCi/g	**0.1088**	**Y**	87.42	1	1.105	IDENTIFIED	26.63	☑ UI	
Potassium-40 ✓	**2.306**	0.5181	pCi/g	**0.3465**	**1.00**	1461	1	1.606	IDENTIFIED	11.13	☐	
Thallium-208 ✓	**0.1051**	0.04629	pCi/g	**0.03219**	**0.080**	583.3	1	1.409	IDENTIFIED	22.19	☐	
Thorium-234 ✓	**0.3534**	0.3011	pCi/g	**0.2528**	**0.500**	92.64	1	1.117	IDENTIFIED	43.32	☐	

*** = 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
198683036	18-OCT-07 00:00	16-DEC-07 12:32	59.5	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 ✓	**0.4735**	0.1147	pCi/g	**0.1036**	**0.800**	911.6	1	1.987	IDENTIFIED	11.2	☐	
Americium-243 INT	**0.07817**	0.03235	pCi/g	**0.03905**	**Y**	74.93	1	1.521	IDENTIFIED	20.87	☑ UI	
Bismuth-212 NVI	**0.2107**	0.1647	pCi/g	**0.1871**	**0.500**	727.9	1	2.151	IDENTIFIED	39.64	☑ UI	
Bismuth-214 ✓	**0.2834**	0.07441	pCi/g	**0.05491**	**0.200**	609.4	1	1.247	IDENTIFIED	12.84	☐	
Cesium-137 ✓	**0.06895**	0.03257	pCi/g	**0.03264**	**0.100**	661.9	1	1.31	IDENTIFIED	23.76	☐	
Lead-212 ✓	**0.3236**	0.05625	pCi/g	**0.05102**	**0.100**	238.6	1	1.26	IDENTIFIED	8.29	☐	
Lead-214 ✓	**0.2489**	0.07119	pCi/g	**0.05859**	**0.100**	352	1	1.333	IDENTIFIED	14.28	☐	
Neptunium-237 INT	**0.2571**	0.1468	pCi/g	**0.1557**	**Y**	87.29	1	1.697	IDENTIFIED	28.92	☑ UI	
Potassium-40 ✓	**2.478**	0.4958	pCi/g	**0.2548**	**1.00**	1462	1	1.726	IDENTIFIED	9.721	☐	

Radium-223 INT	**0.2638**	0.1501	pCi/g	**0.1482**	**Y**	270	1	1.178	IDENTIFIED	28.85	☑ UI	
Thallium-208 ✓	**0.1444**	0.03935	pCi/g	**0.02976**	**0.080**	583.2	1	1.329	IDENTIFIED	13.4	☐	
Thorium-234 ✓	**0.6928**	0.3775	pCi/g	**0.3378**	**0.500**	92.9	1	1.651	IDENTIFIED	27.6	☐	

*** = 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
198683037	18-OCT-07 00:00	16-DEC-07 12:32	59.5	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 ✓	**0.6772**	0.1618	pCi/g	**0.1067**	**0.800**	911.7	1	1.139	IDENTIFIED	11.26	☐	
Americium-243 INT	**0.1511**	0.03401	pCi/g	**0.0372**	**Y**	74.89	1	1.242	IDENTIFIED	10.12	☑ UI	
Bismuth-212 ✓	**0.5381**	0.2447	pCi/g	**0.199**	**0.500**	727.5	1	2.14	IDENTIFIED	22.9	☐	
Bismuth-214 ✓	**0.548**	0.08383	pCi/g	**0.06117**	**0.200**	609.7	1	1.273	IDENTIFIED	7.098	☐	
Cesium-137 ✓	**0.09514**	0.03388	pCi/g	**0.03364**	**0.100**	662.2	1	1.357	IDENTIFIED	17.84	☐	
Curium-243 INT	**0.09655**	0.06137	pCi/g	**0.07936**	**Y**	105.3	2	1.77	IDENTIFIED	32.16	☑ UI	
Europium-155 INT	**0.1067**	0.06784	pCi/g	**0.08381**	**0.500**	105.3	2	1.77	IDENTIFIED	32.16	☑ UI	
Lead-212 ✓	**0.7336**	0.07201	pCi/g	**0.05007**	**0.100**	238.7	1	1.187	IDENTIFIED	4.073	☐	
Lead-214 ✓	**0.5482**	0.08165	pCi/g	**0.06178**	**0.100**	352	1	1.211	IDENTIFIED	7.075	☐	
Neptunium-237 INT	**0.4485**	0.1494	pCi/g	**0.1601**	**Y**	87.35	1	1.389	IDENTIFIED	15.94	☑ UI	
Potassium-40 ✓	**6.254**	0.7699	pCi/g	**0.235**	**1.00**	1462	1	1.921	IDENTIFIED	4.667	☐	
Radium-223 INT	**0.2914**	0.1448	pCi/g	**0.147**	**Y**	270.3	1	1.925	IDENTIFIED	25.16	☑ UI	
Thallium-208 ✓	**0.2072**	0.04311	pCi/g	**0.02949**	**0.080**	583.6	1	1.289	IDENTIFIED	10.13	☐	
Thorium-234 ✓	**1.037**	0.3588	pCi/g	**0.3538**	**0.500**	92.77	1	1.367	IDENTIFIED	16.82	☐	
Uranium-235 ✓ UP	**0.2377**	0.1532	pCi/g	**0.1632**	**0.500**	144.5	1	2.884	IDENTIFIED	32.77	☑ UJ	

*** = 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
198683038	18-OCT-07 00:00	16-DEC-07 12:32	59.5	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 ✓	**0.5846**	0.2059	pCi/g	**0.1738**	**0.800**	911.9	1	2.144	IDENTIFIED	17.65	☐	
Americium-243 INT	**0.1183**	0.02277	pCi/g	**0.02844**	**Y**	75.02	1	1.205	IDENTIFIED	9.187	☑ UI	
Bismuth-214 ✓	**0.4516**	0.1145	pCi/g	**0.07654**	**0.200**	609.4	1	1.679	IDENTIFIED	12.37	☐	
Cesium-137 LA	**0.06977**	0.03462	pCi/g	**0.06057**	**0.100**	1461	2	1.833	NOT_IDENTI	8.12	☑ UI	Data rejected due to low abundance.
Lead-212 ✓	**0.6527**	0.07524	pCi/g	**0.0583**	**0.100**	238.7	1	1.456	IDENTIFIED	5.022	☐	
Lead-214 ✓	**0.4312**	0.1005	pCi/g	**0.07495**	**0.100**	352.1	1	1.582	IDENTIFIED	11.61	☐	
Neptunium-237 INT	**0.3366**	0.1121	pCi/g	**0.142**	**Y**	87.31	1	1.343	IDENTIFIED	16.58	☑ UI	
Potassium-40 ✓	**5.563**	0.9353	pCi/g	**0.4845**	**1.00**	1461	2	1.833	IDENTIFIED	8.12	☐	
Radium-223 INT	**0.2011**	0.1946	pCi/g	**0.1682**	**Y**	271.2	1	1.582	IDENTIFIED	49.3	☑ UI	
Thallium-208 ✓	**0.2076**	0.04936	pCi/g	**0.04153**	**0.080**	583.5	1	1.541	IDENTIFIED	11.57	☐	
Thorium-234 ✓	**1.129**	0.3128	pCi/g	**0.3304**	**0.500**	93.13	1	1.704	IDENTIFIED	13.63	☐	

*** = 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
198683039	18-OCT-07 00:00	16-DEC-07 12:33	59.5	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 ✓	**0.9177**	0.1698	pCi/g	**0.1028**	**0.800**	910.7	1	1.761	IDENTIFIED	8.034	☐	
Americium-243 INT	**0.1664**	0.03598	pCi/g	**0.04086**	**Y**	74.6	1	1.094	IDENTIFIED	10.31	☑ UI	
Bismuth-212 ✓	**0.5327**	0.1841	pCi/g	**0.2259**	**0.500**	726.7	1	1.994	IDENTIFIED	17.02	☐	
Bismuth-214 ✓	**0.6164**	0.08832	pCi/g	**0.05321**	**0.200**	608.9	1	1.615	IDENTIFIED	6.094	☐	
Cesium-137 ✓	**0.1197**	0.03219	pCi/g	**0.03209**	**0.100**	661.3	1	1.594	IDENTIFIED	13	☐	
Lead-212 ✓	**0.8659**	0.07568	pCi/g	**0.04726**	**0.100**	238.4	1	1.338	IDENTIFIED	3.307	☐	
Lead-214 ✓	**0.7562**	0.0819	pCi/g	**0.05903**	**0.100**	351.5	1	1.464	IDENTIFIED	4.721	☐	
Neptunium-237 INT	**0.536**	0.1667	pCi/g	**0.174**	**Y**	86.92	1	1.436	IDENTIFIED	15.26	☑ UI	
Potassium-40 ✓	**7.722**	0.7519	pCi/g	**0.2829**	**1.00**	1460	1	2.875	IDENTIFIED	4.005	☐	
Radium-223 INT	**0.1962**	0.136	pCi/g	**0.1558**	**Y**	269.8	1	1.188	IDENTIFIED	35.24	☑ UI	
Thallium-208 ✓	**0.2858**	0.04475	pCi/g	**0.0285**	**0.080**	582.7	1	1.661	IDENTIFIED	6.989	☐	
Thorium-234 ✓	**0.8687**	0.3607	pCi/g	**0.3819**	**0.500**	92.42	1	1.232	IDENTIFIED	20.77	☐	

*** = 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
198683040	18-OCT-07 00:00	16-DEC-07 12:33	59.5	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 ✓	0.9927	0.1861	pCi/g	0.1268	0.800	910.9	1	1.427	IDENTIFIED	8.687	☐	
Americium-243 INT	0.1643	0.03951	pCi/g	0.0458	Y	74.88	1	0.9789	IDENTIFIED	11.74	☑ UI	
Bismuth-212 ✓	0.4763	0.2583	pCi/g	0.2795	0.500	727.3	1	1.787	IDENTIFIED	27.48	☐	
Bismuth-214 ✓	0.5594	0.09957	pCi/g	0.07144	0.200	609.2	1	1.362	IDENTIFIED	8.61	☐	
Cesium-137 ✓	0.05119	0.03401	pCi/g	0.03832	0.100	661.6	1	1.061	IDENTIFIED	33.77	☐	
Lead-212 ✓	0.8206	0.07734	pCi/g	0.05412	0.100	238.6	1	0.9403	IDENTIFIED	3.895	☐	
Lead-214 ✓	0.7243	0.1053	pCi/g	0.06726	0.100	351.8	1	1.169	IDENTIFIED	6.912	☐	
Neptunium-237 INT	0.4854	0.1598	pCi/g	0.1822	Y	87.22	1	1.105	IDENTIFIED	16.38	☑ UI	
Potassium-40 ✓	7.976	0.9316	pCi/g	0.325	1.00	1460	1	2.186	IDENTIFIED	4.774	☐	
Radium-223 INT	0.2892	0.1497	pCi/g	0.1728	Y	270.1	1	1.103	IDENTIFIED	26.24	☑ UI	
Thallium-208 ✓	0.2925	0.0485	pCi/g	0.03288	0.080	583	1	1.387	IDENTIFIED	7.966	☐	
Thorium-234 ✓	1.35	0.3926	pCi/g	0.3891	0.500	92.74	1	1.247	IDENTIFIED	14.39	☐	

*** = 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
198683041	18-OCT-07 00:00	16-DEC-07 16:41	59.7	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 ✓	0.6829	0.1229	pCi/g	0.08804	0.800	911.5	1	1.509	IDENTIFIED	7.945	☐	
Americium-243 INT	0.1416	0.01869	pCi/g	0.01775	Y	74.64	1	1.182	IDENTIFIED	5.366	☑ UI	
Bismuth-212 ✓	0.4341	0.1496	pCi/g	0.175	0.500	727.8	1	1.674	IDENTIFIED	17.05	☐	
Bismuth-214 ✓	0.6269	0.07876	pCi/g	0.04516	0.200	609.5	1	1.488	IDENTIFIED	5.197	☐	
Cesium-137 ✓	0.0388	0.02517	pCi/g	0.02355	0.100	662	1	1.314	IDENTIFIED	32.85	☐	
Lead-212 ✓	0.6991	0.06862	pCi/g	0.03263	0.100	238.7	1	1.243	IDENTIFIED	2.711	☐	
Lead-214 ✓	0.6905	0.06872	pCi/g	0.04369	0.100	352	1	1.298	IDENTIFIED	4.24	☐	
Neptunium-237 INT	0.4117	0.07818	pCi/g	0.1028	Y	87.08	1	1.107	IDENTIFIED	8.646	☑ UI	
Potassium-40 ✓	5.701	0.6115	pCi/g	0.2025	1.00	1461	1	1.997	IDENTIFIED	3.763	☐	
Protactinium-234m ↑PW	3.053	2.665	pCi/g	2.628	Y	999.9	1	4.991	IDENTIFIED	44.35	☑ UI	Data rejected due to high peak-width.
Radium-223 INT	0.2421	0.1025	pCi/g	0.1086	Y	270.2	1	1.59	IDENTIFIED	21.32	☑ UI	
Thallium-208 ✓	0.2405	0.03586	pCi/g	0.02214	0.080	583.2	1	1.422	IDENTIFIED	6.71	☐	
Thorium-234 ✓	0.7004	0.2498	pCi/g	0.2131	0.500	92.71	1	1.498	IDENTIFIED	17.64	☐	

*** = 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
198683042	18-OCT-07 00:00	16-DEC-07 16:41	59.7	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 ✓	0.2496	0.0844	pCi/g	0.05927	0.800	911.7	1	1.677	IDENTIFIED	16.91	☐	
Americium-243 INT	0.03987	0.0162	pCi/g	0.01528	Y	74.86	1	1.199	IDENTIFIED	20.45	☑ UI	
Bismuth-212 ↑WC	0.1286	0.1658	pCi/g	0.1172	0.500	727.8	1	1.427	IDENTIFIED	65.69	☑ UI	Data rejected due to high counting unc
Bismuth-214 ✓	0.1945	0.04211	pCi/g	0.03411	0.200	609.8	1	1.498	IDENTIFIED	10.49	☐	
Cesium-137 ✓	0.2051	0.02562	pCi/g	0.01648	0.100	661.9	1	1.518	IDENTIFIED	5.222	☐	
Lead-212 ✓	0.3021	0.03717	pCi/g	0.02358	0.100	238.9	1	1.286	IDENTIFIED	5.52	☐	
Lead-214 ✓	0.2163	0.0423	pCi/g	0.03155	0.100	352.2	1	1.375	IDENTIFIED	9.577	☐	
Neptunium-237 INT	0.1131	0.0907	pCi/g	0.07462	Y	87.36	1	1.138	IDENTIFIED	40.73	☑ UI	
Potassium-40 ✓	2.052	0.3093	pCi/g	0.1585	1.00	1461	1	2.04	IDENTIFIED	7.194	☐	
Radium-223 INT	0.1641	0.09126	pCi/g	0.07724	Y	270.4	1	1.628	IDENTIFIED	28.21	☑ UI	
Thallium-208 ✓	0.06473	0.02489	pCi/g	0.01523	0.080	583.6	1	1.58	IDENTIFIED	19.33	☐	
Thorium-234 ✓	0.3413	0.2011	pCi/g	0.1675	0.500	92.86	1	1.342	IDENTIFIED	29.82	☐	

*** = 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

198686001	18-OCT-07 00:00	16-DEC-07 16:41	59.7	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 ✓	0.6489	0.1042	pCi/g	0.06187	0.800	911.4	1	1.442	IDENTIFIED	6.921	☐	
Americium-243 INT	0.1288	0.01924	pCi/g	0.01951	Y	74.8	1	0.8659	IDENTIFIED	6.871	☑ UI	
Bismuth-212 ✓	0.4192	0.1566	pCi/g	0.1264	0.500	727.9	1	1.498	IDENTIFIED	18.63	☐	
Bismuth-214 ✓	0.594	0.06676	pCi/g	0.03211	0.200	609.4	1	1.338	IDENTIFIED	4.505	☐	
Cesium-137 ✓	0.3209	0.03389	pCi/g	0.01853	0.100	661.7	1	1.329	IDENTIFIED	3.811	☐	
Lead-212 ✓	0.6263	0.04878	pCi/g	0.02468	0.100	238.6	1	0.9947	IDENTIFIED	2.676	☐	
Lead-214 ✓	0.6314	0.06106	pCi/g	0.0312	0.100	351.8	1	1.097	IDENTIFIED	4.092	☐	
Neptunium-237 INT	0.3926	0.08663	pCi/g	0.08544	Y	87.12	1	1.094	IDENTIFIED	10.64	☑ UI	
Potassium-40 ✓	5.267	0.515	pCi/g	0.1483	1.00	1461	1	1.999	IDENTIFIED	3.543	☐	
Radium-223 INT	0.2155	0.08224	pCi/g	0.08288	Y	270	1	1.654	IDENTIFIED	19.23	☑ UI	
Thallium-208 ✓	0.1659	0.02409	pCi/g	0.01782	0.080	583.2	1	1.228	IDENTIFIED	6.575	☐	
Thorium-234 ✓	0.9119	0.2129	pCi/g	0.1887	0.500	92.63	1	1.238	IDENTIFIED	11.38	☐	

*** = 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
198686002	18-OCT-07 00:00	16-DEC-07 16:42	59.7	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 ✓	0.6197	0.1289	pCi/g	0.06774	0.800	911.1	1	1.858	IDENTIFIED	9.248	☐	
Americium-243 INT	0.1356	0.02922	pCi/g	0.02774	Y	74.96	1	1.49	IDENTIFIED	10.38	☑ UI	
Bismuth-212 ✓	0.5173	0.206	pCi/g	0.1353	0.500	727.1	1	2.214	IDENTIFIED	19.77	☐	
Bismuth-214 ✓	0.4432	0.07155	pCi/g	0.04003	0.200	609.1	1	1.471	IDENTIFIED	7.146	☐	
Cesium-137 ✓	0.3286	0.04214	pCi/g	0.02106	0.100	661.5	1	1.652	IDENTIFIED	4.813	☐	
Lead-212 ✓	0.5486	0.05024	pCi/g	0.03145	0.100	238.6	1	1.211	IDENTIFIED	3.517	☐	
Lead-214 ✓	0.465	0.05978	pCi/g	0.04007	0.100	351.9	1	1.305	IDENTIFIED	5.865	☐	
Neptunium-237 INT	0.4327	0.1004	pCi/g	0.1159	Y	87.28	1	1.378	IDENTIFIED	11.15	☑ UI	
Potassium-40 ✓	3.587	0.4586	pCi/g	0.1845	1.00	1460	1	2.23	IDENTIFIED	5.766	☐	
Radium-223 INT	0.1564	0.09132	pCi/g	0.0976	Y	269.9	1	0.7368	IDENTIFIED	29.63	☑ UI	
Thallium-208 ✓	0.1577	0.03098	pCi/g	0.01974	0.080	583	1	1.622	IDENTIFIED	9.223	☐	
Thorium-234 ✓	0.7804	0.2806	pCi/g	0.251	0.500	92.7	1	1.232	IDENTIFIED	17.94	☐	

*** = 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
198686003	18-OCT-07 00:00	16-DEC-07 16:42	59.7	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 ✓	0.3298	0.143	pCi/g	0.1023	0.800	911.4	1	1.619	IDENTIFIED	21.91	☐	
Americium-243 INT	0.09775	0.01569	pCi/g	0.01702	Y	74.96	1	0.9956	IDENTIFIED	7.175	☑ UI	
Bismuth-214 ✓	0.4015	0.08327	pCi/g	0.05125	0.200	609.4	1	1.334	IDENTIFIED	9.898	☐	
Cesium-137 ✓	0.2013	0.03419	pCi/g	0.02924	0.100	661.7	1	1.447	IDENTIFIED	7.67	☐	
Lead-212 ✓	0.4267	0.04924	pCi/g	0.03424	0.100	238.7	1	1.117	IDENTIFIED	4.842	☐	
Lead-214 ✓	0.4126	0.05742	pCi/g	0.04687	0.100	351.9	1	1.263	IDENTIFIED	6.596	☐	
Neptunium-237 LA	0.1641	0.06591	pCi/g	0.1024	Y	99.16	1	2.015	NOT_IDENTI	59.48	☑ UI	Data rejected due to low abundance.
Potassium-40 ✓	2.575	0.4263	pCi/g	0.2866	1.00	1461	1	2.139	IDENTIFIED	7.974	☐	
Thallium-208 ✓	0.1136	0.03804	pCi/g	0.02736	0.080	583.3	1	1.478	IDENTIFIED	16.7	☐	
Thorium-234 ✓	0.7715	0.2795	pCi/g	0.2168	0.500	92.75	1	1.138	IDENTIFIED	18.02	☐	

*** = 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
198686004	18-OCT-07 00:00	16-DEC-07 16:42	59.7	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 ✓	1.087	0.14	pCi/g	0.07147	0.800	911.6	1	1.771	IDENTIFIED	4.862	☐	
Americium-241 LA	0.08261	0.04296	pCi/g	0.06771	0.200	87.35	2	1.548	NOT_IDENTI	6.281	☑ UI	Data rejected due to low abundance.
Americium-243 INT	0.2012	0.03048	pCi/g	0.02603	Y	75.01	1	1.667	IDENTIFIED	6.776	☑ UI	
Bismuth-212 ✓	0.6176	0.1715	pCi/g	0.1474	0.500	727.7	1	1.54	IDENTIFIED	13.57	☐	
Bismuth-214 ✓	1.053	0.09881	pCi/g	0.03943	0.200	609.4	1	1.676	IDENTIFIED	3.035	☐	

Cesium-137 ✓	**0.1892**	0.02518	pCi/g	**0.02106**	**0.100**	661.8	1	1.782	IDENTIFIED	5.565	☐
Lead-212 ✓	**0.9777**	0.07142	pCi/g	**0.03289**	**0.100**	238.6	1	1.395	IDENTIFIED	2.044	☐
Lead-214 ✓	**1.178**	0.09204	pCi/g	**0.04002**	**0.100**	351.9	1	1.433	IDENTIFIED	2.649	☐
Neptunium-237 INT	**0.7384**	0.1091	pCi/g	**0.114**	**Y**	87.35	2	1.548	IDENTIFIED	6.281	☑ UI
Potassium-40 ✓	**7.149**	0.5732	pCi/g	**0.1889**	**1.00**	1461	1	1.997	IDENTIFIED	3.001	☐
Radium-223 INT	**0.3189**	0.1016	pCi/g	**0.1034**	**Y**	270.1	1	1.474	IDENTIFIED	15.94	☑ UI
Thallium-208 ✓	**0.2898**	0.03423	pCi/g	**0.0194**	**0.080**	583.3	1	1.496	IDENTIFIED	4.833	☐
Thorium-234 ✓	**1.269**	0.2763	pCi/g	**0.2516**	**0.500**	92.97	1	1.767	IDENTIFIED	10.37	☐

*** = 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
1201473827		16-DEC-07 16:43	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 LA	**0.05511**	0.04634	pCi/g	**0.05021**	**0.800**	910.7	1	3.145	FAIL_ABUND	42.7	☑ 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
1201473828	18-OCT-07 00:00	16-DEC-07 16:43	59.7	DUP	LOAD	1		SCAN00101|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓	**0.6518**	0.1156	pCi/g	**0.07016**	**0.800**	911.7	1	1.696	IDENTIFIED	7.4	☐	
Americium-243 INT	**0.1576**	0.02535	pCi/g	**0.02623**	**Y**	74.97	1	1.521	IDENTIFIED	7.554	☑ UI	
Bismuth-212 ✓	**0.5651**	0.1462	pCi/g	**0.1446**	**0.500**	727.6	1	1.433	IDENTIFIED	12.45	☐	
Bismuth-214 ✓	**0.4788**	0.06421	pCi/g	**0.03728**	**0.200**	609.6	1	1.537	IDENTIFIED	5.68	☐	
Cesium-137 ✓	**0.06659**	0.02268	pCi/g	**0.01883**	**0.100**	661.7	1	1.319	IDENTIFIED	16.9	☐	
Curium-243 INT	**0.0572**	0.0416	pCi/g	**0.04821**	**Y**	105.6	2	1.243	IDENTIFIED	36.97	☑ UI	
Europium-155 INT	**0.06324**	0.04599	pCi/g	**0.05361**	**0.500**	105.6	2	1.243	IDENTIFIED	36.97	☑ UI	
Lead-212 ✓	**0.6397**	0.05307	pCi/g	**0.0297**	**0.100**	238.7	1	1.334	IDENTIFIED	2.829	☐	
Lead-214 ✓	**0.5117**	0.05971	pCi/g	**0.03722**	**0.100**	351.8	1	1.51	IDENTIFIED	5.14	☐	
Neptunium-236 INT	**0.03842**	0.0255	pCi/g	**0.0284**	**Y**	99.33	1	1.994	IDENTIFIED	33.72	☑ UI	
Neptunium-237 INT	**0.4282**	0.08784	pCi/g	**0.1061**	**Y**	87.43	1	1.275	IDENTIFIED	9.891	☑ UI	
Potassium-40 ✓	**5.626**	0.5254	pCi/g	**0.1926**	**1.00**	1462	1	1.933	IDENTIFIED	3.608	☐	
Radium-223 INT	**0.2341**	0.08742	pCi/g	**0.09689**	**Y**	270	1	1.584	IDENTIFIED	18.78	☑ UI	
Thallium-208 ✓	**0.157**	0.02828	pCi/g	**0.0193**	**0.080**	583.4	1	1.561	IDENTIFIED	8.411	☐	
Thorium-234 ✓	**0.9812**	0.2868	pCi/g	**0.2303**	**0.500**	92.78	1	1.591	IDENTIFIED	14.54	☐	

*** = 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
1201473829		16-DEC-07 13:52	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	**2.128**	0.8341	pCi/g	**0.6987**	**0.800**	910.4	1	1.91	IDENTIFIED	19.33	☐	
Americium-241	**14.2**	1.443	pCi/g	**0.6581**	**0.200**	59.43	1	1.232	IDENTIFIED	3.123	☐	
Americium-243	**0.3233**	0.1589	pCi/g	**0.2373**	**Y**	74.93	1	1.545	IDENTIFIED	24.76	☐	
Bismuth-214	**1.153**	0.2742	pCi/g	**0.2663**	**0.200**	609	1	1.135	IDENTIFIED	11.52	☐	
Cesium-137	**6.253**	0.581	pCi/g	**0.1501**	**0.100**	661.4	1	1.595	IDENTIFIED	2.519	☐	
Cobalt-60	**9.041**	0.6918	pCi/g	**0.1736**	**0.100**	1173	1	1.878	IDENTIFIED	2.275	☐	
Gross Gamma	**44.56**	7.438	pCi/g	**8.657**	**N**		0				☐	
Lead-212	**1.348**	0.2249	pCi/g	**0.2487**	**0.100**	238.5	1	1.371	IDENTIFIED	7.884	☐	
Lead-214	**0.9868**	0.2862	pCi/g	**0.2927**	**0.100**	351.7	1	1.07	IDENTIFIED	14.48	☐	
Neptunium-237	**33.35**	3.186	pCi/g	**1.233**	**Y**	88.03	1	1.191	IDENTIFIED	2.289	☐	
Polonium-209	**236.5**	51.14	pCi/g	**40.53**	**Y**	897.8	1	1.632	IDENTIFIED	9.744	☐	
Thallium-208	**0.346**	0.1696	pCi/g	**0.1514**	**0.080**	583.6	1	1.68	IDENTIFIED	24.74	☐	
Thorium-234	**2.584**	1.482	pCi/g	**2.186**	**0.500**	93.03	1	1.546	FAIL_ABUND	28.98	☐	

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

GEL QUALS

Batch ID: 708126

Report run on: December 17, 2007 2:43 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198683027-1 16-DEC-2007 12:22	Americium-243	UI	UI	UI	Data rejected due to interference.		.1315			
	Bismuth-212	UI	UI	UI	Data rejected due to no valid peak.		.5667		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4189			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1914			
198683028-1 16-DEC-2007 12:22	Americium-243	UI	UI	UI	Data rejected due to interference.		.1222			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3457			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2127			
198683029-1 16-DEC-2007 12:22	Americium-243	UI	UI	UI	Data rejected due to interference.		.07721			
	Bismuth-212	UI	UI	UI	Data rejected due to no valid peak.		.2654		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3454			
198683030-1 16-DEC-2007 12:23	Americium-243	UI	UI	UI	Data rejected due to interference.		.1775			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3422			
	Uranium 235				Data rejected due to no valid peak		0.1809			
198683031-1 16-DEC-2007 12:23	Americium-243	UI	UI	UI	Data rejected due to interference.		.1054			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4711			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2608			
198683032-1 16-DEC-2007 12:24	Americium-243	UI	UI	UI	Data rejected due to interference.		.2052			
	Californium-249	UI	UI	UI	Data rejected due to interference.		.04833			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.5223			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2599			

GEL QUALS

Batch ID: 708126

Report run on: December 17, 2007 2:43 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198683033-1 16-DEC-2007 12:24	Americium-243	UI	UI	UI	Data rejected due to interference.		.1819			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.6831			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2987			
198683034-1 16-DEC-2007 12:24	Americium-243	UI	UI	UI	Data rejected due to interference.		.1417			
	Antimony-125	UI	UI	UI	Data rejected due to interference.		.0967		.2	.2
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4015			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2912			
198683035-1 16-DEC-2007 12:31	Americium-243	UI	UI	UI	Data rejected due to interference.		.06251			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.1887			
198683036-1 16-DEC-2007 12:32	Americium-243	UI	UI	UI	Data rejected due to interference.		.07817			
	Bismuth-212	UI	UI	UI	Data rejected due to no valid peak.		.2107		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.2571			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2638			
198683037-1 16-DEC-2007 12:32	Americium-243	UI	UI	UI	Data rejected due to interference.		.1511			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.09655			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.1067		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4485			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2914			
	Uranium 235				Data rejected due to no valid peak		0.2377			
198683038-1 16-DEC-2007 12:32	Americium-243	UI	UI	UI	Data rejected due to interference.		.1183			

GEL QUALS

Batch ID: 708126

Report run on: December 17, 2007 2:43 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198683038-1 16-DEC-2007 12:32	Cesium-137	UI	UI	UI	Data rejected due to low abundance.		.06977		.1	.1
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3366			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2011			
198683039-1 16-DEC-2007 12:33	Americium-243	UI	UI	UI	Data rejected due to interference.		.1664			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.536			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1962			
198683040-1 16-DEC-2007 12:33	Americium-243	UI	UI	UI	Data rejected due to interference.		.1643			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4854			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2892			
198683041-1 16-DEC-2007 16:41	Americium-243	UI	UI	UI	Data rejected due to interference.		.1416			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4117			
	Protactinium-234m	UI	UI	UI	Data rejected due to high peak-width.		3.053			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2421			
198683042-1 16-DEC-2007 16:41	Americium-243	UI	UI	UI	Data rejected due to interference.		.03987			
	Bismuth-212	UI	UI	UI	Data rejected due to high counting uncertainty.		.1286		.5	.5
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.1131			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1641			
198686001-1 16-DEC-2007 16:41	Americium-243	UI	UI	UI	Data rejected due to interference.		.1288			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.3926			

GEL QUALS

Batch ID: 708126

Report run on: December 17, 2007 2:43 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
198686001-1 16-DEC-2007 16:41	Radium-223	UI	UI	UI	Data rejected due to interference.		.2155			
198686002-1 16-DEC-2007 16:42	Americium-243	UI	UI	UI	Data rejected due to interference.		.1356			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4327			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.1564			
198686003-1 16-DEC-2007 16:42	Americium-243	UI	UI	UI	Data rejected due to interference.		.09775			
	Neptunium-237	UI	UI	UI	Data rejected due to low abundance.		.1641			
198686004-1 16-DEC-2007 16:42	Americium-241	UI	UI	UI	Data rejected due to low abundance.		.08261		.2	.2
	Americium-243	UI	UI	UI	Data rejected due to interference.		.2012			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.7384			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.3189			
1201473827-1 MB 16-DEC-2007 16:43	Actinium-228	UI	UI	UI	Data rejected due to low abundance.		.05511		.8	.8
1201473828-1 DUP 16-DEC-2007 16:43	Americium-243	UI	UI	UI	Data rejected due to interference.		.1576			
	Curium-243	UI	UI	UI	Data rejected due to interference.		.0572			
	Europium-155	UI	UI	UI	Data rejected due to interference.		.06324		.5	.5
	Neptunium-236	UI	UI	UI	Data rejected due to interference.		.03842			
	Neptunium-237	UI	UI	UI	Data rejected due to interference.		.4282			
	Radium-223	UI	UI	UI	Data rejected due to interference.		.2341			

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:16:33.85

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683027.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:22:07
Sample ID        : G198683027           Sample quantity  : 1.13190E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.47  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.88*	50	357	1.12	125.79	122	8	3.45E-03	72.1	
2	2	74.29	222	373	1.17	148.60	143	16	1.54E-02	16.0	1.28E+00
3	2	76.79*	381	358	1.09	153.59	143	16	2.64E-02	10.2	
4	5	84.40	103	431	1.59	168.80	164	18	7.16E-03	40.9	5.49E+00
5	5	86.73	162	367	1.32	173.46	164	18	1.13E-02	22.0	
6	0	92.60*	94	445	1.29	185.19	181	8	6.52E-03	45.9	
7	0	128.95	56	328	0.88	257.80	253	8	3.89E-03	57.8	
8	0	185.49*	118	363	1.18	370.78	367	9	8.19E-03	33.8	
9	0	208.72	95	239	0.82	417.20	414	8	6.57E-03	30.1	
10	4	238.31*	717	174	1.08	476.34	472	16	4.98E-02	5.2	1.13E+00
11	4	241.50	232	270	1.79	482.70	472	16	1.61E-02	17.6	
12	0	269.70	64	140	1.61	539.05	536	7	4.41E-03	33.3	
13	0	294.81*	262	196	1.18	589.24	586	10	1.82E-02	12.0	
14	0	299.89	54	182	1.30	599.38	595	9	3.72E-03	47.5	
15	0	333.06	51	175	3.96	665.68	660	11	3.57E-03	51.8	
16	0	337.94	180	149	1.26	675.42	671	9	1.25E-02	14.3	
17	0	351.60*	453	214	1.22	702.74	696	14	3.15E-02	8.7	
18	0	376.34	30	95	1.35	752.17	749	8	2.10E-03	58.5	
19	0	402.25	22	126	1.32	803.96	796	11	1.55E-03	99.8	
20	0	421.87	32	89	1.46	843.15	838	9	2.24E-03	56.1	
21	0	462.54*	25	103	1.30	924.45	919	10	1.71E-03	85.5	
22	0	510.98*	51	178	2.06	1021.26	1012	20	3.57E-03	81.0	
23	0	582.94*	225	72	1.41	1165.09	1160	10	1.56E-02	10.7	
24	0	609.06*	302	96	1.68	1217.30	1210	13	2.10E-02	9.5	
25	0	661.30	77	63	2.07	1321.72	1316	10	5.38E-03	22.2	
26	0	667.32	55	51	3.72	1333.74	1328	12	3.79E-03	30.0	
27	0	711.91	18	196	10.52	1422.87	1395	30	1.28E-03	222.4	
28	1	727.14	73	54	1.82	1453.33	1446	17	5.09E-03	22.4	1.76E+00
29	1	729.92	31	28	1.69	1458.89	1446	17	2.16E-03	38.0	
30	0	745.90	60	180	15.65	1490.83	1465	38	4.16E-03	73.9	
31	0	796.05	34	92	2.36	1591.08	1582	20	2.39E-03	69.7	
32	0	846.49	22	121	9.09	1691.92	1676	23	1.50E-03	133.9	
33	0	860.64	51	60	0.78	1720.21	1713	12	3.54E-03	33.4	
34	0	911.06*	176	60	1.74	1821.01	1814	17	1.22E-02	13.3	
35	0	934.81	20	57	1.46	1868.49	1863	14	1.36E-03	86.4	
36	0	968.60*	109	28	1.50	1936.04	1931	11	7.59E-03	14.5	
37	0	1050.91	31	10	2.62	2100.61	2096	10	2.15E-03	26.2	
38	0	1120.67*	65	63	1.72	2240.11	2234	16	4.51E-03	31.7	

Sample ID : G198683027 Acquisition date : 16-DEC-2007 12:22:07

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1237.64	55	58	2.00	2474.01	2464	21	3.80E-03	37.3	
40	0	1246.71	12	22	0.56	2492.14	2486	8	8.36E-04	73.3	
41	0	1305.16	22	86	13.05	2609.04	2573	38	1.55E-03	135.7	
42	0	1390.86	10	12	1.72	2780.44	2773	10	6.88E-04	73.6	
43	0	1460.51*	360	8	2.22	2919.73	2912	15	2.50E-02	5.8	
44	0	1566.87	13	3	1.32	3132.48	3125	13	8.90E-04	40.2	
45	0	1620.52	15	8	2.35	3239.79	3233	11	1.02E-03	46.1	
46	0	1730.09	30	3	1.48	3458.98	3452	15	2.06E-03	23.1	
47	0	1764.20*	62	23	2.02	3527.23	3520	15	4.34E-03	22.5	
48	0	1799.23	9	3	1.43	3597.29	3591	11	6.51E-04	47.2	

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]G198683027       *
* Acquisition date : 16-DEC-2007 12:22:07 Detector SN#    :                 *
* Detector ID      : GAM06                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 04:00:01.47     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683027           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1319E+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	5.834E+00	7.604E-01	2.825E-01	0.000E+00
CS-137	7.663E-02	3.375E-02	3.647E-02	0.000E+00
TL-208	2.006E-01	4.421E-02	3.580E-02	0.000E+00
BI-212	5.667E-01	2.524E-01	2.872E-01	0.000E+00
PB-212	6.247E-01	7.405E-02	6.159E-02	0.000E+00
BI-214	5.118E-01	1.011E-01	7.228E-02	0.000E+00
PB-214	6.070E-01	1.095E-01	6.906E-02	0.000E+00
RA-223	1.914E-01	1.256E-01	1.900E-01	0.000E+00
AC-228	7.640E-01	2.130E-01	1.398E-01	0.000E+00
TH-234	5.217E-01	4.711E-01	5.019E-01	0.000E+00
NP-237	4.189E-01	1.846E-01	2.167E-01	0.000E+00
AM-243	1.315E-01	4.256E-02	5.124E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	-5.849E-03		2.819E-02	4.668E-02	0.000E+00	NOT IDENT.
RH-101	8.692E-03		2.319E-02	3.751E-02	0.000E+00	NOT IDENT.
SB-125	-2.877E-02		5.902E-02	9.465E-02	0.000E+00	NOT IDENT.
EU-155	3.951E-02		6.351E-02	1.105E-01	0.000E+00	NOT IDENT.
PO-209	3.303E+00		4.444E+00	7.897E+00	0.000E+00	NOT IDENT.
BI-211	-2.498E-01		6.220E-01	9.927E-01	0.000E+00	NOT IDENT.
PA-233	-4.177E-03		3.856E-02	6.525E-02	0.000E+00	NOT IDENT.
PA-234M	-9.160E-01		2.818E+00	4.445E+00	0.000E+00	NOT IDENT.
U-235	-2.632E-02		1.390E-01	2.117E-01	0.000E+00	NOT IDENT.
NP-236	2.168E-02		3.433E-02	6.001E-02	0.000E+00	NOT IDENT.
NP-239	1.809E-01		1.344E-01	2.465E-01	0.000E+00	NOT IDENT.
AM-241	2.520E-02		1.027E-01	1.632E-01	0.000E+00	NOT IDENT.
CM-243	2.023E-02		5.646E-02	9.738E-02	0.000E+00	NOT IDENT.
AM-246	2.854E-02		8.768E-02	1.539E-01	0.000E+00	NOT IDENT.
CF-249	8.929E-03		2.562E-02	4.386E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:16:34.81

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683027.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:22:07
Sample ID        : G198683027           Sample quantity  : 1.13190E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.47  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	360	10.66*	9.604E-01	5.834E+00	5.834E+00	13.30
CS-137	661.66	77	85.10*	1.977E+00	7.634E-02	7.663E-02	44.95
TL-208	277.36	------	6.31	3.937E+00	------	Line Not Found	------
	510.77	51	22.60	2.455E+00	1.535E-01	1.535E-01	162.07
	583.19	225	84.50*	2.202E+00	2.006E-01	2.006E-01	22.49
	763.13	------	1.81	1.741E+00	------	Line Not Found	------
	860.56	51	12.42	1.558E+00	4.371E-01	4.371E-01	67.55
BI-212	727.33	73	11.80*	1.818E+00	5.667E-01	5.667E-01	45.44
	785.37	------	1.10	1.696E+00	------	Line Not Found	------
	1620.50	15	1.49	8.878E-01	1.839E+00	1.839E+00	92.34
PB-212	74.81	222	10.40	4.106E+00	8.624E-01	8.624E-01	33.03
	77.11	381	17.50	4.363E+00	8.264E-01	8.264E-01	22.11
	87.30	162	7.81	5.182E+00	6.651E-01	6.651E-01	44.96
	238.63	717	43.30*	4.397E+00	6.247E-01	6.247E-01	12.10
	300.09	54	3.28	3.714E+00	7.290E-01	7.290E-01	95.14
BI-214	609.31	302	46.10*	2.122E+00	5.118E-01	5.118E-01	20.15
	768.36	------	4.94	1.730E+00	------	Line Not Found	------
	806.17	------	1.22	1.656E+00	------	Line Not Found	------
	934.06	20	3.03	1.442E+00	7.416E-01	7.417E-01	173.11
	1120.29	65	15.10	1.215E+00	5.863E-01	5.863E-01	63.89
	1155.19	------	1.63	1.181E+00	------	Line Not Found	------
	1238.11	55	5.79	1.109E+00	1.415E+00	1.415E+00	74.79
	1280.96	------	1.43	1.075E+00	------	Line Not Found	------
	1377.67	------	4.00	1.008E+00	------	Line Not Found	------
	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	30	2.92	8.508E-01	1.983E+00	1.983E+00	46.58
	1764.49	62	15.40	8.411E-01	7.992E-01	7.993E-01	45.32
PB-214	74.81	222	6.44	4.106E+00	1.393E+00	1.393E+00	33.03
	77.11	381	10.80	4.363E+00	1.339E+00	1.339E+00	22.11
	87.30	162	4.84	5.182E+00	1.073E+00	1.073E+00	44.96

Sample ID : G198683027 Acquisition date : 16-DEC-2007 12:22:07

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	232	7.43	4.356E+00	1.189E+00	1.190E+00	35.69
	295.22	262	19.30	3.761E+00	5.990E-01	5.990E-01	24.75
	351.93	453	37.60*	3.292E+00	6.070E-01	6.070E-01	18.41
RA-223	269.46	64	13.70*	4.019E+00	1.914E-01	1.914E-01	67.00
AC-228	129.07	56	2.42	6.052E+00	6.336E-01	6.336E-01	115.86
	209.25	95	3.89	4.821E+00	8.367E-01	8.367E-01	60.45
	270.25	64	3.46	4.019E+00	7.577E-01	7.577E-01	67.00
	338.32	180	11.27	3.393E+00	7.797E-01	7.797E-01	29.33
	409.46	------	1.92	2.927E+00	------	Line Not Found	------
	463.00	25	4.40	2.660E+00	3.482E-01	3.482E-01	171.06
	794.95	34	4.25	1.675E+00	8.023E-01	8.023E-01	139.62
	911.20	176	25.80*	1.478E+00	7.640E-01	7.640E-01	28.44
	964.77	------	4.99	1.400E+00	------	Line Not Found	------
	968.97	109	15.80	1.395E+00	8.223E-01	8.223E-01	30.49
	1588.20	------	3.22	9.005E-01	------	Line Not Found	------
TH-234	63.29	50	4.80	2.710E+00	6.327E-01	6.327E-01	144.54
	92.58	94	5.41*	5.519E+00	5.217E-01	5.217E-01	92.15
NP-237	86.48	162	12.40*	5.182E+00	4.189E-01	4.189E-01	44.96
AM-243	74.66	222	68.20*	4.106E+00	1.315E-01	1.315E-01	33.03

Flag: "*" = Keyline

Sample ID : G198683027 Acquisition date : 16-DEC-2007 12:22:07

Total number of lines in spectrum 48
Number of unidentified lines 17
Number of lines tentatively identified by NID 31 64.58%

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	5.834E+00	5.834E+00	0.776E+00	13.30	
CS-137	9.47E+08S	1.00	7.634E-02	7.663E-02	3.444E-02	44.95	
TL-208	4.43E+17S	1.00	2.006E-01	2.006E-01	0.451E-01	22.49	
BI-212	4.43E+17S	1.00	5.667E-01	5.667E-01	2.575E-01	45.44	
PB-212	4.43E+17S	1.00	6.247E-01	6.247E-01	0.756E-01	12.10	
BI-214	5.05E+10S	1.00	5.118E-01	5.118E-01	1.031E-01	20.15	
PB-214	5.05E+10S	1.00	6.070E-01	6.070E-01	1.117E-01	18.41	
RA-223	1.04E+12S	1.00	1.914E-01	1.914E-01	1.282E-01	67.00	
AC-228	4.43E+17S	1.00	7.640E-01	7.640E-01	2.173E-01	28.44	
TH-234	1.41E+17S	1.00	5.217E-01	5.217E-01	4.808E-01	92.15	
NP-237	6.75E+13S	1.00	4.189E-01	4.189E-01	1.883E-01	44.96	
AM-243	2.33E+11S	1.00	1.315E-01	1.315E-01	0.434E-01	33.03	
			---	---			
		Total Activity :	1.045E+01	1.045E+01			

Grand Total Activity : 1.045E+01 1.045E+01

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

Sample ID : G198683027 Acquisition date : 16-DEC-2007 12:22:07

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	84.40	103	431	1.59	168.80	164	18	7.16E-03	81.7	5.02E+00	
0	185.49	118	363	1.18	370.78	367	9	8.19E-03	67.7	5.20E+00	
0	333.06	51	175	3.96	665.68	660	11	3.57E-03	****	3.43E+00	
0	376.34	30	95	1.35	752.17	749	8	2.10E-03	****	3.12E+00	
0	402.25	22	126	1.32	803.96	796	11	1.55E-03	****	2.97E+00	
0	421.87	32	89	1.46	843.15	838	9	2.24E-03	****	2.86E+00	
0	667.32	55	51	3.72	1333.74	1328	12	3.79E-03	60.1	1.96E+00	
0	711.91	18	196	10.52	1422.87	1395	30	1.28E-03	****	1.85E+00	
1	729.92	31	28	1.69	1458.89	1446	17	2.16E-03	76.0	1.81E+00	
0	745.90	60	180	15.65	1490.83	1465	38	4.16E-03	****	1.78E+00	
0	846.49	22	121	9.09	1691.92	1676	23	1.50E-03	****	1.58E+00	
0	1050.91	31	10	2.62	2100.61	2096	10	2.15E-03	52.4	1.29E+00	
0	1246.71	12	22	0.56	2492.14	2486	8	8.36E-04	****	1.10E+00	
0	1305.16	22	86	13.05	2609.04	2573	38	1.55E-03	****	1.06E+00	
0	1390.86	10	12	1.72	2780.44	2773	10	6.88E-04	****	1.00E+00	
0	1566.87	13	3	1.32	3132.48	3125	13	8.90E-04	80.5	9.09E-01	
0	1799.23	9	3	1.43	3597.29	3591	11	6.51E-04	94.4	8.32E-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]G198683027            *
* Acquisition date : 16-DEC-2007 12:22:07 Detector SN#    :                 *
* Detector ID      : GAM06                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 04:00:01.47     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683027           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1319E+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	5.834E+00	7.604E-01	1.413E-01	7.604E-01
CS-137	7.663E-02	3.375E-02	1.825E-02	3.375E-02
TL-208	2.006E-01	4.421E-02	1.791E-02	4.421E-02
BI-212	5.667E-01	2.524E-01	1.437E-01	2.524E-01
PB-212	6.247E-01	7.405E-02	3.081E-02	7.405E-02
BI-214	5.118E-01	1.011E-01	3.616E-02	1.011E-01
PB-214	6.070E-01	1.095E-01	3.455E-02	1.095E-01
RA-223	1.914E-01	1.256E-01	9.508E-02	1.256E-01
AC-228	7.640E-01	2.130E-01	6.992E-02	2.130E-01
TH-234	5.217E-01	4.711E-01	2.511E-01	4.711E-01
NP-237	4.189E-01	1.846E-01	1.084E-01	1.846E-01
AM-243	1.315E-01	4.256E-02	2.564E-02	4.256E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-5.849E-03	2.819E-02	2.336E-02	2.819E-02	NOT IDENT.
RH-101	8.692E-03	2.319E-02	1.876E-02	2.319E-02	NOT IDENT.
SB-125	-2.877E-02	5.902E-02	4.735E-02	5.902E-02	NOT IDENT.
EU-155	3.951E-02	6.351E-02	5.529E-02	6.351E-02	NOT IDENT.
PO-209	3.303E+00	4.444E+00	3.951E+00	4.444E+00	NOT IDENT.
BI-211	-2.498E-01	6.220E-01	4.967E-01	6.220E-01	NOT IDENT.
PA-233	-4.177E-03	3.856E-02	3.265E-02	3.856E-02	NOT IDENT.
PA-234M	-9.160E-01	2.818E+00	2.224E+00	2.818E+00	NOT IDENT.
U-235	-2.632E-02	1.390E-01	1.059E-01	1.390E-01	NOT IDENT.
NP-236	2.168E-02	3.433E-02	3.002E-02	3.433E-02	NOT IDENT.
NP-239	1.809E-01	1.344E-01	1.233E-01	1.344E-01	NOT IDENT.
AM-241	2.520E-02	1.027E-01	8.162E-02	1.027E-01	NOT IDENT.
CM-243	2.023E-02	5.646E-02	4.872E-02	5.646E-02	NOT IDENT.
AM-246	2.854E-02	8.768E-02	7.698E-02	8.768E-02	NOT IDENT.
CF-249	8.929E-03	2.562E-02	2.195E-02	2.562E-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	269.1143
63.29	293.7591
74.66	338.4102
74.81	338.5245
74.81	338.5245
77.11	340.2562
77.11	340.2562
86.48	311.4592
87.30	311.9767
87.30	311.9767
92.58	363.2936
98.44	250.9807
103.76	265.6957
105.31	271.5560
129.07	276.5773
143.76	271.2419
198.00	234.5900
209.25	228.3342
228.18	184.4843
238.63	225.7376
242.00	226.4914
269.46	180.6797
270.25	177.0446
277.36	193.3387
295.22	172.4871
300.09	168.5562
312.17	139.5917
338.32	164.2242
351.93	120.8130
387.59	118.7692
409.46	127.8714
427.87	111.3783
463.00	112.7439
510.77	74.6665
583.19	74.1035
609.31	83.5070
661.66	62.5022
727.33	63.6124
763.13	76.3210
768.36	65.4126
785.37	45.5933
794.95	58.9870
806.17	64.6925
831.80	54.6692
860.56	76.4557
896.60	38.0241
911.20	47.7751
934.06	46.3707
964.77	41.4489
968.97	70.3812
1001.03	49.2407
1078.86	42.9846
1120.29	38.7895
1155.19	32.4962
1173.23	51.8796
1238.11	46.9531
1280.96	38.8588
1332.51	24.0664
1377.67	25.3560
1401.50	27.5460
1407.98	29.6337
1460.80	14.1925
1509.23	26.1658
1588.20	25.5684
1620.50	16.0938
1729.60	11.5271
1764.49	16.1106

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683027

Total Uranium Activity	-1.2178E-02	ug/g
Total Uranium Counting Unc.	6.4328E-02	ug/g
Total Uranium Tpu	6.4328E-08	ug/g
Total Uranium Mda	4.9011E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:17:17.55

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683028.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:22:32
Sample ID        : G198683028           Sample quantity  : 1.22640E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:28.14  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.23*	30	365	1.12	91.98	88	8	2.09E-03	128.6	
2	0	63.31*	48	563	0.99	126.11	122	10	3.32E-03	101.1	
3	2	72.75	40	391	0.98	145.00	142	17	2.78E-03	78.8	3.28E+00
4	2	75.04*	352	459	1.20	149.58	142	17	2.44E-02	12.2	
5	2	77.25*	541	463	1.09	153.98	142	17	3.76E-02	8.3	
6	3	84.29*	46	431	1.34	168.07	164	28	3.21E-03	88.6	1.32E+00
7	3	87.40*	200	409	1.35	174.29	164	28	1.39E-02	21.5	
8	3	90.05	159	339	1.25	179.60	164	28	1.11E-02	21.2	
9	3	92.88*	196	316	1.22	185.24	164	28	1.36E-02	20.1	
10	0	114.97	49	288	1.47	229.40	227	7	3.40E-03	59.1	
11	0	128.33	61	484	1.84	256.13	251	11	4.22E-03	71.1	
12	0	143.61*	17	362	0.64	286.67	284	9	1.17E-03	216.3	
13	0	186.23*	230	409	1.30	371.89	365	13	1.60E-02	20.6	
14	0	209.14	76	290	0.77	417.70	414	9	5.24E-03	42.2	
15	5	238.83*	924	194	1.17	477.06	470	20	6.42E-02	4.6	1.50E+00
16	5	241.90	318	248	1.72	483.20	470	20	2.21E-02	12.4	
17	0	258.97	55	174	1.42	517.33	515	9	3.80E-03	45.0	
18	0	270.47	91	229	1.73	540.32	536	10	6.29E-03	33.2	
19	0	295.43	390	160	1.21	590.23	586	8	2.71E-02	7.6	
20	0	300.25	71	165	1.67	599.88	596	8	4.91E-03	33.7	
21	0	328.65	54	164	1.63	656.64	653	9	3.75E-03	44.8	
22	0	338.46*	154	221	1.20	676.28	671	11	1.07E-02	21.6	
23	0	352.02*	700	206	1.35	703.39	696	15	4.86E-02	6.0	
24	0	396.74	23	104	1.12	792.79	789	7	1.62E-03	75.5	
25	0	454.71	8	152	3.56	908.71	903	13	5.71E-04	311.9	
26	0	463.50*	37	63	1.57	926.29	923	7	2.54E-03	44.5	
27	0	511.15*	45	170	1.58	1021.55	1015	15	3.13E-03	83.9	
28	2	539.97	20	29	1.53	1079.19	1077	19	1.38E-03	46.8	2.57E+00
29	2	542.38	25	55	1.51	1084.00	1077	19	1.73E-03	58.4	
30	0	559.80	16	57	0.96	1118.84	1114	9	1.09E-03	89.9	
31	0	583.34*	232	123	1.30	1165.90	1158	13	1.61E-02	13.2	
32	0	609.59*	457	84	1.66	1218.40	1212	15	3.17E-02	6.7	
33	1	662.06	58	75	1.76	1323.32	1318	27	4.01E-03	31.1	1.37E+00
34	1	666.25	24	66	1.76	1331.68	1318	27	1.67E-03	71.1	
35	0	684.26	43	110	8.04	1367.70	1358	20	2.99E-03	61.7	
36	1	727.52*	48	59	1.80	1454.21	1450	34	3.33E-03	35.2	1.85E+00
37	1	736.59	40	49	1.81	1472.33	1450	34	2.77E-03	39.4	
38	0	744.46	8	56	0.45	1488.08	1484	8	5.25E-04	173.4	

Sample ID : G198683028 Acquisition date : 16-DEC-2007 12:22:32

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	768.93	43	85	1.62	1537.00	1531	11	2.96E-03	44.6	
40	0	803.46*	71	158	12.16	1606.05	1585	42	4.94E-03	62.0	
41	0	860.99	41	56	1.36	1721.08	1715	11	2.84E-03	38.5	
42	0	911.74*	214	55	1.76	1822.57	1816	14	1.48E-02	10.7	
43	0	969.49	104	57	1.62	1938.05	1932	12	7.23E-03	17.5	
44	0	1006.70	7	75	2.66	2012.45	1999	17	5.12E-04	267.6	
45	0	1120.97	78	79	1.59	2240.95	2235	14	5.41E-03	26.5	
46	0	1136.87	18	39	4.29	2272.76	2265	12	1.27E-03	72.2	
47	0	1201.89	9	20	1.71	2402.76	2396	8	6.23E-04	97.9	
48	0	1213.18	17	50	1.04	2425.34	2414	19	1.19E-03	103.5	
49	0	1238.58	35	29	2.34	2476.14	2472	9	2.43E-03	32.5	
50	0	1255.66	17	20	0.62	2510.29	2506	8	1.21E-03	50.5	
51	0	1262.56	23	34	4.07	2524.09	2515	17	1.60E-03	61.7	
52	0	1378.62	48	7	3.00	2756.18	2752	11	3.37E-03	17.3	
53	1	1461.25*	472	7	2.15	2921.41	2912	21	3.28E-02	4.9	1.95E+00
54	1	1465.34	21	0	2.25	2929.59	2912	21	1.49E-03	25.7	
55	0	1471.75	17	11	4.18	2942.40	2936	13	1.15E-03	46.4	
56	0	1588.29	11	25	0.68	3175.47	3170	10	7.56E-04	91.1	
57	0	1639.71	14	6	3.14	3278.30	3273	10	9.72E-04	44.5	
58	0	1764.91*	73	16	1.94	3528.68	3519	16	5.05E-03	18.9	
59	0	1776.11	7	7	1.00	3551.08	3544	10	5.18E-04	76.7	
60	0	1848.58	18	14	2.98	3695.99	3686	14	1.23E-03	51.0	
61	0	1967.13	7	4	2.25	3933.07	3929	8	4.86E-04	62.3	

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]G198683028       *
* Acquisition date : 16-DEC-2007 12:22:32 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 04:00:28.14     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683028           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.2264E+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	5.812E+00	6.414E-01	2.581E-01	0.000E+00
CS-137	4.476E-02	2.745E-02	2.954E-02	0.000E+00
TL-208	1.616E-01	4.316E-02	3.379E-02	0.000E+00
BI-212	2.903E-01	2.014E-01	2.486E-01	0.000E+00
PB-212	6.288E-01	6.785E-02	4.459E-02	0.000E+00
BI-214	6.064E-01	8.968E-02	5.493E-02	0.000E+00
PB-214	7.296E-01	9.515E-02	5.478E-02	0.000E+00
RA-223	2.127E-01	1.388E-01	1.532E-01	0.000E+00
AC-228	7.216E-01	1.591E-01	1.178E-01	0.000E+00
TH-234	7.600E-01	3.055E-01	3.269E-01	0.000E+00
U-235	3.387E-02	1.437E-01	1.594E-01	0.000E+00
NP-237	3.457E-01	1.478E-01	1.457E-01	0.000E+00
AM-243	1.222E-01	3.033E-02	3.208E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.512E-02		2.068E-02	3.760E-02	0.000E+00	NOT IDENT.
RH-101	1.469E-02		1.809E-02	3.128E-02	0.000E+00	NOT IDENT.
SB-125	2.815E-02		4.572E-02	7.988E-02	0.000E+00	NOT IDENT.
EU-155	-2.096E-02		5.140E-02	8.231E-02	0.000E+00	NOT IDENT.
PO-209	7.182E-01		4.149E+00	6.721E+00	0.000E+00	NOT IDENT.
BI-211	-2.864E-01		5.595E-01	8.959E-01	0.000E+00	NOT IDENT.
PA-233	-3.003E-02		3.145E-02	5.095E-02	0.000E+00	NOT IDENT.
PA-234M	-1.512E+00		3.205E+00	4.081E+00	0.000E+00	NOT IDENT.
NP-236	1.099E-02		2.919E-02	4.571E-02	0.000E+00	NOT IDENT.
NP-239	-1.321E-03		1.039E-01	1.820E-01	0.000E+00	NOT IDENT.
AM-241	6.259E-02		4.759E-02	7.999E-02	0.000E+00	NOT IDENT.
CM-243	1.601E-03		4.348E-02	7.462E-02	0.000E+00	NOT IDENT.
AM-246	4.068E-03		6.293E-02	1.086E-01	0.000E+00	NOT IDENT.
CF-249	1.365E-02		2.136E-02	3.741E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:17:18.49

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683028.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:22:32
Sample ID        : G198683028           Sample quantity  : 1.22640E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:28.14  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	472	10.66*	1.166E+00	5.812E+00	5.812E+00	11.26
CS-137	661.66	58	85.10*	2.329E+00	4.459E-02	4.476E-02	62.59
TL-208	277.36	------	6.31	4.669E+00	------	Line Not Found	------
	510.77	45	22.60	2.898E+00	1.053E-01	1.053E-01	168.01
	583.19	232	84.50*	2.595E+00	1.616E-01	1.616E-01	27.25
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	41	12.42	1.848E+00	2.732E-01	2.732E-01	77.24
BI-212	727.33	48	11.80*	2.145E+00	2.903E-01	2.903E-01	70.80
	785.37	------	1.10	2.005E+00	------	Line Not Found	------
	1620.50	------	1.49	1.077E+00	------	Line Not Found	------
PB-212	74.81	352	10.40	6.460E+00	8.016E-01	8.016E-01	25.32
	77.11	541	17.50	6.619E+00	7.147E-01	7.147E-01	18.08
	87.30	200	7.81	7.134E+00	5.488E-01	5.488E-01	43.62
	238.63	924	43.30*	5.194E+00	6.288E-01	6.288E-01	11.01
	300.09	71	3.28	4.404E+00	7.484E-01	7.484E-01	67.75
BI-214	609.31	457	46.10*	2.500E+00	6.063E-01	6.064E-01	15.09
	768.36	43	4.94	2.043E+00	6.465E-01	6.466E-01	89.59
	806.17	------	1.22	1.959E+00	------	Line Not Found	------
	934.06	------	3.03	1.718E+00	------	Line Not Found	------
	1120.29	78	15.10	1.460E+00	5.409E-01	5.410E-01	53.33
	1155.19	------	1.63	1.422E+00	------	Line Not Found	------
	1238.11	35	5.79	1.338E+00	6.926E-01	6.926E-01	65.23
	1280.96	------	1.43	1.300E+00	------	Line Not Found	------
	1377.67	48	4.00	1.222E+00	1.518E+00	1.518E+00	34.95
	1401.50	------	1.27	1.206E+00	------	Line Not Found	------
	1407.98	------	2.15	1.201E+00	------	Line Not Found	------
	1509.23	------	2.11	1.136E+00	------	Line Not Found	------
	1729.60	------	2.92	1.029E+00	------	Line Not Found	------
	1764.49	73	15.40	1.016E+00	7.117E-01	7.117E-01	38.16
PB-214	74.81	352	6.44	6.460E+00	1.294E+00	1.295E+00	25.32
	77.11	541	10.80	6.619E+00	1.158E+00	1.158E+00	18.08
	87.30	200	4.84	7.134E+00	8.856E-01	8.856E-01	43.62

Sample ID : G198683028 Acquisition date : 16-DEC-2007 12:22:32

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	318	7.43	5.148E+00	1.273E+00	1.273E+00	25.61
	295.22	390	19.30	4.457E+00	6.940E-01	6.940E-01	16.30
	351.93	700	37.60*	3.903E+00	7.296E-01	7.296E-01	13.31
RA-223	269.46	91	13.70*	4.755E+00	2.127E-01	2.127E-01	66.59
AC-228	129.07	61	2.42	7.238E+00	5.309E-01	5.309E-01	142.43
	209.25	76	3.89	5.678E+00	5.231E-01	5.231E-01	84.51
	270.25	91	3.46	4.755E+00	8.423E-01	8.423E-01	66.59
	338.32	154	11.27	4.023E+00	5.196E-01	5.196E-01	43.50
	409.46	------	1.92	3.468E+00	------	Line Not Found	------
	463.00	37	4.40	3.140E+00	4.057E-01	4.057E-01	89.19
	794.95	------	4.25	1.984E+00	------	Line Not Found	------
	911.20	214	25.80*	1.756E+00	7.216E-01	7.216E-01	22.50
	964.77	------	4.99	1.669E+00	------	Line Not Found	------
	968.97	104	15.80	1.662E+00	6.073E-01	6.073E-01	35.60
	1588.20	11	3.22	1.093E+00	4.734E-01	4.734E-01	182.38
TH-234	63.29	48	4.80	5.274E+00	2.886E-01	2.886E-01	202.25
	92.58	196	5.41*	7.293E+00	7.600E-01	7.600E-01	41.01
U-235	143.76	17	10.96*	6.965E+00	3.387E-02	3.387E-02	432.74
NP-237	86.48	200	12.40*	7.134E+00	3.457E-01	3.457E-01	43.62
AM-243	74.66	352	68.20*	6.460E+00	1.222E-01	1.222E-01	25.32

Flag: "*" = Keyline

Sample ID : G198683028 Acquisition date : 16-DEC-2007 12:22:32

Total number of lines in spectrum 61
Number of unidentified lines 30
Number of lines tentatively identified by NID 31 50.82%

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	5.812E+00	5.812E+00	0.655E+00	11.26	
CS-137	9.47E+08S	1.00	4.459E-02	4.476E-02	2.801E-02	62.59	
TL-208	4.43E+17S	1.00	1.616E-01	1.616E-01	0.440E-01	27.25	
BI-212	4.43E+17S	1.00	2.903E-01	2.903E-01	2.055E-01	70.80	
PB-212	4.43E+17S	1.00	6.288E-01	6.288E-01	0.692E-01	11.01	
BI-214	5.05E+10S	1.00	6.063E-01	6.064E-01	0.915E-01	15.09	
PB-214	5.05E+10S	1.00	7.296E-01	7.296E-01	0.971E-01	13.31	
RA-223	1.04E+12S	1.00	2.127E-01	2.127E-01	1.416E-01	66.59	
AC-228	4.43E+17S	1.00	7.216E-01	7.216E-01	1.623E-01	22.50	
TH-234	1.41E+17S	1.00	7.600E-01	7.600E-01	3.117E-01	41.01	
U-235	2.22E+16S	1.00	3.387E-02	3.387E-02	14.66E-02	432.74	
NP-237	6.75E+13S	1.00	3.457E-01	3.457E-01	1.508E-01	43.62	
AM-243	2.33E+11S	1.00	1.222E-01	1.222E-01	0.310E-01	25.32	
			---	---			
	Total Activity :		1.047E+01	1.047E+01			

Grand Total Activity : 1.047E+01 1.047E+01

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

Sample ID : G198683028 Acquisition date : 16-DEC-2007 12:22:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.23	30	365	1.12	91.98	88	8	2.09E-03	****	2.55E+00	
2	72.75	40	391	0.98	145.00	142	17	2.78E-03	****	6.28E+00	
3	84.29	46	431	1.34	168.07	164	28	3.21E-03	****	7.01E+00	
3	90.05	159	339	1.25	179.60	164	28	1.11E-02	42.5	7.22E+00	
0	114.97	49	288	1.47	229.40	227	7	3.40E-03	****	7.40E+00	
0	186.23	230	409	1.30	371.89	365	13	1.60E-02	41.2	6.10E+00	
0	258.97	55	174	1.42	517.33	515	9	3.80E-03	90.1	4.91E+00	
0	328.65	54	164	1.63	656.64	653	9	3.75E-03	89.7	4.11E+00	
0	396.74	23	104	1.12	792.79	789	7	1.62E-03	****	3.56E+00	
0	454.71	8	152	3.56	908.71	903	13	5.71E-04	****	3.19E+00	
2	539.97	20	29	1.53	1079.19	1077	19	1.38E-03	93.6	2.77E+00	
2	542.38	25	55	1.51	1084.00	1077	19	1.73E-03	****	2.76E+00	
0	559.80	16	57	0.96	1118.84	1114	9	1.09E-03	****	2.69E+00	
1	666.25	24	66	1.76	1331.68	1318	27	1.67E-03	****	2.32E+00	
0	684.26	43	110	8.04	1367.70	1358	20	2.99E-03	****	2.26E+00	
1	736.59	40	49	1.81	1472.33	1450	34	2.77E-03	78.7	2.12E+00	
0	744.46	8	56	0.45	1488.08	1484	8	5.25E-04	****	2.10E+00	
0	803.46	71	158	12.16	1606.05	1585	42	4.94E-03	****	1.97E+00	
0	1006.70	7	75	2.66	2012.45	1999	17	5.12E-04	****	1.61E+00	
0	1136.87	18	39	4.29	2272.76	2265	12	1.27E-03	****	1.44E+00	
0	1201.89	9	20	1.71	2402.76	2396	8	6.23E-04	****	1.37E+00	
0	1213.18	17	50	1.04	2425.34	2414	19	1.19E-03	****	1.36E+00	
0	1255.66	17	20	0.62	2510.29	2506	8	1.21E-03	****	1.32E+00	
0	1262.56	23	34	4.07	2524.09	2515	17	1.60E-03	****	1.32E+00	
1	1465.34	21	0	2.25	2929.59	2912	21	1.49E-03	51.3	1.16E+00	
0	1471.75	17	11	4.18	2942.40	2936	13	1.15E-03	92.9	1.16E+00	
0	1639.71	14	6	3.14	3278.30	3273	10	9.72E-04	88.9	1.07E+00	
0	1776.11	7	7	1.00	3551.08	3544	10	5.18E-04	****	1.01E+00	
0	1848.58	18	14	2.98	3695.99	3686	14	1.23E-03	****	9.86E-01	
0	1967.13	7	4	2.25	3933.07	3929	8	4.86E-04	****	9.52E-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]G198683028            *
* Acquisition date : 16-DEC-2007 12:22:32 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 04:00:28.14     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683028           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.2264E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.812E+00	6.414E-01	1.291E-01	6.414E-01
CS-137	4.476E-02	2.745E-02	1.478E-02	2.745E-02
TL-208	1.616E-01	4.316E-02	1.691E-02	4.316E-02
BI-212	2.903E-01	2.014E-01	1.244E-01	2.014E-01
PB-212	6.288E-01	6.785E-02	2.231E-02	6.785E-02
BI-214	6.064E-01	8.968E-02	2.748E-02	8.968E-02
PB-214	7.296E-01	9.515E-02	2.741E-02	9.515E-02
RA-223	2.127E-01	1.388E-01	7.664E-02	1.388E-01
AC-228	7.216E-01	1.591E-01	5.895E-02	1.591E-01
TH-234	7.600E-01	3.055E-01	1.636E-01	3.055E-01
U-235	3.387E-02	1.437E-01	7.976E-02	1.437E-01
NP-237	3.457E-01	1.478E-01	7.287E-02	1.478E-01
AM-243	1.222E-01	3.033E-02	1.605E-02	3.033E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.512E-02	2.068E-02	1.881E-02	2.068E-02	NOT IDENT.
RH-101	1.469E-02	1.809E-02	1.565E-02	1.809E-02	NOT IDENT.
SB-125	2.815E-02	4.572E-02	3.996E-02	4.572E-02	NOT IDENT.
EU-155	-2.096E-02	5.140E-02	4.118E-02	5.140E-02	NOT IDENT.
PO-209	7.182E-01	4.149E+00	3.362E+00	4.149E+00	NOT IDENT.
BI-211	-2.864E-01	5.595E-01	4.482E-01	5.595E-01	NOT IDENT.
PA-233	-3.003E-02	3.145E-02	2.549E-02	3.145E-02	NOT IDENT.
PA-234M	-1.512E+00	3.205E+00	2.042E+00	3.205E+00	NOT IDENT.
NP-236	1.099E-02	2.919E-02	2.287E-02	2.919E-02	NOT IDENT.
NP-239	-1.321E-03	1.039E-01	9.107E-02	1.039E-01	NOT IDENT.
AM-241	6.259E-02	4.759E-02	4.002E-02	4.759E-02	NOT IDENT.
CM-243	1.601E-03	4.348E-02	3.733E-02	4.348E-02	NOT IDENT.
AM-246	4.068E-03	6.293E-02	5.433E-02	6.293E-02	NOT IDENT.
CF-249	1.365E-02	2.136E-02	1.872E-02	2.136E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	271.3804
63.29	353.4590
74.66	363.3395
74.81	363.4534
74.81	363.4534
77.11	365.1707
77.11	365.1707
86.48	303.0027
87.30	303.4696
87.30	303.4696
92.58	306.4214
98.44	284.2314
103.76	296.7332
105.31	293.3059
129.07	290.0913
143.76	276.0875
198.00	251.8910
209.25	251.2784
228.18	208.4932
238.63	190.2504
242.00	190.8445
269.46	189.8560
270.25	200.4333
277.36	172.9686
295.22	145.8377
300.09	175.2155
312.17	167.0428
338.32	159.2984
351.93	123.4185
387.59	131.6082
409.46	147.1201
427.87	94.5910
463.00	109.5811
510.77	100.2372
583.19	106.2543
609.31	77.6322
661.66	66.0621
727.33	77.0769
763.13	79.8320
768.36	84.9917
785.37	72.4605
794.95	55.5519
806.17	53.7544
831.80	73.7121
860.56	53.7824
896.60	50.2664
911.20	55.7768
934.06	39.2348
964.77	53.5498
968.97	70.7808
1001.03	50.5540
1078.86	39.7386
1120.29	44.8906
1155.19	46.2745
1173.23	38.9130
1238.11	49.2485
1280.96	30.2671
1332.51	28.6802
1377.67	35.9956
1401.50	28.1549
1407.98	39.2761
1460.80	20.3890
1509.23	29.8862
1588.20	35.6449
1620.50	26.3875
1729.60	24.8203
1764.49	17.6952

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683028

Total Uranium Activity	1.5673E-02	ug/g
Total Uranium Counting Unc.	6.6468E-02	ug/g
Total Uranium Tpu	6.6468E-08	ug/g
Total Uranium Mda	3.6906E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:17:53.79

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683029.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:22:53
Sample ID        : G198683029           Sample quantity  : 1.17960E+02 GRAM
Detector name    : GAM08                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.13  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.20*	49	370	1.40	126.46	122	10	3.40E-03	79.3	
2	4	72.98*	32	280	1.63	146.02	142	17	2.25E-03	98.0	1.98E+00
3	4	74.99*	152	251	1.11	150.03	142	17	1.06E-02	20.4	
4	4	77.13	279	257	1.17	154.32	142	17	1.94E-02	11.3	
5	3	87.10	154	269	1.52	174.24	167	28	1.07E-02	21.3	3.79E+00
6	3	90.00	93	272	1.50	180.06	167	28	6.45E-03	34.5	
7	3	92.72*	125	244	1.36	185.50	167	28	8.70E-03	28.2	
8	0	117.96	39	234	2.47	235.95	232	8	2.73E-03	69.5	
9	0	129.14	32	234	1.36	258.32	255	8	2.20E-03	85.3	
10	0	143.92*	18	265	1.50	287.86	285	8	1.25E-03	170.7	
11	0	149.84	34	126	0.79	299.71	298	5	2.39E-03	51.6	
12	0	163.21	36	144	1.11	326.43	324	6	2.47E-03	55.8	
13	0	185.86*	86	223	1.39	371.73	367	9	5.97E-03	38.7	
14	0	208.98	59	189	1.05	417.95	415	8	4.09E-03	42.3	
15	3	238.67*	447	132	1.20	477.32	469	19	3.11E-02	7.0	1.85E+00
16	3	241.55	163	157	1.82	483.09	469	19	1.13E-02	16.6	
17	0	269.91	47	131	2.92	539.80	537	9	3.23E-03	46.7	
18	0	278.60	37	187	2.05	557.16	549	11	2.55E-03	74.3	
19	0	281.95	20	103	1.19	563.86	561	8	1.42E-03	89.2	
20	0	295.16*	169	176	1.31	590.29	585	11	1.17E-02	18.7	
21	0	338.67	87	142	1.03	677.28	672	10	6.06E-03	27.7	
22	0	351.98*	282	171	1.26	703.90	698	13	1.96E-02	11.7	
23	0	463.94*	6	84	1.40	927.79	920	10	4.18E-04	325.2	
24	0	491.26	20	60	1.18	982.42	980	8	1.39E-03	70.7	
25	0	510.95*	33	148	2.54	1021.82	1014	16	2.29E-03	110.1	
26	0	545.89	30	35	1.81	1091.69	1088	9	2.11E-03	39.0	
27	0	573.41	17	76	1.16	1146.72	1140	11	1.17E-03	104.6	
28	0	583.05*	159	65	1.73	1166.01	1159	13	1.10E-02	14.0	
29	0	609.42*	182	86	1.69	1218.74	1212	13	1.26E-02	14.0	
30	0	640.37	13	48	2.12	1280.65	1274	9	8.93E-04	102.2	
31	0	661.64	207	50	1.76	1323.18	1318	10	1.44E-02	9.4	
32	10	694.07	66	51	4.19	1388.05	1381	27	4.55E-03	24.1	1.97E+00
33	10	701.24	48	39	4.51	1402.39	1381	27	3.32E-03	29.2	
34	0	712.94	25	80	0.68	1425.78	1416	17	1.71E-03	85.9	
35	0	727.66	40	48	1.05	1455.22	1447	12	2.76E-03	38.3	
36	0	768.87	16	72	4.04	1537.65	1528	13	1.12E-03	110.6	
37	0	860.69	40	31	2.25	1721.32	1717	11	2.75E-03	31.3	
38	0	911.13*	93	42	1.45	1822.21	1815	13	6.47E-03	19.1	

Sample ID : G198683029 Acquisition date : 16-DEC-2007 12:22:53

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	934.59	18	24	0.73	1869.14	1865	8	1.27E-03	54.1	
40	0	944.78	16	24	1.70	1889.52	1882	11	1.11E-03	65.0	
41	0	953.16	20	26	4.21	1906.27	1899	15	1.41E-03	59.4	
42	1	961.22	25	15	2.18	1922.40	1920	52	1.75E-03	23.4	2.12E+00
43	1	969.00	69	33	2.18	1937.96	1920	52	4.77E-03	21.9	
44	0	1075.60	9	21	0.61	2151.22	2147	8	6.39E-04	93.5	
45	0	1120.05	43	31	1.58	2240.13	2235	13	2.96E-03	30.5	
46	0	1346.64	16	18	3.25	2693.46	2685	16	1.13E-03	65.9	
47	0	1381.00	3	2	0.46	2762.20	2761	4	1.74E-04	113.1	
48	6	1454.05	21	7	4.00	2908.36	2901	28	1.43E-03	30.8	7.22E-01
49	6	1460.41*	199	3	2.35	2921.09	2901	28	1.38E-02	8.2	
50	0	1542.86*	18	13	5.71	3086.06	3076	18	1.24E-03	55.9	
51	0	1581.44*	7	7	2.10	3163.25	3154	14	5.17E-04	95.9	
52	0	1588.33	10	15	0.89	3177.05	3172	10	6.94E-04	79.1	
53	0	1764.07*	34	10	2.43	3528.73	3522	14	2.38E-03	29.7	
54	0	1768.91	8	4	1.56	3538.40	3535	7	5.21E-04	55.2	

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]G198683029       *
* Acquisition date : 16-DEC-2007 12:22:53 Detector SN#    :                 *
* Detector ID      : GAM08                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 04:00:01.13     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683029           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1796E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 30-OCT-2007 13:19:07 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	2.758E+00	4.786E-01	2.509E-01	0.000E+00
CS-137	1.770E-01	3.458E-02	3.449E-02	0.000E+00
TL-208	1.221E-01	3.443E-02	3.080E-02	0.000E+00
BI-212	2.654E-01	2.000E-01	2.060E-01	0.000E+00
PB-212	3.372E-01	5.203E-02	4.669E-02	0.000E+00
BI-214	2.663E-01	7.491E-02	6.292E-02	0.000E+00
PB-214	3.265E-01	7.809E-02	6.154E-02	0.000E+00
RA-223	1.211E-01	1.112E-01	1.423E-01	0.000E+00
AC-228	3.486E-01	1.334E-01	1.008E-01	0.000E+00
TH-234	6.087E-01	3.407E-01	3.707E-01	0.000E+00
U-235	4.034E-02	1.350E-01	1.724E-01	0.000E+00
NP-237	3.454E-01	1.480E-01	1.719E-01	0.000E+00
AM-243	7.721E-02	3.163E-02	3.942E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.071E-02		2.157E-02	3.770E-02	0.000E+00	NOT IDENT.
RH-101	-3.208E-03		2.022E-02	3.073E-02	0.000E+00	NOT IDENT.
SB-125	6.071E-02		4.812E-02	8.919E-02	0.000E+00	NOT IDENT.
EU-155	-1.798E-02		4.768E-02	8.319E-02	0.000E+00	NOT IDENT.
PO-209	-4.514E-01		3.795E+00	6.354E+00	0.000E+00	NOT IDENT.
BI-211	-2.830E-01		5.333E-01	8.632E-01	0.000E+00	NOT IDENT.
PA-233	2.589E-03		3.301E-02	5.510E-02	0.000E+00	NOT IDENT.
PA-234M	7.929E-01		2.152E+00	3.758E+00	0.000E+00	NOT IDENT.
NP-236	2.363E-03		3.328E-02	4.913E-02	0.000E+00	NOT IDENT.
NP-239	7.716E-02		1.149E-01	2.013E-01	0.000E+00	NOT IDENT.
AM-241	-2.566E-03		9.060E-02	1.340E-01	0.000E+00	NOT IDENT.
CM-243	-3.656E-02		4.257E-02	7.259E-02	0.000E+00	NOT IDENT.
AM-246	3.581E-02		7.814E-02	1.203E-01	0.000E+00	NOT IDENT.
CF-249	-8.820E-03		2.079E-02	3.501E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:17:55.19

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683029.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:22:53
Sample ID        : G198683029           Sample quantity  : 1.17960E+02 GRAM
Detector name    : GAM08                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.13  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	199	10.66*	1.077E+00	2.758E+00	2.758E+00	17.71
CS-137	661.66	207	85.10*	2.197E+00	1.763E-01	1.770E-01	19.93
TL-208	277.36	37	6.31	4.356E+00	2.128E-01	2.128E-01	148.83
	510.77	33	22.60	2.728E+00	8.507E-02	8.507E-02	220.26
	583.19	159	84.50*	2.447E+00	1.221E-01	1.221E-01	28.77
	763.13	------	1.81	1.937E+00	------	Line Not Found	------
	860.56	40	12.42	1.737E+00	2.926E-01	2.926E-01	63.16
BI-212	727.33	40	11.80*	2.022E+00	2.654E-01	2.654E-01	76.87
	785.37	------	1.10	1.888E+00	------	Line Not Found	------
	1620.50	------	1.49	9.955E-01	------	Line Not Found	------
PB-212	74.81	152	10.40	4.593E+00	5.063E-01	5.063E-01	41.81
	77.11	279	17.50	4.828E+00	5.257E-01	5.257E-01	24.23
	87.30	154	7.81	5.706E+00	5.484E-01	5.484E-01	43.72
	238.63	447	43.30*	4.873E+00	3.372E-01	3.372E-01	15.75
	300.09	------	3.28	4.122E+00	------	Line Not Found	------
BI-214	609.31	182	46.10*	2.357E+00	2.663E-01	2.663E-01	28.70
	768.36	16	4.94	1.924E+00	2.708E-01	2.708E-01	221.35
	806.17	------	1.22	1.844E+00	------	Line Not Found	------
	934.06	18	3.03	1.609E+00	5.967E-01	5.968E-01	108.60
	1120.29	43	15.10	1.360E+00	3.303E-01	3.304E-01	61.35
	1155.19	------	1.63	1.321E+00	------	Line Not Found	------
	1238.11	------	5.79	1.241E+00	------	Line Not Found	------
	1280.96	------	1.43	1.203E+00	------	Line Not Found	------
	1377.67	------	4.00	1.130E+00	------	Line Not Found	------
	1401.50	------	1.27	1.114E+00	------	Line Not Found	------
	1407.98	------	2.15	1.109E+00	------	Line Not Found	------
	1509.23	------	2.11	1.049E+00	------	Line Not Found	------
	1729.60	------	2.92	9.538E-01	------	Line Not Found	------
	1764.49	34	15.40	9.427E-01	3.760E-01	3.760E-01	59.67
PB-214	74.81	152	6.44	4.593E+00	8.177E-01	8.177E-01	41.81
	77.11	279	10.80	4.828E+00	8.518E-01	8.519E-01	24.23
	87.30	154	4.84	5.706E+00	8.850E-01	8.850E-01	43.72

Sample ID : G198683029 Acquisition date : 16-DEC-2007 12:22:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	163	7.43	4.832E+00	7.212E-01	7.212E-01	34.03
	295.22	169	19.30	4.174E+00	3.331E-01	3.331E-01	38.32
	351.93	282	37.60*	3.654E+00	3.265E-01	3.265E-01	24.40
RA-223	269.46	47	13.70*	4.459E+00	1.211E-01	1.211E-01	93.68
AC-228	129.07	32	2.42	6.654E+00	3.137E-01	3.137E-01	170.78
	209.25	59	3.89	5.338E+00	4.512E-01	4.512E-01	84.81
	270.25	47	3.46	4.459E+00	4.795E-01	4.795E-01	93.68
	338.32	87	11.27	3.763E+00	3.274E-01	3.274E-01	55.90
	409.46	------	1.92	3.252E+00	------	Line Not Found	------
	463.00	6	4.40	2.948E+00	7.388E-02	7.388E-02	650.45
	794.95	------	4.25	1.867E+00	------	Line Not Found	------
	911.20	93	25.80*	1.648E+00	3.486E-01	3.486E-01	39.04
	964.77	------	4.99	1.562E+00	------	Line Not Found	------
	968.97	69	15.80	1.556E+00	4.442E-01	4.442E-01	44.51
	1588.20	10	3.22	1.010E+00	4.893E-01	4.893E-01	158.25
TH-234	63.29	49	4.80	3.048E+00	5.328E-01	5.328E-01	158.95
	92.58	125	5.41*	6.055E+00	6.087E-01	6.087E-01	57.11
U-235	143.76	18	10.96*	6.487E+00	4.034E-02	4.034E-02	341.53
NP-237	86.48	154	12.40*	5.706E+00	3.454E-01	3.454E-01	43.72
AM-243	74.66	152	68.20*	4.593E+00	7.721E-02	7.721E-02	41.81

Flag: "*" = Keyline

Sample ID : G198683029 Acquisition date : 16-DEC-2007 12:22:53

Total number of lines in spectrum 54
Number of unidentified lines 24
Number of lines tentatively identified by NID 30 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	2.758E+00	2.758E+00	0.488E+00	17.71	
CS-137	9.47E+08S	1.00	1.763E-01	1.770E-01	0.353E-01	19.93	
TL-208	4.43E+17S	1.00	1.221E-01	1.221E-01	0.351E-01	28.77	
BI-212	4.43E+17S	1.00	2.654E-01	2.654E-01	2.041E-01	76.87	
PB-212	4.43E+17S	1.00	3.372E-01	3.372E-01	0.531E-01	15.75	
BI-214	5.05E+10S	1.00	2.663E-01	2.663E-01	0.764E-01	28.70	
PB-214	5.05E+10S	1.00	3.265E-01	3.265E-01	0.797E-01	24.40	
RA-223	1.04E+12S	1.00	1.211E-01	1.211E-01	1.135E-01	93.68	
AC-228	4.43E+17S	1.00	3.486E-01	3.486E-01	1.361E-01	39.04	
TH-234	1.41E+17S	1.00	6.087E-01	6.087E-01	3.477E-01	57.11	
U-235	2.22E+16S	1.00	4.034E-02	4.034E-02	13.78E-02	341.53	
NP-237	6.75E+13S	1.00	3.454E-01	3.454E-01	1.510E-01	43.72	
AM-243	2.33E+11S	1.00	7.721E-02	7.721E-02	3.228E-02	41.81	
			---	---			
	Total Activity :		5.793E+00	5.794E+00			

Grand Total Activity : 5.793E+00 5.794E+00

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

Sample ID : G198683029 Acquisition date : 16-DEC-2007 12:22:53

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	72.98	32	280	1.63	146.02	142	17	2.25E-03	****	4.36E+00	
3	90.00	93	272	1.50	180.06	167	28	6.45E-03	69.0	5.90E+00	
0	117.96	39	234	2.47	235.95	232	8	2.73E-03	****	6.68E+00	
0	149.84	34	126	0.79	299.71	298	5	2.39E-03	****	6.40E+00	
0	163.21	36	144	1.11	326.43	324	6	2.47E-03	****	6.16E+00	
0	185.86	86	223	1.39	371.73	367	9	5.97E-03	77.3	5.75E+00	
0	281.95	20	103	1.19	563.86	561	8	1.42E-03	****	4.32E+00	
0	491.26	20	60	1.18	982.42	980	8	1.39E-03	****	2.82E+00	
0	545.89	30	35	1.81	1091.69	1088	9	2.11E-03	78.0	2.58E+00	
0	573.41	17	76	1.16	1146.72	1140	11	1.17E-03	****	2.48E+00	
0	640.37	13	48	2.12	1280.65	1274	9	8.93E-04	****	2.26E+00	
10	694.07	66	51	4.19	1388.05	1381	27	4.55E-03	48.3	2.11E+00	
10	701.24	48	39	4.51	1402.39	1381	27	3.32E-03	58.3	2.09E+00	
0	712.94	25	80	0.68	1425.78	1416	17	1.71E-03	****	2.06E+00	
0	944.78	16	24	1.70	1889.52	1882	11	1.11E-03	****	1.59E+00	
0	953.16	20	26	4.21	1906.27	1899	15	1.41E-03	****	1.58E+00	
1	961.22	25	15	2.18	1922.40	1920	52	1.75E-03	46.8	1.57E+00	
0	1075.60	9	21	0.61	2151.22	2147	8	6.39E-04	****	1.41E+00	
0	1346.64	16	18	3.25	2693.46	2685	16	1.13E-03	****	1.15E+00	
0	1381.00	3	2	0.46	2762.20	2761	4	1.74E-04	****	1.13E+00	
6	1454.05	21	7	4.00	2908.36	2901	28	1.43E-03	61.5	1.08E+00	
0	1542.86	18	13	5.71	3086.06	3076	18	1.24E-03	****	1.03E+00	
0	1581.44	7	7	2.10	3163.25	3154	14	5.17E-04	****	1.01E+00	
0	1768.91	8	4	1.56	3538.40	3535	7	5.21E-04	****	9.41E-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]G198683029            *
* Acquisition date : 16-DEC-2007 12:22:53 Detector SN#    :                 *
* Detector ID      : GAM08                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 04:00:01.13     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683029           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1796E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 30-OCT-2007 13:19:07 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	2.758E+00	4.786E-01	1.255E-01	4.786E-01
CS-137	1.770E-01	3.458E-02	1.725E-02	3.458E-02
TL-208	1.221E-01	3.443E-02	1.541E-02	3.443E-02
BI-212	2.654E-01	2.000E-01	1.031E-01	2.000E-01
PB-212	3.372E-01	5.203E-02	2.336E-02	5.203E-02
BI-214	2.663E-01	7.491E-02	3.148E-02	7.491E-02
PB-214	3.265E-01	7.809E-02	3.079E-02	7.809E-02
RA-223	1.211E-01	1.112E-01	7.118E-02	1.112E-01
AC-228	3.486E-01	1.334E-01	5.043E-02	1.334E-01
TH-234	6.087E-01	3.407E-01	1.855E-01	3.407E-01
U-235	4.034E-02	1.350E-01	8.624E-02	1.350E-01
NP-237	3.454E-01	1.480E-01	8.602E-02	1.480E-01
AM-243	7.721E-02	3.163E-02	1.972E-02	3.163E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.071E-02	2.157E-02	1.886E-02	2.157E-02	NOT IDENT.
RH-101	-3.208E-03	2.022E-02	1.538E-02	2.022E-02	NOT IDENT.
SB-125	6.071E-02	4.812E-02	4.462E-02	4.812E-02	NOT IDENT.
EU-155	-1.798E-02	4.768E-02	4.162E-02	4.768E-02	NOT IDENT.
PO-209	-4.514E-01	3.795E+00	3.179E+00	3.795E+00	NOT IDENT.
BI-211	-2.830E-01	5.333E-01	4.319E-01	5.333E-01	NOT IDENT.
PA-233	2.589E-03	3.301E-02	2.757E-02	3.301E-02	NOT IDENT.
PA-234M	7.929E-01	2.152E+00	1.880E+00	2.152E+00	NOT IDENT.
NP-236	2.363E-03	3.328E-02	2.458E-02	3.328E-02	NOT IDENT.
NP-239	7.716E-02	1.149E-01	1.007E-01	1.149E-01	NOT IDENT.
AM-241	-2.566E-03	9.060E-02	6.706E-02	9.060E-02	NOT IDENT.
CM-243	-3.656E-02	4.257E-02	3.632E-02	4.257E-02	NOT IDENT.
AM-246	3.581E-02	7.814E-02	6.017E-02	7.814E-02	NOT IDENT.
CF-249	-8.820E-03	2.079E-02	1.752E-02	2.079E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	236.2689
63.29	285.0833
74.66	258.5857
74.81	258.6636
74.81	258.6636
77.11	259.8471
77.11	259.8471
86.48	251.9545
87.30	252.3299
87.30	252.3299
92.58	254.7084
98.44	237.4812
103.76	236.0448
105.31	234.8677
129.07	225.0466
143.76	262.7518
198.00	225.5054
209.25	218.0513
228.18	183.1898
238.63	171.5320
242.00	169.1529
269.46	134.1592
270.25	159.0075
277.36	160.2470
295.22	147.3721
300.09	153.1492
312.17	126.2375
338.32	156.6241
351.93	127.3923
387.59	122.1016
409.46	95.6474
427.87	80.5923
463.00	88.6835
510.77	91.3172
583.19	73.0246
609.31	84.3144
661.66	74.5510
727.33	43.7568
763.13	44.3652
768.36	66.6797
785.37	46.6003
794.95	41.1533
806.17	59.1650
831.80	57.8155
860.56	48.8242
896.60	47.4857
911.20	33.3873
934.06	27.4696
964.77	37.6467
968.97	37.6962
1001.03	35.0655
1078.86	31.6356
1120.29	40.4536
1155.19	42.9386
1173.23	33.6771
1238.11	34.2552
1280.96	36.7918
1332.51	20.6657
1377.67	29.9103
1401.50	40.1016
1407.98	17.2121
1460.80	15.2430
1509.23	22.4986
1588.20	29.4030
1620.50	18.0276
1729.60	24.5667
1764.49	12.6238

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683029

Total Uranium Activity	1.8665E-02	ug/g
Total Uranium Counting Unc.	6.2471E-02	ug/g
Total Uranium Tpu	6.2471E-08	ug/g
Total Uranium Mda	3.9904E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:18:28.96

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683030.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:23:17
Sample ID        : G198683030           Sample quantity  : 1.11680E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.96  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	1	46.69*	32	232	0.86	92.84	87	10	2.23E-03	85.6	1.59E+00
2	0	63.16*	115	386	0.82	125.81	122	8	8.02E-03	33.2	
3	4	72.71*	26	188	1.23	144.92	143	14	1.79E-03	84.0	1.51E+00
4	4	74.77*	439	359	0.95	149.06	143	14	3.05E-02	8.6	
5	4	77.03*	582	278	0.83	153.58	143	14	4.04E-02	6.3	
6	6	84.18*	92	242	1.52	167.90	165	12	6.37E-03	30.6	1.38E+00
7	6	87.12*	179	306	0.95	173.77	165	12	1.24E-02	18.0	
8	4	89.87	170	199	1.08	179.28	177	16	1.18E-02	13.5	3.78E+00
9	4	92.63*	272	341	1.28	184.81	177	16	1.89E-02	15.2	
10	0	128.67	41	266	1.20	256.94	255	6	2.82E-03	65.6	
11	0	144.14*	87	301	1.08	287.90	285	9	6.07E-03	39.2	
12	0	154.07*	56	221	1.28	307.79	305	7	3.91E-03	48.7	
13	0	185.91*	240	314	1.17	371.53	366	10	1.67E-02	16.7	
14	0	199.10*	50	268	1.53	397.92	393	9	3.47E-03	65.8	
15	0	208.88	68	247	1.23	417.50	415	8	4.72E-03	42.1	
16	0	222.98	47	157	1.01	445.73	443	6	3.27E-03	44.7	
17	4	238.57*	950	202	0.95	476.93	472	16	6.60E-02	4.2	2.53E+00
18	4	241.60	265	256	1.57	483.00	472	16	1.84E-02	14.0	
19	0	270.34	61	208	1.72	540.53	536	9	4.26E-03	44.7	
20	0	278.19	44	229	2.34	556.24	551	10	3.03E-03	67.1	
21	0	295.24*	380	155	1.03	590.36	587	8	2.64E-02	7.8	
22	0	300.34	67	240	0.56	600.57	597	11	4.68E-03	46.1	
23	0	327.66	79	171	1.84	655.24	651	10	5.52E-03	32.7	
24	6	338.29*	202	147	1.15	676.54	671	13	1.40E-02	12.6	1.87E+00
25	6	340.58	18	119	1.28	681.12	671	13	1.23E-03	104.9	
26	0	352.00*	632	213	1.13	703.98	698	13	4.39E-02	6.5	
27	0	383.28	46	91	1.64	766.57	763	8	3.16E-03	39.4	
28	0	409.21	30	126	0.87	818.47	815	8	2.07E-03	67.9	
29	0	462.42	32	139	0.94	924.97	921	9	2.24E-03	67.8	
30	0	511.03*	38	183	1.82	1022.26	1016	12	2.66E-03	95.0	
31	0	558.84*	39	67	3.58	1117.95	1112	11	2.69E-03	47.5	
32	0	583.40*	266	136	1.18	1167.11	1161	12	1.85E-02	11.3	
33	0	609.33*	416	107	1.26	1219.00	1215	11	2.89E-02	7.2	
34	0	633.08	24	53	1.47	1266.53	1263	9	1.68E-03	57.6	
35	0	637.00	12	66	0.47	1274.38	1271	8	8.59E-04	117.1	
36	0	661.69	492	55	1.32	1323.79	1318	12	3.42E-02	5.4	
37	0	727.48	75	81	1.67	1455.46	1451	10	5.21E-03	25.2	
38	0	769.07	64	95	2.09	1538.69	1531	19	4.44E-03	38.6	

Sample ID : G198683030 Acquisition date : 16-DEC-2007 12:23:17

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	785.74	34	68	2.25	1572.05	1564	13	2.34E-03	53.4	
40	0	795.47	57	57	1.43	1591.52	1586	14	3.93E-03	31.7	
41	0	804.45*	23	95	3.43	1609.49	1599	21	1.61E-03	111.0	
42	0	861.43	48	80	1.58	1723.53	1718	15	3.32E-03	42.3	
43	0	905.24	16	41	1.47	1811.20	1804	10	1.12E-03	79.4	
44	0	911.56*	251	50	1.55	1823.84	1817	16	1.74E-02	9.4	
45	0	935.04	26	46	0.84	1870.84	1865	11	1.78E-03	55.4	
46	0	964.84*	37	57	1.86	1930.45	1924	12	2.59E-03	45.6	
47	0	969.24*	102	38	1.69	1939.26	1935	10	7.09E-03	16.6	
48	0	993.52	14	25	3.22	1987.85	1982	9	9.94E-04	67.9	
49	0	1001.22*	23	40	1.15	2003.27	1998	10	1.59E-03	61.1	
50	0	1018.25	28	25	3.88	2037.33	2032	11	1.98E-03	38.7	
51	0	1050.24	18	65	5.81	2101.34	2091	17	1.25E-03	104.1	
52	0	1064.16	9	31	0.79	2129.21	2124	8	6.01E-04	117.9	
53	0	1120.61	112	33	1.44	2242.16	2235	12	7.75E-03	14.0	
54	0	1155.69	24	21	1.70	2312.36	2309	9	1.64E-03	40.2	
55	0	1171.12	20	49	3.25	2343.24	2337	15	1.37E-03	80.4	
56	0	1187.84	16	19	1.18	2376.69	2372	10	1.10E-03	58.0	
57	0	1240.24	16	52	0.95	2481.54	2472	11	1.14E-03	88.8	
58	0	1273.05	12	9	1.43	2547.19	2544	6	8.20E-04	49.7	
59	0	1280.40	26	16	1.96	2561.89	2558	9	1.81E-03	33.8	
60	0	1330.27	6	24	0.65	2661.67	2653	11	4.17E-04	171.3	
61	0	1411.19	8	7	0.80	2823.59	2822	4	5.67E-04	60.0	
62	0	1461.22*	531	24	1.94	2923.68	2914	19	3.69E-02	5.0	
63	0	1582.35	27	6	4.03	3166.03	3159	15	1.85E-03	29.4	
64	0	1588.80	21	9	2.39	3178.93	3174	9	1.49E-03	33.1	
65	0	1593.85	18	8	1.64	3189.03	3184	9	1.25E-03	37.8	
66	0	1620.81	20	11	1.27	3242.97	3236	11	1.41E-03	38.6	
67	0	1705.81	9	5	3.29	3413.03	3407	10	6.45E-04	55.4	
68	0	1730.27	35	3	2.06	3461.96	3456	11	2.46E-03	19.0	
69	0	1735.29	4	6	0.87	3472.00	3468	6	2.78E-04	109.0	
70	0	1741.69	22	5	3.99	3484.81	3478	12	1.50E-03	31.0	
71	0	1765.00*	80	14	2.01	3531.43	3522	18	5.58E-03	17.1	
72	0	1848.90	14	10	2.28	3699.28	3693	10	9.81E-04	49.6	
73	0	1953.50	12	7	2.88	3908.51	3899	15	8.41E-04	56.7	

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]G198683030       *
* Acquisition date : 16-DEC-2007 12:23:17 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 04:00:01.96     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683030           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1168E+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	6.607E+00	7.960E-01	2.697E-01	0.000E+00
RH-101	1.891E-02	2.441E-02	2.586E-02	0.000E+00
CS-137	3.855E-01	4.997E-02	3.070E-02	0.000E+00
TL-208	1.877E-01	4.327E-02	3.235E-02	0.000E+00
BI-212	4.583E-01	2.288E-01	2.465E-01	0.000E+00
PB-212	6.585E-01	6.650E-02	4.701E-02	0.000E+00
BI-214	5.575E-01	8.746E-02	5.787E-02	0.000E+00
PB-214	6.694E-01	9.225E-02	5.295E-02	0.000E+00
RA-223	1.468E-01	1.291E-01	1.523E-01	0.000E+00
AC-228	8.589E-01	1.750E-01	1.059E-01	0.000E+00
PA-234M	2.612E+00	3.135E+00	3.721E+00	0.000E+00
TH-234	1.146E+00	3.514E-01	3.043E-01	0.000E+00
U-235	1.809E-01	1.392E-01	1.581E-01	0.000E+00
NP-237	3.422E-01	1.230E-01	1.483E-01	0.000E+00
AM-243	1.775E-01	3.219E-02	3.472E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.129E-02	2.075E-02	3.264E-02	0.000E+00	NOT IDENT.
SB-125	-4.943E-02	4.640E-02	7.394E-02	0.000E+00	NOT IDENT.
EU-155	2.690E-02	4.678E-02	8.362E-02	0.000E+00	NOT IDENT.
PO-209	-5.272E-01	3.518E+00	5.752E+00	0.000E+00	NOT IDENT.
BI-211	-2.685E-01	4.998E-01	8.163E-01	0.000E+00	NOT IDENT.
PA-233	9.838E-03	3.199E-02	5.325E-02	0.000E+00	NOT IDENT.
NP-236	-5.150E-03	2.861E-02	4.257E-02	0.000E+00	NOT IDENT.
NP-239	1.757E-02	1.036E-01	1.745E-01	0.000E+00	NOT IDENT.
AM-241	7.682E-02	5.727E-02	9.236E-02	0.000E+00	NOT IDENT.
CM-243	-7.577E-03	4.048E-02	7.036E-02	0.000E+00	NOT IDENT.
AM-246	2.875E-02	5.922E-02	1.049E-01	0.000E+00	NOT IDENT.
CF-249	1.799E-02	2.136E-02	3.476E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:18:29.94

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683030.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:23:17
Sample ID        : G198683030           Sample quantity  : 1.11680E+02 GRAM
Detector name    : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.96  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	531	10.66*	1.266E+00	6.607E+00	6.607E+00	12.29
RH-101	198.00	50	73.00*	6.301E+00	1.827E-02	1.891E-02	131.72
CS-137	661.66	492	85.10*	2.532E+00	3.840E-01	3.855E-01	13.23
TL-208	277.36	44	6.31	5.026E+00	2.310E-01	2.310E-01	134.27
	510.77	38	22.60	3.147E+00	9.063E-02	9.063E-02	190.00
	583.19	266	84.50*	2.820E+00	1.877E-01	1.877E-01	23.53
	763.13	------	1.81	2.235E+00	------	Line Not Found	------
	860.56	48	12.42	2.005E+00	3.231E-01	3.231E-01	84.96
BI-212	727.33	75	11.80*	2.331E+00	4.583E-01	4.583E-01	50.94
	785.37	34	1.10	2.177E+00	2.364E+00	2.364E+00	107.15
	1620.50	20	1.49	1.175E+00	1.947E+00	1.947E+00	77.43
PB-212	74.81	439	10.40	6.095E+00	1.164E+00	1.164E+00	18.50
	77.11	582	17.50	6.323E+00	8.831E-01	8.831E-01	14.23
	87.30	179	7.81	7.094E+00	5.434E-01	5.434E-01	36.66
	238.63	950	43.30*	5.600E+00	6.585E-01	6.585E-01	10.31
	300.09	67	3.28	4.753E+00	7.261E-01	7.261E-01	92.44
BI-214	609.31	416	46.10*	2.718E+00	5.574E-01	5.575E-01	16.01
	768.36	64	4.94	2.219E+00	9.811E-01	9.812E-01	77.64
	806.17	23	1.22	2.132E+00	1.498E+00	1.498E+00	222.16
	934.06	26	3.03	1.862E+00	7.622E-01	7.623E-01	111.04
	1120.29	112	15.10	1.582E+00	7.857E-01	7.858E-01	28.66
	1155.19	24	1.63	1.539E+00	1.585E+00	1.585E+00	80.62
	1238.11	------	5.79	1.450E+00	------	Line Not Found	------
	1280.96	26	1.43	1.409E+00	2.170E+00	2.170E+00	67.98
	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	35	2.92	1.128E+00	1.810E+00	1.810E+00	38.57
	1764.49	80	15.40	1.115E+00	7.859E-01	7.859E-01	34.64
PB-214	74.81	439	6.44	6.095E+00	1.880E+00	1.880E+00	18.50
	77.11	582	10.80	6.323E+00	1.431E+00	1.431E+00	14.23

Sample ID : G198683030 Acquisition date : 16-DEC-2007 12:23:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	179	4.84	7.094E+00	8.768E-01	8.768E-01	36.66
	242.00	265	7.43	5.551E+00	1.081E+00	1.081E+00	28.67
	295.22	380	19.30	4.813E+00	6.877E-01	6.878E-01	16.77
	351.93	632	37.60*	4.221E+00	6.693E-01	6.694E-01	14.06
RA-223	269.46	61	13.70*	5.130E+00	1.468E-01	1.468E-01	89.70
AC-228	129.07	41	2.42	7.659E+00	3.684E-01	3.684E-01	131.26
	209.25	68	3.89	6.115E+00	4.801E-01	4.801E-01	84.42
	270.25	61	3.46	5.130E+00	5.814E-01	5.814E-01	89.70
	338.32	202	11.27	4.350E+00	6.926E-01	6.926E-01	25.91
	409.46	30	1.92	3.758E+00	6.930E-01	6.930E-01	135.86
	463.00	32	4.40	3.412E+00	3.614E-01	3.614E-01	135.81
	794.95	57	4.25	2.153E+00	1.038E+00	1.038E+00	64.04
	911.20	251	25.80*	1.905E+00	8.589E-01	8.589E-01	20.79
	964.77	37	4.99	1.810E+00	6.947E-01	6.947E-01	91.61
	968.97	102	15.80	1.802E+00	6.022E-01	6.022E-01	34.25
	1588.20	21	3.22	1.191E+00	9.375E-01	9.375E-01	66.59
PA-234M	1001.03	23	0.84*	1.750E+00	2.612E+00	2.612E+00	122.49
TH-234	63.29	115	4.80	4.575E+00	8.834E-01	8.834E-01	66.64
	92.58	272	5.41*	7.367E+00	1.146E+00	1.146E+00	31.29
U-235	143.76	87	10.96*	7.416E+00	1.809E-01	1.809E-01	78.56
NP-237	86.48	179	12.40*	7.094E+00	3.422E-01	3.422E-01	36.66
AM-243	74.66	439	68.20*	6.095E+00	1.775E-01	1.775E-01	18.50

Flag: "*" = Keyline

Sample ID : G198683030 Acquisition date : 16-DEC-2007 12:23:17

Total number of lines in spectrum 73
Number of unidentified lines 31
Number of lines tentatively identified by NID 42 57.53%

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	6.607E+00	6.607E+00	0.812E+00	12.29	
RH-101	1.04E+08S	1.03	1.827E-02	1.891E-02	2.491E-02	131.72	
CS-137	9.47E+08S	1.00	3.840E-01	3.855E-01	0.510E-01	13.23	
TL-208	4.43E+17S	1.00	1.877E-01	1.877E-01	0.442E-01	23.53	
BI-212	4.43E+17S	1.00	4.583E-01	4.583E-01	2.335E-01	50.94	
PB-212	4.43E+17S	1.00	6.585E-01	6.585E-01	0.679E-01	10.31	
BI-214	5.05E+10S	1.00	5.574E-01	5.575E-01	0.892E-01	16.01	
PB-214	5.05E+10S	1.00	6.693E-01	6.694E-01	0.941E-01	14.06	
RA-223	1.04E+12S	1.00	1.468E-01	1.468E-01	1.317E-01	89.70	
AC-228	4.43E+17S	1.00	8.589E-01	8.589E-01	1.785E-01	20.79	
PA-234M	1.41E+17S	1.00	2.612E+00	2.612E+00	3.199E+00	122.49	
TH-234	1.41E+17S	1.00	1.146E+00	1.146E+00	0.359E+00	31.29	
U-235	2.22E+16S	1.00	1.809E-01	1.809E-01	1.421E-01	78.56	
NP-237	6.75E+13S	1.00	3.422E-01	3.422E-01	1.255E-01	36.66	
AM-243	2.33E+11S	1.00	1.775E-01	1.775E-01	0.328E-01	18.50	
			---	---			
		Total Activity :	1.500E+01	1.501E+01			

Grand Total Activity : 1.500E+01 1.501E+01

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

Sample ID : G198683030 Acquisition date : 16-DEC-2007 12:23:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	46.69	32	232	0.86	92.84	87	10	2.23E-03	****	1.78E+00	
4	72.71	26	188	1.23	144.92	143	14	1.79E-03	****	5.87E+00	
6	84.18	92	242	1.52	167.90	165	12	6.37E-03	61.3	6.91E+00	
4	89.87	170	199	1.08	179.28	177	16	1.18E-02	27.1	7.24E+00	
0	154.07	56	221	1.28	307.79	305	7	3.91E-03	97.4	7.22E+00	
0	185.91	240	314	1.17	371.53	366	10	1.67E-02	33.3	6.56E+00	
0	222.98	47	157	1.01	445.73	443	6	3.27E-03	89.4	5.86E+00	
0	327.66	79	171	1.84	655.24	651	10	5.52E-03	65.4	4.46E+00	
6	340.58	18	119	1.28	681.12	671	13	1.23E-03	****	4.33E+00	
0	383.28	46	91	1.64	766.57	763	8	3.16E-03	78.7	3.95E+00	
0	558.84	39	67	3.58	1117.95	1112	11	2.69E-03	95.0	2.92E+00	
0	633.08	24	53	1.47	1266.53	1263	9	1.68E-03	****	2.63E+00	
0	637.00	12	66	0.47	1274.38	1271	8	8.59E-04	****	2.62E+00	
0	905.24	16	41	1.47	1811.20	1804	10	1.12E-03	****	1.92E+00	
0	993.52	14	25	3.22	1987.85	1982	9	9.94E-04	****	1.76E+00	
0	1018.25	28	25	3.88	2037.33	2032	11	1.98E-03	77.3	1.72E+00	
0	1050.24	18	65	5.81	2101.34	2091	17	1.25E-03	****	1.68E+00	
0	1064.16	9	31	0.79	2129.21	2124	8	6.01E-04	****	1.66E+00	
0	1171.12	20	49	3.25	2343.24	2337	15	1.37E-03	****	1.52E+00	
0	1187.84	16	19	1.18	2376.69	2372	10	1.10E-03	****	1.50E+00	
0	1240.24	16	52	0.95	2481.54	2472	11	1.14E-03	****	1.45E+00	
0	1273.05	12	9	1.43	2547.19	2544	6	8.20E-04	99.5	1.42E+00	
0	1330.27	6	24	0.65	2661.67	2653	11	4.17E-04	****	1.36E+00	
0	1411.19	8	7	0.80	2823.59	2822	4	5.67E-04	****	1.30E+00	
0	1582.35	27	6	4.03	3166.03	3159	15	1.85E-03	58.7	1.19E+00	
0	1593.85	18	8	1.64	3189.03	3184	9	1.25E-03	75.6	1.19E+00	
0	1705.81	9	5	3.29	3413.03	3407	10	6.45E-04	****	1.14E+00	
0	1735.29	4	6	0.87	3472.00	3468	6	2.78E-04	****	1.13E+00	
0	1741.69	22	5	3.99	3484.81	3478	12	1.50E-03	62.0	1.12E+00	
0	1848.90	14	10	2.28	3699.28	3693	10	9.81E-04	99.1	1.09E+00	
0	1953.50	12	7	2.88	3908.51	3899	15	8.41E-04	****	1.06E+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]G198683030            *
* Acquisition date : 16-DEC-2007 12:23:17 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 04:00:01.96     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683030           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1168E+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	6.607E+00	7.960E-01	1.349E-01	7.960E-01
RH-101	1.891E-02	2.441E-02	1.294E-02	2.441E-02
CS-137	3.855E-01	4.997E-02	1.536E-02	4.997E-02
TL-208	1.877E-01	4.327E-02	1.618E-02	4.327E-02
BI-212	4.583E-01	2.288E-01	1.233E-01	2.288E-01
PB-212	6.585E-01	6.650E-02	2.352E-02	6.650E-02
BI-214	5.575E-01	8.746E-02	2.895E-02	8.746E-02
PB-214	6.694E-01	9.225E-02	2.649E-02	9.225E-02
RA-223	1.468E-01	1.291E-01	7.617E-02	1.291E-01
AC-228	8.589E-01	1.750E-01	5.296E-02	1.750E-01
PA-234M	2.612E+00	3.135E+00	1.862E+00	3.135E+00
TH-234	1.146E+00	3.514E-01	1.522E-01	3.514E-01
U-235	1.809E-01	1.392E-01	7.909E-02	1.392E-01
NP-237	3.422E-01	1.230E-01	7.419E-02	1.230E-01
AM-243	1.775E-01	3.219E-02	1.737E-02	3.219E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.129E-02	2.075E-02	1.633E-02	2.075E-02	NOT IDENT.
SB-125	-4.943E-02	4.640E-02	3.699E-02	4.640E-02	NOT IDENT.
EU-155	2.690E-02	4.678E-02	4.183E-02	4.678E-02	NOT IDENT.
PO-209	-5.272E-01	3.518E+00	2.878E+00	3.518E+00	NOT IDENT.
BI-211	-2.685E-01	4.998E-01	4.084E-01	4.998E-01	NOT IDENT.
PA-233	9.838E-03	3.199E-02	2.664E-02	3.199E-02	NOT IDENT.
NP-236	-5.150E-03	2.861E-02	2.130E-02	2.861E-02	NOT IDENT.
NP-239	1.757E-02	1.036E-01	8.732E-02	1.036E-01	NOT IDENT.
AM-241	7.682E-02	5.727E-02	4.621E-02	5.727E-02	NOT IDENT.
CM-243	-7.577E-03	4.048E-02	3.520E-02	4.048E-02	NOT IDENT.
AM-246	2.875E-02	5.922E-02	5.247E-02	5.922E-02	NOT IDENT.
CF-249	1.799E-02	2.136E-02	1.739E-02	2.136E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	209.7369
63.29	254.8863
74.66	327.3434
74.81	327.4539
74.81	327.4539
77.11	329.1570
77.11	329.1570
86.48	266.1644
87.30	270.5149
87.30	270.5149
92.58	232.6555
98.44	214.0320
103.76	250.6154
105.31	256.7073
129.07	266.2221
143.76	263.5875
198.00	213.0379
209.25	218.8773
228.18	182.0816
238.63	208.6475
242.00	209.3517
269.46	185.1616
270.25	168.7538
277.36	162.0757
295.22	152.9086
300.09	150.8283
312.17	134.9707
338.32	160.2981
351.93	114.1761
387.59	103.1719
409.46	129.0625
427.87	125.9672
463.00	123.6180
510.77	105.9318
583.19	96.8497
609.31	85.7229
661.66	70.9340
727.33	75.1950
763.13	69.0231
768.36	59.8585
785.37	45.7596
794.95	43.0219
806.17	51.0138
831.80	61.8242
860.56	33.6982
896.60	47.5922
911.20	44.4605
934.06	53.4653
964.77	58.7956
968.97	19.0962
1001.03	49.2145
1078.86	29.6719
1120.29	40.0605
1155.19	26.9831
1173.23	28.8189
1238.11	39.3582
1280.96	37.7209
1332.51	28.3203
1377.67	21.4854
1401.50	31.3393
1407.98	28.8633
1460.80	21.9258
1509.23	25.8729
1588.20	0.0000
1620.50	8.1205
1729.60	9.9727
1764.49	11.7178

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683030

Total Uranium Activity	8.3683E-02	ug/g
Total Uranium Counting Unc.	6.4424E-02	ug/g
Total Uranium Tpu	6.4424E-08	ug/g
Total Uranium Mda	3.6595E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:19:03.75

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683031.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:23:40
Sample ID        : G198683031           Sample quantity  : 1.14930E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.75  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	47.20*	34	264	1.64	93.62	91	7	2.34E-03	96.3	
2	0	63.31*	82	466	0.98	125.86	121	10	5.69E-03	54.5	
3	3	74.89*	205	428	1.03	149.02	145	14	1.43E-02	17.5	1.99E+00
4	3	77.11	421	362	0.98	153.46	145	14	2.92E-02	8.8	
5	3	84.24*	55	310	1.26	167.72	165	29	3.81E-03	55.9	2.88E+00
6	3	87.25	204	444	1.52	173.75	165	29	1.42E-02	19.7	
7	3	89.86	108	281	0.99	178.96	165	29	7.52E-03	26.5	
8	3	92.77*	185	390	1.42	184.80	165	29	1.29E-02	24.8	
9	0	129.73	110	477	2.87	258.75	252	12	7.64E-03	40.9	
10	0	143.79*	35	367	1.92	286.87	283	9	2.45E-03	105.3	
11	0	163.62*	45	350	1.76	326.55	323	10	3.12E-03	82.6	
12	0	185.94*	112	503	1.39	371.20	364	13	7.77E-03	45.4	
13	0	209.24	48	265	0.89	417.83	414	7	3.35E-03	57.9	
14	0	238.58*	598	465	1.16	476.53	472	9	4.15E-02	8.0	
15	0	241.73*	155	272	1.85	482.83	480	8	1.08E-02	21.3	
16	0	270.16	99	193	1.28	539.69	535	10	6.90E-03	28.0	
17	0	295.29*	306	236	0.94	589.97	585	9	2.12E-02	11.3	
18	0	300.11	32	193	0.87	599.63	596	8	2.21E-03	77.9	
19	0	328.47	26	172	1.03	656.36	652	8	1.83E-03	88.1	
20	0	338.13	181	204	1.42	675.67	671	11	1.26E-02	17.0	
21	0	351.90*	616	165	1.14	703.22	696	14	4.28E-02	6.2	
22	0	410.57	17	149	4.12	820.59	813	9	1.16E-03	134.5	
23	0	461.44	36	182	1.80	922.36	918	14	2.50E-03	81.2	
24	6	510.75*	70	126	2.64	1020.99	1012	24	4.85E-03	53.0	1.77E+00
25	6	515.12	50	81	2.72	1029.73	1012	24	3.44E-03	44.6	
26	0	540.29	42	97	3.35	1080.08	1070	14	2.90E-03	53.2	
27	0	545.32	67	68	5.31	1090.15	1084	14	4.68E-03	28.5	
28	1	583.20*	266	89	1.66	1165.91	1160	27	1.85E-02	9.8	2.16E+00
29	1	587.34	32	73	1.74	1174.19	1160	27	2.25E-03	54.9	
30	0	609.38*	299	191	1.39	1218.27	1210	15	2.08E-02	12.1	
31	0	617.40	26	87	0.99	1234.32	1229	11	1.79E-03	72.9	
32	0	661.61	277	85	1.20	1322.75	1317	11	1.92E-02	8.8	
33	0	727.89*	64	90	1.52	1455.32	1449	14	4.41E-03	36.5	
34	0	768.53	36	59	1.06	1536.58	1531	10	2.52E-03	43.1	
35	0	794.67	33	36	0.96	1588.88	1585	8	2.28E-03	36.2	
36	0	835.11	17	48	0.73	1669.74	1665	9	1.18E-03	77.1	
37	0	860.71	39	41	1.13	1720.93	1717	8	2.73E-03	32.6	
38	0	910.99*	194	55	1.68	1821.49	1813	17	1.34E-02	11.9	

Sample ID : G198683031 Acquisition date : 16-DEC-2007 12:23:40

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	968.89*	83	53	1.68	1937.29	1933	10	5.75E-03	21.5	
40	0	1051.94	28	36	2.88	2103.35	2096	13	1.97E-03	47.2	
41	0	1078.50	16	30	1.52	2156.46	2153	8	1.13E-03	63.1	
42	0	1120.65*	72	57	1.73	2240.74	2236	15	5.00E-03	26.3	
43	0	1317.16	20	17	4.71	2633.65	2627	13	1.42E-03	46.3	
44	0	1322.70	16	11	0.79	2644.71	2640	10	1.12E-03	47.2	
45	0	1393.34	19	10	3.78	2785.94	2780	13	1.30E-03	41.5	
46	0	1460.53*	490	24	2.00	2920.28	2912	16	3.40E-02	5.3	
47	0	1494.90	16	9	1.45	2988.98	2982	12	1.11E-03	45.0	
48	2	1587.89	22	21	2.47	3174.86	3164	25	1.56E-03	47.9	1.00E+00
49	2	1591.44	18	10	2.48	3181.96	3164	25	1.26E-03	51.4	
50	0	1599.78	16	5	2.22	3198.64	3194	10	1.09E-03	36.9	
51	0	1634.45	9	29	3.69	3267.92	3256	19	6.18E-04	148.0	
52	0	1643.40	11	3	0.64	3285.82	3279	13	7.74E-04	44.5	
53	0	1764.90*	66	24	1.64	3528.67	3520	16	4.58E-03	23.3	
54	0	1792.68	9	14	2.24	3584.18	3572	14	6.34E-04	92.9	
55	0	1828.88	7	8	1.37	3656.54	3649	11	4.75E-04	89.8	
56	0	1979.31	7	7	1.26	3957.17	3953	8	5.01E-04	80.8	

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]G198683031       *
* Acquisition date : 16-DEC-2007 12:23:40 Detector SN#    :                 *
* Detector ID      : GAM12                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 04:00:01.75     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683031           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1493E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 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	6.616E+00	7.881E-01	3.856E-01	0.000E+00
CS-137	2.373E-01	4.591E-02	4.238E-02	0.000E+00
TL-208	2.059E-01	4.249E-02	3.429E-02	0.000E+00
BI-212	4.249E-01	3.063E-01	2.509E-01	0.000E+00
PB-212	4.557E-01	7.689E-02	6.708E-02	0.000E+00
BI-214	4.403E-01	1.101E-01	7.083E-02	0.000E+00
PB-214	7.174E-01	9.683E-02	6.552E-02	0.000E+00
RA-223	2.608E-01	1.440E-01	1.617E-01	0.000E+00
AC-228	7.211E-01	1.841E-01	1.083E-01	0.000E+00
TH-234	9.290E-01	4.565E-01	4.415E-01	0.000E+00
U-235	8.156E-02	1.684E-01	1.932E-01	0.000E+00
NP-237	4.711E-01	1.851E-01	2.040E-01	0.000E+00
AM-243	1.054E-01	3.702E-02	4.852E-02	0.000E+00
AM-246	6.559E-02	8.124E-02	1.386E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	
CO-60	7.115E-03		2.257E-02	3.954E-02	0.000E+00 NOT IDENT.
RH-101	9.400E-03		2.126E-02	3.434E-02	0.000E+00 NOT IDENT.
SB-125	5.528E-03		5.725E-02	9.488E-02	0.000E+00 NOT IDENT.
EU-155	7.728E-02		5.959E-02	1.096E-01	0.000E+00 NOT IDENT.
PO-209	1.814E+00		4.584E+00	7.856E+00	0.000E+00 NOT IDENT.
BI-211	1.965E-01		6.400E-01	9.601E-01	0.000E+00 NOT IDENT.
PA-233	1.852E-02		3.932E-02	6.759E-02	0.000E+00 NOT IDENT.
PA-234M	-1.442E+00		3.205E+00	4.594E+00	0.000E+00 NOT IDENT.
NP-236	1.531E-02		4.005E-02	5.805E-02	0.000E+00 NOT IDENT.
NP-239	-6.830E-03		1.262E-01	2.150E-01	0.000E+00 NOT IDENT.
AM-241	5.406E-02		9.063E-02	1.404E-01	0.000E+00 NOT IDENT.
CM-243	-1.527E-02		5.801E-02	9.440E-02	0.000E+00 NOT IDENT.
CF-249	9.431E-03		2.561E-02	4.333E-02	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:19:04.68

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683031.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:23:40
Sample ID        : G198683031           Sample quantity  : 1.14930E+02 GRAM
Detector name    : GAM12                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.75  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	490	10.66*	1.134E+00	6.616E+00	6.616E+00	12.16
CS-137	661.66	277	85.10*	2.248E+00	2.364E-01	2.373E-01	19.75
TL-208	277.36	------	6.31	4.454E+00	------	Line Not Found	------
	510.77	70	22.60	2.787E+00	1.813E-01	1.813E-01	106.20
	583.19	266	84.50*	2.499E+00	2.059E-01	2.059E-01	21.05
	763.13	------	1.81	1.987E+00	------	Line Not Found	------
	860.56	39	12.42	1.787E+00	2.892E-01	2.892E-01	65.96
BI-212	727.33	64	11.80*	2.070E+00	4.249E-01	4.249E-01	73.57
	785.37	------	1.10	1.938E+00	------	Line Not Found	------
	1620.50	------	1.49	1.052E+00	------	Line Not Found	------
PB-212	74.81	205	10.40	4.665E+00	6.911E-01	6.911E-01	35.84
	77.11	421	17.50	4.888E+00	8.032E-01	8.032E-01	19.07
	87.30	204	7.81	5.701E+00	7.480E-01	7.479E-01	40.10
	238.63	598	43.30*	4.950E+00	4.557E-01	4.557E-01	17.22
	300.09	32	3.28	4.205E+00	3.763E-01	3.763E-01	155.93
BI-214	609.31	299	46.10*	2.409E+00	4.402E-01	4.403E-01	25.52
	768.36	36	4.94	1.975E+00	6.074E-01	6.074E-01	86.82
	806.17	------	1.22	1.894E+00	------	Line Not Found	------
	934.06	------	3.03	1.662E+00	------	Line Not Found	------
	1120.29	72	15.10	1.414E+00	5.509E-01	5.509E-01	53.00
	1155.19	------	1.63	1.377E+00	------	Line Not Found	------
	1238.11	------	5.79	1.297E+00	------	Line Not Found	------
	1280.96	------	1.43	1.260E+00	------	Line Not Found	------
	1377.67	------	4.00	1.187E+00	------	Line Not Found	------
	1401.50	------	1.27	1.171E+00	------	Line Not Found	------
	1407.98	------	2.15	1.166E+00	------	Line Not Found	------
	1509.23	------	2.11	1.106E+00	------	Line Not Found	------
	1729.60	------	2.92	1.009E+00	------	Line Not Found	------
	1764.49	66	15.40	9.972E-01	7.020E-01	7.020E-01	47.04
PB-214	74.81	205	6.44	4.665E+00	1.116E+00	1.116E+00	35.84
	77.11	421	10.80	4.888E+00	1.301E+00	1.302E+00	19.07
	87.30	204	4.84	5.701E+00	1.207E+00	1.207E+00	40.10

Sample ID : G198683031 Acquisition date : 16-DEC-2007 12:23:40

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	155	7.43	4.906E+00	6.938E-01	6.939E-01	43.07
	295.22	306	19.30	4.255E+00	6.080E-01	6.081E-01	23.34
	351.93	616	37.60*	3.733E+00	7.174E-01	7.174E-01	13.77
RA-223	269.46	99	13.70*	4.539E+00	2.608E-01	2.608E-01	56.35
AC-228	129.07	110	2.42	6.590E+00	1.126E+00	1.126E+00	82.17
	209.25	48	3.89	5.393E+00	3.756E-01	3.756E-01	116.04
	270.25	99	3.46	4.539E+00	1.033E+00	1.033E+00	56.35
	338.32	181	11.27	3.847E+00	6.813E-01	6.813E-01	34.50
	409.46	17	1.92	3.315E+00	4.289E-01	4.289E-01	269.02
	463.00	36	4.40	3.023E+00	4.419E-01	4.419E-01	162.57
	794.95	33	4.25	1.918E+00	6.566E-01	6.566E-01	73.14
	911.20	194	25.80*	1.699E+00	7.211E-01	7.211E-01	26.05
	964.77	------	4.99	1.614E+00	------	Line Not Found	------
	968.97	83	15.80	1.608E+00	5.323E-01	5.323E-01	44.00
	1588.20	22	3.22	1.067E+00	1.066E+00	1.066E+00	95.97
TH-234	63.29	82	4.80	3.259E+00	8.557E-01	8.557E-01	109.17
	92.58	185	5.41*	6.013E+00	9.290E-01	9.290E-01	50.14
U-235	143.76	35	10.96*	6.456E+00	8.156E-02	8.156E-02	210.70
NP-237	86.48	204	12.40*	5.701E+00	4.711E-01	4.711E-01	40.10
AM-243	74.66	205	68.20*	4.665E+00	1.054E-01	1.054E-01	35.84
AM-246	1078.86	16	27.80*	1.462E+00	6.559E-02	6.559E-02	126.38

Flag: "*" = Keyline

Sample ID : G198683031 Acquisition date : 16-DEC-2007 12:23:40

Total number of lines in spectrum 56
Number of unidentified lines 24
Number of lines tentatively identified by NID 32 57.14%

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	6.616E+00	6.616E+00	0.804E+00	12.16	
CS-137	9.47E+08S	1.00	2.364E-01	2.373E-01	0.468E-01	19.75	
TL-208	4.43E+17S	1.00	2.059E-01	2.059E-01	0.434E-01	21.05	
BI-212	4.43E+17S	1.00	4.249E-01	4.249E-01	3.126E-01	73.57	
PB-212	4.43E+17S	1.00	4.557E-01	4.557E-01	0.785E-01	17.22	
BI-214	5.05E+10S	1.00	4.402E-01	4.403E-01	1.123E-01	25.52	
PB-214	5.05E+10S	1.00	7.174E-01	7.174E-01	0.988E-01	13.77	
RA-223	1.04E+12S	1.00	2.608E-01	2.608E-01	1.470E-01	56.35	
AC-228	4.43E+17S	1.00	7.211E-01	7.211E-01	1.878E-01	26.05	
TH-234	1.41E+17S	1.00	9.290E-01	9.290E-01	4.658E-01	50.14	
U-235	2.22E+16S	1.00	8.156E-02	8.156E-02	17.18E-02	210.70	
NP-237	6.75E+13S	1.00	4.711E-01	4.711E-01	1.889E-01	40.10	
AM-243	2.33E+11S	1.00	1.054E-01	1.054E-01	0.378E-01	35.84	
AM-246	2.18E+11S	1.00	6.559E-02	6.559E-02	8.289E-02	126.38	
			---	---			
	Total Activity :		1.173E+01	1.173E+01			

Grand Total Activity : 1.173E+01 1.173E+01

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

Sample ID : G198683031 Acquisition date : 16-DEC-2007 12:23:40

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	47.20	34	264	1.64	93.62	91	7	2.34E-03	****	1.08E+00	
3	84.24	55	310	1.26	167.72	165	29	3.81E-03	****	5.49E+00	
3	89.86	108	281	0.99	178.96	165	29	7.52E-03	53.1	5.86E+00	
0	163.62	45	350	1.76	326.55	323	10	3.12E-03	****	6.16E+00	
0	185.94	112	503	1.39	371.20	364	13	7.77E-03	90.7	5.78E+00	
0	328.47	26	172	1.03	656.36	652	8	1.83E-03	****	3.93E+00	
6	515.12	50	81	2.72	1029.73	1012	24	3.44E-03	89.1	2.77E+00	
0	540.29	42	97	3.35	1080.08	1070	14	2.90E-03	****	2.66E+00	
0	545.32	67	68	5.31	1090.15	1084	14	4.68E-03	56.9	2.64E+00	
1	587.34	32	73	1.74	1174.19	1160	27	2.25E-03	****	2.48E+00	
0	617.40	26	87	0.99	1234.32	1229	11	1.79E-03	****	2.38E+00	
0	835.11	17	48	0.73	1669.74	1665	9	1.18E-03	****	1.84E+00	
0	1051.94	28	36	2.88	2103.35	2096	13	1.97E-03	94.4	1.49E+00	
0	1317.16	20	17	4.71	2633.65	2627	13	1.42E-03	92.5	1.23E+00	
0	1322.70	16	11	0.79	2644.71	2640	10	1.12E-03	94.4	1.23E+00	
0	1393.34	19	10	3.78	2785.94	2780	13	1.30E-03	83.1	1.18E+00	
0	1494.90	16	9	1.45	2988.98	2982	12	1.11E-03	90.0	1.11E+00	
2	1591.44	18	10	2.48	3181.96	3164	25	1.26E-03	****	1.06E+00	
0	1599.78	16	5	2.22	3198.64	3194	10	1.09E-03	73.9	1.06E+00	
0	1634.45	9	29	3.69	3267.92	3256	19	6.18E-04	****	1.05E+00	
0	1643.40	11	3	0.64	3285.82	3279	13	7.74E-04	89.0	1.04E+00	
0	1792.68	9	14	2.24	3584.18	3572	14	6.34E-04	****	9.88E-01	
0	1828.88	7	8	1.37	3656.54	3649	11	4.75E-04	****	9.78E-01	
0	1979.31	7	7	1.26	3957.17	3953	8	5.01E-04	****	9.43E-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]G198683031            *
* Acquisition date : 16-DEC-2007 12:23:40 Detector SN#    :                 *
* Detector ID      : GAM12                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 04:00:01.75     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683031           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1493E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-FEB-2007 15:01:06 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	6.616E+00	7.881E-01	1.929E-01	7.881E-01
CS-137	2.373E-01	4.591E-02	2.120E-02	4.591E-02
TL-208	2.059E-01	4.249E-02	1.715E-02	4.249E-02
BI-212	4.249E-01	3.063E-01	1.255E-01	3.063E-01
PB-212	4.557E-01	7.689E-02	3.356E-02	7.689E-02
BI-214	4.403E-01	1.101E-01	3.544E-02	1.101E-01
PB-214	7.174E-01	9.683E-02	3.278E-02	9.683E-02
RA-223	2.608E-01	1.440E-01	8.091E-02	1.440E-01
AC-228	7.211E-01	1.841E-01	5.420E-02	1.841E-01
TH-234	9.290E-01	4.565E-01	2.209E-01	4.565E-01
U-235	8.156E-02	1.684E-01	9.667E-02	1.684E-01
NP-237	4.711E-01	1.851E-01	1.020E-01	1.851E-01
AM-243	1.054E-01	3.702E-02	2.427E-02	3.702E-02
AM-246	6.559E-02	8.124E-02	6.935E-02	8.124E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	7.115E-03	2.257E-02	1.978E-02	2.257E-02	NOT IDENT.
RH-101	9.400E-03	2.126E-02	1.718E-02	2.126E-02	NOT IDENT.
SB-125	5.528E-03	5.725E-02	4.747E-02	5.725E-02	NOT IDENT.
EU-155	7.728E-02	5.959E-02	5.483E-02	5.959E-02	NOT IDENT.
PO-209	1.814E+00	4.584E+00	3.930E+00	4.584E+00	NOT IDENT.
BI-211	1.965E-01	6.400E-01	4.803E-01	6.400E-01	NOT IDENT.
PA-233	1.852E-02	3.932E-02	3.382E-02	3.932E-02	NOT IDENT.
PA-234M	-1.442E+00	3.205E+00	2.298E+00	3.205E+00	NOT IDENT.
NP-236	1.531E-02	4.005E-02	2.904E-02	4.005E-02	NOT IDENT.
NP-239	-6.830E-03	1.262E-01	1.075E-01	1.262E-01	NOT IDENT.
AM-241	5.406E-02	9.063E-02	7.022E-02	9.063E-02	NOT IDENT.
CM-243	-1.527E-02	5.801E-02	4.723E-02	5.801E-02	NOT IDENT.
CF-249	9.431E-03	2.561E-02	2.168E-02	2.561E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	280.1835
63.29	341.9243
74.66	389.6786
74.81	389.7689
74.81	389.7689
77.11	391.1318
77.11	391.1318
86.48	338.3789
87.30	338.7656
87.30	338.7656
92.58	341.2204
98.44	270.9231
103.76	333.3736
105.31	293.4330
129.07	293.5230
143.76	312.7190
198.00	267.0770
209.25	282.1194
228.18	237.0799
238.63	348.9546
242.00	421.3571
269.46	171.7842
270.25	190.5244
277.36	208.7318
295.22	214.2302
300.09	170.2543
312.17	174.8496
338.32	155.3665
351.93	143.7856
387.59	154.1728
409.46	154.5865
427.87	126.3035
463.00	122.5594
510.77	97.5680
583.19	90.0621
609.31	106.3965
661.66	112.2457
727.33	64.8857
763.13	65.6443
768.36	66.7654
785.37	55.9373
794.95	67.3245
806.17	59.3693
831.80	51.5796
860.56	66.5844
896.60	60.9708
911.20	39.0551
934.06	60.5472
964.77	69.6227
968.97	82.5682
1001.03	49.7442
1078.86	55.1440
1120.29	46.1520
1155.19	48.6738
1173.23	42.2974
1238.11	49.5985
1280.96	32.7341
1332.51	29.2004
1377.67	29.4739
1401.50	32.9074
1407.98	18.7812
1460.80	37.9552
1509.23	30.2454
1588.20	21.2055
1620.50	12.3486
1729.60	16.7813
1764.49	20.0452

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683031

Total Uranium Activity	3.7739E-02	ug/g
Total Uranium Counting Unc.	7.7925E-02	ug/g
Total Uranium Tpu	7.7925E-08	ug/g
Total Uranium Mda	4.4727E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:19:38.20

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683032.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:24:02
Sample ID        : G198683032           Sample quantity  : 1.11620E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.33  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	46.59*	116	550	0.91	92.63	89	8	8.04E-03	41.9	
2	0	52.59*	99	663	1.72	104.65	100	9	6.85E-03	51.9	
3	0	63.40*	60	758	1.03	126.27	123	8	4.16E-03	99.7	
4	2	73.08	78	537	0.97	145.66	143	22	5.42E-03	49.6	1.31E+00
5	2	74.92	640	536	0.98	149.34	143	22	4.45E-02	7.0	
6	2	77.19*	858	446	0.88	153.88	143	22	5.96E-02	5.4	
7	2	81.10*	19	534	1.00	161.71	143	22	1.30E-03	220.1	
8	3	84.15*	131	519	1.05	167.81	165	28	9.09E-03	30.7	3.08E+00
9	3	87.35	292	571	1.12	174.23	165	28	2.03E-02	14.6	
10	3	90.05*	205	387	0.82	179.62	165	28	1.42E-02	17.5	
11	3	92.78*	230	489	1.14	185.10	165	28	1.59E-02	24.2	
12	0	105.77	65	532	1.46	211.08	207	8	4.51E-03	62.7	
13	0	114.20*	59	821	2.32	227.97	221	12	4.09E-03	103.8	
14	0	129.15*	11	388	0.83	257.89	255	6	7.84E-04	300.0	
15	0	185.91*	158	613	1.17	371.52	367	12	1.10E-02	37.2	
16	0	209.09*	105	507	0.95	417.91	413	10	7.27E-03	44.1	
17	3	238.71*	954	290	0.98	477.20	473	16	6.62E-02	4.7	2.00E+00
18	3	240.92	93	212	0.88	481.62	473	16	6.45E-03	28.5	
19	3	242.11	210	326	1.27	484.01	473	16	1.46E-02	17.6	
20	0	270.58	93	331	2.07	540.98	536	9	6.47E-03	36.7	
21	0	277.16	62	356	1.44	554.16	550	9	4.31E-03	56.3	
22	0	295.36*	401	381	1.06	590.59	585	12	2.78E-02	11.4	
23	0	301.49*	121	366	3.77	602.85	597	13	8.41E-03	36.0	
24	0	328.25	45	242	1.13	656.42	652	8	3.09E-03	62.4	
25	0	338.29*	194	348	1.16	676.51	670	12	1.35E-02	21.9	
26	0	351.95*	651	228	1.23	703.85	699	9	4.52E-02	6.2	
27	0	356.16*	4	192	1.11	712.27	709	7	2.55E-04	756.5	
28	0	386.55	63	128	1.69	773.11	770	7	4.34E-03	32.7	
29	0	434.85	36	103	0.75	869.78	867	6	2.47E-03	48.6	
30	0	463.27	75	188	1.42	926.64	922	10	5.24E-03	36.0	
31	0	511.07*	104	289	1.99	1022.30	1015	16	7.23E-03	46.9	
32	0	547.93	48	151	1.97	1096.07	1092	11	3.34E-03	51.5	
33	0	583.25*	334	203	1.55	1166.76	1160	14	2.32E-02	11.2	
34	0	609.35*	553	256	1.34	1218.99	1211	16	3.84E-02	8.1	
35	0	624.86	51	115	1.54	1250.03	1245	10	3.54E-03	41.8	
36	0	631.76	15	132	0.96	1263.83	1260	10	1.03E-03	147.8	
37	0	661.59*	178	272	1.48	1323.53	1318	14	1.24E-02	21.6	
38	0	692.70	43	120	2.25	1385.77	1380	10	2.96E-03	50.8	

Sample ID : G198683032 Acquisition date : 16-DEC-2007 12:24:02

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	727.59*	53	128	1.56	1455.59	1450	9	3.67E-03	43.8	
40	0	795.36	37	88	2.23	1591.19	1587	9	2.58E-03	48.7	
41	0	802.73*	11	91	1.44	1605.94	1603	9	7.60E-04	174.8	
42	0	861.46	81	124	2.20	1723.45	1715	16	5.65E-03	32.6	
43	0	911.18*	207	107	1.56	1822.93	1816	13	1.44E-02	13.6	
44	0	969.84	122	160	1.59	1940.30	1932	14	8.50E-03	23.9	
45	0	1001.38*	16	99	2.18	2003.40	1995	15	1.08E-03	164.7	
46	0	1092.04	19	53	0.96	2184.77	2180	8	1.34E-03	70.4	
47	0	1120.36	146	89	1.58	2241.44	2233	17	1.01E-02	17.0	
48	0	1146.61	23	65	2.28	2293.95	2283	13	1.62E-03	74.2	
49	0	1240.23*	32	156	5.87	2481.22	2467	23	2.23E-03	106.4	
50	4	1259.56	19	8	1.37	2519.89	2518	15	1.34E-03	29.0	1.84E+00
51	4	1262.92*	46	24	2.70	2526.61	2518	15	3.17E-03	30.8	
52	0	1282.17	16	17	0.95	2565.11	2563	6	1.08E-03	47.6	
53	0	1314.90	24	80	1.15	2630.59	2620	18	1.65E-03	91.0	
54	0	1378.29	38	62	1.45	2757.39	2750	13	2.66E-03	45.2	
55	0	1460.80*	504	35	1.63	2922.43	2913	17	3.50E-02	5.3	
56	0	1480.56	18	26	0.67	2961.95	2952	13	1.26E-03	62.5	
57	0	1587.81	22	30	1.63	3176.45	3167	15	1.53E-03	58.3	
58	0	1701.50	8	24	3.53	3403.82	3392	14	5.30E-04	142.3	
59	0	1730.99	23	22	1.26	3462.78	3456	16	1.58E-03	52.0	
60	0	1764.82*	72	30	1.48	3530.45	3524	13	4.97E-03	21.6	
61	0	1848.69	12	13	0.88	3698.16	3691	14	8.67E-04	68.9	
62	0	1868.67	4	11	0.63	3738.10	3731	9	2.92E-04	151.2	
63	0	1873.41	12	7	2.45	3747.59	3741	11	8.15E-04	55.0	

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]G198683032       *
* Acquisition date : 16-DEC-2007 12:24:02 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 04:00:04.33     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683032           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1162E+02 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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	7.499E+00	8.850E-01	5.115E-01	0.000E+00
CS-137	1.713E-01	7.365E-02	5.660E-02	0.000E+00
EU-155	7.211E-02	8.890E-02	1.002E-01	0.000E+00
TL-208	2.880E-01	6.646E-02	5.103E-02	0.000E+00
BI-212	3.968E-01	3.416E-01	3.955E-01	0.000E+00
PB-212	7.681E-01	8.649E-02	6.735E-02	0.000E+00
BI-214	9.086E-01	1.584E-01	9.598E-02	0.000E+00
PB-214	8.167E-01	1.071E-01	8.950E-02	0.000E+00
RA-223	2.599E-01	1.875E-01	2.129E-01	0.000E+00
AC-228	8.626E-01	2.363E-01	2.042E-01	0.000E+00
PA-234M	2.157E+00	6.965E+00	6.027E+00	0.000E+00
TH-234	9.494E-01	4.567E-01	3.751E-01	0.000E+00
NP-237	5.223E-01	1.552E-01	1.605E-01	0.000E+00
AM-243	2.052E-01	3.234E-02	3.327E-02	0.000E+00
CF-249	4.833E-02	3.106E-02	4.769E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	4.621E-03	3.764E-02	6.323E-02	0.000E+00	NOT IDENT.
RH-101	-7.791E-03	2.588E-02	3.994E-02	0.000E+00	NOT IDENT.
SB-125	-2.030E-02	7.650E-02	1.260E-01	0.000E+00	NOT IDENT.
PO-209	3.728E+00	6.822E+00	1.158E+01	0.000E+00	NOT IDENT.
BI-211	-3.354E-02	9.248E-01	1.523E+00	0.000E+00	NOT IDENT.
PA-233	1.864E-02	4.731E-02	8.269E-02	0.000E+00	NOT IDENT.
U-235	-6.044E-02	1.449E-01	2.262E-01	0.000E+00	NOT IDENT.
NP-236	-2.907E-03	3.979E-02	5.840E-02	0.000E+00	NOT IDENT.
NP-239	4.386E-02	1.530E-01	2.549E-01	0.000E+00	NOT IDENT.
AM-241	2.079E-02	3.867E-02	6.029E-02	0.000E+00	NOT IDENT.
CM-243	-4.783E-02	5.734E-02	8.701E-02	0.000E+00	NOT IDENT.
AM-246	3.718E-02	1.134E-01	1.950E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:19:39.20

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683032.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:24:02
Sample ID        : G198683032           Sample quantity  : 1.11620E+02 GRAM
Detector name    : GAM13                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.33  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	504	10.66*	1.060E+00	7.499E+00	7.499E+00	12.04
CS-137	661.66	178	85.10*	2.063E+00	1.706E-01	1.713E-01	43.88
EU-155	105.31	65	21.20*	7.300E+00	7.049E-02	7.211E-02	125.80
TL-208	277.36	62	6.31	4.317E+00	3.829E-01	3.829E-01	112.63
	510.77	104	22.60	2.589E+00	2.992E-01	2.992E-01	94.09
	583.19	334	84.50*	2.305E+00	2.880E-01	2.880E-01	23.55
	763.13	------	1.81	1.821E+00	------	Line Not Found	------
	860.56	81	12.42	1.640E+00	6.710E-01	6.710E-01	65.47
BI-212	727.33	53	11.80*	1.899E+00	3.968E-01	3.968E-01	87.84
	785.37	------	1.10	1.777E+00	------	Line Not Found	------
	1620.50	------	1.49	9.772E-01	------	Line Not Found	------
PB-212	74.81	640	10.40	7.694E+00	1.346E+00	1.346E+00	16.08
	77.11	858	17.50	7.683E+00	1.073E+00	1.073E+00	13.42
	87.30	292	7.81	7.591E+00	8.292E-01	8.292E-01	30.32
	238.63	954	43.30*	4.822E+00	7.681E-01	7.681E-01	11.49
	300.09	121	3.28	4.044E+00	1.535E+00	1.535E+00	72.26
BI-214	609.31	553	46.10*	2.218E+00	9.085E-01	9.086E-01	17.79
	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	146	15.10	1.315E+00	1.236E+00	1.236E+00	34.45
	1155.19	------	1.63	1.282E+00	------	Line Not Found	------
	1238.11	------	5.79	1.211E+00	------	Line Not Found	------
	1280.96	16	1.43	1.177E+00	1.548E+00	1.548E+00	95.41
	1377.67	38	4.00	1.111E+00	1.452E+00	1.452E+00	90.55
	1401.50	------	1.27	1.096E+00	------	Line Not Found	------
	1407.98	------	2.15	1.092E+00	------	Line Not Found	------
	1509.23	------	2.11	1.033E+00	------	Line Not Found	------
	1729.60	23	2.92	9.281E-01	1.416E+00	1.416E+00	104.21
	1764.49	72	15.40	9.142E-01	8.552E-01	8.552E-01	43.47
PB-214	74.81	640	6.44	7.694E+00	2.173E+00	2.173E+00	16.08
	77.11	858	10.80	7.683E+00	1.738E+00	1.738E+00	13.42

Sample ID : G198683032 Acquisition date : 16-DEC-2007 12:24:02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	292	4.84	7.591E+00	1.338E+00	1.338E+00	30.32
	242.00	210	7.43	4.773E+00	9.963E-01	9.964E-01	35.75
	295.22	401	19.30	4.110E+00	8.495E-01	8.495E-01	23.34
	351.93	651	37.60*	3.566E+00	8.166E-01	8.167E-01	13.39
RA-223	269.46	93	13.70*	4.397E+00	2.599E-01	2.599E-01	73.63
AC-228	129.07	11	2.42	6.830E+00	1.149E-01	1.149E-01	599.99
	209.25	105	3.89	5.280E+00	8.566E-01	8.566E-01	88.50
	270.25	93	3.46	4.397E+00	1.029E+00	1.029E+00	73.63
	338.32	194	11.27	3.685E+00	7.843E-01	7.843E-01	44.14
	409.46	------	1.92	3.139E+00	------ Line Not Found		------
	463.00	75	4.40	2.822E+00	1.021E+00	1.021E+00	72.31
	794.95	37	4.25	1.757E+00	8.364E-01	8.364E-01	97.70
	911.20	207	25.80*	1.564E+00	8.626E-01	8.626E-01	27.95
	964.77	------	4.99	1.490E+00	------ Line Not Found		------
	968.97	122	15.80	1.483E+00	8.788E-01	8.788E-01	48.22
	1588.20	22	3.22	9.929E-01	1.157E+00	1.157E+00	116.73
PA-234M	1001.03	16	0.84*	1.443E+00	2.157E+00	2.157E+00	329.49
TH-234	63.29	60	4.80	7.666E+00	2.740E-01	2.740E-01	199.61
	92.58	230	5.41*	7.518E+00	9.494E-01	9.494E-01	49.09
NP-237	86.48	292	12.40*	7.591E+00	5.223E-01	5.223E-01	30.32
AM-243	74.66	640	68.20*	7.694E+00	2.052E-01	2.052E-01	16.08
CF-249	387.59	63	66.00*	3.297E+00	4.832E-02	4.833E-02	65.57

Flag: "*" = Keyline

Sample ID : G198683032 Acquisition date : 16-DEC-2007 12:24:02

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	7.499E+00	7.499E+00	0.903E+00	12.04	
CS-137	9.47E+08S	1.00	1.706E-01	1.713E-01	0.752E-01	43.88	
EU-155	1.57E+08S	1.02	7.049E-02	7.211E-02	9.072E-02	125.80	
TL-208	4.43E+17S	1.00	2.880E-01	2.880E-01	0.678E-01	23.55	
BI-212	4.43E+17S	1.00	3.968E-01	3.968E-01	3.485E-01	87.84	
PB-212	4.43E+17S	1.00	7.681E-01	7.681E-01	0.883E-01	11.49	
BI-214	5.05E+10S	1.00	9.085E-01	9.086E-01	1.616E-01	17.79	
PB-214	5.05E+10S	1.00	8.166E-01	8.167E-01	1.093E-01	13.39	
RA-223	1.04E+12S	1.00	2.599E-01	2.599E-01	1.914E-01	73.63	
AC-228	4.43E+17S	1.00	8.626E-01	8.626E-01	2.411E-01	27.95	
PA-234M	1.41E+17S	1.00	2.157E+00	2.157E+00	7.107E+00	329.49	
TH-234	1.41E+17S	1.00	9.494E-01	9.494E-01	4.660E-01	49.09	
NP-237	6.75E+13S	1.00	5.223E-01	5.223E-01	1.583E-01	30.32	
AM-243	2.33E+11S	1.00	2.052E-01	2.052E-01	0.330E-01	16.08	
CF-249	1.11E+10S	1.00	4.832E-02	4.833E-02	3.169E-02	65.57	
			---	---			
		Total Activity :	1.592E+01	1.593E+01			

Grand Total Activity : 1.592E+01 1.593E+01

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

Sample ID : G198683032 Acquisition date : 16-DEC-2007 12:24:02

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.59	116	550	0.91	92.63	89	8	8.04E-03	83.7	7.27E+00	
0	52.59	99	663	1.72	104.65	100	9	6.85E-03	****	7.47E+00	
2	73.08	78	537	0.97	145.66	143	22	5.42E-03	99.2	7.70E+00	
2	81.10	19	534	1.00	161.71	143	22	1.30E-03	****	7.66E+00	
3	84.15	131	519	1.05	167.81	165	28	9.09E-03	61.3	7.63E+00	
3	90.05	205	387	0.82	179.62	165	28	1.42E-02	35.0	7.56E+00	
0	114.20	59	821	2.32	227.97	221	12	4.09E-03	****	7.14E+00	
0	185.91	158	613	1.17	371.52	367	12	1.10E-02	74.5	5.69E+00	
3	240.92	93	212	0.88	481.62	473	16	6.45E-03	57.1	4.79E+00	
0	328.25	45	242	1.13	656.42	652	8	3.09E-03	****	3.78E+00	
0	356.16	4	192	1.11	712.27	709	7	2.55E-04	****	3.53E+00	
0	434.85	36	103	0.75	869.78	867	6	2.47E-03	97.2	2.98E+00	
0	547.93	48	151	1.97	1096.07	1092	11	3.34E-03	****	2.44E+00	
0	624.86	51	115	1.54	1250.03	1245	10	3.54E-03	83.5	2.17E+00	
0	631.76	15	132	0.96	1263.83	1260	10	1.03E-03	****	2.15E+00	
0	692.70	43	120	2.25	1385.77	1380	10	2.96E-03	****	1.98E+00	
0	802.73	11	91	1.44	1605.94	1603	9	7.60E-04	****	1.74E+00	
0	1092.04	19	53	0.96	2184.77	2180	8	1.34E-03	****	1.34E+00	
0	1146.61	23	65	2.28	2293.95	2283	13	1.62E-03	****	1.29E+00	
0	1240.23	32	156	5.87	2481.22	2467	23	2.23E-03	****	1.21E+00	
4	1259.56	19	8	1.37	2519.89	2518	15	1.34E-03	57.9	1.19E+00	
4	1262.92	46	24	2.70	2526.61	2518	15	3.17E-03	61.5	1.19E+00	
0	1314.90	24	80	1.15	2630.59	2620	18	1.65E-03	****	1.15E+00	
0	1480.56	18	26	0.67	2961.95	2952	13	1.26E-03	****	1.05E+00	
0	1701.50	8	24	3.53	3403.82	3392	14	5.30E-04	****	9.41E-01	
0	1848.69	12	13	0.88	3698.16	3691	14	8.67E-04	****	8.82E-01	
0	1868.67	4	11	0.63	3738.10	3731	9	2.92E-04	****	8.74E-01	
0	1873.41	12	7	2.45	3747.59	3741	11	8.15E-04	****	8.73E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198683032            *
* Acquisition date : 16-DEC-2007 12:24:02 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 04:00:04.33     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683032           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1162E+02 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	7.499E+00	8.850E-01	2.559E-01	8.850E-01
CS-137	1.713E-01	7.365E-02	2.832E-02	7.365E-02
EU-155	7.211E-02	8.890E-02	5.015E-02	8.890E-02
TL-208	2.880E-01	6.646E-02	2.553E-02	6.646E-02
BI-212	3.968E-01	3.416E-01	1.979E-01	3.416E-01
PB-212	7.681E-01	8.649E-02	3.370E-02	8.649E-02
BI-214	9.086E-01	1.584E-01	4.802E-02	1.584E-01
PB-214	8.167E-01	1.071E-01	4.478E-02	1.071E-01
RA-223	2.599E-01	1.875E-01	1.065E-01	1.875E-01
AC-228	8.626E-01	2.363E-01	1.022E-01	2.363E-01
PA-234M	2.157E+00	6.965E+00	3.016E+00	6.965E+00
TH-234	9.494E-01	4.567E-01	1.877E-01	4.567E-01
NP-237	5.223E-01	1.552E-01	8.032E-02	1.552E-01
AM-243	2.052E-01	3.234E-02	1.665E-02	3.234E-02
CF-249	4.833E-02	3.106E-02	2.386E-02	3.106E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	4.621E-03	3.764E-02	3.163E-02	3.764E-02	NOT IDENT.
RH-101	-7.791E-03	2.588E-02	1.998E-02	2.588E-02	NOT IDENT.
SB-125	-2.030E-02	7.650E-02	6.303E-02	7.650E-02	NOT IDENT.
PO-209	3.728E+00	6.822E+00	5.793E+00	6.822E+00	NOT IDENT.
BI-211	-3.354E-02	9.248E-01	7.617E-01	9.248E-01	NOT IDENT.
PA-233	1.864E-02	4.731E-02	4.137E-02	4.731E-02	NOT IDENT.
U-235	-6.044E-02	1.449E-01	1.132E-01	1.449E-01	NOT IDENT.
NP-236	-2.907E-03	3.979E-02	2.922E-02	3.979E-02	NOT IDENT.
NP-239	4.386E-02	1.530E-01	1.275E-01	1.530E-01	NOT IDENT.
AM-241	2.079E-02	3.867E-02	3.016E-02	3.867E-02	NOT IDENT.
CM-243	-4.783E-02	5.734E-02	4.353E-02	5.734E-02	NOT IDENT.
AM-246	3.718E-02	1.134E-01	9.758E-02	1.134E-01	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	393.0123
63.29	457.4818
74.66	480.4255
74.81	480.6703
74.81	480.6703
77.11	484.4166
77.11	484.4166
86.48	361.7432
87.30	362.6476
87.30	362.6476
92.58	368.3756
98.44	396.7317
103.76	386.6095
105.31	365.1521
129.07	355.8098
143.76	345.8910
198.00	358.9653
209.25	359.8629
228.18	285.0359
238.63	317.5578
242.00	319.0133
269.46	266.2935
270.25	280.0247
277.36	294.0749
295.22	270.1786
300.09	231.2935
312.17	237.2026
338.32	218.0153
351.93	232.6392
387.59	173.2456
409.46	223.8655
427.87	202.4773
463.00	167.7037
510.77	167.1562
583.19	160.8951
609.31	156.9300
661.66	159.9240
727.33	128.3829
763.13	155.4828
768.36	142.4709
785.37	122.8542
794.95	112.9729
806.17	101.6652
831.80	119.2311
860.56	104.6373
896.60	105.2320
911.20	111.2342
934.06	111.3940
964.77	135.3867
968.97	127.1420
1001.03	87.7680
1078.86	80.5920
1120.29	75.8299
1155.19	85.8612
1173.23	97.5781
1238.11	104.9165
1280.96	74.7788
1332.51	64.2163
1377.67	67.8850
1401.50	71.1731
1407.98	59.1086
1460.80	55.2469
1509.23	44.4085
1588.20	62.1145
1620.50	37.7800
1729.60	39.3285
1764.49	29.8719

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683032

Total Uranium Activity	-2.7965E-02	ug/g
Total Uranium Counting Unc.	6.7054E-02	ug/g
Total Uranium Tpu	6.7054E-08	ug/g
Total Uranium Mda	5.2361E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:20:13.40

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683033.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:24:27
Sample ID        : G198683033           Sample quantity  : 1.19040E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.01  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	46.32*	38	293	1.29	92.62	90	6	2.65E-03	81.9	
2	0	63.10*	118	599	1.79	126.17	122	10	8.19E-03	43.2	
3	3	74.98*	505	806	1.85	149.92	141	19	3.51E-02	12.7	1.70E+00
4	3	77.27*	758	567	1.40	154.49	141	19	5.27E-02	7.2	
5	3	84.47*	137	507	1.59	168.89	165	28	9.48E-03	30.8	9.20E-01
6	3	87.29*	397	669	1.78	174.53	165	28	2.76E-02	14.1	
7	3	89.93	200	465	1.30	179.81	165	28	1.39E-02	20.8	
8	3	92.88*	275	609	1.86	185.70	165	28	1.91E-02	20.6	
9	0	129.12	75	501	1.10	258.15	254	10	5.19E-03	57.1	
10	0	143.71*	61	436	1.87	287.32	284	9	4.26E-03	65.5	
11	0	185.84*	284	608	1.31	371.56	364	14	1.97E-02	20.2	
12	0	210.07	121	404	1.67	420.02	413	11	8.40E-03	33.5	
13	0	213.69	42	264	1.12	427.25	425	7	2.88E-03	66.5	
14	2	238.64*	1223	350	1.36	477.15	472	18	8.49E-02	4.1	1.12E+00
15	2	241.79	370	362	1.88	483.44	472	18	2.57E-02	13.5	
16	0	254.89	40	245	3.37	509.63	505	9	2.81E-03	72.0	
17	0	259.16	96	246	1.63	518.17	514	10	6.66E-03	32.2	
18	0	270.04	134	286	1.58	539.92	535	11	9.31E-03	25.9	
19	0	276.35*	56	341	3.78	552.54	546	13	3.86E-03	71.5	
20	0	295.11	662	288	1.55	590.06	583	13	4.60E-02	6.6	
21	0	299.93	112	216	2.11	599.69	596	9	7.78E-03	25.5	
22	0	328.15	46	191	0.83	656.13	654	7	3.18E-03	52.8	
23	0	338.28*	222	258	1.60	676.38	671	11	1.54E-02	16.3	
24	0	351.90*	1042	271	1.55	703.61	696	14	7.24E-02	4.7	
25	0	399.24	6	219	3.82	798.29	795	12	3.98E-04	517.8	
26	0	405.94	27	135	1.35	811.67	808	8	1.88E-03	76.9	
27	0	463.09	48	178	1.84	925.97	920	11	3.35E-03	55.5	
28	0	511.15*	187	235	2.24	1022.10	1014	18	1.30E-02	24.0	
29	0	569.12*	134	193	2.77	1138.03	1131	17	9.29E-03	26.4	
30	0	583.25*	406	110	1.68	1166.29	1161	10	2.82E-02	7.3	
31	0	598.97	18	122	1.17	1197.74	1191	10	1.22E-03	119.9	
32	0	609.57*	630	162	1.64	1218.93	1211	14	4.37E-02	6.0	
33	0	661.90	212	146	1.94	1323.60	1316	13	1.47E-02	13.6	
34	0	693.78*	10	102	0.93	1387.36	1377	12	6.74E-04	222.8	
35	0	728.33	106	97	2.19	1456.47	1446	16	7.33E-03	23.0	
36	0	767.96	22	113	1.10	1535.75	1531	11	1.53E-03	95.9	
37	0	784.67	47	86	4.04	1569.17	1562	14	3.28E-03	44.4	
38	0	796.69	43	119	1.79	1593.23	1585	18	2.97E-03	62.3	

Sample ID : G198683033 Acquisition date : 16-DEC-2007 12:24:27

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	840.45	54	48	4.09	1680.76	1676	12	3.75E-03	29.0	
40	5	857.58	16	18	1.34	1715.03	1713	18	1.12E-03	41.7	2.11E+00
41	5	861.84	68	63	3.02	1723.55	1713	18	4.72E-03	29.7	
42	0	903.15	39	30	3.48	1806.20	1801	10	2.71E-03	30.8	
43	0	911.61*	290	79	1.53	1823.11	1817	15	2.01E-02	9.1	
44	0	935.01	73	70	2.40	1869.94	1862	15	5.04E-03	27.9	
45	3	964.60	78	50	2.55	1929.15	1920	42	5.40E-03	23.3	1.79E+00
46	3	969.49	188	38	2.14	1938.92	1920	42	1.30E-02	10.4	
47	3	977.41	37	38	2.56	1954.76	1920	42	2.60E-03	40.9	
48	0	1039.59	24	33	4.01	2079.17	2073	11	1.67E-03	50.6	
49	0	1078.52	11	35	0.96	2157.07	2153	9	7.71E-04	99.4	
50	0	1121.04	156	75	2.01	2242.15	2236	17	1.08E-02	14.9	
51	0	1144.03*	26	59	4.95	2288.14	2275	18	1.83E-03	73.4	
52	0	1184.09	27	77	7.85	2368.30	2358	19	1.89E-03	79.4	
53	0	1193.81	12	36	3.33	2387.75	2380	10	8.61E-04	96.0	
54	0	1210.64	20	39	2.22	2421.44	2416	9	1.38E-03	61.4	
55	0	1239.39	69	52	2.34	2478.96	2473	13	4.79E-03	24.7	
56	5	1278.58	12	17	1.51	2557.38	2555	13	8.08E-04	55.4	2.26E+00
57	5	1281.55	34	21	2.40	2563.34	2555	13	2.33E-03	33.2	
58	0	1378.86	39	28	1.38	2758.07	2752	10	2.74E-03	29.5	
59	0	1400.96	29	31	4.23	2802.30	2796	15	1.98E-03	46.0	
60	0	1410.20	32	41	0.72	2820.80	2815	16	2.21E-03	49.7	
61	0	1461.47*	673	26	2.12	2923.40	2914	18	4.67E-02	4.4	
62	0	1556.65	16	27	4.71	3113.91	3102	17	1.11E-03	81.6	
63	0	1591.25	44	38	2.08	3183.17	3172	20	3.03E-03	38.5	
64	0	1696.74	14	14	5.54	3394.34	3386	15	9.59E-04	71.8	
65	0	1701.40	6	0	0.96	3403.67	3400	8	4.17E-04	40.8	
66	0	1730.49*	14	15	3.03	3461.89	3453	15	9.70E-04	72.3	
67	0	1765.11	123	27	2.07	3531.20	3521	17	8.53E-03	13.1	
68	0	1848.80	25	12	2.54	3698.75	3691	15	1.70E-03	39.4	
69	0	1919.25	18	6	1.98	3839.79	3833	14	1.26E-03	38.3	
70	0	1973.51	21	8	2.36	3948.45	3942	12	1.45E-03	35.9	
71	0	1995.19	11	3	3.44	3991.85	3986	11	7.86E-04	41.0	

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]G198683033       *
* Acquisition date : 16-DEC-2007 12:24:27 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 04:00:02.01     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683033           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1904E+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	8.093E+00	8.243E-01	3.221E-01	0.000E+00
CS-137	1.576E-01	4.375E-02	4.013E-02	0.000E+00
TL-208	2.711E-01	4.321E-02	3.686E-02	0.000E+00
BI-212	6.139E-01	2.807E-01	2.617E-01	0.000E+00
PB-212	7.890E-01	7.917E-02	5.827E-02	0.000E+00
BI-214	8.006E-01	1.104E-01	6.309E-02	0.000E+00
PB-214	1.034E+00	1.123E-01	6.566E-02	0.000E+00
RA-223	2.987E-01	1.529E-01	1.673E-01	0.000E+00
AC-228	9.492E-01	1.884E-01	1.233E-01	0.000E+00
TH-234	1.049E+00	4.323E-01	4.178E-01	0.000E+00
U-235	1.165E-01	1.497E-01	1.911E-01	0.000E+00
NP-237	6.831E-01	1.964E-01	1.892E-01	0.000E+00
AM-243	1.819E-01	4.734E-02	4.221E-02	0.000E+00
AM-246	3.941E-02	7.684E-02	1.297E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.769E-02	2.449E-02	4.195E-02	0.000E+00	NOT IDENT.
RH-101	1.230E-02	2.138E-02	3.455E-02	0.000E+00	NOT IDENT.
SB-125	-5.234E-02	5.325E-02	8.511E-02	0.000E+00	NOT IDENT.
EU-155	5.358E-03	5.806E-02	9.870E-02	0.000E+00	NOT IDENT.
PO-209	-1.786E+00	4.723E+00	6.625E+00	0.000E+00	NOT IDENT.
BI-211	-4.213E-01	5.775E-01	9.334E-01	0.000E+00	NOT IDENT.
PA-233	1.262E-03	3.798E-02	6.542E-02	0.000E+00	NOT IDENT.
PA-234M	-3.792E-01	2.698E+00	4.450E+00	0.000E+00	NOT IDENT.
NP-236	3.511E-02	3.886E-02	5.775E-02	0.000E+00	NOT IDENT.
NP-239	-3.528E-02	1.290E-01	2.227E-01	0.000E+00	NOT IDENT.
AM-241	1.309E-02	7.331E-02	1.116E-01	0.000E+00	NOT IDENT.
CM-243	-1.556E-02	5.365E-02	9.006E-02	0.000E+00	NOT IDENT.
CF-249	-5.015E-03	2.364E-02	3.984E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:20:14.41

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683033.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:24:27
Sample ID        : G198683033           Sample quantity  : 1.19040E+02 GRAM
Detector name    : GAM14                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.01  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	673	10.66*	1.229E+00	8.093E+00	8.093E+00	10.39
CS-137	661.66	212	85.10*	2.502E+00	1.570E-01	1.576E-01	28.33
TL-208	277.36	56	6.31	5.076E+00	2.737E-01	2.737E-01	143.07
	510.77	187	22.60	3.127E+00	4.179E-01	4.179E-01	48.44
	583.19	406	84.50*	2.795E+00	2.711E-01	2.711E-01	16.27
	763.13	------	1.81	2.201E+00	------	Line Not Found	------
	860.56	68	12.42	1.968E+00	4.381E-01	4.380E-01	59.99
BI-212	727.33	106	11.80*	2.296E+00	6.139E-01	6.139E-01	46.65
	785.37	47	1.10	2.146E+00	3.154E+00	3.154E+00	89.19
	1620.50	------	1.49	1.140E+00	------	Line Not Found	------
PB-212	74.81	505	10.40	6.418E+00	1.193E+00	1.193E+00	26.55
	77.11	758	17.50	6.646E+00	1.028E+00	1.028E+00	16.32
	87.30	397	7.81	7.393E+00	1.085E+00	1.085E+00	29.34
	238.63	1223	43.30*	5.643E+00	7.890E-01	7.890E-01	10.24
	300.09	112	3.28	4.775E+00	1.127E+00	1.127E+00	51.33
BI-214	609.31	630	46.10*	2.690E+00	8.005E-01	8.006E-01	14.08
	768.36	22	4.94	2.188E+00	3.209E-01	3.209E-01	191.97
	806.17	------	1.22	2.093E+00	------	Line Not Found	------
	934.06	73	3.03	1.825E+00	2.071E+00	2.072E+00	56.44
	1120.29	156	15.10	1.543E+00	1.053E+00	1.053E+00	30.63
	1155.19	------	1.63	1.502E+00	------	Line Not Found	------
	1238.11	69	5.79	1.410E+00	1.332E+00	1.332E+00	49.73
	1280.96	34	1.43	1.370E+00	2.703E+00	2.704E+00	66.68
	1377.67	39	4.00	1.288E+00	1.208E+00	1.208E+00	59.31
	1401.50	29	1.27	1.271E+00	2.790E+00	2.790E+00	92.12
	1407.98	------	2.15	1.266E+00	------	Line Not Found	------
	1509.23	------	2.11	1.199E+00	------	Line Not Found	------
	1729.60	14	2.92	1.093E+00	6.901E-01	6.902E-01	144.72
	1764.49	123	15.40	1.080E+00	1.164E+00	1.164E+00	26.77
PB-214	74.81	505	6.44	6.418E+00	1.926E+00	1.926E+00	26.55
	77.11	758	10.80	6.646E+00	1.665E+00	1.666E+00	16.32
	87.30	397	4.84	7.393E+00	1.750E+00	1.750E+00	29.34

Sample ID : G198683033 Acquisition date : 16-DEC-2007 12:24:27

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	370	7.43	5.591E+00	1.403E+00	1.403E+00	27.63
	295.22	662	19.30	4.834E+00	1.118E+00	1.119E+00	14.55
	351.93	1042	37.60*	4.226E+00	1.034E+00	1.034E+00	11.08
RA-223	269.46	134	13.70*	5.163E+00	2.987E-01	2.987E-01	52.22
AC-228	129.07	75	2.42	7.835E+00	6.211E-01	6.211E-01	114.42
	209.25	121	3.89	6.157E+00	7.961E-01	7.961E-01	67.33
	270.25	134	3.46	5.163E+00	1.183E+00	1.183E+00	52.22
	338.32	222	11.27	4.357E+00	7.126E-01	7.125E-01	33.24
	409.46	------	1.92	3.750E+00	------ Line Not Found		------
	463.00	48	4.40	3.394E+00	5.099E-01	5.099E-01	111.12
	794.95	43	4.25	2.116E+00	7.497E-01	7.497E-01	124.81
	911.20	290	25.80*	1.868E+00	9.492E-01	9.492E-01	20.25
	964.77	78	4.99	1.773E+00	1.387E+00	1.387E+00	47.31
	968.97	188	15.80	1.764E+00	1.062E+00	1.062E+00	22.47
	1588.20	------	3.22	1.156E+00	------ Line Not Found		------
TH-234	63.29	118	4.80	4.842E+00	7.997E-01	7.997E-01	86.60
	92.58	275	5.41*	7.654E+00	1.049E+00	1.049E+00	42.06
U-235	143.76	61	10.96*	7.574E+00	1.165E-01	1.165E-01	131.13
NP-237	86.48	397	12.40*	7.393E+00	6.831E-01	6.831E-01	29.34
AM-243	74.66	505	68.20*	6.418E+00	1.819E-01	1.819E-01	26.55
AM-246	1078.86	11	27.80*	1.599E+00	3.941E-02	3.941E-02	198.95

Flag: "*" = Keyline

Sample ID : G198683033 Acquisition date : 16-DEC-2007 12:24:27

Total number of lines in spectrum 71
Number of unidentified lines 32
Number of lines tentatively identified by NID 39 54.93%

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	8.093E+00	8.093E+00	0.841E+00	10.39	
CS-137	9.47E+08S	1.00	1.570E-01	1.576E-01	0.446E-01	28.33	
TL-208	4.43E+17S	1.00	2.711E-01	2.711E-01	0.441E-01	16.27	
BI-212	4.43E+17S	1.00	6.139E-01	6.139E-01	2.864E-01	46.65	
PB-212	4.43E+17S	1.00	7.890E-01	7.890E-01	0.808E-01	10.24	
BI-214	5.05E+10S	1.00	8.005E-01	8.006E-01	1.127E-01	14.08	
PB-214	5.05E+10S	1.00	1.034E+00	1.034E+00	0.115E+00	11.08	
RA-223	1.04E+12S	1.00	2.987E-01	2.987E-01	1.560E-01	52.22	
AC-228	4.43E+17S	1.00	9.492E-01	9.492E-01	1.922E-01	20.25	
TH-234	1.41E+17S	1.00	1.049E+00	1.049E+00	0.441E+00	42.06	
U-235	2.22E+16S	1.00	1.165E-01	1.165E-01	1.528E-01	131.13	
NP-237	6.75E+13S	1.00	6.831E-01	6.831E-01	2.004E-01	29.34	
AM-243	2.33E+11S	1.00	1.819E-01	1.819E-01	0.483E-01	26.55	
AM-246	2.18E+11S	1.00	3.941E-02	3.941E-02	7.840E-02	198.95	
			---	---			
	Total Activity :		1.508E+01	1.508E+01			

Grand Total Activity : 1.508E+01 1.508E+01

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

Sample ID : G198683033 Acquisition date : 16-DEC-2007 12:24:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.32	38	293	1.29	92.62	90	6	2.65E-03	****	1.86E+00	
3	84.47	137	507	1.59	168.89	165	28	9.48E-03	61.5	7.22E+00	
3	89.93	200	465	1.30	179.81	165	28	1.39E-02	41.7	7.53E+00	
0	185.84	284	608	1.31	371.56	364	14	1.97E-02	40.5	6.65E+00	
0	213.69	42	264	1.12	427.25	425	7	2.88E-03	****	6.09E+00	
0	254.89	40	245	3.37	509.63	505	9	2.81E-03	****	5.38E+00	
0	259.16	96	246	1.63	518.17	514	10	6.66E-03	64.4	5.32E+00	
0	328.15	46	191	0.83	656.13	654	7	3.18E-03	****	4.46E+00	
0	399.24	6	219	3.82	798.29	795	12	3.98E-04	****	3.83E+00	
0	405.94	27	135	1.35	811.67	808	8	1.88E-03	****	3.78E+00	
0	569.12	134	193	2.77	1138.03	1131	17	9.29E-03	52.7	2.85E+00	
0	598.97	18	122	1.17	1197.74	1191	10	1.22E-03	****	2.73E+00	
0	693.78	10	102	0.93	1387.36	1377	12	6.74E-04	****	2.40E+00	
0	840.45	54	48	4.09	1680.76	1676	12	3.75E-03	58.1	2.01E+00	
5	857.58	16	18	1.34	1715.03	1713	18	1.12E-03	83.3	1.98E+00	
0	903.15	39	30	3.48	1806.20	1801	10	2.71E-03	61.6	1.88E+00	
3	977.41	37	38	2.56	1954.76	1920	42	2.60E-03	81.7	1.75E+00	
0	1039.59	24	33	4.01	2079.17	2073	11	1.67E-03	****	1.65E+00	
0	1144.03	26	59	4.95	2288.14	2275	18	1.83E-03	****	1.51E+00	
0	1184.09	27	77	7.85	2368.30	2358	19	1.89E-03	****	1.47E+00	
0	1193.81	12	36	3.33	2387.75	2380	10	8.61E-04	****	1.46E+00	
0	1210.64	20	39	2.22	2421.44	2416	9	1.38E-03	****	1.44E+00	
5	1278.58	12	17	1.51	2557.38	2555	13	8.08E-04	****	1.37E+00	
0	1410.20	32	41	0.72	2820.80	2815	16	2.21E-03	99.3	1.26E+00	
0	1556.65	16	27	4.71	3113.91	3102	17	1.11E-03	****	1.17E+00	
0	1591.25	44	38	2.08	3183.17	3172	20	3.03E-03	76.9	1.15E+00	
0	1696.74	14	14	5.54	3394.34	3386	15	9.59E-04	****	1.11E+00	
0	1701.40	6	0	0.96	3403.67	3400	8	4.17E-04	81.6	1.10E+00	
0	1848.80	25	12	2.54	3698.75	3691	15	1.70E-03	78.8	1.05E+00	
0	1919.25	18	6	1.98	3839.79	3833	14	1.26E-03	76.7	1.04E+00	
0	1973.51	21	8	2.36	3948.45	3942	12	1.45E-03	71.9	1.02E+00	
0	1995.19	11	3	3.44	3991.85	3986	11	7.86E-04	82.0	1.02E+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]G198683033            *
* Acquisition date : 16-DEC-2007 12:24:27 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 04:00:02.01     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683033           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1904E+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	8.093E+00	8.243E-01	1.612E-01	8.243E-01
CS-137	1.576E-01	4.375E-02	2.008E-02	4.375E-02
TL-208	2.711E-01	4.321E-02	1.844E-02	4.321E-02
BI-212	6.139E-01	2.807E-01	1.309E-01	2.807E-01
PB-212	7.890E-01	7.917E-02	2.915E-02	7.917E-02
BI-214	8.006E-01	1.104E-01	3.156E-02	1.104E-01
PB-214	1.034E+00	1.123E-01	3.285E-02	1.123E-01
RA-223	2.987E-01	1.529E-01	8.369E-02	1.529E-01
AC-228	9.492E-01	1.884E-01	6.168E-02	1.884E-01
TH-234	1.049E+00	4.323E-01	2.090E-01	4.323E-01
U-235	1.165E-01	1.497E-01	9.559E-02	1.497E-01
NP-237	6.831E-01	1.964E-01	9.468E-02	1.964E-01
AM-243	1.819E-01	4.734E-02	2.112E-02	4.734E-02
AM-246	3.941E-02	7.684E-02	6.488E-02	7.684E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.769E-02	2.449E-02	2.099E-02	2.449E-02	NOT IDENT.
RH-101	1.230E-02	2.138E-02	1.728E-02	2.138E-02	NOT IDENT.
SB-125	-5.234E-02	5.325E-02	4.258E-02	5.325E-02	NOT IDENT.
EU-155	5.358E-03	5.806E-02	4.938E-02	5.806E-02	NOT IDENT.
PO-209	-1.786E+00	4.723E+00	3.315E+00	4.723E+00	NOT IDENT.
BI-211	-4.213E-01	5.775E-01	4.670E-01	5.775E-01	NOT IDENT.
PA-233	1.262E-03	3.798E-02	3.273E-02	3.798E-02	NOT IDENT.
PA-234M	-3.792E-01	2.698E+00	2.226E+00	2.698E+00	NOT IDENT.
NP-236	3.511E-02	3.886E-02	2.889E-02	3.886E-02	NOT IDENT.
NP-239	-3.528E-02	1.290E-01	1.114E-01	1.290E-01	NOT IDENT.
AM-241	1.309E-02	7.331E-02	5.581E-02	7.331E-02	NOT IDENT.
CM-243	-1.556E-02	5.365E-02	4.506E-02	5.365E-02	NOT IDENT.
CF-249	-5.015E-03	2.364E-02	1.993E-02	2.364E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	491.3644
63.29	570.4912
74.66	590.7422
74.81	590.8289
74.81	590.8289
77.11	592.1549
77.11	592.1549
86.48	521.6435
87.30	522.0295
87.30	522.0295
92.58	524.4741
98.44	436.9879
103.76	488.8666
105.31	459.5569
129.07	443.9808
143.76	446.3237
198.00	369.9343
209.25	451.1573
228.18	362.9637
238.63	363.9398
242.00	364.5428
269.46	252.8007
270.25	267.0292
277.36	312.0135
295.22	230.3031
300.09	267.3911
312.17	245.7250
338.32	226.0401
351.93	197.0141
387.59	200.6558
409.46	156.0719
427.87	175.4507
463.00	125.1053
510.77	156.5144
583.19	138.8159
609.31	112.2756
661.66	133.1638
727.33	92.7820
763.13	100.6496
768.36	103.7879
785.37	80.6160
794.95	77.6238
806.17	97.8313
831.80	90.3770
860.56	74.0673
896.60	74.4981
911.20	65.3838
934.06	68.5459
964.77	60.3481
968.97	60.3994
1001.03	61.7435
1078.86	61.6747
1120.29	77.7822
1155.19	61.5333
1173.23	52.5658
1238.11	75.9258
1280.96	45.1826
1332.51	41.9076
1377.67	36.0282
1401.50	33.4745
1407.98	49.6406
1460.80	33.3568
1509.23	26.2451
1588.20	30.9394
1620.50	27.7266
1729.60	16.2323
1764.49	24.2263

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683033

Total Uranium Activity	5.3914E-02	ug/g
Total Uranium Counting Unc.	6.9286E-02	ug/g
Total Uranium Tpu	6.9286E-08	ug/g
Total Uranium Mda	4.4229E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:20:47.86

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683034.CNF;1
Sample date       : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:24:48
Sample ID         : G198683034           Sample quantity  : 1.20980E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:01.56  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 708126               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.08*	83	570	1.56	126.36	123	10	5.78E-03	57.9	
2	4	74.76*	381	542	1.44	149.72	144	22	2.65E-02	12.8	5.80E+00
3	4	77.16*	775	493	1.54	154.52	144	22	5.38E-02	6.8	
4	0	84.02*	92	326	1.91	168.26	166	6	6.38E-03	35.8	
5	0	87.34	230	447	1.23	174.88	171	7	1.60E-02	16.6	
6	4	89.90	109	177	0.84	180.00	178	12	7.59E-03	18.0	1.18E+00
7	4	92.69*	210	467	1.29	185.59	178	12	1.46E-02	21.7	
8	0	97.66	31	388	0.71	195.52	195	8	2.13E-03	112.6	
9	0	144.48*	46	384	1.89	289.16	285	9	3.18E-03	82.3	
10	0	163.71*	37	380	0.57	327.63	323	10	2.59E-03	104.1	
11	0	185.87*	194	517	1.29	371.94	365	13	1.35E-02	26.9	
12	0	209.68*	89	329	0.81	419.56	414	10	6.18E-03	41.3	
13	3	238.69*	1008	191	1.33	477.60	469	23	7.00E-02	4.3	2.99E+00
14	3	241.87	397	246	1.71	483.95	469	23	2.76E-02	9.6	
15	0	270.47	136	290	1.89	541.16	535	13	9.46E-03	27.1	
16	3	295.27	554	177	1.36	590.76	585	21	3.85E-02	5.9	1.39E+00
17	3	300.33	67	228	1.74	600.88	585	21	4.67E-03	43.0	
18	0	328.09	39	173	0.69	656.41	653	8	2.70E-03	60.9	
19	0	338.36	183	201	1.22	676.94	673	10	1.27E-02	16.3	
20	0	352.03*	929	203	1.25	704.29	699	12	6.45E-02	4.7	
21	0	426.46	67	97	2.63	853.17	848	10	4.65E-03	30.2	
22	0	463.45	43	153	0.87	927.16	921	12	2.97E-03	59.7	
23	0	511.05*	68	149	2.34	1022.38	1015	15	4.76E-03	54.9	
24	0	583.34*	315	123	1.63	1167.00	1159	17	2.19E-02	10.5	
25	0	597.86	27	105	0.94	1196.04	1191	11	1.86E-03	76.5	
26	0	609.31*	594	139	1.43	1218.94	1213	14	4.13E-02	6.1	
27	0	623.61	25	82	4.26	1247.55	1241	11	1.75E-03	72.4	
28	0	661.76	241	132	1.42	1323.88	1316	14	1.67E-02	12.0	
29	0	708.39	17	69	1.25	1417.17	1413	8	1.16E-03	89.7	
30	0	727.30*	47	91	1.29	1454.99	1448	13	3.24E-03	48.6	
31	0	769.41	113	114	5.22	1539.26	1531	20	7.82E-03	25.1	
32	0	795.65	36	78	1.62	1591.74	1585	14	2.51E-03	55.1	
33	0	839.24	24	67	1.22	1678.97	1674	9	1.69E-03	64.6	
34	0	860.69	62	95	2.20	1721.87	1712	16	4.28E-03	37.8	
35	1	911.24*	206	42	2.10	1823.03	1816	31	1.43E-02	10.1	1.08E+00
36	1	918.04	26	45	2.10	1836.62	1816	31	1.82E-03	57.1	
37	6	964.87	72	36	3.13	1930.33	1924	23	5.03E-03	21.0	1.91E+00
38	6	969.11*	135	33	2.34	1938.81	1924	23	9.37E-03	14.1	

Sample ID : G198683034 Acquisition date : 16-DEC-2007 12:24:48

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	979.22	27	38	3.79	1959.04	1952	13	1.84E-03	52.2	
40	0	991.97	15	56	4.55	1984.55	1976	13	1.02E-03	110.5	
41	0	1002.61	12	71	5.04	2005.85	1993	14	8.44E-04	149.0	
42	0	1065.21	47	63	10.26	2131.11	2117	28	3.25E-03	50.2	
43	0	1106.08	11	15	1.27	2212.89	2210	6	7.96E-04	60.8	
44	0	1120.72	129	75	2.05	2242.18	2233	16	8.95E-03	17.5	
45	0	1181.98	29	76	3.84	2364.77	2353	19	2.05E-03	73.2	
46	0	1238.28*	53	60	2.00	2477.46	2469	15	3.68E-03	37.0	
47	0	1347.49	33	30	4.23	2696.01	2688	19	2.30E-03	42.5	
48	0	1378.54	32	38	2.04	2758.16	2747	17	2.23E-03	47.5	
49	0	1407.96	25	16	2.68	2817.03	2813	10	1.76E-03	35.0	
50	0	1460.67*	514	52	1.96	2922.53	2915	18	3.57E-02	5.7	
51	0	1510.11	26	31	3.89	3021.49	3011	15	1.77E-03	53.0	
52	0	1552.47	12	15	0.80	3106.28	3097	12	8.65E-04	68.1	
53	0	1620.90	19	26	0.71	3243.25	3233	15	1.32E-03	62.8	
54	0	1631.66	7	10	1.22	3264.79	3260	9	4.92E-04	86.1	
55	0	1708.50	6	11	0.53	3418.60	3409	11	4.27E-04	111.8	
56	0	1729.32	36	9	1.41	3460.29	3454	12	2.50E-03	23.6	
57	0	1764.39*	101	14	2.29	3530.48	3523	13	7.03E-03	13.4	
58	0	1847.80	19	12	2.65	3697.46	3691	12	1.32E-03	42.9	
59	1	1956.96	17	5	2.33	3916.00	3911	17	1.19E-03	29.5	2.38E+00
60	1	1959.96	17	6	2.33	3922.00	3911	17	1.19E-03	35.1	

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]G198683034       *
* Acquisition date : 16-DEC-2007 12:24:48 Detector SN#    :                 *
* Detector ID      : GAM16                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 04:00:01.56     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683034           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.2098E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 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	5.707E+00	7.252E-01	2.975E-01	0.000E+00
SB-125	9.670E-02	5.737E-02	8.005E-02	0.000E+00
CS-137	1.685E-01	4.207E-02	3.395E-02	0.000E+00
TL-208	1.986E-01	4.328E-02	3.097E-02	0.000E+00
BI-212	2.543E-01	2.433E-01	2.257E-01	0.000E+00
PB-212	6.252E-01	6.283E-02	4.714E-02	0.000E+00
BI-214	7.126E-01	1.005E-01	5.831E-02	0.000E+00
PB-214	8.798E-01	9.235E-02	5.933E-02	0.000E+00
RA-223	2.912E-01	1.557E-01	1.508E-01	0.000E+00
AC-228	6.278E-01	1.346E-01	1.058E-01	0.000E+00
PA-234M	1.240E+00	3.623E+00	4.253E+00	0.000E+00
TH-234	8.067E-01	3.480E-01	3.926E-01	0.000E+00
U-235	8.539E-02	1.379E-01	1.808E-01	0.000E+00
NP-236	1.636E-02	3.611E-02	5.164E-02	0.000E+00
NP-237	4.015E-01	1.340E-01	1.826E-01	0.000E+00
AM-243	1.417E-01	3.670E-02	3.776E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	5.086E-03	2.476E-02	3.650E-02	0.000E+00	NOT IDENT.
RH-101	-5.600E-03	1.861E-02	2.959E-02	0.000E+00	NOT IDENT.
EU-155	5.355E-02	5.158E-02	9.256E-02	0.000E+00	NOT IDENT.
PO-209	4.677E+00	3.813E+00	7.077E+00	0.000E+00	NOT IDENT.
BI-211	3.990E-01	5.462E-01	9.268E-01	0.000E+00	NOT IDENT.
PA-233	-7.285E-03	3.130E-02	5.392E-02	0.000E+00	NOT IDENT.
NP-239	1.861E-02	1.158E-01	1.953E-01	0.000E+00	NOT IDENT.
AM-241	6.022E-02	6.531E-02	1.063E-01	0.000E+00	NOT IDENT.
CM-243	-1.044E-02	5.282E-02	7.980E-02	0.000E+00	NOT IDENT.
AM-246	-1.029E-02	6.633E-02	1.100E-01	0.000E+00	NOT IDENT.
CF-249	4.305E-03	2.009E-02	3.497E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:20:48.89

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683034.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:24:48
Sample ID        : G198683034           Sample quantity  : 1.20980E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.56  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	514	10.66*	1.310E+00	5.707E+00	5.707E+00	12.97
SB-125	427.87	67	29.80*	3.758E+00	9.278E-02	9.670E-02	60.54
CS-137	661.66	241	85.10*	2.617E+00	1.678E-01	1.685E-01	25.48
TL-208	277.36	------	6.31	5.201E+00	------	Line Not Found	------
	510.77	68	22.60	3.250E+00	1.447E-01	1.447E-01	109.93
	583.19	315	84.50*	2.913E+00	1.986E-01	1.986E-01	22.24
	763.13	------	1.81	2.311E+00	------	Line Not Found	------
	860.56	62	12.42	2.076E+00	3.703E-01	3.703E-01	76.04
BI-212	727.33	47	11.80*	2.411E+00	2.543E-01	2.543E-01	97.63
	785.37	------	1.10	2.253E+00	------	Line Not Found	------
	1620.50	19	1.49	1.212E+00	1.638E+00	1.638E+00	125.77
PB-212	74.81	381	10.40	6.118E+00	9.295E-01	9.295E-01	26.42
	77.11	775	17.50	6.367E+00	1.079E+00	1.079E+00	15.19
	87.30	230	7.81	7.171E+00	6.374E-01	6.374E-01	34.07
	238.63	1008	43.30*	5.778E+00	6.252E-01	6.252E-01	10.26
	300.09	67	3.28	4.909E+00	6.474E-01	6.474E-01	86.15
BI-214	609.31	594	46.10*	2.808E+00	7.125E-01	7.126E-01	14.39
	768.36	113	4.94	2.294E+00	1.542E+00	1.542E+00	51.00
	806.17	------	1.22	2.201E+00	------	Line Not Found	------
	934.06	------	3.03	1.929E+00	------	Line Not Found	------
	1120.29	129	15.10	1.639E+00	8.085E-01	8.086E-01	35.48
	1155.19	------	1.63	1.595E+00	------	Line Not Found	------
	1238.11	53	5.79	1.501E+00	9.464E-01	9.465E-01	74.21
	1280.96	------	1.43	1.458E+00	------	Line Not Found	------
	1377.67	32	4.00	1.372E+00	9.081E-01	9.081E-01	95.17
	1401.50	------	1.27	1.353E+00	------	Line Not Found	------
	1407.98	25	2.15	1.348E+00	1.354E+00	1.354E+00	70.32
	1509.23	26	2.11	1.276E+00	1.472E+00	1.472E+00	106.22
	1729.60	36	2.92	1.161E+00	1.649E+00	1.649E+00	47.47
	1764.49	101	15.40	1.146E+00	8.892E-01	8.892E-01	27.47
PB-214	74.81	381	6.44	6.118E+00	1.501E+00	1.501E+00	26.42
	77.11	775	10.80	6.367E+00	1.749E+00	1.749E+00	15.19

Sample ID : G198683034 Acquisition date : 16-DEC-2007 12:24:48

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	230	4.84	7.171E+00	1.029E+00	1.029E+00	34.07
	242.00	397	7.43	5.726E+00	1.448E+00	1.448E+00	19.91
	295.22	554	19.30	4.970E+00	8.961E-01	8.961E-01	13.02
	351.93	929	37.60*	4.359E+00	8.797E-01	8.798E-01	10.71
RA-223	269.46	136	13.70*	5.296E+00	2.912E-01	2.912E-01	54.57
AC-228	129.07	------	2.42	7.821E+00	------	Line Not Found	------
	209.25	89	3.89	6.290E+00	5.641E-01	5.641E-01	82.84
	270.25	136	3.46	5.296E+00	1.153E+00	1.153E+00	54.57
	338.32	183	11.27	4.492E+00	5.599E-01	5.599E-01	33.09
	409.46	------	1.92	3.879E+00	------	Line Not Found	------
	463.00	43	4.40	3.517E+00	4.295E-01	4.295E-01	119.62
	794.95	36	4.25	2.227E+00	5.918E-01	5.918E-01	110.52
	911.20	206	25.80*	1.973E+00	6.278E-01	6.278E-01	21.88
	964.77	72	4.99	1.874E+00	1.202E+00	1.202E+00	42.83
	968.97	135	15.80	1.866E+00	7.096E-01	7.096E-01	29.27
	1588.20	------	3.22	1.230E+00	------	Line Not Found	------
PA-234M	1001.03	12	0.84*	1.810E+00	1.240E+00	1.240E+00	298.05
TH-234	63.29	83	4.80	4.561E+00	5.901E-01	5.901E-01	115.97
	92.58	210	5.41*	7.452E+00	8.067E-01	8.067E-01	44.02
U-235	143.76	46	10.96*	7.593E+00	8.539E-02	8.539E-02	164.73
NP-236	98.44	31	38.00*	7.639E+00	1.636E-02	1.636E-02	225.25
NP-237	86.48	230	12.40*	7.171E+00	4.015E-01	4.015E-01	34.07
AM-243	74.66	381	68.20*	6.118E+00	1.417E-01	1.417E-01	26.42

Flag: "*" = Keyline

Sample ID : G198683034 Acquisition date : 16-DEC-2007 12:24:48

Total number of lines in spectrum	60	
Number of unidentified lines	22	
Number of lines tentatively identified by NID	38	63.33%

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	5.707E+00	5.707E+00	0.740E+00	12.97	
SB-125	8.62E+07S	1.04	9.278E-02	9.670E-02	5.855E-02	60.54	
CS-137	9.47E+08S	1.00	1.678E-01	1.685E-01	0.429E-01	25.48	
TL-208	4.43E+17S	1.00	1.986E-01	1.986E-01	0.442E-01	22.24	
BI-212	4.43E+17S	1.00	2.543E-01	2.543E-01	2.483E-01	97.63	
PB-212	4.43E+17S	1.00	6.252E-01	6.252E-01	0.641E-01	10.26	
BI-214	5.05E+10S	1.00	7.125E-01	7.126E-01	1.026E-01	14.39	
PB-214	5.05E+10S	1.00	8.797E-01	8.798E-01	0.942E-01	10.71	
RA-223	1.04E+12S	1.00	2.912E-01	2.912E-01	1.589E-01	54.57	
AC-228	4.43E+17S	1.00	6.278E-01	6.278E-01	1.373E-01	21.88	
PA-234M	1.41E+17S	1.00	1.240E+00	1.240E+00	3.697E+00	298.05	
TH-234	1.41E+17S	1.00	8.067E-01	8.067E-01	3.551E-01	44.02	
U-235	2.22E+16S	1.00	8.539E-02	8.539E-02	14.07E-02	164.73	
NP-236	4.89E+12S	1.00	1.636E-02	1.636E-02	3.684E-02	225.25	
NP-237	6.75E+13S	1.00	4.015E-01	4.015E-01	1.368E-01	34.07	
AM-243	2.33E+11S	1.00	1.417E-01	1.417E-01	0.374E-01	26.42	
			---	---			
	Total Activity :		1.225E+01	1.225E+01			

Grand Total Activity : 1.225E+01 1.225E+01

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

Sample ID : G198683034 Acquisition date : 16-DEC-2007 12:24:48

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.02	92	326	1.91	168.26	166	6	6.38E-03	71.6	6.95E+00	
4	89.90	109	177	0.84	180.00	178	12	7.59E-03	35.9	7.32E+00	
0	163.71	37	380	0.57	327.63	323	10	2.59E-03	****	7.22E+00	
0	185.87	194	517	1.29	371.94	365	13	1.35E-02	53.7	6.76E+00	
0	328.09	39	173	0.69	656.41	653	8	2.70E-03	****	4.60E+00	
0	597.86	27	105	0.94	1196.04	1191	11	1.86E-03	****	2.85E+00	
0	623.61	25	82	4.26	1247.55	1241	11	1.75E-03	****	2.75E+00	
0	708.39	17	69	1.25	1417.17	1413	8	1.16E-03	****	2.47E+00	
0	839.24	24	67	1.22	1678.97	1674	9	1.69E-03	****	2.12E+00	
1	918.04	26	45	2.10	1836.62	1816	31	1.82E-03	****	1.96E+00	
0	979.22	27	38	3.79	1959.04	1952	13	1.84E-03	****	1.85E+00	
0	991.97	15	56	4.55	1984.55	1976	13	1.02E-03	****	1.83E+00	
0	1065.21	47	63	10.26	2131.11	2117	28	3.25E-03	****	1.71E+00	
0	1106.08	11	15	1.27	2212.89	2210	6	7.96E-04	****	1.66E+00	
0	1181.98	29	76	3.84	2364.77	2353	19	2.05E-03	****	1.56E+00	
0	1347.49	33	30	4.23	2696.01	2688	19	2.30E-03	85.1	1.40E+00	
0	1552.47	12	15	0.80	3106.28	3097	12	8.65E-04	****	1.25E+00	
0	1631.66	7	10	1.22	3264.79	3260	9	4.92E-04	****	1.21E+00	
0	1708.50	6	11	0.53	3418.60	3409	11	4.27E-04	****	1.17E+00	
0	1847.80	19	12	2.65	3697.46	3691	12	1.32E-03	85.9	1.12E+00	
1	1956.96	17	5	2.33	3916.00	3911	17	1.19E-03	59.1	1.08E+00	
1	1959.96	17	6	2.33	3922.00	3911	17	1.19E-03	70.2	1.08E+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]G198683034            *
* Acquisition date : 16-DEC-2007 12:24:48 Detector SN#    :                 *
* Detector ID      : GAM16                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 04:00:01.56     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683034           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.2098E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 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	5.707E+00	7.252E-01	1.488E-01	7.252E-01
SB-125	9.670E-02	5.737E-02	4.005E-02	5.737E-02
CS-137	1.685E-01	4.207E-02	1.698E-02	4.207E-02
TL-208	1.986E-01	4.328E-02	1.550E-02	4.328E-02
BI-212	2.543E-01	2.433E-01	1.129E-01	2.433E-01
PB-212	6.252E-01	6.283E-02	2.358E-02	6.283E-02
BI-214	7.126E-01	1.005E-01	2.917E-02	1.005E-01
PB-214	8.798E-01	9.235E-02	2.968E-02	9.235E-02
RA-223	2.912E-01	1.557E-01	7.544E-02	1.557E-01
AC-228	6.278E-01	1.346E-01	5.291E-02	1.346E-01
PA-234M	1.240E+00	3.623E+00	2.128E+00	3.623E+00
TH-234	8.067E-01	3.480E-01	1.964E-01	3.480E-01
U-235	8.539E-02	1.379E-01	9.047E-02	1.379E-01
NP-236	1.636E-02	3.611E-02	2.584E-02	3.611E-02
NP-237	4.015E-01	1.340E-01	9.135E-02	1.340E-01
AM-243	1.417E-01	3.670E-02	1.889E-02	3.670E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	5.086E-03	2.476E-02	1.826E-02	2.476E-02	NOT IDENT.
RH-101	-5.600E-03	1.861E-02	1.480E-02	1.861E-02	NOT IDENT.
EU-155	5.355E-02	5.158E-02	4.631E-02	5.158E-02	NOT IDENT.
PO-209	4.677E+00	3.813E+00	3.541E+00	3.813E+00	NOT IDENT.
BI-211	3.990E-01	5.462E-01	4.637E-01	5.462E-01	NOT IDENT.
PA-233	-7.285E-03	3.130E-02	2.698E-02	3.130E-02	NOT IDENT.
NP-239	1.861E-02	1.158E-01	9.773E-02	1.158E-01	NOT IDENT.
AM-241	6.022E-02	6.531E-02	5.317E-02	6.531E-02	NOT IDENT.
CM-243	-1.044E-02	5.282E-02	3.992E-02	5.282E-02	NOT IDENT.
AM-246	-1.029E-02	6.633E-02	5.504E-02	6.633E-02	NOT IDENT.
CF-249	4.305E-03	2.009E-02	1.749E-02	2.009E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	357.5940
63.29	438.4515
74.66	444.2156
74.81	444.3071
74.81	444.3071
77.11	445.7032
77.11	445.7032
86.48	468.0700
87.30	714.3500
87.30	714.3500
92.58	451.5075
98.44	408.7255
103.76	379.1117
105.31	351.1321
129.07	401.2101
143.76	414.4026
198.00	332.7521
209.25	341.9728
228.18	281.1659
238.63	256.8105
242.00	257.3836
269.46	222.7302
270.25	222.8396
277.36	199.4323
295.22	213.6630
300.09	214.2596
312.17	191.8529
338.32	191.7872
351.93	176.2684
387.59	155.5504
409.46	156.1920
427.87	137.7359
463.00	123.4039
510.77	129.8669
583.19	109.6670
609.31	107.5565
661.66	107.3544
727.33	78.1453
763.13	74.9731
768.36	81.3151
785.37	76.3839
794.95	59.0625
806.17	60.1784
831.80	63.4124
860.56	63.9174
896.60	55.9955
911.20	55.2577
934.06	54.6262
964.77	51.6286
968.97	51.6819
1001.03	80.1881
1078.86	54.5927
1120.29	58.1156
1155.19	59.5738
1173.23	55.6094
1238.11	54.4686
1280.96	46.6553
1332.51	36.6620
1377.67	32.7571
1401.50	27.0668
1407.98	39.3215
1460.80	33.2692
1509.23	20.4155
1588.20	40.4580
1620.50	23.1790
1729.60	18.3009
1764.49	15.2551

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683034

Total Uranium Activity	3.9512E-02	ug/g
Total Uranium Counting Unc.	6.3787E-02	ug/g
Total Uranium Tpu	6.3787E-08	ug/g
Total Uranium Mda	4.1862E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:21:23.60

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683035.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:31:45
Sample ID        : G198683035           Sample quantity  : 1.20450E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.53  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.53*	34	301	0.99	93.55	90	8	2.37E-03	108.6	
2	0	53.15*	8	230	0.66	106.78	104	7	5.50E-04	354.4	
3	0	63.40*	34	419	0.84	127.27	123	9	2.39E-03	129.6	
4	1	74.87*	194	251	0.98	150.18	145	14	1.35E-02	16.3	9.21E+00
5	1	77.19*	274	261	0.98	154.82	145	14	1.90E-02	11.8	
6	0	80.01	54	237	1.94	160.45	159	6	3.76E-03	47.3	
7	2	84.42*	24	245	1.10	169.25	165	29	1.67E-03	122.4	2.97E+00
8	2	87.42*	106	230	1.11	175.25	165	29	7.33E-03	26.6	
9	2	90.21*	69	216	1.11	180.83	165	29	4.78E-03	42.3	
10	2	92.64*	86	197	1.12	185.69	165	29	5.95E-03	43.3	
11	2	94.78	51	176	1.12	189.97	165	29	3.57E-03	52.5	
12	0	98.64*	51	209	1.51	197.69	194	8	3.51E-03	56.1	
13	0	105.21*	36	299	1.06	210.80	206	10	2.52E-03	96.1	
14	0	112.99*	9	155	1.28	226.36	224	5	6.17E-04	245.8	
15	0	129.10	32	207	0.95	258.55	256	7	2.19E-03	78.1	
16	0	143.69*	26	229	1.00	287.70	284	8	1.80E-03	114.5	
17	0	185.86*	80	221	1.07	371.97	368	9	5.58E-03	42.5	
18	0	192.43	62	145	2.07	385.09	382	8	4.31E-03	35.7	
19	0	209.11	78	149	1.35	418.42	415	8	5.38E-03	29.7	
20	0	216.26	32	122	1.41	432.70	430	7	2.23E-03	59.8	
21	6	238.66*	292	117	0.93	477.46	470	20	2.03E-02	9.8	1.20E+00
22	6	241.69	133	161	1.48	483.53	470	20	9.22E-03	20.1	
23	0	295.16*	112	104	1.31	590.38	587	8	7.75E-03	21.2	
24	0	328.67	31	121	1.39	657.35	653	9	2.17E-03	66.8	
25	0	337.91*	61	123	1.53	675.82	673	9	4.27E-03	36.8	
26	0	346.57	19	55	1.44	693.12	691	5	1.28E-03	64.4	
27	0	351.99*	157	154	1.13	703.94	697	14	1.09E-02	19.8	
28	0	511.18*	46	122	2.07	1022.09	1014	17	3.21E-03	75.2	
29	0	583.33*	115	92	1.41	1166.29	1159	15	7.97E-03	22.2	
30	0	609.32*	183	70	1.51	1218.24	1213	12	1.27E-02	12.7	
31	0	661.78*	242	81	1.13	1323.09	1318	12	1.68E-02	10.3	
32	2	721.09	19	15	1.82	1441.63	1439	24	1.31E-03	34.0	2.94E+00
33	2	723.62	37	31	1.83	1446.69	1439	24	2.60E-03	34.8	
34	2	727.54*	22	29	1.83	1454.52	1439	24	1.54E-03	68.9	
35	0	749.45	31	18	1.48	1498.32	1494	8	2.15E-03	29.7	
36	0	803.43*	26	22	2.01	1606.22	1602	8	1.80E-03	45.2	
37	0	874.69	15	40	3.83	1748.65	1740	12	1.07E-03	80.5	
38	0	911.37*	38	39	1.22	1821.98	1817	11	2.65E-03	42.6	

Sample ID : G198683035 Acquisition date : 16-DEC-2007 12:31:45

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	957.80	17	20	1.26	1914.78	1909	9	1.18E-03	53.5	
40	0	1106.12*	15	11	0.99	2211.28	2206	9	1.04E-03	56.9	
41	0	1120.65*	21	30	1.89	2240.32	2235	11	1.49E-03	59.6	
42	0	1192.66	15	26	1.47	2384.28	2377	12	1.04E-03	73.9	
43	0	1240.09	31	35	0.97	2479.12	2472	16	2.12E-03	47.4	
44	0	1252.60	13	19	0.91	2504.12	2497	12	8.71E-04	77.7	
45	0	1460.66*	141	15	1.61	2920.11	2913	15	9.78E-03	11.1	
46	0	1533.24*	5	5	0.58	3065.23	3062	6	3.42E-04	120.8	
47	0	1536.48	7	7	1.33	3071.71	3068	7	4.86E-04	73.2	
48	0	1590.93	20	20	4.65	3180.58	3173	15	1.35E-03	53.6	
49	0	1655.10	10	12	3.27	3308.90	3303	12	6.94E-04	76.2	
50	0	1694.74	12	2	1.12	3388.17	3384	8	8.38E-04	35.1	
51	0	1718.64	7	8	3.39	3435.97	3428	11	4.72E-04	90.3	
52	0	1730.08	14	10	0.76	3458.84	3452	13	9.84E-04	52.7	
53	0	1764.87*	26	7	1.54	3528.41	3521	13	1.80E-03	30.3	
54	0	1920.85	9	0	1.85	3840.33	3836	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]G198683035       *
* Acquisition date : 16-DEC-2007 12:31:45 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 04:00:04.53     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683035           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.2045E+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	2.306E+00	5.181E-01	3.465E-01	0.000E+00
CS-137	2.486E-01	5.349E-02	3.459E-02	0.000E+00
EU-155	4.022E-02	7.581E-02	7.241E-02	0.000E+00
TL-208	1.051E-01	4.629E-02	3.219E-02	0.000E+00
BI-212	1.790E-01	2.420E-01	2.685E-01	0.000E+00
PB-212	2.375E-01	4.911E-02	4.376E-02	0.000E+00
BI-214	3.202E-01	8.297E-02	6.689E-02	0.000E+00
PB-214	2.022E-01	7.966E-02	5.592E-02	0.000E+00
TH-234	3.534E-01	3.011E-01	2.528E-01	0.000E+00
U-235	6.075E-02	1.365E-01	1.555E-01	0.000E+00
NP-236	3.008E-02	3.316E-02	3.498E-02	0.000E+00
NP-237	1.887E-01	9.928E-02	1.088E-01	0.000E+00
AM-243	6.251E-02	2.033E-02	2.561E-02	0.000E+00
CM-243	3.638E-02	6.857E-02	6.189E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.425E-02	2.208E-02	3.964E-02	0.000E+00	NOT IDENT.
RH-101	7.040E-05	1.843E-02	2.722E-02	0.000E+00	NOT IDENT.
SB-125	-3.350E-02	5.345E-02	8.722E-02	0.000E+00	NOT IDENT.
PO-209	-1.389E+00	5.004E+00	8.279E+00	0.000E+00	NOT IDENT.
BI-211	1.962E-01	6.608E-01	1.159E+00	0.000E+00	NOT IDENT.
RA-223	8.674E-03	9.116E-02	1.511E-01	0.000E+00	NOT IDENT.
AC-228	1.729E-01	1.448E-01	2.107E-01	0.000E+00	FAIL ABUN
PA-233	-2.758E-02	3.172E-02	5.239E-02	0.000E+00	NOT IDENT.
PA-234M	1.253E+00	2.880E+00	5.049E+00	0.000E+00	NOT IDENT.
NP-239	3.629E-03	1.092E-01	1.823E-01	0.000E+00	NOT IDENT.
AM-241	-1.157E-02	2.831E-02	4.498E-02	0.000E+00	NOT IDENT.
AM-246	-1.018E-02	7.914E-02	1.300E-01	0.000E+00	NOT IDENT.
CF-249	-5.580E-04	2.194E-02	3.775E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:21:24.59

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683035.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:31:45
Sample ID        : G198683035           Sample quantity  : 1.20450E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.53  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	141	10.66*	8.925E-01	2.306E+00	2.306E+00	22.92
CS-137	661.66	242	85.10*	1.790E+00	2.476E-01	2.486E-01	21.96
EU-155	105.31	36	21.20*	6.797E+00	3.931E-02	4.022E-02	192.33
TL-208	277.36	------	6.31	3.932E+00	------	Line Not Found	------
	510.77	46	22.60	2.280E+00	1.396E-01	1.396E-01	150.52
	583.19	115	84.50*	2.014E+00	1.051E-01	1.051E-01	44.93
	763.13	------	1.81	1.568E+00	------	Line Not Found	------
	860.56	------	12.42	1.404E+00	------	Line Not Found	------
BI-212	727.33	22	11.80*	1.638E+00	1.790E-01	1.790E-01	137.95
	785.37	------	1.10	1.527E+00	------	Line Not Found	------
	1620.50	------	1.49	8.223E-01	------	Line Not Found	------
PB-212	74.81	194	10.40	7.088E+00	4.099E-01	4.099E-01	33.19
	77.11	274	17.50	7.087E+00	3.446E-01	3.446E-01	24.42
	87.30	106	7.81	7.031E+00	2.996E-01	2.996E-01	53.68
	238.63	292	43.30*	4.424E+00	2.375E-01	2.375E-01	21.10
	300.09	------	3.28	3.684E+00	------	Line Not Found	------
BI-214	609.31	183	46.10*	1.934E+00	3.202E-01	3.202E-01	26.44
	768.36	------	4.94	1.558E+00	------	Line Not Found	------
	806.17	------	1.22	1.490E+00	------	Line Not Found	------
	934.06	------	3.03	1.304E+00	------	Line Not Found	------
	1120.29	21	15.10	1.112E+00	1.989E-01	1.989E-01	119.26
	1155.19	------	1.63	1.083E+00	------	Line Not Found	------
	1238.11	31	5.79	1.021E+00	8.055E-01	8.056E-01	95.05
	1280.96	------	1.43	9.933E-01	------	Line Not Found	------
	1377.67	------	4.00	9.356E-01	------	Line Not Found	------
	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	14	2.92	7.818E-01	9.670E-01	9.671E-01	105.50
	1764.49	26	15.40	7.700E-01	3.413E-01	3.413E-01	60.88
PB-214	74.81	194	6.44	7.088E+00	6.619E-01	6.620E-01	33.19
	77.11	274	10.80	7.087E+00	5.584E-01	5.584E-01	24.42

Sample ID : G198683035 Acquisition date : 16-DEC-2007 12:31:45

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	106	4.84	7.031E+00	4.835E-01	4.836E-01	53.68
	242.00	133	7.43	4.382E+00	6.357E-01	6.357E-01	40.98
	295.22	112	19.30	3.736E+00	2.413E-01	2.413E-01	43.15
	351.93	157	37.60*	3.210E+00	2.022E-01	2.022E-01	40.19
TH-234	63.29	34	4.80	7.002E+00	1.593E-01	1.593E-01	259.25
	92.58	86	5.41*	6.977E+00	3.534E-01	3.534E-01	86.94
U-235	143.76	26	10.96*	6.066E+00	6.075E-02	6.075E-02	229.25
NP-236	98.44	51	38.00*	6.898E+00	3.008E-02	3.008E-02	112.50
NP-237	86.48	106	12.40*	7.031E+00	1.887E-01	1.887E-01	53.68
AM-243	74.66	194	68.20*	7.088E+00	6.251E-02	6.251E-02	33.19
CM-243	103.76	36	23.00*	6.797E+00	3.624E-02	3.638E-02	192.33

Flag: "*" = Keyline

Sample ID : G198683035 Acquisition date : 16-DEC-2007 12:31:45

Total number of lines in spectrum 54
Number of unidentified lines 28
Number of lines tentatively identified by NID 26 48.15%

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	2.306E+00	2.306E+00	0.529E+00	22.92	
CS-137	9.47E+08S	1.00	2.476E-01	2.486E-01	0.546E-01	21.96	
EU-155	1.57E+08S	1.02	3.931E-02	4.022E-02	7.735E-02	192.33	
TL-208	4.43E+17S	1.00	1.051E-01	1.051E-01	0.472E-01	44.93	
BI-212	4.43E+17S	1.00	1.790E-01	1.790E-01	2.469E-01	137.95	
PB-212	4.43E+17S	1.00	2.375E-01	2.375E-01	0.501E-01	21.10	
BI-214	5.05E+10S	1.00	3.202E-01	3.202E-01	0.847E-01	26.44	
PB-214	5.05E+10S	1.00	2.022E-01	2.022E-01	0.813E-01	40.19	
TH-234	1.41E+17S	1.00	3.534E-01	3.534E-01	3.073E-01	86.94	
U-235	2.22E+16S	1.00	6.075E-02	6.075E-02	13.93E-02	229.25	
NP-236	4.89E+12S	1.00	3.008E-02	3.008E-02	3.384E-02	112.50	
NP-237	6.75E+13S	1.00	1.887E-01	1.887E-01	1.013E-01	53.68	
AM-243	2.33E+11S	1.00	6.251E-02	6.251E-02	2.075E-02	33.19	
CM-243	8.99E+08S	1.00	3.624E-02	3.638E-02	6.997E-02	192.33	
			---	---			
	Total Activity :		4.369E+00	4.371E+00			

Grand Total Activity : 4.369E+00 4.371E+00

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

Sample ID : G198683035 Acquisition date : 16-DEC-2007 12:31:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.53	34	301	0.99	93.55	90	8	2.37E-03	****	6.48E+00	
0	53.15	8	230	0.66	106.78	104	7	5.50E-04	****	6.75E+00	
0	80.01	54	237	1.94	160.45	159	6	3.76E-03	94.5	7.08E+00	
2	84.42	24	245	1.10	169.25	165	29	1.67E-03	****	7.06E+00	
2	90.21	69	216	1.11	180.83	165	29	4.78E-03	84.6	7.00E+00	
2	94.78	51	176	1.12	189.97	165	29	3.57E-03	****	6.95E+00	
0	112.99	9	155	1.28	226.36	224	5	6.17E-04	****	6.66E+00	
0	129.10	32	207	0.95	258.55	256	7	2.19E-03	****	6.36E+00	T
0	185.86	80	221	1.07	371.97	368	9	5.58E-03	85.0	5.26E+00	
0	192.43	62	145	2.07	385.09	382	8	4.31E-03	71.4	5.15E+00	
0	209.11	78	149	1.35	418.42	415	8	5.38E-03	59.5	4.87E+00	T
0	216.26	32	122	1.41	432.70	430	7	2.23E-03	****	4.75E+00	
0	328.67	31	121	1.39	657.35	653	9	2.17E-03	****	3.41E+00	
0	337.91	61	123	1.53	675.82	673	9	4.27E-03	73.7	3.33E+00	T
0	346.57	19	55	1.44	693.12	691	5	1.28E-03	****	3.25E+00	
2	721.09	19	15	1.82	1441.63	1439	24	1.31E-03	67.9	1.65E+00	
2	723.62	37	31	1.83	1446.69	1439	24	2.60E-03	69.6	1.65E+00	
0	749.45	31	18	1.48	1498.32	1494	8	2.15E-03	59.4	1.59E+00	
0	803.43	26	22	2.01	1606.22	1602	8	1.80E-03	90.5	1.50E+00	
0	874.69	15	40	3.83	1748.65	1740	12	1.07E-03	****	1.38E+00	
0	911.37	38	39	1.22	1821.98	1817	11	2.65E-03	85.2	1.33E+00	T
0	957.80	17	20	1.26	1914.78	1909	9	1.18E-03	****	1.28E+00	
0	1106.12	15	11	0.99	2211.28	2206	9	1.04E-03	****	1.12E+00	
0	1192.66	15	26	1.47	2384.28	2377	12	1.04E-03	****	1.05E+00	
0	1252.60	13	19	0.91	2504.12	2497	12	8.71E-04	****	1.01E+00	
0	1533.24	5	5	0.58	3065.23	3062	6	3.42E-04	****	8.59E-01	
0	1536.48	7	7	1.33	3071.71	3068	7	4.86E-04	****	8.57E-01	
0	1590.93	20	20	4.65	3180.58	3173	15	1.35E-03	****	8.34E-01	
0	1655.10	10	12	3.27	3308.90	3303	12	6.94E-04	****	8.09E-01	
0	1694.74	12	2	1.12	3388.17	3384	8	8.38E-04	70.3	7.94E-01	
0	1718.64	7	8	3.39	3435.97	3428	11	4.72E-04	****	7.86E-01	
0	1920.85	9	0	1.85	3840.33	3836	8	6.25E-04	66.7	7.22E-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]G198683035            *
* Acquisition date : 16-DEC-2007 12:31:45 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 04:00:04.53     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683035           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.2045E+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	2.306E+00	5.181E-01	1.734E-01	5.181E-01
CS-137	2.486E-01	5.349E-02	1.731E-02	5.349E-02
EU-155	4.022E-02	7.581E-02	3.622E-02	7.581E-02
TL-208	1.051E-01	4.629E-02	1.610E-02	4.629E-02
BI-212	1.790E-01	2.420E-01	1.343E-01	2.420E-01
PB-212	2.375E-01	4.911E-02	2.189E-02	4.911E-02
BI-214	3.202E-01	8.297E-02	3.347E-02	8.297E-02
PB-214	2.022E-01	7.966E-02	2.798E-02	7.966E-02
TH-234	3.534E-01	3.011E-01	1.265E-01	3.011E-01
U-235	6.075E-02	1.365E-01	7.780E-02	1.365E-01
NP-236	3.008E-02	3.316E-02	1.750E-02	3.316E-02
NP-237	1.887E-01	9.928E-02	5.442E-02	9.928E-02
AM-243	6.251E-02	2.033E-02	1.281E-02	2.033E-02
CM-243	3.638E-02	6.857E-02	3.096E-02	6.857E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.425E-02	2.208E-02	1.983E-02	2.208E-02	NOT IDENT.
RH-101	7.040E-05	1.843E-02	1.362E-02	1.843E-02	NOT IDENT.
SB-125	-3.350E-02	5.345E-02	4.364E-02	5.345E-02	NOT IDENT.
PO-209	-1.389E+00	5.004E+00	4.142E+00	5.004E+00	NOT IDENT.
BI-211	1.962E-01	6.608E-01	5.799E-01	6.608E-01	NOT IDENT.
RA-223	8.674E-03	9.116E-02	7.558E-02	9.116E-02	NOT IDENT.
AC-228	1.729E-01	1.448E-01	1.054E-01	1.448E-01	FAIL ABUN
PA-233	-2.758E-02	3.172E-02	2.621E-02	3.172E-02	NOT IDENT.
PA-234M	1.253E+00	2.880E+00	2.526E+00	2.880E+00	NOT IDENT.
NP-239	3.629E-03	1.092E-01	9.123E-02	1.092E-01	NOT IDENT.
AM-241	-1.157E-02	2.831E-02	2.250E-02	2.831E-02	NOT IDENT.
AM-246	-1.018E-02	7.914E-02	6.506E-02	7.914E-02	NOT IDENT.
CF-249	-5.580E-04	2.194E-02	1.889E-02	2.194E-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	240.5475
63.29	241.5221
74.66	273.3284
74.81	273.4183
74.81	273.4183
77.11	274.7931
77.11	274.7931
86.48	161.2804
87.30	161.5442
87.30	161.5442
92.58	163.2124
98.44	151.0263
103.76	168.0083
105.31	186.8698
129.07	199.1441
143.76	193.4457
198.00	148.0457
209.25	161.8365
228.18	146.2334
238.63	128.7328
242.00	129.1562
269.46	124.4355
270.25	126.8294
277.36	120.6690
295.22	127.2393
300.09	127.7556
312.17	120.0594
338.32	130.7568
351.93	84.2406
387.59	100.4085
409.46	91.3108
427.87	100.1773
463.00	71.5496
510.77	69.4438
583.19	56.2106
609.31	66.5997
661.66	51.7261
727.33	50.7227
763.13	45.9546
768.36	59.8663
785.37	58.4150
794.95	54.9106
806.17	40.5044
831.80	51.9089
860.56	48.6467
896.60	57.9727
911.20	43.7014
934.06	37.1938
964.77	83.0689
968.97	45.5530
1001.03	43.0283
1078.86	34.8566
1120.29	31.1367
1155.19	33.5484
1173.23	23.1827
1238.11	30.3947
1280.96	37.9753
1332.51	18.6917
1377.67	19.4594
1401.50	21.4371
1407.98	28.9389
1460.80	20.7978
1509.23	21.0314
1588.20	13.3438
1620.50	10.7780
1729.60	14.0330
1764.49	15.5742

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683035

Total Uranium Activity	2.8110E-02	ug/g
Total Uranium Counting Unc.	6.3154E-02	ug/g
Total Uranium Tpu	6.3154E-08	ug/g
Total Uranium Mda	3.6000E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:21:58.37

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683036.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:32:07
Sample ID        : G198683036           Sample quantity  : 1.17450E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.59  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.56*	19	249	1.15	126.72	123	7	1.29E-03	171.5	
2	2	74.93	169	328	1.52	149.45	145	14	1.18E-02	20.9	2.11E+00
3	2	77.34	271	214	1.19	154.26	145	14	1.88E-02	11.2	
4	3	84.21*	17	284	1.40	168.00	163	29	1.16E-03	183.1	5.95E-01
5	3	87.29	123	335	1.70	174.14	163	29	8.54E-03	28.9	
6	3	89.93	89	220	1.16	179.43	163	29	6.21E-03	30.1	
7	3	92.90*	152	290	1.65	185.37	163	29	1.06E-02	27.6	
8	0	129.07	41	183	0.77	257.63	255	7	2.88E-03	56.2	
9	0	144.11*	62	197	1.91	287.69	284	9	4.28E-03	47.0	
10	0	149.47	28	241	3.23	298.39	292	10	1.92E-03	107.2	
11	0	185.80*	130	277	1.76	371.01	365	13	9.05E-03	30.3	
12	0	209.65	49	170	1.18	418.67	415	8	3.42E-03	48.6	
13	0	238.65*	451	248	1.26	476.61	472	9	3.13E-02	8.3	
14	0	241.74	88	148	1.17	482.79	481	7	6.08E-03	26.0	
15	0	270.00	107	193	1.18	539.27	533	13	7.40E-03	28.8	
16	0	294.72*	164	236	1.62	588.67	580	15	1.14E-02	22.8	
17	0	309.17	25	128	1.85	617.56	614	10	1.75E-03	86.2	
18	0	338.51	73	162	1.25	676.20	670	12	5.09E-03	36.6	
19	0	352.01*	227	166	1.33	703.18	696	13	1.57E-02	14.3	
20	0	440.04	35	68	0.92	879.12	874	9	2.40E-03	46.6	
21	0	463.99	38	78	1.52	926.98	921	10	2.64E-03	47.3	
22	0	511.14*	37	133	2.46	1021.23	1012	19	2.58E-03	100.2	
23	0	567.24*	24	113	4.31	1133.38	1128	13	1.68E-03	101.1	
24	0	583.17*	199	84	1.33	1165.23	1157	16	1.38E-02	13.4	
25	0	609.43*	206	91	1.25	1217.72	1211	14	1.43E-02	12.8	
26	0	661.94	86	78	1.31	1322.67	1317	13	5.97E-03	23.8	
27	0	721.46	32	44	1.22	1441.68	1437	12	2.19E-03	46.1	
28	0	727.88	34	39	2.15	1454.51	1450	11	2.34E-03	39.6	
29	2	768.78*	8	59	2.10	1536.28	1522	33	5.64E-04	230.5	1.25E+00
30	2	772.66	24	45	2.11	1544.03	1522	33	1.65E-03	69.7	
31	0	861.83	52	17	2.98	1722.31	1716	14	3.61E-03	22.0	
32	0	911.61	136	25	1.99	1821.85	1815	12	9.46E-03	11.2	
33	0	965.17	27	38	0.89	1928.94	1922	11	1.85E-03	49.2	
34	0	969.46	65	35	1.78	1937.51	1933	10	4.49E-03	21.2	
35	0	1064.92	11	29	1.28	2128.39	2121	9	7.41E-04	98.6	
36	0	1102.46	14	20	4.22	2203.47	2196	12	1.00E-03	68.3	
37	0	1120.97	53	38	0.66	2240.48	2235	14	3.69E-03	28.3	
38	0	1175.17	13	13	1.46	2348.87	2346	6	8.81E-04	53.6	

Sample ID : G198683036 Acquisition date : 16-DEC-2007 12:32:07

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1407.59	14	12	0.88	2813.70	2807	12	9.59E-04	57.0	
40	0	1414.70	27	9	4.08	2827.92	2821	13	1.87E-03	30.5	
41	0	1461.84*	196	27	1.73	2922.20	2912	17	1.36E-02	9.7	
42	3	1506.02	10	0	1.47	3010.58	3009	18	7.09E-04	25.1	1.57E+00
43	3	1508.93	33	3	2.22	3016.40	3009	18	2.27E-03	21.6	
44	0	1729.37	21	14	4.51	3457.39	3446	18	1.47E-03	46.2	
45	0	1765.93	34	16	1.75	3530.52	3523	13	2.34E-03	30.1	
46	0	1820.74	6	8	0.99	3640.19	3631	11	4.12E-04	102.2	
47	0	1834.34	8	7	1.69	3667.39	3662	10	5.60E-04	72.0	
48	4	1848.28	18	6	3.11	3695.28	3690	16	1.28E-03	32.7	4.53E-01
49	4	1851.91	9	4	1.91	3702.55	3690	16	6.44E-04	44.6	
50	0	2004.24	7	6	3.82	4007.36	4000	12	4.86E-04	79.5	

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]G198683036       *
* Acquisition date : 16-DEC-2007 12:32:07 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 04:00:01.59     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683036           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1745E+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	2.478E+00	4.958E-01	2.548E-01	0.000E+00
CS-137	6.895E-02	3.257E-02	3.264E-02	0.000E+00
TL-208	1.444E-01	3.935E-02	2.976E-02	0.000E+00
BI-212	2.107E-01	1.647E-01	1.871E-01	0.000E+00
PB-212	3.236E-01	5.625E-02	5.102E-02	0.000E+00
BI-214	2.834E-01	7.441E-02	5.491E-02	0.000E+00
PB-214	2.489E-01	7.119E-02	5.859E-02	0.000E+00
RA-223	2.638E-01	1.501E-01	1.482E-01	0.000E+00
AC-228	4.735E-01	1.147E-01	1.036E-01	0.000E+00
TH-234	6.928E-01	3.775E-01	3.378E-01	0.000E+00
U-235	1.321E-01	1.219E-01	1.592E-01	0.000E+00
NP-237	2.571E-01	1.468E-01	1.557E-01	0.000E+00
AM-243	7.817E-02	3.235E-02	3.905E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.456E-02	1.531E-02	3.657E-02	0.000E+00	FAIL ABUN
RH-101	-1.785E-03	1.798E-02	2.699E-02	0.000E+00	NOT IDENT.
SB-125	-2.896E-03	4.506E-02	7.727E-02	0.000E+00	NOT IDENT.
EU-155	-2.103E-02	4.432E-02	7.496E-02	0.000E+00	NOT IDENT.
PO-209	1.000E+00	3.794E+00	6.426E+00	0.000E+00	NOT IDENT.
BI-211	2.525E-02	4.781E-01	7.972E-01	0.000E+00	NOT IDENT.
PA-233	1.641E-03	3.548E-02	5.139E-02	0.000E+00	NOT IDENT.
PA-234M	-2.240E+00	2.354E+00	3.626E+00	0.000E+00	NOT IDENT.
NP-236	2.231E-02	2.967E-02	4.728E-02	0.000E+00	NOT IDENT.
NP-239	2.740E-02	1.044E-01	1.778E-01	0.000E+00	NOT IDENT.
AM-241	3.127E-02	7.101E-02	1.131E-01	0.000E+00	NOT IDENT.
CM-243	-3.363E-02	4.098E-02	6.815E-02	0.000E+00	NOT IDENT.
AM-246	1.330E-02	6.074E-02	1.061E-01	0.000E+00	NOT IDENT.
CF-249	3.042E-02	1.956E-02	3.681E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:21:59.32

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683036.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:32:07
Sample ID        : G198683036           Sample quantity  : 1.17450E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:01.59  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	196	10.66*	1.188E+00	2.478E+00	2.478E+00	20.41
CS-137	661.66	86	85.10*	2.351E+00	6.869E-02	6.895E-02	48.20
TL-208	277.36	------	6.31	4.619E+00	------	Line Not Found	------
	510.77	37	22.60	2.903E+00	9.046E-02	9.046E-02	200.46
	583.19	199	84.50*	2.611E+00	1.444E-01	1.444E-01	27.81
	763.13	------	1.81	2.083E+00	------	Line Not Found	------
	860.56	52	12.42	1.873E+00	3.571E-01	3.571E-01	45.07
BI-212	727.33	34	11.80*	2.169E+00	2.107E-01	2.107E-01	79.76
	785.37	------	1.10	2.031E+00	------	Line Not Found	------
	1620.50	------	1.49	1.102E+00	------	Line Not Found	------
PB-212	74.81	169	10.40	5.075E+00	5.126E-01	5.126E-01	42.23
	77.11	271	17.50	5.330E+00	4.634E-01	4.634E-01	23.28
	87.30	123	7.81	6.161E+00	4.082E-01	4.082E-01	58.25
	238.63	451	43.30*	5.140E+00	3.236E-01	3.236E-01	17.74
	300.09	------	3.28	4.361E+00	------	Line Not Found	------
BI-214	609.31	206	46.10*	2.518E+00	2.834E-01	2.834E-01	26.79
	768.36	8	4.94	2.069E+00	1.270E-01	1.270E-01	461.02
	806.17	------	1.22	1.986E+00	------	Line Not Found	------
	934.06	------	3.03	1.744E+00	------	Line Not Found	------
	1120.29	53	15.10	1.484E+00	3.790E-01	3.791E-01	57.00
	1155.19	------	1.63	1.445E+00	------	Line Not Found	------
	1238.11	------	5.79	1.361E+00	------	Line Not Found	------
	1280.96	------	1.43	1.322E+00	------	Line Not Found	------
	1377.67	------	4.00	1.245E+00	------	Line Not Found	------
	1401.50	------	1.27	1.228E+00	------	Line Not Found	------
	1407.98	14	2.15	1.224E+00	8.386E-01	8.386E-01	114.22
	1509.23	33	2.11	1.160E+00	2.132E+00	2.133E+00	43.55
	1729.60	21	2.92	1.057E+00	1.097E+00	1.097E+00	92.56
	1764.49	34	15.40	1.044E+00	3.349E-01	3.350E-01	60.44
PB-214	74.81	169	6.44	5.075E+00	8.278E-01	8.279E-01	42.23
	77.11	271	10.80	5.330E+00	7.510E-01	7.510E-01	23.28
	87.30	123	4.84	6.161E+00	6.588E-01	6.588E-01	58.25

Sample ID : G198683036 Acquisition date : 16-DEC-2007 12:32:07

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	88	7.43	5.094E+00	3.696E-01	3.696E-01	52.37
	295.22	164	19.30	4.419E+00	3.077E-01	3.077E-01	45.98
	351.93	227	37.60*	3.872E+00	2.488E-01	2.489E-01	29.19
RA-223	269.46	107	13.70*	4.710E+00	2.638E-01	2.638E-01	58.05
AC-228	129.07	41	2.42	6.984E+00	3.919E-01	3.919E-01	112.55
	209.25	49	3.89	5.606E+00	3.606E-01	3.606E-01	97.32
	270.25	107	3.46	4.710E+00	1.044E+00	1.044E+00	58.05
	338.32	73	11.27	3.988E+00	2.608E-01	2.608E-01	73.48
	409.46	------	1.92	3.452E+00	------	Line Not Found	------
	463.00	38	4.40	3.134E+00	4.402E-01	4.402E-01	94.73
	794.95	------	4.25	2.010E+00	------	Line Not Found	------
	911.20	136	25.80*	1.782E+00	4.735E-01	4.735E-01	24.71
	964.77	27	4.99	1.694E+00	5.025E-01	5.025E-01	98.83
	968.97	65	15.80	1.687E+00	3.872E-01	3.872E-01	43.49
	1588.20	------	3.22	1.118E+00	------	Line Not Found	------
TH-234	63.29	19	4.80	3.592E+00	1.717E-01	1.717E-01	343.08
	92.58	152	5.41*	6.483E+00	6.928E-01	6.928E-01	55.60
U-235	143.76	62	10.96*	6.799E+00	1.321E-01	1.321E-01	94.12
NP-237	86.48	123	12.40*	6.161E+00	2.571E-01	2.571E-01	58.25
AM-243	74.66	169	68.20*	5.075E+00	7.817E-02	7.817E-02	42.23

Flag: "*" = Keyline

Sample ID : G198683036 Acquisition date : 16-DEC-2007 12:32:07

Total number of lines in spectrum	50	
Number of unidentified lines	18	
Number of lines tentatively identified by NID	32	64.00%

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	2.478E+00	2.478E+00	0.506E+00	20.41	
CS-137	9.47E+08S	1.00	6.869E-02	6.895E-02	3.324E-02	48.20	
TL-208	4.43E+17S	1.00	1.444E-01	1.444E-01	0.401E-01	27.81	
BI-212	4.43E+17S	1.00	2.107E-01	2.107E-01	1.680E-01	79.76	
PB-212	4.43E+17S	1.00	3.236E-01	3.236E-01	0.574E-01	17.74	
BI-214	5.05E+10S	1.00	2.834E-01	2.834E-01	0.759E-01	26.79	
PB-214	5.05E+10S	1.00	2.488E-01	2.489E-01	0.726E-01	29.19	
RA-223	1.04E+12S	1.00	2.638E-01	2.638E-01	1.531E-01	58.05	
AC-228	4.43E+17S	1.00	4.735E-01	4.735E-01	1.170E-01	24.71	
TH-234	1.41E+17S	1.00	6.928E-01	6.928E-01	3.852E-01	55.60	
U-235	2.22E+16S	1.00	1.321E-01	1.321E-01	1.243E-01	94.12	
NP-237	6.75E+13S	1.00	2.571E-01	2.571E-01	1.498E-01	58.25	
AM-243	2.33E+11S	1.00	7.817E-02	7.817E-02	3.301E-02	42.23	
			---	---			
		Total Activity :	5.656E+00	5.656E+00			
		Grand Total Activity :	5.656E+00	5.656E+00			

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

Sample ID : G198683036 Acquisition date : 16-DEC-2007 12:32:07

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	84.21	17	284	1.40	168.00	163	29	1.16E-03	****	5.94E+00	
3	89.93	89	220	1.16	179.43	163	29	6.21E-03	60.1	6.32E+00	
0	149.47	28	241	3.23	298.39	292	10	1.92E-03	****	6.71E+00	
0	185.80	130	277	1.76	371.01	365	13	9.05E-03	60.7	6.04E+00	
0	309.17	25	128	1.85	617.56	614	10	1.75E-03	****	4.27E+00	
0	440.04	35	68	0.92	879.12	874	9	2.40E-03	93.1	3.27E+00	
0	567.24	24	113	4.31	1133.38	1128	13	1.68E-03	****	2.67E+00	
0	721.46	32	44	1.22	1441.68	1437	12	2.19E-03	92.1	2.19E+00	
2	772.66	24	45	2.11	1544.03	1522	33	1.65E-03	****	2.06E+00	
0	1064.92	11	29	1.28	2128.39	2121	9	7.41E-04	****	1.55E+00	
0	1102.46	14	20	4.22	2203.47	2196	12	1.00E-03	****	1.51E+00	
0	1175.17	13	13	1.46	2348.87	2346	6	8.81E-04	****	1.42E+00	T
0	1414.70	27	9	4.08	2827.92	2821	13	1.87E-03	61.0	1.22E+00	
3	1506.02	10	0	1.47	3010.58	3009	18	7.09E-04	50.2	1.16E+00	
0	1820.74	6	8	0.99	3640.19	3631	11	4.12E-04	****	1.03E+00	
0	1834.34	8	7	1.69	3667.39	3662	10	5.60E-04	****	1.02E+00	
4	1848.28	18	6	3.11	3695.28	3690	16	1.28E-03	65.3	1.02E+00	
4	1851.91	9	4	1.91	3702.55	3690	16	6.44E-04	89.3	1.02E+00	
0	2004.24	7	6	3.82	4007.36	4000	12	4.86E-04	****	9.83E-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]G198683036            *
* Acquisition date : 16-DEC-2007 12:32:07 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 04:00:01.59     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683036           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1745E+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	2.478E+00	4.958E-01	1.275E-01	4.958E-01
CS-137	6.895E-02	3.257E-02	1.633E-02	3.257E-02
TL-208	1.444E-01	3.935E-02	1.489E-02	3.935E-02
BI-212	2.107E-01	1.647E-01	9.359E-02	1.647E-01
PB-212	3.236E-01	5.625E-02	2.552E-02	5.625E-02
BI-214	2.834E-01	7.441E-02	2.747E-02	7.441E-02
PB-214	2.489E-01	7.119E-02	2.931E-02	7.119E-02
RA-223	2.638E-01	1.501E-01	7.412E-02	1.501E-01
AC-228	4.735E-01	1.147E-01	5.185E-02	1.147E-01
TH-234	6.928E-01	3.775E-01	1.690E-01	3.775E-01
U-235	1.321E-01	1.219E-01	7.963E-02	1.219E-01
NP-237	2.571E-01	1.468E-01	7.789E-02	1.468E-01
AM-243	7.817E-02	3.235E-02	1.954E-02	3.235E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.456E-02	1.531E-02	1.830E-02	1.531E-02	FAIL ABUN
RH-101	-1.785E-03	1.798E-02	1.350E-02	1.798E-02	NOT IDENT.
SB-125	-2.896E-03	4.506E-02	3.866E-02	4.506E-02	NOT IDENT.
EU-155	-2.103E-02	4.432E-02	3.750E-02	4.432E-02	NOT IDENT.
PO-209	1.000E+00	3.794E+00	3.215E+00	3.794E+00	NOT IDENT.
BI-211	2.525E-02	4.781E-01	3.989E-01	4.781E-01	NOT IDENT.
PA-233	1.641E-03	3.548E-02	2.571E-02	3.548E-02	NOT IDENT.
PA-234M	-2.240E+00	2.354E+00	1.814E+00	2.354E+00	NOT IDENT.
NP-236	2.231E-02	2.967E-02	2.365E-02	2.967E-02	NOT IDENT.
NP-239	2.740E-02	1.044E-01	8.893E-02	1.044E-01	NOT IDENT.
AM-241	3.127E-02	7.101E-02	5.659E-02	7.101E-02	NOT IDENT.
CM-243	-3.363E-02	4.098E-02	3.409E-02	4.098E-02	NOT IDENT.
AM-246	1.330E-02	6.074E-02	5.309E-02	6.074E-02	NOT IDENT.
CF-249	3.042E-02	1.956E-02	1.841E-02	1.956E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	229.3024
63.29	281.5240
74.66	308.9927
74.81	309.0465
74.81	309.0465
77.11	309.8636
77.11	309.8636
86.48	238.6217
87.30	238.8287
87.30	238.8287
92.58	240.1428
98.44	214.8892
103.76	231.1508
105.31	216.9015
129.07	243.3813
143.76	244.4803
198.00	194.2845
209.25	208.2934
228.18	170.2502
238.63	226.0935
242.00	334.6421
269.46	161.1388
270.25	161.2065
277.36	141.0347
295.22	154.4559
300.09	99.0896
312.17	122.8119
338.32	142.3408
351.93	128.7118
387.59	90.2026
409.46	98.4421
427.87	98.2273
463.00	97.6501
510.77	69.4371
583.19	77.0479
609.31	72.6988
661.66	75.8661
727.33	41.2148
763.13	57.2156
768.36	51.0433
785.37	43.9452
794.95	47.1995
806.17	71.5278
831.80	45.5216
860.56	51.5276
896.60	48.3871
911.20	41.0003
934.06	37.9617
964.77	54.6069
968.97	30.9730
1001.03	42.2004
1078.86	33.5728
1120.29	37.0798
1155.19	33.1429
1173.23	41.8122
1238.11	35.5953
1280.96	28.1197
1332.51	31.3151
1377.67	34.5215
1401.50	13.5820
1407.98	23.7939
1460.80	19.0039
1509.23	14.1134
1588.20	29.6018
1620.50	19.4902
1729.60	25.0225
1764.49	17.9632

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683036

Total Uranium Activity	6.1128E-02	ug/g
Total Uranium Counting Unc.	5.6382E-02	ug/g
Total Uranium Tpu	5.6382E-08	ug/g
Total Uranium Mda	3.6844E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:22:32.88

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683037.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:32:29
Sample ID        : G198683037           Sample quantity  : 1.17650E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:01.87  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.80*	6	433	0.93	93.58	89	9	4.40E-04	636.8	
2	0	59.56	41	580	2.29	119.06	111	12	2.85E-03	118.2	
3	0	63.30*	131	470	1.07	126.54	123	9	9.13E-03	33.8	
4	2	74.89*	403	412	1.24	149.69	143	18	2.80E-02	10.1	1.47E+00
5	2	77.24*	641	373	1.17	154.37	143	18	4.45E-02	7.0	
6	2	84.18*	91	420	1.24	168.23	163	30	6.33E-03	39.0	3.28E+00
7	2	87.35*	251	442	1.39	174.57	163	30	1.74E-02	15.9	
8	2	90.08*	134	351	1.19	180.02	163	30	9.33E-03	25.9	
9	2	92.77*	262	355	1.37	185.40	163	30	1.82E-02	16.8	
10	0	105.32	107	334	1.77	210.46	206	9	7.45E-03	32.2	
11	0	128.94	48	360	1.38	257.65	255	8	3.32E-03	70.1	
12	0	144.48*	121	364	2.88	288.69	284	10	8.38E-03	32.8	
13	0	148.57	52	227	1.68	296.86	295	6	3.60E-03	47.7	
14	0	185.70*	329	414	1.38	371.05	364	13	2.28E-02	14.7	
15	0	209.11	105	280	1.28	417.81	414	9	7.31E-03	30.3	
16	2	238.67*	1113	235	1.19	476.89	469	20	7.73E-02	4.1	1.20E+00
17	2	241.54	221	308	1.58	482.61	469	20	1.53E-02	17.8	
18	0	270.29	129	244	1.93	540.05	534	11	8.93E-03	25.2	
19	0	287.93	28	179	1.53	575.29	571	8	1.94E-03	85.9	
20	0	295.28	356	251	1.28	589.99	585	11	2.47E-02	10.1	
21	0	300.20	100	215	1.16	599.82	596	10	6.97E-03	29.2	
22	0	319.03	68	188	3.99	637.44	632	12	4.71E-03	42.3	
23	0	327.97	28	174	1.55	655.31	652	8	1.94E-03	83.8	
24	0	338.31	195	146	1.50	675.97	672	9	1.36E-02	13.2	
25	0	352.05*	550	213	1.21	703.43	698	12	3.82E-02	7.1	
26	0	406.39	29	75	1.35	812.02	809	6	2.04E-03	50.1	
27	0	409.58	36	121	2.53	818.41	815	9	2.53E-03	56.6	
28	0	463.40	50	209	1.72	925.97	919	16	3.49E-03	66.3	
29	0	511.03*	113	208	2.05	1021.17	1013	18	7.84E-03	37.4	
30	0	583.59*	315	142	1.29	1166.23	1160	13	2.19E-02	10.1	
31	0	609.69*	438	108	1.27	1218.42	1213	12	3.04E-02	7.1	
32	0	653.75	18	36	0.50	1306.50	1303	6	1.25E-03	57.7	
33	0	662.16	130	106	1.36	1323.31	1319	12	9.06E-03	17.8	
34	0	679.44	13	34	0.49	1357.86	1355	7	8.99E-04	80.4	
35	0	717.35	13	45	0.77	1433.68	1429	7	8.93E-04	91.2	
36	3	719.71	30	48	2.13	1438.38	1435	35	2.09E-03	40.7	1.23E+00
37	3	727.49	95	83	2.14	1453.94	1435	35	6.57E-03	22.9	
38	0	768.72*	30	76	0.99	1536.39	1530	11	2.10E-03	63.0	

Sample ID : G198683037 Acquisition date : 16-DEC-2007 12:32:29

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	787.93	10	62	3.89	1574.82	1567	9	7.20E-04	137.5	
40	0	791.10	17	36	1.28	1581.16	1578	7	1.18E-03	62.9	
41	0	795.24	56	51	2.16	1589.43	1585	10	3.86E-03	27.8	
42	0	803.45*	7	74	1.36	1605.84	1600	12	4.68E-04	278.0	
43	0	836.57	20	52	2.21	1672.08	1665	9	1.41E-03	67.4	
44	0	860.89	73	48	2.41	1720.73	1715	12	5.06E-03	22.7	
45	0	911.73*	213	74	1.14	1822.43	1816	13	1.48E-02	11.3	
46	0	934.70	40	69	0.78	1868.37	1860	18	2.76E-03	51.2	
47	3	964.95*	21	47	2.28	1928.87	1922	26	1.47E-03	113.2	2.60E+00
48	3	969.56	199	38	2.25	1938.10	1922	26	1.38E-02	9.3	
49	0	1001.98*	8	41	0.94	2002.95	1999	10	5.72E-04	165.2	
50	0	1013.82	8	41	1.46	2026.65	2022	9	5.80E-04	139.1	
51	0	1102.48	48	39	0.73	2204.03	2194	20	3.33E-03	35.4	
52	0	1121.21*	59	53	1.50	2241.50	2237	10	4.12E-03	29.8	
53	0	1238.65	34	62	2.50	2476.52	2470	13	2.36E-03	50.6	
54	0	1379.35	37	11	1.91	2758.14	2750	15	2.60E-03	25.4	
55	0	1420.89	9	21	3.84	2841.31	2830	17	6.32E-04	120.5	
56	0	1439.42	16	23	3.11	2878.40	2871	12	1.10E-03	66.7	
57	0	1461.64*	537	10	1.92	2922.89	2916	14	3.73E-02	4.7	
58	0	1511.19	25	23	0.91	3022.08	3015	15	1.70E-03	46.8	
59	2	1588.96	24	13	2.35	3177.82	3172	26	1.67E-03	36.1	1.00E+00
60	2	1594.40	23	5	2.35	3188.70	3172	26	1.59E-03	39.0	
61	0	1622.10	27	6	1.02	3244.19	3237	13	1.85E-03	27.7	
62	0	1631.73	19	11	0.62	3263.46	3258	11	1.32E-03	40.8	
63	0	1687.75	17	6	3.03	3375.67	3370	11	1.15E-03	36.9	
64	0	1730.65	26	16	1.73	3461.59	3456	12	1.82E-03	35.6	
65	0	1765.24	78	4	2.15	3530.88	3522	15	5.40E-03	12.6	
66	0	1808.20	13	3	0.65	3616.93	3609	13	9.27E-04	38.6	
67	0	1967.14	17	11	3.87	3935.37	3926	15	1.20E-03	48.3	

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]G198683037       *
* Acquisition date : 16-DEC-2007 12:32:29 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 04:01:01.87     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683037           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1765E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	6.254E+00	7.699E-01	2.350E-01	0.000E+00
CS-137	9.514E-02	3.388E-02	3.364E-02	0.000E+00
EU-155	1.067E-01	6.784E-02	8.381E-02	0.000E+00
TL-208	2.072E-01	4.311E-02	2.949E-02	0.000E+00
BI-212	5.381E-01	2.447E-01	1.990E-01	0.000E+00
PB-212	7.336E-01	7.201E-02	5.007E-02	0.000E+00
BI-214	5.480E-01	8.383E-02	6.117E-02	0.000E+00
PB-214	5.482E-01	8.165E-02	6.178E-02	0.000E+00
RA-223	2.914E-01	1.448E-01	1.470E-01	0.000E+00
AC-228	6.772E-01	1.618E-01	1.067E-01	0.000E+00
PA-234M	8.785E-01	2.845E+00	3.260E+00	0.000E+00
TH-234	1.037E+00	3.588E-01	3.538E-01	0.000E+00
U-235	2.377E-01	1.532E-01	1.632E-01	0.000E+00
NP-237	4.485E-01	1.494E-01	1.601E-01	0.000E+00
AM-241	4.433E-02	1.028E-01	9.278E-02	0.000E+00
AM-243	1.511E-01	3.401E-02	3.720E-02	0.000E+00
CM-243	9.655E-02	6.137E-02	7.936E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	1.076E-02	2.067E-02	3.580E-02	0.000E+00	NOT IDENT.
RH-101	6.659E-04	1.857E-02	2.993E-02	0.000E+00	NOT IDENT.
SB-125	6.448E-03	4.886E-02	8.186E-02	0.000E+00	NOT IDENT.
PO-209	2.563E+00	4.023E+00	6.836E+00	0.000E+00	NOT IDENT.
BI-211	4.108E-01	5.742E-01	9.100E-01	0.000E+00	NOT IDENT.
PA-233	-5.255E-03	3.295E-02	5.328E-02	0.000E+00	NOT IDENT.
NP-236	1.710E-02	3.318E-02	5.010E-02	0.000E+00	NOT IDENT.
NP-239	-6.510E-02	1.114E-01	1.864E-01	0.000E+00	NOT IDENT.
AM-246	-9.736E-03	6.727E-02	1.096E-01	0.000E+00	NOT IDENT.
CF-249	2.125E-03	1.999E-02	3.362E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:22:33.97

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683037.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:32:29
Sample ID        : G198683037           Sample quantity  : 1.17650E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:01.87  0.4%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	537	10.66*	1.286E+00	6.254E+00	6.254E+00	12.56
CS-137	661.66	130	85.10*	2.581E+00	9.479E-02	9.514E-02	36.33
EU-155	105.31	107	21.20*	7.738E+00	1.043E-01	1.067E-01	64.85
TL-208	277.36	------	6.31	5.045E+00	------	Line Not Found	------
	510.77	113	22.60	3.200E+00	2.489E-01	2.489E-01	74.97
	583.19	315	84.50*	2.872E+00	2.072E-01	2.072E-01	21.23
	763.13	------	1.81	2.279E+00	------	Line Not Found	------
	860.56	73	12.42	2.045E+00	4.575E-01	4.575E-01	46.35
BI-212	727.33	95	11.80*	2.378E+00	5.381E-01	5.381E-01	46.41
	785.37	------	1.10	2.222E+00	------	Line Not Found	------
	1620.50	27	1.49	1.195E+00	2.382E+00	2.382E+00	55.89
PB-212	74.81	403	10.40	6.235E+00	9.907E-01	9.907E-01	22.97
	77.11	641	17.50	6.465E+00	9.036E-01	9.036E-01	17.76
	87.30	251	7.81	7.202E+00	7.120E-01	7.120E-01	34.00
	238.63	1113	43.30*	5.589E+00	7.336E-01	7.336E-01	10.02
	300.09	100	3.28	4.772E+00	1.023E+00	1.023E+00	58.72
BI-214	609.31	438	46.10*	2.768E+00	5.479E-01	5.480E-01	15.61
	768.36	30	4.94	2.265E+00	4.313E-01	4.313E-01	126.24
	806.17	------	1.22	2.170E+00	------	Line Not Found	------
	934.06	40	3.03	1.897E+00	1.102E+00	1.102E+00	102.73
	1120.29	59	15.10	1.608E+00	3.895E-01	3.895E-01	59.87
	1155.19	------	1.63	1.566E+00	------	Line Not Found	------
	1238.11	34	5.79	1.472E+00	6.364E-01	6.364E-01	101.51
	1280.96	------	1.43	1.431E+00	------	Line Not Found	------
	1377.67	37	4.00	1.346E+00	1.109E+00	1.109E+00	51.51
	1401.50	------	1.27	1.329E+00	------	Line Not Found	------
	1407.98	------	2.15	1.324E+00	------	Line Not Found	------
	1509.23	25	2.11	1.254E+00	1.477E+00	1.477E+00	93.92
	1729.60	26	2.92	1.149E+00	1.247E+00	1.247E+00	71.50
	1764.49	78	15.40	1.136E+00	7.084E-01	7.084E-01	26.10
PB-214	74.81	403	6.44	6.235E+00	1.600E+00	1.600E+00	22.97
	77.11	641	10.80	6.465E+00	1.464E+00	1.464E+00	17.76

Sample ID : G198683037 Acquisition date : 16-DEC-2007 12:32:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	251	4.84	7.202E+00	1.149E+00	1.149E+00	34.00
	242.00	221	7.43	5.545E+00	8.547E-01	8.548E-01	35.98
	295.22	356	19.30	4.828E+00	6.095E-01	6.096E-01	21.12
	351.93	550	37.60*	4.254E+00	5.482E-01	5.482E-01	15.20
RA-223	269.46	129	13.70*	5.136E+00	2.914E-01	2.914E-01	50.70
AC-228	129.07	48	2.42	7.646E+00	4.116E-01	4.116E-01	140.31
	209.25	105	3.89	6.089E+00	7.089E-01	7.089E-01	60.87
	270.25	129	3.46	5.136E+00	1.154E+00	1.154E+00	50.70
	338.32	195	11.27	4.379E+00	6.313E-01	6.313E-01	27.02
	409.46	36	1.92	3.801E+00	7.966E-01	7.966E-01	113.31
	463.00	50	4.40	3.457E+00	5.267E-01	5.267E-01	132.63
	794.95	56	4.25	2.197E+00	9.494E-01	9.494E-01	56.18
	911.20	213	25.80*	1.941E+00	6.772E-01	6.772E-01	24.39
	964.77	21	4.99	1.843E+00	3.673E-01	3.673E-01	226.65
	968.97	199	15.80	1.835E+00	1.094E+00	1.094E+00	20.61
	1588.20	24	3.22	1.211E+00	9.810E-01	9.810E-01	72.66
PA-234M	1001.03	8	0.84*	1.781E+00	8.785E-01	8.785E-01	330.49
TH-234	63.29	131	4.80	4.729E+00	9.238E-01	9.238E-01	68.44
	92.58	262	5.41*	7.450E+00	1.037E+00	1.037E+00	35.31
U-235	143.76	121	10.96*	7.384E+00	2.377E-01	2.377E-01	65.76
NP-237	86.48	251	12.40*	7.202E+00	4.485E-01	4.485E-01	34.00
AM-241	59.54	41	35.90*	4.120E+00	4.432E-02	4.433E-02	236.64
AM-243	74.66	403	68.20*	6.235E+00	1.511E-01	1.511E-01	22.97
CM-243	103.76	107	23.00*	7.738E+00	9.617E-02	9.655E-02	64.85

Flag: "*" = Keyline

Sample ID : G198683037 Acquisition date : 16-DEC-2007 12:32:29

Total number of lines in spectrum 67
Number of unidentified lines 26
Number of lines tentatively identified by NID 41 61.19%

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	6.254E+00	6.254E+00	0.786E+00	12.56	
CS-137	9.47E+08S	1.00	9.479E-02	9.514E-02	3.457E-02	36.33	
EU-155	1.57E+08S	1.02	1.043E-01	1.067E-01	0.692E-01	64.85	
TL-208	4.43E+17S	1.00	2.072E-01	2.072E-01	0.440E-01	21.23	
BI-212	4.43E+17S	1.00	5.381E-01	5.381E-01	2.497E-01	46.41	
PB-212	4.43E+17S	1.00	7.336E-01	7.336E-01	0.735E-01	10.02	
BI-214	5.05E+10S	1.00	5.479E-01	5.480E-01	0.855E-01	15.61	
PB-214	5.05E+10S	1.00	5.482E-01	5.482E-01	0.833E-01	15.20	
RA-223	1.04E+12S	1.00	2.914E-01	2.914E-01	1.477E-01	50.70	
AC-228	4.43E+17S	1.00	6.772E-01	6.772E-01	1.651E-01	24.39	
PA-234M	1.41E+17S	1.00	8.785E-01	8.785E-01	29.03E-01	330.49	
TH-234	1.41E+17S	1.00	1.037E+00	1.037E+00	0.366E+00	35.31	
U-235	2.22E+16S	1.00	2.377E-01	2.377E-01	1.563E-01	65.76	
NP-237	6.75E+13S	1.00	4.485E-01	4.485E-01	1.525E-01	34.00	
AM-241	1.36E+10S	1.00	4.432E-02	4.433E-02	10.49E-02	236.64	
AM-243	2.33E+11S	1.00	1.511E-01	1.511E-01	0.347E-01	22.97	
CM-243	8.99E+08S	1.00	9.617E-02	9.655E-02	6.262E-02	64.85	
			---	---			
	Total Activity :		1.289E+01	1.289E+01			

Grand Total Activity : 1.289E+01 1.289E+01

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

Sample ID : G198683037 Acquisition date : 16-DEC-2007 12:32:29

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.80	6	433	0.93	93.58	89	9	4.40E-04	****	1.86E+00	
2	84.18	91	420	1.24	168.23	163	30	6.33E-03	78.1	7.01E+00	
2	90.08	134	351	1.19	180.02	163	30	9.33E-03	51.8	7.34E+00	
0	148.57	52	227	1.68	296.86	295	6	3.60E-03	95.3	7.30E+00	
0	185.70	329	414	1.38	371.05	364	13	2.28E-02	29.5	6.54E+00	
0	287.93	28	179	1.53	575.29	571	8	1.94E-03	****	4.91E+00	
0	319.03	68	188	3.99	637.44	632	12	4.71E-03	84.5	4.57E+00	
0	327.97	28	174	1.55	655.31	652	8	1.94E-03	****	4.48E+00	
0	406.39	29	75	1.35	812.02	809	6	2.04E-03	****	3.82E+00	
0	653.75	18	36	0.50	1306.50	1303	6	1.25E-03	****	2.61E+00	
0	679.44	13	34	0.49	1357.86	1355	7	8.99E-04	****	2.52E+00	
0	717.35	13	45	0.77	1433.68	1429	7	8.93E-04	****	2.41E+00	
3	719.71	30	48	2.13	1438.38	1435	35	2.09E-03	81.4	2.40E+00	
0	787.93	10	62	3.89	1574.82	1567	9	7.20E-04	****	2.22E+00	
0	791.10	17	36	1.28	1581.16	1578	7	1.18E-03	****	2.21E+00	
0	803.45	7	74	1.36	1605.84	1600	12	4.68E-04	****	2.18E+00	
0	836.57	20	52	2.21	1672.08	1665	9	1.41E-03	****	2.10E+00	
0	1013.82	8	41	1.46	2026.65	2022	9	5.80E-04	****	1.76E+00	
0	1102.48	48	39	0.73	2204.03	2194	20	3.33E-03	70.7	1.63E+00	
0	1420.89	9	21	3.84	2841.31	2830	17	6.32E-04	****	1.31E+00	
0	1439.42	16	23	3.11	2878.40	2871	12	1.10E-03	****	1.30E+00	
2	1594.40	23	5	2.35	3188.70	3172	26	1.59E-03	78.1	1.21E+00	
0	1631.73	19	11	0.62	3263.46	3258	11	1.32E-03	81.6	1.19E+00	
0	1687.75	17	6	3.03	3375.67	3370	11	1.15E-03	73.9	1.17E+00	
0	1808.20	13	3	0.65	3616.93	3609	13	9.27E-04	77.2	1.12E+00	
0	1967.14	17	11	3.87	3935.37	3926	15	1.20E-03	96.6	1.08E+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]G198683037            *
* Acquisition date : 16-DEC-2007 12:32:29 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 04:01:01.87     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683037           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1765E+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	6.254E+00	7.699E-01	1.176E-01	7.699E-01
CS-137	9.514E-02	3.388E-02	1.683E-02	3.388E-02
EU-155	1.067E-01	6.784E-02	4.193E-02	6.784E-02
TL-208	2.072E-01	4.311E-02	1.476E-02	4.311E-02
BI-212	5.381E-01	2.447E-01	9.957E-02	2.447E-01
PB-212	7.336E-01	7.201E-02	2.505E-02	7.201E-02
BI-214	5.480E-01	8.383E-02	3.060E-02	8.383E-02
PB-214	5.482E-01	8.165E-02	3.091E-02	8.165E-02
RA-223	2.914E-01	1.448E-01	7.356E-02	1.448E-01
AC-228	6.772E-01	1.618E-01	5.336E-02	1.618E-01
PA-234M	8.785E-01	2.845E+00	1.631E+00	2.845E+00
TH-234	1.037E+00	3.588E-01	1.770E-01	3.588E-01
U-235	2.377E-01	1.532E-01	8.164E-02	1.532E-01
NP-237	4.485E-01	1.494E-01	8.012E-02	1.494E-01
AM-241	4.433E-02	1.028E-01	4.642E-02	1.028E-01
AM-243	1.511E-01	3.401E-02	1.861E-02	3.401E-02
CM-243	9.655E-02	6.137E-02	3.970E-02	6.137E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.076E-02	2.067E-02	1.791E-02	2.067E-02	NOT IDENT.
RH-101	6.659E-04	1.857E-02	1.497E-02	1.857E-02	NOT IDENT.
SB-125	6.448E-03	4.886E-02	4.095E-02	4.886E-02	NOT IDENT.
PO-209	2.563E+00	4.023E+00	3.420E+00	4.023E+00	NOT IDENT.
BI-211	4.108E-01	5.742E-01	4.553E-01	5.742E-01	NOT IDENT.
PA-233	-5.255E-03	3.295E-02	2.666E-02	3.295E-02	NOT IDENT.
NP-236	1.710E-02	3.318E-02	2.506E-02	3.318E-02	NOT IDENT.
NP-239	-6.510E-02	1.114E-01	9.324E-02	1.114E-01	NOT IDENT.
AM-246	-9.736E-03	6.727E-02	5.485E-02	6.727E-02	NOT IDENT.
CF-249	2.125E-03	1.999E-02	1.682E-02	1.999E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	321.0239
63.29	367.7717
74.66	426.1161
74.81	426.2017
74.81	426.2017
77.11	427.5033
77.11	427.5033
86.48	347.4642
87.30	347.8132
87.30	347.8132
92.58	350.0183
98.44	332.5451
103.76	340.4773
105.31	312.2822
129.07	336.1126
143.76	304.6420
198.00	282.6635
209.25	269.6043
228.18	259.5159
238.63	258.3684
242.00	258.9283
269.46	189.5448
270.25	189.6318
277.36	211.4797
295.22	186.3191
300.09	188.4519
312.17	167.0420
338.32	158.5540
351.93	173.2164
387.59	133.7654
409.46	102.9448
427.87	127.5753
463.00	104.2556
510.77	98.4387
583.19	91.9141
609.31	109.4467
661.66	97.5234
727.33	56.1914
763.13	81.1300
768.36	74.7519
785.37	62.9878
794.95	65.4980
806.17	62.4195
831.80	54.5918
860.56	47.0149
896.60	51.5018
911.20	51.6960
934.06	42.8203
964.77	32.8750
968.97	32.9086
1001.03	43.1834
1078.86	49.5979
1120.29	58.5771
1155.19	49.3646
1173.23	43.0918
1238.11	54.5972
1280.96	25.6986
1332.51	32.4493
1377.67	22.4424
1401.50	23.4823
1407.98	26.3320
1460.80	18.9901
1509.23	18.0599
1588.20	26.6272
1620.50	13.3862
1729.60	18.7336
1764.49	12.9857

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683037

Total Uranium Activity	1.1000E-01	ug/g
Total Uranium Counting Unc.	7.0895E-02	ug/g
Total Uranium Tpu	7.0895E-08	ug/g
Total Uranium Mda	3.7774E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:23:39.36

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683038.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:32:52
Sample ID        : G198683038           Sample quantity  : 1.12870E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:22.15  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.76	82	240	1.06	92.63	89	8	5.73E-03	34.3	
2	0	50.01	58	189	1.47	99.11	97	6	4.00E-03	39.9	
3	0	63.82	87	351	0.95	126.69	123	7	6.03E-03	37.6	
4	3	75.02	420	409	1.21	149.06	144	14	2.91E-02	9.2	1.51E+00
5	3	77.25*	673	408	1.37	153.52	144	14	4.68E-02	7.1	
6	7	87.31	214	365	1.34	173.61	162	31	1.49E-02	16.6	2.31E+00
7	7	89.92	161	378	1.53	178.81	162	31	1.12E-02	24.2	
8	7	93.13	310	370	1.70	185.23	162	31	2.15E-02	13.6	
9	0	105.71	50	244	1.58	210.35	207	8	3.46E-03	56.4	
10	0	129.10	56	318	1.99	257.07	253	10	3.90E-03	60.8	
11	0	143.22	71	370	3.10	285.28	280	11	4.96E-03	53.4	
12	0	151.92	37	577	5.88	302.65	291	18	2.54E-03	155.5	
13	0	186.12*	173	336	1.12	370.96	366	11	1.20E-02	22.8	
14	3	238.71*	800	188	1.46	476.02	467	23	5.55E-02	5.0	1.11E+00
15	3	241.68	148	282	2.10	481.96	467	23	1.03E-02	29.4	
16	0	271.16	69	257	1.58	540.84	534	13	4.80E-03	49.3	
17	0	295.40*	212	148	1.31	589.27	585	10	1.47E-02	13.7	
18	0	300.34	35	176	0.64	599.14	595	11	2.44E-03	75.5	
19	0	307.43*	11	98	1.29	613.32	610	8	7.35E-04	200.9	
20	0	315.18	20	83	1.27	628.79	626	6	1.39E-03	75.6	
21	0	329.13	32	159	1.99	656.66	651	10	2.25E-03	75.2	
22	0	338.44	176	166	1.23	675.27	669	13	1.22E-02	16.9	
23	0	352.10*	312	192	1.58	702.56	694	15	2.17E-02	11.6	
24	0	420.98	29	125	5.67	840.20	831	14	2.02E-03	83.8	
25	0	463.02	62	97	3.03	924.22	918	13	4.34E-03	34.5	
26	0	511.29*	52	151	2.32	1020.69	1011	20	3.64E-03	71.2	
27	0	583.47*	198	60	1.54	1164.96	1158	12	1.37E-02	11.6	
28	0	599.41	6	48	0.81	1196.83	1191	8	4.17E-04	204.1	
29	0	609.45*	224	92	1.68	1216.89	1210	16	1.56E-02	12.4	
30	0	648.20	14	74	1.33	1294.36	1288	14	9.70E-04	133.0	
31	0	667.17	119	177	4.79	1332.29	1317	40	8.29E-03	38.3	
32	0	728.08*	32	56	1.21	1454.06	1447	11	2.21E-03	50.4	
33	0	890.28	22	33	2.86	1778.42	1770	17	1.54E-03	63.8	
34	0	911.86	107	54	2.14	1821.60	1814	14	7.43E-03	17.7	
35	0	969.63	70	39	1.54	1937.14	1932	14	4.84E-03	22.4	
36	0	1121.89	47	53	2.73	2241.76	2235	18	3.28E-03	41.5	
37	0	1233.26	27	29	3.28	2464.61	2455	15	1.85E-03	48.9	
38	0	1376.68	19	16	4.45	2751.67	2744	13	1.32E-03	49.1	

Sample ID : G198683038 Acquisition date : 16-DEC-2007 12:32:52

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1430.01	14	7	0.62	2858.43	2854	10	9.72E-04	45.0	
40	0	1450.51	19	0	3.35	2899.47	2894	11	1.32E-03	22.9	
41	0	1461.49	265	36	1.83	2921.46	2912	18	1.84E-02	8.1	
42	0	1483.88	21	9	1.71	2966.28	2959	13	1.45E-03	37.5	
43	0	1568.77	15	6	0.64	3136.27	3130	12	1.03E-03	42.0	
44	0	1631.96	26	10	8.37	3262.80	3251	20	1.81E-03	35.6	
45	0	1730.21	13	8	2.21	3459.58	3454	11	8.73E-04	52.6	
46	0	1764.99	40	3	1.44	3529.26	3523	12	2.78E-03	18.0	
47	0	1816.42	6	9	0.53	3632.28	3626	12	4.00E-04	112.4	
48	0	1829.27	8	11	3.83	3658.02	3650	14	5.41E-04	95.9	
49	0	1932.60	10	3	1.89	3865.05	3858	11	6.97E-04	45.2	
50	0	2004.31	17	0	1.29	4008.76	4003	11	1.18E-03	24.3	

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]G198683038       *
* Acquisition date : 16-DEC-2007 12:32:52 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 04:00:22.15     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683038           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1287E+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	5.563E+00	9.353E-01	4.845E-01	0.000E+00
EU-155	4.920E-02	5.453E-02	7.948E-02	0.000E+00
TL-208	2.076E-01	4.936E-02	4.153E-02	0.000E+00
BI-212	3.020E-01	2.994E-01	3.252E-01	0.000E+00
PB-212	6.527E-01	7.524E-02	5.830E-02	0.000E+00
BI-214	4.516E-01	1.145E-01	7.654E-02	0.000E+00
PB-214	4.312E-01	1.005E-01	7.495E-02	0.000E+00
RA-223	2.011E-01	1.946E-01	1.682E-01	0.000E+00
AC-228	5.846E-01	2.059E-01	1.738E-01	0.000E+00
TH-234	1.129E+00	3.128E-01	3.304E-01	0.000E+00
U-235	1.543E-01	1.621E-01	1.806E-01	0.000E+00
NP-237	3.366E-01	1.121E-01	1.420E-01	0.000E+00
AM-243	1.183E-01	2.277E-02	2.844E-02	0.000E+00
CM-243	4.450E-02	4.932E-02	7.621E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	4.226E-03		3.399E-02	5.719E-02	0.000E+00	NOT IDENT.
RH-101	-4.631E-03		1.856E-02	3.182E-02	0.000E+00	NOT IDENT.
SB-125	1.919E-03		6.834E-02	1.117E-01	0.000E+00	NOT IDENT.
CS-137	0.000E+00		3.462E-02	6.057E-02	0.000E+00	NOT IDENT.
PO-209	-1.940E-01		6.091E+00	8.795E+00	0.000E+00	NOT IDENT.
BI-211	-4.652E-01		8.020E-01	1.285E+00	0.000E+00	NOT IDENT.
PA-233	4.565E-04		6.734E-02	6.646E-02	0.000E+00	NOT IDENT.
PA-234M	1.202E+00		3.233E+00	5.634E+00	0.000E+00	NOT IDENT.
NP-236	3.826E-02		2.897E-02	4.552E-02	0.000E+00	NOT IDENT.
NP-239	-1.346E-02		1.360E-01	2.334E-01	0.000E+00	NOT IDENT.
AM-241	1.224E-02		3.215E-02	4.892E-02	0.000E+00	NOT IDENT.
AM-246	-4.584E-03		1.246E-01	1.929E-01	0.000E+00	NOT IDENT.
CF-249	1.157E-02		2.555E-02	4.430E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:23:40.36

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683038.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:32:52
Sample ID        : G198683038           Sample quantity  : 1.12870E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:22.15  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	265	10.66*	7.431E-01	5.563E+00	5.563E+00	17.16
EU-155	105.31	50	21.20*	8.128E+00	4.809E-02	4.920E-02	113.09
TL-208	277.36	------	6.31	4.080E+00	------	Line Not Found	------
	510.77	52	22.60	2.157E+00	1.786E-01	1.786E-01	142.54
	583.19	198	84.50*	1.874E+00	2.076E-01	2.076E-01	24.27
	763.13	------	1.81	1.415E+00	------	Line Not Found	------
	860.56	------	12.42	1.251E+00	------	Line Not Found	------
BI-212	727.33	32	11.80*	1.485E+00	3.020E-01	3.020E-01	101.17
	785.37	------	1.10	1.374E+00	------	Line Not Found	------
	1620.50	------	1.49	6.722E-01	------	Line Not Found	------
PB-212	74.81	420	10.40	8.644E+00	7.760E-01	7.760E-01	19.64
	77.11	673	17.50	8.639E+00	7.407E-01	7.407E-01	15.92
	87.30	214	7.81	8.537E+00	5.345E-01	5.345E-01	33.97
	238.63	800	43.30*	4.707E+00	6.527E-01	6.527E-01	11.76
	300.09	35	3.28	3.770E+00	4.720E-01	4.720E-01	151.14
BI-214	609.31	224	46.10*	1.790E+00	4.516E-01	4.516E-01	25.87
	768.36	------	4.94	1.405E+00	------	Line Not Found	------
	806.17	------	1.22	1.337E+00	------	Line Not Found	------
	934.06	------	3.03	1.152E+00	------	Line Not Found	------
	1120.29	47	15.10	9.606E-01	5.411E-01	5.411E-01	83.19
	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	19	4.00	7.873E-01	1.007E+00	1.007E+00	98.42
	1401.50	------	1.27	7.738E-01	------	Line Not Found	------
	1407.98	------	2.15	7.704E-01	------	Line Not Found	------
	1509.23	------	2.11	7.203E-01	------	Line Not Found	------
	1729.60	13	2.92	6.305E-01	1.135E+00	1.135E+00	105.31
	1764.49	40	15.40	6.183E-01	6.983E-01	6.984E-01	36.51
PB-214	74.81	420	6.44	8.644E+00	1.253E+00	1.253E+00	19.64
	77.11	673	10.80	8.639E+00	1.200E+00	1.200E+00	15.92
	87.30	214	4.84	8.537E+00	8.625E-01	8.625E-01	33.97

Sample ID : G198683038 Acquisition date : 16-DEC-2007 12:32:52

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	148	7.43	4.653E+00	7.138E-01	7.138E-01	59.08
	295.22	212	19.30	3.833E+00	4.764E-01	4.764E-01	27.86
	351.93	312	37.60*	3.203E+00	4.312E-01	4.312E-01	23.79
RA-223	269.46	69	13.70*	4.171E+00	2.011E-01	2.011E-01	98.74
AC-228	129.07	56	2.42	7.444E+00	5.190E-01	5.190E-01	121.87
	209.25	------	3.89	5.293E+00	------	Line Not Found	------
	270.25	69	3.46	4.171E+00	7.963E-01	7.963E-01	98.74
	338.32	176	11.27	3.338E+00	7.784E-01	7.784E-01	34.11
	409.46	------	1.92	2.733E+00	------	Line Not Found	------
	463.00	62	4.40	2.398E+00	9.845E-01	9.845E-01	69.31
	794.95	------	4.25	1.357E+00	------	Line Not Found	------
	911.20	107	25.80*	1.180E+00	5.846E-01	5.846E-01	35.95
	964.77	------	4.99	1.115E+00	------	Line Not Found	------
	968.97	70	15.80	1.110E+00	6.613E-01	6.613E-01	45.27
	1588.20	------	3.22	6.855E-01	------	Line Not Found	------
TH-234	63.29	87	4.80	8.527E+00	3.526E-01	3.526E-01	75.43
	92.58	310	5.41*	8.431E+00	1.129E+00	1.129E+00	28.29
U-235	143.76	71	10.96*	7.016E+00	1.543E-01	1.543E-01	107.20
NP-237	86.48	214	12.40*	8.537E+00	3.366E-01	3.366E-01	33.97
AM-243	74.66	420	68.20*	8.644E+00	1.183E-01	1.183E-01	19.64
CM-243	103.76	50	23.00*	8.128E+00	4.433E-02	4.450E-02	113.09

Flag: "*" = Keyline

Sample ID : G198683038 Acquisition date : 16-DEC-2007 12:32:52

Total number of lines in spectrum 50
Number of unidentified lines 23
Number of lines tentatively identified by NID 27 54.00%

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	5.563E+00	5.563E+00	0.954E+00	17.16	
EU-155	1.57E+08S	1.02	4.809E-02	4.920E-02	5.564E-02	113.09	
TL-208	4.43E+17S	1.00	2.076E-01	2.076E-01	0.504E-01	24.27	
BI-212	4.43E+17S	1.00	3.020E-01	3.020E-01	3.055E-01	101.17	
PB-212	4.43E+17S	1.00	6.527E-01	6.527E-01	0.768E-01	11.76	
BI-214	5.05E+10S	1.00	4.516E-01	4.516E-01	1.168E-01	25.87	
PB-214	5.05E+10S	1.00	4.312E-01	4.312E-01	1.026E-01	23.79	
RA-223	1.04E+12S	1.00	2.011E-01	2.011E-01	1.986E-01	98.74	
AC-228	4.43E+17S	1.00	5.846E-01	5.846E-01	2.101E-01	35.95	
TH-234	1.41E+17S	1.00	1.129E+00	1.129E+00	0.319E+00	28.29	
U-235	2.22E+16S	1.00	1.543E-01	1.543E-01	1.654E-01	107.20	
NP-237	6.75E+13S	1.00	3.366E-01	3.366E-01	1.144E-01	33.97	
AM-243	2.33E+11S	1.00	1.183E-01	1.183E-01	0.232E-01	19.64	
CM-243	8.99E+08S	1.00	4.433E-02	4.450E-02	5.033E-02	113.09	
			---	---			
	Total Activity :		1.022E+01	1.023E+01			

Grand Total Activity : 1.022E+01 1.023E+01

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

Sample ID : G198683038 Acquisition date : 16-DEC-2007 12:32:52

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.76	82	240	1.06	92.63	89	8	5.73E-03	68.7	7.67E+00	
0	50.01	58	189	1.47	99.11	97	6	4.00E-03	79.8	7.92E+00	
7	89.92	161	378	1.53	178.81	162	31	1.12E-02	48.3	8.49E+00	
0	151.92	37	577	5.88	302.65	291	18	2.54E-03	****	6.76E+00	
0	186.12	173	336	1.12	370.96	366	11	1.20E-02	45.6	5.83E+00	
0	307.43	11	98	1.29	613.32	610	8	7.35E-04	****	3.68E+00	
0	315.18	20	83	1.27	628.79	626	6	1.39E-03	****	3.59E+00	
0	329.13	32	159	1.99	656.66	651	10	2.25E-03	****	3.43E+00	
0	420.98	29	125	5.67	840.20	831	14	2.02E-03	****	2.65E+00	
0	599.41	6	48	0.81	1196.83	1191	8	4.17E-04	****	1.82E+00	
0	648.20	14	74	1.33	1294.36	1288	14	9.70E-04	****	1.68E+00	
0	667.17	119	177	4.79	1332.29	1317	40	8.29E-03	76.7	1.63E+00	
0	890.28	22	33	2.86	1778.42	1770	17	1.54E-03	****	1.21E+00	
0	1233.26	27	29	3.28	2464.61	2455	15	1.85E-03	97.7	8.76E-01	
0	1430.01	14	7	0.62	2858.43	2854	10	9.72E-04	90.1	7.59E-01	
0	1450.51	19	0	3.35	2899.47	2894	11	1.32E-03	45.9	7.49E-01	
0	1483.88	21	9	1.71	2966.28	2959	13	1.45E-03	75.0	7.32E-01	
0	1568.77	15	6	0.64	3136.27	3130	12	1.03E-03	84.1	6.94E-01	
0	1631.96	26	10	8.37	3262.80	3251	20	1.81E-03	71.2	6.68E-01	
0	1816.42	6	9	0.53	3632.28	3626	12	4.00E-04	****	6.01E-01	
0	1829.27	8	11	3.83	3658.02	3650	14	5.41E-04	****	5.97E-01	
0	1932.60	10	3	1.89	3865.05	3858	11	6.97E-04	90.3	5.65E-01	
0	2004.31	17	0	1.29	4008.76	4003	11	1.18E-03	48.5	5.45E-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]G198683038            *
* Acquisition date : 16-DEC-2007 12:32:52 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 04:00:22.15     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683038           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1287E+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	5.563E+00	9.353E-01	2.424E-01	9.353E-01
EU-155	4.920E-02	5.453E-02	3.977E-02	5.453E-02
TL-208	2.076E-01	4.936E-02	2.078E-02	4.936E-02
BI-212	3.020E-01	2.994E-01	1.627E-01	2.994E-01
PB-212	6.527E-01	7.524E-02	2.917E-02	7.524E-02
BI-214	4.516E-01	1.145E-01	3.829E-02	1.145E-01
PB-214	4.312E-01	1.005E-01	3.750E-02	1.005E-01
RA-223	2.011E-01	1.946E-01	8.417E-02	1.946E-01
AC-228	5.846E-01	2.059E-01	8.694E-02	2.059E-01
TH-234	1.129E+00	3.128E-01	1.653E-01	3.128E-01
U-235	1.543E-01	1.621E-01	9.034E-02	1.621E-01
NP-237	3.366E-01	1.121E-01	7.104E-02	1.121E-01
AM-243	1.183E-01	2.277E-02	1.423E-02	2.277E-02
CM-243	4.450E-02	4.932E-02	3.813E-02	4.932E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	4.226E-03	3.399E-02	2.861E-02	3.399E-02	NOT IDENT.
RH-101	-4.631E-03	1.856E-02	1.592E-02	1.856E-02	NOT IDENT.
SB-125	1.919E-03	6.834E-02	5.590E-02	6.834E-02	NOT IDENT.
CS-137	6.977E-02	3.462E-02	3.031E-02	3.462E-02	NOT IDENT.
PO-209	-1.940E-01	6.091E+00	4.400E+00	6.091E+00	NOT IDENT.
BI-211	-4.652E-01	8.020E-01	6.431E-01	8.020E-01	NOT IDENT.
PA-233	4.565E-04	6.734E-02	3.325E-02	6.734E-02	NOT IDENT.
PA-234M	1.202E+00	3.233E+00	2.819E+00	3.233E+00	NOT IDENT.
NP-236	3.826E-02	2.897E-02	2.277E-02	2.897E-02	NOT IDENT.
NP-239	-1.346E-02	1.360E-01	1.168E-01	1.360E-01	NOT IDENT.
AM-241	1.224E-02	3.215E-02	2.448E-02	3.215E-02	NOT IDENT.
AM-246	-4.584E-03	1.246E-01	9.651E-02	1.246E-01	NOT IDENT.
CF-249	1.157E-02	2.555E-02	2.217E-02	2.555E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	325.9254
63.29	395.8180
74.66	451.1801
74.81	451.2524
74.81	451.2524
77.11	452.3606
77.11	452.3606
86.48	364.5237
87.30	364.8189
87.30	364.8189
92.58	366.6850
98.44	260.6590
103.76	329.1148
105.31	290.0957
129.07	293.6568
143.76	311.3876
198.00	263.7296
209.25	268.2722
228.18	252.3911
238.63	231.1799
242.00	231.5941
269.46	153.3887
270.25	165.9149
277.36	170.0244
295.22	160.1539
300.09	175.1089
312.17	141.8405
338.32	149.4166
351.93	134.3557
387.59	105.0080
409.46	123.2067
427.87	113.9160
463.00	97.5938
510.77	97.0700
583.19	71.9515
609.31	66.3435
661.66	59.9197
727.33	54.2889
763.13	65.1732
768.36	53.9095
785.37	61.7323
794.95	54.2609
806.17	45.8174
831.80	62.4226
860.56	51.2392
896.60	41.7716
911.20	46.9355
934.06	46.1872
964.77	28.8280
968.97	47.5234
1001.03	36.8781
1078.86	42.5195
1120.29	41.9866
1155.19	40.0616
1173.23	42.2562
1238.11	41.1164
1280.96	28.3678
1332.51	27.5573
1377.67	21.9676
1401.50	31.0886
1407.98	25.7559
1460.80	24.8905
1509.23	28.0382
1588.20	26.4824
1620.50	23.9467
1729.60	11.5815
1764.49	24.2440

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683038

Total Uranium Activity	7.1395E-02	ug/g
Total Uranium Counting Unc.	7.5004E-02	ug/g
Total Uranium Tpu	7.5004E-08	ug/g
Total Uranium Mda	4.1800E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:24:50.53

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683039.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:33:16
Sample ID        : G198683039           Sample quantity  : 1.15610E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.34  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.32*	27	467	1.77	92.10	89	8	1.89E-03	152.0	
2	0	63.15*	56	689	1.22	125.74	122	9	3.86E-03	92.1	
3	2	74.60*	486	642	1.09	148.64	143	15	3.38E-02	10.3	1.27E+00
4	2	76.92*	711	611	1.17	153.27	143	15	4.94E-02	7.3	
5	2	83.96*	93	588	1.20	167.35	163	28	6.42E-03	46.5	3.14E+00
6	2	86.92	339	735	1.44	173.26	163	28	2.35E-02	15.3	
7	2	89.73	149	477	0.97	178.88	163	28	1.04E-02	24.6	
8	2	92.42*	250	536	1.23	184.25	163	28	1.74E-02	20.8	
9	0	108.79*	15	415	1.78	216.98	214	7	1.01E-03	268.0	
10	0	143.14*	85	483	1.47	285.64	282	8	5.89E-03	48.7	
11	0	153.14	47	423	0.78	305.63	303	7	3.28E-03	73.9	
12	0	181.46	32	383	0.72	362.25	360	7	2.22E-03	102.9	
13	0	185.65*	297	519	1.51	370.64	366	10	2.07E-02	17.4	
14	0	208.71	121	680	0.82	416.74	411	12	8.43E-03	43.9	
15	4	238.37*	1681	313	1.34	476.02	470	17	1.17E-01	3.3	2.53E+00
16	4	241.39	433	332	1.69	482.06	470	17	3.01E-02	11.1	
17	0	269.76*	113	339	1.19	538.78	534	10	7.83E-03	35.2	
18	1	294.92*	554	322	1.44	589.08	582	21	3.85E-02	7.6	1.35E+00
19	1	299.72*	67	320	1.45	598.68	582	21	4.67E-03	53.7	
20	0	327.97	173	289	1.72	655.16	649	13	1.20E-02	21.7	
21	0	338.07*	313	260	1.50	675.34	670	9	2.17E-02	11.6	
22	0	351.53*	1027	290	1.46	702.26	696	12	7.13E-02	4.7	
23	0	438.67	31	167	1.43	876.50	872	9	2.12E-03	78.7	
24	0	456.74	16	145	0.77	912.63	909	9	1.14E-03	135.3	
25	0	462.33*	135	229	1.74	923.81	918	14	9.34E-03	26.7	
26	5	505.07	43	135	3.00	1009.27	1004	29	3.01E-03	53.4	1.51E+00
27	5	510.48*	174	234	2.88	1020.08	1004	29	1.21E-02	29.0	
28	0	582.73*	628	204	1.66	1164.56	1156	18	4.36E-02	7.0	
29	0	601.54	38	110	1.32	1202.17	1199	7	2.67E-03	48.5	
30	0	608.86*	715	211	1.62	1216.80	1210	13	4.97E-02	6.1	
31	0	628.97	22	100	1.24	1257.03	1253	8	1.53E-03	82.1	
32	0	661.31	240	183	1.59	1321.69	1315	12	1.67E-02	13.0	
33	0	699.02	28	128	1.81	1397.11	1395	9	1.96E-03	73.8	
34	0	726.73	138	110	1.99	1452.52	1447	11	9.57E-03	17.0	
35	0	754.05	49	94	4.14	1507.15	1500	12	3.37E-03	42.8	
36	0	767.99	49	136	1.09	1535.05	1530	10	3.43E-03	46.6	
37	0	772.65	25	106	0.74	1544.37	1539	11	1.74E-03	82.3	
38	0	786.24	78	78	5.08	1571.55	1565	13	5.39E-03	27.1	

Sample ID : G198683039 Acquisition date : 16-DEC-2007 12:33:16

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	794.67	48	134	0.83	1588.40	1583	13	3.36E-03	51.2	
40	0	860.13*	85	104	1.67	1719.33	1714	14	5.88E-03	30.0	
41	0	910.73*	429	134	1.76	1820.53	1813	15	2.98E-02	8.0	
42	0	933.43	59	80	2.76	1865.92	1859	14	4.13E-03	34.5	
43	2	964.02	96	88	2.79	1927.12	1920	29	6.68E-03	25.7	1.84E+00
44	2	968.46*	295	86	2.55	1935.99	1920	29	2.05E-02	9.8	
45	0	1120.28	221	155	3.15	2239.67	2228	27	1.53E-02	17.4	
46	0	1154.86	37	56	1.72	2308.85	2303	12	2.60E-03	43.5	
47	0	1237.97	72	131	1.90	2475.11	2464	19	5.01E-03	40.1	
48	0	1376.64	58	72	1.62	2752.55	2744	16	4.03E-03	35.3	
49	1	1408.12	41	51	2.90	2815.53	2810	24	2.87E-03	31.1	5.04E+00
50	1	1412.35	35	45	2.64	2824.00	2810	24	2.42E-03	49.9	
51	0	1442.75	22	30	2.80	2884.82	2879	10	1.53E-03	51.2	
52	0	1460.07*	1012	94	2.88	2919.48	2910	19	7.03E-02	4.0	
53	0	1588.52	37	79	3.19	3176.49	3160	21	2.56E-03	62.5	
54	0	1620.59	23	42	2.40	3240.68	3228	17	1.57E-03	69.5	
55	0	1629.00	36	14	2.87	3257.50	3251	14	2.50E-03	27.6	
56	0	1651.28	35	24	9.52	3302.08	3288	25	2.40E-03	42.5	
57	0	1729.82	31	46	3.19	3459.24	3446	18	2.18E-03	53.4	
58	0	1763.43*	160	30	2.24	3526.51	3515	20	1.11E-02	12.4	
59	0	1804.92	17	29	1.23	3609.55	3600	19	1.18E-03	79.2	

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]G198683039       *
* Acquisition date : 16-DEC-2007 12:33:16 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 04:00:02.34     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683039           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1561E+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	7.722E+00	7.519E-01	2.829E-01	0.000E+00
CS-137	1.197E-01	3.219E-02	3.209E-02	0.000E+00
TL-208	2.858E-01	4.475E-02	2.850E-02	0.000E+00
BI-212	5.327E-01	1.841E-01	2.259E-01	0.000E+00
PB-212	8.659E-01	7.568E-02	4.726E-02	0.000E+00
BI-214	6.164E-01	8.832E-02	5.321E-02	0.000E+00
PB-214	7.562E-01	8.190E-02	5.903E-02	0.000E+00
RA-223	1.962E-01	1.360E-01	1.558E-01	0.000E+00
AC-228	9.177E-01	1.698E-01	1.028E-01	0.000E+00
TH-234	8.687E-01	3.607E-01	3.819E-01	0.000E+00
U-235	1.388E-01	1.329E-01	1.739E-01	0.000E+00
NP-237	5.360E-01	1.667E-01	1.740E-01	0.000E+00
AM-243	1.664E-01	3.598E-02	4.086E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	5.335E-03		2.081E-02	3.497E-02	0.000E+00	NOT IDENT.
RH-101	-1.853E-02		2.066E-02	3.126E-02	0.000E+00	NOT IDENT.
SB-125	-6.484E-03		4.579E-02	7.576E-02	0.000E+00	NOT IDENT.
EU-155	4.637E-02		5.750E-02	9.133E-02	0.000E+00	NOT IDENT.
PO-209	1.346E-01		3.369E+00	5.726E+00	0.000E+00	NOT IDENT.
BI-211	-2.636E-01		5.165E-01	8.563E-01	0.000E+00	NOT IDENT.
PA-233	-2.255E-03		3.178E-02	5.420E-02	0.000E+00	NOT IDENT.
PA-234M	7.272E-01		2.480E+00	3.987E+00	0.000E+00	NOT IDENT.
NP-236	2.761E-02		3.288E-02	5.237E-02	0.000E+00	NOT IDENT.
NP-239	-1.392E-01		1.215E-01	1.924E-01	0.000E+00	NOT IDENT.
AM-241	3.794E-02		7.566E-02	1.129E-01	0.000E+00	NOT IDENT.
CM-243	2.703E-02		5.019E-02	8.302E-02	0.000E+00	NOT IDENT.
AM-246	4.598E-02		6.190E-02	1.084E-01	0.000E+00	NOT IDENT.
CF-249	7.863E-03		2.033E-02	3.472E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:24:51.51

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683039.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:33:16
Sample ID        : G198683039           Sample quantity  : 1.15610E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.34  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	1012	10.66*	1.997E+00	7.722E+00	7.722E+00	9.94
CS-137	661.66	240	85.10*	3.836E+00	1.193E-01	1.197E-01	27.44
TL-208	277.36	------	6.31	6.709E+00	------	Line Not Found	------
	510.77	174	22.60	4.633E+00	2.701E-01	2.701E-01	58.45
	583.19	628	84.50*	4.220E+00	2.858E-01	2.858E-01	15.98
	763.13	------	1.81	3.420E+00	------	Line Not Found	------
	860.56	85	12.42	3.093E+00	3.576E-01	3.576E-01	60.86
BI-212	727.33	138	11.80*	3.560E+00	5.327E-01	5.327E-01	35.26
	785.37	78	1.10	3.337E+00	3.433E+00	3.433E+00	54.95
	1620.50	23	1.49	1.873E+00	1.311E+00	1.311E+00	139.19
PB-212	74.81	486	10.40	6.953E+00	1.091E+00	1.091E+00	22.06
	77.11	711	17.50	7.257E+00	9.086E-01	9.086E-01	16.63
	87.30	339	7.81	8.269E+00	8.511E-01	8.511E-01	31.74
	238.63	1681	43.30*	7.279E+00	8.659E-01	8.659E-01	8.92
	300.09	67	3.28	6.425E+00	5.175E-01	5.175E-01	107.60
BI-214	609.31	715	46.10*	4.085E+00	6.164E-01	6.164E-01	14.62
	768.36	49	4.94	3.403E+00	4.769E-01	4.769E-01	93.62
	806.17	------	1.22	3.268E+00	------	Line Not Found	------
	934.06	59	3.03	2.882E+00	1.105E+00	1.105E+00	69.70
	1120.29	221	15.10	2.460E+00	9.638E-01	9.639E-01	35.50
	1155.19	37	1.63	2.397E+00	1.553E+00	1.553E+00	87.17
	1238.11	72	5.79	2.262E+00	8.938E-01	8.939E-01	80.36
	1280.96	------	1.43	2.201E+00	------	Line Not Found	------
	1377.67	58	4.00	2.082E+00	1.131E+00	1.131E+00	70.74
	1401.50	------	1.27	2.055E+00	------	Line Not Found	------
	1407.98	41	2.15	2.048E+00	1.523E+00	1.523E+00	62.47
	1509.23	------	2.11	1.953E+00	------	Line Not Found	------
	1729.60	31	2.92	1.815E+00	9.595E-01	9.596E-01	106.89
	1764.49	160	15.40	1.801E+00	9.349E-01	9.350E-01	25.43
PB-214	74.81	486	6.44	6.953E+00	1.763E+00	1.763E+00	22.06
	77.11	711	10.80	7.257E+00	1.472E+00	1.472E+00	16.63
	87.30	339	4.84	8.269E+00	1.373E+00	1.373E+00	31.74

Sample ID : G198683039 Acquisition date : 16-DEC-2007 12:33:16

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	433	7.43	7.231E+00	1.308E+00	1.308E+00	22.92
	295.22	554	19.30	6.484E+00	7.187E-01	7.188E-01	16.36
	351.93	1027	37.60*	5.863E+00	7.561E-01	7.562E-01	11.05
RA-223	269.46	113	13.70*	6.812E+00	1.962E-01	1.962E-01	70.72
AC-228	129.07	------	2.42	9.238E+00	------	Line Not Found	------
	209.25	121	3.89	7.790E+00	6.504E-01	6.504E-01	87.92
	270.25	113	3.46	6.812E+00	7.770E-01	7.770E-01	70.72
	338.32	313	11.27	5.998E+00	7.513E-01	7.513E-01	23.92
	409.46	------	1.92	5.348E+00	------	Line Not Found	------
	463.00	135	4.40	4.950E+00	1.003E+00	1.003E+00	53.70
	794.95	48	4.25	3.307E+00	5.595E-01	5.595E-01	102.83
	911.20	429	25.80*	2.944E+00	9.177E-01	9.177E-01	18.88
	964.77	96	4.99	2.802E+00	1.116E+00	1.116E+00	52.20
	968.97	295	15.80	2.791E+00	1.085E+00	1.085E+00	21.72
	1588.20	37	3.22	1.894E+00	9.803E-01	9.803E-01	125.12
TH-234	63.29	56	4.80	5.052E+00	3.722E-01	3.722E-01	184.31
	92.58	250	5.41*	8.644E+00	8.687E-01	8.687E-01	42.37
U-235	143.76	85	10.96*	9.054E+00	1.388E-01	1.388E-01	97.68
NP-237	86.48	339	12.40*	8.269E+00	5.360E-01	5.360E-01	31.74
AM-243	74.66	486	68.20*	6.953E+00	1.664E-01	1.664E-01	22.06

Flag: "*" = Keyline

Sample ID : G198683039 Acquisition date : 16-DEC-2007 12:33:16

Total number of lines in spectrum 59
Number of unidentified lines 21
Number of lines tentatively identified by NID 38 64.41%

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	7.722E+00	7.722E+00	0.767E+00	9.94	
CS-137	9.47E+08S	1.00	1.193E-01	1.197E-01	0.328E-01	27.44	
TL-208	4.43E+17S	1.00	2.858E-01	2.858E-01	0.457E-01	15.98	
BI-212	4.43E+17S	1.00	5.327E-01	5.327E-01	1.878E-01	35.26	
PB-212	4.43E+17S	1.00	8.659E-01	8.659E-01	0.772E-01	8.92	
BI-214	5.05E+10S	1.00	6.164E-01	6.164E-01	0.901E-01	14.62	
PB-214	5.05E+10S	1.00	7.561E-01	7.562E-01	0.836E-01	11.05	
RA-223	1.04E+12S	1.00	1.962E-01	1.962E-01	1.388E-01	70.72	
AC-228	4.43E+17S	1.00	9.177E-01	9.177E-01	1.732E-01	18.88	
TH-234	1.41E+17S	1.00	8.687E-01	8.687E-01	3.680E-01	42.37	
U-235	2.22E+16S	1.00	1.388E-01	1.388E-01	1.356E-01	97.68	
NP-237	6.75E+13S	1.00	5.360E-01	5.360E-01	1.701E-01	31.74	
AM-243	2.33E+11S	1.00	1.664E-01	1.664E-01	0.367E-01	22.06	
			---	---			
	Total Activity :		1.372E+01	1.372E+01			

Grand Total Activity : 1.372E+01 1.372E+01

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

Sample ID : G198683039 Acquisition date : 16-DEC-2007 12:33:16

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.32	27	467	1.77	92.10	89	8	1.89E-03	****	1.66E+00	
2	83.96	93	588	1.20	167.35	163	28	6.42E-03	93.1	8.02E+00	
2	89.73	149	477	0.97	178.88	163	28	1.04E-02	49.1	8.48E+00	
0	108.79	15	415	1.78	216.98	214	7	1.01E-03	****	9.21E+00	
0	153.14	47	423	0.78	305.63	303	7	3.28E-03	****	8.88E+00	
0	181.46	32	383	0.72	362.25	360	7	2.22E-03	****	8.32E+00	
0	185.65	297	519	1.51	370.64	366	10	2.07E-02	34.8	8.23E+00	
0	327.97	173	289	1.72	655.16	649	13	1.20E-02	43.4	6.10E+00	
0	438.67	31	167	1.43	876.50	872	9	2.12E-03	****	5.12E+00	
0	456.74	16	145	0.77	912.63	909	9	1.14E-03	****	4.99E+00	
5	505.07	43	135	3.00	1009.27	1004	29	3.01E-03	****	4.67E+00	
0	601.54	38	110	1.32	1202.17	1199	7	2.67E-03	97.0	4.12E+00	
0	628.97	22	100	1.24	1257.03	1253	8	1.53E-03	****	3.99E+00	
0	699.02	28	128	1.81	1397.11	1395	9	1.96E-03	****	3.67E+00	
0	754.05	49	94	4.14	1507.15	1500	12	3.37E-03	85.6	3.45E+00	
0	772.65	25	106	0.74	1544.37	1539	11	1.74E-03	****	3.39E+00	
1	1412.35	35	45	2.64	2824.00	2810	24	2.42E-03	99.8	2.04E+00	
0	1442.75	22	30	2.80	2884.82	2879	10	1.53E-03	****	2.01E+00	
0	1629.00	36	14	2.87	3257.50	3251	14	2.50E-03	55.3	1.87E+00	
0	1651.28	35	24	9.52	3302.08	3288	25	2.40E-03	85.0	1.85E+00	
0	1804.92	17	29	1.23	3609.55	3600	19	1.18E-03	****	1.79E+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]G198683039            *
* Acquisition date : 16-DEC-2007 12:33:16 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 04:00:02.34     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683039           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1561E+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	7.722E+00	7.519E-01	1.415E-01	7.519E-01
CS-137	1.197E-01	3.219E-02	1.605E-02	3.219E-02
TL-208	2.858E-01	4.475E-02	1.426E-02	4.475E-02
BI-212	5.327E-01	1.841E-01	1.130E-01	1.841E-01
PB-212	8.659E-01	7.568E-02	2.365E-02	7.568E-02
BI-214	6.164E-01	8.832E-02	2.662E-02	8.832E-02
PB-214	7.562E-01	8.190E-02	2.953E-02	8.190E-02
RA-223	1.962E-01	1.360E-01	7.794E-02	1.360E-01
AC-228	9.177E-01	1.698E-01	5.141E-02	1.698E-01
TH-234	8.687E-01	3.607E-01	1.911E-01	3.607E-01
U-235	1.388E-01	1.329E-01	8.699E-02	1.329E-01
NP-237	5.360E-01	1.667E-01	8.705E-02	1.667E-01
AM-243	1.664E-01	3.598E-02	2.044E-02	3.598E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	5.335E-03	2.081E-02	1.749E-02	2.081E-02	NOT IDENT.
RH-101	-1.853E-02	2.066E-02	1.564E-02	2.066E-02	NOT IDENT.
SB-125	-6.484E-03	4.579E-02	3.790E-02	4.579E-02	NOT IDENT.
EU-155	4.637E-02	5.750E-02	4.569E-02	5.750E-02	NOT IDENT.
PO-209	1.346E-01	3.369E+00	2.865E+00	3.369E+00	NOT IDENT.
BI-211	-2.636E-01	5.165E-01	4.284E-01	5.165E-01	NOT IDENT.
PA-233	-2.255E-03	3.178E-02	2.712E-02	3.178E-02	NOT IDENT.
PA-234M	7.272E-01	2.480E+00	1.995E+00	2.480E+00	NOT IDENT.
NP-236	2.761E-02	3.288E-02	2.620E-02	3.288E-02	NOT IDENT.
NP-239	-1.392E-01	1.215E-01	9.626E-02	1.215E-01	NOT IDENT.
AM-241	3.794E-02	7.566E-02	5.649E-02	7.566E-02	NOT IDENT.
CM-243	2.703E-02	5.019E-02	4.154E-02	5.019E-02	NOT IDENT.
AM-246	4.598E-02	6.190E-02	5.424E-02	6.190E-02	NOT IDENT.
CF-249	7.863E-03	2.033E-02	1.737E-02	2.033E-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	453.9400
63.29	560.6060
74.66	627.7696
74.81	628.0107
74.81	628.0107
77.11	631.6975
77.11	631.6975
86.48	528.2065
87.30	529.2103
87.30	529.2103
92.58	535.5707
98.44	455.3636
103.76	469.0547
105.31	449.0462
129.07	500.7166
143.76	501.9046
198.00	512.7618
209.25	446.0320
228.18	473.9231
238.63	378.2179
242.00	308.8200
269.46	361.8811
270.25	344.4812
277.36	317.8580
295.22	316.6847
300.09	265.1062
312.17	299.3701
338.32	287.4299
351.93	290.6974
387.59	258.7672
409.46	256.7087
427.87	225.0663
463.00	212.0125
510.77	169.9492
583.19	179.1222
609.31	174.3118
661.66	189.4422
727.33	156.8665
763.13	171.2307
768.36	167.9693
785.37	148.9708
794.95	121.5092
806.17	150.4391
831.80	158.4404
860.56	118.5477
896.60	111.5618
911.20	106.6201
934.06	114.3588
964.77	99.6156
968.97	99.7653
1001.03	100.8996
1078.86	83.0679
1120.29	112.2376
1155.19	74.5931
1173.23	107.7560
1238.11	102.1896
1280.96	78.2238
1332.51	74.5092
1377.67	78.3545
1401.50	71.8390
1407.98	103.5509
1460.80	64.0430
1509.23	53.6745
1588.20	51.3728
1620.50	41.5918
1729.60	44.3206
1764.49	34.3496

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683039

Total Uranium Activity	6.4219E-02	ug/g
Total Uranium Counting Unc.	6.1472E-02	ug/g
Total Uranium Tpu	6.1472E-08	ug/g
Total Uranium Mda	4.0250E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:25:35.33

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683040.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:33:38
Sample ID        : G198683040           Sample quantity  : 1.32720E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:09.02  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.02*	80	487	0.80	125.99	122	9	5.53E-03	54.6	
2	2	74.88*	329	415	0.98	149.72	145	13	2.29E-02	11.7	1.69E+00
3	2	77.10	552	363	0.81	154.14	145	13	3.84E-02	6.7	
4	4	84.14	93	430	1.22	168.24	164	28	6.47E-03	38.1	1.46E+00
5	4	87.22	229	425	1.11	174.40	164	28	1.59E-02	16.4	
6	4	90.04	150	359	0.95	180.04	164	28	1.04E-02	21.6	
7	4	92.74*	297	412	1.25	185.44	164	28	2.06E-02	14.4	
8	0	129.62	94	409	1.10	259.20	255	8	6.51E-03	38.8	
9	0	143.83*	53	412	1.28	287.63	284	8	3.70E-03	70.2	
10	0	163.16*	66	251	1.48	326.29	324	6	4.60E-03	42.6	
11	0	185.88*	206	508	1.32	371.74	367	10	1.43E-02	23.4	
12	0	195.08	64	305	2.60	390.15	387	8	4.44E-03	48.9	
13	0	209.05	120	375	1.11	418.09	415	8	8.36E-03	29.2	
14	0	221.44	44	233	1.39	442.87	441	6	3.04E-03	57.0	
15	5	238.62*	1198	269	0.94	477.25	473	17	8.32E-02	3.9	8.31E-01
16	5	241.65	299	365	1.62	483.30	473	17	2.07E-02	15.7	
17	0	258.48	50	223	1.31	516.96	513	8	3.46E-03	53.8	
18	0	270.09	122	274	1.10	540.19	536	9	8.45E-03	26.2	
19	0	277.36	70	281	1.09	554.73	551	9	4.86E-03	44.9	
20	0	295.13	359	295	1.06	590.28	584	11	2.50E-02	10.6	
21	0	299.94	133	252	1.21	599.91	595	10	9.21E-03	24.0	
22	0	327.32	107	272	1.24	654.69	650	11	7.41E-03	31.4	
23	0	338.16	303	253	1.11	676.36	671	11	2.10E-02	11.7	
24	0	351.79*	680	301	1.17	703.63	697	14	4.72E-02	6.9	
25	0	422.49	13	101	1.22	845.07	842	6	9.02E-04	125.9	
26	0	462.85	52	171	1.30	925.81	920	11	3.62E-03	50.5	
27	0	474.81	61	196	6.56	949.72	943	16	4.26E-03	52.6	
28	0	510.83*	110	229	1.72	1021.78	1014	14	7.65E-03	38.3	
29	0	569.61*	10	162	1.26	1139.38	1133	12	6.86E-04	370.3	
30	0	582.98*	409	127	1.39	1166.12	1159	13	2.84E-02	8.0	
31	0	609.19*	411	169	1.36	1218.58	1213	14	2.86E-02	8.6	
32	0	661.56	65	107	1.06	1323.36	1318	11	4.48E-03	33.8	
33	0	692.43	43	82	4.28	1385.11	1379	12	3.02E-03	44.1	
34	1	723.53*	12	63	1.78	1447.32	1444	25	8.63E-04	125.0	1.26E+00
35	1	727.34	77	96	1.79	1454.96	1444	25	5.34E-03	27.5	
36	0	768.29	41	77	0.79	1536.88	1530	10	2.83E-03	43.4	
37	0	786.51	27	93	0.93	1573.35	1566	12	1.89E-03	73.2	
38	0	795.34	39	84	1.15	1591.01	1585	11	2.69E-03	48.7	

Sample ID : G198683040 Acquisition date : 16-DEC-2007 12:33:38

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	803.39*	6	69	1.30	1607.11	1600	10	3.86E-04	314.1	
40	0	831.48	17	90	1.00	1663.32	1655	12	1.21E-03	111.2	
41	0	837.11	26	107	0.92	1674.58	1666	13	1.79E-03	85.3	
42	0	843.26*	14	107	4.21	1686.89	1679	13	9.80E-04	162.8	
43	0	857.48	89	143	10.93	1715.35	1700	26	6.18E-03	38.3	
44	0	865.29	29	63	2.17	1730.96	1726	10	1.99E-03	55.0	
45	0	910.94*	286	60	1.43	1822.30	1815	15	1.99E-02	8.7	
46	0	954.29	23	23	0.65	1909.04	1905	7	1.58E-03	41.3	
47	1	964.08	61	39	1.99	1928.64	1924	24	4.21E-03	24.9	9.46E-01
48	1	968.80	152	61	1.95	1938.07	1924	24	1.05E-02	13.0	
49	0	1063.50*	25	33	1.51	2127.57	2122	14	1.73E-03	110.4	
50	0	1090.99	33	32	5.66	2182.57	2176	14	2.30E-03	39.9	
51	0	1120.19*	107	35	1.82	2241.01	2235	13	7.40E-03	16.4	
52	0	1206.45	21	102	6.31	2413.63	2394	23	1.46E-03	127.7	
53	2	1237.76	40	37	2.41	2476.28	2471	24	2.80E-03	33.1	2.23E+00
54	2	1244.70	29	31	2.41	2490.16	2471	24	2.00E-03	41.1	
55	0	1346.33	13	17	0.61	2693.56	2689	9	9.05E-04	64.4	
56	0	1350.17	20	13	3.65	2701.24	2697	10	1.39E-03	40.0	
57	0	1377.42	38	28	1.43	2755.76	2749	14	2.64E-03	33.7	
58	0	1422.80	12	25	0.76	2846.59	2840	11	8.44E-04	84.4	
59	0	1460.40*	624	39	2.19	2921.85	2913	19	4.33E-02	4.8	
60	0	1553.11	8	8	1.40	3107.38	3100	11	5.51E-04	78.4	
61	0	1556.56	12	2	1.04	3114.29	3111	8	8.66E-04	34.0	
62	0	1620.97	12	20	1.49	3243.21	3235	10	8.22E-04	76.5	
63	0	1667.16	12	4	1.88	3335.65	3331	9	8.38E-04	42.4	
64	0	1693.81	9	7	4.47	3389.00	3380	14	6.25E-04	70.7	
65	0	1705.50	8	9	4.29	3412.38	3404	12	5.43E-04	84.8	
66	0	1730.75	14	18	1.31	3462.93	3451	14	9.84E-04	68.1	
67	0	1744.64	13	4	0.92	3490.73	3482	14	9.25E-04	40.6	
68	1	1754.50	19	5	2.52	3510.46	3508	41	1.33E-03	20.3	1.72E+00
69	1	1764.42	76	15	2.52	3530.32	3508	41	5.26E-03	16.7	
70	0	1789.76	15	3	1.17	3581.04	3574	14	1.03E-03	37.0	
71	0	1822.41	4	15	3.02	3646.40	3642	10	2.43E-04	224.5	
72	0	1846.67	21	4	3.48	3694.95	3690	11	1.43E-03	30.9	
73	0	1927.92	11	10	0.65	3857.60	3851	10	7.31E-04	68.7	
74	0	2029.78	5	8	0.52	4061.49	4055	10	3.79E-04	103.2	

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]G198683040       *
* Acquisition date : 16-DEC-2007 12:33:38 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 04:00:09.02     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683040           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.3272E+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	7.976E+00	9.316E-01	3.250E-01	0.000E+00
CS-137	5.119E-02	3.401E-02	3.832E-02	0.000E+00
TL-208	2.925E-01	4.850E-02	3.288E-02	0.000E+00
BI-211	4.361E-01	9.506E-01	1.128E+00	0.000E+00
BI-212	4.763E-01	2.583E-01	2.795E-01	0.000E+00
PB-212	8.206E-01	7.734E-02	5.412E-02	0.000E+00
BI-214	5.594E-01	9.957E-02	7.144E-02	0.000E+00
PB-214	7.243E-01	1.053E-01	6.726E-02	0.000E+00
RA-223	2.892E-01	1.497E-01	1.728E-01	0.000E+00
AC-228	9.927E-01	1.861E-01	1.268E-01	0.000E+00
TH-234	1.350E+00	3.926E-01	3.891E-01	0.000E+00
U-235	1.075E-01	1.480E-01	1.729E-01	0.000E+00
NP-237	4.854E-01	1.598E-01	1.822E-01	0.000E+00
AM-243	1.643E-01	3.951E-02	4.580E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
CO-60	1.534E-02		2.240E-02	4.043E-02	0.000E+00	NOT IDENT.
RH-101	-5.352E-03		2.023E-02	2.915E-02	0.000E+00	NOT IDENT.
SB-125	-3.177E-02		5.551E-02	9.190E-02	0.000E+00	NOT IDENT.
EU-155	6.172E-02		5.092E-02	9.593E-02	0.000E+00	NOT IDENT.
PO-209	-4.093E-01		5.215E+00	8.120E+00	0.000E+00	NOT IDENT.
PA-233	1.801E-02		3.540E-02	6.400E-02	0.000E+00	NOT IDENT.
PA-234M	-1.197E+00		2.840E+00	4.306E+00	0.000E+00	NOT IDENT.
NP-236	4.339E-03		3.203E-02	5.403E-02	0.000E+00	NOT IDENT.
NP-239	-1.021E-01		1.251E-01	2.038E-01	0.000E+00	NOT IDENT.
AM-241	9.383E-02		8.982E-02	1.499E-01	0.000E+00	NOT IDENT.
CM-243	-1.736E-02		4.592E-02	8.216E-02	0.000E+00	NOT IDENT.
AM-246	2.458E-02		7.963E-02	1.400E-01	0.000E+00	NOT IDENT.
CF-249	-2.113E-02		2.357E-02	3.880E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:25:36.36

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683040.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 12:33:38
Sample ID        : G198683040           Sample quantity  : 1.32720E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:09.02  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	624	10.66*	1.037E+00	7.976E+00	7.976E+00	11.92
CS-137	661.66	65	85.10*	2.102E+00	5.100E-02	5.119E-02	67.79
TL-208	277.36	70	6.31	4.253E+00	3.690E-01	3.690E-01	90.00
	510.77	110	22.60	2.614E+00	2.636E-01	2.636E-01	76.70
	583.19	409	84.50*	2.342E+00	2.925E-01	2.925E-01	16.92
	763.13	------	1.81	1.854E+00	------	Line Not Found	------
	860.56	------	12.42	1.664E+00	------	Line Not Found	------
BI-211	831.80	17	3.30*	1.717E+00	4.361E-01	4.361E-01	222.44
BI-212	727.33	77	11.80*	1.935E+00	4.763E-01	4.763E-01	55.34
	785.37	27	1.10	1.805E+00	1.943E+00	1.943E+00	146.62
	1620.50	12	1.49	9.595E-01	1.172E+00	1.172E+00	153.06
PB-212	74.81	329	10.40	4.156E+00	1.078E+00	1.078E+00	24.53
	77.11	552	17.50	4.411E+00	1.012E+00	1.012E+00	15.11
	87.30	229	7.81	5.372E+00	7.706E-01	7.706E-01	33.59
	238.63	1198	43.30*	4.767E+00	8.206E-01	8.206E-01	9.62
	300.09	133	3.28	4.002E+00	1.429E+00	1.429E+00	48.41
BI-214	609.31	411	46.10*	2.256E+00	5.593E-01	5.594E-01	18.16
	768.36	41	4.94	1.843E+00	6.320E-01	6.320E-01	87.05
	806.17	------	1.22	1.765E+00	------	Line Not Found	------
	934.06	------	3.03	1.544E+00	------	Line Not Found	------
	1120.29	107	15.10	1.306E+00	7.637E-01	7.638E-01	33.43
	1155.19	------	1.63	1.270E+00	------	Line Not Found	------
	1238.11	40	5.79	1.194E+00	8.242E-01	8.243E-01	66.45
	1280.96	------	1.43	1.158E+00	------	Line Not Found	------
	1377.67	38	4.00	1.088E+00	1.235E+00	1.235E+00	67.79
	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	14	2.92	9.192E-01	7.466E-01	7.467E-01	136.43
	1764.49	76	15.40	9.087E-01	7.654E-01	7.655E-01	33.90
PB-214	74.81	329	6.44	4.156E+00	1.740E+00	1.740E+00	24.53
	77.11	552	10.80	4.411E+00	1.640E+00	1.640E+00	15.11

Sample ID : G198683040 Acquisition date : 16-DEC-2007 12:33:38

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	229	4.84	5.372E+00	1.243E+00	1.244E+00	33.59
	242.00	299	7.43	4.723E+00	1.204E+00	1.204E+00	31.83
	295.22	359	19.30	4.053E+00	6.496E-01	6.497E-01	22.09
	351.93	680	37.60*	3.530E+00	7.242E-01	7.243E-01	14.84
RA-223	269.46	122	13.70*	4.341E+00	2.892E-01	2.892E-01	52.82
AC-228	129.07	94	2.42	6.527E+00	8.390E-01	8.390E-01	77.82
	209.25	120	3.89	5.240E+00	8.351E-01	8.351E-01	58.63
	270.25	122	3.46	4.341E+00	1.145E+00	1.145E+00	52.82
	338.32	303	11.27	3.642E+00	1.044E+00	1.044E+00	24.00
	409.46	------	1.92	3.128E+00	------	Line Not Found	------
	463.00	52	4.40	2.834E+00	5.905E-01	5.905E-01	101.18
	794.95	39	4.25	1.787E+00	7.225E-01	7.225E-01	97.72
	911.20	286	25.80*	1.580E+00	9.927E-01	9.927E-01	19.13
	964.77	61	4.99	1.499E+00	1.147E+00	1.147E+00	50.32
	968.97	152	15.80	1.493E+00	9.094E-01	9.094E-01	27.14
	1588.20	------	3.22	9.734E-01	------	Line Not Found	------
TH-234	63.29	80	4.80	2.589E+00	9.059E-01	9.059E-01	109.52
	92.58	297	5.41*	5.753E+00	1.350E+00	1.350E+00	29.68
U-235	143.76	53	10.96*	6.389E+00	1.075E-01	1.075E-01	140.48
NP-237	86.48	229	12.40*	5.372E+00	4.854E-01	4.854E-01	33.59
AM-243	74.66	329	68.20*	4.156E+00	1.643E-01	1.643E-01	24.53

Flag: "*" = Keyline

Sample ID : G198683040 Acquisition date : 16-DEC-2007 12:33:38

Total number of lines in spectrum	74	
Number of unidentified lines	38	
Number of lines tentatively identified by NID	36	48.65%

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	7.976E+00	7.976E+00	0.951E+00	11.92	
CS-137	9.47E+08S	1.00	5.100E-02	5.119E-02	3.470E-02	67.79	
TL-208	4.43E+17S	1.00	2.925E-01	2.925E-01	0.495E-01	16.92	
BI-211	2.22E+16S	1.00	4.361E-01	4.361E-01	9.700E-01	222.44	
BI-212	4.43E+17S	1.00	4.763E-01	4.763E-01	2.636E-01	55.34	
PB-212	4.43E+17S	1.00	8.206E-01	8.206E-01	0.789E-01	9.62	
BI-214	5.05E+10S	1.00	5.593E-01	5.594E-01	1.016E-01	18.16	
PB-214	5.05E+10S	1.00	7.242E-01	7.243E-01	1.075E-01	14.84	
RA-223	1.04E+12S	1.00	2.892E-01	2.892E-01	1.527E-01	52.82	
AC-228	4.43E+17S	1.00	9.927E-01	9.927E-01	1.899E-01	19.13	
TH-234	1.41E+17S	1.00	1.350E+00	1.350E+00	0.401E+00	29.68	
U-235	2.22E+16S	1.00	1.075E-01	1.075E-01	1.511E-01	140.48	
NP-237	6.75E+13S	1.00	4.854E-01	4.854E-01	1.630E-01	33.59	
AM-243	2.33E+11S	1.00	1.643E-01	1.643E-01	0.403E-01	24.53	
			---	---			
		Total Activity :	1.473E+01	1.473E+01			
		Grand Total Activity :	1.473E+01	1.473E+01			

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

Sample ID : G198683040 Acquisition date : 16-DEC-2007 12:33:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.14	93	430	1.22	168.24	164	28	6.47E-03	76.2	5.12E+00	
4	90.04	150	359	0.95	180.04	164	28	1.04E-02	43.3	5.58E+00	
0	163.16	66	251	1.48	326.29	324	6	4.60E-03	85.3	6.08E+00	
0	185.88	206	508	1.32	371.74	367	10	1.43E-02	46.8	5.66E+00	
0	195.08	64	305	2.60	390.15	387	8	4.44E-03	97.8	5.49E+00	
0	221.44	44	233	1.39	442.87	441	6	3.04E-03	****	5.03E+00	
0	258.48	50	223	1.31	516.96	513	8	3.46E-03	****	4.49E+00	
0	327.32	107	272	1.24	654.69	650	11	7.41E-03	62.8	3.74E+00	
0	422.49	13	101	1.22	845.07	842	6	9.02E-04	****	3.05E+00	
0	474.81	61	196	6.56	949.72	943	16	4.26E-03	****	2.78E+00	
0	569.61	10	162	1.26	1139.38	1133	12	6.86E-04	****	2.39E+00	
0	692.43	43	82	4.28	1385.11	1379	12	3.02E-03	88.2	2.02E+00	
1	723.53	12	63	1.78	1447.32	1444	25	8.63E-04	****	1.94E+00	
0	803.39	6	69	1.30	1607.11	1600	10	3.86E-04	****	1.77E+00	
0	837.11	26	107	0.92	1674.58	1666	13	1.79E-03	****	1.71E+00	
0	843.26	14	107	4.21	1686.89	1679	13	9.80E-04	****	1.69E+00	
0	857.48	89	143	10.93	1715.35	1700	26	6.18E-03	76.6	1.67E+00	
0	865.29	29	63	2.17	1730.96	1726	10	1.99E-03	****	1.66E+00	
0	954.29	23	23	0.65	1909.04	1905	7	1.58E-03	82.7	1.51E+00	
0	1063.50	25	33	1.51	2127.57	2122	14	1.73E-03	****	1.37E+00	
0	1090.99	33	32	5.66	2182.57	2176	14	2.30E-03	79.8	1.34E+00	
0	1206.45	21	102	6.31	2413.63	2394	23	1.46E-03	****	1.22E+00	
2	1244.70	29	31	2.41	2490.16	2471	24	2.00E-03	82.1	1.19E+00	
0	1346.33	13	17	0.61	2693.56	2689	9	9.05E-04	****	1.11E+00	
0	1350.17	20	13	3.65	2701.24	2697	10	1.39E-03	80.0	1.11E+00	
0	1422.80	12	25	0.76	2846.59	2840	11	8.44E-04	****	1.06E+00	
0	1553.11	8	8	1.40	3107.38	3100	11	5.51E-04	****	9.89E-01	
0	1556.56	12	2	1.04	3114.29	3111	8	8.66E-04	68.1	9.88E-01	
0	1667.16	12	4	1.88	3335.65	3331	9	8.38E-04	84.7	9.41E-01	
0	1693.81	9	7	4.47	3389.00	3380	14	6.25E-04	****	9.32E-01	
0	1705.50	8	9	4.29	3412.38	3404	12	5.43E-04	****	9.28E-01	
0	1744.64	13	4	0.92	3490.73	3482	14	9.25E-04	81.2	9.15E-01	
1	1754.50	19	5	2.52	3510.46	3508	41	1.33E-03	40.6	9.12E-01	
0	1789.76	15	3	1.17	3581.04	3574	14	1.03E-03	74.0	9.01E-01	
0	1822.41	4	15	3.02	3646.40	3642	10	2.43E-04	****	8.93E-01	
0	1846.67	21	4	3.48	3694.95	3690	11	1.43E-03	61.7	8.86E-01	
0	1927.92	11	10	0.65	3857.60	3851	10	7.31E-04	****	8.69E-01	
0	2029.78	5	8	0.52	4061.49	4055	10	3.79E-04	****	8.52E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G198683040            *
* Acquisition date : 16-DEC-2007 12:33:38 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 04:00:09.02     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683040           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.3272E+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    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	7.976E+00	9.316E-01	1.626E-01	9.316E-01
CS-137	5.119E-02	3.401E-02	1.917E-02	3.401E-02
TL-208	2.925E-01	4.850E-02	1.645E-02	4.850E-02
BI-211	4.361E-01	9.506E-01	5.644E-01	9.506E-01
BI-212	4.763E-01	2.583E-01	1.399E-01	2.583E-01
PB-212	8.206E-01	7.734E-02	2.708E-02	7.734E-02
BI-214	5.594E-01	9.957E-02	3.574E-02	9.957E-02
PB-214	7.243E-01	1.053E-01	3.365E-02	1.053E-01
RA-223	2.892E-01	1.497E-01	8.644E-02	1.497E-01
AC-228	9.927E-01	1.861E-01	6.342E-02	1.861E-01
TH-234	1.350E+00	3.926E-01	1.947E-01	3.926E-01
U-235	1.075E-01	1.480E-01	8.652E-02	1.480E-01
NP-237	4.854E-01	1.598E-01	9.115E-02	1.598E-01
AM-243	1.643E-01	3.951E-02	2.292E-02	3.951E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	1.534E-02	2.240E-02	2.023E-02	2.240E-02	NOT IDENT.
RH-101	-5.352E-03	2.023E-02	1.459E-02	2.023E-02	NOT IDENT.
SB-125	-3.177E-02	5.551E-02	4.597E-02	5.551E-02	NOT IDENT.
EU-155	6.172E-02	5.092E-02	4.800E-02	5.092E-02	NOT IDENT.
PO-209	-4.093E-01	5.215E+00	4.063E+00	5.215E+00	NOT IDENT.
PA-233	1.801E-02	3.540E-02	3.202E-02	3.540E-02	NOT IDENT.
PA-234M	-1.197E+00	2.840E+00	2.154E+00	2.840E+00	NOT IDENT.
NP-236	4.339E-03	3.203E-02	2.703E-02	3.203E-02	NOT IDENT.
NP-239	-1.021E-01	1.251E-01	1.020E-01	1.251E-01	NOT IDENT.
AM-241	9.383E-02	8.982E-02	7.502E-02	8.982E-02	NOT IDENT.
CM-243	-1.736E-02	4.592E-02	4.111E-02	4.592E-02	NOT IDENT.
AM-246	2.458E-02	7.963E-02	7.004E-02	7.963E-02	NOT IDENT.
CF-249	-2.113E-02	2.357E-02	1.941E-02	2.357E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
59.54	214.7446
63.29	263.6079
74.66	346.6882
74.81	346.8540
74.81	346.8540
77.11	349.3764
77.11	349.3764
86.48	301.4960
87.30	302.2009
87.30	302.2009
92.58	306.6669
98.44	291.7485
103.76	309.5806
105.31	273.7970
129.07	299.2472
143.76	312.1016
198.00	258.3245
209.25	310.6913
228.18	290.4907
238.63	270.0775
242.00	271.2541
269.46	230.3309
270.25	227.6570
277.36	241.1926
295.22	232.5098
300.09	179.2480
312.17	181.5552
338.32	191.9934
351.93	174.6866
387.59	186.2728
409.46	176.8511
427.87	158.3487
463.00	120.2233
510.77	131.9290
583.19	94.4462
609.31	123.3622
661.66	104.5124
727.33	91.6362
763.13	71.1225
768.36	116.0742
785.37	70.2153
794.95	76.1329
806.17	64.1528
831.80	92.2412
860.56	57.0974
896.60	74.8603
911.20	60.4693
934.06	65.3263
964.77	63.9709
968.97	64.0775
1001.03	59.3842
1078.86	56.5991
1120.29	63.1775
1155.19	55.2188
1173.23	42.8846
1238.11	50.7676
1280.96	51.4545
1332.51	44.0656
1377.67	28.4833
1401.50	50.1875
1407.98	27.2357
1460.80	29.7648
1509.23	24.7716
1588.20	26.3857
1620.50	23.2764
1729.60	22.1922
1764.49	21.6363

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683040

Total Uranium Activity	4.9756E-02	ug/g
Total Uranium Counting Unc.	6.8499E-02	ug/g
Total Uranium Tpu	6.8499E-08	ug/g
Total Uranium Mda	4.0031E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:26:12.10

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683041.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 16:41:01
Sample ID        : G198683041           Sample quantity  : 1.31340E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:07.43  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	46.25*	56	1318	1.11	93.28	89	10	1.29E-03	175.3	
2	0	52.81*	55	1089	0.86	106.39	103	8	1.26E-03	123.2	
3	0	59.42	80	1051	1.48	119.60	116	7	1.84E-03	68.4	
4	0	62.96*	373	1300	1.24	126.68	123	8	8.62E-03	21.5	
5	3	74.64*	1487	1392	1.18	150.02	143	24	3.44E-02	5.4	3.70E+00
6	3	76.97*	2318	1317	1.22	154.68	143	24	5.37E-02	3.8	
7	3	80.72	112	1784	1.66	162.17	143	24	2.58E-03	73.4	
8	2	84.04*	199	844	1.20	168.81	166	13	4.61E-03	31.7	2.55E+00
9	2	87.08	771	1423	1.11	174.88	166	13	1.78E-02	8.6	
10	3	89.80	349	1164	0.92	180.32	178	13	8.07E-03	16.1	1.49E+00
11	3	92.71*	565	1579	1.50	186.15	178	13	1.31E-02	17.6	
12	0	105.39	118	986	1.24	211.50	208	7	2.74E-03	45.0	
13	0	128.95	195	982	1.22	258.57	255	7	4.52E-03	27.6	
14	0	143.46*	59	906	1.15	287.58	286	7	1.37E-03	103.8	
15	0	153.79	110	1034	0.67	308.22	305	8	2.54E-03	51.7	
16	0	185.95*	537	1077	1.20	372.50	368	10	1.24E-02	15.1	
17	0	196.99*	97	1363	1.30	394.58	389	13	2.25E-03	91.3	
18	0	209.26	286	918	1.38	419.09	416	10	6.63E-03	20.6	
19	3	238.67*	2838	609	1.24	477.87	471	19	6.57E-02	2.7	2.08E+00
20	3	241.72	755	813	1.60	483.97	471	19	1.75E-02	8.9	
21	0	270.15	283	837	1.59	540.79	535	12	6.55E-03	21.3	
22	0	278.28	126	775	1.39	557.02	551	11	2.92E-03	43.8	
23	0	289.02	50	707	0.97	578.50	574	10	1.15E-03	101.0	
24	1	295.31*	1169	526	1.42	591.06	586	19	2.71E-02	5.3	3.69E+00
25	1	300.12	256	439	1.67	600.68	586	19	5.93E-03	15.5	
26	0	328.36	154	574	1.80	657.11	652	10	3.57E-03	30.2	
27	0	338.39*	506	756	1.19	677.15	671	13	1.17E-02	13.6	
28	0	351.96*	1784	708	1.30	704.28	698	13	4.13E-02	4.2	
29	0	463.29	224	469	1.58	926.75	919	14	5.18E-03	21.6	
30	0	478.71	15	324	0.86	957.55	956	10	3.56E-04	220.8	
31	0	511.01*	133	797	2.42	1022.09	1013	22	3.07E-03	72.5	
32	0	583.16*	899	361	1.42	1166.26	1158	16	2.08E-02	6.7	
33	0	609.49*	1230	457	1.49	1218.87	1211	16	2.85E-02	5.2	
34	0	621.46	64	384	4.40	1242.76	1238	16	1.48E-03	69.4	
35	0	662.05*	130	306	1.31	1323.86	1318	12	3.02E-03	32.8	
36	0	727.77	187	217	1.67	1455.15	1450	11	4.33E-03	17.1	
37	0	768.16	52	281	1.19	1535.84	1533	10	1.21E-03	61.5	
38	6	772.51	62	78	1.69	1544.53	1542	11	1.44E-03	22.0	2.68E+00

Sample ID : G198683041 Acquisition date : 16-DEC-2007 16:41:01

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	6	775.37	20	71	1.13	1550.24	1542	11	4.69E-04	69.3	
40	0	786.21	61	208	2.22	1571.90	1567	11	1.40E-03	48.0	
41	0	795.38	70	225	1.33	1590.23	1583	12	1.63E-03	44.3	
42	0	835.86	35	137	0.69	1671.08	1667	8	8.14E-04	60.2	
43	0	860.19	105	166	1.31	1719.69	1714	12	2.43E-03	26.3	
44	0	911.47*	532	220	1.51	1822.12	1815	14	1.23E-02	7.9	
45	0	934.31	149	189	2.39	1867.73	1858	19	3.45E-03	23.7	
46	3	965.15	84	137	1.90	1929.32	1925	21	1.95E-03	26.4	2.66E+00
47	3	969.43*	374	169	2.15	1937.88	1925	21	8.65E-03	9.9	
48	0	999.90	72	179	4.99	1998.74	1991	17	1.66E-03	44.3	
49	0	1021.87	6	167	0.51	2042.61	2031	14	1.39E-04	458.4	
50	1	1111.75	47	80	2.44	2222.11	2218	31	1.09E-03	37.3	2.10E+00
51	1	1115.20	53	114	2.22	2229.00	2218	31	1.23E-03	43.8	
52	1	1120.70*	307	125	2.45	2239.99	2218	31	7.11E-03	11.5	
53	0	1163.99	33	75	1.28	2326.43	2322	9	7.60E-04	50.5	
54	0	1239.28	97	167	2.18	2476.78	2471	13	2.26E-03	29.6	
55	0	1281.06	66	121	5.36	2560.21	2552	17	1.53E-03	40.5	
56	0	1334.34	28	55	1.06	2666.60	2662	9	6.41E-04	52.3	
57	0	1378.58	54	81	1.39	2754.93	2750	10	1.25E-03	34.2	
58	0	1391.83	35	88	3.55	2781.38	2769	18	7.99E-04	67.8	
59	0	1412.97	62	149	7.90	2823.59	2807	26	1.43E-03	55.9	
60	0	1461.46*	1246	116	2.00	2920.41	2909	22	2.88E-02	3.8	
61	0	1471.00	22	49	1.95	2939.45	2931	13	5.13E-04	68.3	
62	0	1483.15	40	66	5.27	2963.70	2952	18	9.23E-04	50.7	
63	0	1588.41	46	66	2.74	3173.85	3168	12	1.06E-03	38.4	
64	0	1595.15	32	90	1.89	3187.29	3179	15	7.31E-04	69.9	
65	0	1621.89	34	65	1.43	3240.67	3235	16	7.80E-04	57.2	
66	0	1729.99	47	51	2.74	3456.45	3451	12	1.08E-03	33.9	
67	0	1749.06	16	50	3.33	3494.51	3484	18	3.65E-04	107.8	
68	0	1765.14*	231	73	2.18	3526.62	3515	24	5.35E-03	13.0	
69	0	1789.79	32	67	7.72	3575.81	3565	24	7.37E-04	72.4	
70	0	1887.30	8	23	1.01	3770.42	3764	9	1.83E-04	114.5	
71	0	1895.48	11	18	3.32	3786.75	3781	10	2.58E-04	76.6	
72	0	1979.98	43	39	10.41	3955.38	3940	26	1.00E-03	42.4	
73	0	2015.03	27	44	4.41	4025.33	4014	20	6.16E-04	64.7	

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]G198683041       *
* Acquisition date : 16-DEC-2007 16:41:01 Detector SN#    :                 *
* Detector ID      : GAM05                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 12:00:07.43     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683041           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.3134E+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	5.701E+00	6.115E-01	2.025E-01	0.000E+00
RH-101	1.284E-02	2.301E-02	2.024E-02	0.000E+00
CS-137	3.880E-02	2.517E-02	2.355E-02	0.000E+00
EU-155	3.957E-02	3.508E-02	5.608E-02	0.000E+00
TL-208	2.405E-01	3.586E-02	2.214E-02	0.000E+00
BI-212	4.341E-01	1.496E-01	1.750E-01	0.000E+00
PB-212	6.991E-01	6.862E-02	3.263E-02	0.000E+00
BI-214	6.269E-01	7.876E-02	4.516E-02	0.000E+00
PB-214	6.905E-01	6.872E-02	4.369E-02	0.000E+00
RA-223	2.421E-01	1.025E-01	1.086E-01	0.000E+00
AC-228	6.829E-01	1.229E-01	8.804E-02	0.000E+00
PA-234M	3.053E+00	2.665E+00	2.628E+00	0.000E+00
TH-234	7.004E-01	2.498E-01	2.131E-01	0.000E+00
U-235	4.198E-02	8.549E-02	1.156E-01	0.000E+00
NP-237	4.117E-01	7.818E-02	1.028E-01	0.000E+00
AM-241	1.432E-02	1.923E-02	2.816E-02	0.000E+00
AM-243	1.416E-01	1.869E-02	1.775E-02	0.000E+00
CM-243	3.579E-02	3.173E-02	5.071E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	-8.268E-03	1.350E-02	2.212E-02	0.000E+00	FAIL ABUN
SB-125	2.612E-02	3.458E-02	6.035E-02	0.000E+00	NOT IDENT.
PO-209	9.449E-01	2.710E+00	4.622E+00	0.000E+00	NOT IDENT.
BI-211	-6.475E-02	4.493E-01	6.435E-01	0.000E+00	NOT IDENT.
PA-233	-9.427E-03	2.273E-02	3.915E-02	0.000E+00	NOT IDENT.
NP-236	1.710E-02	1.760E-02	3.067E-02	0.000E+00	NOT IDENT.
NP-239	-3.947E-02	7.979E-02	1.325E-01	0.000E+00	NOT IDENT.
AM-246	2.398E-02	4.951E-02	8.681E-02	0.000E+00	NOT IDENT.
CF-249	1.350E-03	1.480E-02	2.546E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:26:13.09

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683041.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 16:41:01
Sample ID        : G198683041           Sample quantity  : 1.31340E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:07.43  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	1246	10.66*	9.765E-01	5.701E+00	5.701E+00	10.94
RH-101	198.00	97	73.00*	5.104E+00	1.240E-02	1.284E-02	182.86
CS-137	661.66	130	85.10*	1.887E+00	3.865E-02	3.880E-02	66.20
EU-155	105.31	118	21.20*	6.883E+00	3.867E-02	3.957E-02	90.47
TL-208	277.36	126	6.31	3.971E+00	2.400E-01	2.400E-01	87.92
	510.77	133	22.60	2.367E+00	1.180E-01	1.180E-01	145.23
	583.19	899	84.50*	2.108E+00	2.405E-01	2.405E-01	15.22
	763.13	------	1.81	1.670E+00	------	Line Not Found	------
	860.56	105	12.42	1.509E+00	2.673E-01	2.673E-01	53.44
BI-212	727.33	187	11.80*	1.739E+00	4.341E-01	4.341E-01	35.16
	785.37	61	1.10	1.628E+00	1.611E+00	1.611E+00	96.33
	1620.50	34	1.49	8.961E-01	1.202E+00	1.202E+00	114.55
PB-212	74.81	1487	10.40	7.333E+00	9.286E-01	9.286E-01	13.47
	77.11	2318	17.50	7.312E+00	8.628E-01	8.628E-01	11.27
	87.30	771	7.81	7.190E+00	6.536E-01	6.536E-01	19.38
	238.63	2838	43.30*	4.466E+00	6.991E-01	6.991E-01	10.02
	300.09	256	3.28	3.738E+00	9.961E-01	9.961E-01	31.65
BI-214	609.31	1230	46.10*	2.028E+00	6.269E-01	6.269E-01	12.82
	768.36	52	4.94	1.660E+00	3.035E-01	3.036E-01	123.30
	806.17	------	1.22	1.594E+00	------	Line Not Found	------
	934.06	149	3.03	1.408E+00	1.663E+00	1.663E+00	48.15
	1120.29	307	15.10	1.212E+00	7.988E-01	7.989E-01	23.88
	1155.19	------	1.63	1.183E+00	------	Line Not Found	------
	1238.11	97	5.79	1.117E+00	7.180E-01	7.180E-01	59.64
	1280.96	66	1.43	1.087E+00	2.019E+00	2.019E+00	81.26
	1377.67	54	4.00	1.024E+00	6.279E-01	6.279E-01	68.91
	1401.50	------	1.27	1.011E+00	------	Line Not Found	------
	1407.98	------	2.15	1.007E+00	------	Line Not Found	------
	1509.23	------	2.11	9.511E-01	------	Line Not Found	------
	1729.60	47	2.92	8.488E-01	8.980E-01	8.981E-01	68.13
	1764.49	231	15.40	8.344E-01	8.574E-01	8.575E-01	26.66
PB-214	74.81	1487	6.44	7.333E+00	1.500E+00	1.500E+00	13.47

Sample ID : G198683041 Acquisition date : 16-DEC-2007 16:41:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	2318	10.80	7.312E+00	1.398E+00	1.398E+00	11.27
	87.30	771	4.84	7.190E+00	1.055E+00	1.055E+00	19.38
	242.00	755	7.43	4.424E+00	1.095E+00	1.095E+00	19.56
	295.22	1169	19.30	3.787E+00	7.619E-01	7.620E-01	12.38
	351.93	1784	37.60*	3.274E+00	6.905E-01	6.905E-01	10.16
RA-223	269.46	283	13.70*	4.065E+00	2.421E-01	2.421E-01	43.20
AC-228	129.07	195	2.42	6.412E+00	5.988E-01	5.988E-01	56.10
	209.25	286	3.89	4.903E+00	7.153E-01	7.153E-01	42.31
	270.25	283	3.46	4.065E+00	9.585E-01	9.585E-01	43.20
	338.32	506	11.27	3.384E+00	6.325E-01	6.325E-01	27.82
	409.46	------	1.92	2.874E+00	------	Line Not Found	------
	463.00	224	4.40	2.580E+00	9.395E-01	9.395E-01	43.53
	794.95	70	4.25	1.612E+00	4.884E-01	4.884E-01	89.14
	911.20	532	25.80*	1.437E+00	6.829E-01	6.829E-01	18.36
	964.77	84	4.99	1.370E+00	5.876E-01	5.876E-01	53.52
	968.97	374	15.80	1.365E+00	8.251E-01	8.251E-01	21.52
	1588.20	46	3.22	9.117E-01	7.446E-01	7.446E-01	77.08
PA-234M	1001.03	72	0.84*	1.331E+00	3.053E+00	3.053E+00	89.08
TH-234	63.29	373	4.80	7.386E+00	5.005E-01	5.005E-01	43.62
	92.58	565	5.41*	7.105E+00	7.004E-01	7.004E-01	36.39
U-235	143.76	59	10.96*	6.113E+00	4.198E-02	4.198E-02	207.82
NP-237	86.48	771	12.40*	7.190E+00	4.117E-01	4.117E-01	19.38
AM-241	59.54	80	35.90*	7.383E+00	1.432E-02	1.432E-02	137.00
AM-243	74.66	1487	68.20*	7.333E+00	1.416E-01	1.416E-01	13.47
CM-243	103.76	118	23.00*	6.883E+00	3.565E-02	3.579E-02	90.47

Flag: "*" = Keyline

Sample ID : G198683041 Acquisition date : 16-DEC-2007 16:41:01

Total number of lines in spectrum 73
Number of unidentified lines 29
Number of lines tentatively identified by NID 44 60.27%

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	5.701E+00	5.701E+00	0.624E+00	10.94	
RH-101	1.04E+08S	1.04	1.240E-02	1.284E-02	2.348E-02	182.86	
CS-137	9.47E+08S	1.00	3.865E-02	3.880E-02	2.569E-02	66.20	
EU-155	1.57E+08S	1.02	3.867E-02	3.957E-02	3.580E-02	90.47	
TL-208	4.43E+17S	1.00	2.405E-01	2.405E-01	0.366E-01	15.22	
BI-212	4.43E+17S	1.00	4.341E-01	4.341E-01	1.526E-01	35.16	
PB-212	4.43E+17S	1.00	6.991E-01	6.991E-01	0.700E-01	10.02	
BI-214	5.05E+10S	1.00	6.269E-01	6.269E-01	0.804E-01	12.82	
PB-214	5.05E+10S	1.00	6.905E-01	6.905E-01	0.701E-01	10.16	
RA-223	1.04E+12S	1.00	2.421E-01	2.421E-01	1.046E-01	43.20	
AC-228	4.43E+17S	1.00	6.829E-01	6.829E-01	1.254E-01	18.36	
PA-234M	1.41E+17S	1.00	3.053E+00	3.053E+00	2.719E+00	89.08	
TH-234	1.41E+17S	1.00	7.004E-01	7.004E-01	2.549E-01	36.39	
U-235	2.22E+16S	1.00	4.198E-02	4.198E-02	8.724E-02	207.82	
NP-237	6.75E+13S	1.00	4.117E-01	4.117E-01	0.798E-01	19.38	
AM-241	1.36E+10S	1.00	1.432E-02	1.432E-02	1.962E-02	137.00	
AM-243	2.33E+11S	1.00	1.416E-01	1.416E-01	0.191E-01	13.47	
CM-243	8.99E+08S	1.00	3.565E-02	3.579E-02	3.238E-02	90.47	
			---	---			
		Total Activity :	1.380E+01	1.381E+01			

Grand Total Activity : 1.380E+01 1.381E+01

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

Sample ID : G198683041 Acquisition date : 16-DEC-2007 16:41:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.25	56	1318	1.11	93.28	89	10	1.29E-03	****	7.29E+00	
0	52.81	55	1089	0.86	106.39	103	8	1.26E-03	****	7.35E+00	
3	80.72	112	1784	1.66	162.17	143	24	2.58E-03	****	7.27E+00	
2	84.04	199	844	1.20	168.81	166	13	4.61E-03	63.5	7.23E+00	
3	89.80	349	1164	0.92	180.32	178	13	8.07E-03	32.3	7.15E+00	
0	153.79	110	1034	0.67	308.22	305	8	2.54E-03	****	5.90E+00	
0	185.95	537	1077	1.20	372.50	368	10	1.24E-02	30.2	5.30E+00	
0	289.02	50	707	0.97	578.50	574	10	1.15E-03	****	3.85E+00	
0	328.36	154	574	1.80	657.11	652	10	3.57E-03	60.3	3.47E+00	
0	478.71	15	324	0.86	957.55	956	10	3.56E-04	****	2.51E+00	
0	621.46	64	384	4.40	1242.76	1238	16	1.48E-03	****	1.99E+00	
6	772.51	62	78	1.69	1544.53	1542	11	1.44E-03	44.0	1.65E+00	
6	775.37	20	71	1.13	1550.24	1542	11	4.69E-04	****	1.65E+00	
0	835.86	35	137	0.69	1671.08	1667	8	8.14E-04	****	1.55E+00	
0	1021.87	6	167	0.51	2042.61	2031	14	1.39E-04	****	1.31E+00	
1	1111.75	47	80	2.44	2222.11	2218	31	1.09E-03	74.7	1.22E+00	
1	1115.20	53	114	2.22	2229.00	2218	31	1.23E-03	87.7	1.22E+00	
0	1163.99	33	75	1.28	2326.43	2322	9	7.60E-04	****	1.18E+00	
0	1334.34	28	55	1.06	2666.60	2662	9	6.41E-04	****	1.05E+00	T
0	1391.83	35	88	3.55	2781.38	2769	18	7.99E-04	****	1.02E+00	
0	1412.97	62	149	7.90	2823.59	2807	26	1.43E-03	****	1.00E+00	
0	1471.00	22	49	1.95	2939.45	2931	13	5.13E-04	****	9.71E-01	
0	1483.15	40	66	5.27	2963.70	2952	18	9.23E-04	****	9.65E-01	
0	1595.15	32	90	1.89	3187.29	3179	15	7.31E-04	****	9.09E-01	
0	1749.06	16	50	3.33	3494.51	3484	18	3.65E-04	****	8.41E-01	
0	1789.79	32	67	7.72	3575.81	3565	24	7.37E-04	****	8.25E-01	
0	1887.30	8	23	1.01	3770.42	3764	9	1.83E-04	****	7.88E-01	
0	1895.48	11	18	3.32	3786.75	3781	10	2.58E-04	****	7.85E-01	
0	1979.98	43	39	10.41	3955.38	3940	26	1.00E-03	84.8	7.55E-01	
0	2015.03	27	44	4.41	4025.33	4014	20	6.16E-04	****	7.43E-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]G198683041            *
* Acquisition date : 16-DEC-2007 16:41:01 Detector SN#    :                 *
* Detector ID      : GAM05                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 12:00:07.43     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683041           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.3134E+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	5.701E+00	6.115E-01	1.013E-01	6.115E-01
RH-101	1.284E-02	2.301E-02	1.012E-02	2.301E-02
CS-137	3.880E-02	2.517E-02	1.178E-02	2.517E-02
EU-155	3.957E-02	3.508E-02	2.806E-02	3.508E-02
TL-208	2.405E-01	3.586E-02	1.107E-02	3.586E-02
BI-212	4.341E-01	1.496E-01	8.754E-02	1.496E-01
PB-212	6.991E-01	6.862E-02	1.632E-02	6.862E-02
BI-214	6.269E-01	7.876E-02	2.260E-02	7.876E-02
PB-214	6.905E-01	6.872E-02	2.186E-02	6.872E-02
RA-223	2.421E-01	1.025E-01	5.434E-02	1.025E-01
AC-228	6.829E-01	1.229E-01	4.404E-02	1.229E-01
PA-234M	3.053E+00	2.665E+00	1.315E+00	2.665E+00
TH-234	7.004E-01	2.498E-01	1.066E-01	2.498E-01
U-235	4.198E-02	8.549E-02	5.783E-02	8.549E-02
NP-237	4.117E-01	7.818E-02	5.145E-02	7.818E-02
AM-241	1.432E-02	1.923E-02	1.409E-02	1.923E-02
AM-243	1.416E-01	1.869E-02	8.879E-03	1.869E-02
CM-243	3.579E-02	3.173E-02	2.537E-02	3.173E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-8.268E-03	1.350E-02	1.106E-02	1.350E-02	FAIL ABUN
SB-125	2.612E-02	3.458E-02	3.019E-02	3.458E-02	NOT IDENT.
PO-209	9.449E-01	2.710E+00	2.312E+00	2.710E+00	NOT IDENT.
BI-211	-6.475E-02	4.493E-01	3.219E-01	4.493E-01	NOT IDENT.
PA-233	-9.427E-03	2.273E-02	1.959E-02	2.273E-02	NOT IDENT.
NP-236	1.710E-02	1.760E-02	1.534E-02	1.760E-02	NOT IDENT.
NP-239	-3.947E-02	7.979E-02	6.628E-02	7.979E-02	NOT IDENT.
AM-246	2.398E-02	4.951E-02	4.343E-02	4.951E-02	NOT IDENT.
CF-249	1.350E-03	1.480E-02	1.274E-02	1.480E-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	1019.4875
63.29	1357.6024
74.66	1451.9686
74.81	1452.3757
74.81	1452.3757
77.11	1458.5669
77.11	1458.5669
86.48	1560.7173
87.30	1392.6006
87.30	1392.6006
92.58	1246.0336
98.44	1144.9948
103.76	1201.2310
105.31	1192.5460
129.07	1146.2213
143.76	1126.6276
198.00	1002.5146
209.25	923.2489
228.18	867.7545
238.63	761.9336
242.00	764.1281
269.46	705.7348
270.25	706.1768
277.36	649.0175
295.22	585.4202
300.09	578.0331
312.17	605.0513
338.32	585.8550
351.93	560.6910
387.59	493.0198
409.46	490.2961
427.87	400.9069
463.00	369.8959
510.77	362.9271
583.19	306.3865
609.31	352.0487
661.66	281.3552
727.33	256.2528
763.13	242.1805
768.36	217.0100
785.37	275.0670
794.95	209.6651
806.17	222.2424
831.80	223.6205
860.56	194.4717
896.60	186.3527
911.20	213.3633
934.06	184.3460
964.77	196.8687
968.97	198.0299
1001.03	173.0508
1078.86	165.7734
1120.29	168.6044
1155.19	162.6353
1173.23	148.7524
1238.11	192.4453
1280.96	120.0547
1332.51	109.4752
1377.67	107.5712
1401.50	71.4209
1407.98	132.3184
1460.80	90.4480
1509.23	111.7507
1588.20	131.8943
1620.50	67.3110
1729.60	72.5627
1764.49	52.8566

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683041

Total Uranium Activity	1.9423E-02	ug/g
Total Uranium Counting Unc.	3.9557E-02	ug/g
Total Uranium Tpu	3.9557E-08	ug/g
Total Uranium Mda	2.6756E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:26:47.13

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683042.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 16:41:24
Sample ID        : G198683042           Sample quantity  : 1.15000E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:01:21.60  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.69*	112	997	1.13	92.89	89	10	2.58E-03	70.5	
2	0	63.51*	54	823	1.04	126.52	123	8	1.25E-03	126.9	
3	0	69.55*	5	590	0.82	138.60	137	5	1.15E-04	941.4	
4	2	74.86*	322	831	1.20	149.21	143	16	7.46E-03	20.5	2.14E+00
5	2	77.22*	649	677	1.05	153.93	143	16	1.50E-02	9.6	
6	3	84.40*	26	601	1.33	168.29	165	26	5.93E-04	275.3	1.09E+00
7	3	87.36*	184	703	1.14	174.20	165	26	4.26E-03	40.7	
8	3	90.04	222	806	1.36	179.56	165	26	5.14E-03	23.8	
9	3	92.86*	247	809	1.34	185.21	165	26	5.73E-03	29.8	
10	0	143.67*	29	712	2.00	286.80	283	9	6.78E-04	202.0	
11	1	163.68*	30	590	1.25	326.80	323	8	7.01E-04	170.6	4.09E+00
12	0	186.27*	135	921	1.13	371.97	367	12	3.13E-03	55.8	
13	0	209.42	117	732	1.60	418.25	414	11	2.71E-03	45.7	
14	7	238.89*	1249	418	1.29	477.18	473	16	2.89E-02	5.5	4.43E+00
15	7	241.86	320	564	1.86	483.13	473	16	7.41E-03	17.2	
16	0	270.42	197	635	1.63	540.22	533	14	4.55E-03	28.2	
17	0	277.45	91	388	1.14	554.29	551	8	2.11E-03	38.9	
18	0	295.42	382	521	1.14	590.21	584	12	8.84E-03	13.0	
19	0	299.95	104	341	1.28	599.27	596	8	2.40E-03	32.3	
20	0	328.40	109	317	1.67	656.15	652	9	2.52E-03	31.2	
21	0	338.55*	229	422	1.45	676.46	672	11	5.30E-03	23.1	
22	0	352.17*	583	442	1.37	703.69	697	12	1.35E-02	9.6	
23	0	394.45	18	259	0.58	788.21	784	8	4.20E-04	157.1	
24	0	465.55	260	539	6.47	930.38	918	27	6.01E-03	25.7	
25	0	511.31*	94	414	2.30	1021.89	1013	18	2.17E-03	80.4	
26	0	520.31	36	233	0.92	1039.88	1033	11	8.24E-04	85.5	
27	0	570.36	36	219	2.35	1139.96	1135	10	8.33E-04	78.8	
28	0	583.55*	261	244	1.58	1166.33	1160	15	6.04E-03	19.3	
29	0	609.81*	412	241	1.50	1218.84	1213	13	9.53E-03	10.5	
30	0	661.90	744	191	1.52	1322.99	1316	12	1.72E-02	5.2	
31	0	665.75	26	114	0.98	1330.70	1328	8	5.95E-04	75.5	
32	0	727.77*	60	208	1.43	1454.70	1446	15	1.38E-03	65.7	
33	0	768.14	87	155	2.32	1535.42	1529	12	2.01E-03	30.6	
34	0	860.79	127	140	2.01	1720.70	1711	18	2.95E-03	23.5	
35	0	876.61	24	106	3.55	1752.32	1744	11	5.61E-04	85.8	
36	0	882.69	59	129	5.26	1764.48	1756	18	1.37E-03	47.1	
37	0	889.33	33	54	2.09	1777.76	1774	8	7.56E-04	42.8	
38	0	911.67*	208	129	1.68	1822.43	1816	13	4.81E-03	16.9	

Sample ID : G198683042 Acquisition date : 16-DEC-2007 16:41:24

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	934.95	47	81	1.56	1868.98	1865	12	1.08E-03	40.6	
40	2	965.04	40	74	2.16	1929.15	1925	23	9.27E-04	39.9	9.41E-01
41	2	969.37	160	96	2.16	1937.80	1925	23	3.71E-03	15.1	
42	0	1012.32	13	69	0.98	2023.68	2020	8	2.96E-04	115.5	
43	0	1120.43	138	120	1.42	2239.87	2232	16	3.19E-03	19.7	
44	0	1213.25	30	56	4.33	2425.48	2418	12	7.00E-04	53.0	
45	0	1370.13	27	62	3.60	2739.20	2727	19	6.30E-04	71.8	
46	0	1431.43	58	87	8.45	2861.78	2845	29	1.34E-03	48.0	
47	0	1461.28*	469	77	2.04	2921.48	2914	18	1.08E-02	7.2	
48	0	1502.96	24	36	1.75	3004.82	2998	13	5.67E-04	54.2	
49	0	1570.72	19	13	1.59	3140.33	3135	9	4.35E-04	42.1	
50	0	1588.29	45	26	1.75	3175.46	3170	11	1.03E-03	27.1	
51	0	1730.29	23	30	2.37	3459.44	3451	12	5.31E-04	52.1	
52	0	1765.18*	69	36	1.88	3529.21	3521	15	1.59E-03	30.8	
53	0	1808.47	13	20	4.72	3615.78	3607	11	3.00E-04	74.6	

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]G198683042       *
* Acquisition date : 16-DEC-2007 16:41:24 Detector SN#    :                 *
* Detector ID      : GAM07                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 12:01:21.60     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683042           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1500E+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    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.052E+00	3.093E-01	1.585E-01	0.000E+00
CS-137	2.051E-01	2.562E-02	1.648E-02	0.000E+00
TL-208	6.473E-02	2.489E-02	1.523E-02	0.000E+00
BI-212	1.286E-01	1.658E-01	1.172E-01	0.000E+00
PB-212	3.021E-01	3.717E-02	2.358E-02	0.000E+00
BI-214	1.945E-01	4.211E-02	3.411E-02	0.000E+00
PB-214	2.163E-01	4.230E-02	3.155E-02	0.000E+00
RA-223	1.641E-01	9.126E-02	7.724E-02	0.000E+00
AC-228	2.496E-01	8.440E-02	5.927E-02	0.000E+00
TH-234	3.413E-01	2.011E-01	1.675E-01	0.000E+00
U-235	2.088E-02	8.267E-02	8.106E-02	0.000E+00
NP-237	1.131E-01	9.070E-02	7.462E-02	0.000E+00
AM-243	3.987E-02	1.620E-02	1.528E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
CO-60	3.255E-03	1.027E-02	1.780E-02	0.000E+00	NOT IDENT.
RH-101	-6.156E-04	1.102E-02	1.521E-02	0.000E+00	NOT IDENT.
SB-125	3.216E-03	2.590E-02	4.336E-02	0.000E+00	NOT IDENT.
EU-155	-2.711E-02	3.121E-02	4.065E-02	0.000E+00	NOT IDENT.
PO-209	-1.238E+00	2.542E+00	3.184E+00	0.000E+00	NOT IDENT.
BI-211	-1.796E-01	2.731E-01	4.366E-01	0.000E+00	NOT IDENT.
PA-233	1.102E-02	1.733E-02	3.016E-02	0.000E+00	NOT IDENT.
PA-234M	-1.662E+00	2.203E+00	2.189E+00	0.000E+00	NOT IDENT.
NP-236	1.204E-02	1.391E-02	2.311E-02	0.000E+00	NOT IDENT.
NP-239	1.542E-02	5.429E-02	9.519E-02	0.000E+00	NOT IDENT.
AM-241	2.398E-02	2.436E-02	3.928E-02	0.000E+00	NOT IDENT.
CM-243	4.624E-03	2.114E-02	3.606E-02	0.000E+00	NOT IDENT.
AM-246	-1.939E-02	3.080E-02	5.005E-02	0.000E+00	NOT IDENT.
CF-249	3.424E-03	1.073E-02	1.824E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:26:48.25

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G198683042.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 16:41:24
Sample ID        : G198683042           Sample quantity  : 1.15000E+02 GRAM
Detector name    : GAM07                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:01:21.60  0.2%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	469	10.66*	1.166E+00	2.052E+00	2.052E+00	15.38
CS-137	661.66	744	85.10*	2.329E+00	2.043E-01	2.051E-01	12.75
TL-208	277.36	91	6.31	4.668E+00	1.681E-01	1.681E-01	78.10
	510.77	94	22.60	2.897E+00	7.787E-02	7.787E-02	160.93
	583.19	261	84.50*	2.594E+00	6.473E-02	6.473E-02	39.24
	763.13	------	1.81	2.057E+00	------	Line Not Found	------
	860.56	127	12.42	1.848E+00	3.020E-01	3.020E-01	47.46
BI-212	727.33	60	11.80*	2.145E+00	1.286E-01	1.286E-01	131.58
	785.37	------	1.10	2.005E+00	------	Line Not Found	------
	1620.50	------	1.49	1.077E+00	------	Line Not Found	------
PB-212	74.81	322	10.40	6.446E+00	2.615E-01	2.615E-01	41.47
	77.11	649	17.50	6.617E+00	3.050E-01	3.050E-01	20.44
	87.30	184	7.81	7.133E+00	1.796E-01	1.796E-01	81.83
	238.63	1249	43.30*	5.193E+00	3.021E-01	3.021E-01	12.56
	300.09	104	3.28	4.407E+00	3.898E-01	3.898E-01	64.93
BI-214	609.31	412	46.10*	2.499E+00	1.945E-01	1.945E-01	22.09
	768.36	87	4.94	2.045E+00	4.684E-01	4.685E-01	61.69
	806.17	------	1.22	1.959E+00	------	Line Not Found	------
	934.06	47	3.03	1.716E+00	4.897E-01	4.897E-01	81.56
	1120.29	138	15.10	1.460E+00	3.397E-01	3.397E-01	39.89
	1155.19	------	1.63	1.422E+00	------	Line Not Found	------
	1238.11	------	5.79	1.338E+00	------	Line Not Found	------
	1280.96	------	1.43	1.300E+00	------	Line Not Found	------
	1377.67	------	4.00	1.223E+00	------	Line Not Found	------
	1401.50	------	1.27	1.206E+00	------	Line Not Found	------
	1407.98	------	2.15	1.201E+00	------	Line Not Found	------
	1509.23	------	2.11	1.136E+00	------	Line Not Found	------
	1729.60	23	2.92	1.029E+00	4.154E-01	4.155E-01	104.39
	1764.49	69	15.40	1.015E+00	2.396E-01	2.397E-01	61.79
PB-214	74.81	322	6.44	6.446E+00	4.222E-01	4.223E-01	41.47
	77.11	649	10.80	6.617E+00	4.943E-01	4.943E-01	20.44
	87.30	184	4.84	7.133E+00	2.898E-01	2.898E-01	81.83

Sample ID : G198683042 Acquisition date : 16-DEC-2007 16:41:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	242.00	320	7.43	5.149E+00	4.549E-01	4.550E-01	34.86
	295.22	382	19.30	4.457E+00	2.414E-01	2.415E-01	26.78
	351.93	583	37.60*	3.902E+00	2.163E-01	2.163E-01	19.96
RA-223	269.46	197	13.70*	4.756E+00	1.641E-01	1.641E-01	56.75
AC-228	129.07	------	2.42	7.226E+00	------	Line Not Found	------
	209.25	117	3.89	5.674E+00	2.882E-01	2.882E-01	91.68
	270.25	197	3.46	4.756E+00	6.497E-01	6.497E-01	56.75
	338.32	229	11.27	4.022E+00	2.747E-01	2.747E-01	46.52
	409.46	------	1.92	3.468E+00	------	Line Not Found	------
	463.00	------	4.40	3.143E+00	------	Line Not Found	------
	794.95	------	4.25	1.984E+00	------	Line Not Found	------
	911.20	208	25.80*	1.756E+00	2.496E-01	2.496E-01	34.50
	964.77	40	4.99	1.668E+00	2.617E-01	2.617E-01	80.00
	968.97	160	15.80	1.662E+00	3.322E-01	3.322E-01	31.01
	1588.20	45	3.22	1.093E+00	6.907E-01	6.907E-01	54.47
TH-234	63.29	54	4.80	5.300E+00	1.157E-01	1.157E-01	253.87
	92.58	247	5.41*	7.292E+00	3.413E-01	3.413E-01	60.13
U-235	143.76	29	10.96*	6.963E+00	2.088E-02	2.088E-02	403.96
NP-237	86.48	184	12.40*	7.133E+00	1.131E-01	1.131E-01	81.83
AM-243	74.66	322	68.20*	6.446E+00	3.987E-02	3.987E-02	41.47

Flag: "*" = Keyline

Sample ID : G198683042 Acquisition date : 16-DEC-2007 16:41:24

Total number of lines in spectrum 53
Number of unidentified lines 22
Number of lines tentatively identified by NID 31 58.49%

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	2.052E+00	2.052E+00	0.316E+00	15.38	
CS-137	9.47E+08S	1.00	2.043E-01	2.051E-01	0.261E-01	12.75	
TL-208	4.43E+17S	1.00	6.473E-02	6.473E-02	2.540E-02	39.24	
BI-212	4.43E+17S	1.00	1.286E-01	1.286E-01	1.692E-01	131.58	
PB-212	4.43E+17S	1.00	3.021E-01	3.021E-01	0.379E-01	12.56	
BI-214	5.05E+10S	1.00	1.945E-01	1.945E-01	0.430E-01	22.09	
PB-214	5.05E+10S	1.00	2.163E-01	2.163E-01	0.432E-01	19.96	
RA-223	1.04E+12S	1.00	1.641E-01	1.641E-01	0.931E-01	56.75	
AC-228	4.43E+17S	1.00	2.496E-01	2.496E-01	0.861E-01	34.50	
TH-234	1.41E+17S	1.00	3.413E-01	3.413E-01	2.052E-01	60.13	
U-235	2.22E+16S	1.00	2.088E-02	2.088E-02	8.435E-02	403.96	
NP-237	6.75E+13S	1.00	1.131E-01	1.131E-01	0.925E-01	81.83	
AM-243	2.33E+11S	1.00	3.987E-02	3.987E-02	1.653E-02	41.47	
			---	---			
		Total Activity :	4.091E+00	4.092E+00			

Grand Total Activity : 4.091E+00 4.092E+00

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

Sample ID : G198683042 Acquisition date : 16-DEC-2007 16:41:24

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	46.69	112	997	1.13	92.89	89	10	2.58E-03	****	2.63E+00	
0	69.55	5	590	0.82	138.60	137	5	1.15E-04	****	5.98E+00	
3	84.40	26	601	1.33	168.29	165	26	5.93E-04	****	7.02E+00	
3	90.04	222	806	1.36	179.56	165	26	5.14E-03	47.5	7.22E+00	
1	163.68	30	590	1.25	326.80	323	8	7.01E-04	****	6.56E+00	
0	186.27	135	921	1.13	371.97	367	12	3.13E-03	****	6.10E+00	
0	328.40	109	317	1.67	656.15	652	9	2.52E-03	62.4	4.12E+00	
0	394.45	18	259	0.58	788.21	784	8	4.20E-04	****	3.57E+00	
0	465.55	260	539	6.47	930.38	918	27	6.01E-03	51.3	3.13E+00	
0	520.31	36	233	0.92	1039.88	1033	11	8.24E-04	****	2.86E+00	
0	570.36	36	219	2.35	1139.96	1135	10	8.33E-04	****	2.64E+00	
0	665.75	26	114	0.98	1330.70	1328	8	5.95E-04	****	2.32E+00	
0	876.61	24	106	3.55	1752.32	1744	11	5.61E-04	****	1.82E+00	
0	882.69	59	129	5.26	1764.48	1756	18	1.37E-03	94.3	1.81E+00	
0	889.33	33	54	2.09	1777.76	1774	8	7.56E-04	85.5	1.80E+00	
0	1012.32	13	69	0.98	2023.68	2020	8	2.96E-04	****	1.60E+00	
0	1213.25	30	56	4.33	2425.48	2418	12	7.00E-04	****	1.36E+00	
0	1370.13	27	62	3.60	2739.20	2727	19	6.30E-04	****	1.23E+00	
0	1431.43	58	87	8.45	2861.78	2845	29	1.34E-03	96.0	1.19E+00	
0	1502.96	24	36	1.75	3004.82	2998	13	5.67E-04	****	1.14E+00	
0	1570.72	19	13	1.59	3140.33	3135	9	4.35E-04	84.1	1.10E+00	
0	1808.47	13	20	4.72	3615.78	3607	11	3.00E-04	****	1.00E+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]G198683042            *
* Acquisition date : 16-DEC-2007 16:41:24 Detector SN#    :                 *
* Detector ID      : GAM07                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 12:01:21.60     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G198683042           Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1500E+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    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	2.052E+00	3.093E-01	7.932E-02	3.093E-01
CS-137	2.051E-01	2.562E-02	8.244E-03	2.562E-02
TL-208	6.473E-02	2.489E-02	7.621E-03	2.489E-02
BI-212	1.286E-01	1.658E-01	5.862E-02	1.658E-01
PB-212	3.021E-01	3.717E-02	1.180E-02	3.717E-02
BI-214	1.945E-01	4.211E-02	1.706E-02	4.211E-02
PB-214	2.163E-01	4.230E-02	1.579E-02	4.230E-02
RA-223	1.641E-01	9.126E-02	3.864E-02	9.126E-02
AC-228	2.496E-01	8.440E-02	2.965E-02	8.440E-02
TH-234	3.413E-01	2.011E-01	8.381E-02	2.011E-01
U-235	2.088E-02	8.267E-02	4.056E-02	8.267E-02
NP-237	1.131E-01	9.070E-02	3.733E-02	9.070E-02
AM-243	3.987E-02	1.620E-02	7.642E-03	1.620E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	3.255E-03	1.027E-02	8.907E-03	1.027E-02	NOT IDENT.
RH-101	-6.156E-04	1.102E-02	7.609E-03	1.102E-02	NOT IDENT.
SB-125	3.216E-03	2.590E-02	2.169E-02	2.590E-02	NOT IDENT.
EU-155	-2.711E-02	3.121E-02	2.033E-02	3.121E-02	NOT IDENT.
PO-209	-1.238E+00	2.542E+00	1.593E+00	2.542E+00	NOT IDENT.
BI-211	-1.796E-01	2.731E-01	2.184E-01	2.731E-01	NOT IDENT.
PA-233	1.102E-02	1.733E-02	1.509E-02	1.733E-02	NOT IDENT.
PA-234M	-1.662E+00	2.203E+00	1.095E+00	2.203E+00	NOT IDENT.
NP-236	1.204E-02	1.391E-02	1.156E-02	1.391E-02	NOT IDENT.
NP-239	1.542E-02	5.429E-02	4.762E-02	5.429E-02	NOT IDENT.
AM-241	2.398E-02	2.436E-02	1.965E-02	2.436E-02	NOT IDENT.
CM-243	4.624E-03	2.114E-02	1.804E-02	2.114E-02	NOT IDENT.
AM-246	-1.939E-02	3.080E-02	2.504E-02	3.080E-02	NOT IDENT.
CF-249	3.424E-03	1.073E-02	9.126E-03	1.073E-02	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	593.0164
63.29	670.2202
74.66	668.2675
74.81	668.4769
74.81	668.4769
77.11	671.6354
77.11	671.6354
86.48	644.5142
87.30	645.5073
87.30	645.5073
92.58	651.7861
98.44	567.8415
103.76	549.5834
105.31	587.6592
129.07	551.9340
143.76	576.5682
198.00	533.0510
209.25	475.6341
228.18	441.6765
238.63	428.5253
242.00	429.8634
269.46	388.2554
270.25	388.5175
277.36	390.9881
295.22	380.1089
300.09	383.1378
312.17	345.8770
338.32	332.6231
351.93	328.7788
387.59	276.6882
409.46	281.6298
427.87	259.3282
463.00	220.2471
510.77	227.2043
583.19	172.7787
609.31	239.4438
661.66	164.3574
727.33	136.7704
763.13	141.3692
768.36	133.3203
785.37	104.6652
794.95	130.2944
806.17	130.8361
831.80	138.2102
860.56	102.3935
896.60	106.8161
911.20	112.6060
934.06	113.1094
964.77	98.1746
968.97	105.0988
1001.03	110.4967
1078.86	84.0980
1120.29	79.4938
1155.19	91.6045
1173.23	85.4187
1238.11	83.0465
1280.96	83.9669
1332.51	71.2061
1377.67	49.4940
1401.50	64.3542
1407.98	55.3894
1460.80	61.1670
1509.23	53.0001
1588.20	78.6285
1620.50	51.7196
1729.60	29.5993
1764.49	34.4591

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G198683042

Total Uranium Activity	9.6620E-03	ug/g
Total Uranium Counting Unc.	3.8250E-02	ug/g
Total Uranium Tpu	3.8250E-08	ug/g
Total Uranium Mda	1.8765E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:29:43.81

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473827.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 16-DEC-2007 16:43:25
Sample ID        : G1201473827          Sample quantity  : 1.32720E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:02.83  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	53.67	59	527	0.69	107.54	102	9	1.36E-03	71.5	
2	2	87.53	78	304	1.16	175.26	173	20	1.81E-03	35.0	2.02E+00
3	2	92.65*	156	421	1.25	185.51	173	20	3.62E-03	42.6	
4	0	162.66*	6	411	0.97	325.52	323	8	1.38E-04	781.3	
5	0	197.69*	34	365	2.41	395.59	392	9	7.78E-04	138.1	
6	0	212.54	52	513	3.75	425.30	419	12	1.21E-03	87.8	
7	6	238.70*	78	311	1.26	477.61	469	20	1.81E-03	67.7	6.34E-01
8	6	241.47	128	432	2.60	483.15	469	20	2.95E-03	38.1	
9	0	277.06*	6	218	1.26	554.35	553	7	1.37E-04	626.7	
10	0	339.33	31	310	0.78	678.89	671	10	7.29E-04	106.1	
11	0	419.26	34	227	2.79	838.78	835	11	7.84E-04	87.6	
12	0	609.63*	29	211	0.99	1219.59	1214	12	6.76E-04	134.6	
13	0	649.18	29	173	4.79	1298.72	1290	15	6.60E-04	102.2	
14	0	670.22	64	131	5.81	1340.80	1334	14	1.49E-03	40.0	
15	0	697.84	32	132	2.34	1396.06	1392	9	7.43E-04	67.0	
16	0	726.74*	19	110	3.99	1453.89	1448	11	4.38E-04	173.1	
17	0	836.41	15	105	1.33	1673.30	1668	10	3.47E-04	130.4	
18	0	910.73*	60	78	3.14	1822.00	1814	15	1.38E-03	42.7	
19	0	1000.71	37	72	3.70	2002.04	1995	12	8.61E-04	48.5	
20	0	1063.20	28	59	1.56	2127.09	2122	11	6.56E-04	55.3	
21	0	1264.76	16	73	4.16	2530.43	2520	16	3.79E-04	118.6	
22	0	1316.10	17	32	3.80	2633.19	2626	12	3.94E-04	71.5	
23	0	1546.71	19	21	2.08	3094.74	3089	9	4.29E-04	52.8	
24	0	1634.04	10	50	0.94	3269.56	3255	18	2.39E-04	162.6	
25	0	1736.19	21	79	4.52	3474.04	3458	27	4.78E-04	123.1	
26	0	1765.40*	14	34	4.31	3532.51	3519	23	3.30E-04	142.0	
27	0	1957.11	7	13	2.19	3916.31	3910	9	1.70E-04	96.6	
28	0	1980.07	13	8	0.57	3962.26	3958	9	2.99E-04	49.7	
29	0	2033.41	15	1	2.49	4069.06	4066	8	3.37E-04	30.7	

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]G1201473827      *
* Acquisition date : 16-DEC-2007 16:43:25 Detector SN#    :                 *
* Detector ID      : GAM16                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 12:00:02.83     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473827          Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.3272E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 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)	
RH-101	3.350E-03	9.069E-03	9.888E-03	0.000E+00
BI-212	3.134E-02	1.064E-01	8.917E-02	0.000E+00
PA-234M	1.151E+00	1.097E+00	1.244E+00	0.000E+00
NP-237	4.140E-02	2.858E-02	6.229E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
K-40	-8.592E-02		1.382E-01	1.653E-01	0.000E+00	NOT IDENT.
CO-60	4.419E-03		7.548E-03	1.325E-02	0.000E+00	NOT IDENT.
SB-125	7.719E-04		1.771E-02	3.067E-02	0.000E+00	NOT IDENT.
CS-137	3.831E-03		7.246E-03	1.222E-02	0.000E+00	NOT IDENT.
EU-155	-1.751E-03		1.672E-02	2.943E-02	0.000E+00	NOT IDENT.
TL-208	-1.114E-02		1.251E-02	1.542E-02	0.000E+00	FAIL ABUN
PO-209	1.222E+00		1.400E+00	2.530E+00	0.000E+00	NOT IDENT.
BI-211	-2.621E-01		2.432E-01	3.259E-01	0.000E+00	NOT IDENT.
PB-212	1.476E-02		1.962E-02	2.642E-02	0.000E+00	FAIL ABUN
BI-214	1.064E-02		2.807E-02	2.982E-02	0.000E+00	FAIL ABUN
PB-214	-8.506E-03		2.263E-02	2.560E-02	0.000E+00	FAIL ABUN
RA-223	2.291E-02		3.424E-02	5.906E-02	0.000E+00	NOT IDENT.
AC-228	0.000E+00		4.634E-02	5.021E-02	0.000E+00	FAIL ABUN
PA-233	-7.181E-03		1.226E-02	2.114E-02	0.000E+00	NOT IDENT.
TH-234	1.827E-01		1.532E-01	1.977E-01	0.000E+00	FAIL ABUN
U-235	-3.175E-02		4.721E-02	6.003E-02	0.000E+00	NOT IDENT.
NP-236	1.138E-02		1.086E-02	1.763E-02	0.000E+00	NOT IDENT.
NP-239	4.666E-03		4.011E-02	6.840E-02	0.000E+00	NOT IDENT.
AM-241	-6.905E-02		2.211E-02	3.570E-02	0.000E+00	NOT IDENT.
AM-243	-1.314E-02		1.214E-02	1.488E-02	0.000E+00	NOT IDENT.
CM-243	-9.418E-03		1.529E-02	2.646E-02	0.000E+00	NOT IDENT.
AM-246	-1.509E-02		2.623E-02	4.246E-02	0.000E+00	NOT IDENT.
CF-249	6.574E-06		7.731E-03	1.345E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:29:44.62

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473827.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 16-DEC-2007 16:43:25
Sample ID        : G1201473827          Sample quantity  : 1.32720E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:02.83  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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
RH-101	198.00	34	73.00*	6.522E+00	3.327E-03	3.350E-03	276.20
BI-212	727.33	19	11.80*	2.412E+00	3.134E-02	3.134E-02	346.40
	785.37	------	1.10	2.253E+00	------	Line Not Found	------
	1620.50	------	1.49	1.212E+00	------	Line Not Found	------
PA-234M	1001.03	37	0.84*	1.813E+00	1.151E+00	1.151E+00	97.24
NP-237	86.48	78	12.40*	7.183E+00	4.140E-02	4.140E-02	70.44

Flag: "*" = Keyline

Sample ID : G1201473827 Acquisition date : 16-DEC-2007 16:43:25

Total number of lines in spectrum 29
Number of unidentified lines 17
Number of lines tentatively identified by NID 12 41.38%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
RH-101	1.04E+08S	1.01	3.327E-03	3.350E-03	9.254E-03	276.20	
BI-212	4.43E+17S	1.00	3.134E-02	3.134E-02	10.85E-02	346.40	
PA-234M	1.41E+17S	1.00	1.151E+00	1.151E+00	1.119E+00	97.24	
NP-237	6.75E+13S	1.00	4.140E-02	4.140E-02	2.916E-02	70.44	
			---	---			
		Total Activity :	1.227E+00	1.227E+00			
		Grand Total Activity :	1.227E+00	1.227E+00			

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

Sample ID : G1201473827 Acquisition date : 16-DEC-2007 16:43:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	53.67	59	527	0.69	107.54	102	9	1.36E-03	****	2.97E+00	
2	92.65	156	421	1.25	185.51	173	20	3.62E-03	85.2	7.45E+00	T
0	162.66	6	411	0.97	325.52	323	8	1.38E-04	****	7.24E+00	
0	212.54	52	513	3.75	425.30	419	12	1.21E-03	****	6.24E+00	
6	238.70	78	311	1.26	477.61	469	20	1.81E-03	****	5.78E+00	T
6	241.47	128	432	2.60	483.15	469	20	2.95E-03	76.2	5.73E+00	T
0	277.06	6	218	1.26	554.35	553	7	1.37E-04	****	5.21E+00	T
0	339.33	31	310	0.78	678.89	671	10	7.29E-04	****	4.48E+00	T
0	419.26	34	227	2.79	838.78	835	11	7.84E-04	****	3.81E+00	
0	609.63	29	211	0.99	1219.59	1214	12	6.76E-04	****	2.81E+00	T
0	649.18	29	173	4.79	1298.72	1290	15	6.60E-04	****	2.66E+00	
0	670.22	64	131	5.81	1340.80	1334	14	1.49E-03	79.9	2.59E+00	
0	697.84	32	132	2.34	1396.06	1392	9	7.43E-04	****	2.50E+00	
0	836.41	15	105	1.33	1673.30	1668	10	3.47E-04	****	2.13E+00	
0	910.73	60	78	3.14	1822.00	1814	15	1.38E-03	85.4	1.97E+00	T
0	1063.20	28	59	1.56	2127.09	2122	11	6.56E-04	****	1.72E+00	
0	1264.76	16	73	4.16	2530.43	2520	16	3.79E-04	****	1.47E+00	
0	1316.10	17	32	3.80	2633.19	2626	12	3.94E-04	****	1.43E+00	
0	1546.71	19	21	2.08	3094.74	3089	9	4.29E-04	****	1.25E+00	
0	1634.04	10	50	0.94	3269.56	3255	18	2.39E-04	****	1.21E+00	
0	1736.19	21	79	4.52	3474.04	3458	27	4.78E-04	****	1.16E+00	
0	1765.40	14	34	4.31	3532.51	3519	23	3.30E-04	****	1.15E+00	T
0	1957.11	7	13	2.19	3916.31	3910	9	1.70E-04	****	1.08E+00	
0	1980.07	13	8	0.57	3962.26	3958	9	2.99E-04	99.4	1.08E+00	
0	2033.41	15	1	2.49	4069.06	4066	8	3.37E-04	61.4	1.07E+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]G1201473827           *
* Acquisition date : 16-DEC-2007 16:43:25 Detector SN#    :                 *
* Detector ID      : GAM16                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 12:00:02.83     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473827          Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.3272E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  1-OCT-2007 14:23:01 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
RH-101	3.350E-03	9.069E-03	4.947E-03	9.069E-03
BI-212	3.134E-02	1.064E-01	4.461E-02	1.064E-01
PA-234M	1.151E+00	1.097E+00	6.226E-01	1.097E+00
NP-237	4.140E-02	2.858E-02	3.116E-02	2.858E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
K-40	-8.592E-02	1.382E-01	8.269E-02	1.382E-01	NOT IDENT.
CO-60	4.419E-03	7.548E-03	6.627E-03	7.548E-03	NOT IDENT.
SB-125	7.719E-04	1.771E-02	1.534E-02	1.771E-02	NOT IDENT.
CS-137	3.831E-03	7.246E-03	6.113E-03	7.246E-03	NOT IDENT.
EU-155	-1.751E-03	1.672E-02	1.473E-02	1.672E-02	NOT IDENT.
TL-208	-1.114E-02	1.251E-02	7.716E-03	1.251E-02	FAIL ABUN
PO-209	1.222E+00	1.400E+00	1.266E+00	1.400E+00	NOT IDENT.
BI-211	-2.621E-01	2.432E-01	1.630E-01	2.432E-01	NOT IDENT.
PB-212	1.476E-02	1.962E-02	1.322E-02	1.962E-02	FAIL ABUN
BI-214	1.064E-02	2.807E-02	1.492E-02	2.807E-02	FAIL ABUN
PB-214	-8.506E-03	2.263E-02	1.281E-02	2.263E-02	FAIL ABUN
RA-223	2.291E-02	3.424E-02	2.955E-02	3.424E-02	NOT IDENT.
AC-228	5.511E-02	4.634E-02	2.512E-02	4.634E-02	FAIL ABUN
PA-233	-7.181E-03	1.226E-02	1.057E-02	1.226E-02	NOT IDENT.
TH-234	1.827E-01	1.532E-01	9.890E-02	1.532E-01	FAIL ABUN
U-235	-3.175E-02	4.721E-02	3.003E-02	4.721E-02	NOT IDENT.
NP-236	1.138E-02	1.086E-02	8.820E-03	1.086E-02	NOT IDENT.
NP-239	4.666E-03	4.011E-02	3.422E-02	4.011E-02	NOT IDENT.
AM-241	-6.905E-02	2.211E-02	1.786E-02	2.211E-02	NOT IDENT.
AM-243	-1.314E-02	1.214E-02	7.445E-03	1.214E-02	NOT IDENT.
CM-243	-9.418E-03	1.529E-02	1.324E-02	1.529E-02	NOT IDENT.
AM-246	-1.509E-02	2.623E-02	2.124E-02	2.623E-02	NOT IDENT.
CF-249	6.574E-06	7.731E-03	6.729E-03	7.731E-03	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	695.4243
63.29	550.8511
74.66	680.8662
74.81	606.3885
74.81	606.3885
77.11	631.0339
77.11	631.0339
86.48	569.3572
87.30	651.3643
87.30	651.3643
92.58	566.3172
98.44	428.1886
103.76	461.1612
105.31	453.1369
129.07	400.2045
143.76	460.9005
198.00	422.3392
209.25	406.0658
228.18	367.2593
238.63	378.6309
242.00	383.6555
269.46	325.7010
270.25	328.1005
277.36	311.5193
295.22	331.8595
300.09	313.6396
312.17	325.8746
338.32	290.1635
351.93	277.5289
387.59	255.7516
409.46	257.4275
427.87	227.5073
463.00	202.3824
510.77	233.5590
583.19	167.6044
609.31	190.0514
661.66	131.0928
727.33	130.2422
763.13	137.1460
768.36	140.6531
785.37	93.8694
794.95	116.2793
806.17	122.2085
831.80	147.0742
860.56	116.5553
896.60	91.1113
911.20	73.4954
934.06	95.8354
964.77	122.6618
968.97	106.3521
1001.03	73.5057
1078.86	97.2743
1120.29	82.1635
1155.19	91.8850
1173.23	74.0010
1238.11	69.8843
1280.96	69.4645
1332.51	69.1340
1377.67	68.6843
1401.50	59.4408
1407.98	59.5137
1460.80	54.7333
1509.23	54.1321
1588.20	55.5121
1620.50	36.4241
1729.60	48.8826
1764.49	44.5545

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473827

Total Uranium Activity	-1.4692E-02	ug/g
Total Uranium Counting Unc.	2.1845E-02	ug/g
Total Uranium Tpu	2.1845E-08	ug/g
Total Uranium Mda	1.3897E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:30:14.93

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473828.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 16:43:45
Sample ID        : G1201473828          Sample quantity  : 1.13190E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:05.43  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	42.47	77	547	1.43	84.59	83	5	1.78E-03	47.3	
2	0	46.84*	8	1104	1.19	93.32	89	10	1.89E-04	884.0	
3	0	63.38*	28	1305	1.01	126.37	123	9	6.46E-04	290.1	
4	2	74.97	988	1338	1.52	149.53	141	22	2.29E-02	7.6	2.23E+00
5	2	77.32	1265	978	1.22	154.23	141	22	2.93E-02	5.1	
6	4	84.17*	338	1370	1.86	167.91	162	32	7.83E-03	23.3	2.18E+00
7	4	87.43	593	940	1.28	174.43	162	32	1.37E-02	9.9	
8	4	90.00	404	900	1.25	179.56	162	32	9.34E-03	14.3	
9	4	92.78*	622	1065	1.59	185.11	162	32	1.44E-02	14.5	
10	0	99.33	178	979	1.99	198.20	194	10	4.12E-03	33.7	
11	0	105.57	164	999	1.24	210.68	205	10	3.79E-03	37.0	
12	0	115.56	74	814	1.33	230.63	228	8	1.71E-03	68.0	
13	0	129.17	141	998	1.27	257.83	254	9	3.25E-03	41.4	
14	0	186.01*	609	1246	1.67	371.41	364	15	1.41E-02	14.9	
15	0	199.17*	41	796	2.31	397.73	392	9	9.53E-04	152.4	
16	0	202.70	36	615	0.71	404.77	400	7	8.43E-04	114.8	
17	0	209.64	304	990	1.32	418.65	414	13	7.03E-03	22.1	
18	2	238.66*	2576	578	1.33	476.64	469	19	5.96E-02	2.8	1.25E+00
19	2	241.73	623	612	1.58	482.77	469	19	1.44E-02	9.2	
20	0	270.02	273	631	1.58	539.31	534	11	6.33E-03	18.8	
21	0	277.53	147	509	1.20	554.32	551	9	3.41E-03	28.9	
22	0	295.26*	772	580	1.42	589.75	585	11	1.79E-02	8.0	
23	0	299.85	104	489	1.18	598.93	596	8	2.41E-03	37.9	
24	0	316.09	37	350	1.34	631.38	627	7	8.47E-04	87.2	
25	0	327.82	145	469	1.66	654.83	651	9	3.37E-03	28.1	
26	0	338.41	488	461	1.34	675.99	672	10	1.13E-02	9.4	
27	0	351.83*	1348	595	1.51	702.82	696	13	3.12E-02	5.1	
28	0	409.74	23	600	1.46	818.55	811	14	5.24E-04	230.2	
29	0	462.83	153	315	1.97	924.66	920	11	3.54E-03	23.9	
30	0	510.87*	121	535	2.21	1020.69	1012	17	2.79E-03	64.8	
31	0	558.59	38	233	1.13	1116.09	1111	12	8.70E-04	82.9	
32	0	568.16*	307	283	2.32	1135.21	1129	13	7.10E-03	15.1	
33	0	583.37*	627	360	1.56	1165.63	1160	12	1.45E-02	8.4	
34	0	609.59*	1005	356	1.54	1218.04	1212	14	2.33E-02	5.7	
35	0	642.72	54	198	1.28	1284.27	1280	9	1.24E-03	49.4	
36	0	661.66	240	297	1.32	1322.12	1315	15	5.56E-03	16.9	
37	0	727.57	262	187	1.43	1453.89	1448	13	6.06E-03	12.4	
38	0	769.46	190	350	4.58	1537.62	1529	23	4.40E-03	26.6	

Sample ID : G1201473828 Acquisition date : 16-DEC-2007 16:43:45

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	795.38	108	162	2.05	1589.45	1584	11	2.51E-03	24.7	
40	0	860.93	143	165	1.99	1720.52	1715	13	3.30E-03	20.4	
41	0	904.56	26	138	0.79	1807.73	1804	9	5.96E-04	84.9	
42	0	911.71	542	224	1.70	1822.04	1816	15	1.26E-02	7.4	
43	2	965.13	81	209	2.13	1928.84	1921	27	1.88E-03	35.4	1.51E+00
44	2	969.59	353	109	1.71	1937.77	1921	27	8.17E-03	7.9	
45	0	1068.23	29	89	1.54	2135.00	2132	8	6.70E-04	59.2	
46	0	1120.48	201	215	2.05	2239.50	2235	17	4.66E-03	17.8	
47	0	1179.50	14	119	0.49	2357.51	2349	11	3.21E-04	155.4	
48	0	1239.87	17	130	0.54	2478.25	2475	9	3.90E-04	130.8	
49	0	1378.91	55	84	1.96	2756.34	2750	13	1.26E-03	37.7	
50	0	1461.57*	1290	112	1.93	2921.66	2911	19	2.99E-02	3.6	
51	0	1511.12	26	51	1.77	3020.78	3013	11	5.91E-04	58.2	
52	2	1589.43	46	92	2.47	3177.43	3167	23	1.07E-03	47.1	4.62E+00
53	2	1593.34	28	42	1.92	3185.26	3167	23	6.53E-04	45.8	
54	0	1718.40	10	31	1.44	3435.44	3428	10	2.27E-04	112.6	
55	0	1731.81	92	44	2.23	3462.27	3454	19	2.13E-03	20.7	
56	0	1765.30	193	54	1.74	3529.26	3521	14	4.48E-03	10.7	
57	0	1862.65	34	24	3.35	3724.03	3717	14	7.97E-04	34.8	
58	0	1870.44	51	31	6.22	3739.62	3731	20	1.18E-03	29.8	
59	0	1942.02	13	22	1.33	3882.84	3878	9	3.04E-04	72.5	
60	0	1962.59	11	30	2.59	3924.00	3915	11	2.59E-04	102.8	
61	0	2027.27	32	45	5.85	4053.43	4040	23	7.31E-04	58.5	

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]G1201473828      *
* Acquisition date : 16-DEC-2007 16:43:45 Detector SN#    :                 *
* Detector ID      : GAM19                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 12:00:05.43     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473828          Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1319E+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	5.626E+00	5.254E-01	1.926E-01	0.000E+00
RH-101	5.573E-03	1.665E-02	1.771E-02	0.000E+00
CS-137	6.659E-02	2.268E-02	1.883E-02	0.000E+00
EU-155	6.324E-02	4.599E-02	5.361E-02	0.000E+00
TL-208	1.570E-01	2.828E-02	1.930E-02	0.000E+00
BI-212	5.651E-01	1.462E-01	1.446E-01	0.000E+00
PB-212	6.397E-01	5.307E-02	2.970E-02	0.000E+00
BI-214	4.788E-01	6.421E-02	3.728E-02	0.000E+00
PB-214	5.117E-01	5.971E-02	3.722E-02	0.000E+00
RA-223	2.341E-01	8.742E-02	9.689E-02	0.000E+00
AC-228	6.518E-01	1.156E-01	7.016E-02	0.000E+00
TH-234	9.812E-01	2.868E-01	2.303E-01	0.000E+00
NP-236	3.842E-02	2.550E-02	2.840E-02	0.000E+00
NP-237	4.282E-01	8.784E-02	1.061E-01	0.000E+00
AM-243	1.576E-01	2.535E-02	2.623E-02	0.000E+00
CM-243	5.720E-02	4.160E-02	4.821E-02	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error	MDA (pCi/GRAM)		Ided
CO-60	-1.072E-03	1.502E-02	2.179E-02	0.000E+00	NOT IDENT.
SB-125	2.532E-02	2.904E-02	5.130E-02	0.000E+00	NOT IDENT.
PO-209	-8.484E-01	2.258E+00	3.631E+00	0.000E+00	NOT IDENT.
BI-211	-3.258E-01	3.415E-01	5.338E-01	0.000E+00	NOT IDENT.
PA-233	5.066E-03	2.390E-02	3.467E-02	0.000E+00	NOT IDENT.
PA-234M	-1.044E+00	1.804E+00	2.551E+00	0.000E+00	NOT IDENT.
U-235	-7.085E-02	7.635E-02	1.063E-01	0.000E+00	NOT IDENT.
NP-239	1.562E-02	7.052E-02	1.185E-01	0.000E+00	NOT IDENT.
AM-241	3.125E-02	4.871E-02	7.647E-02	0.000E+00	NOT IDENT.
AM-246	9.963E-03	4.179E-02	7.212E-02	0.000E+00	NOT IDENT.
CF-249	3.688E-03	1.285E-02	2.236E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:30:15.75

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473828.CNF;1
Sample date      : 18-OCT-2007 00:00:00 Acquisition date : 16-DEC-2007 16:43:45
Sample ID        : G1201473828          Sample quantity  : 1.13190E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 12:00:00.00        Elapsed real time: 0 12:00:05.43  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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	1290	10.66*	1.188E+00	5.626E+00	5.626E+00	9.53
RH-101	198.00	41	73.00*	5.791E+00	5.384E-03	5.573E-03	304.88
CS-137	661.66	240	85.10*	2.352E+00	6.634E-02	6.659E-02	34.75
EU-155	105.31	164	21.20*	6.905E+00	6.181E-02	6.324E-02	74.21
TL-208	277.36	147	6.31	4.617E+00	2.794E-01	2.794E-01	58.12
	510.77	121	22.60	2.905E+00	1.016E-01	1.016E-01	129.73
	583.19	627	84.50*	2.610E+00	1.570E-01	1.570E-01	18.38
	763.13	------	1.81	2.083E+00	------	Line Not Found	------
	860.56	143	12.42	1.875E+00	3.386E-01	3.386E-01	42.05
BI-212	727.33	262	11.80*	2.170E+00	5.651E-01	5.651E-01	26.39
	785.37	------	1.10	2.031E+00	------	Line Not Found	------
	1620.50	------	1.49	1.102E+00	------	Line Not Found	------
PB-212	74.81	988	10.40	5.079E+00	1.034E+00	1.034E+00	16.41
	77.11	1265	17.50	5.329E+00	7.499E-01	7.499E-01	12.14
	87.30	593	7.81	6.170E+00	6.799E-01	6.799E-01	20.93
	238.63	2576	43.30*	5.139E+00	6.397E-01	6.397E-01	8.46
	300.09	104	3.28	4.364E+00	4.016E-01	4.016E-01	76.15
BI-214	609.31	1005	46.10*	2.518E+00	4.788E-01	4.788E-01	13.68
	768.36	190	4.94	2.068E+00	1.028E+00	1.028E+00	54.03
	806.17	------	1.22	1.986E+00	------	Line Not Found	------
	934.06	------	3.03	1.744E+00	------	Line Not Found	------
	1120.29	201	15.10	1.484E+00	4.962E-01	4.962E-01	36.33
	1155.19	------	1.63	1.445E+00	------	Line Not Found	------
	1238.11	17	5.79	1.359E+00	1.184E-01	1.184E-01	261.57
	1280.96	------	1.43	1.322E+00	------	Line Not Found	------
	1377.67	55	4.00	1.244E+00	6.068E-01	6.068E-01	75.65
	1401.50	------	1.27	1.228E+00	------	Line Not Found	------
	1407.98	------	2.15	1.224E+00	------	Line Not Found	------
	1509.23	26	2.11	1.159E+00	5.775E-01	5.775E-01	116.47
	1729.60	------	2.92	1.057E+00	------	Line Not Found	------
	1764.49	193	15.40	1.045E+00	6.646E-01	6.647E-01	22.24
PB-214	74.81	988	6.44	5.079E+00	1.669E+00	1.670E+00	16.41

Sample ID : G1201473828 Acquisition date : 16-DEC-2007 16:43:45

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	1265	10.80	5.329E+00	1.215E+00	1.215E+00	12.14
	87.30	593	4.84	6.170E+00	1.097E+00	1.097E+00	20.93
	242.00	623	7.43	5.094E+00	9.093E-01	9.094E-01	19.40
	295.22	772	19.30	4.413E+00	5.008E-01	5.009E-01	17.27
	351.93	1348	37.60*	3.874E+00	5.117E-01	5.117E-01	11.91
RA-223	269.46	273	13.70*	4.710E+00	2.341E-01	2.341E-01	38.10
AC-228	129.07	141	2.42	6.984E+00	4.595E-01	4.595E-01	83.00
	209.25	304	3.89	5.606E+00	7.699E-01	7.699E-01	44.57
	270.25	273	3.46	4.710E+00	9.270E-01	9.270E-01	38.10
	338.32	488	11.27	3.989E+00	5.996E-01	5.996E-01	19.78
	409.46	23	1.92	3.450E+00	1.889E-01	1.889E-01	460.51
	463.00	153	4.40	3.140E+00	6.110E-01	6.110E-01	48.31
	794.95	108	4.25	2.009E+00	7.012E-01	7.012E-01	50.31
	911.20	542	25.80*	1.782E+00	6.518E-01	6.518E-01	18.10
	964.77	81	4.99	1.694E+00	5.321E-01	5.321E-01	71.54
	968.97	353	15.80	1.687E+00	7.319E-01	7.319E-01	18.55
	1588.20	46	3.22	1.117E+00	7.090E-01	7.090E-01	94.41
TH-234	63.29	28	4.80	3.566E+00	9.018E-02	9.018E-02	580.30
	92.58	622	5.41*	6.477E+00	9.812E-01	9.812E-01	29.83
NP-236	98.44	178	38.00*	6.743E+00	3.842E-02	3.842E-02	67.74
NP-237	86.48	593	12.40*	6.170E+00	4.282E-01	4.282E-01	20.93
AM-243	74.66	988	68.20*	5.079E+00	1.576E-01	1.576E-01	16.41
CM-243	103.76	164	23.00*	6.905E+00	5.697E-02	5.720E-02	74.21

Flag: "*" = Keyline

Sample ID : G1201473828 Acquisition date : 16-DEC-2007 16:43:45

Total number of lines in spectrum	61	
Number of unidentified lines	23	
Number of lines tentatively identified by NID	38	62.30%

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	5.626E+00	5.626E+00	0.536E+00	9.53	
RH-101	1.04E+08S	1.04	5.384E-03	5.573E-03	16.99E-03	304.88	
CS-137	9.47E+08S	1.00	6.634E-02	6.659E-02	2.314E-02	34.75	
EU-155	1.57E+08S	1.02	6.181E-02	6.324E-02	4.693E-02	74.21	
TL-208	4.43E+17S	1.00	1.570E-01	1.570E-01	0.289E-01	18.38	
BI-212	4.43E+17S	1.00	5.651E-01	5.651E-01	1.491E-01	26.39	
PB-212	4.43E+17S	1.00	6.397E-01	6.397E-01	0.541E-01	8.46	
BI-214	5.05E+10S	1.00	4.788E-01	4.788E-01	0.655E-01	13.68	
PB-214	5.05E+10S	1.00	5.117E-01	5.117E-01	0.609E-01	11.91	
RA-223	1.04E+12S	1.00	2.341E-01	2.341E-01	0.892E-01	38.10	
AC-228	4.43E+17S	1.00	6.518E-01	6.518E-01	1.180E-01	18.10	
TH-234	1.41E+17S	1.00	9.812E-01	9.812E-01	2.927E-01	29.83	
NP-236	4.89E+12S	1.00	3.842E-02	3.842E-02	2.602E-02	67.74	
NP-237	6.75E+13S	1.00	4.282E-01	4.282E-01	0.896E-01	20.93	
AM-243	2.33E+11S	1.00	1.576E-01	1.576E-01	0.259E-01	16.41	
CM-243	8.99E+08S	1.00	5.697E-02	5.720E-02	4.245E-02	74.21	
		Total Activity :	1.066E+01	1.066E+01			
		Grand Total Activity :	1.066E+01	1.066E+01			

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

Sample ID : G1201473828 Acquisition date : 16-DEC-2007 16:43:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	42.47	77	547	1.43	84.59	83	5	1.78E-03	94.6	6.44E-01	
0	46.84	8	1104	1.19	93.32	89	10	1.89E-04	****	1.13E+00	
4	84.17	338	1370	1.86	167.91	162	32	7.83E-03	46.5	5.94E+00	
4	90.00	404	900	1.25	179.56	162	32	9.34E-03	28.6	6.33E+00	
0	115.56	74	814	1.33	230.63	228	8	1.71E-03	****	7.02E+00	
0	186.01	609	1246	1.67	371.41	364	15	1.41E-02	29.9	6.03E+00	
0	202.70	36	615	0.71	404.77	400	7	8.43E-04	****	5.73E+00	
0	316.09	37	350	1.34	631.38	627	7	8.47E-04	****	4.20E+00	
0	327.82	145	469	1.66	654.83	651	9	3.37E-03	56.1	4.08E+00	
0	558.59	38	233	1.13	1116.09	1111	12	8.70E-04	****	2.70E+00	
0	568.16	307	283	2.32	1135.21	1129	13	7.10E-03	30.2	2.67E+00	
0	642.72	54	198	1.28	1284.27	1280	9	1.24E-03	98.8	2.41E+00	
0	904.56	26	138	0.79	1807.73	1804	9	5.96E-04	****	1.79E+00	
0	1068.23	29	89	1.54	2135.00	2132	8	6.70E-04	****	1.55E+00	
0	1179.50	14	119	0.49	2357.51	2349	11	3.21E-04	****	1.42E+00	
2	1593.34	28	42	1.92	3185.26	3167	23	6.53E-04	91.6	1.12E+00	
0	1718.40	10	31	1.44	3435.44	3428	10	2.27E-04	****	1.06E+00	
0	1731.81	92	44	2.23	3462.27	3454	19	2.13E-03	41.4	1.06E+00	
0	1862.65	34	24	3.35	3724.03	3717	14	7.97E-04	69.6	1.01E+00	
0	1870.44	51	31	6.22	3739.62	3731	20	1.18E-03	59.6	1.01E+00	
0	1942.02	13	22	1.33	3882.84	3878	9	3.04E-04	****	9.95E-01	
0	1962.59	11	30	2.59	3924.00	3915	11	2.59E-04	****	9.91E-01	
0	2027.27	32	45	5.85	4053.43	4040	23	7.31E-04	****	9.79E-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]G1201473828          *
* Acquisition date : 16-DEC-2007 16:43:45 Detector SN#    :                *
* Detector ID      : GAM19                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 12:00:05.43     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 18-OCT-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473828          Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.1319E+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    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	LC (pCi/GRAM)	TPU
K-40	5.626E+00	5.254E-01	9.636E-02	5.254E-01
RH-101	5.573E-03	1.665E-02	8.858E-03	1.665E-02
CS-137	6.659E-02	2.268E-02	9.423E-03	2.268E-02
EU-155	6.324E-02	4.599E-02	2.682E-02	4.599E-02
TL-208	1.570E-01	2.828E-02	9.658E-03	2.828E-02
BI-212	5.651E-01	1.462E-01	7.237E-02	1.462E-01
PB-212	6.397E-01	5.307E-02	1.486E-02	5.307E-02
BI-214	4.788E-01	6.421E-02	1.865E-02	6.421E-02
PB-214	5.117E-01	5.971E-02	1.862E-02	5.971E-02
RA-223	2.341E-01	8.742E-02	4.847E-02	8.742E-02
AC-228	6.518E-01	1.156E-01	3.510E-02	1.156E-01
TH-234	9.812E-01	2.868E-01	1.152E-01	2.868E-01
NP-236	3.842E-02	2.550E-02	1.421E-02	2.550E-02
NP-237	4.282E-01	8.784E-02	5.309E-02	8.784E-02
AM-243	1.576E-01	2.535E-02	1.312E-02	2.535E-02
CM-243	5.720E-02	4.160E-02	2.412E-02	4.160E-02

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
CO-60	-1.072E-03	1.502E-02	1.090E-02	1.502E-02	NOT IDENT.
SB-125	2.532E-02	2.904E-02	2.566E-02	2.904E-02	NOT IDENT.
PO-209	-8.484E-01	2.258E+00	1.817E+00	2.258E+00	NOT IDENT.
BI-211	-3.258E-01	3.415E-01	2.670E-01	3.415E-01	NOT IDENT.
PA-233	5.066E-03	2.390E-02	1.734E-02	2.390E-02	NOT IDENT.
PA-234M	-1.044E+00	1.804E+00	1.276E+00	1.804E+00	NOT IDENT.
U-235	-7.085E-02	7.635E-02	5.319E-02	7.635E-02	NOT IDENT.
NP-239	1.562E-02	7.052E-02	5.930E-02	7.052E-02	NOT IDENT.
AM-241	3.125E-02	4.871E-02	3.826E-02	4.871E-02	NOT IDENT.
AM-246	9.963E-03	4.179E-02	3.608E-02	4.179E-02	NOT IDENT.
CF-249	3.688E-03	1.285E-02	1.118E-02	1.285E-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	909.8126
63.29	1003.4517
74.66	1181.7087
74.81	1181.9144
74.81	1181.9144
77.11	1185.0392
77.11	1185.0392
86.48	939.2151
87.30	940.0296
87.30	940.0296
92.58	945.2021
98.44	765.2530
103.76	839.1357
105.31	857.4904
129.07	904.9810
143.76	921.8273
198.00	777.1381
209.25	715.3510
228.18	659.7197
238.63	646.5932
242.00	576.6140
269.46	581.4062
270.25	581.6506
277.36	586.0046
295.22	494.2588
300.09	539.6847
312.17	462.7695
338.32	483.4782
351.93	437.8013
387.59	404.9912
409.46	395.6256
427.87	314.3273
463.00	303.3789
510.77	291.2501
583.19	272.6309
609.31	281.8323
661.66	212.4250
727.33	207.1046
763.13	175.1143
768.36	195.8394
785.37	184.1512
794.95	185.6512
806.17	186.1828
831.80	212.7872
860.56	163.4669
896.60	156.9892
911.20	157.7972
934.06	165.9467
964.77	158.3601
968.97	158.5088
1001.03	146.7838
1078.86	136.1562
1120.29	140.2584
1155.19	142.0410
1173.23	143.3560
1238.11	156.6745
1280.96	99.8735
1332.51	100.7955
1377.67	87.9241
1401.50	84.1803
1407.98	98.1500
1460.80	91.0185
1509.23	74.5992
1588.20	70.4319
1620.50	57.4447
1729.60	53.6196
1764.49	67.0625

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473828

Total Uranium Activity	-3.2782E-02	ug/g
Total Uranium Counting Unc.	3.5326E-02	ug/g
Total Uranium Tpu	3.5326E-08	ug/g
Total Uranium Mda	2.4609E-02	ug/g

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:30:46.48

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473829.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 16-DEC-2007 13:52:17
Sample ID        : G1201473829          Sample quantity  : 1.51730E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.51  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.43	3172	1549	1.23	118.80	112	13	8.81E-01	3.1	
2	3	74.93*	202	819	1.54	149.78	146	13	5.61E-02	24.8	2.26E+00
3	3	77.15*	275	974	1.41	154.22	146	13	7.64E-02	20.8	
4	0	88.03	4348	1256	1.19	175.98	170	13	1.21E+00	2.3	
5	0	93.03*	151	505	1.55	185.97	182	9	4.20E-02	29.0	
6	0	99.51	30	306	0.94	198.93	197	5	8.47E-03	87.8	
7	0	110.68*	48	296	0.92	221.26	219	5	1.34E-02	56.4	
8	0	122.06	1510	709	1.17	244.00	238	12	4.19E-01	4.4	
9	0	136.74	222	469	1.49	273.36	269	10	6.16E-02	19.5	
10	0	150.90	39	360	1.19	301.67	299	8	1.09E-02	85.0	
11	0	165.70	701	496	1.33	331.25	326	11	1.95E-01	7.2	
12	0	185.56*	49	446	1.77	370.96	367	10	1.36E-02	83.3	
13	0	198.91*	12	347	0.82	397.64	393	8	3.39E-03	269.8	
14	0	208.36	70	413	2.39	416.54	413	11	1.96E-02	56.9	
15	3	238.52*	492	317	1.37	476.84	472	16	1.37E-01	7.9	9.82E-01
16	3	241.52	117	356	1.74	482.84	472	16	3.24E-02	34.1	
17	0	270.45	19	265	0.50	540.67	536	8	5.25E-03	150.7	
18	0	294.98*	176	263	1.54	589.73	585	10	4.89E-02	18.9	
19	0	300.19*	35	276	0.74	600.14	596	10	9.73E-03	90.7	
20	0	338.09*	95	188	1.29	675.91	672	8	2.63E-02	27.3	
21	0	351.73*	245	265	1.07	703.19	698	11	6.79E-02	14.5	
22	0	391.55	418	231	1.40	782.81	778	11	1.16E-01	8.6	
23	0	511.17*	182	308	2.80	1021.98	1012	25	5.05E-02	27.7	
24	0	583.64*	135	196	1.68	1166.90	1159	15	3.76E-02	24.7	
25	0	609.01*	238	132	1.14	1217.64	1212	11	6.62E-02	11.5	
26	0	661.37*	2239	178	1.59	1322.35	1314	17	6.22E-01	2.5	
27	0	712.05	29	212	5.76	1423.69	1407	22	8.03E-03	130.4	
28	0	726.36*	41	136	1.71	1452.32	1445	12	1.13E-02	57.5	
29	0	795.16	68	119	0.79	1589.91	1583	14	1.89E-02	36.5	
30	0	870.65	25	92	1.06	1740.88	1735	10	6.92E-03	74.9	
31	0	897.81	367	203	1.63	1795.21	1788	14	1.02E-01	9.7	
32	0	910.36*	179	177	1.91	1820.33	1812	19	4.98E-02	19.3	
33	0	963.22	80	119	5.12	1926.05	1919	13	2.23E-02	30.6	
34	0	968.81	120	119	1.74	1937.23	1932	14	3.33E-02	21.2	
35	0	1038.16	71	113	5.91	2075.94	2067	19	1.97E-02	38.0	
36	0	1120.36*	82	105	4.36	2240.37	2234	15	2.27E-02	30.8	
37	0	1172.97	2394	100	1.88	2345.62	2336	19	6.65E-01	2.3	
38	0	1257.64	19	36	6.38	2515.00	2503	22	5.35E-03	84.8	

Sample ID : G1201473829 Acquisition date : 16-DEC-2007 13:52:17

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1332.21	2189	50	2.02	2664.18	2656	17	6.08E-01	2.3	
40	0	1377.91*	15	22	1.35	2755.62	2751	11	4.03E-03	71.4	
41	0	1408.22	30	28	7.15	2816.26	2807	21	8.40E-03	46.3	
42	0	1482.62	8	13	3.38	2965.13	2957	13	2.22E-03	99.4	
43	0	1507.55	22	5	1.65	3015.00	3010	10	6.11E-03	28.6	
44	0	1600.64	11	16	0.47	3201.28	3195	13	3.16E-03	78.4	
45	0	1630.55	13	9	0.65	3261.13	3256	10	3.56E-03	53.5	
46	0	1764.18*	46	3	2.54	3528.54	3522	13	1.28E-02	18.4	
47	0	1809.68	5	9	1.55	3619.60	3612	9	1.39E-03	117.0	
48	0	1835.65	260	5	2.15	3671.56	3662	17	7.23E-02	6.5	

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]G1201473829      *
* Acquisition date : 16-DEC-2007 13:52:17 Detector SN#    :                 *
* Detector ID      : GAMAN                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 01:00:02.51     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473829          Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.5173E+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)	
CO-60	9.041E+00	6.918E-01	1.736E-01	0.000E+00
RH-101	1.796E-02	9.496E-02	1.385E-01	0.000E+00
CS-137	6.253E+00	5.810E-01	1.501E-01	0.000E+00
TL-208	3.460E-01	1.696E-01	1.514E-01	0.000E+00
PO-209	2.365E+02	5.114E+01	4.053E+01	0.000E+00
BI-212	8.821E-01	9.967E-01	1.212E+00	0.000E+00
PB-212	1.348E+00	2.249E-01	2.487E-01	0.000E+00
BI-214	1.153E+00	2.742E-01	2.663E-01	0.000E+00
PB-214	9.868E-01	2.862E-01	2.927E-01	0.000E+00
RA-223	1.768E-01	5.223E-01	7.617E-01	0.000E+00
AC-228	2.128E+00	8.341E-01	6.987E-01	0.000E+00
NP-236	7.242E-02	1.247E-01	2.567E-01	0.000E+00
NP-237	3.335E+01	3.186E+00	1.233E+00	0.000E+00
AM-241	1.420E+01	1.443E+00	6.581E-01	0.000E+00
AM-243	3.233E-01	1.589E-01	2.373E-01	0.000E+00

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
K-40	4.383E-01	7.538E-01	1.398E+00	0.000E+00	NOT IDENT.
SB-125	-2.264E-02	2.381E-01	4.176E-01	0.000E+00	NOT IDENT.
EU-155	-8.861E-02	2.502E-01	4.525E-01	0.000E+00	NOT IDENT.
BI-211	-2.578E-01	2.672E+00	4.634E+00	0.000E+00	NOT IDENT.
PA-233	4.805E-02	1.548E-01	2.825E-01	0.000E+00	NOT IDENT.
PA-234M	4.314E+00	1.224E+01	2.150E+01	0.000E+00	NOT IDENT.
TH-234	0.000E+00	1.482E+00	2.186E+00	0.000E+00	FAIL ABUN
U-235	-5.966E-02	4.577E-01	8.170E-01	0.000E+00	NOT IDENT.
NP-239	-6.241E-02	5.748E-01	9.979E-01	0.000E+00	NOT IDENT.
CM-243	1.362E-01	2.446E-01	4.238E-01	0.000E+00	NOT IDENT.
AM-246	-1.806E-01	3.872E-01	6.395E-01	0.000E+00	NOT IDENT.
CF-249	1.100E-01	1.120E-01	1.834E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 17-DEC-2007 11:30:47.31

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201473829.CNF;1
Sample date      : 5-DEC-2007 00:00:00. Acquisition date : 16-DEC-2007 13:52:17
Sample ID        : G1201473829          Sample quantity  : 1.51730E+02 GRAM
Detector name    : GAMAN                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.51  0.1%
Energy tolerance : 2.00000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 708126               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
CO-60	1173.23	2394	100.00*	1.316E+00	9.003E+00	9.041E+00	7.81
	1332.51	2189	100.00	1.191E+00	9.091E+00	9.129E+00	7.44
RH-101	198.00	12	73.00*	4.632E+00	1.784E-02	1.796E-02	539.68
CS-137	661.66	2239	85.10*	2.083E+00	6.249E+00	6.253E+00	9.48
TL-208	277.36	------	6.31	3.802E+00	------	Line Not Found	------
	510.77	182	22.60	2.522E+00	1.577E+00	1.577E+00	55.74
	583.19	135	84.50*	2.289E+00	3.460E-01	3.460E-01	50.02
	763.13	------	1.81	1.863E+00	------	Line Not Found	------
	860.56	------	12.42	1.692E+00	------	Line Not Found	------
PO-209	896.60	367	0.47*	1.635E+00	2.364E+02	2.365E+02	22.07
BI-212	727.33	41	11.80*	1.937E+00	8.821E-01	8.821E-01	115.29
	785.37	------	1.10	1.821E+00	------	Line Not Found	------
	1620.50	------	1.49	1.039E+00	------	Line Not Found	------
PB-212	74.81	202	10.40	4.529E+00	2.120E+00	2.120E+00	50.15
	77.11	275	17.50	4.675E+00	1.664E+00	1.664E+00	42.30
	87.30	4348	7.81	5.202E+00	5.295E+01	5.295E+01	9.75
	238.63	492	43.30*	4.173E+00	1.348E+00	1.348E+00	17.02
	300.09	35	3.28	3.615E+00	1.461E+00	1.461E+00	181.53
BI-214	609.31	238	46.10*	2.218E+00	1.153E+00	1.153E+00	24.27
	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	82	15.10	1.365E+00	1.965E+00	1.965E+00	61.97
	1155.19	------	1.63	1.332E+00	------	Line Not Found	------
	1238.11	------	5.79	1.261E+00	------	Line Not Found	------
	1280.96	------	1.43	1.228E+00	------	Line Not Found	------
	1377.67	15	4.00	1.162E+00	1.545E+00	1.545E+00	142.93
	1401.50	------	1.27	1.147E+00	------	Line Not Found	------
	1407.98	30	2.15	1.143E+00	6.090E+00	6.090E+00	92.71
	1509.23	22	2.11	1.089E+00	4.736E+00	4.736E+00	57.45
	1729.60	------	2.92	9.999E-01	------	Line Not Found	------
	1764.49	46	15.40	9.892E-01	1.494E+00	1.494E+00	37.30

Sample ID : G1201473829 Acquisition date : 16-DEC-2007 13:52:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	202	6.44	4.529E+00	3.423E+00	3.424E+00	50.15
	77.11	275	10.80	4.675E+00	2.697E+00	2.697E+00	42.30
	87.30	4348	4.84	5.202E+00	8.544E+01	8.544E+01	9.75
	242.00	117	7.43	4.141E+00	1.873E+00	1.873E+00	68.55
	295.22	176	19.30	3.656E+00	1.235E+00	1.235E+00	38.30
	351.93	245	37.60*	3.261E+00	9.868E-01	9.868E-01	29.60
RA-223	269.46	19	13.70*	3.863E+00	1.768E-01	1.768E-01	301.42
AC-228	129.07	------	2.42	5.511E+00	------	Line Not Found	------
	209.25	70	3.89	4.514E+00	1.986E+00	1.986E+00	114.03
	270.25	19	3.46	3.863E+00	7.001E-01	7.001E-01	301.42
	338.32	95	11.27	3.347E+00	1.243E+00	1.243E+00	54.90
	409.46	------	1.92	2.944E+00	------	Line Not Found	------
	463.00	------	4.40	2.705E+00	------	Line Not Found	------
	794.95	68	4.25	1.803E+00	4.387E+00	4.387E+00	73.62
	911.20	179	25.80*	1.617E+00	2.128E+00	2.128E+00	39.99
	964.77	80	4.99	1.544E+00	5.145E+00	5.145E+00	61.92
	968.97	120	15.80	1.537E+00	2.440E+00	2.440E+00	43.43
	1588.20	------	3.22	1.052E+00	------	Line Not Found	------
NP-236	98.44	30	38.00*	5.484E+00	7.242E-02	7.242E-02	175.78
NP-237	86.48	4348	12.40*	5.202E+00	3.335E+01	3.335E+01	9.75
AM-241	59.54	3172	35.90*	3.079E+00	1.420E+01	1.420E+01	10.37
AM-243	74.66	202	68.20*	4.529E+00	3.233E-01	3.233E-01	50.15

Flag: "*" = Keyline

Sample ID : G1201473829 Acquisition date : 16-DEC-2007 13:52:17

Total number of lines in spectrum	48	
Number of unidentified lines	16	
Number of lines tentatively identified by NID	32	66.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-60	1.66E+08S	1.00	9.003E+00	9.041E+00	0.706E+00	7.81	
RH-101	1.04E+08S	1.01	1.784E-02	1.796E-02	9.690E-02	539.68	
CS-137	9.47E+08S	1.00	6.249E+00	6.253E+00	0.593E+00	9.48	
TL-208	4.43E+17S	1.00	3.460E-01	3.460E-01	1.731E-01	50.02	
PO-209	3.22E+09S	1.00	2.364E+02	2.365E+02	0.522E+02	22.07	
BI-212	4.43E+17S	1.00	8.821E-01	8.821E-01	10.17E-01	115.29	
PB-212	4.43E+17S	1.00	1.348E+00	1.348E+00	0.229E+00	17.02	
BI-214	5.05E+10S	1.00	1.153E+00	1.153E+00	0.280E+00	24.27	
PB-214	5.05E+10S	1.00	9.868E-01	9.868E-01	2.921E-01	29.60	
RA-223	1.04E+12S	1.00	1.768E-01	1.768E-01	5.330E-01	301.42	
AC-228	4.43E+17S	1.00	2.128E+00	2.128E+00	0.851E+00	39.99	
NP-236	4.89E+12S	1.00	7.242E-02	7.242E-02	12.73E-02	175.78	
NP-237	6.75E+13S	1.00	3.335E+01	3.335E+01	0.325E+01	9.75	
AM-241	1.36E+10S	1.00	1.420E+01	1.420E+01	0.147E+01	10.37	
AM-243	2.33E+11S	1.00	3.233E-01	3.233E-01	1.621E-01	50.15	
			---	---			
		Total Activity :	3.067E+02	3.067E+02			
		Grand Total Activity :	3.067E+02	3.067E+02			

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

Sample ID : G1201473829 Acquisition date : 16-DEC-2007 13:52:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.03	151	505	1.55	185.97	182	9	4.20E-02	58.0	5.35E+00	T
0	110.68	48	296	0.92	221.26	219	5	1.34E-02	****	5.58E+00	
0	122.06	1510	709	1.17	244.00	238	12	4.19E-01	8.7	5.56E+00	
0	136.74	222	469	1.49	273.36	269	10	6.16E-02	39.0	5.44E+00	
0	150.90	39	360	1.19	301.67	299	8	1.09E-02	****	5.27E+00	
0	165.70	701	496	1.33	331.25	326	11	1.95E-01	14.4	5.07E+00	
0	185.56	49	446	1.77	370.96	367	10	1.36E-02	****	4.80E+00	
0	391.55	418	231	1.40	782.81	778	11	1.16E-01	17.2	3.04E+00	
0	712.05	29	212	5.76	1423.69	1407	22	8.03E-03	****	1.97E+00	
0	870.65	25	92	1.06	1740.88	1735	10	6.92E-03	****	1.68E+00	
0	1038.16	71	113	5.91	2075.94	2067	19	1.97E-02	76.1	1.45E+00	
0	1257.64	19	36	6.38	2515.00	2503	22	5.35E-03	****	1.25E+00	
0	1482.62	8	13	3.38	2965.13	2957	13	2.22E-03	****	1.10E+00	
0	1600.64	11	16	0.47	3201.28	3195	13	3.16E-03	****	1.05E+00	
0	1630.55	13	9	0.65	3261.13	3256	10	3.56E-03	****	1.04E+00	
0	1809.68	5	9	1.55	3619.60	3612	9	1.39E-03	****	9.76E-01	
0	1835.65	260	5	2.15	3671.56	3662	17	7.23E-02	12.9	9.70E-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]G1201473829           *
* Acquisition date : 16-DEC-2007 13:52:17 Detector SN#    :                 *
* Detector ID      : GAMAN                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 01:00:02.51     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  5-DEC-2007 00:00:00 Nuclide Library :                 *
* Sample ID        : G1201473829          Analyst initials: MJH1            *
* Batch Number     : 708126               Sample Quantity : 1.5173E+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
CO-60	9.041E+00	6.918E-01	8.684E-02	6.918E-01
RH-101	1.796E-02	9.496E-02	6.931E-02	9.496E-02
CS-137	6.253E+00	5.810E-01	7.509E-02	5.810E-01
TL-208	3.460E-01	1.696E-01	7.574E-02	1.696E-01
PO-209	2.365E+02	5.114E+01	2.028E+01	5.114E+01
BI-212	8.821E-01	9.967E-01	6.062E-01	9.967E-01
PB-212	1.348E+00	2.249E-01	1.244E-01	2.249E-01
BI-214	1.153E+00	2.742E-01	1.332E-01	2.742E-01
PB-214	9.868E-01	2.862E-01	1.464E-01	2.862E-01
RA-223	1.768E-01	5.223E-01	3.811E-01	5.223E-01
AC-228	2.128E+00	8.341E-01	3.496E-01	8.341E-01
NP-236	7.242E-02	1.247E-01	1.284E-01	1.247E-01
NP-237	3.335E+01	3.186E+00	6.169E-01	3.186E+00
AM-241	1.420E+01	1.443E+00	3.293E-01	1.443E+00
AM-243	3.233E-01	1.589E-01	1.187E-01	1.589E-01

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

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	LC (pCi/GRAM)	TPU	
K-40	4.383E-01	7.538E-01	6.992E-01	7.538E-01	NOT IDENT.
SB-125	-2.264E-02	2.381E-01	2.089E-01	2.381E-01	NOT IDENT.
EU-155	-8.861E-02	2.502E-01	2.264E-01	2.502E-01	NOT IDENT.
BI-211	-2.578E-01	2.672E+00	2.318E+00	2.672E+00	NOT IDENT.
PA-233	4.805E-02	1.548E-01	1.413E-01	1.548E-01	NOT IDENT.
PA-234M	4.314E+00	1.224E+01	1.076E+01	1.224E+01	NOT IDENT.
TH-234	2.584E+00	1.482E+00	1.094E+00	1.482E+00	FAIL ABUN
U-235	-5.966E-02	4.577E-01	4.087E-01	4.577E-01	NOT IDENT.
NP-239	-6.241E-02	5.748E-01	4.993E-01	5.748E-01	NOT IDENT.
CM-243	1.362E-01	2.446E-01	2.120E-01	2.446E-01	NOT IDENT.
AM-246	-1.806E-01	3.872E-01	3.199E-01	3.872E-01	NOT IDENT.
CF-249	1.100E-01	1.120E-01	9.178E-02	1.120E-01	NOT IDENT.

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

ENERGY	MDA COUNTS
59.54	848.6389
63.29	737.5208
74.66	855.8925
74.81	856.0942
74.81	856.0942
77.11	859.1479
77.11	859.1479
86.48	1001.0763
87.30	940.1613
87.30	940.1613
92.58	387.1816
98.44	462.7861
103.76	439.5384
105.31	479.8382
129.07	403.9492
143.76	380.6851
198.00	366.0212
209.25	349.4833
228.18	364.2961
238.63	342.4738
242.00	322.0135
269.46	278.7155
270.25	276.6709
277.36	276.8943
295.22	241.0785
300.09	237.3484
312.17	240.9486
338.32	225.4960
351.93	222.6455
387.59	193.1159
409.46	219.1401
427.87	221.1700
463.00	235.6840
510.77	151.8757
583.19	152.3757
609.31	131.7414
661.66	126.1905
727.33	137.4191
763.13	131.7305
768.36	119.8574
785.37	129.9069
794.95	124.7552
806.17	140.0295
831.80	130.8541
860.56	125.3856
896.60	176.3814
911.20	154.0231
934.06	162.7148
964.77	69.9082
968.97	129.9791
1001.03	117.6489
1078.86	129.0157
1120.29	100.0232
1155.19	77.4287
1173.23	95.1494
1238.11	44.6517
1280.96	26.2065
1332.51	41.3375
1377.67	34.2383
1401.50	29.4911
1407.98	34.4505
1460.80	33.5730
1509.23	29.6532
1588.20	26.7520
1620.50	22.1048
1729.60	14.6966
1764.49	11.8271

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201473829

Total Uranium Activity	-2.7603E-02	ug/g
Total Uranium Counting Unc.	2.1176E-01	ug/g
Total Uranium Tpu	2.1176E-07	ug/g
Total Uranium Mda	1.8911E-01	ug/g

CONTINUING CALIBRATION DATA

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 : 14-DEC-2007 10:05:47
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.53

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.9829E+05+/-2.1783E+04]	7.8232E+05	-0.73	
*DECAY CORRECTED ACTIVITY CS-137 [2.5417E+04+/-441.8]	2.5538E+04	0.28	
*DECAY CORRECTED ACTIVITY CO-60 [4.0155E+04+/-741.6]	4.1102E+04	1.28	
*DECAY CORRECTED ACTIVITY AM-241 [6.6420E+04+/-1173]	6.5955E+04	-0.40	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7557E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3215E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6618E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8040E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6149E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	8.6870E-01	1.1641E+00	1.0434E+00	
*PEAK FWHM CS-137	1.3890E+00	1.5958E+00	1.5260E+00	
*PEAK FWHM CO-60	1.7960E+00	2.2545E+00	2.0720E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1860E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9526E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0216E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 14 / 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

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 : 14-DEC-2007 06:32:57
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]	7.5669E+05	-0.12	
*DECAY CORRECTED ACTIVITY CS-137 [2.5347E+04+/-581.1]	2.6199E+04	1.47	
*DECAY CORRECTED ACTIVITY CO-60 [4.0193E+04+/-817.5]	3.9645E+04	-0.67	
*DECAY CORRECTED ACTIVITY AM-241 [5.9564E+04+/-1402]	5.8455E+04	-0.79	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7590E+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	8.8204E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6193E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3329E+03	
*PEAK FWHM CD-109	8.8960E-01	1.2630E+00	9.8135E-01	
*PEAK FWHM CS-137	1.3220E+00	1.6316E+00	1.4719E+00	
*PEAK FWHM CO-60	1.7106E+00	2.2639E+00	1.8822E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1869E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9593E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0273E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 14 / 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 : 14-DEC-2007 09:44:18
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:01.60

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7161E+05+/-5.4538E+04]	8.3417E+05	1.15	
*DECAY CORRECTED ACTIVITY CS-137 [2.5461E+04+/-453.1]	2.5140E+04	-0.71	
*DECAY CORRECTED ACTIVITY CO-60 [4.0000E+04+/-942.5]	3.9648E+04	-0.37	
*DECAY CORRECTED ACTIVITY AM-241 [6.0993E+04+/-2242]	6.3380E+04	1.06	

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	2.6666E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7972E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6171E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3327E+03	
*PEAK FWHM CD-109	8.6980E-01	1.0978E+00	8.9329E-01	
*PEAK FWHM CS-137	1.2287E+00	1.4696E+00	1.4444E+00	
*PEAK FWHM CO-60	1.5668E+00	1.9957E+00	1.6472E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1829E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9401E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0101E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12/14/07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.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 : 14-DEC-2007 05:26:25
Elapsed real time: 0 00:05:02.84

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4539E+05+/-1.7760E+04]	8.3195E+05	-0.76	
*DECAY CORRECTED ACTIVITY CS-137 [2.5327E+04+/-358.0]	2.5685E+04	1.00	
*DECAY CORRECTED ACTIVITY CO-60 [4.0022E+04+/-687.6]	4.0411E+04	0.57	
*DECAY CORRECTED ACTIVITY AM-241 [6.6008E+04+/-1736]	6.8073E+04	1.19	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7531E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3222E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6631E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8030E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6136E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3319E+03	
*PEAK FWHM CD-109	9.8950E-01	1.3215E+00	1.1669E+00	
*PEAK FWHM CS-137	1.3969E+00	1.7625E+00	1.4742E+00	
*PEAK FWHM CO-60	1.8061E+00	2.2486E+00	1.9766E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1828E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9529E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1386E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 14 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM13_CAN.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 : 14-DEC-2007 09:44:27
Elapsed real time: 0 00:05:03.86

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6479E+05+/-3.5006E+04]	9.4306E+05	2.24	Investigate
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	2.9390E+04	0.18	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.2776E+04	1.49	
*DECAY CORRECTED ACTIVITY AM-241 [6.0346E+04+/-559.2]	6.1310E+04	1.72	

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	2.6646E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8082E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6135E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3319E+03	
*PEAK FWHM CD-109	7.0540E-01	1.1577E+00	9.5954E-01	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.4169E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	1.9437E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1871E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9619E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.1311E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 18 / 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 : 14-DEC-2007 08:08:37
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:05.65

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6112E+05+/-3.2007E+04]	8.2305E+05	-1.19	
*DECAY CORRECTED ACTIVITY CS-137 [2.8529E+04+/-528.8]	2.7802E+04	-1.38	
*DECAY CORRECTED ACTIVITY CO-60 [4.0368E+04+/-919.5]	3.9327E+04	-1.13	
*DECAY CORRECTED ACTIVITY AM-241 [6.0659E+04+/-794.0]	6.0595E+04	-0.08	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7645E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3226E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6635E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8017E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6155E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3323E+03	
*PEAK FWHM CD-109	7.4630E-01	1.0839E+00	9.7292E-01	
*PEAK FWHM CS-137	1.2763E+00	1.4672E+00	1.3247E+00	
*PEAK FWHM CO-60	1.6103E+00	2.0503E+00	1.8729E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1946E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9494E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.8635E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 14 / 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 : 14-DEC-2007 04:46:35
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.11

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7105E+05+/-2.4257E+04]	7.8894E+05	0.74	
*DECAY CORRECTED ACTIVITY CS-137 [2.5576E+04+/-422.4]	2.5539E+04	-0.09	
*DECAY CORRECTED ACTIVITY CO-60 [4.0337E+04+/-833.8]	4.0549E+04	0.25	
*DECAY CORRECTED ACTIVITY AM-241 [6.3589E+04+/-1566]	6.2829E+04	-0.49	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7606E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3231E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6648E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8050E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6143E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3320E+03	
*PEAK FWHM CD-109	6.9450E-01	9.5230E-01	7.6177E-01	
*PEAK FWHM CS-137	1.3260E+00	1.5802E+00	1.4651E+00	
*PEAK FWHM CO-60	1.7823E+00	2.2419E+00	1.9958E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1905E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9548E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	8.1300E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: U Approval Date: 12 / 14 / 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 : 14-DEC-2007 15:05:05
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
*CD-109 88 KeV Activity [8.4122E+05+/-1.9568E+04]	8.3632E+05	-0.25	
*Cs-137 661 KeV Activity [2.5842E+04+/-486.5]	2.5751E+04	-0.19	
*Co-60 1332 KeV Activity [4.1626E+04+/-886.4]	3.9927E+04	-1.92	
*DECAY CORRECTED ACTIVITY AM-241 [6.4390E+04+/-2649]	6.3997E+04	-0.15	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*CD-109 88 KeV Centroid	1.7200E+02	1.8000E+02	1.7615E+02	
*CD-109 88 KeV FWHM	1.0815E+00	1.3627E+00	1.3213E+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	1.6752E+00	
*Co-60 1332 KeV Centroid	2.6610E+03	2.6690E+03	2.6645E+03	
*Co-60 1332 KeV FWHM	1.8334E+00	2.3248E+00	1.9786E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1909E+02	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1810E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MK Approval Date: 12 / 14 / 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 : 15-DEC-2007 05:42:36
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]	1.1621E+06	2.93	Investigate
*DECAY CORRECTED ACTIVITY CS-137 [2.8570E+04+/-644.2]	2.8192E+04	-0.59	
*DECAY CORRECTED ACTIVITY CO-60 [4.0735E+04+/-1358]	4.2034E+04	0.96	
*DECAY CORRECTED ACTIVITY AM-241 [6.2934E+04+/-2375]	6.3182E+04	0.10	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7564E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3239E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6660E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7786E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6180E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	9.2990E-01	1.7963E+00	1.2573E+00	
*PEAK FWHM CS-137	1.4326E+00	1.9580E+00	1.6055E+00	
*PEAK FWHM CO-60	1.8050E+00	2.2573E+00	2.0189E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1926E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9603E+01	
*PEAK FWHM AM-241	5.0000E-01	1.7500E+00	1.2787E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: U Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:42:44
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.50

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.9829E+05+/-2.1783E+04]	7.7093E+05	-1.26	
*DECAY CORRECTED ACTIVITY CS-137 [2.5417E+04+/-441.8]	2.4901E+04	-1.17	
*DECAY CORRECTED ACTIVITY CO-60 [4.0155E+04+/-741.6]	3.9624E+04	-0.72	
*DECAY CORRECTED ACTIVITY AM-241 [6.6307E+04+/-1203]	6.4843E+04	-1.22	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7553E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3215E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6619E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8019E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6148E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3322E+03	
*PEAK FWHM CD-109	8.6870E-01	1.1641E+00	1.0387E+00	
*PEAK FWHM CS-137	1.3890E+00	1.5958E+00	1.4412E+00	
*PEAK FWHM CO-60	1.7960E+00	2.2545E+00	2.0259E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1857E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9512E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0208E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 15-DEC-2007 06:09:19
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.87

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.5515E+05+/-4.7817E+04]	8.0625E+05	-1.02	
*DECAY CORRECTED ACTIVITY CS-137 [2.8765E+04+/-449.3]	2.9239E+04	1.05	
*DECAY CORRECTED ACTIVITY CO-60 [4.1933E+04+/-722.8]	4.1284E+04	-0.90	
*DECAY CORRECTED ACTIVITY AM-241 [5.1720E+04+/-2.6813E+04]	6.8669E+04	0.63	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7697E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3238E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6652E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8031E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6171E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3326E+03	
*PEAK FWHM CD-109	8.5700E-01	1.3096E+00	1.2120E+00	
*PEAK FWHM CS-137	1.4461E+00	1.6731E+00	1.6063E+00	
*PEAK FWHM CO-60	1.8140E+00	2.2910E+00	2.1740E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1980E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9432E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.2834E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12/15/07

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 : 15-DEC-2007 05:43:12
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.23

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [9.4102E+05+/-1.5120E+04]	9.5500E+05	0.92	
*DECAY CORRECTED ACTIVITY CS-137 [2.7324E+04+/-449.6]	2.8345E+04	2.27	Investigate
*DECAY CORRECTED ACTIVITY CO-60 [4.1154E+04+/-757.2]	4.2069E+04	1.21	
*DECAY CORRECTED ACTIVITY AM-241 [6.9489E+04+/-852.4]	7.0709E+04	1.43	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7664E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3237E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6643E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7956E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6196E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3332E+03	
*PEAK FWHM CD-109	1.0354E+00	1.2686E+00	1.1413E+00	
*PEAK FWHM CS-137	1.4355E+00	1.7081E+00	1.5316E+00	
*PEAK FWHM CO-60	1.7629E+00	2.2581E+00	1.9521E+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	1.1543E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12/15/07

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 : 15-DEC-2007 05:51:35
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]	8.1007E+05	-0.21	
*DECAY CORRECTED ACTIVITY CS-137 [2.4416E+04+/-658.7]	2.5235E+04	1.24	
*DECAY CORRECTED ACTIVITY CO-60 [3.9594E+04+/-984.4]	4.0662E+04	1.08	
*DECAY CORRECTED ACTIVITY AM-241 [6.7169E+04+/-2933]	6.7755E+04	0.20	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7517E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3219E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6629E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7590E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6139E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	8.8210E-01	1.1228E+00	1.0561E+00	
*PEAK FWHM CS-137	1.2904E+00	1.6432E+00	1.4238E+00	
*PEAK FWHM CO-60	1.6812E+00	2.2061E+00	1.7834E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1820E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9079E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0099E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:43:28
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.06

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.6229E+05+/-4.6983E+04]	8.7989E+05	2.50	Investigate
*DECAY CORRECTED ACTIVITY CS-137 [2.5347E+04+/-581.1]	2.5457E+04	0.19	
*DECAY CORRECTED ACTIVITY CO-60 [4.0193E+04+/-817.5]	4.0480E+04	0.35	
*DECAY CORRECTED ACTIVITY AM-241 [5.9621E+04+/-1364]	6.0366E+04	0.55	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7573E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3231E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6648E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8121E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6194E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3329E+03	
*PEAK FWHM CD-109	8.8960E-01	1.2630E+00	1.0923E+00	
*PEAK FWHM CS-137	1.3220E+00	1.6316E+00	1.4445E+00	
*PEAK FWHM CO-60	1.7106E+00	2.2639E+00	1.7709E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1869E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9591E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0107E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:57:19
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.59

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7161E+05+/-5.4538E+04]	8.1943E+05	0.88	
*DECAY CORRECTED ACTIVITY CS-137 [2.5461E+04+/-453.1]	2.4664E+04	-1.76	
*DECAY CORRECTED ACTIVITY CO-60 [4.0000E+04+/-942.5]	3.9152E+04	-0.90	
*DECAY CORRECTED ACTIVITY AM-241 [6.0983E+04+/-2154]	6.0849E+04	-0.06	

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	1.3239E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6667E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7972E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6174E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	8.6980E-01	1.0978E+00	1.0212E+00	
*PEAK FWHM CS-137	1.2287E+00	1.4696E+00	1.3155E+00	
*PEAK FWHM CO-60	1.5668E+00	1.9957E+00	1.7238E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1833E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9421E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0001E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2005 12:00:00 Acquisition date : 15-DEC-2007 08:17:09
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.82

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4539E+05+/-1.7760E+04]	8.6554E+05	1.13	
*DECAY CORRECTED ACTIVITY CS-137 [2.5327E+04+/-358.0]	2.5827E+04	1.40	
*DECAY CORRECTED ACTIVITY CO-60 [4.0022E+04+/-687.6]	3.9959E+04	-0.09	
*DECAY CORRECTED ACTIVITY AM-241 [6.6191E+04+/-1802]	6.8568E+04	1.32	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7529E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3222E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6631E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8021E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6134E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3319E+03	
*PEAK FWHM CD-109	9.8950E-01	1.3215E+00	1.1200E+00	
*PEAK FWHM CS-137	1.3969E+00	1.7625E+00	1.4398E+00	
*PEAK FWHM CO-60	1.8061E+00	2.2486E+00	1.9595E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1829E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9531E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1352E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: U Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:43:47
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]	8.1672E+05	-1.37	
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	2.9830E+04	1.09	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.2766E+04	1.48	
*DECAY CORRECTED ACTIVITY AM-241 [6.0312E+04+/-552.6]	5.9862E+04	-0.81	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7580E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3238E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6661E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8140E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6174E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3326E+03	
*PEAK FWHM CD-109	7.0540E-01	1.1577E+00	9.3814E-01	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.4146E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	2.0125E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1880E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9666E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	8.6412E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 08:17:18
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.32

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1190E+05+/-3.9665E+04]	7.7931E+05	-0.82	
*DECAY CORRECTED ACTIVITY CS-137 [2.5426E+04+/-564.0]	2.5556E+04	0.23	
*DECAY CORRECTED ACTIVITY CO-60 [4.0446E+04+/-915.4]	4.0278E+04	-0.18	
*DECAY CORRECTED ACTIVITY AM-241 [6.6570E+04+/-2484]	6.7645E+04	0.43	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7617E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3232E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6661E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8113E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6169E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3329E+03	
*PEAK FWHM CD-109	1.0337E+00	1.5254E+00	1.3007E+00	
*PEAK FWHM CS-137	1.4334E+00	1.8319E+00	1.6999E+00	
*PEAK FWHM CO-60	1.6848E+00	2.2203E+00	1.8194E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1905E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9542E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.3507E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12/15/07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 15-DEC-2007 05:57:32
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.21

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2559E+05+/-2.2938E+04]	8.3114E+05	0.24	
*DECAY CORRECTED ACTIVITY CS-137 [2.6207E+04+/-512.6]	2.5476E+04	-1.43	
*DECAY CORRECTED ACTIVITY CO-60 [4.0485E+04+/-767.5]	3.9960E+04	-0.68	
*DECAY CORRECTED ACTIVITY AM-241 [6.7128E+04+/-1950]	6.7227E+04	0.05	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7617E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3235E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6653E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7981E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6155E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	8.8540E-01	1.2058E+00	9.6744E-01	
*PEAK FWHM CS-137	1.3237E+00	1.6479E+00	1.3975E+00	
*PEAK FWHM CO-60	1.7177E+00	2.1263E+00	1.8189E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1900E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9392E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.1283E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:57:40
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:05.58

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6112E+05+/-3.2007E+04]	8.3643E+05	-0.77	
*DECAY CORRECTED ACTIVITY CS-137 [2.8529E+04+/-528.8]	2.9440E+04	1.72	
*DECAY CORRECTED ACTIVITY CO-60 [4.0368E+04+/-919.5]	4.0773E+04	0.44	
*DECAY CORRECTED ACTIVITY AM-241 [6.0630E+04+/-770.6]	6.0252E+04	-0.49	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7648E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3228E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6638E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8032E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6166E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3325E+03	
*PEAK FWHM CD-109	7.4630E-01	1.0839E+00	1.0070E+00	
*PEAK FWHM CS-137	1.2763E+00	1.4672E+00	1.4606E+00	
*PEAK FWHM CO-60	1.6103E+00	2.0503E+00	1.8972E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1956E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9544E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.7670E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: K Approval Date: 12 / 15 / 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 : 15-DEC-2007 06:09:38
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]	8.3215E+05	0.28	
*DECAY CORRECTED ACTIVITY CS-137 [2.5787E+04+/-427.7]	2.5909E+04	0.28	
*DECAY CORRECTED ACTIVITY CO-60 [3.9967E+04+/-792.7]	3.9913E+04	-0.07	
*DECAY CORRECTED ACTIVITY AM-241 [7.0035E+04+/-2019]	6.8978E+04	-0.52	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7593E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3227E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6652E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8184E+01	
*PEAK ENERGY CS-137	6.5964E+02	6.6364E+02	6.6196E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3334E+03	
*PEAK FWHM CD-109	1.1583E+00	1.4038E+00	1.2674E+00	
*PEAK FWHM CS-137	1.5052E+00	1.7317E+00	1.5758E+00	
*PEAK FWHM CO-60	1.7723E+00	2.1545E+00	1.9710E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1896E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9672E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.2243E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 15-DEC-2007 06:11:56
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.26

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4629E+05+/-8.2185E+04]	8.0592E+05	-0.49	
*DECAY CORRECTED ACTIVITY CS-137 [2.8541E+04+/-525.1]	2.9036E+04	0.94	
*DECAY CORRECTED ACTIVITY CO-60 [4.0826E+04+/-992.7]	4.0601E+04	-0.23	
*DECAY CORRECTED ACTIVITY AM-241 [6.2502E+04+/-1795]	6.3308E+04	0.45	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7629E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3229E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6660E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8210E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6195E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3333E+03	
*PEAK FWHM CD-109	7.7050E-01	1.3272E+00	1.0655E+00	
*PEAK FWHM CS-137	1.2848E+00	1.6116E+00	1.4141E+00	
*PEAK FWHM CO-60	1.5484E+00	2.0686E+00	1.6627E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1924E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9647E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1048E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12/15/07

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 : 15-DEC-2007 06:18:11
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:04.36

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2199E+05+/-1.6962E+04]	8.0877E+05	-0.78	
*DECAY CORRECTED ACTIVITY CS-137 [2.6347E+04+/-617.7]	2.6439E+04	0.15	
*DECAY CORRECTED ACTIVITY CO-60 [4.0298E+04+/-1103]	4.1239E+04	0.85	
*DECAY CORRECTED ACTIVITY AM-241 [6.5272E+04+/-1091]	6.4871E+04	-0.37	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7528E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3216E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6644E+03	
*PEAK ENERGY CD-109	8.6000E+01	9.0000E+01	8.8150E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6185E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3331E+03	
*PEAK FWHM CD-109	1.2623E+00	1.5019E+00	1.3401E+00	
*PEAK FWHM CS-137	1.5605E+00	1.8906E+00	1.6529E+00	
*PEAK FWHM CO-60	1.8533E+00	2.3397E+00	1.9167E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1850E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9721E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.3606E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LC Approval Date: 12 / 15 / 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 : 15-DEC-2007 05:43:56
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]	7.5847E+05	0.34	
*DECAY CORRECTED ACTIVITY CS-137 [2.6310E+04+/-489.1]	2.6703E+04	0.80	
*DECAY CORRECTED ACTIVITY CO-60 [3.8670E+04+/-3834]	4.0446E+04	0.46	
*DECAY CORRECTED ACTIVITY AM-241 [6.0928E+04+/-1540]	6.0814E+04	-0.07	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.7600E+02	1.7498E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3215E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6628E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7780E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6120E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3318E+03	
*PEAK FWHM CD-109	1.0000E+00	1.5000E+00	1.1017E+00	
*PEAK FWHM CS-137	1.5000E+00	2.0000E+00	1.8374E+00	
*PEAK FWHM CO-60	2.0000E+00	3.0000E+00	2.4623E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1807E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9312E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1349E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12/15/07

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 : 15-DEC-2007 05:57:53
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.03

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7105E+05+/-2.4257E+04]	7.5766E+05	-0.55	
*DECAY CORRECTED ACTIVITY CS-137 [2.5576E+04+/-422.4]	2.5192E+04	-0.91	
*DECAY CORRECTED ACTIVITY CO-60 [4.0337E+04+/-833.8]	3.8839E+04	-1.80	
*DECAY CORRECTED ACTIVITY AM-241 [6.3616E+04+/-1508]	6.3968E+04	0.23	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7609E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3231E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6649E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8067E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6146E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3320E+03	
*PEAK FWHM CD-109	6.9450E-01	9.5230E-01	8.2367E-01	
*PEAK FWHM CS-137	1.3260E+00	1.5802E+00	1.4671E+00	
*PEAK FWHM CO-60	1.7823E+00	2.2419E+00	1.9239E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1898E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9518E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	7.3382E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: LL Approval Date: 12 / 15 / 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 : 16-DEC-2007 11:39:50
Elapsed real time: 0 00:05:00.98

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6676E+05+/-1.0074E+05]	1.0121E+06	1.44	
*DECAY CORRECTED ACTIVITY CS-137 [2.8570E+04+/-644.2]	2.7089E+04	-2.30	Investigate
*DECAY CORRECTED ACTIVITY CO-60 [4.0735E+04+/-1358]	4.2542E+04	1.33	
*DECAY CORRECTED ACTIVITY AM-241 [6.3198E+04+/-2563]	6.7693E+04	1.75	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7558E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3240E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6664E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7759E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6185E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3330E+03	
*PEAK FWHM CD-109	9.2990E-01	1.7963E+00	1.1975E+00	
*PEAK FWHM CS-137	1.4326E+00	1.9580E+00	1.6504E+00	
*PEAK FWHM CO-60	1.8050E+00	2.2573E+00	1.8645E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1906E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9505E+01	
*PEAK FWHM AM-241	5.0000E-01	1.7500E+00	1.3198E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: mgH Approval Date: 12 / 16 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2002 12:00:00 Acquisition date : 16-DEC-2007 11:40:03
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.87

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.5515E+05+/-4.7817E+04]	8.7740E+05	0.47	
*DECAY CORRECTED ACTIVITY CS-137 [2.8765E+04+/-449.3]	2.8866E+04	0.22	
*DECAY CORRECTED ACTIVITY CO-60 [4.1933E+04+/-722.8]	4.2700E+04	1.06	
*DECAY CORRECTED ACTIVITY AM-241 [5.2915E+04+/-2.5898E+04]	6.6066E+04	0.51	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7683E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3238E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6655E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7962E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6172E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3327E+03	
*PEAK FWHM CD-109	8.5700E-01	1.3096E+00	1.3519E+00	Above ★
*PEAK FWHM CS-137	1.4461E+00	1.6731E+00	1.6299E+00	
*PEAK FWHM CO-60	1.8140E+00	2.2910E+00	2.1784E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1978E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9421E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.2470E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 07

★ Co-60 WITHIN BOUNDS, MONITORING

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 : 16-DEC-2007 11:40:10
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.22

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [9.4102E+05+/-1.5120E+04]	9.5833E+05	1.14	
*DECAY CORRECTED ACTIVITY CS-137 [2.7324E+04+/-449.6]	2.7342E+04	0.04	
*DECAY CORRECTED ACTIVITY CO-60 [4.1154E+04+/-757.2]	4.1757E+04	0.80	
*DECAY CORRECTED ACTIVITY AM-241 [6.9473E+04+/-827.8]	6.9227E+04	-0.30	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7646E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3235E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6642E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7863E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6188E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3331E+03	
*PEAK FWHM CD-109	1.0354E+00	1.2686E+00	1.1575E+00	
*PEAK FWHM CS-137	1.4355E+00	1.7081E+00	1.5537E+00	
*PEAK FWHM CO-60	1.7629E+00	2.2581E+00	1.9289E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1923E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9235E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1108E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: mgH Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:40:17
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:01.24

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.1697E+05+/-3.2175E+04]	8.2890E+05	0.37	
*DECAY CORRECTED ACTIVITY CS-137 [2.4416E+04+/-658.7]	2.4203E+04	-0.32	
*DECAY CORRECTED ACTIVITY CO-60 [3.9594E+04+/-984.4]	4.0124E+04	0.54	
*DECAY CORRECTED ACTIVITY AM-241 [6.6874E+04+/-3070]	6.2446E+04	-1.44	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7512E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3220E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6633E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7565E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6143E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3323E+03	
*PEAK FWHM CD-109	8.8210E-01	1.1228E+00	9.7567E-01	
*PEAK FWHM CS-137	1.2904E+00	1.6432E+00	1.4623E+00	
*PEAK FWHM CO-60	1.6812E+00	2.2061E+00	2.0144E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1821E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9081E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.5729E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:40:26
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:02.12

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.6229E+05+/-4.6983E+04]	7.2294E+05	-0.84	
*DECAY CORRECTED ACTIVITY CS-137 [2.5347E+04+/-581.1]	2.5227E+04	-0.21	
*DECAY CORRECTED ACTIVITY CO-60 [4.0193E+04+/-817.5]	3.8862E+04	-1.63	
*DECAY CORRECTED ACTIVITY AM-241 [5.9575E+04+/-1326]	5.8938E+04	-0.48	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7573E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6648E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8119E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6190E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3329E+03	
*PEAK FWHM CD-109	8.8960E-01	1.2630E+00	1.0409E+00	
*PEAK FWHM CS-137	1.3220E+00	1.6316E+00	1.5356E+00	
*PEAK FWHM CO-60	1.7106E+00	2.2639E+00	1.8944E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1864E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9569E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0812E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 07

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM08_2LMB.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2003 12:00:00 Acquisition date : 16-DEC-2007 11:49:29
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:00.79

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7891E+05+/-6.5334E+04]	7.8417E+05	0.08	
*DECAY CORRECTED ACTIVITY CS-137 [2.5268E+04+/-530.4]	2.4757E+04	-0.96	
*DECAY CORRECTED ACTIVITY CO-60 [4.0387E+04+/-902.2]	3.8531E+04	-2.06	Investigate
*DECAY CORRECTED ACTIVITY AM-241 [6.0298E+04+/-1743]	6.2178E+04	1.08	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7623E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3229E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6642E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8091E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6149E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3320E+03	
*PEAK FWHM CD-109	8.7290E-01	1.3544E+00	1.1423E+00	
*PEAK FWHM CS-137	1.3821E+00	1.7061E+00	1.4971E+00	
*PEAK FWHM CO-60	1.7357E+00	2.3577E+00	2.1491E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1905E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9492E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0644E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:58:00
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]	8.3651E+05	1.19	
*DECAY CORRECTED ACTIVITY CS-137 [2.5461E+04+/-453.1]	2.5160E+04	-0.66	
*DECAY CORRECTED ACTIVITY CO-60 [4.0000E+04+/-942.5]	3.8828E+04	-1.24	
*DECAY CORRECTED ACTIVITY AM-241 [6.0898E+04+/-2102]	5.9714E+04	-0.56	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7559E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3239E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6667E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8029E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6174E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3328E+03	
*PEAK FWHM CD-109	8.6980E-01	1.0978E+00	9.8506E-01	
*PEAK FWHM CS-137	1.2287E+00	1.4696E+00	1.4941E+00	Above *
*PEAK FWHM CO-60	1.5668E+00	1.9957E+00	1.7534E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1837E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9443E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0050E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 07

* Co-60 WITHIN BOUNDS. MONITORING

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2005 12:00:00 Acquisition date : 16-DEC-2007 11:49:36
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.84

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4539E+05+/-1.7760E+04]	8.6335E+05	1.01	
*DECAY CORRECTED ACTIVITY CS-137 [2.5327E+04+/-358.0]	2.5233E+04	-0.26	
*DECAY CORRECTED ACTIVITY CO-60 [4.0022E+04+/-687.6]	4.0441E+04	0.61	
*DECAY CORRECTED ACTIVITY AM-241 [6.6408E+04+/-1929]	6.9445E+04	1.57	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7544E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3224E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6634E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8095E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6142E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3320E+03	
*PEAK FWHM CD-109	9.8950E-01	1.3215E+00	1.1954E+00	
*PEAK FWHM CS-137	1.3969E+00	1.7625E+00	1.5442E+00	
*PEAK FWHM CO-60	1.8061E+00	2.2486E+00	2.0389E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1831E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9545E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1621E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:49:44
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.87

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6479E+05+/-3.5006E+04]	8.6980E+05	0.14	
*DECAY CORRECTED ACTIVITY CS-137 [2.9304E+04+/-484.4]	2.9709E+04	0.84	
*DECAY CORRECTED ACTIVITY CO-60 [4.1342E+04+/-965.4]	4.2717E+04	1.42	
*DECAY CORRECTED ACTIVITY AM-241 [6.0320E+04+/-533.4]	6.0431E+04	0.21	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7583E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3239E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6661E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8153E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6176E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3327E+03	
*PEAK FWHM CD-109	7.0540E-01	1.1577E+00	8.6059E-01	
*PEAK FWHM CS-137	1.3206E+00	1.6654E+00	1.5413E+00	
*PEAK FWHM CO-60	1.7476E+00	2.2429E+00	1.9925E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1872E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9626E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.0050E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MgA Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:40:35
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]	7.6703E+05	-1.13	
*DECAY CORRECTED ACTIVITY CS-137 [2.5426E+04+/-564.0]	2.4894E+04	-0.94	
*DECAY CORRECTED ACTIVITY CO-60 [4.0446E+04+/-915.4]	4.1362E+04	1.00	
*DECAY CORRECTED ACTIVITY AM-241 [6.6421E+04+/-2523]	6.3283E+04	-1.24	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7637E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3235E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6665E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8211E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6185E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3331E+03	
*PEAK FWHM CD-109	1.0337E+00	1.5254E+00	1.5148E+00	
*PEAK FWHM CS-137	1.4334E+00	1.8319E+00	1.8964E+00	Above*
*PEAK FWHM CO-60	1.6848E+00	2.2203E+00	2.0773E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1928E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9658E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.5486E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 07

* Co-60 WITHIN BOUNDS, MONITORING

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1

Sample ID : Calib Check Sample quantity : 1.00 EACH
Sample date : 1-APR-2004 12:00:00 Acquisition date : 16-DEC-2007 11:49:51
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.26

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2559E+05+/-2.2938E+04]	8.3583E+05	0.45	
*DECAY CORRECTED ACTIVITY CS-137 [2.6207E+04+/-512.6]	2.6188E+04	-0.04	
*DECAY CORRECTED ACTIVITY CO-60 [4.0485E+04+/-767.5]	4.0455E+04	-0.04	
*DECAY CORRECTED ACTIVITY AM-241 [6.7218E+04+/-1911]	6.8475E+04	0.66	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7616E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3236E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6655E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7975E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6162E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3323E+03	
*PEAK FWHM CD-109	8.8540E-01	1.2058E+00	1.1354E+00	
*PEAK FWHM CS-137	1.3237E+00	1.6479E+00	1.5643E+00	
*PEAK FWHM CO-60	1.7177E+00	2.1263E+00	1.9771E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1908E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9433E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	9.8719E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:58:07
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:05.58

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.6112E+05+/-3.2007E+04]	8.4158E+05	-0.61	
*DECAY CORRECTED ACTIVITY CS-137 [2.8529E+04+/-528.8]	2.8851E+04	0.61	
*DECAY CORRECTED ACTIVITY CO-60 [4.0368E+04+/-919.5]	4.0364E+04	0.00	
*DECAY CORRECTED ACTIVITY AM-241 [6.0657E+04+/-749.8]	6.1033E+04	0.50	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7642E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3228E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6638E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8000E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6164E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3325E+03	
*PEAK FWHM CD-109	7.4630E-01	1.0839E+00	1.0196E+00	
*PEAK FWHM CS-137	1.2763E+00	1.4672E+00	1.3786E+00	
*PEAK FWHM CO-60	1.6103E+00	2.0503E+00	1.7713E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1946E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9493E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0034E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: mgH Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:58:14
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:02.35

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2558E+05+/-2.3590E+04]	8.4130E+05	0.67	
*DECAY CORRECTED ACTIVITY CS-137 [2.5787E+04+/-427.7]	2.5803E+04	0.04	
*DECAY CORRECTED ACTIVITY CO-60 [3.9967E+04+/-792.7]	4.0315E+04	0.44	
*DECAY CORRECTED ACTIVITY AM-241 [7.0094E+04+/-1960]	7.0929E+04	0.43	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7591E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3226E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6650E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8173E+01	
*PEAK ENERGY CS-137	6.5964E+02	6.6364E+02	6.6189E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3332E+03	
*PEAK FWHM CD-109	1.1583E+00	1.4038E+00	1.2811E+00	
*PEAK FWHM CS-137	1.5052E+00	1.7317E+00	1.5495E+00	
*PEAK FWHM CO-60	1.7723E+00	2.1545E+00	1.9097E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1895E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9668E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.2462E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: _____ Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:49:58
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.34

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.4629E+05+/-8.2185E+04]	8.8901E+05	0.52	
*DECAY CORRECTED ACTIVITY CS-137 [2.8541E+04+/-525.1]	2.8088E+04	-0.86	
*DECAY CORRECTED ACTIVITY CO-60 [4.0826E+04+/-992.7]	4.0993E+04	0.17	
*DECAY CORRECTED ACTIVITY AM-241 [6.2515E+04+/-1739]	6.2728E+04	0.12	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7601E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3230E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6661E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.8071E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6199E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3334E+03	
*PEAK FWHM CD-109	7.7050E-01	1.3272E+00	1.1373E+00	
*PEAK FWHM CS-137	1.2848E+00	1.6116E+00	1.3775E+00	
*PEAK FWHM CO-60	1.5484E+00	2.0686E+00	1.8099E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1921E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9631E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1261E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: mgH Approval Date: 12 / 16 / 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 : 16-DEC-2007 12:05:55
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:04.35

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [8.2199E+05+/-1.6962E+04]	8.2503E+05	0.18	
*DECAY CORRECTED ACTIVITY CS-137 [2.6347E+04+/-617.7]	2.6227E+04	-0.19	
*DECAY CORRECTED ACTIVITY CO-60 [4.0298E+04+/-1103]	4.1668E+04	1.24	
*DECAY CORRECTED ACTIVITY AM-241 [6.5366E+04+/-1113]	6.6689E+04	1.19	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7521E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3218E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6645E+03	
*PEAK ENERGY CD-109	8.6000E+01	9.0000E+01	8.8116E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6191E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3331E+03	
*PEAK FWHM CD-109	1.2623E+00	1.5019E+00	1.4310E+00	
*PEAK FWHM CS-137	1.5605E+00	1.8906E+00	1.7334E+00	
*PEAK FWHM CO-60	1.8533E+00	2.3397E+00	2.2270E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1856E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9746E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.3281E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:40:44
Elapsed live time: 0 00:05:00.00
Elapsed real time: 0 00:05:02.40

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [6.7938E+05+/-2.3458E+05]	7.5727E+05	0.33	
*DECAY CORRECTED ACTIVITY CS-137 [2.6310E+04+/-489.1]	2.6634E+04	0.66	
*DECAY CORRECTED ACTIVITY CO-60 [3.8670E+04+/-3834]	4.0972E+04	0.60	
*DECAY CORRECTED ACTIVITY AM-241 [6.1099E+04+/-1649]	6.3834E+04	1.66	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.7600E+02	1.7489E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3213E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6627E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7737E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6113E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3317E+03	
*PEAK FWHM CD-109	1.0000E+00	1.5000E+00	1.1531E+00	
*PEAK FWHM CS-137	1.5000E+00	2.0000E+00	1.7585E+00	
*PEAK FWHM CO-60	2.0000E+00	3.0000E+00	2.6175E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1786E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9206E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.1431E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: mgh Approval Date: 12 / 16 / 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 : 16-DEC-2007 11:50:05
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:03.09

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*DECAY CORRECTED ACTIVITY CD-109 [7.7105E+05+/-2.4257E+04]	7.5718E+05	-0.57	
*DECAY CORRECTED ACTIVITY CS-137 [2.5576E+04+/-422.4]	2.5772E+04	0.46	
*DECAY CORRECTED ACTIVITY CO-60 [4.0337E+04+/-833.8]	4.1301E+04	1.16	
*DECAY CORRECTED ACTIVITY AM-241 [6.3606E+04+/-1454]	6.3462E+04	-0.10	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*PEAK CENTROID CD-109	1.7200E+02	1.8000E+02	1.7588E+02	
*PEAK CENTROID CS-137	1.3190E+03	1.3270E+03	1.3232E+03	
*PEAK CENTROID CO-60	2.6610E+03	2.6690E+03	2.6651E+03	
*PEAK ENERGY CD-109	8.6030E+01	9.0030E+01	8.7963E+01	
*PEAK ENERGY CS-137	6.5966E+02	6.6366E+02	6.6149E+02	
*PEAK ENERGY CO-60	1.3305E+03	1.3345E+03	1.3321E+03	
*PEAK FWHM CD-109	6.9450E-01	9.5230E-01	8.0695E-01	
*PEAK FWHM CS-137	1.3260E+00	1.5802E+00	1.4365E+00	
*PEAK FWHM CO-60	1.7823E+00	2.2419E+00	2.1879E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1885E+02	
*PEAK ENERGY AM-241	5.7500E+01	6.1500E+01	5.9452E+01	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	7.5106E-01	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGN Approval Date: 12 / 16 / 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 : 16-DEC-2007 12:13:11
Elapsed live time: 0 00:05:00.00 Elapsed real time: 0 00:05:02.58

Out-of-range Test: N-SIGMA

Parameter Description [Mean+/-Stdev]	Value	Deviation	Flag
*CD-109 88 KeV Activity [8.4122E+05+/-1.9568E+04]	8.4422E+05	0.15	
*Cs-137 661 KeV Activity [2.5842E+04+/-486.5]	2.6031E+04	0.39	
*Co-60 1332 KeV Activity [4.1626E+04+/-886.4]	4.3262E+04	1.84	
*DECAY CORRECTED ACTIVITY AM-241 [6.3918E+04+/-2838]	5.9024E+04	-1.72	

Out-of-range Test: BOUNDARY

Parameter Description	Lower	Upper	Value	Flag
*CD-109 88 KeV Centroid	1.7200E+02	1.8000E+02	1.7588E+02	
*CD-109 88 KeV FWHM	1.0815E+00	1.3627E+00	1.1919E+00	
*Cs-137 661 KeV Centroid	1.3193E+03	1.3273E+03	1.3223E+03	
*Cs-137 661 KeV FWHM	1.4800E+00	1.7914E+00	1.5416E+00	
*Co-60 1332 KeV Centroid	2.6610E+03	2.6690E+03	2.6639E+03	
*Co-60 1332 KeV FWHM	1.8334E+00	2.3248E+00	2.0393E+00	
*PEAK CENTROID AM-241	1.1500E+02	1.2300E+02	1.1900E+02	
*PEAK FWHM AM-241	5.0000E-01	2.0000E+00	1.0951E+00	

Flags: "*" means the out-of-range test is parameter-dependent

Approved by: MGH Approval Date: 12 / 16 / 07

RUNLOGS

Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
198681021	SAMPLE	MJH1	GAM11		14-DEC-2007 10:23	708123	**DONE**	CAN	02-OCT-2007
198681022	SAMPLE	MJH1	GAM05		14-DEC-2007 10:46	708123	**DONE**	CAN	31-MAY-2007
198681023	SAMPLE	MJH1	GAM23		14-DEC-2007 10:47	708123	**DONE**	CAN	23-MAY-2007
198681024	SAMPLE	MJH1	GAM07		14-DEC-2007 10:51	708123	**DONE**	CAN	30-OCT-2007
198681025	SAMPLE	MJH1	GAM12		14-DEC-2007 10:51	708123	**DONE**	CAN	22-FEB-2007
198681026	SAMPLE	MJH1	GAM03		14-DEC-2007 11:34	708123	DUSE	CAN	29-MAR-2007
198681027	SAMPLE	MJH1	GAM19		14-DEC-2007 11:35	708123	**DONE**	CAN	07-MAR-2007
198681028	SAMPLE	MJH1	GAM20		14-DEC-2007 11:37	708123	**DONE**	CAN	10-SEP-2007
198681029	SAMPLE	MJH1	GAM22		14-DEC-2007 12:08	708123	**DONE**	CAN	06-MAR-2007
198681030	SAMPLE	MJH1	GAM06		14-DEC-2007 12:13	708123	**DONE**	CAN	21-FEB-2007
198681031	SAMPLE	MJH1	GAM17		14-DEC-2007 12:24	708123	**DONE**	CAN	07-FEB-2007
198681032	SAMPLE	MJH1	GAM14		14-DEC-2007 13:02	708123	**DONE**	CAN	07-MAR-2007
198681033	SAMPLE	MJH1	GAM21		14-DEC-2007 13:54	708123	**DONE**	CAN	03-JUL-2007
198681034	SAMPLE	MJH1	GAM01		14-DEC-2007 14:26	708123	**DONE**	CAN	07-MAR-2007
198683001	SAMPLE	MJH1	GAM02		14-DEC-2007 14:26	708123	**DONE**	CAN	23-OCT-2007
198683002	SAMPLE	MJH1	GAM11		14-DEC-2007 14:27	708123	**DONE**	CAN	02-OCT-2007
198683003	SAMPLE	MJH1	GAM07		14-DEC-2007 14:58	708123	**DONE**	CAN	30-OCT-2007
198683004	SAMPLE	MJH1	GAM12		14-DEC-2007 14:59	708123	**DONE**	CAN	22-FEB-2007
198683005	SAMPLE	MJH1	GAMAN		14-DEC-2007 15:36	708123	**DONE**	CAN	28-MAR-2007
1201473820	LCS	MJH1	GAM23		14-DEC-2007 16:00	708123	**DONE**	CAN	23-MAY-2007
198683006	SAMPLE	MJH1	GAM05		14-DEC-2007 16:36	708123	**DONE**	CAN	31-MAY-2007
1201473818	MB	MJH1	GAM13		14-DEC-2007 16:36	708123	**DONE**	CAN	03-JUL-2007
1201473819	DUP	MJH1	GAM17		14-DEC-2007 16:37	708123	**DONE**	CAN	07-FEB-2007
198681026	SAMPLE	MJH1	GAM13		17-DEC-2007 10:09	708123	**DONE**	CAN	03-JUL-2007

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Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
198683007	SAMPLE	MJH1	GAM12		15-DEC-2007 08:26	708124	**DONE**	CAN	22-FEB-2007
198683008	SAMPLE	MJH1	GAM14		15-DEC-2007 08:27	708124	**DONE**	CAN	07-MAR-2007
198683009	SAMPLE	MJH1	GAM01		15-DEC-2007 10:48	708124	**DONE**	CAN	07-MAR-2007
198683010	SAMPLE	MJH1	GAM02		15-DEC-2007 10:49	708124	**DONE**	CAN	23-OCT-2007
198683011	SAMPLE	MJH1	GAM04		15-DEC-2007 10:50	708124	**DONE**	CAN	07-MAR-2007
198683012	SAMPLE	MJH1	GAM05		15-DEC-2007 10:51	708124	**DONE**	CAN	31-MAY-2007
198683013	SAMPLE	MJH1	GAM06		15-DEC-2007 10:51	708124	**DONE**	CAN	21-FEB-2007
198683014	SAMPLE	MJH1	GAM07		15-DEC-2007 10:52	708124	**DONE**	CAN	30-OCT-2007
198683015	SAMPLE	MJH1	GAM11		15-DEC-2007 10:53	708124	**DONE**	CAN	02-OCT-2007
198683016	SAMPLE	MJH1	GAM13		15-DEC-2007 10:53	708124	**DONE**	CAN	03-JUL-2007
198683017	SAMPLE	MJH1	GAM16		15-DEC-2007 10:54	708124	**DONE**	CAN	02-OCT-2007
198683018	SAMPLE	MJH1	GAM17		15-DEC-2007 10:55	708124	**DONE**	CAN	07-FEB-2007
198683019	SAMPLE	MJH1	GAM19		15-DEC-2007 10:55	708124	**DONE**	CAN	07-MAR-2007
198683020	SAMPLE	MJH1	GAM20		15-DEC-2007 10:56	708124	**DONE**	CAN	10-SEP-2007
198683021	SAMPLE	MJH1	GAM21		15-DEC-2007 10:57	708124	**DONE**	CAN	03-JUL-2007
198683022	SAMPLE	MJH1	GAM22		15-DEC-2007 10:58	708124	**DONE**	CAN	06-MAR-2007
198683023	SAMPLE	MJH1	GAM23		15-DEC-2007 10:58	708124	**DONE**	CAN	23-MAY-2007
198683024	SAMPLE	MJH1	GAM12		15-DEC-2007 12:31	708124	**DONE**	CAN	22-FEB-2007
198683025	SAMPLE	MJH1	GAM14		15-DEC-2007 12:31	708124	**DONE**	CAN	07-MAR-2007
198683026	SAMPLE	MJH1	GAM01		16-DEC-2007 12:08	708124	**DONE**	CAN	07-MAR-2007
1201473821	MB	MJH1	GAM04		16-DEC-2007 12:09	708124	**DONE**	CAN	07-MAR-2007
1201473822	DUP	MJH1	GAM05		16-DEC-2007 12:09	708124	**DONE**	CAN	31-MAY-2007
1201473823	LCS	MJH1	GAMAN		16-DEC-2007 12:47	708124	**DONE**	CAN	28-MAR-2007

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Instrument Run Log

ID	Sample Type	Analyst	Instrument	Dil	Run Date	Batch Id	Status	Geometry	Cal Date
198683027	SAMPLE	MJH1	GAM06		16-DEC-2007 12:22	708126	**DONE**	CAN	21-FEB-2007
198683028	SAMPLE	MJH1	GAM07		16-DEC-2007 12:22	708126	**DONE**	CAN	30-OCT-2007
198683029	SAMPLE	MJH1	GAM08		16-DEC-2007 12:22	708126	**DONE**	CAN	30-OCT-2007
198683030	SAMPLE	MJH1	GAM11		16-DEC-2007 12:23	708126	**DONE**	CAN	02-OCT-2007
198683031	SAMPLE	MJH1	GAM12		16-DEC-2007 12:23	708126	**DONE**	CAN	22-FEB-2007
198683032	SAMPLE	MJH1	GAM13		16-DEC-2007 12:24	708126	**DONE**	CAN	03-JUL-2007
198683033	SAMPLE	MJH1	GAM14		16-DEC-2007 12:24	708126	**DONE**	CAN	07-MAR-2007
198683034	SAMPLE	MJH1	GAM16		16-DEC-2007 12:24	708126	**DONE**	CAN	02-OCT-2007
198683035	SAMPLE	MJH1	GAM17		16-DEC-2007 12:31	708126	**DONE**	CAN	07-FEB-2007
198683036	SAMPLE	MJH1	GAM19		16-DEC-2007 12:32	708126	**DONE**	CAN	07-MAR-2007
198683037	SAMPLE	MJH1	GAM20		16-DEC-2007 12:32	708126	**DONE**	CAN	10-SEP-2007
198683038	SAMPLE	MJH1	GAM21		16-DEC-2007 12:32	708126	**DONE**	CAN	03-JUL-2007
198683039	SAMPLE	MJH1	GAM22		16-DEC-2007 12:33	708126	**DONE**	CAN	06-MAR-2007
198683040	SAMPLE	MJH1	GAM23		16-DEC-2007 12:33	708126	**DONE**	CAN	23-MAY-2007
1201473829	LCS	MJH1	GAMAN		16-DEC-2007 13:52	708126	**DONE**	CAN	28-MAR-2007
198683041	SAMPLE	MJH1	GAM05		16-DEC-2007 16:41	708126	**DONE**	CAN	31-MAY-2007
198683042	SAMPLE	MJH1	GAM07		16-DEC-2007 16:41	708126	**DONE**	CAN	30-OCT-2007
198686001	SAMPLE	MJH1	GAM11		16-DEC-2007 16:41	708126	**DONE**	CAN	02-OCT-2007
198686002	SAMPLE	MJH1	GAM12		16-DEC-2007 16:42	708126	**DONE**	CAN	22-FEB-2007
198686003	SAMPLE	MJH1	GAM13		16-DEC-2007 16:42	708126	**DONE**	CAN	03-JUL-2007
198686004	SAMPLE	MJH1	GAM14		16-DEC-2007 16:42	708126	**DONE**	CAN	07-MAR-2007
1201473827	MB	MJH1	GAM16		16-DEC-2007 16:43	708126	**DONE**	CAN	02-OCT-2007
1201473828	DUP	MJH1	GAM19		16-DEC-2007 16:43	708126	**DONE**	CAN	07-MAR-2007

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GEL Laboratories LLC

Analytical Report For 711067

for

SC&A, Inc.

Project Manager: Cynthia White

Project Name: Cabrera-Schofield CZ

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

The Case Narrative, Chain of Custody, Sample Receipt Checklist, and the cover page of the Sample Analysis Report, are integral parts of GPL Laboratories' report package. If you did not receive all of these documents, please contact GPL immediately.

Sample Receipt

Forty-two soil samples were received on 11/14/2007. The samples were delivered by Federal Express. Sample receipt conditions and temperatures are documented on the Sample Receipt checklist.

The samples were received pre-dried and homogenized by SC&A. The Pb results presented in this report are not corrected for percent solids

Sample Analysis

Samples were prepared and analyzed by GPL using the analytical methodologies indicated on the Sample Analysis Summary Report. In some chromatographic analyses, manual integration is used instead of automated integration because it produces more accurate results. All manual integrations are denoted on the sample quantitation report. Analysis results and limits for soil are reported on a dry weight basis unless otherwise specified on the report.

Metals

Forty-two samples were analyzed for lead only by EPA SW846 method.

The samples were assumed 100 percent solid.

A matrix spike, matrix spike duplicate, and serial dilution were performed on soil samples SB-CZ-SS-2115-BA, SB-CZ-SS-2121-BD, and SB-CZ-SS-2134-BD for lead. They were within the control limits.

Calibration standards are verified against independent check standards purchased from a commercial vendor of environmental standards.

All GPL QA/QC criteria were met.

Reviewed By,
Project Manager

Approved By,
Laboratory Director

Sample Summary Report

SC&A, Inc.

Work Order: 711067

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
SB-CZ-SS-2115-BA	711067-001-001-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2115-BD	711067-015-015-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2116-BA	711067-002-002-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2116-BD	711067-016-016-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2117-BA	711067-003-003-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2117-BD	711067-017-017-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2118-BA	711067-004-004-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2118-BD	711067-018-018-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2119-BA	711067-005-005-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2119-BD	711067-019-019-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2120-BA	711067-006-006-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2120-BD	711067-020-020-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2121-BA	711067-007-007-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2121-BD	711067-021-021-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2122-BA	711067-008-008-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2122-BD	711067-022-022-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2123-BA	711067-009-009-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2123-BD	711067-023-023-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2124-BA	711067-010-010-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2124-BD	711067-024-024-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2125-BA	711067-011-011-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2125-BD	711067-025-025-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2126-BA	711067-012-012-1/1	SW6010C	SOIL	10/18/2007	11/14/2007

Sample Summary Report

SC&A, Inc.

Work Order: 711067

Client Sample ID	Lab Sample ID	Analytical Method	Matrix	Date Sampled	Date Recieved
SB-CZ-SS-2126-BD	711067-026-026-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2127-BA	711067-013-013-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2127-BD	711067-027-027-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2128-BA	711067-014-014-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2128-BD	711067-028-028-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2129-BA	711067-029-029-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2129-BD	711067-036-036-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2130-BA	711067-030-030-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2130-BD	711067-037-037-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2131-BA	711067-031-031-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2131-BD	711067-038-038-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2132-BA	711067-032-032-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2132-BD	711067-039-039-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2133-BA	711067-033-033-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2133-BD	711067-040-040-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2134-BA	711067-034-034-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2134-BD	711067-041-041-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2135-BA	711067-035-035-1/1	SW6010C	SOIL	10/18/2007	11/14/2007
SB-CZ-SS-2135-BD	711067-042-042-1/1	SW6010C	SOIL	10/18/2007	11/14/2007

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2115-BA	Lab Sample ID:	711067-001-001-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**58.4**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**19:31**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2116-BA	Lab Sample ID:	711067-002-002-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**70.8**	**D**	**8.1**	**10**	**mg/kg**	**12/11/07**	**19:55**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2117-BA	Lab Sample ID:	711067-003-003-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**21.0**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**19:59**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2118-BA	Lab Sample ID:	711067-004-004-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**36.7**	**D**	**8.4**	**10**	**mg/kg**	**12/11/07**	**20:02**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2119-BA	Lab Sample ID:	711067-005-005-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**189**	**D**	**8.2**	**10**	**mg/kg**	**12/11/07**	**20:06**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2120-BA	Lab Sample ID:	711067-006-006-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**38.0**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**20:09**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2121-BA	Lab Sample ID:	711067-007-007-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**34.7**	**D**	**8.2**	**10**	**mg/kg**	**12/11/07**	**20:13**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2122-BA	Lab Sample ID:	711067-008-008-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**64.2**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**20:23**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2123-BA	Lab Sample ID:	711067-009-009-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**33.5**	**D**	**8.2**	**10**	**mg/kg**	**12/11/07**	**20:27**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2124-BA	Lab Sample ID:	711067-010-010-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**59.2**	**D**	**7.9**	**10**	**mg/kg**	**12/11/07**	**20:30**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2125-BA	Lab Sample ID:	711067-011-011-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**39.4**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**20:34**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2126-BA	Lab Sample ID:	711067-012-012-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**19.5**	**D**	**8.1**	**10**	**mg/kg**	**12/11/07**	**20:37**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2127-BA	Lab Sample ID:	711067-013-013-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**30.9**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**20:41**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2128-BA	Lab Sample ID:	711067-014-014-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**14.9**	**D**	**8.2**	**10**	**mg/kg**	**12/11/07**	**20:44**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2115-BD	Lab Sample ID:	711067-015-015-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**19.9**	**D**	**7.9**	**10**	**mg/kg**	**12/11/07**	**20:48**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2116-BD	Lab Sample ID:	711067-016-016-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**16.7**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**20:51**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2117-BD	Lab Sample ID:	711067-017-017-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**20.0**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**20:55**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2118-BD	Lab Sample ID:	711067-018-018-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**22.9**	**D**	**8.2**	**10**	**mg/kg**	**12/11/07**	**21:05**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2119-BD	Lab Sample ID:	711067-019-019-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**36.3**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**21:09**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2120-BD	Lab Sample ID:	711067-020-020-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**19.1**	**D**	**7.9**	**10**	**mg/kg**	**12/11/07**	**21:12**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2121-BD	Lab Sample ID:	711067-021-021-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**25.4**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**21:23**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2122-BD	Lab Sample ID:	711067-022-022-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**22.7**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**21:47**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2123-BD	Lab Sample ID:	711067-023-023-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**41.8**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**21:50**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2124-BD	Lab Sample ID:	711067-024-024-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**30.3**	**D**	**7.9**	**10**	**mg/kg**	**12/11/07**	**21:54**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2125-BD	Lab Sample ID:	711067-025-025-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**13.9**	**D**	**8**	**10**	**mg/kg**	**12/11/07**	**21:57**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2126-BD	Lab Sample ID:	711067-026-026-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**12.2**	**D**	**8**	**10**	**mg/kg**	**12/11/07**	**22:01**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2127-BD	Lab Sample ID:	711067-027-027-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**11.6**	**D**	**8.1**	**10**	**mg/kg**	**12/11/07**	**22:04**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2128-BD	Lab Sample ID:	711067-028-028-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**10.0**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**22:08**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2129-BA	Lab Sample ID:	711067-029-029-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**14.0**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**22:11**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2130-BA	Lab Sample ID:	711067-030-030-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**45.1**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**22:15**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2131-BA	Lab Sample ID:	711067-031-031-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**29.8**	**D**	**8**	**10**	**mg/kg**	**12/11/07**	**22:19**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2132-BA	Lab Sample ID:	711067-032-032-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**23.1**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**22:29**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2133-BA	Lab Sample ID:	711067-033-033-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**25.3**	**D**	**8.5**	**10**	**mg/kg**	**12/11/07**	**22:33**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2134-BA	Lab Sample ID:	711067-034-034-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**20.8**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**22:36**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2135-BA	Lab Sample ID:	711067-035-035-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**12.3**	**D**	**8.1**	**10**	**mg/kg**	**12/11/07**	**22:40**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2129-BD	Lab Sample ID:	711067-036-036-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	Lead	7439-92-1	6.0	JD	8.1	10	mg/kg	12/11/07	22:43

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2130-BD	Lab Sample ID:	711067-037-037-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**22.6**	**D**	**8**	**10**	**mg/kg**	**12/11/07**	**22:47**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2131-BD	Lab Sample ID:	711067-038-038-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**13.9**	**D**	**8.3**	**10**	**mg/kg**	**12/11/07**	**22:50**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2132-BD	Lab Sample ID:	711067-039-039-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	Lead	7439-92-1	BQL	UD	8.4	10	mg/kg	12/11/07	22:54

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2133-BD	Lab Sample ID:	711067-040-040-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**19.5**	**D**	**8.1**	**10**	**mg/kg**	**12/11/07**	**23:12**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2134-BD	Lab Sample ID:	711067-041-041-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**10.7**	**D**	**8.5**	**10**	**mg/kg**	**12/08/07**	**03:37**

Analytical Summary Report

Client Name:	SC&A, Inc.	Sample Matrix:	SOIL
Client Sample ID:	SB-CZ-SS-2135-BD	Lab Sample ID:	711067-042-042-1/1
Sample Date/Time:	10/18/2007 11:42	Percent Moisture:	NA
Receipt Date/Time:	11/14/2007 11:38	Preparation Method:	SW3050B
Prepared Date/Time:	11/20/2007 12:00	Analytical Method:	SW6010C

#	Parameter	CAS	Reported Result	Q	Reporting Limit	Dil Fact	Units	Analysis Date/Time	
1)	**Lead**	**7439-92-1**	**9.8**	**D**	**8.2**	**10**	**mg/kg**	**12/08/07**	**03:54**

Qualifier Definitions

SC&A, Inc.

Work Order: 711067

All Departments

U	Indicates that the compound was analyzed for but not detected
BQL	Below Quantitation Limit

Organics

B	Indicates that the analyte was found in the associated blank as well as in the sample
D	Indicates that the analyte was reported from a diluted analysis
E	Indicates that the concentration detected exceeded the calibration range of the instrument
J	Value is less than the reporting limit but greater than the MDL
P	Indicates that there is greater than 25% difference for detected pesticide/Arochlor results between the two GC columns

Metals

J	Indicates that the reported value was less than the reporting limit but greater than or equal to the IDL/MDL
E	Indicates that the reported value is estimated because of the possible presence of interference (i.e. the serial dilution not within control limits)
H	Indicates that the element was found in the associated blank as well as in the sample and the value is greater than or equal to the reporting limit
D	Indicates that the analyte was reported from a diluted analysis
N	Spiked sample recovery not within control limits
*	Duplicate analysis not within control limits

SC & A 3840 MONTICELLO COURT
CHAIN OF CUSTODY RECORD MONTGOMERY, AL 36117 (334) 272-2334 (334)213-0487 FAX

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

Client Name: JMC

Project Manager: Greg Miller Cabrera Services

Requested Comp. Date: 28 day T.A.T

Notify Upon Receipt?

COC# 42

Laboratory Prefix

Study I.D.

Pg 1 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of Containers		Lead							Laboratory	Comments
1	10/18/2007		Soil	SB-CZ-SS-2115-SA	1		X						01		
2	10/18/2007		Soil	SB-CZ-SS-2116-SA	1		X						02		
3	10/18/2007		Soil	SB-CZ-SS-2117-SA	1		X						03		
4	10/18/2007		Soil	SB-CZ-SS-2118-SA	1		X						04		
5	10/18/2007		Soil	SB-CZ-SS-2119-SA	1		X						05		
6	10/18/2007		Soil	SB-CZ-SS-2120-SA	1		X						06		
7	10/18/2007		Soil	SB-CZ-SS-2121-SA	1		X						07		
8	10/18/2007		Soil	SB-CZ-SS-2122-SA	1		X						08		
9	10/18/2007		Soil	SB-CZ-SS-2123-SA	1		X						09		
10	10/18/2007		Soil	SB-CZ-SS-2124-SA	1		X						10		
11	10/18/2007		Soil	SB-CZ-SS-2125-SA	1		X						11		
12	10/18/2007		Soil	SB-CZ-SS-2126-SA	1		X						12		
13	10/18/2007		Soil	SB-CZ-SS-2127-SA	1		X						13		
14	10/18/2007		Soil	SB-CZ-SS-2128-SA	1		X						14		

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:	Date/Time	Relinquished by:	Date/Time	COC	ICE
Received by: C. Clarens - SCA	Date/Time: 10/19/07 8:00	Relinquished by: Clarens - SCA	Date/Time: 10/19/07 11:00	ANA HLD	TEMP
Walter Beck 11/14/07 10:15		Sample shipped via: UPS FED-EX HAND OTHER	Air Bill #	Cust Seal	pH
				Sample	

WO # 711067

SC&A 1000 MONTGOMERY COURT
CHAIN OF CUSTODY RECORD MONTGOMERY, AL 36117 (334) 272-2234 (334)213-4607 FAX

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

Client Name: JMC

Project Manager: Greg Miller Cabrera Services

Requested Comp. Date: 28 day T.A.T

Notify Upon Receipt?

COC# 42

Laboratory Prefix:

Study I.D.

Pg 2 of 3

Item No.	Date	Time	Matrix	Sample I.D.	# of Containers	Lead							Laboratory	Comments
1	10/18/2007		Soil	SB-CZ-SS-2115-SO	1	X								
2	10/18/2007		Soil	SB-CZ-SS-2116-SO	1	X								
3	10/18/2007		Soil	SB-CZ-SS-2117-SO	1	X								
4	10/18/2007		Soil	SB-CZ-SS-2118-SO	1	X								
5	10/18/2007		Soil	SB-CZ-SS-2119-SO	1	X								
6	10/18/2007		Soil	SB-CZ-SS-2120-SO	1	X								
7	10/18/2007		Soil	SB-CZ-SS-2121-SO	1	X								
8	10/18/2007		Soil	SB-CZ-SS-2122-SO	1	X								
9	10/18/2007		Soil	SB-CZ-SS-2123-SO	1	X								
10	10/18/2007		Soil	SB-CZ-SS-2124-SO	1	X								
11	10/18/2007		Soil	SB-CZ-SS-2125-SO	1	X								
12	10/18/2007		Soil	SB-CZ-SS-2126-SO	1	X								
13	10/18/2007		Soil	SB-CZ-SS-2127-SO	1	X								
14	10/18/2007		Soil	SB-CZ-SS-2128-SO	1	X								

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:	Date/Time	Relinquished by:	Date/Time	COC	ICE
Received by: C. Owens SCA	Date/Time 11/14/07 1540	Relinquished by: C. Owens SCA	Date/Time 11/14/07 1540	ANA REQ	TEMP
Walter Bell 11/14/07 10:15		Sample shipped via UPS FED-EX HAND OTHER	Air Bill #	Cust Seal Sample	pH

SC & A 1600 MONTICELLO COURT
CHAIN OF CUSTODY RECORD MONTGOMERY, AL 36117 (334) 272-3234 (334)213-8407 FAX

WORK ASIGNMENT #	PROJECT NAME:	ANALYSIS REQUESTED	FOR LABORATORY USE
65-3040.01	Schofield CZ		

Client Name: JMC

Project Manager: Greg Miller Cabrera Services

Requested Comp. Date: 28 day T.A.T

Notify Upon Receipt?

COC# 42

Item No.	Date	Time	Matrix	Sample I.D.	# of CONTAINERS	Lead							Laboratory	Comments
1	10/18/2007		Soil	59-CZ-SS-2129-SA	1	X						01		
2	10/18/2007		Soil	59-CZ-SS-2130-SA	1	X						02		
3	10/18/2007		Soil	59-CZ-SS-2131-SA	1	X						03		
4	10/18/2007		Soil	59-CZ-SS-2132-SA	1	X						04		
5	10/18/2007		Soil	59-CZ-SS-2133-SA	1	X						05		
6	10/18/2007		Soil	59-CZ-SS-2134-SA	1	X						06		
7	10/18/2007		Soil	59-CZ-SS-2135-SA	1	X						07		
8	10/18/2007		Soil	59-CZ-SS-2129-BD	1	X						08		
9	10/18/2007		Soil	59-CZ-SS-2130-BD	1	X						09		
10	10/18/2007		Soil	59-CZ-SS-2131-BD	1	X						10		
11	10/18/2007		Soil	59-CZ-SS-2132-BD	1	X						11		
12	10/18/2007		Soil	59-CZ-SS-2133-BD	1	X						12		
13	10/18/2007		Soil	59-CZ-SS-2134-BD	1	X						13		
14	10/18/2007		Soil	59-CZ-SS-2135-BD	1	X						14		

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:	Date/Time	Relinquished by:	Date/Time	COC	ICE
Received by:	Date/Time	Relinquished by:	Date/Time	ANA REQ	TEMP
Sample shipped via UPS FED-EX HAND OTHER			Air Bill #	Cust Seal	pH
				Sample	

Page 3 of 3

SC&A Laboratory Radiological Survey Results

Dose Rate Instrument - Gamma			
Instrument Mfg.	Ludlum		
Model Number	19		
Serial Number	51849		
Alpha Survey Instrument			
Instrument Mfg.	Ludlum	Detector Mfg.	Ludlum
Model Number	16	Model Number	43-5
Serial Number	56585	Serial Number	PR 067187
Beta/Gamma Survey Instrument			
Instrument Mfg.	Ludlum	Detector Mfg.	Ludlum
Model Number	3	Model Number	44-9
Serial Number	130189	Serial Number	PR 067189
Maximum Permissible Limits For Unrestricted Use			
220 dpm/100 cm² - Alpha (49 CFR 173.443)	2200 dpm/100 cm² - βγ (49 CFR 173.443)	0.4 mR/hr - Gamma (49 CFR 173.422)	
Equivalent net cpm: Probe 43-5 15 cpm Probe 43-90 35 cpm	Equivalent net cpm: Probe 44-9 50 cpm Probe 44-54 275 cpm	>100 μR/hr - process in 2000	

Identifier	Date	Time	Gamma			Alpha			Beta/Gamma		
			Background cpm	Gross cpm	Net cpm	Background cpm	Gross cpm	Net cpm	Background cpm	Gross cpm	Net cpm
Ambient	Start	10:15									
Outside Cooler / Fire											
Inside Cooler / Bus											
Sample(s)			5	8	3	0	0	0	40	80	80
Ambient											
Outside Cooler / Fire											
Inside Cooler / Bus											
Sample(s)											
Ambient											
Outside Cooler / Fire											
Inside Cooler / Bus											
Sample(s)											
Ambient											
Outside Cooler / Fire											
Inside Cooler / Bus											
Sample(s)											

Surveyed By: [illegible]

SC&A - Southeastern Instrumental Laboratory
SC&A Form 20.5.5 Rev. 1

FedEx | Ship Manager | Label 799750346215 Page 1 of 1

From: Origin ID: MGMA (334) 272-2234
Angie Lamb
SC&A, Inc.
1000 Monticello Ct.

Montgomery, AL 36117

FedEx Express

Ship Date: 12NOV07
ActWgt 5 LB
System: 3.0.2.2/9.1.1.051
Account: S

Delivery Address Bar Code

Ref # FQAH2/L
Invoice #
PO #
Dept #

SHIP TO: (301) 694-5310 BILL SENDER

Pat Huebschman
GPL Laboratories
7210A Corporate Court

Frederick, MD 21703

TRK# 7997 5034 6215 C201

WED - 14NOV A2
** 2DAY **

FE-FDKA

IAD
MD-US
21703

Shipping Label: Your shipment is complete

1. Use the 'Print' feature from your browser to send this page to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

https://www.fedex.com/ship/domesticShipmentAction.do?method=doProcessShipment 11/12/2007

GPL Laboratories, LLLP

Figure 1
SAMPLE RECEIPT CHECKLIST

W.O. No: 711067
Client Name: SC&A
Date Received: 11-14-07
Time Received: 1015
Received By: Walter

Carrier Name: Fed-Ex
Prepared (Logged In) By: LJP, 11-14-07 (Initials Date)
Project:
Site:
VOA Holding Block I.D. No:

	YES	NO
Airbill/Manifest Present? No. 7997 5034 6215	✓	
Shipping Container In Good Condition?	✓	
Custody Seals Present on Shipping Container? Condition: Broken ___ Intact-dated and signed ✓	✓	
Usage of Tamper Evident Type		✓
Chain-of-Custody Present?	✓	
Chain-of-Custody Agrees with Sample Labels?	✓	
Chain-of-Custody Signed?	✓	
Packing Present in Shipping Container? Type of Packing: Ziplock	✓	
Custody seals on Sample Bottles? Condition: Good ___ Broken ___		✓
Total Number of Sample Bottles: 42		
Total Number of Samples: 42		
Samples Intact?	✓	
Sufficient Sample Volume for Indicated Test?	✓	

	YES	NO
Trip Blanks: No. of Sets ___		✓
Field Blanks: No. of Sets ___		✓
Equip. Blank: No. of Sets ___		✓
Field Duplicates: No. of Sets ___		✓
MS/MSD: No. of Sets ___		✓
VOA Vials Have Zero Headspace? If no, smaller or greater than a Green Pea (see comments)		
Preservatives Added to Sample?		✓
pH Check Required? Performed By? ___		✓
Ice Present in Shipping Container?		✓

Container #	Temp.	Container #	Temp.
1			

Project Manager Contacted?
Name: PAT
Date Contacted: 11-14-07

Any NO responses must be detailed in the comments section below. If items are not applicable to particular samples or contracts, they should be marked N/A

COMMENTS:

Checklist Completed By: LJ Dabt
Date: 11-14-07

SOP No: F-2V18

TRACE METALS

GPL Laboratories

USEPA - CLP

COVER PAGE

Lab Name: GPL LABORATORIES, LLLP Contract:

Lab Code: Case No.: NRAS No.: SDG No.: 711067

SOW No.:

EPA Sample No.	Lab Sample ID
SB-CZ-SS-2115-BA	S 711067-001-001-1/1
SB-CZ-SS-2115-BA MS	SP711067-001-001-1/1
SB-CZ-SS-2115-BA MSD	SD711067-001-001-1/1
SB-CZ-SS-2115-BD	S 711067-015-015-1/1
SB-CZ-SS-2116-BA	S 711067-002-002-1/1
SB-CZ-SS-2116-BD	S 711067-016-016-1/1
SB-CZ-SS-2117-BA	S 711067-003-003-1/1
SB-CZ-SS-2117-BD	S 711067-017-017-1/1
SB-CZ-SS-2118-BA	S 711067-004-004-1/1
SB-CZ-SS-2118-BD	S 711067-018-018-1/1
SB-CZ-SS-2119-BA	S 711067-005-005-1/1
SB-CZ-SS-2119-BD	S 711067-019-019-1/1
SB-CZ-SS-2120-BA	S 711067-006-006-1/1
SB-CZ-SS-2120-BD	S 711067-020-020-1/1
SB-CZ-SS-2121-BA	S 711067-007-007-1/1
SB-CZ-SS-2121-BD	S 711067-021-021-1/1
SB-CZ-SS-2121-BD MS	SP711067-021-021-1/1
SB-CZ-SS-2121-BD MSD	SD711067-021-021-1/1
SB-CZ-SS-2122-BA	S 711067-008-008-1/1
SB-CZ-SS-2122-BD	S 711067-022-022-1/1
SB-CZ-SS-2123-BA	S 711067-009-009-1/1
SB-CZ-SS-2123-BD	S 711067-023-023-1/1
SB-CZ-SS-2124-BA	S 711067-010-010-1/1
SB-CZ-SS-2124-BD	S 711067-024-024-1/1
SB-CZ-SS-2125-BA	S 711067-011-011-1/1
SB-CZ-SS-2125-BD	S 711067-025-025-1/1
SB-CZ-SS-2126-BA	S 711067-012-012-1/1
SB-CZ-SS-2126-BD	S 711067-026-026-1/1
SB-CZ-SS-2127-BA	S 711067-013-013-1/1
SB-CZ-SS-2127-BD	S 711067-027-027-1/1
SB-CZ-SS-2128-BA	S 711067-014-014-1/1
SB-CZ-SS-2128-BD	S 711067-028-028-1/1
SB-CZ-SS-2129-BA	S 711067-029-029-1/1
SB-CZ-SS-2129-BD	S 711067-036-036-1/1
SB-CZ-SS-2130-BA	S 711067-030-030-1/1

EPA Sample No.	Lab Sample ID
SB-CZ-SS-2130-BD	S 711067-037-037-1/1
SB-CZ-SS-2131-BA	S 711067-031-031-1/1
SB-CZ-SS-2131-BD	S 711067-038-038-1/1
SB-CZ-SS-2132-BA	S 711067-032-032-1/1
SB-CZ-SS-2132-BD	S 711067-039-039-1/1
SB-CZ-SS-2133-BA	S 711067-033-033-1/1
SB-CZ-SS-2133-BD	S 711067-040-040-1/1
SB-CZ-SS-2134-BA	S 711067-034-034-1/1
SB-CZ-SS-2134-BD	S 711067-041-041-1/1
SB-CZ-SS-2134-BD MS	SP711067-041-041-1/1
SB-CZ-SS-2134-BD MSD	SD711067-041-041-1/1
SB-CZ-SS-2135-BA	S 711067-035-035-1/1
SB-CZ-SS-2135-BD	711067-042-042-1/1

		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: [illegible] Name: Richard Turner

Date: 12/4/2007 Title: Asst. Lab Director

GPL Laboratories, LLLP

Sample Results

Project:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-001-001-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2115-BA	Prep Batch:	101678
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	58.4	D	10	12/11/07 19:31

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-002-002-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2116-BA	Prep Batch:	101678
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	70.8	D	10	12/11/07 19:55

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-003-003-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2117-BA	Prep Batch:	101678
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	21.0	D	10	12/11/07 19:59

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-004-004-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2118-BA	Prep Batch:	101678
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	36.7	D	10	12/11/07 20:02

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-005-005-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2119-BA	Prep Batch:	101678
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	0.82	8.2	189	D	10	12/11/07 20:06

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-006-006-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2120-BA	Prep Batch:	101678
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	38.0	D	10	12/11/07 20:09

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-007-007-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2121-BA	Prep Batch:	101678
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	0.82	8.2	34.7	D	10	12/11/07 20:13

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-008-008-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2122-BA	Prep Batch:	101678
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	64.2	D	10	12/11/07 20:23

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-009-009-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2123-BA	Prep Batch:	101678
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	0.82	8.2	33.5	D	10	12/11/07 20:27

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-010-010-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2124-BA	Prep Batch:	101678
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	59.2	D	10	12/11/07 20:30

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-011-011-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2125-BA	Prep Batch:	101678
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	39.4	D	10	12/11/07 20:34

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-012-012-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2126-BA	Prep Batch:	101678
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	19.5	D	10	12/11/07 20:37

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

Sample Results

Project:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-013-013-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2127-BA	Prep Batch:	101678
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	30.9	D	10	12/11/07 20:41

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-014-014-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2128-BA	Prep Batch:	101678
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	0.82	8.2	14.9	D	10	12/11/07 20:44

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-015-015-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2115-BD	Prep Batch:	101678
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	19.9	D	10	12/11/07 20:48

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-016-016-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2116-BD	Prep Batch:	101678
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	16.7	D	10	12/11/07 20:51

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-017-017-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2117-BD	Prep Batch:	101678
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	20.0	D	10	12/11/07 20:55

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-018-018-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2118-BD	Prep Batch:	101678
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	0.82	8.2	22.9	D	10	12/11/07 21:05

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-019-019-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2119-BD	Prep Batch:	101678
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	36.3	D	10	12/11/07 21:09

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-020-020-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2120-BD	Prep Batch:	101678
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	19.1	D	10	12/11/07 21:12

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-021-021-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2121-BD	Prep Batch:	101679
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	25.4	D	10	12/11/07 21:23

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-022-022-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2122-BD	Prep Batch:	101679
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	22.7	D	10	12/11/07 21:47

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-023-023-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2123-BD	Prep Batch:	101679
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	41.8	D	10	12/11/07 21:50

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-024-024-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2124-BD	Prep Batch:	101679
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	30.3	D	10	12/11/07 21:54

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-025-025-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2125-BD	Prep Batch:	101679
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	13.9	D	10	12/11/07 21:57

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-026-026-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2126-BD	Prep Batch:	101679
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	12.2	D	10	12/11/07 22:01

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-027-027-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2127-BD	Prep Batch:	101679
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	11.6	D	10	12/11/07 22:04

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-028-028-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2128-BD	Prep Batch:	101679
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	10.0	D	10	12/11/07 22:08

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-029-029-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2129-BA	Prep Batch:	101679
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	14.0	D	10	12/11/07 22:11

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-030-030-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2130-BA	Prep Batch:	101679
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	45.1	D	10	12/11/07 22:15

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-031-031-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2131-BA	Prep Batch:	101679
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	29.8	D	10	12/11/07 22:19

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-032-032-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2132-BA	Prep Batch:	101679
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	23.1	D	10	12/11/07 22:29

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-033-033-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2133-BA	Prep Batch:	101679
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	25.3	D	10	12/11/07 22:33

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-034-034-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2134-BA	Prep Batch:	101679
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	20.8	D	10	12/11/07 22:36

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-035-035-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2135-BA	Prep Batch:	101679
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	12.3	D	10	12/11/07 22:40

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-036-036-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2129-BD	Prep Batch:	101679
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	6.0	JD	10	12/11/07 22:43

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-037-037-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2130-BD	Prep Batch:	101679
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	22.6	D	10	12/11/07 22:47

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-038-038-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2131-BD	Prep Batch:	101679
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	13.9	D	10	12/11/07 22:50

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-039-039-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2132-BD	Prep Batch:	101679
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	0.84	UD	10	12/11/07 22:54

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-040-040-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2133-BD	Prep Batch:	101679
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	19.5	D	10	12/11/07 23:12

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:	711067	Matrix:	Soil
Lab Sample ID:	S 711067-041-041-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2134-BD	Prep Batch:	101759
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	10.7	D	10	12/08/07 3:37

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

Sample Results

Project:	711067	Matrix:	Soil
Lab Sample ID:	711067-042-042-1/1	Percent Moisture:	0.0
Client Sample ID:	SB-CZ-SS-2135-BD	Prep Batch:	101759
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	0.82	8.2	9.8	D	10	12/08/07 3:54

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

Preparation Blank Results

Project:	711067	Matrix:	Soil
Lab Sample ID:	BLK101678	Percent Moisture:	0.0
Client Sample ID:	NA	Prep Batch:	101678
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 19:24

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:	711067	Matrix:	Soil
Lab Sample ID:	BLK101679	Percent Moisture:	0.0
Client Sample ID:	NA	Prep Batch:	101679
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 21:16

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:	711067	Matrix:	Soil
Lab Sample ID:	BLK101759	Percent Moisture:	0.0
Client Sample ID:	NA	Prep Batch:	101759
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	12/08/07 3:30

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:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	AB.ST.	Standard ID:	

Analyte	True	ICV 12/7/2007 4:16:51 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	400.0	426.65	107						

GPL Laboratories, LLLP

Initial Calibration Verification

Project:	711067	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:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV1 12/7/2007 4:23:49 PM		CCV2 12/7/2007 4:48:52 PM		CCV3 12/7/2007 5:30:23 PM		CCV4 12/7/2007 6:12:33 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	494.02	99	496.65	99	497.81	100	504.48	101

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV5 12/7/2007 6:54:19 PM		CCV6 12/7/2007 7:35:59 PM		CCV7 12/7/2007 8:17:41 PM		CCV8 12/7/2007 8:59:40 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	501.75	100	504.55	101	504.95	101	509.73	102

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV9 12/7/2007 9:41:42 PM		CCV10 12/7/2007 10:23:48 PM		CCV11 12/7/2007 11:06:03 PM		CCV12 12/7/2007 11:48:21 PM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	502.99	101	506.83	101	517.31	103	516.30	103

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV13 12/8/2007 12:30:24 AM		CCV14 12/8/2007 1:12:32 AM		CCV15 12/8/2007 1:55:00 AM		CCV16 12/8/2007 2:37:03 AM	
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	508.37	102	509.42	102	511.99	102	507.89	102

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	CCV17 12/8/2007 3:19:40 AM		CCV18 12/8/2007 4:01:27 AM					
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	519.64	104	516.95	103				

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711067	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

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Verification

Project:	711067	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:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	H.P.	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			
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	500.0	480.28	96	477.88	96	480.93	96		

GPL Laboratories, LLLP

Low Level Check Standard

Project:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	True	PQL 12/7/2007 4:30:52 PM							
		Found	%R	Found	%R	Found	%R	Found	%R
Lead	10.0	8.94	89						

URIT Version 4.6.0

GPL Laboratories, LLLP

Low Level Check Standard

Project:	711067	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:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	ICB 12/7/2007 4:20:22 PM							
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U						

URIT Version 4.6.0

GPL Laboratories, LLLP

Initial Calibration Blanks

Project:	711067	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:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB1 12/7/2007 4:27:24 PM		CCB2 12/7/2007 4:52:28 PM		CCB3 12/7/2007 5:33:59 PM		CCB4 12/7/2007 6:16:08 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:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB5 12/7/2007 6:58:00 PM		CCB6 12/7/2007 7:39:35 PM		CCB7 12/7/2007 8:21:17 PM		CCB8 12/7/2007 9:03:17 PM	
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U	1.00	U

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB9 12/7/2007 9:45:17 PM		CCB10 12/7/2007 10:27:24 PM		CCB11 12/7/2007 11:09:39 PM		CCB12 12/7/2007 11:51:57 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:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB13 12/8/2007 12:34:00 AM		CCB14 12/8/2007 1:16:09 AM		CCB15 12/8/2007 1:58:36 AM		CCB16 12/8/2007 2:40:39 AM	
		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:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt
Standard Source:		Standard ID:	

Analyte	RL	CCB17 12/8/2007 3:23:16 AM		CCB18 12/8/2007 4:05:03 AM					
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U				

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711067	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

URIT Version 4.6.0

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711067	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

GPL Laboratories, LLLP

Continuing Calibration Blanks

Project:	711067	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			
		Found	Flag	Found	Flag	Found	Flag	Found	Flag
Lead	10.00	1.00	U	1.00	U	1.00	U		

URIT Version 4.6.0

GPL Laboratories, LLLP

Interference Check Standards

Project:	711067	Instrument:	iTEVA
Units:	ug/L	Data File Name:	071211.txt
Standard Source:	H.P./AB.ST.	Standard ID:	

Analyte	RL	True		Initial Found				Final Found			
		Sol. A	Sol. B		%R	ICSAB 12/11/07 17:19	%R		%R		%R
Lead	10		50			57.7	115				

GPL Laboratories, LLLP

Matrix Spike Recovery

Client ID:	SB-CZ-SS-2115-BA MS	Lab Sample ID:	SP711067-001-001-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 19:42		Sample Result 12/11/07 19:31		Spike Added	%R
Lead	144.86		58.41		81.97	105

URIT Version 4.6.0

GPL Laboratories, LLLP

Matrix Spike Recovery

Client ID:	SB-CZ-SS-2121-BD MS	Lab Sample ID:	SP711067-021-021-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 21:26		Sample Result 12/11/07 21:23		Spike Added	%R
Lead	108.91		25.39		81.97	102

GPL Laboratories, LLLP

Matrix Spike Recovery

Client ID:	SB-CZ-SS-2134-BD MS	Lab Sample ID:	SP711067-041-041-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/08/07 03:40	Sample Result 12/08/07 03:37	Spike Added	%R
Lead	98.74	10.69	83.33	106

GPL Laboratories, LLLP

Matrix Spike Duplicate Recovery

Client ID:	SB-CZ-SS-2115-BA MSD	Lab Sample ID:	SD711067-001-001-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 19:45		Sample Result 12/11/07 19:31		Spike Added	%R
Lead	139.52		58.41		80.65	101

URIT Version 4.6.0

GPL Laboratories, LLLP

Matrix Spike Duplicate Recovery

Client ID:	SB-CZ-SS-2121-BD MSD	Lab Sample ID:	SD711067-021-021-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 21:30		Sample Result 12/11/07 21:23		Spike Added	%R
Lead	107.02		25.39		80.00	102

URIT Version 4.6.0

GPL Laboratories, LLLP

Matrix Spike Duplicate Recovery

Client ID:	SB-CZ-SS-2134-BD MSD	Lab Sample ID:	SD711067-041-041-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/08/07 03:44		Sample Result 12/08/07 03:37		Spike Added	%R
Lead	90.28		10.69		80.65	99

URIT Version 4.6.0

GPL Laboratories, LLLP

Duplicates

Client ID:	SB-CZ-SS-2115-BA MSD	Lab Sample ID:	SD711067-001-001-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt

Analyte	Original Sample Results	Duplicate Sample Results	RPD	Control Limit	Q
Lead	144.86	139.52	4	20	D

URIT Version 4.6.0

GPL Laboratories, LLLP

Duplicates

Client ID:	SB-CZ-SS-2121-BD MSD	Lab Sample ID:	SD711067-021-021-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071211.txt

Analyte	Original Sample Results		Duplicate Sample Results		RPD	Control Limit	Q
Lead	108.91		107.02		2	20	D

URIT Version 4.6.0

GPL Laboratories, LLLP

Duplicates

Client ID:	SB-CZ-SS-2134-BD MSD	Lab Sample ID:	SD711067-041-041-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	mg/kg	Data File Name:	071207.txt

Analyte	Original Sample Results		Duplicate Sample Results		RPD	Control Limit	Q
Lead	98.74		90.28		9	20	D

URIT Version 4.6.0

GPL Laboratories, LLLP

Laboratory Control Sample

Project:	711067	Lab Sample ID:	BKS101759
Units:	mg/kg	Instrument:	iTEVA-Soil
		Data File Name:	071207.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/08/07 03:33	Spike Added	%R
Lead	102.64	100.00	103

GPL Laboratories, LLLP

Laboratory Control Sample

Project:	711067	Lab Sample ID:	BKS101678
Units:	mg/kg	Instrument:	iTEVA-Soil
		Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 19:28	Spike Added	%R
Lead	101.72	100.00	102

URIT Version 4.6.0

GPL Laboratories, LLLP

Laboratory Control Sample

Project:	711067	Lab Sample ID:	BKS101679
Units:	mg/kg	Instrument:	iTEVA-Soil
		Data File Name:	071211.txt
Standard Source:	H.P.	Standard ID:	

Analyte	Spiked Sample Result 12/11/07 21:19	Spike Added	%R
Lead	99.27	100.00	99

URIT Version 4.6.0

GPL Laboratories, LLLP

Serial Dilutions

Client ID:	SB-CZ-SS-2115-BA	Lab Sample ID:	SE711067-001-001-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt

Analyte	Sample Result 12/11/07 19:31		Serial Dilution Result 12/11/07 19:52		Percent Difference	Flag
Lead	68.34		71.81		5	

URIT Version 4.6.0

GPL Laboratories, LLLP

Serial Dilutions

Client ID:	SB-CZ-SS-2121-BD	Lab Sample ID:	SE711067-021-021-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071211.txt

Analyte	Sample Result 12/11/07 21:23		Serial Dilution Result 12/11/07 21:37		Percent Difference	Flag
Lead	29.71		25.20	J	15	

URIT Version 4.6.0

GPL Laboratories, LLLP

Serial Dilutions

Client ID:	SB-CZ-SS-2134-BD	Lab Sample ID:	SE711067-041-041-1/1
Project:	711067	Instrument:	iTEVA-Soil
Units:	ug/L	Data File Name:	071207.txt

Analyte	Sample Result 12/08/07 03:37		Serial Dilution Result 12/08/07 03:51		Percent Difference	Flag
Lead	12.51		10.27	J	18	

GPL Laboratories, LLLP

Detection Limits

Project: 711067 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: 711067 Instrument: iTEVA-Soil

Units: ug/L

Analyte	Wavelength/Mass	Linear Dynamic Range	Date of LDR
Lead	220.353	22000	11/14/07

URIT Version 4.6.0

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Preparation Log

Project: 711067 Instrument: iTEVA-Soil

Prep Method: Batch Number: 101678

Lab Sample ID	Client ID	Preparation Date	Initial Weight (grams)	Final Volume (ml)
BLK101678	BLK101678	11/20/2007	1.00	100
BKS101678	BKS101678	11/20/2007	1.00	100
S 711067-001-001-1/1	SB-CZ-SS-2115-BA	11/20/2007	1.17	100
SP711067-001-001-1/1	SB-CZ-SS-2115-BA MS	11/20/2007	1.22	100
S 711067-015-015-1/1	SB-CZ-SS-2115-BD	11/20/2007	1.26	100
S 711067-002-002-1/1	SB-CZ-SS-2116-BA	11/20/2007	1.24	100
S 711067-016-016-1/1	SB-CZ-SS-2116-BD	11/20/2007	1.21	100
S 711067-003-003-1/1	SB-CZ-SS-2117-BA	11/20/2007	1.18	100
S 711067-017-017-1/1	SB-CZ-SS-2117-BD	11/20/2007	1.20	100
S 711067-004-004-1/1	SB-CZ-SS-2118-BA	11/20/2007	1.19	100
S 711067-018-018-1/1	SB-CZ-SS-2118-BD	11/20/2007	1.22	100
S 711067-005-005-1/1	SB-CZ-SS-2119-BA	11/20/2007	1.22	100
S 711067-019-019-1/1	SB-CZ-SS-2119-BD	11/20/2007	1.18	100
S 711067-006-006-1/1	SB-CZ-SS-2120-BA	11/20/2007	1.18	100
S 711067-020-020-1/1	SB-CZ-SS-2120-BD	11/20/2007	1.26	100
S 711067-007-007-1/1	SB-CZ-SS-2121-BA	11/20/2007	1.22	100
S 711067-008-008-1/1	SB-CZ-SS-2122-BA	11/20/2007	1.18	100
S 711067-009-009-1/1	SB-CZ-SS-2123-BA	11/20/2007	1.22	100
S 711067-010-010-1/1	SB-CZ-SS-2124-BA	11/20/2007	1.27	100
S 711067-011-011-1/1	SB-CZ-SS-2125-BA	11/20/2007	1.18	100
S 711067-012-012-1/1	SB-CZ-SS-2126-BA	11/20/2007	1.23	100
S 711067-013-013-1/1	SB-CZ-SS-2127-BA	11/20/2007	1.20	100
S 711067-014-014-1/1	SB-CZ-SS-2128-BA	11/20/2007	1.22	100
SD711067-001-001-1/1	SB-CZ-SS-2115-BA MSD	11/20/2007	1.24	100

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Preparation Log

Project: 711067 Instrument: iTEVA-Soil

Prep Method: Batch Number: 101679

Lab Sample ID	Client ID	Preparation Date	Initial Weight (grams)	Final Volume (ml)
BLK101679	BLK101679	11/20/2007	1.00	100
BKS101679	BKS101679	11/20/2007	1.00	100
S 711067-021-021-1/1	SB-CZ-SS-2121-BD	11/20/2007	1.17	100
SP711067-021-021-1/1	SB-CZ-SS-2121-BD MS	11/20/2007	1.22	100
S 711067-022-022-1/1	SB-CZ-SS-2122-BD	11/20/2007	1.21	100
S 711067-023-023-1/1	SB-CZ-SS-2123-BD	11/20/2007	1.20	100
S 711067-024-024-1/1	SB-CZ-SS-2124-BD	11/20/2007	1.26	100
S 711067-025-025-1/1	SB-CZ-SS-2125-BD	11/20/2007	1.25	100
S 711067-026-026-1/1	SB-CZ-SS-2126-BD	11/20/2007	1.25	100
S 711067-027-027-1/1	SB-CZ-SS-2127-BD	11/20/2007	1.23	100
S 711067-028-028-1/1	SB-CZ-SS-2128-BD	11/20/2007	1.20	100
S 711067-029-029-1/1	SB-CZ-SS-2129-BA	11/20/2007	1.18	100
S 711067-036-036-1/1	SB-CZ-SS-2129-BD	11/20/2007	1.24	100
S 711067-030-030-1/1	SB-CZ-SS-2130-BA	11/20/2007	1.20	100
S 711067-037-037-1/1	SB-CZ-SS-2130-BD	11/20/2007	1.25	100
S 711067-031-031-1/1	SB-CZ-SS-2131-BA	11/20/2007	1.25	100
S 711067-038-038-1/1	SB-CZ-SS-2131-BD	11/20/2007	1.20	100
S 711067-032-032-1/1	SB-CZ-SS-2132-BA	11/20/2007	1.21	100
S 711067-039-039-1/1	SB-CZ-SS-2132-BD	11/20/2007	1.19	100
S 711067-033-033-1/1	SB-CZ-SS-2133-BA	11/20/2007	1.18	100
S 711067-040-040-1/1	SB-CZ-SS-2133-BD	11/20/2007	1.23	100
S 711067-034-034-1/1	SB-CZ-SS-2134-BA	11/20/2007	1.21	100
S 711067-035-035-1/1	SB-CZ-SS-2135-BA	11/20/2007	1.23	100
SD711067-021-021-1/1	SB-CZ-SS-2121-BD MSD	11/20/2007	1.25	100

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Preparation Log

Project: 711067 Instrument: iTEVA-Soil

Prep Method: Batch Number: 101759

Lab Sample ID	Client ID	Preparation Date	Initial Weight (grams)	Final Volume (ml)
BLK101759	BLK101759	11/20/2007	1.00	100
BKS101759	BKS101759	11/20/2007	1.00	100
S 711067-041-041-1/1	SB-CZ-SS-2134-BD	11/20/2007	1.17	100
SP711067-041-041-1/1	SB-CZ-SS-2134-BD MS	11/20/2007	1.20	100
711067-042-042-1/1	SB-CZ-SS-2135-BD	11/20/2007	1.22	100
SD711067-041-041-1/1	SB-CZ-SS-2134-BD MSD	11/20/2007	1.24	100

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Analysis Run Log

Project: 711067 Instrument: iTEVA-Soil

Data File Name: 071207.txt

Sample Name	Client ID	Analysis Date	Analysis Time
STD0		12/07/07	3:45 PM
STD1		12/07/07	3:49 PM
STD2		12/07/07	3:52 PM
STD3		12/07/07	3:55 PM
STD4		12/07/07	3:59 PM
STD5		12/07/07	4:03 PM
STD6		12/07/07	4:06 PM
ICV		12/07/07	4:16 PM
ICB		12/07/07	4:20 PM
CCV1		12/07/07	4:23 PM
CCB1		12/07/07	4:27 PM
PQL		12/07/07	4:30 PM
ICSA		12/07/07	4:34 PM
ICSAB		12/07/07	4:37 PM
CCV2		12/07/07	4:48 PM
CCB2		12/07/07	4:52 PM
CCV3		12/07/07	5:30 PM
CCB3		12/07/07	5:33 PM
CCV4		12/07/07	6:12 PM
CCB4		12/07/07	6:16 PM
CCV5		12/07/07	6:54 PM
CCB5		12/07/07	6:58 PM
CCV6		12/07/07	7:35 PM
CCB6		12/07/07	7:39 PM
CCV7		12/07/07	8:17 PM
CCB7		12/07/07	8:21 PM
CCV8		12/07/07	8:59 PM
CCB8		12/07/07	9:03 PM
CCV9		12/07/07	9:41 PM
CCB9		12/07/07	9:45 PM
CCV10		12/07/07	10:23 PM
CCB10		12/07/07	10:27 PM
CCV11		12/07/07	11:06 PM
CCB11		12/07/07	11:09 PM
CCV12		12/07/07	11:48 PM
CCB12		12/07/07	11:51 PM
CCV13		12/08/07	12:30 AM
CCB13		12/08/07	12:34 AM
CCV14		12/08/07	1:12 AM

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Analysis Run Log

Project: 711067

Instrument: iTEVA-Soil

Data File Name: 071207.txt

Sample Name	Client ID	Analysis Date	Analysis Time
CCB14		12/08/07	1:16 AM
CCV15		12/08/07	1:55 AM
CCB15		12/08/07	1:58 AM
CCV16		12/08/07	2:37 AM
CCB16		12/08/07	2:40 AM
CCV17		12/08/07	3:19 AM
CCB17		12/08/07	3:23 AM
BLK101759	BLK101759	12/08/07	3:30 AM
BKS101759	BKS101759	12/08/07	3:33 AM
S 711067-041-041-1/1	SB-CZ-SS-2134-BD	12/08/07	3:37 AM
SP711067-041-041-1/1	SB-CZ-SS-2134-BD MS	12/08/07	3:40 AM
SD711067-041-041-1/1	SB-CZ-SS-2134-BD MSD	12/08/07	3:44 AM
PS711067-041-041-1/1	SB-CZ-SS-2134-BD	12/08/07	3:47 AM
SE711067-041-041-1/1	SB-CZ-SS-2134-BD	12/08/07	3:51 AM
711067-042-042-1/1	SB-CZ-SS-2135-BD	12/08/07	3:54 AM
CCV18		12/08/07	4:01 AM
CCB18		12/08/07	4:05 AM

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Analysis Run Log

Project: 711067 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
BLK101678	BLK101678	12/11/07	7:24 PM
BKS101678	BKS101678	12/11/07	7:28 PM
S 711067-001-001-1/1	SB-CZ-SS-2115-BA	12/11/07	7:31 PM
CCV5		12/11/07	7:35 PM
CCB5		12/11/07	7:38 PM
SP711067-001-001-1/1	SB-CZ-SS-2115-BA MS	12/11/07	7:42 PM
SD711067-001-001-1/1	SB-CZ-SS-2115-BA MSD	12/11/07	7:45 PM
PS711067-001-001-1/1	SB-CZ-SS-2115-BA	12/11/07	7:48 PM
SE711067-001-001-1/1	SB-CZ-SS-2115-BA	12/11/07	7:52 PM
S 711067-002-002-1/1	SB-CZ-SS-2116-BA	12/11/07	7:55 PM
S 711067-003-003-1/1	SB-CZ-SS-2117-BA	12/11/07	7:59 PM
S 711067-004-004-1/1	SB-CZ-SS-2118-BA	12/11/07	8:02 PM
S 711067-005-005-1/1	SB-CZ-SS-2119-BA	12/11/07	8:06 PM
S 711067-006-006-1/1	SB-CZ-SS-2120-BA	12/11/07	8:09 PM
S 711067-007-007-1/1	SB-CZ-SS-2121-BA	12/11/07	8:13 PM
CCV6		12/11/07	8:16 PM
CCB6		12/11/07	8:20 PM
S 711067-008-008-1/1	SB-CZ-SS-2122-BA	12/11/07	8:23 PM
S 711067-009-009-1/1	SB-CZ-SS-2123-BA	12/11/07	8:27 PM

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Analysis Run Log

Project: 711067 Instrument: iTEVA-Soil

Data File Name: 071211.txt

Sample Name	Client ID	Analysis Date	Analysis Time
S 711067-010-010-1/1	SB-CZ-SS-2124-BA	12/11/07	8:30 PM
S 711067-011-011-1/1	SB-CZ-SS-2125-BA	12/11/07	8:34 PM
S 711067-012-012-1/1	SB-CZ-SS-2126-BA	12/11/07	8:37 PM
S 711067-013-013-1/1	SB-CZ-SS-2127-BA	12/11/07	8:41 PM
S 711067-014-014-1/1	SB-CZ-SS-2128-BA	12/11/07	8:44 PM
S 711067-015-015-1/1	SB-CZ-SS-2115-BD	12/11/07	8:48 PM
S 711067-016-016-1/1	SB-CZ-SS-2116-BD	12/11/07	8:51 PM
S 711067-017-017-1/1	SB-CZ-SS-2117-BD	12/11/07	8:55 PM
CCV7		12/11/07	8:58 PM
CCB7		12/11/07	9:02 PM
S 711067-018-018-1/1	SB-CZ-SS-2118-BD	12/11/07	9:05 PM
S 711067-019-019-1/1	SB-CZ-SS-2119-BD	12/11/07	9:09 PM
S 711067-020-020-1/1	SB-CZ-SS-2120-BD	12/11/07	9:12 PM
BLK101679	BLK101679	12/11/07	9:16 PM
BKS101679	BKS101679	12/11/07	9:19 PM
S 711067-021-021-1/1	SB-CZ-SS-2121-BD	12/11/07	9:23 PM
SP711067-021-021-1/1	SB-CZ-SS-2121-BD MS	12/11/07	9:26 PM
SD711067-021-021-1/1	SB-CZ-SS-2121-BD MSD	12/11/07	9:30 PM
PS711067-021-021-1/1	SB-CZ-SS-2121-BD	12/11/07	9:33 PM
SE711067-021-021-1/1	SB-CZ-SS-2121-BD	12/11/07	9:37 PM
CCV8		12/11/07	9:40 PM
CCB8		12/11/07	9:44 PM
S 711067-022-022-1/1	SB-CZ-SS-2122-BD	12/11/07	9:47 PM
S 711067-023-023-1/1	SB-CZ-SS-2123-BD	12/11/07	9:50 PM
S 711067-024-024-1/1	SB-CZ-SS-2124-BD	12/11/07	9:54 PM
S 711067-025-025-1/1	SB-CZ-SS-2125-BD	12/11/07	9:57 PM
S 711067-026-026-1/1	SB-CZ-SS-2126-BD	12/11/07	10:01 PM
S 711067-027-027-1/1	SB-CZ-SS-2127-BD	12/11/07	10:04 PM
S 711067-028-028-1/1	SB-CZ-SS-2128-BD	12/11/07	10:08 PM
S 711067-029-029-1/1	SB-CZ-SS-2129-BA	12/11/07	10:11 PM
S 711067-030-030-1/1	SB-CZ-SS-2130-BA	12/11/07	10:15 PM
S 711067-031-031-1/1	SB-CZ-SS-2131-BA	12/11/07	10:19 PM
CCV9		12/11/07	10:22 PM
CCB9		12/11/07	10:26 PM
S 711067-032-032-1/1	SB-CZ-SS-2132-BA	12/11/07	10:29 PM
S 711067-033-033-1/1	SB-CZ-SS-2133-BA	12/11/07	10:33 PM
S 711067-034-034-1/1	SB-CZ-SS-2134-BA	12/11/07	10:36 PM
S 711067-035-035-1/1	SB-CZ-SS-2135-BA	12/11/07	10:40 PM
S 711067-036-036-1/1	SB-CZ-SS-2129-BD	12/11/07	10:43 PM

URIT Version 4.6.0

GPL Laboratories, LLLP

Analysis Run Log

Project: 711067

Instrument: iTEVA-Soil

Data File Name: 071211.txt

Sample Name	Client ID	Analysis Date	Analysis Time
S 711067-037-037-1/1	SB-CZ-SS-2130-BD	12/11/07	10:47 PM
S 711067-038-038-1/1	SB-CZ-SS-2131-BD	12/11/07	10:50 PM
S 711067-039-039-1/1	SB-CZ-SS-2132-BD	12/11/07	10:54 PM
CCV10		12/11/07	11:05 PM
CCB10		12/11/07	11:08 PM
S 711067-040-040-1/1	SB-CZ-SS-2133-BD	12/11/07	11:12 PM
CCV11		12/11/07	11:47 PM
CCB11		12/11/07	11:50 PM

ICP ANALYSIS LOG

Instrument ID: ICAP 6500 (20072904) Inst. Method: TRACE Nebulizer: Analytical Batch No: 071207

Workorder	Project/SDG #	Prep. Seq.	Batch #	Matrix S/W/E	Prep. Date	Method	Comments / Dilution	
MDL			156	S	12/5/07	~~3050B~~ 6010B	Soil	1x
711124	Arcadis		135	S		6010B	(Batch QC)	2x
710199	SC&A		058	S	11-1-07	6010C		10x
711009	Tidewater, Inc.		065	S	11-5-07	6010C		10x
710210	SC&A, Inc		062	S	11-2-07	6010C		10x
710210	SC&A, Inc		063	S	11-2-07	6010C		10x
711020	SC&A, Inc.		092	S	11/09/07	~~3050B~~ 6010C		10x
MDL			155	W	12/5/07	3010A		1.0x
710216	USACE		056	W	11-01-07	6010B		2x
711067	SC&A, Inc		121	S	11-20-07	6010C		10x
~~711020~~								
711015	FPM		135	S		6010B		2x

Source Solution Numbers				Post Digestion Spikes
Stds.	Number	Stds.	Number	Spike 9.9 mls of sample with 0.1 mls of 41513
S0	GP-129-116-10	ICV	42173	Samples: PS 711124-021-022-1/2 PS 711067-041-041-1/2
S1	42105	CCV	42200	PS 710199-029-029-1/2
S2	42106	ICSA	42304	PS 711099-001-001-1/2
S3	42109	ICSAB	42305	PS 710210-015-039-1/2
S4	42110	Low Ck	42234	PS 710210-035-012-1/2
S5	42111	LR	42008	PS 711020-041-041-1/2
S6	42112	IS	42235	PS 710216-001

Analyst: Date: 12/10/07 Reviewed: Date: 12/10/07

ICP ANALYSIS LOG

	Pos ID	Type	Samplename
1	1	Unk	BLK 056
2	2	Unk	MCL-1 S
3	3	Unk	MCL-2 S
4	4	Unk	MCL-3 S
5	5	Unk	MCL-4 S
6	6	Unk	MCL-5 S
7	7	Unk	MCL-6 S
8	8	Unk	MCL-7 S
9	9	Unk	BLK 135
10	10	Unk	BKS 135
11	11	Unk	S 711124-021-022-W1
12	12	Unk	SP711124-021-022-W1
13	13	Unk	SC711124-021-022-W1
14	14	Unk	PS711124-021-022-W1
15	15	Unk	SE711124-021-022-W1
16	16	Unk	S 711105-001-001-W1
17	17	Unk	S 711105-002-002-W1
18	18	Unk	BLK 053
19	19	Unk	BKS 053
20	20	Unk	S 710199-028-029-W1
21	21	Unk	SP710199-028-029-W1
22	22	Unk	SC710199-028-029-W1
23	23	Unk	PS710199-028-029-W1
24	24	Unk	SE710199-028-029-W1
25	25	Unk	S 710199-030-030-W1
26	26	Unk	S 710199-031-031-W1
27	27	Unk	S 710199-032-032-W1
28	28	Unk	S 710199-033-033-W1
29	29	Unk	S 710199-034-034-W1
30	30	Unk	S 710199-035-035-W1
31	31	Unk	S 710199-036-036-W1
32	32	Unk	S 710199-037-037-W1
33	33	Unk	S 710199-038-038-W1
34	34	Unk	S 710199-039-039-W1
35	35	Unk	S 710199-040-040-W1
36	36	Unk	S 710199-041-041-W1
37	37	Unk	S 710199-042-042-W1
38	38	Unk	S 710199-043-043-W1
39	39	Unk	S 710199-044-044-W1
40	40	Unk	S 710199-045-045-W1
41	41	Unk	S 710199-046-046-W1
42	42	Unk	S 710199-047-047-W1
43	43	Unk	S 710199-048-048-W1
44	44	Unk	BLK 065
45	45	Unk	BKS 065
46	46	Unk	S 711009-001-001-W1
47	47	Unk	SP711009-001-001-W1
48	48	Unk	SC711009-001-001-W1
49	49	Unk	PS711009-001-001-W1
50	50	Unk	SE711009-001-001-W1
51	51	Unk	S 711009-002-002-W1
52	52	Unk	S 711009-003-003-W1
53	53	Unk	S 711009-004-004-W1
54	54	Unk	S 711009-005-005-W1
55	55	Unk	S 711009-006-006-W1
56	56	Unk	S 711009-007-007-W1
57	57	Unk	S 711009-008-008-W1
58	58	Unk	S 711009-009-009-W1
59	59	Unk	S 711009-010-010-W1
60	60	Unk	S 711009-011-011-W1
61	61	Unk	S 711009-012-012-W1
62	62	Unk	S 711009-013-013-W1

	Pos ID	Type	Samplename
63	63	Unk	S 711009-014-014-W1
64	64	Unk	S 711009-015-015-W1
65	65	Unk	S 711009-016-016-W1
66	66	Unk	S 711009-017-017-W1
67	67	Unk	S 711009-018-018-W1
68	68	Unk	S 711009-019-019-W1
69	69	Unk	S 711009-020-020-W1
70	70	Unk	BLK 062
71	71	Unk	BKS 062
72	72	Unk	S 710210-015-028-W1
73	73	Unk	SP710210-015-028-W1
74	74	Unk	SC710210-015-028-W1
75	75	Unk	PS710210-015-028-W1
76	76	Unk	SE710210-015-028-W1
77	77	Unk	S 710210-016-040-W1
78	78	Unk	S 710210-017-041-W1
79	79	Unk	ICSA
80	80	Unk	ICSAB
81	81	Unk	S 710210-018-042-W1
82	82	Unk	S 710210-019-043-W1
83	83	Unk	S 710210-021-045-W1
84	84	Unk	S 710210-022-046-W1
85	85	Unk	S 710210-023-047-W1
86	86	Unk	S 710210-024-048-W1
87	87	Unk	S 710210-025-002-W1
88	88	Unk	S 710210-026-003-W1
89	89	Unk	S 710210-027-004-W1
90	90	Unk	S 710210-028-005-W1
91	91	Unk	S 710210-029-006-W1
92	92	Unk	S 710210-030-007-W1
93	93	Unk	S 710210-031-008-W1
94	94	Unk	S 710210-032-009-W1
95	95	Unk	S 710210-033-010-W1
96	96	Unk	S 710210-034-011-W1
97	97	Unk	BLK 063
98	98	Unk	BKS 063
99	99	Unk	S 710210-035-012-W1
100	100	Unk	SP710210-035-012-W1
101	101	Unk	SC710210-035-012-W1
102	102	Unk	PS710210-035-012-W1
103	103	Unk	SE710210-035-012-W1
104	104	Unk	S 710210-036-013-W1
105	105	Unk	S 710210-037-014-W1
106	106	Unk	S 710210-038-015-W1
107	107	Unk	S 710210-039-016-W1
108	108	Unk	S 710210-040-017-W1
109	109	Unk	S 710210-041-018-W1
110	110	Unk	S 710210-042-019-W1
111	111	Unk	S 710210-043-020-W1
112	112	Unk	S 710210-044-021-W1
113	113	Unk	S 710210-045-022-W1
114	114	Unk	S 710210-046-023-W1
115	115	Unk	S 710210-047-024-W1
116	116	Unk	S 710210-048-049-W1
117	117	Unk	S 710210-049-050-W1
118	118	Unk	S 710210-050-051-W1
119	119	Unk	S 710210-051-052-W1
120	120	Unk	S 710210-052-053-W1
121	121	Unk	S 710210-053-054-W1
122	122	Unk	S 710210-054-055-W1
123	123	Unk	BLK 092
124	124	Unk	BKS 092

	Pos ID	Type	Samplename
125	125	Unk	S 711020-041-041-W1
126	126	Unk	SP711020-041-041-W1
127	127	Unk	SC711020-041-041-W1
128	128	Unk	PS711020-041-041-W1
129	129	Unk	SE711020-041-041-W1
130	130	Unk	S 711020-042-042-W1
131	131	Unk	S 711020-043-043-W1
132	132	Unk	S 711020-044-044-W1
133	133	Unk	S 711020-045-045-W1
134	134	Unk	S 711020-046-046-W1
135	135	Unk	S 711020-047-047-W1
136	136	Unk	S 711020-048-048-W1
137	137	Unk	BLK
138	138	Unk	MCL-1 W
139	139	Unk	MCL-2 W
140	140	Unk	MCL-3 W
141	141	Unk	MCL-4 W
142	142	Unk	MCL-5 W
143	143	Unk	MCL-6 W
144	144	Unk	MCL-7 W
145	145	CC	BLK 056
146	146	CC	BKS 056
147	147	Unk	S 710214-001
148	148	Unk	SP710214-001
149	149	Unk	SC710214-001
150	150	Unk	PS710214-001
151	151	Unk	SE710214-001
152	152	CC	BLK 121
153	153	CC	BKS 121
154	154	Unk	S 711067-041-041-W1
155	155	Unk	SP711067-041-041-W1
156	156	Unk	SC711067-041-041-W1
157	157	Unk	PS711067-041-041-W1
158	158	Unk	SE711067-041-041-W1
159	159	Unk	S 711067-042-042-W1
160	160	CC	BLK 05
161	161	CC	ICSA
162	162	CC	ICSAB

Sample Dilutions:

Sample Name: STD0 Acquired: 12/7/2007 15:45:49 Type: Cal
Method: TRACEPB 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	**-.00003**	**-.00016**	**-.00001**	**.00015**	**.00072**	**.00001**	**.00367**
Stddev	.00000	.00001	.00000	.00003	.00001	.00001	.00017
%RSD	14.115	8.6343	31.197	18.774	1.3191	69.241	4.5779
#1	-.00003	-.00017	-.00001	.00017	.00071	.00002	.00355
#2	-.00003	-.00015	-.00001	.00013	.00073	.00001	.00379

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00000**	**-.00005**	**.00000**	**.0001**	**.0001**	**.0000**	**.00024**
Stddev	.0001	.00003	.0000	.0000	.0000	.000	.00019
%RSD	5959.0	50.496	127.44	17.27	24.31	11.53	80.732
#1	-.00004	-.00003	.00000	.0001	.0001	.0000	.00037
#2	.00004	-.00007	-.00001	.0001	.0001	.0000	.00010

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00449**	**.0009**	**.0002**	**.00001**	**.00004**	**-.00040**	**.00003**
Stddev	.00023	.0001	.0000	.00000	.00002	.00057	.00002
%RSD	5.1855	8.457	23.00	21.069	37.519	142.93	47.759
#1	-.00433	.0009	.0002	.00001	.00005	.00000	.00004
#2	-.00466	.0008	.0002	.00001	.00003	-.00080	.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	**-.00014**	**.00003**	**.00002**	**.00007**	**.00000**	**.00103**	**.00002**
Stddev	.00005	.00004	.00001	.00000	.00000	.00003	.00000
%RSD	38.687	115.60	48.306	.57641	111.25	2.8206	3.4986
#1	-.00010	.00006	.00001	.00007	.00000	.00101	.00002
#2	-.00017	.00001	.00002	.00007	.00001	.00105	.00002

Sample Name: STD0 Acquired: 12/7/2007 15:45:49 Type: Cal
Method: TRACEPB 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**	**.00042**
Stddev	.00001	.00001	.00001	.00001
%RSD	114.50	22.497	22.746	3.4368
#1	-.00002	-.00003	.00003	.00041
#2	.00000	-.00002	.00002	.00043

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46791.	23654.	646640.
Stddev	275.	330.	8776.
%RSD	.58826	1.3957	1.3572
#1	46596.	23420.	640430.
#2	46985.	23887.	652840.

Sample Name: STD1 Acquired: 12/7/2007 15:49:12 Type: Cal
Method: TRACEPB 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	**.00821**	**.33351**	**.00295**	**.01534**	**.19720**	**.02495**	**.10480**	**.04300**
Stddev	.00008	.00015	.00005	.00002	.00191	.00024	.00028	.00007
%RSD	1.0071	.04381	1.6119	.12858	.96801	.95718	.27006	.15447
#1	.00827	.33361	.00298	.01535	.19855	.02512	.10500	.04305
#2	.00815	.33340	.00292	.01533	.19585	.02478	.10460	.04295

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	**.00528**	**.0062**	**.0086**	**.0021**	**.40269**	**.03444**	**.02355**	**.02369**
Stddev	.00004	.0000	.0000	.0000	.00020	.00028	.00003	.00002
%RSD	.74876	.2050	.4341	.2472	.04929	.81656	.12710	.10222
#1	.00531	.0062	.0086	.0021	.40283	.03464	.02357	.02367
#2	.00525	.0061	.0086	.0021	.40255	.03424	.02353	.02370

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	**.00828**	**.00442**	**.00273**	**.00212**	**.00812**	**.41918**	**.00331**	**.02145**
Stddev	.00001	.00001	.00004	.00001	.00006	.00365	.00002	.00015
%RSD	.08764	.28257	1.4756	.66138	.69687	.87121	.58388	.69314
#1	.00828	.00443	.00276	.00213	.00816	.42176	.00333	.02155
#2	.00829	.00441	.00270	.00211	.00808	.41660	.00330	.02134

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.00348**	**.00817**	**.07020**
Stddev	.00000	.00007	.00028
%RSD	.06381	.84017	.39978
#1	.00347	.00822	.07040
#2	.00348	.00812	.07000

Sample Name: STD1 Acquired: 12/7/2007 15:49:12 Type: Cal
Method: TRACEPB 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	46387.	23420.	641030.
Stddev	30.	27.	4517.
%RSD	.06378	.11328	.70461
#1	46366.	23401.	637830.
#2	46408.	23439.	644220.

Sample Name: STD2 Acquired: 12/7/2007 15:52:28 Type: Cal
Method: TRACEPB 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	**.02052**	**.85332**	**.00729**	**.03786**	**.48736**	**.06239**	**.25745**	**.10624**
Stddev	.00020	.03474	.00007	.00011	.00741	.00047	.00009	.00013
%RSD	.95929	4.0714	.94015	.29239	1.5199	.75953	.03674	.12515
#1	.02066	.87788	.00734	.03794	.49260	.06272	.25752	.10633
#2	.02038	.82875	.00724	.03778	.48212	.06205	.25739	.10614

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	**.01305**	**.0152**	**.0209**	**.0051**	**1.0212**	**.08633**	**.05818**	**.05874**
Stddev	.00008	.0001	.0001	.0001	.0357	.00059	.00000	.00012
%RSD	.60795	.6644	.3337	1.226	3.4981	.68288	.00697	.19746
#1	.01311	.0152	.0209	.0051	1.0465	.08675	.05818	.05882
#2	.01300	.0153	.0208	.0052	.99595	.08591	.05819	.05866

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	**.02064**	**.01093**	**.00662**	**.00514**	**.02002**	**1.0271**	**.00810**	**.05403**
Stddev	.00005	.00007	.00005	.00004	.00001	.0071	.00002	.00037
%RSD	.25754	.61701	.71519	.70567	.05839	.68884	.29646	.67646
#1	.02061	.01097	.00665	.00517	.02001	1.0321	.00811	.05429
#2	.02068	.01088	.00658	.00512	.02003	1.0221	.00808	.05377

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.00855**	**.02021**	**.17115**
Stddev	.00005	.00018	.00015
%RSD	.55030	.87211	.08662
#1	.00852	.02033	.17126
#2	.00859	.02008	.17105

Sample Name: STD2 Acquired: 12/7/2007 15:52:28 Type: Cal
Method: TRACEPB 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	46255.	22591.	638220.
Stddev	51.	786.	3918.
%RSD	.10958	3.4789	.61385
#1	46291.	22035.	635450.
#2	46219.	23146.	640990.

Sample Name: STD3 Acquired: 12/7/2007 15:55:59 Type: Cal
Method: TRACEPB 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	**.04119**	**1.6785**	**.01463**	**.07492**	**.96870**	**.12616**	**.51820**	**.21271**
Stddev	.00023	.0107	.00013	.00073	.00586	.00050	.00525	.00217
%RSD	.55276	.64058	.87658	.97346	.60496	.39690	1.0130	1.0178
#1	.04135	1.6861	.01472	.07544	.97285	.12652	.52191	.21424
#2	.04102	1.6709	.01454	.07441	.96456	.12581	.51449	.21118

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	**.02635**	**.0304**	**.0418**	**.0101**	**1.9903**	**.17334**	**.11709**	**.11709**
Stddev	.00008	.0002	.0004	.0001	.0208	.00083	.00121	.00097
%RSD	.31111	.7848	.8997	1.033	1.0459	.48080	1.0316	.83196
#1	.02641	.0305	.0421	.0102	2.0050	.17393	.11795	.11777
#2	.02630	.0302	.0416	.0100	1.9756	.17275	.11624	.11640

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	**.04161**	**.02160**	**.01314**	**.01009**	**.04027**	**2.0551**	**.01606**	**.10857**
Stddev	.00035	.00025	.00013	.00005	.00038	.0199	.00013	.00062
%RSD	.83929	1.1733	.95415	.50753	.94122	.96872	.80319	.57024
#1	.04185	.02178	.01323	.01013	.04054	2.0691	.01615	.10901
#2	.04136	.02142	.01305	.01005	.04001	2.0410	.01597	.10813

Elem	Tl	V	Zn
Units	Cts/S	Cts/S	Cts/S
Avg	**.01725**	**.04059**	**.34419**
Stddev	.00014	.00016	.00359
%RSD	.82131	.40001	1.0418
#1	.01735	.04070	.34673
#2	.01715	.04047	.34166

Sample Name: STD3 Acquired: 12/7/2007 15:55:59 Type: Cal
Method: TRACEPB 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	45625.	22577.	629120.
Stddev	283.	162.	2419.
%RSD	.61986	.71855	.38446
#1	45425.	22463.	627410.
#2	45825.	22692.	630830.

Sample Name: STD4 Acquired: 12/7/2007 15:59:31 Type: Cal
Method: TRACEPB 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	**1.6441**	**.06467**	**23.22**	**2.319**	**1.7406**
Stddev	.0178	.00018	.02	.024	.0222
%RSD	1.0808	.28448	.0763	1.044	1.2736
#1	1.6315	.06480	23.21	2.302	1.7249
#2	1.6566	.06454	23.24	2.336	1.7563

Int. Std.	Y_3774
Units	Cts/S
Avg	**22668.**
Stddev	178.
%RSD	.78510
#1	22794.
#2	22542.

Sample Name: STD5 Acquired: 12/7/2007 16:03:01 Type: Cal
Method: TRACEPB 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	**4.2018**	**.13687**	**55.86**	**5.756**	**4.4961**
Stddev	.1335	.00382	1.47	.206	.1150
%RSD	3.1761	2.7898	2.638	3.575	2.5577
#1	4.2962	.13957	56.90	5.902	4.5774
#2	4.1075	.13417	54.82	5.611	4.4148

Int. Std.	Y_3774
Units	Cts/S
Avg	**22569.**
Stddev	646.
%RSD	2.8627
#1	22112.
#2	23026.

Sample Name: STD6 Acquired: 12/7/2007 16:06:31 Type: Cal
Method: TRACEPB 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	**8.0957**	**.34181**	**97.20**	**10.35**	**8.5543**
Stddev	.1859	.00919	2.32	.27	.1538
%RSD	2.2965	2.6881	2.389	2.600	1.7984
#1	7.9642	.33531	95.56	10.16	8.4455
#2	8.2271	.34831	98.85	10.54	8.6631

Int. Std.	Y_3774
Units	Cts/S
Avg	**22781.**
Stddev	536.
%RSD	2.3549
#1	23161.
#2	22402.

Sample Name: Blank Acquired: 12/7/2007 16:09:59 Type: Cal
Method: TRACEPB 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	.0000
%RSD	24.47	87.03
#1	.0002	.0000
#2	.0001	.0001

Int. Std.	Y_2243
Units	Cts/S
Avg	47068.
Stddev	74.
%RSD	.15730
#1	47016.
#2	47120.

Sample Name: PBLK Acquired: 12/7/2007 16:13:24 Type: QC
Method: TRACEPB 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	**.35059**	**-1.4176**	**.45559**	**.51704**	**-.00843**	**.00728**	**.35127**	**-.00559**
Stddev	.11927	3.1307	1.2760	.00012	.02173	.01546	1.8211	.04601
%RSD	34.020	220.84	280.07	.02290	257.90	212.22	518.43	822.73
#1	.43493	-3.6314	-.44665	.51712	-.02380	.01821	-.93643	.02694
#2	.26626	.79612	1.3578	.51696	.00694	-.00365	1.6390	-.03812
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	**-.02126**	**.28893**	**-1.175**	**.9632**	**-2.446**	**-6.4611**	**27.365**	**1.692**
Stddev	.07311	.12768	1.797	1.764	.825	2.1654	42.028	.087
%RSD	343.87	44.190	153.0	183.1	33.73	33.514	153.59	5.143
#1	.03044	.19865	.0960	-.2839	-3.030	-7.9922	57.083	1.631
#2	-.07296	.37921	-2.446	2.210	-1.863	-4.9300	-2.3540	1.754
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-4.077**	**-.04399**	**-.24010**	**38.567**	**-.51584**	**-.43769**	**.11727**	**.69039**
Stddev	1.034	.04463	.07862	3.554	.03505	.17300	2.9858	.22628
%RSD	25.37	101.46	32.744	9.2140	6.7949	39.526	2546.0	32.775
#1	-4.808	-.01243	-.29569	41.079	-.49106	-.31536	2.2286	.53038
#2	-3.345	-.07554	-.18451	36.054	-.54063	-.56002	-1.9940	.85039
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: 12/7/2007 16:13:24 Type: QC
Method: TRACEPB 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	.04727	-.04432	-.01876	-1.1406	.13395	.30821	-.14970	-.50480
Stddev	.18586	.20179	.00391	.3123	.10531	1.5541	.02410	.11499
%RSD	393.18	455.30	20.866	27.383	78.622	504.24	16.096	22.778
#1	-.08415	.09837	-.01599	-1.3615	.20842	-.79071	-.16674	-.42350
#2	.17870	-.18701	-.02153	-.91978	.05948	1.4071	-.13266	-.58611
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	46695.	24467.	646710.
Stddev	89.	1015.	9278.
%RSD	.18966	4.1468	1.4346
#1	46632.	25184.	640140.
#2	46758.	23749.	653270.

Sample Name: ICV Acquired: 12/7/2007 16:16:51 Type: QC
Method: TRACEPB 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	**411.47**	**4960.7**	**439.17**	**438.38**	**425.81**	**42.024**	**4924.7**
Stddev	.24	103.1	.14	.77	1.35	.103	70.4
%RSD	.05952	2.0781	.03132	.17638	.31812	.24541	1.4296
#1	411.65	4887.8	439.27	437.83	424.85	41.951	4874.9
#2	411.30	5033.6	439.07	438.92	426.77	42.097	4974.4
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	**42.116**	**439.21**	**410.51**	F **442.2**	**376.9**	**408.8**	**4984.5**
Stddev	.039	.43	.31	.2	.4	10.5	72.7
%RSD	.09241	.09788	.07513	.0378	.1085	2.573	1.4580
#1	42.144	438.91	410.29	442.3	376.6	401.3	4933.2
#2	42.089	439.51	410.72	442.1	377.2	416.2	5035.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				400.0			
Range				10.00%			

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4981.0**	**5014.**	F **5588.**	**417.82**	**411.55**	**9830.0**	**428.15**
Stddev	76.2	85.	91.	.58	.36	164.5	.72
%RSD	1.5294	1.687	1.627	.13936	.08834	1.6734	.16910
#1	4927.2	4954.	5524.	417.41	411.80	9713.7	428.66
#2	5034.9	5074.	5652.	418.23	411.29	9946.3	427.63
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5000.				
Range			10.00%				

Sample Name: ICV Acquired: 12/7/2007 16:16:51 Type: QC
Method: TRACEPB 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	**426.65**	**420.61**	**432.53**	F **96.927**	**419.63**	**413.00**	F **12.858**
Stddev	.63	3.23	1.59	.079	.30	1.63	1.370
%RSD	.14715	.76713	.36695	.08120	.07259	.39483	10.652
#1	427.10	422.89	431.41	96.871	419.42	414.15	11.890
#2	426.21	418.33	433.65	96.983	419.85	411.85	13.827
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	**418.43**	**412.88**	**419.70**	**432.66**
Stddev	.46	.33	1.30	.30
%RSD	.10883	.08036	.31011	.06937
#1	418.11	413.12	418.78	432.87
#2	418.76	412.65	420.62	432.44
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	46915.	23822.	646610.
Stddev	2.	342.	1684.
%RSD	.00338	1.4344	.26046
#1	46916.	24063.	647800.
#2	46914.	23580.	645410.

Sample Name: ICB Acquired: 12/7/2007 16:20:22 Type: QC
Method: TRACEPB 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	**.19200**	**17.879**	**-.27043**	**-.00691**	**-.01720**	**.01015**	**-3.0032**	**-.05242**
Stddev	.27553	5.741	.41877	.10664	.00032	.00869	1.8141	.01888
%RSD	143.51	32.108	154.85	1542.6	1.8392	85.617	60.404	36.027
#1	-.00283	13.820	.02568	.06850	-.01743	.01630	-1.7205	-.03906
#2	.38683	21.939	-.56654	-.08232	-.01698	.00401	-4.2859	-.06577
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	**.01251**	**-.11468**	**.0083**	**.1542**	**-1.664**	**-9.8891**	**67.311**	**1.727**
Stddev	.06797	.02338	.4644	.2422	.463	1.3729	13.527	.014
%RSD	543.39	20.389	5628.	157.1	27.79	13.883	20.097	.7987
#1	.06057	-.09815	-.3201	.3254	-1.991	-10.860	76.876	1.717
#2	-.03555	-.13121	.3366	-.0170	-1.337	-8.9183	57.745	1.736
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.722**	**-.04521**	**.22958**	**11.052**	**-.47925**	**-.38932**	**.57766**	**1.3756**
Stddev	.138	.02362	.12515	18.119	.00861	.50478	.08735	1.2001
%RSD	7.998	52.241	54.512	163.94	1.7971	129.66	15.121	87.238
#1	-1.819	-.06191	.14109	23.865	-.48534	-.74625	.51589	2.2242
#2	-1.625	-.02851	.31807	-1.7601	-.47316	-.03239	.63942	.52704
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: ICB Acquired: 12/7/2007 16:20:22 Type: QC
Method: TRACEPB 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	**.07040**	**.00585**	**-.00570**	**.68692**	**-.04216**	**.57938**	**-.20642**	**.29707**
Stddev	.32630	.05605	.00554	1.0932	.02650	.04339	.00238	.00495
%RSD	463.47	958.70	97.229	159.14	62.852	7.4890	1.1510	1.6678
#1	-.16032	.04548	-.00178	-.08608	-.02342	.54870	-.20474	.30057
#2	.30113	-.03379	-.00962	1.4599	-.06089	.61007	-.20810	.29357
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	47209.	23935.	651920.
Stddev	167.	551.	716.
%RSD	.35442	2.3023	.10976
#1	47090.	24324.	651410.
#2	47327.	23545.	652420.

Sample Name: CCV Acquired: 12/7/2007 16:23:49 Type: QC
Method: TRACEPB 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	**514.48**	**51381.**	**508.23**	**510.61**	**498.20**	**49.978**	**101430.**
Stddev	.33	1753.	6.08	2.31	.62	.041	3609.
%RSD	.06503	3.4111	1.1959	.45304	.12491	.08243	3.5579
#1	514.24	52621.	512.53	512.24	498.64	49.949	103980.
#2	514.71	50142.	503.94	508.97	497.76	50.007	98881.
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	**492.97**	**493.37**	**497.95**	F **598.1**	F **555.4**	F **571.1**	**49889.**
Stddev	1.54	1.33	.36	2.4	6.7	8.4	1699.
%RSD	.31269	.27022	.07234	.3934	1.213	1.477	3.4047
#1	494.06	494.31	497.70	599.7	560.2	577.0	51090.
#2	491.88	492.43	498.21	596.4	550.6	565.1	48688.
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	**25636.**	**99960.**	**105800.**	**497.72**	**503.07**	**102260.**	**494.28**
Stddev	867.	2218.	3739.	.52	1.32	3525.	1.08
%RSD	3.3812	2.219	3.535	.10431	.26267	3.4470	.21877
#1	26249.	101500.	108400.	497.35	504.00	104750.	495.05
#2	25023.	98390.	103100.	498.09	502.13	99765.	493.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 16:23:49 Type: QC
Method: TRACEPB 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	**494.02**	**511.51**	**509.84**	**518.17**	**496.12**	**498.87**	**505.38**
Stddev	.38	1.03	2.75	1.38	2.10	2.57	2.43
%RSD	.07747	.20083	.53904	.26684	.42412	.51549	.48094
#1	493.75	510.79	511.78	517.19	497.60	500.69	507.10
#2	494.29	512.24	507.90	519.15	494.63	497.05	503.66
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	**512.96**	**492.22**	**504.31**	F **600.29**
Stddev	.35	2.67	.72	2.35
%RSD	.06911	.54298	.14332	.39166
#1	512.71	494.11	503.80	601.96
#2	513.21	490.33	504.82	598.63
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	**45222.**	**22842.**	**623850.**
Stddev	69.	622.	1485.
%RSD	.15217	2.7239	.23798
#1	45173.	22402.	624900.
#2	45271.	23282.	622800.

Sample Name: CCB Acquired: 12/7/2007 16:27:24 Type: QC
Method: TRACEPB 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	**.19766**	**2.0492**	**-.47480**	**.64100**	**-.00777**	**.00564**	**-4.3531**	**-.03293**
Stddev	.33791	1.2034	1.2173	.59749	.00395	.00616	2.4935	.07132
%RSD	170.96	58.727	256.39	93.212	50.829	109.24	57.282	216.55
#1	-.04128	2.9002	.38599	.21851	-.00498	.01000	-2.5899	.01750
#2	.43659	1.1982	-1.3356	1.0635	-.01056	.00128	-6.1162	-.08336
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	**-.01623**	**.36901**	**-.8012**	**.7167**	**-.3450**	**-4.7198**	**63.052**	F **4.880**
Stddev	.12353	.27159	.7327	.4702	2.273	1.0604	55.802	1.434
%RSD	760.96	73.601	91.44	65.60	658.8	22.468	88.501	29.38
#1	-.10359	.17696	-.2832	.3842	1.262	-5.4696	102.51	5.894
#2	.07112	.56105	-1.319	1.049	-1.952	-3.9699	23.594	3.866
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	**-1.419**	**-.08365**	**.14936**	**52.906**	**-.76851**	**.37861**	**-1.1062**	**-.54072**
Stddev	.912	.01668	.10732	5.068	.13190	.71202	1.3405	1.5893
%RSD	64.29	19.940	71.857	9.5788	17.163	188.06	121.18	293.93
#1	-2.064	-.09545	.22525	56.489	-.67524	.88208	-.15832	-1.6645
#2	-.7738	-.07186	.07347	49.322	-.86178	-.12486	-2.0540	.58310
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: 12/7/2007 16:27:24 Type: QC
Method: TRACEPB 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	**-.33130**	**.80188**	**-.00199**	**.66438**	**-.05761**	**1.0673**	**-.19690**	**-.50492**
Stddev	.35215	.11467	.00255	.74856	.02444	.0959	.17090	.02195
%RSD	106.29	14.300	128.03	112.67	42.429	8.9838	86.798	4.3474
#1	-.58030	.88296	-.00019	.13507	-.07489	1.1351	-.31775	-.48940
#2	-.08229	.72080	-.00380	1.1937	-.04033	.99947	-.07605	-.52045
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	**47185.**	**23791.**	**645390.**
Stddev	97.	140.	2989.
%RSD	.20484	.58692	.46313
#1	47117.	23889.	643270.
#2	47253.	23692.	647500.

Sample Name: PQL Acquired: 12/7/2007 16:30:52 Type: QC
Method: TRACEPB 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	**5.0609**	**220.29**	**19.219**	**16.274**	**5.0136**	**1.9894**	**1003.7**	**6.1276**
Stddev	.0281	22.32	.421	.528	.0146	.0049	49.5	.0247
%RSD	.55559	10.134	2.1888	3.2473	.29061	.24715	4.9360	.40311
#1	5.0410	236.07	19.517	15.900	5.0033	1.9929	1038.8	6.1102
#2	5.0807	204.50	18.922	16.647	5.0239	1.9859	968.72	6.1451
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.1505**	**5.3802**	F **9.497**	F **14.02**	F **10.33**	**140.83**	**288.76**	F **258.6**
Stddev	.0305	.0441	.459	.39	14.22	7.83	22.27	13.1
%RSD	.59249	.81970	4.836	2.768	137.6	5.5571	7.7138	5.079
#1	5.1289	5.3490	9.172	14.30	.2773	146.37	273.01	267.8
#2	5.1720	5.4114	9.822	13.75	20.39	135.30	304.51	249.3
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value			5.000	5.000	5.000			5.000
Range			20.00%	20.00%	20.00%			20.00%

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **281.9**	**4.8792**	**4.9706**	**2569.6**	**9.8011**	**8.9364**	**20.128**	**20.023**
Stddev	14.5	.0197	.1296	113.2	.1081	.2701	.183	1.958
%RSD	5.136	.40278	2.6065	4.4033	1.1028	3.0227	.91140	9.7779
#1	292.1	4.8931	5.0622	2649.6	9.8775	9.1274	20.258	18.639
#2	271.7	4.8653	4.8790	2489.6	9.7247	8.7454	19.998	21.408
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	5.000							
Range	20.00%							

Sample Name: PQL Acquired: 12/7/2007 16:30:52 Type: QC
Method: TRACEPB 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	**56.455**	**25.735**	**4.9648**	**.17735**	**24.952**	**30.873**	**9.6173**	**21.927**
Stddev	.068	.111	.0287	.38763	.109	.036	.0956	.026
%RSD	.12051	.43313	.57820	218.57	.43670	.11625	.99459	.12025
#1	56.504	25.656	4.9445	-.09675	24.875	30.898	9.5496	21.945
#2	56.407	25.814	4.9851	.45144	25.029	30.847	9.6849	21.908
Check ?	Chk Pass	Chk Pass	Chk Pass	None	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	**47617.**	**23216.**	**658940.**
Stddev	69.	1057.	499.
%RSD	.14595	4.5523	.07579
#1	47568.	22469.	659290.
#2	47666.	23963.	658580.

Sample Name: ICSA Acquired: 12/7/2007 16:34:16 Type: QC
Method: TRACEPB 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	**-.29609**	**494460.**	**-4.5416**	**6.7073**	**1.8421**	**-.03955**
Stddev	.07623	7278.	.4827	.1394	.0813	.00063
%RSD	25.746	1.4718	10.629	2.0791	4.4156	1.6013
#1	-.24219	489310.	-4.2003	6.6087	1.7846	-.03910
#2	-.34999	499610.	-4.8830	6.8059	1.8996	-.03999
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	**522790.**	**1.0407**	**.13611**	**.34424**	F **-178.5**	F **274.7**
Stddev	3045.	.0789	.10626	.06367	2.3	6.1
%RSD	.58237	7.5814	78.072	18.496	1.299	2.216
#1	520640.	1.0965	.21125	.29922	-176.8	270.4
#2	524950.	.98492	.06097	.38926	-180.1	279.1
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 **203.9**	**186190.**	**28.594**	F **235500.**	F **222300.**	**.13590**
Stddev	2.7	2242.	11.547	4887.	2074.	.02333
%RSD	1.304	1.2040	40.381	2.076	.9328	17.164
#1	205.8	184610.	36.759	232000.	220800.	.15239
#2	202.0	187780.	20.430	238900.	223800.	.11940
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: 12/7/2007 16:34:16 Type: QC
Method: TRACEPB 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	**-.05225**	**-53.671**	**-1.5936**	**5.1711**	**-2.1901**	**1.5200**
Stddev	.07507	23.388	1.0286	.7318	1.0518	3.2146
%RSD	143.68	43.577	64.544	14.151	48.027	211.49
#1	-.10534	-37.133	-2.3209	5.6885	-2.9339	-.75307
#2	.00083	-70.209	-.86630	4.6536	-1.4464	3.7931
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.33094**	**.43344**	**-.17208**	**10.178**	**.67946**	**.05216**
Stddev	.63550	.64977	.10804	.570	.01130	1.5648
%RSD	192.03	149.91	62.789	5.6037	1.6629	2999.6
#1	-.78031	.89290	-.24848	10.581	.67147	-1.0543
#2	.11842	-.02602	-.09568	9.7746	.68745	1.1586
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	V	Zn
Units	ppb	ppb
Avg	**-.04896**	**-1.9427**
Stddev	.15582	.2773
%RSD	318.27	14.273
#1	-.15914	-1.7466
#2	.06122	-2.1387
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/7/2007 16:34:16 Type: QC
Method: TRACEPB 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	44160.	23388.	617180.
Stddev	116.	353.	15658.
%RSD	.26311	1.5078	2.5370
#1	44078.	23638.	628250.
#2	44242.	23139.	606110.

Sample Name: ICSAB Acquired: 12/7/2007 16:37:45 Type: QC
Method: TRACEPB 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	**210.24**	**493390.**	**100.81**	**922.69**	**498.87**	**494.79**	**520600.**
Stddev	1.80	2783.	10.83	2.36	3.32	5.71	1633.
%RSD	.85436	.56413	10.739	.25552	.66473	1.1546	.31370
#1	208.97	491430.	93.152	921.02	496.53	490.75	521760.
#2	211.51	495360.	108.46	924.35	501.22	498.83	519450.
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	**934.56**	**460.87**	**487.54**	F **340.4**	F **771.5**	F **719.9**	**184730.**
Stddev	2.54	.15	3.39	4.2	2.6	.6	535.
%RSD	.27180	.03229	.69564	1.244	.3376	.0865	.28972
#1	932.77	460.76	485.14	343.4	769.7	720.3	184350.
#2	936.36	460.97	489.94	337.4	773.4	719.4	185110.
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	**4713.5**	**244500.**	**226200.**	**483.98**	**910.33**	**9727.7**	**923.69**
Stddev	10.9	1412.	3097.	2.44	2.81	7.6	.70
%RSD	.23202	.5775	1.369	.50456	.30838	.07776	.07632
#1	4705.8	243500.	224000.	482.26	908.35	9733.0	923.19
#2	4721.3	245500.	228400.	485.71	912.32	9722.3	924.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 12/7/2007 16:37:45 Type: QC
Method: TRACEPB 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	**50.674**	**596.14**	**48.991**	**1178.9**	**886.99**	**494.39**	**204.90**
Stddev	.789	1.20	4.140	7.6	1.54	2.27	1.93
%RSD	1.5571	.20109	8.4502	.64491	.17307	.45951	.94257
#1	51.232	596.99	46.063	1173.6	885.90	492.79	203.54
#2	50.116	595.30	51.918	1184.3	888.07	496.00	206.27
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	**922.38**	**91.991**	**493.00**	**1062.4**
Stddev	5.49	.422	1.68	3.1
%RSD	.59509	.45908	.34012	.29046
#1	918.49	92.289	491.81	1060.2
#2	926.26	91.692	494.18	1064.6
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	**43792.**	**22890.**	**599030.**
Stddev	121.	128.	3581.
%RSD	.27668	.55868	.59785
#1	43877.	22981.	601560.
#2	43706.	22800.	596500.

Sample Name: LR Acquired: 12/7/2007 16:41:39 Type: QC
Method: TRACEPB 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	**1029.9**	**-21.230**	**2062.3**	**5039.5**	^F *****	**495.75**	**52.264**
Stddev	2.7	15.554	3.9	1.2	-----	2.38	2.042
%RSD	.26040	73.261	.18767	.02312	-----	.47924	3.9065
#1	1028.0	-10.232	2059.6	5038.7	^ -----	494.07	53.707
#2	1031.8	-32.229	2065.1	5040.4	^ -----	497.43	50.820
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None
Value					10000.		
Range					-10.000%		

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2046.0**	**10124.**	**10390.**	F **11050.**	F **10020.**	F **10170.**	**488160.**
Stddev	4.6	6.	30.	2.	7.	11.	16469.
%RSD	.22580	.06205	.29234	.0163	.0734	.1092	3.3738
#1	2042.8	10119.	10369.	11050.	10020.	10180.	499800.
#2	2049.3	10128.	10412.	11050.	10010.	10160.	476510.
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	**-197.47**	F **169.5**	F **191.7**	**9856.6**	**10083.**	**-112.74**	**7645.2**
Stddev	2.82	4.1	7.5	3.8	15.	14.92	4.7
%RSD	1.4273	2.406	3.886	.03806	.14589	13.230	.06117
#1	-195.47	172.4	197.0	9853.9	10073.	-102.19	7648.5
#2	-199.46	166.6	186.5	9859.2	10094.	-123.29	7641.9
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: 12/7/2007 16:41:39 Type: QC
Method: TRACEPB 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	**20343.**	**5106.5**	**2036.3**	F **11024.**	**10139.**	**1973.8**	**335.91**
Stddev	36.	6.9	7.2	40.	22.	1.9	2.39
%RSD	.17518	.13477	.35381	.36328	.21257	.09851	.71013
#1	20318.	5111.4	2041.4	10995.	10124.	1975.2	337.59
#2	20368.	5101.7	2031.2	11052.	10154.	1972.4	334.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None
Value				10000.			
Range				10.000%			

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**10058.**	**2050.3**	**10364.**	**10027.**
Stddev	123.	.8	32.	17.
%RSD	1.2277	.03887	.31352	.17145
#1	9970.3	2049.7	10341.	10015.
#2	10145.	2050.8	10387.	10039.
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	**44661.**	**22086.**	**620070.**
Stddev	83.	644.	961.
%RSD	.18683	2.9141	.15502
#1	44720.	21631.	620750.
#2	44602.	22542.	619390.

Sample Name: CCV Acquired: 12/7/2007 16:48:52 Type: QC
Method: TRACEPB 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	**508.83**	**49751.**	**511.61**	**514.33**	**496.13**	**49.866**	**98417.**
Stddev	1.43	930.	1.91	.51	7.60	.094	1731.
%RSD	.28175	1.8695	.37353	.10008	1.5325	.18870	1.7588
#1	507.82	49093.	510.26	513.96	490.75	49.800	97193.
#2	509.85	50408.	512.96	514.69	501.50	49.933	99641.
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	**497.76**	**497.29**	**496.74**	F **596.6**	F **556.4**	F **556.6**	**48361.**
Stddev	.73	.30	.94	3.3	2.8	.9	804.
%RSD	.14675	.06104	.18997	.5488	.4999	.1550	1.6625
#1	497.25	497.50	496.08	594.2	554.4	557.2	47792.
#2	498.28	497.07	497.41	598.9	558.4	556.0	48929.
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	**24991.**	**97530.**	**102300.**	**497.79**	**506.96**	**99332.**	**497.27**
Stddev	491.	2223.	1900.	1.63	.60	1715.	.48
%RSD	1.9639	2.279	1.858	.32698	.11780	1.7261	.09613
#1	24644.	95960.	100900.	496.64	507.38	98119.	497.60
#2	25338.	99100.	103600.	498.94	506.54	100540.	496.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 16:48:52 Type: QC
Method: TRACEPB 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	**496.65**	**512.32**	**507.89**	**515.57**	**498.98**	**494.29**	**502.37**
Stddev	1.66	1.49	.33	3.14	.43	.59	.21
%RSD	.33498	.29123	.06502	.60930	.08673	.11979	.04129
#1	495.47	511.26	507.66	513.34	498.67	493.88	502.51
#2	497.82	513.37	508.13	517.79	499.29	494.71	502.22
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	**507.30**	**497.68**	**503.18**	F **603.19**
Stddev	1.94	.67	1.19	.23
%RSD	.38190	.13560	.23682	.03797
#1	505.93	497.21	502.34	603.36
#2	508.67	498.16	504.02	603.03
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	**44580.**	**22442.**	**619000.**
Stddev	56.	387.	2714.
%RSD	.12564	1.7224	.43852
#1	44620.	22715.	620920.
#2	44540.	22169.	617080.

Sample Name: CCB Acquired: 12/7/2007 16:52:28 Type: QC
Method: TRACEPB 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	**.02289**	**11.909**	**.11110**	**2.3743**	**.01441**	**-.00365**	**5.4928**	**.03583**
Stddev	.21027	3.961	.76192	.2440	.00004	.00297	.2343	.02224
%RSD	918.54	33.259	685.77	10.277	.27001	81.487	4.2653	62.071
#1	-.12579	9.1085	.64986	2.5469	.01443	-.00575	5.3271	.05156
#2	.17158	14.710	-.42765	2.2018	.01438	-.00155	5.6584	.02011
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	**-.00373**	**.30473**	**.1562**	**.3417**	**-2.278**	**-2.8503**	**54.370**	F **7.724**
Stddev	.03432	.19229	.7938	1.388	6.461	2.5449	1.139	2.475
%RSD	919.77	63.104	508.3	406.1	283.6	89.284	2.0948	32.05
#1	-.02800	.16875	.7175	1.323	-6.847	-4.6498	55.175	9.474
#2	.02053	.44070	-.4052	-.6395	2.291	-1.0508	53.564	5.973
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	**1.623**	**.00391**	**.68804**	**35.190**	**-.28092**	**-2.0786**	**.19317**	**-.45740**
Stddev	2.884	.00366	.18585	15.196	.55071	.8611	.61946	1.0651
%RSD	177.7	93.740	27.012	43.182	196.04	41.429	320.68	232.87
#1	3.662	.00132	.81945	45.935	-.67033	-2.6875	.63119	-1.2106
#2	-.4163	.00650	.55662	24.445	.10849	-1.4697	-.24486	.29577
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: 12/7/2007 16:52:28 Type: QC
Method: TRACEPB 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	.19550	.27382	.00728	-.35675	-.01076	1.2593	-.07471	-.54214
Stddev	.27503	.32707	.00146	1.0920	.04866	.2744	.15020	.12522
%RSD	140.68	119.45	20.114	306.10	452.30	21.791	201.04	23.098
#1	.38997	.50509	.00832	.41543	-.04517	1.4534	-.18091	-.45359
#2	.00102	.04255	.00624	-1.1289	.02365	1.0653	.03150	-.63068
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	46248.	22288.	635640.
Stddev	58.	275.	6843.
%RSD	.12515	1.2359	1.0765
#1	46289.	22093.	630800.
#2	46207.	22483.	640480.

Sample Name: CCV Acquired: 12/7/2007 17:30:23 Type: QC
Method: TRACEPB 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	**509.72**	**51918.**	**509.20**	**509.29**	**492.84**	**50.217**	**101980.**
Stddev	3.46	1359.	.36	.22	3.93	.349	2392.
%RSD	.67886	2.6181	.06980	.04348	.79770	.69560	2.3456
#1	507.27	52879.	509.45	509.14	490.06	49.970	103670.
#2	512.17	50957.	508.95	509.45	495.62	50.464	100290.
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	**499.33**	**497.12**	**502.94**	F **596.3**	F **560.6**	**528.5**	**49867.**
Stddev	.73	.73	3.77	4.3	4.1	7.4	1088.
%RSD	.14615	.14693	.75056	.7222	.7327	1.400	2.1817
#1	499.85	497.64	500.27	599.4	563.5	533.7	50636.
#2	498.81	496.61	505.61	593.3	557.7	523.3	49098.
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	**26207.**	**99800.**	**106600.**	**498.82**	**508.02**	**102480.**	**496.67**
Stddev	562.	1970.	2568.	2.84	.77	2012.	.97
%RSD	2.1457	1.974	2.409	.56917	.15089	1.9632	.19483
#1	26604.	101200.	108500.	496.82	508.56	103900.	497.35
#2	25809.	98410.	104800.	500.83	507.48	101060.	495.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 17:30:23 Type: QC
Method: TRACEPB 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	**497.81**	**509.46**	**502.90**	**514.97**	**501.80**	**493.91**	**499.62**
Stddev	1.83	.45	2.19	2.17	1.82	2.36	2.28
%RSD	.36738	.08898	.43459	.42174	.36230	.47690	.45688
#1	496.52	509.78	504.44	513.44	503.09	492.24	501.23
#2	499.10	509.14	501.35	516.51	500.52	495.57	498.00
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	**510.12**	**498.81**	**505.32**	F **602.51**
Stddev	3.60	1.73	3.01	1.04
%RSD	.70485	.34661	.59516	.17278
#1	507.57	500.03	503.19	603.25
#2	512.66	497.59	507.45	601.78
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	**44597.**	**20807.**	**616630.**
Stddev	23.	394.	4070.
%RSD	.05088	1.8920	.66007
#1	44581.	20529.	619500.
#2	44613.	21086.	613750.

Sample Name: CCB Acquired: 12/7/2007 17:33:59 Type: QC
Method: TRACEPB 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	**.44989**	**22.789**	**.27089**	**.99411**	**.08476**	**-.01261**	**5.4794**	**.07322**
Stddev	.06990	.740	1.1757	.19970	.01310	.01957	4.8250	.02803
%RSD	15.537	3.2455	434.01	20.088	15.454	155.17	88.058	38.276
#1	.40046	23.313	1.1022	.85290	.07550	.00123	2.0676	.09304
#2	.49932	22.266	-.56044	1.1353	.09403	-.02645	8.8912	.05340
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	**.05890**	**.20556**	**.1707**	**-.0449**	F **4.026**	**-1.9094**	**20.052**	F **11.87**
Stddev	.00095	.07733	.2738	.6768	2.211	.0882	41.153	.15
%RSD	1.6089	37.617	160.4	1508.	54.92	4.6218	205.23	1.262
#1	.05823	.26024	.3643	-.5235	2.462	-1.9718	-9.0469	11.76
#2	.05957	.15088	-.0229	.4337	5.589	-1.8470	49.152	11.98
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 **6.196**	**.05854**	**.30293**	**26.043**	**.04253**	**-.78472**	**-.31075**	**-1.7474**
Stddev	1.348	.00859	.31094	13.656	.31727	.25336	1.5703	1.3938
%RSD	21.76	14.681	102.64	52.435	746.00	32.287	505.31	79.763
#1	7.149	.05247	.52280	35.700	.26688	-.96388	.79960	-2.7330
#2	5.242	.06462	.08307	16.387	-.18182	-.60557	-1.4211	-.76187
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: 12/7/2007 17:33:59 Type: QC
Method: TRACEPB 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	.17237	.20872	.08101	.24868	.12548	1.2945	.10763	-.34708
Stddev	.03216	.06980	.01318	1.2992	.01484	.9172	.00621	.03458
%RSD	18.657	33.440	16.274	522.42	11.829	70.855	5.7657	9.9619
#1	.14963	.25808	.09034	-.66996	.11498	.64595	.10324	-.32263
#2	.19511	.15937	.07169	1.1673	.13598	1.9431	.11202	-.37153
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	46427.	21907.	636420.
Stddev	132.	92.	3622.
%RSD	.28515	.42076	.56911
#1	46334.	21973.	633860.
#2	46521.	21842.	638980.

Sample Name: CCV Acquired: 12/7/2007 18:12:33 Type: QC
Method: TRACEPB 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	**507.11**	**48408.**	**511.23**	**508.13**	**491.50**	**50.425**	**95631.**
Stddev	1.39	4635.	2.07	.45	5.65	.052	9364.
%RSD	.27379	9.5749	.40412	.08899	1.1498	.10298	9.7921
#1	506.13	45130.	512.69	508.45	487.50	50.388	89010.
#2	508.09	51685.	509.77	507.81	495.49	50.462	102250.
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	**503.80**	**496.24**	**506.83**	F **590.5**	F **555.1**	**519.2**	**46918.**
Stddev	.33	.32	1.73	9.1	6.2	12.0	4448.
%RSD	.06480	.06396	.34099	1.547	1.124	2.314	9.4792
#1	504.03	496.46	505.60	584.0	550.7	510.7	43773.
#2	503.57	496.01	508.05	596.9	559.5	527.7	50063.
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	**24640.**	**92250.**	**98920.**	**495.33**	**510.36**	**97590.**	**492.54**
Stddev	2236.	3256.	9488.	.30	.45	9193.	.60
%RSD	9.0747	3.529	9.591	.05985	.08905	9.4197	.12149
#1	23059.	89950.	92210.	495.12	510.04	91089.	492.12
#2	26221.	94560.	105600.	495.54	510.68	104090.	492.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 18:12:33 Type: QC
Method: TRACEPB 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	**504.48**	**506.71**	**508.76**	**510.29**	**504.94**	**491.56**	**500.07**
Stddev	2.26	.57	.21	1.75	.02	1.15	.17
%RSD	.44869	.11337	.04213	.34316	.00343	.23452	.03342
#1	506.08	506.31	508.91	509.05	504.96	490.74	499.96
#2	502.88	507.12	508.61	511.53	504.93	492.37	500.19
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	**505.11**	**500.95**	**505.12**	F **608.59**
Stddev	.28	3.29	1.03	1.04
%RSD	.05633	.65747	.20475	.17024
#1	504.91	503.28	504.39	609.33
#2	505.31	498.63	505.86	607.86
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	**44393.**	**21571.**	**613920.**
Stddev	107.	1458.	127.
%RSD	.23997	6.7581	.02061
#1	44468.	22602.	614010.
#2	44318.	20541.	613830.

Sample Name: CCB Acquired: 12/7/2007 18:16:08 Type: QC
Method: TRACEPB 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	**.09450**	**7.7462**	**1.1725**	**.97732**	**.01992**	**-.02096**	**-1.4757**	**-.00129**
Stddev	.12666	21.753	.9152	.55301	.00754	.00273	3.3456	.02720
%RSD	134.03	280.83	78.056	56.585	37.844	13.007	226.71	2112.4
#1	.18407	-7.6357	1.8196	1.3684	.01459	-.01903	-3.8414	.01794
#2	.00494	23.128	.52533	.58628	.02525	-.02289	.88998	-.02052
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	**-.05914**	**.10846**	**.8321**	**.0209**	**-1.886**	**-4.2812**	**5.3702**	**2.277**
Stddev	.17741	.00126	.2697	.0880	1.823	.0851	94.010	.057
%RSD	300.01	1.1640	32.41	421.5	96.65	1.9886	1750.6	2.522
#1	-.18459	.10757	.6414	.0831	-3.176	-4.3414	71.845	2.236
#2	.06631	.10936	1.023	-.0413	-.5972	-4.2210	-61.105	2.317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-4.669**	**.04227**	**.14797**	**28.097**	**-.32934**	**-.93706**	**-.97235**	**.82211**
Stddev	.690	.02395	.21570	13.536	.17980	.07964	.53939	.96039
%RSD	14.77	56.661	145.78	48.177	54.595	8.4991	55.473	116.82
#1	-5.157	.02533	-.00456	37.669	-.20220	-.99337	-.59094	1.5012
#2	-4.182	.05920	.30049	18.526	-.45648	-.88074	-1.3538	.14301
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: 12/7/2007 18:16:08 Type: QC
Method: TRACEPB 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	-.17984	.31740	.00330	-.54704	-.06142	.15258	-.09860	-.37948
Stddev	.43393	.15724	.00126	1.1393	.02740	2.3463	.10792	.04850
%RSD	241.28	49.541	38.246	208.27	44.613	1537.8	109.45	12.779
#1	-.48668	.42859	.00419	.25857	-.04205	1.8117	-.17492	-.41377
#2	.12699	.20621	.00241	-1.3526	-.08080	-1.5065	-.02229	-.34519
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	46070.	21712.	634600.
Stddev	8.	593.	2524.
%RSD	.01717	2.7292	.39772
#1	46064.	22131.	632820.
#2	46076.	21293.	636380.

Sample Name: CCV Acquired: 12/7/2007 18:54:19 Type: QC
Method: TRACEPB 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	**508.97**	**49193.**	**507.28**	**507.72**	**494.44**	**50.584**	**96300.**
Stddev	2.71	1773.	2.27	1.88	.62	.424	3411.
%RSD	.53292	3.6050	.44802	.36999	.12560	.83731	3.5416
#1	507.06	47939.	505.67	506.39	494.00	50.285	93889.
#2	510.89	50447.	508.89	509.05	494.88	50.884	98712.
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	**503.98**	**498.90**	**507.48**	F **595.1**	F **556.4**	**525.5**	**47036.**
Stddev	.08	.69	4.71	1.7	4.8	10.3	1621.
%RSD	.01540	.13773	.92730	.2804	.8608	1.967	3.4453
#1	504.03	498.41	504.15	593.9	553.0	518.2	45890.
#2	503.92	499.38	510.81	596.3	559.8	532.8	48181.
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	**25112.**	**94730.**	**100500.**	**499.06**	**510.48**	**98128.**	**496.50**
Stddev	1010.	2529.	3584.	2.16	.18	3440.	.74
%RSD	4.0237	2.670	3.567	.43333	.03557	3.5054	.14981
#1	24397.	92940.	97930.	497.53	510.60	95696.	497.03
#2	25826.	96520.	103000.	500.59	510.35	100560.	495.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 18:54:19 Type: QC
Method: TRACEPB 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	**501.75**	**506.71**	**509.94**	**514.34**	**508.22**	**494.47**	**499.91**
Stddev	.57	2.03	2.62	3.18	.06	1.89	6.59
%RSD	.11264	.40080	.51409	.61805	.01160	.38126	1.3174
#1	502.15	508.14	508.09	512.09	508.26	493.14	495.26
#2	501.35	505.27	511.80	516.58	508.18	495.80	504.57
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	**511.47**	**503.01**	**507.41**	F **607.33**
Stddev	2.15	.28	3.36	.41
%RSD	.42094	.05631	.66240	.06770
#1	509.95	502.81	505.04	607.04
#2	513.00	503.21	509.79	607.62
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	**43802.**	**21005.**	**603000.**
Stddev	14.	512.	3619.
%RSD	.03198	2.4374	.60012
#1	43812.	21367.	605560.
#2	43792.	20643.	600440.

Sample Name: CCB Acquired: 12/7/2007 18:58:00 Type: QC
Method: TRACEPB 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	**-.00979**	**25.156**	**.65909**	**.96530**	**.03311**	**-.01724**	**-.07591**	**.00668**
Stddev	.33251	11.109	1.4034	.56155	.01219	.00143	2.0419	.06649
%RSD	3396.0	44.160	212.93	58.173	36.813	8.2836	2689.9	994.72
#1	.22533	33.011	1.6514	1.3624	.04172	-.01623	1.3680	.05370
#2	-.24491	17.301	-.33324	.56823	.02449	-.01825	-1.5198	-.04033
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	**-.15639**	**.05580**	**.2548**	**.2301**	F **-3.970**	**1.5938**	**48.879**	F **6.324**
Stddev	.01762	.35422	.7764	.7227	6.699	2.0738	22.205	.605
%RSD	11.266	634.84	304.7	314.0	168.7	130.12	45.429	9.562
#1	-.14393	-.19468	.8038	.7411	-8.708	.12740	33.178	6.752
#2	-.16885	.30627	-.2942	-.2809	.7668	3.0601	64.581	5.897
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	**-.5062**	**.07113**	**-.07918**	**25.472**	**-.43945**	**.00984**	**.63096**	**.93665**
Stddev	3.916	.00618	.03615	9.592	.29424	.93825	1.3774	1.3942
%RSD	773.6	8.6878	45.647	37.658	66.957	9536.4	218.30	148.85
#1	2.263	.07550	-.05363	18.689	-.23139	.67328	-.34301	-.04921
#2	-3.275	.06676	-.10474	32.254	-.64750	-.65361	1.6049	1.9225
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: 12/7/2007 18:58:00 Type: QC
Method: TRACEPB 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	-.28052	.37342	.01217	-1.2333	.34255	1.0692	-.05693	-.42482
Stddev	.40123	.45988	.00230	1.0186	.06286	.4560	.17218	.01379
%RSD	143.03	123.15	18.874	82.588	18.350	42.648	302.45	3.2471
#1	.00319	.04823	.01054	-1.9535	.38699	.74679	-.17868	-.43457
#2	-.56423	.69860	.01379	-.51307	.29810	1.3917	.06482	-.41506
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	44923.	20773.	617530.
Stddev	18.	306.	2146.
%RSD	.03946	1.4728	.34745
#1	44935.	20989.	619040.
#2	44910.	20556.	616010.

Sample Name: CCV Acquired: 12/7/2007 19:35:59 Type: QC
Method: TRACEPB 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	**512.52**	**51199.**	**513.09**	**509.51**	**493.57**	**50.995**	**99977.**
Stddev	2.49	78.	.89	1.13	6.60	.333	81.
%RSD	.48556	.15178	.17308	.22169	1.3370	.65314	.08139
#1	510.76	51145.	513.72	508.71	488.90	50.759	99920.
#2	514.28	51254.	512.46	510.30	498.23	51.230	100040.
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	**505.72**	**501.28**	**510.39**	F **600.1**	F **562.4**	**510.8**	**48710.**
Stddev	.18	1.26	3.04	1.2	.1	1.1	122.
%RSD	.03546	.25135	.59589	.1986	.0207	.2143	.25090
#1	505.85	502.18	508.24	600.9	562.4	510.0	48796.
#2	505.59	500.39	512.54	599.2	562.3	511.6	48623.
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	**26089.**	**99120.**	**104200.**	**503.90**	**511.87**	**102800.**	**501.70**
Stddev	38.	808.	350.	2.50	.92	542.	.52
%RSD	.14641	.8155	.3360	.49653	.18044	.52698	.10335
#1	26062.	99690.	104000.	502.13	511.22	103190.	502.06
#2	26116.	98550.	104500.	505.67	512.53	102420.	501.33
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 19:35:59 Type: QC
Method: TRACEPB 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	**504.55**	**509.46**	**512.15**	**516.77**	**508.53**	**498.57**	**504.93**
Stddev	.45	3.92	.17	2.81	.00	.75	.76
%RSD	.08945	.76958	.03376	.54301	.00042	.15112	.15106
#1	504.23	512.23	512.27	514.78	508.53	499.10	504.39
#2	504.86	506.69	512.03	518.75	508.53	498.03	505.47
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	**517.31**	**500.19**	**510.86**	F **608.24**
Stddev	3.57	1.46	3.37	.18
%RSD	.69009	.29115	.65908	.03003
#1	514.78	499.16	508.48	608.37
#2	519.83	501.22	513.24	608.11
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	**43559.**	**19857.**	**597570.**
Stddev	72.	101.	2432.
%RSD	.16513	.50849	.40702
#1	43508.	19786.	599290.
#2	43610.	19928.	595850.

Sample Name: CCB Acquired: 12/7/2007 19:39:35 Type: QC
Method: TRACEPB 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	**.18295**	**.03099**	**-.67496**	**.53768**	**.04307**	**-.01257**	**-.85430**	**-.03775**
Stddev	.18887	1.4081	1.2271	.13706	.00988	.00550	3.1198	.02636
%RSD	103.24	4544.4	181.80	25.492	22.930	43.739	365.20	69.834
#1	.31650	1.0267	-1.5426	.44076	.03609	-.01645	-3.0604	-.05639
#2	.04939	-.96470	.19271	.63460	.05005	-.00868	1.3518	-.01911
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	**-.19847**	**.16714**	**-1.103**	**.2382**	F **10.14**	**.41330**	**37.718**	F **10.59**
Stddev	.23292	.11993	.784	.8533	7.88	3.3601	12.621	1.22
%RSD	117.36	71.752	71.08	358.3	77.76	812.99	33.463	11.51
#1	-.36316	.25194	-1.657	-.3652	4.563	-1.9627	28.793	9.728
#2	-.03377	.08234	-.5486	.8415	15.71	2.7893	46.643	11.45
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 **7.338**	**.06893**	**.08547**	**43.733**	**-.12430**	**-1.7813**	**-.46478**	**-.39331**
Stddev	.675	.00564	.02625	1.908	.07926	.5072	.20272	.82568
%RSD	9.205	8.1753	30.710	4.3634	63.768	28.471	43.616	209.93
#1	6.861	.06495	.06691	42.384	-.18035	-2.1399	-.60812	.19053
#2	7.816	.07292	.10403	45.082	-.06825	-1.4227	-.32144	-.97715
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: 12/7/2007 19:39:35 Type: QC
Method: TRACEPB 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	.19445	.57514	.01879	-.38389	.20258	-1.1624	.04532	-.25788
Stddev	.17076	.07621	.01297	.06138	.05264	1.7478	.03933	.01148
%RSD	87.820	13.250	69.057	15.989	25.985	150.36	86.782	4.4525
#1	.07370	.62903	.02796	-.42730	.16535	.07346	.07314	-.24976
#2	.31520	.52125	.00961	-.34049	.23980	-2.3984	.01751	-.26600
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	44744.	20833.	624980.
Stddev	114.	139.	9116.
%RSD	.25443	.66890	1.4587
#1	44824.	20734.	631420.
#2	44663.	20931.	618530.

Sample Name: CCV Acquired: 12/7/2007 20:17:41 Type: QC
Method: TRACEPB 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	**508.46**	**50094.**	**513.44**	**510.95**	**494.07**	**50.834**	**97744.**
Stddev	1.09	1524.	2.78	1.18	4.50	.054	3315.
%RSD	.21413	3.0419	.54071	.23022	.91000	.10669	3.3910
#1	507.69	49017.	511.47	511.79	497.25	50.796	95400.
#2	509.23	51172.	515.40	510.12	490.89	50.873	100090.
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	**506.74**	**500.94**	**511.33**	F **597.8**	F **560.1**	**503.8**	**47586.**
Stddev	.78	.17	1.17	1.0	2.5	10.3	1633.
%RSD	.15426	.03302	.22820	.1671	.4553	2.053	3.4306
#1	507.30	501.05	510.51	597.1	558.3	496.5	46431.
#2	506.19	500.82	512.16	598.5	561.9	511.1	48740.
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	**25706.**	**95920.**	**101800.**	**498.45**	**512.50**	**100190.**	**498.48**
Stddev	861.	2630.	3425.	.06	.73	3363.	.55
%RSD	3.3500	2.742	3.366	.01116	.14314	3.3570	.11030
#1	25097.	94060.	99350.	498.49	513.02	97812.	498.87
#2	26315.	97780.	104200.	498.41	511.98	102570.	498.09
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 20:17:41 Type: QC
Method: TRACEPB 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	**504.95**	**508.33**	**508.51**	**511.48**	**509.24**	**494.54**	**504.31**
Stddev	1.03	.80	.28	.85	.20	4.05	2.89
%RSD	.20326	.15774	.05535	.16532	.03928	.81917	.57231
#1	505.68	508.90	508.31	512.08	509.38	497.40	502.27
#2	504.23	507.76	508.70	510.89	509.10	491.67	506.36
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	**510.83**	**507.45**	**508.09**	F **610.90**
Stddev	.11	.28	.34	.89
%RSD	.02181	.05522	.06762	.14513
#1	510.91	507.65	507.85	611.53
#2	510.75	507.25	508.34	610.27
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	**43367.**	**19877.**	**598950.**
Stddev	55.	514.	138.
%RSD	.12774	2.5854	.02309
#1	43328.	20240.	598860.
#2	43407.	19514.	599050.

Sample Name: CCB Acquired: 12/7/2007 20:21:17 Type: QC
Method: TRACEPB 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	.09623	8.1726	.36553	.49823	.05346	-.02299	2.0981	.03134
Stddev	.52334	7.7782	1.9881	.19301	.00172	.00044	1.1645	.00665
%RSD	543.85	95.174	543.88	38.738	3.2126	1.9056	55.505	21.209
#1	.46629	13.673	1.7713	.63471	.05225	-.02330	2.9215	.02664
#2	-.27383	2.6726	-1.0402	.36176	.05468	-.02268	1.2746	.03604
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	-.14611	.29718	1.278	.2115	-2.038	-.27427	-60.007	F 8.017
Stddev	.01792	.19330	1.647	.7802	5.347	2.4517	34.146	1.329
%RSD	12.267	65.046	128.9	368.9	262.4	893.90	56.903	16.58
#1	-.13344	.16049	.1132	.7632	1.743	1.4593	-35.862	8.957
#2	-.15878	.43387	2.443	-.3402	-5.819	-2.0079	-84.152	7.077
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 3.716	.11214	-.09828	30.589	-.53438	-.52993	.40624	-.32466
Stddev	2.426	.01283	.40152	23.731	.31192	1.0963	.73827	1.9911
%RSD	65.29	11.439	408.57	77.581	58.370	206.88	181.73	613.29
#1	5.432	.10307	.18564	13.808	-.75494	.24530	.92827	-1.7326
#2	2.001	.12121	-.38220	47.369	-.31382	-1.3052	-.11579	1.0833
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: 12/7/2007 20:21:17 Type: QC
Method: TRACEPB 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	-.21693	.42858	.02447	1.8661	.15852	.04500	-.00108	-.47456
Stddev	.24160	.11880	.01117	.6231	.08810	1.7523	.20110	.00622
%RSD	111.38	27.720	45.660	33.391	55.578	3893.8	18691.	1.3097
#1	-.04609	.51258	.01657	1.4255	.22082	-1.1941	-.14328	-.47895
#2	-.38776	.34457	.03237	2.3067	.09622	1.2841	.14112	-.47016
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	44322.	19753.	608970.
Stddev	3.	202.	2994.
%RSD	.00654	1.0232	.49163
#1	44324.	19896.	611090.
#2	44320.	19610.	606850.

Sample Name: CCV Acquired: 12/7/2007 20:59:40 Type: QC
Method: TRACEPB 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	**508.74**	**49222.**	**519.58**	**512.26**	**498.54**	**50.752**	**97249.**
Stddev	3.41	624.	1.03	1.75	1.72	.435	1426.
%RSD	.67034	1.2687	.19820	.34204	.34460	.85738	1.4660
#1	506.33	48781.	520.30	513.50	497.32	50.444	96241.
#2	511.15	49664.	518.85	511.02	499.75	51.060	98257.
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	**510.31**	**502.54**	**509.24**	F **596.7**	F **563.5**	**502.6**	**47597.**
Stddev	.47	.34	4.33	2.9	.5	6.4	693.
%RSD	.09245	.06846	.85109	.4805	.0894	1.271	1.4565
#1	510.64	502.29	506.18	594.7	563.1	498.1	47107.
#2	509.98	502.78	512.31	598.7	563.8	507.2	48088.
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	**25362.**	**93920.**	**99350.**	**502.21**	**514.61**	**101580.**	**497.12**
Stddev	401.	2009.	1291.	2.93	.39	1885.	.02
%RSD	1.5795	2.139	1.300	.58431	.07612	1.8556	.00457
#1	25079.	92500.	98430.	500.14	514.33	100250.	497.13
#2	25646.	95340.	100300.	504.29	514.89	102910.	497.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 20:59:40 Type: QC
Method: TRACEPB 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	**509.73**	**509.03**	**516.95**	**513.75**	**511.05**	**496.52**	**506.03**
Stddev	.68	1.04	1.29	1.56	1.26	5.67	1.95
%RSD	.13268	.20339	.24997	.30368	.24687	1.1428	.38525
#1	510.20	509.76	516.04	512.65	511.94	492.50	507.40
#2	509.25	508.30	517.86	514.86	510.16	500.53	504.65
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	**504.54**	**511.48**	**509.78**	F **615.71**
Stddev	3.89	.21	3.93	.32
%RSD	.77003	.04189	.77122	.05254
#1	501.79	511.33	507.00	615.94
#2	507.29	511.63	512.56	615.48
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	**43655.**	**20235.**	**603910.**
Stddev	124.	233.	4357.
%RSD	.28458	1.1505	.72143
#1	43743.	20399.	606990.
#2	43568.	20070.	600830.

Sample Name: CCB Acquired: 12/7/2007 21:03:17 Type: QC
Method: TRACEPB 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	**.17643**	**11.479**	**.25316**	**.56152**	**.07058**	**-.02186**	**3.0457**	**-.02757**
Stddev	.25393	18.891	1.3528	.04279	.02743	.00002	4.2354	.01301
%RSD	143.93	164.57	534.36	7.6206	38.861	.09293	139.06	47.180
#1	.35598	-1.8791	-.70341	.53126	.08997	-.02185	6.0406	-.01837
#2	-.00313	24.836	1.2097	.59178	.05118	-.02188	.05083	-.03676
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	**-.05856**	**.24798**	**1.139**	**.1370**	F **-4.136**	**8.1925**	**-50.936**	F **9.121**
Stddev	.05754	.19080	.042	.2639	1.347	10.698	22.128	1.968
%RSD	98.252	76.941	3.640	192.6	32.57	130.58	43.443	21.58
#1	-.09925	.11306	1.110	.3237	-3.184	15.757	-35.289	10.51
#2	-.01788	.38289	1.169	-.0496	-5.089	.62793	-66.583	7.729
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	**1.972**	**.16934**	**-.06635**	**42.996**	**-.20601**	**-1.6269**	**.21306**	**.55787**
Stddev	1.243	.04459	.03017	18.002	.22071	.9537	.77254	.95237
%RSD	63.04	26.330	45.480	41.869	107.13	58.622	362.59	170.71
#1	2.851	.20087	-.04501	55.726	-.04995	-2.3013	-.33320	1.2313
#2	1.093	.13782	-.08768	30.267	-.36207	-.95254	.75933	-.11555
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: 12/7/2007 21:03:17 Type: QC
Method: TRACEPB 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	**-.75193**	**.49379**	**.03528**	**-.00749**	**.31093**	**.91249**	**-.07859**	**-.36260**
Stddev	.20324	.76816	.00159	1.0591	.10825	.29083	.02289	.04606
%RSD	27.029	155.56	4.4955	14147.	34.814	31.873	29.131	12.701
#1	-.60822	-.04938	.03641	.74138	.38747	.70683	-.06240	-.39517
#2	-.89564	1.0370	.03416	-.75635	.23439	1.1181	-.09478	-.33003
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	**44644.**	**19963.**	**616760.**
Stddev	35.	28.	1940.
%RSD	.07860	.13839	.31460
#1	44620.	19982.	615390.
#2	44669.	19943.	618130.

Sample Name: CCV Acquired: 12/7/2007 21:41:42 Type: QC
Method: TRACEPB 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	**514.68**	**50280.**	**506.94**	**508.00**	**495.44**	**51.182**	**96803.**
Stddev	1.55	2021.	1.08	.68	3.83	.216	3821.
%RSD	.30045	4.0203	.21241	.13423	.77356	.42157	3.9474
#1	515.77	48851.	506.18	508.48	498.15	51.335	94101.
#2	513.58	51709.	507.71	507.51	492.73	51.030	99505.
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	**502.84**	**499.53**	**513.03**	F **594.9**	F **556.4**	**492.0**	**46874.**
Stddev	.09	.33	2.37	1.8	5.2	2.8	1873.
%RSD	.01732	.06622	.46181	.2980	.9336	.5735	3.9952
#1	502.78	499.29	514.70	593.7	552.7	490.0	45550.
#2	502.90	499.76	511.35	596.2	560.0	494.0	48199.
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	**25774.**	**96080.**	**101600.**	**506.39**	**511.02**	**100100.**	**498.77**
Stddev	955.	3228.	4078.	.74	.38	4198.	.35
%RSD	3.7039	3.360	4.015	.14650	.07481	4.1942	.06941
#1	25098.	93790.	98690.	506.91	511.29	97130.	499.01
#2	26449.	98360.	104500.	505.86	510.75	103070.	498.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 21:41:42 Type: QC
Method: TRACEPB 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	**502.99**	**506.89**	**504.98**	**518.86**	**506.08**	**500.31**	**497.08**
Stddev	.59	1.13	1.31	1.55	.62	.48	1.55
%RSD	.11782	.22278	.25932	.29817	.12187	.09629	.31093
#1	502.57	506.09	504.06	519.96	506.51	499.97	498.18
#2	503.41	507.69	505.91	517.77	505.64	500.65	495.99
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	**520.82**	**499.14**	**513.46**	F **604.23**
Stddev	2.27	.89	1.89	.54
%RSD	.43644	.17785	.36778	.08987
#1	522.42	498.51	514.80	603.85
#2	519.21	499.77	512.13	604.61
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	**43533.**	**19615.**	**594150.**
Stddev	67.	693.	932.
%RSD	.15355	3.5327	.15688
#1	43486.	20105.	593490.
#2	43580.	19125.	594800.

Sample Name: CCB Acquired: 12/7/2007 21:45:17 Type: QC
Method: TRACEPB 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	**-.04880**	**4.4726**	**.08502**	**.10006**	**.14219**	**-.00823**	**17.771**	**.12652**
Stddev	.33484	.6922	.90377	.24249	.03190	.00304	2.418	.07920
%RSD	686.21	15.476	1063.0	242.35	22.433	36.918	13.604	62.596
#1	-.28557	4.9620	.72408	.27152	.16475	-.01038	19.480	.18253
#2	.18797	3.9831	-.55404	-.07141	.11964	-.00608	16.061	.07052
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	**-.11860**	**.23890**	**.3225**	**1.089**	**-.5084**	**4.8451**	**-46.742**	F **24.89**
Stddev	.22074	.32482	.5495	.224	3.018	5.8481	26.389	2.28
%RSD	186.13	135.97	170.4	20.54	593.6	120.70	56.456	9.153
#1	.03749	.46858	.7110	.9305	-2.642	8.9803	-65.402	26.50
#2	-.27469	.00922	-.0661	1.247	1.625	.70989	-28.083	23.28
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 **21.24**	**.19324**	**.11423**	**55.726**	**-.25849**	**-.91813**	**.76757**	**-.08990**
Stddev	.19	.02620	.01202	18.547	.22512	.78236	1.1855	1.0923
%RSD	.8892	13.557	10.524	33.281	87.091	85.212	154.44	1215.0
#1	21.10	.17471	.10573	68.841	-.41768	-.36492	-.07067	.68248
#2	21.37	.21176	.12273	42.612	-.09931	-1.4713	1.6058	-.86228
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: 12/7/2007 21:45:17 Type: QC
Method: TRACEPB 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	-.21267	.52843	.12092	-.38080	.55314	.03725	.07675	-.26232
Stddev	.87856	.67569	.02024	.01176	.16264	.28486	.04306	.03424
%RSD	413.11	127.87	16.740	3.0884	29.403	764.62	56.108	13.054
#1	-.83391	.05064	.13523	-.37248	.43813	-.16417	.10720	-.28653
#2	.40856	1.0062	.10660	-.38912	.66814	.23868	.04630	-.23811
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	44789.	19663.	607970.
Stddev	206.	573.	8925.
%RSD	.46006	2.9141	1.4680
#1	44643.	19257.	601660.
#2	44934.	20068.	614280.

Sample Name: ICSA Acquired: 12/7/2007 22:16:32 Type: Unk
Method: TRACEPB 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	**-.81508**	**504250.**	**-5.6797**	**6.1892**	**1.9161**	**-.07078**	**521800.**
Stddev	.42768	1134.	2.1949	.6064	.0205	.00608	6848.
%RSD	52.471	.22486	38.645	9.7982	1.0726	8.5927	1.3124
#1	-.51267	505050.	-7.2317	5.7604	1.9016	-.06648	526640.
#2	-1.1175	503450.	-4.1277	6.6180	1.9307	-.07508	516950.

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0289**	**.11544**	**.61438**	**-179.8**	**268.8**	**200.8**	**183000.**
Stddev	.0390	.09471	.03511	1.8	1.5	9.2	606.
%RSD	3.7944	82.042	5.7153	1.022	.5675	4.591	.33108
#1	1.0565	.04847	.63921	-178.5	269.9	207.3	183430.
#2	1.0013	.18241	.58955	-181.1	267.8	194.3	182570.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-213.32**	**243300.**	**226400.**	**1.0905**	**.76463**	**-134.91**	**-2.2797**
Stddev	122.67	2303.	559.	.0261	.50869	14.77	.1495
%RSD	57.505	.9467	.2470	2.3941	66.527	10.949	6.5588
#1	-300.06	241700.	226800.	1.0720	1.1243	-145.36	-2.1740
#2	-126.58	244900.	226000.	1.1090	.40494	-124.47	-2.3855

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.4361**	**-1.3853**	**-1.5462**	**-1.0190**	**.43581**	**-.05429**	**8.8402**
Stddev	.1847	3.1413	.2174	.3305	.36511	.06929	.0011
%RSD	2.8696	226.76	14.060	32.434	83.777	127.62	.01223
#1	6.3055	.83595	-1.3924	-.78533	.69398	-.10328	8.8394
#2	6.5667	-3.6065	-1.6999	-1.2528	.17764	-.00530	8.8410

Sample Name: ICSA Acquired: 12/7/2007 22:16:32 Type: Unk
Method: TRACEPB 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	**1.7829**	**.06892**	**.14569**	**-2.4600**
Stddev	.0753	2.1204	.05784	.4084
%RSD	4.2251	3076.8	39.699	16.603
#1	1.7296	-1.4304	.10479	-2.7487
#2	1.8362	1.5683	.18659	-2.1712

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42068.**	**18932.**	**564910.**
Stddev	63.	26.	472.
%RSD	.15092	.13565	.08359
#1	42024.	18951.	565240.
#2	42113.	18914.	564580.

Sample Name: ICSAB Acquired: 12/7/2007 22:20:00 Type: Unk
Method: TRACEPB 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	**211.04**	**501410.**	**102.66**	**923.83**	**497.08**	**507.44**	**518290.**
Stddev	1.80	8006.	1.43	.38	5.67	4.37	9348.
%RSD	.85247	1.5967	1.3962	.04118	1.1414	.86133	1.8037
#1	212.31	495750.	103.68	923.56	501.09	510.53	511680.
#2	209.77	507070.	101.65	924.10	493.07	504.35	524900.

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**951.84**	**466.46**	**500.78**	**341.6**	**773.2**	**649.1**	**180040.**
Stddev	2.09	.20	3.82	2.0	7.5	3.8	2842.
%RSD	.21934	.04352	.76247	.5787	.9755	.5908	1.5785
#1	953.32	466.32	503.48	340.2	767.9	646.4	178030.
#2	950.37	466.61	498.08	343.0	778.6	651.8	182050.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4763.7**	**247400.**	**231500.**	**492.91**	**921.52**	**9878.1**	**936.07**
Stddev	92.0	9910.	3703.	4.24	.75	199.1	.53
%RSD	1.9314	4.005	1.599	.85930	.08191	2.0158	.05691
#1	4698.7	240400.	228900.	495.90	922.06	9737.3	935.70
#2	4828.8	254400.	234100.	489.91	920.99	10019.	936.45

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**56.528**	**597.72**	**47.519**	**1183.9**	**901.94**	**496.26**	**201.09**
Stddev	1.584	1.49	.938	9.6	.16	5.62	.72
%RSD	2.8025	.24982	1.9731	.81150	.01793	1.1328	.35581
#1	57.648	596.66	48.182	1190.7	902.06	500.23	201.60
#2	55.408	598.77	46.856	1177.1	901.83	492.28	200.58

Sample Name: ICSAB Acquired: 12/7/2007 22:20:00 Type: Unk
Method: TRACEPB 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	**936.28**	**91.829**	**501.52**	**1070.3**
Stddev	8.87	2.344	3.86	2.2
%RSD	.94772	2.5527	.76915	.20409
#1	942.56	93.486	504.24	1071.9
#2	930.01	90.171	498.79	1068.8

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42102.**	**19136.**	**568750.**
Stddev	61.	325.	5531.
%RSD	.14542	1.7000	.97253
#1	42059.	19366.	564840.
#2	42145.	18906.	572660.

Sample Name: CCV Acquired: 12/7/2007 22:23:48 Type: QC
Method: TRACEPB 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	**514.60**	**50888.**	**517.44**	**515.67**	**499.27**	**50.946**	**98564.**
Stddev	2.58	694.	1.77	1.83	4.74	.139	1493.
%RSD	.50173	1.3637	.34210	.35477	.94924	.27355	1.5152
#1	516.43	50397.	516.19	516.96	502.62	51.045	97508.
#2	512.77	51379.	518.69	514.37	495.92	50.847	99620.
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	**507.14**	**504.16**	**508.80**	F **601.2**	F **563.6**	**498.8**	**47706.**
Stddev	2.43	.93	2.02	.1	.3	5.2	690.
%RSD	.47961	.18528	.39652	.0133	.0475	1.036	1.4463
#1	508.86	504.82	510.22	601.2	563.4	495.1	47219.
#2	505.42	503.50	507.37	601.3	563.8	502.4	48194.
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	**26164.**	**96550.**	**101800.**	**506.91**	**513.85**	**103990.**	**501.62**
Stddev	570.	897.	1518.	.84	1.63	1749.	1.64
%RSD	2.1786	.9285	1.492	.16519	.31787	1.6823	.32622
#1	25761.	95920.	100700.	507.50	515.01	102750.	502.78
#2	26567.	97180.	102900.	506.32	512.70	105220.	500.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 22:23:48 Type: QC
Method: TRACEPB 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	**506.83**	**514.92**	**515.18**	**519.38**	**509.27**	**500.05**	**508.04**
Stddev	2.78	3.53	.42	2.37	2.70	2.29	2.55
%RSD	.54778	.68535	.08112	.45689	.52974	.45807	.50194
#1	508.80	512.42	515.47	521.06	511.18	501.67	509.85
#2	504.87	517.42	514.88	517.70	507.36	498.43	506.24
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	**513.24**	**507.65**	**513.55**	F **612.26**
Stddev	2.18	2.30	1.02	2.87
%RSD	.42393	.45254	.19877	.46821
#1	514.78	509.27	514.27	614.28
#2	511.70	506.03	512.83	610.23
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	**43628.**	**19616.**	**599600.**
Stddev	102.	182.	1470.
%RSD	.23276	.92805	.24522
#1	43556.	19745.	598560.
#2	43700.	19487.	600640.

Sample Name: CCB Acquired: 12/7/2007 22:27:24 Type: QC
Method: TRACEPB 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	**.19388**	**24.374**	**-.86545**	**1.5473**	**.10850**	**.02224**	**16.142**	**.21868**
Stddev	.20839	8.273	1.1208	.8636	.01195	.00559	3.643	.15845
%RSD	107.48	33.942	129.51	55.814	11.012	25.149	22.567	72.461
#1	.04653	18.524	-.07291	2.1580	.10005	.01828	13.566	.33072
#2	.34124	30.223	-1.6580	.93666	.11695	.02619	18.717	.10663
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	**.11585**	**.27963**	**-.0912**	**.4967**	F **6.498**	**11.704**	**-72.083**	F **21.68**
Stddev	.12326	.04530	.3046	.2401	2.086	2.225	81.704	1.00
%RSD	106.40	16.202	334.1	48.34	32.10	19.011	113.35	4.608
#1	.20301	.31166	-.3065	.6665	7.973	10.131	-14.310	20.97
#2	.02869	.24759	.1242	.3269	5.023	13.277	-129.86	22.38
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 **18.83**	**.15248**	**.30542**	**23.947**	**.05013**	**-2.4113**	**.26923**	**.82901**
Stddev	2.78	.01164	.25667	.483	.15304	.5154	2.4993	2.2429
%RSD	14.76	7.6305	84.040	2.0168	305.30	21.374	928.34	270.55
#1	16.87	.14426	.48691	23.606	-.05809	-2.0469	2.0365	2.4150
#2	20.80	.16071	.12392	24.289	.15835	-2.7757	-1.4981	-.75696
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: 12/7/2007 22:27:24 Type: QC
Method: TRACEPB 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	-.27032	.20200	.08543	.12085	.33753	.42126	.09913	-.12481
Stddev	.32913	.81798	.01129	.35021	.04394	.20727	.02998	.15520
%RSD	121.75	404.94	13.214	289.80	13.019	49.204	30.242	124.35
#1	-.50305	.78040	.09341	-.12679	.36861	.56782	.07793	-.01507
#2	-.03759	-.37640	.07744	.36848	.30646	.27469	.12033	-.23455
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	44541.	19857.	615800.
Stddev	46.	140.	2258.
%RSD	.10398	.70674	.36660
#1	44574.	19956.	614210.
#2	44508.	19758.	617400.

Sample Name: CCV Acquired: 12/7/2007 23:06:03 Type: QC
Method: TRACEPB 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	**512.65**	**50036.**	**530.59**	**522.05**	**504.74**	**51.200**	**97295.**
Stddev	4.61	1926.	1.29	.48	1.22	.420	3754.
%RSD	.89887	3.8500	.24219	.09193	.24261	.81959	3.8582
#1	509.40	48674.	531.50	522.39	503.87	50.903	94641.
#2	515.91	51398.	529.68	521.71	505.60	51.497	99949.
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	**519.41**	**510.41**	**515.26**	F **605.6**	F **569.4**	**497.2**	**47139.**
Stddev	1.33	.97	4.98	.5	2.0	8.6	1647.
%RSD	.25684	.19016	.96561	.0882	.3508	1.726	3.4933
#1	520.36	511.09	511.74	605.2	568.0	503.2	45975.
#2	518.47	509.72	518.77	606.0	570.8	491.1	48304.
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	**25945.**	**93580.**	**99440.**	**501.02**	**525.68**	**103160.**	**504.29**
Stddev	1085.	2931.	3822.	2.33	.13	3415.	.12
%RSD	4.1809	3.132	3.844	.46422	.02463	3.3103	.02450
#1	25178.	91510.	96730.	499.38	525.77	100750.	504.20
#2	26712.	95660.	102100.	502.67	525.58	105580.	504.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 23:06:03 Type: QC
Method: TRACEPB 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	**517.31**	**521.60**	**523.65**	**514.63**	**518.66**	**495.28**	**515.20**
Stddev	1.61	.60	.08	4.70	.61	2.79	1.79
%RSD	.31078	.11462	.01564	.91347	.11701	.56420	.34725
#1	518.45	521.18	523.60	511.31	519.09	493.31	513.94
#2	516.18	522.02	523.71	517.96	518.24	497.26	516.47
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	**507.59**	**519.51**	**512.30**	F **629.37**
Stddev	3.26	.73	3.31	1.51
%RSD	.64261	.14103	.64569	.23987
#1	505.29	518.99	509.96	630.44
#2	509.90	520.02	514.63	628.30
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	**43345.**	**19983.**	**605520.**
Stddev	21.	773.	3132.
%RSD	.04796	3.8692	.51727
#1	43330.	20530.	607740.
#2	43359.	19437.	603310.

Sample Name: CCB Acquired: 12/7/2007 23:09:39 Type: QC
Method: TRACEPB 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	**.06745**	**7.4868**	**.84545**	**.56230**	**-.00845**	**-.01643**	**-.66703**	**.07135**
Stddev	.03399	32.087	1.2410	.06350	.03189	.00899	2.1131	.05568
%RSD	50.397	428.58	146.79	11.293	377.40	54.710	316.80	78.032
#1	.09149	-15.202	1.7230	.60720	-.03100	-.01008	.82718	.11072
#2	.04342	30.176	-.03210	.51740	.01410	-.02279	-2.1612	.03198
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	**-.07483**	**.37351**	**-.8742**	**.0048**	F **3.436**	**.75440**	**-79.510**	F **6.024**
Stddev	.05454	.05439	.5934	.5914	5.186	4.4976	39.170	1.033
%RSD	72.891	14.562	67.88	12320.	150.9	596.18	49.265	17.15
#1	-.03626	.33505	-.4546	-.4134	7.103	3.9347	-51.812	6.754
#2	-.11340	.41197	-1.294	.4230	-.2307	-2.4259	-107.21	5.293
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 **3.692**	**-.00479**	**-.07014**	**19.686**	**-.29942**	**-1.4311**	**.45859**	**-.64124**
Stddev	1.849	.04692	.08908	27.938	.20908	2.0357	1.1558	1.0596
%RSD	50.08	980.01	127.00	141.92	69.828	142.25	252.04	165.24
#1	4.999	-.03796	-.13313	39.441	-.44727	-2.8705	1.2759	.10799
#2	2.385	.02839	-.00715	-.06907	-.15158	.00840	-.35870	-1.3905
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: 12/7/2007 23:09:39 Type: QC
Method: TRACEPB 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	-.73614	-.10538	-.00814	-1.1572	.05334	-.63948	-.14425	-.46967
Stddev	.37004	.38109	.01191	.5948	.08240	.97945	.21574	.08175
%RSD	50.267	361.63	146.35	51.400	154.48	153.16	149.56	17.406
#1	-.99780	.16409	-.01656	-.73660	-.00493	-1.3321	.00830	-.41187
#2	-.47449	-.37486	.00028	-1.5777	.11160	.05309	-.29680	-.52748
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	44486.	19991.	614320.
Stddev	2.	69.	8097.
%RSD	.00541	.34344	1.3181
#1	44487.	20040.	620050.
#2	44484.	19943.	608600.

Sample Name: CCV Acquired: 12/7/2007 23:48:21 Type: QC
Method: TRACEPB 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	**512.22**	**51042.**	**526.30**	**519.62**	**493.18**	**51.366**	**98346.**
Stddev	3.98	1227.	2.67	1.50	1.06	.301	2511.
%RSD	.77618	2.4046	.50755	.28846	.21521	.58504	2.5534
#1	509.41	50174.	528.19	520.68	492.43	51.153	96570.
#2	515.03	51910.	524.41	518.56	493.93	51.578	100120.
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	**516.72**	**506.57**	**519.15**	F **601.0**	F **568.8**	**504.1**	**47555.**
Stddev	2.24	1.36	3.06	1.6	1.0	3.3	1177.
%RSD	.43441	.26868	.58973	.2591	.1729	.6597	2.4745
#1	518.30	507.53	516.99	599.9	568.1	506.5	46723.
#2	515.13	505.61	521.32	602.1	569.5	501.8	48387.
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	**26588.**	**94280.**	**101000.**	**498.15**	**523.06**	**103000.**	**500.07**
Stddev	700.	3326.	2511.	2.97	1.87	2518.	1.21
%RSD	2.6322	3.528	2.486	.59594	.35690	2.4450	.24112
#1	26093.	91930.	99230.	496.05	524.38	101220.	500.93
#2	27083.	96630.	102800.	500.25	521.74	104780.	499.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/7/2007 23:48:21 Type: QC
Method: TRACEPB 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	**516.30**	**516.12**	**520.29**	**512.75**	**515.99**	**494.64**	**511.80**
Stddev	.16	1.61	1.45	1.64	2.15	1.86	1.60
%RSD	.03036	.31142	.27875	.31900	.41629	.37644	.31337
#1	516.41	514.99	521.31	511.59	517.51	493.32	510.67
#2	516.19	517.26	519.26	513.91	514.47	495.95	512.93
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	**509.65**	**515.02**	**512.16**	F **624.90**
Stddev	3.51	.36	2.52	2.32
%RSD	.68918	.07076	.49223	.37103
#1	507.17	515.28	510.38	626.54
#2	512.14	514.77	513.95	623.26
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	**43625.**	**19557.**	**607500.**
Stddev	155.	554.	3164.
%RSD	.35573	2.8335	.52076
#1	43516.	19949.	609740.
#2	43735.	19165.	605270.

Sample Name: CCB Acquired: 12/7/2007 23:51:57 Type: QC
Method: TRACEPB 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	.31174	18.939	1.8645	.44268	.01884	-.01316	5.0774	-.00005
Stddev	.08482	4.412	1.9880	.05476	.02537	.00619	9.1299	.03717
%RSD	27.210	23.298	106.62	12.370	134.71	47.038	179.82	76657.
#1	.25176	22.058	.45879	.48140	.00089	-.01754	11.533	.02624
#2	.37171	15.819	3.2703	.40396	.03678	-.00878	-1.3784	-.02633
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	.04491	.03714	.7052	-.0452	-.0048	5.3175	-52.484	F 7.879
Stddev	.08406	.15345	.2471	.6001	18.57	9.7871	58.702	2.381
%RSD	187.15	413.14	35.03	1327.	390000.	184.06	111.85	30.22
#1	.10435	.14565	.5305	-.4695	-13.13	12.238	-10.975	9.563
#2	-.01452	-.07136	.8799	.3791	13.12	-1.6031	-93.993	6.196
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 3.958	.27043	.01954	35.616	-.40582	-2.0416	.81336	.48072
Stddev	5.996	.09619	.48146	6.545	.04583	.9448	1.1113	1.3260
%RSD	151.5	35.571	2463.8	18.378	11.293	46.279	136.63	275.84
#1	8.197	.20241	.35998	40.244	-.37341	-2.7096	1.5991	1.4183
#2	-.2815	.33845	-.32090	30.987	-.43823	-1.3735	.02758	-.45690
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: 12/7/2007 23:51:57 Type: QC
Method: TRACEPB 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	-.97455	.03304	.02843	1.2160	.45236	-.75699	-.02316	-.47714
Stddev	.22727	.06386	.00619	.9722	.08879	1.4500	.14083	.03941
%RSD	23.321	193.29	21.778	79.948	19.628	191.54	608.17	8.2587
#1	-1.1353	.07819	.02405	1.9035	.38958	-1.7823	.07642	-.44927
#2	-.81384	-.01212	.03281	.52858	.51514	.26829	-.12273	-.50500
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	44750.	19229.	614240.
Stddev	.	28.	737.
%RSD	.00058	.14711	.11998
#1	44750.	19249.	614770.
#2	44750.	19209.	613720.

Sample Name: CCV Acquired: 12/8/2007 0:30:24 Type: QC
Method: TRACEPB 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	**518.56**	**51530.**	**517.64**	**515.05**	**494.67**	**51.659**	**98127.**
Stddev	.21	1002.	3.22	1.63	.81	.072	1957.
%RSD	.04030	1.9453	.62120	.31594	.16316	.13977	1.9940
#1	518.41	50821.	519.92	516.20	495.24	51.710	96744.
#2	518.70	52239.	515.37	513.90	494.10	51.607	99511.
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	**509.80**	**503.96**	**518.91**	F **603.3**	F **563.2**	**487.7**	**47073.**
Stddev	1.16	.75	1.83	2.1	.2	1.4	910.
%RSD	.22847	.14878	.35269	.3517	.0385	.2927	1.9337
#1	510.62	504.49	520.20	604.8	563.3	486.7	46429.
#2	508.97	503.43	517.62	601.8	563.0	488.8	47717.
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	**26733.**	**96440.**	**102100.**	**507.76**	**517.16**	**103300.**	**502.47**
Stddev	564.	1936.	2126.	.72	2.31	2062.	1.12
%RSD	2.1096	2.007	2.081	.14202	.44664	1.9965	.22386
#1	26335.	95070.	100600.	507.25	518.79	101850.	503.26
#2	27132.	97810.	103600.	508.27	515.52	104760.	501.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/8/2007 0:30:24 Type: QC
Method: TRACEPB 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	**508.37**	**511.81**	**513.71**	**519.89**	**512.93**	**502.78**	**508.72**
Stddev	.04	3.46	1.27	1.19	.29	.12	.03
%RSD	.00846	.67682	.24799	.22986	.05688	.02426	.00657
#1	508.40	514.26	514.61	520.74	513.14	502.87	508.70
#2	508.34	509.36	512.81	519.05	512.73	502.70	508.75
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	**522.51**	**507.74**	**516.47**	F **615.42**
Stddev	.05	.07	.37	2.11
%RSD	.00866	.01427	.07202	.34264
#1	522.55	507.69	516.21	616.91
#2	522.48	507.79	516.73	613.93
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	**43684.**	**19081.**	**598630.**
Stddev	47.	404.	250.
%RSD	.10815	2.1147	.04180
#1	43651.	19366.	598810.
#2	43718.	18796.	598460.

Sample Name: CCB Acquired: 12/8/2007 0:34:00 Type: QC
Method: TRACEPB 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	**.50151**	**6.3900**	**.07235**	**.51449**	**.08040**	**-.01739**	**-1.5345**	**.07097**
Stddev	.03941	5.5098	.99183	.10801	.01636	.00214	2.5580	.12885
%RSD	7.8583	86.225	1370.9	20.995	20.352	12.285	166.70	181.56
#1	.52937	2.4940	-.62898	.43811	.06883	-.01891	-3.3433	-.02014
#2	.47364	10.286	.77367	.59086	.09197	-.01588	.27426	.16208
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	**.10557**	**.35901**	**-1.083**	**.3459**	F **-4.931**	**-5.5504**	**-128.65**	F **8.255**
Stddev	.15764	.24750	1.395	.2583	5.464	1.7112	80.52	3.504
%RSD	149.32	68.939	128.8	74.67	110.8	30.829	62.589	42.44
#1	.21703	.53402	-2.070	.5285	-8.795	-4.3405	-185.59	10.73
#2	-.00590	.18400	-.0968	.1633	-1.067	-6.7604	-71.716	5.777
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	**1.868**	**.14408**	**.04649**	**39.114**	**-.11920**	**-.77695**	**.26574**	**-.75393**
Stddev	6.311	.00169	.00233	5.100	.21026	1.2935	.39286	2.9969
%RSD	337.8	1.1746	5.0216	13.038	176.39	166.49	147.84	397.51
#1	6.331	.14528	.04814	35.507	.02947	-1.6916	.54353	-2.8731
#2	-2.595	.14289	.04484	42.720	-.26788	.13772	-.01205	1.3652
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: 12/8/2007 0:34:00 Type: QC
Method: TRACEPB 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	-.80517	.36478	.03655	-.96275	.28298	-.37982	-.25439	-.59428
Stddev	.23960	.03513	.00291	1.9036	.05900	.37417	.17407	.09971
%RSD	29.758	9.6308	7.9535	197.72	20.848	98.511	68.427	16.778
#1	-.97459	.38962	.03450	.38327	.24127	-.64440	-.37748	-.66479
#2	-.63574	.33994	.03861	-2.3088	.32470	-.11525	-.13130	-.52378
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	45009.	19032.	609930.
Stddev	37.	102.	7244.
%RSD	.08117	.53347	1.1877
#1	44984.	18960.	615050.
#2	45035.	19104.	604810.

Sample Name: CCV Acquired: 12/8/2007 1:12:32 Type: QC
Method: TRACEPB 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	**516.57**	**52116.**	**520.89**	**517.72**	**502.26**	**51.061**	**99721.**
Stddev	3.36	426.	.23	.97	2.39	.296	576.
%RSD	.65101	.81769	.04440	.18786	.47606	.57957	.57770
#1	518.95	52417.	521.05	518.41	503.95	51.271	100130.
#2	514.19	51814.	520.73	517.03	500.57	50.852	99314.
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	**510.68**	**507.29**	**511.01**	F **604.9**	F **568.1**	**489.9**	**48042.**
Stddev	1.08	1.23	3.60	5.9	3.2	9.3	293.
%RSD	.21190	.24244	.70444	.9762	.5691	1.905	.61082
#1	511.45	508.16	513.55	609.1	570.4	483.3	48250.
#2	509.91	506.42	508.46	600.7	565.8	496.5	47835.
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	**27031.**	**96660.**	**102700.**	**506.68**	**517.55**	**107010.**	**505.31**
Stddev	116.	1184.	889.	2.28	1.07	240.	1.56
%RSD	.42901	1.225	.8657	.45034	.20605	.22394	.30842
#1	27113.	97490.	103400.	508.30	518.31	107180.	506.41
#2	26949.	95820.	102100.	505.07	516.80	106850.	504.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/8/2007 1:12:32 Type: QC
Method: TRACEPB 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	**509.42**	**518.49**	**519.40**	**521.67**	**511.75**	**501.92**	**512.78**
Stddev	.03	.68	1.80	4.08	.56	1.63	2.21
%RSD	.00564	.13046	.34691	.78180	.10970	.32419	.43159
#1	509.44	518.97	520.68	524.56	512.15	500.77	514.34
#2	509.40	518.02	518.13	518.79	511.35	503.07	511.21
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	**515.26**	**508.60**	**513.92**	F **617.85**
Stddev	2.51	.80	2.56	.82
%RSD	.48633	.15823	.49805	.13239
#1	517.04	509.17	515.73	618.43
#2	513.49	508.03	512.11	617.27
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	43886.	18885.	607050.
Stddev	16.	152.	1719.
%RSD	.03733	.80663	.28309
#1	43875.	18777.	605840.
#2	43898.	18993.	608270.

Sample Name: CCB Acquired: 12/8/2007 1:16:09 Type: QC
Method: TRACEPB 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	-.07683	18.541	1.9847	.17710	.03831	-.00538	5.9700	.03269
Stddev	.05468	8.539	.2356	.44932	.00141	.00309	2.5066	.00514
%RSD	71.171	46.054	11.869	253.70	3.6697	57.562	41.987	15.711
#1	-.03816	24.579	2.1513	-.14061	.03931	-.00756	7.7425	.02906
#2	-.11549	12.503	1.8182	.49482	.03732	-.00319	4.1975	.03632
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	-.03629	.28091	-.7895	.6982	-1.820	6.3904	-34.575	F 9.753
Stddev	.04128	.14233	.3466	.0247	11.05	4.1928	74.423	.149
%RSD	113.73	50.670	43.90	3.532	607.0	65.610	215.25	1.532
#1	-.00711	.38155	-1.035	.6808	-9.631	3.4257	18.050	9.859
#2	-.06548	.18026	-.5444	.7157	5.991	9.3552	-87.200	9.648
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 4.385	.24381	.04600	40.595	-.02977	-1.4578	-.25572	.27130
Stddev	.516	.01250	.16567	.802	.19899	1.2607	3.1843	.46299
%RSD	11.76	5.1282	360.17	1.9758	668.44	86.475	1245.3	170.66
#1	4.750	.23497	.16315	40.028	-.17048	-2.3493	-2.5074	.59868
#2	4.020	.25265	-.07115	41.162	.11094	-.56642	1.9960	-.05608
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: 12/8/2007 1:16:09 Type: QC
Method: TRACEPB 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	-.64128	.24026	.02340	-.13658	.40019	.74913	-.13832	-.39836
Stddev	.44847	.78555	.00690	2.3052	.05732	.25779	.08671	.06328
%RSD	69.933	326.96	29.503	1687.9	14.324	34.412	62.691	15.886
#1	-.95839	.79573	.02828	1.4935	.35966	.56685	-.19963	-.35362
#2	-.32416	-.31521	.01852	-1.7666	.44072	.93142	-.07700	-.44311
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	44876.	18927.	617230.
Stddev	79.	445.	3381.
%RSD	.17643	2.3507	.54781
#1	44932.	18612.	619620.
#2	44820.	19242.	614840.

Sample Name: CCV Acquired: 12/8/2007 1:55:00 Type: QC
Method: TRACEPB 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	**522.13**	**53690.**	**521.52**	**521.33**	**497.15**	**51.820**	**101620.**
Stddev	.62	674.	.60	1.12	.74	.002	1534.
%RSD	.11887	1.2545	.11451	.21483	.14831	.00402	1.5092
#1	522.57	54166.	521.09	520.54	497.67	51.818	102710.
#2	521.69	53213.	521.94	522.12	496.63	51.821	100540.
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	**513.70**	**509.94**	**518.79**	F **611.8**	F **570.0**	**485.1**	**48612.**
Stddev	.36	.18	.80	1.1	.9	9.0	764.
%RSD	.07021	.03615	.15500	.1750	.1512	1.845	1.5715
#1	513.44	509.81	518.22	611.1	570.6	491.5	49152.
#2	513.95	510.07	519.36	612.6	569.4	478.8	48071.
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	F **27793.**	**99190.**	**105900.**	**510.60**	**521.91**	**108530.**	**509.94**
Stddev	273.	963.	1297.	1.07	.74	1920.	.23
%RSD	.98376	.9709	1.225	.20927	.14183	1.7695	.04507
#1	27987.	99870.	106800.	511.35	521.39	109890.	509.78
#2	27600.	98510.	105000.	509.84	522.44	107170.	510.10
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	25000.						
Range	10.000%						

Sample Name: CCV Acquired: 12/8/2007 1:55:00 Type: QC
Method: TRACEPB 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	**511.99**	**520.84**	**520.64**	**525.10**	**516.32**	**502.57**	**511.67**
Stddev	.18	3.61	4.12	.68	.79	.00	1.87
%RSD	.03534	.69391	.79152	.12970	.15220	.00025	.36464
#1	512.11	523.40	517.73	524.62	516.87	502.57	512.99
#2	511.86	518.28	523.55	525.58	515.76	502.57	510.35
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	**528.02**	**509.56**	**518.55**	F **619.29**
Stddev	.14	5.09	.78	.07
%RSD	.02709	.99805	.15132	.01078
#1	528.12	505.96	519.11	619.25
#2	527.92	513.16	518.00	619.34
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	**43297.**	**18343.**	**598880.**
Stddev	14.	37.	322.
%RSD	.03334	.20026	.05380
#1	43287.	18317.	599110.
#2	43307.	18369.	598650.

Sample Name: CCB Acquired: 12/8/2007 1:58:36 Type: QC
Method: TRACEPB 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	**.17896**	**18.720**	**.09396**	**.72356**	**.06195**	**-.00543**	**2.4648**	**-.00681**
Stddev	.08810	38.223	.17739	.34352	.01962	.00090	1.6703	.10167
%RSD	49.230	204.18	188.80	47.476	31.675	16.478	67.767	1493.3
#1	.24126	45.747	.21939	.48066	.07582	-.00606	1.2837	-.07870
#2	.11667	-8.3075	-.03147	.96647	.04807	-.00480	3.6459	.06508
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	**-.08101**	**.49175**	**-.2852**	**.4891**	F **-3.087**	**6.1835**	**-56.764**	F **13.86**
Stddev	.35163	.08167	1.565	.1379	5.002	.8000	18.735	3.92
%RSD	434.07	16.608	548.9	28.20	162.0	12.938	33.005	28.31
#1	.16763	.43400	.8217	.5867	-6.624	6.7492	-70.011	16.63
#2	-.32964	.54950	-1.392	.3916	.4501	5.6178	-43.516	11.08
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 **10.78**	**.25113**	**.13617**	**36.161**	**-.21032**	**-1.5643**	**.62839**	**1.2660**
Stddev	6.29	.01977	.09027	8.630	.57885	.4385	2.0012	2.1369
%RSD	58.40	7.8710	66.297	23.865	275.22	28.031	318.46	168.79
#1	15.23	.26511	.20000	30.059	-.61963	-1.8744	2.0434	2.7770
#2	6.329	.23715	.07233	42.264	.19898	-1.2542	-.78667	-.24503
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: 12/8/2007 1:58:36 Type: QC
Method: TRACEPB 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	-.90577	.25536	.03736	.34073	.38377	.06945	-.02615	-.43634
Stddev	.01092	.37844	.00707	.74717	.07971	.27283	.22508	.08861
%RSD	1.2053	148.20	18.919	219.29	20.769	392.83	860.82	20.307
#1	-.89805	-.01224	.04236	.86906	.32741	-.12347	-.18531	-.37369
#2	-.91349	.52296	.03237	-.18760	.44013	.26237	.13301	-.49900
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	44673.	17784.	609420.
Stddev	190.	906.	458.
%RSD	.42425	5.0919	.07520
#1	44539.	17144.	609100.
#2	44807.	18424.	609750.

Sample Name: CCV Acquired: 12/8/2007 3:19:40 Type: QC
Method: TRACEPB 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	**521.39**	**52251.**	**531.93**	**527.46**	**508.70**	**51.770**	**100160.**
Stddev	.83	682.	6.45	.37	.06	.048	1188.
%RSD	.15997	1.3046	1.2120	.07100	.01272	.09328	1.1863
#1	520.80	51769.	527.37	527.19	508.74	51.736	99320.
#2	521.98	52733.	536.49	527.72	508.65	51.805	101000.
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	**519.88**	**514.84**	**520.09**	F **614.3**	F **575.6**	**485.5**	**48257.**
Stddev	.75	.11	.15	1.7	3.9	11.0	520.
%RSD	.14365	.02098	.02936	.2769	.6815	2.263	1.0774
#1	519.35	514.76	519.98	613.1	572.9	477.7	47890.
#2	520.41	514.92	520.20	615.5	578.4	493.3	48625.
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	**27352.**	**97440.**	**102200.**	**509.87**	**528.30**	**108250.**	**510.92**
Stddev	310.	1739.	1231.	.55	1.30	1317.	1.06
%RSD	1.1327	1.785	1.204	.10845	.24609	1.2164	.20772
#1	27133.	96210.	101300.	509.47	527.38	107320.	511.67
#2	27571.	98670.	103100.	510.26	529.22	109190.	510.17
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/8/2007 3:19:40 Type: QC
Method: TRACEPB 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	**519.64**	**523.97**	**524.24**	**524.56**	**522.22**	**507.12**	**517.24**
Stddev	1.17	.92	5.61	.43	.44	1.30	3.96
%RSD	.22523	.17484	1.0695	.08265	.08457	.25722	.76496
#1	520.46	524.62	520.27	524.25	521.90	508.04	514.44
#2	518.81	523.33	528.20	524.86	522.53	506.20	520.04
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	**518.25**	**517.56**	**519.85**	F **629.82**
Stddev	.13	1.96	.37	.93
%RSD	.02550	.37794	.07113	.14747
#1	518.34	516.18	519.59	629.17
#2	518.16	518.94	520.11	630.48
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	44658.	19246.	622440.
Stddev	44.	229.	1854.
%RSD	.09803	1.1873	.29786
#1	44627.	19408.	623750.
#2	44689.	19085.	621130.

Sample Name: CCB Acquired: 12/8/2007 3:23:16 Type: QC
Method: TRACEPB 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	**-.08477**	**42.596**	**.82168**	**1.1546**	**.17601**	**.00355**	**19.363**	**.12905**
Stddev	.30046	15.135	2.0382	.0196	.00421	.00469	.902	.03366
%RSD	354.43	35.531	248.05	1.6991	2.3922	131.86	4.6569	26.086
#1	.12768	31.894	-.61954	1.1685	.17899	.00024	20.001	.15285
#2	-.29723	53.297	2.2629	1.1408	.17303	.00687	18.725	.10524
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	**-.06515**	**.36162**	**-.0050**	**.6001**	F **6.439**	**15.181**	**-20.131**	F **26.95**
Stddev	.01430	.04133	1.354	.0023	2.579	7.799	65.584	1.02
%RSD	21.943	11.429	26950.	.3827	40.05	51.372	325.78	3.772
#1	-.05504	.39084	.9524	.5984	4.616	20.696	26.244	27.66
#2	-.07525	.33240	-.9624	.6017	8.263	9.6665	-66.506	26.23
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 **24.40**	**.40552**	**.16573**	**70.270**	**.15721**	**-1.3219**	**.72110**	**.80595**
Stddev	5.70	.05752	.13537	30.805	.19307	.8048	.57521	1.8911
%RSD	23.36	14.184	81.677	43.838	122.81	60.884	79.768	234.65
#1	28.43	.36485	.07002	92.052	.02069	-1.8909	1.1278	2.1432
#2	20.37	.44619	.26145	48.487	.29373	-.75278	.31437	-.53128
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: 12/8/2007 3:23:16 Type: QC
Method: TRACEPB 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	**.41163**	**.29654**	**.12673**	**1.7510**	**.58091**	**.01862**	**.03603**	**-.20848**
Stddev	.15352	.03367	.00067	.9831	.11482	.14020	.22933	.00025
%RSD	37.294	11.353	.52879	56.147	19.765	752.95	636.44	.12078
#1	.30308	.27274	.12720	2.4462	.66210	.11776	-.12613	-.20865
#2	.52019	.32035	.12625	1.0558	.49972	-.08052	.19819	-.20830
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	45386.	19525.	628380.
Stddev	616.	515.	1066.
%RSD	1.3562	2.6381	.16969
#1	44951.	19889.	627630.
#2	45822.	19161.	629130.

Sample Name: BLK 121 Acquired: 12/8/2007 3:30:07 Type: QC
Method: TRACEPB 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	**-.19731**	**11.145**	**-2.2326**	**2.7987**	**.05760**	**.01777**	**46.784**
Stddev	.48514	12.065	.3072	.2890	.00067	.00815	1.031
%RSD	245.88	108.25	13.758	10.326	1.1682	45.862	2.2045
#1	.14574	19.676	-2.4498	2.5944	.05712	.01201	47.513
#2	-.54035	2.6145	-2.0154	3.0031	.05808	.02353	46.055
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	**-.20658**	**-.18872**	**2.0354**	**.5925**	**1.942**	**1.725**	**-7.9451**
Stddev	.03708	.17084	.0181	.5503	1.011	4.476	1.8379
%RSD	17.950	90.526	.88953	92.88	52.05	259.4	23.132
#1	-.23280	-.06792	2.0482	.2034	1.227	-1.439	-9.2447
#2	-.18036	-.30952	2.0226	.9816	2.657	4.890	-6.6456
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	**-102.12**	**2.165**	**-2.140**	**.01116**	**.05083**	**-31.641**	**-.31739**
Stddev	14.24	.088	1.146	.00306	.06472	.381	.33836
%RSD	13.941	4.079	53.57	27.424	127.32	1.2045	106.60
#1	-92.055	2.102	-2.950	.00899	.00507	-31.371	-.07814
#2	-112.19	2.227	-1.329	.01332	.09660	-31.910	-.55665
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: BLK 121 Acquired: 12/8/2007 3:30:07 Type: QC
Method: TRACEPB 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	**-1.9304**	**.76290**	**2.1198**	F **14.042**	F **30.252**	**.05611**	**-2.9580**
Stddev	.4563	1.1775	.6477	.730	.372	.00398	.5369
%RSD	23.636	154.35	30.557	5.1970	1.2309	7.0918	18.151
#1	-1.6078	1.5955	2.5778	13.526	30.516	.05892	-2.5784
#2	-2.2530	-.06972	1.6617	14.558	29.989	.05330	-3.3377
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
High Limit				10.000	20.000		
Low Limit				-10.000	-20.000		

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.36787**	**-3.9407**	**.03779**	**5.4645**
Stddev	.03771	.3433	.14143	.1268
%RSD	10.252	8.7107	374.29	2.3197
#1	.34120	-4.1834	-.06222	5.5541
#2	.39454	-3.6979	.13779	5.3749
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	44298.	19221.	618900.
Stddev	82.	53.	856.
%RSD	.18481	.27380	.13828
#1	44240.	19259.	618300.
#2	44355.	19184.	619510.

Sample Name: BKS 121 Acquired: 12/8/2007 3:33:37 Type: QC
Method: TRACEPB 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	**102.77**	**10455.**	**96.486**	**959.76**	**1030.6**	**51.586**	**9972.7**
Stddev	.02	32.	1.295	1.52	1.2	.110	41.4
%RSD	.02121	.30553	1.3417	.15847	.11292	.21266	.41476
#1	102.75	10478.	95.571	960.83	1031.4	51.508	10002.
#2	102.78	10433.	97.402	958.68	1029.8	51.664	9943.5
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	**104.69**	**513.11**	**531.47**	F **572.0**	F **978.9**	F **438.2**	**9661.2**
Stddev	.05	.32	2.10	.9	.5	1.5	41.7
%RSD	.04970	.06185	.39452	.1567	.0494	.3481	.43131
#1	104.73	513.33	529.98	572.6	978.6	437.1	9690.6
#2	104.66	512.88	532.95	571.3	979.3	439.3	9631.7
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	**10602.**	F **9930.**	F **11040.**	**1034.8**	**528.35**	**10455.**	**522.13**
Stddev	79.	53.	70.	.7	.42	16.	.72
%RSD	.74515	.5337	.6349	.06667	.07904	.15658	.13790
#1	10657.	9967.	11090.	1035.3	528.05	10444.	522.64
#2	10546.	9892.	10990.	1034.3	528.64	10467.	521.62
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 121 Acquired: 12/8/2007 3:33:37 Type: QC
Method: TRACEPB 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	**1026.4**	**96.223**	**100.58**	**8040.7**	**547.02**	F **1022.9**	**382.75**
Stddev	2.1	1.035	.63	17.0	.18	3.3	1.79
%RSD	.20531	1.0759	.62779	.21185	.03224	.32696	.46756
#1	1027.9	95.491	100.14	8052.7	546.89	1025.3	381.48
#2	1024.9	96.955	101.03	8028.6	547.14	1020.5	384.01
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	**2080.3**	**102.25**	**530.05**	**1026.2**
Stddev	1.7	1.64	.32	.8
%RSD	.08045	1.6027	.05996	.07601
#1	2079.1	101.09	529.83	1026.7
#2	2081.5	103.40	530.28	1025.6
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	44640.	18882.	618140.
Stddev	24.	19.	1280.
%RSD	.05381	.09922	.20710
#1	44623.	18869.	619040.
#2	44657.	18895.	617230.

Sample Name: S 711067-041-041-1/1 Acquired: 12/8/2007 3:37:15 Type: Unk
Method: TRACEPB 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	**-.08822**	**41844.**	**7.6528**	**-2.4382**	**32.177**	**2.3563**	**1229.4**
Stddev	.31644	189.	1.0436	.0888	.602	.1797	2.4
%RSD	358.70	.45201	13.637	3.6431	1.8718	7.6277	.19436
#1	-.31197	41711.	6.9149	-2.3754	32.603	2.4834	1227.7
#2	.13554	41978.	8.3908	-2.5010	31.751	2.2292	1231.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.52447**	**16.472**	**796.60**	**337.5**	**323.8**	**228.1**	**211970.**
Stddev	.20779	.501	17.46	6.7	1.7	.1	96.
%RSD	39.620	3.0423	2.1912	1.986	.5167	.0394	.04531
#1	.67140	16.826	808.94	342.2	325.0	228.0	211900.
#2	.37753	16.117	784.26	332.8	322.6	228.1	212040.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**735.11**	**1566.**	**1748.**	**613.02**	**1.8299**	**37.513**	**86.405**
Stddev	42.13	4.	9.	13.55	.2399	9.316	2.097
%RSD	5.7312	.2248	.5423	2.2097	13.108	24.835	2.4274
#1	705.32	1563.	1741.	622.60	1.9995	44.101	87.889
#2	764.90	1568.	1754.	603.44	1.6603	30.926	84.922

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.512**	**-5.2638**	**1.2129**	**634.84**	**4.5151**	**25.812**	**23.374**
Stddev	1.599	1.2685	1.1094	14.58	.4588	.575	.426
%RSD	12.779	24.099	91.470	2.2973	10.161	2.2289	1.8218
#1	13.643	-6.1608	1.9973	645.15	4.1906	26.219	23.072
#2	11.382	-4.3668	.42840	624.52	4.8395	25.406	23.675

Sample Name: S 711067-041-041-1/1 Acquired: 12/8/2007 3:37:15 Type: Unk
Method: TRACEPB 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	**12432.**	**1.7133**	**572.77**	**103.01**
Stddev	294.	.4960	13.24	2.39
%RSD	2.3630	28.948	2.3109	2.3163
#1	12639.	1.3626	582.13	104.70
#2	12224.	2.0640	563.41	101.33

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	46189.	19234.	632310.
Stddev	139.	232.	1171.
%RSD	.30056	1.2079	.18515
#1	46091.	19399.	631480.
#2	46287.	19070.	633140.

Sample Name: SP711067-041-041-1/1 Acquired: 12/8/2007 3:40:44 Type: Unk
Method: TRACEPB 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	**10.946**	**70650.**	**16.248**	**91.528**	**153.67**	**6.3595**	**2397.4**
Stddev	.016	437.	.761	2.362	2.90	.2028	21.7
%RSD	.14888	.61847	4.6850	2.5810	1.8860	3.1889	.90700
#1	10.957	70341.	16.786	93.199	155.72	6.5029	2382.1
#2	10.934	70959.	15.710	89.858	151.62	6.2161	2412.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.282**	**70.819**	**921.48**	**419.9**	**401.5**	**299.3**	**227630.**
Stddev	.592	1.784	20.27	7.1	1.2	1.3	1710.
%RSD	5.2447	2.5185	2.1994	1.696	.2921	.4383	.75132
#1	11.700	72.080	935.81	424.9	402.3	298.4	226420.
#2	10.863	69.558	907.15	414.9	400.7	300.2	228840.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2192.3**	**2938.**	**3287.**	**798.85**	**38.265**	**1235.8**	**198.01**
Stddev	74.0	17.	4.	14.34	.411	31.3	4.73
%RSD	3.3762	.5834	.1268	1.7949	1.0738	2.5349	2.3896
#1	2140.0	2926.	3284.	808.98	38.555	1213.6	201.35
#2	2244.7	2950.	3290.	788.71	37.974	1257.9	194.66

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**118.49**	**.54889**	**9.7863**	**510.46**	**54.528**	**143.76**	**61.801**
Stddev	3.02	1.8360	.2775	8.49	.609	2.78	.854
%RSD	2.5523	334.49	2.8359	1.6636	1.1164	1.9333	1.3811
#1	120.63	1.8471	9.5900	516.46	54.959	145.72	61.197
#2	116.35	-.74934	9.9825	504.45	54.098	141.79	62.404

Sample Name: SP711067-041-041-1/1 Acquired: 12/8/2007 3:40:44 Type: Unk
Method: TRACEPB 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	**13797.**	**12.784**	**679.84**	**227.71**
Stddev	332.	.441	13.45	5.18
%RSD	2.4076	3.4490	1.9789	2.2755
#1	14032.	13.096	689.35	231.38
#2	13562.	12.472	670.33	224.05

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45856.	19228.	625820.
Stddev	94.	185.	1587.
%RSD	.20392	.96227	.25352
#1	45790.	19359.	624700.
#2	45922.	19097.	626940.

Sample Name: SD711067-041-041-1/1 Acquired: 12/8/2007 3:44:10 Type: Unk
Method: TRACEPB 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	**10.615**	**70228.**	**18.247**	**86.068**	**143.43**	^ *****	**2417.6**
Stddev	.206	715.	2.947	.965	5.30	-----	12.4
%RSD	1.9413	1.0180	16.151	1.1208	3.6961	-----	.51344
#1	10.761	70734.	16.164	86.751	147.18	^ -----	2426.4
#2	10.469	69723.	20.331	85.386	139.68	^ -----	2408.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10.226**	**67.638**	**891.66**	**405.2**	**403.2**	**300.5**	**230780.**
Stddev	.203	.063	29.72	8.4	7.9	1.4	2586.
%RSD	1.9867	.09300	3.3326	2.084	1.950	.4665	1.1206
#1	10.369	67.594	912.67	411.2	408.8	299.5	232610.
#2	10.082	67.683	870.65	399.2	397.7	301.5	228950.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2219.4**	**2929.**	**3293.**	**748.11**	**36.260**	**1214.0**	**188.43**
Stddev	60.4	30.	36.	27.16	.712	8.2	2.11
%RSD	2.7195	1.025	1.097	3.6301	1.9638	.67824	1.1188
#1	2176.7	2950.	3318.	767.31	36.763	1219.8	189.92
#2	2262.1	2907.	3267.	728.90	35.756	1208.2	186.94

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**111.95**	**.32034**	**8.2364**	**550.10**	**51.630**	**135.18**	**61.887**
Stddev	.43	.48977	.7779	19.91	1.170	4.97	3.627
%RSD	.38069	152.89	9.4446	3.6188	2.2667	3.6760	5.8600
#1	112.25	-.02598	7.6864	564.18	52.457	138.70	64.452
#2	111.64	.66666	8.7865	536.03	50.802	131.67	59.323

Sample Name: SD711067-041-041-1/1 Acquired: 12/8/2007 3:44:10 Type: Unk
Method: TRACEPB 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	**13293.**	**12.254**	**653.98**	**217.93**
Stddev	524.	.361	22.25	2.53
%RSD	3.9392	2.9492	3.4028	1.1604
#1	13663.	12.509	669.72	219.72
#2	12923.	11.998	638.25	216.15

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45515.	18825.	626830.
Stddev	181.	30.	5095.
%RSD	.39732	.15683	.81283
#1	45387.	18804.	623220.
#2	45643.	18846.	630430.

Sample Name: PS711067-041-041-1/1 Acquired: 12/8/2007 3:47:38 Type: Unk
Method: TRACEPB 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	**50.523**	**39744.**	**103.45**	**82.354**	**56.482**	**12.361**	**6950.3**
Stddev	.181	396.	.72	.673	.338	.053	85.6
%RSD	.35733	.99544	.69640	.81693	.59787	.42733	1.2322
#1	50.395	39464.	102.94	82.830	56.243	12.324	6889.7
#2	50.651	40024.	103.95	81.879	56.721	12.399	7010.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**26.466**	**55.025**	**787.88**	**368.9**	**714.3**	**243.2**	**196620.**
Stddev	.234	.019	1.87	2.4	4.5	1.1	2322.
%RSD	.88379	.03523	.23769	.6417	.6360	.4576	1.1808
#1	26.632	55.011	786.56	367.2	711.1	242.4	194980.
#2	26.301	55.038	789.20	370.5	717.5	244.0	198260.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6989.5**	**7253.**	**8100.**	**690.13**	**38.972**	**6245.8**	**136.25**
Stddev	59.9	76.	52.	2.78	.364	119.6	.23
%RSD	.85676	1.045	.6449	.40266	.93330	1.9150	.16861
#1	6947.1	7199.	8063.	688.17	38.715	6161.2	136.09
#2	7031.8	7307.	8137.	692.10	39.229	6330.3	136.42

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**112.69**	**97.690**	**84.263**	**6694.7**	**126.69**	**50.115**	**596.56**
Stddev	.83	.920	3.877	25.1	.41	.184	3.16
%RSD	.73990	.94148	4.6010	.37526	.32298	.36617	.53020
#1	113.28	98.341	81.521	6677.0	126.98	49.985	594.33
#2	112.10	97.040	87.004	6712.5	126.40	50.245	598.80

Sample Name: PS711067-041-041-1/1 Acquired: 12/8/2007 3:47:38 Type: Unk
Method: TRACEPB 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	**11713.**	**121.57**	**577.47**	**205.10**
Stddev	70.	.07	1.92	.52
%RSD	.59897	.05361	.33201	.25372
#1	11663.	121.52	576.11	205.47
#2	11763.	121.61	578.82	204.73

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	45563.	19078.	622750.
Stddev	31.	324.	3295.
%RSD	.06793	1.6957	.52910
#1	45541.	19307.	625080.
#2	45585.	18849.	620420.

Sample Name: SE711067-041-041-1/1 Acquired: 12/8/2007 3:51:04 Type: Unk
Method: TRACEPB 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	**-.02005**	**8208.8**	**2.9594**	**-.38769**	**6.5446**	**.04354**	**240.93**	**.15530**
Stddev	.09091	44.3	1.5268	.05587	.0803	.00271	2.37	.07156
%RSD	453.51	.53975	51.590	14.411	1.2270	6.2231	.98566	46.076
#1	-.08433	8177.5	4.0390	-.42719	6.4878	.04545	239.25	.20590
#2	.04424	8240.1	1.8798	-.34818	6.6014	.04162	242.61	.10470

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.9079**	**161.11**	**71.65**	**67.05**	**49.06**	**43229.**	**62.994**	**308.9**
Stddev	.1574	.41	.05	.66	.14	374.	56.861	.3
%RSD	4.0271	.25352	.0710	.9791	.2850	.86506	90.264	.0932
#1	3.7966	160.82	71.68	66.58	49.16	42964.	103.20	309.1
#2	4.0192	161.40	71.61	67.51	48.96	43493.	22.787	308.7

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**339.1**	**123.97**	**.35556**	**-21.695**	**18.088**	**2.0543**	**.35116**	**-.69680**
Stddev	6.2	.71	.19959	14.096	.050	.5567	1.5162	2.0776
%RSD	1.838	.57234	56.135	64.975	.27411	27.099	431.75	298.17
#1	334.7	123.47	.21442	-31.663	18.052	1.6607	1.4233	-2.1659
#2	343.5	124.48	.49669	-11.727	18.123	2.4480	-.72092	.77230

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**133.36**	**.97686**	**5.1296**	**5.5720**	**2504.8**	**-.00954**	**116.47**	**24.175**
Stddev	.52	.29291	.0465	.3727	13.2	.73946	.90	.082
%RSD	.38857	29.985	.90581	6.6894	.52743	7752.2	.77003	.33759
#1	133.00	.76974	5.0967	5.8356	2495.5	.51334	115.83	24.232
#2	133.73	1.1840	5.1625	5.3085	2514.2	-.53242	117.10	24.117

Sample Name: SE711067-041-041-1/1 Acquired: 12/8/2007 3:51:04 Type: Unk
Method: TRACEPB 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	46091.	19310.	639750.
Stddev	31.	264.	3244.
%RSD	.06640	1.3676	.50706
#1	46069.	19497.	642040.
#2	46113.	19124.	637460.

Sample Name: 711067-042-042-1/1 Acquired: 12/8/2007 3:54:29 Type: Unk
Method: TRACEPB 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	**.75306**	**60479.**	**1.3436**	**5.6239**	**57.506**	^ *****	**7713.7**
Stddev	.06053	509.	.1532	.2399	1.398	-----	60.7
%RSD	8.0378	.84192	11.400	4.2652	2.4302	-----	.78666
#1	.79586	60839.	1.2353	5.4542	58.494	^ -----	7756.6
#2	.71026	60119.	1.4519	5.7935	56.518	^ -----	7670.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3547**	**28.433**	**568.74**	**265.7**	**282.3**	**204.8**	**147950.**
Stddev	.6680	2.372	14.39	.5	.2	10.9	1538.
%RSD	49.307	8.3434	2.5299	.1902	.0828	5.320	1.0395
#1	.88239	26.755	578.92	265.4	282.1	197.1	149040.
#2	1.8270	30.110	558.57	266.1	282.4	212.5	146870.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1354.5**	**2055.**	**2301.**	**1507.6**	**.74747**	**125.48**	**264.63**
Stddev	59.8	19.	35.	37.1	.11915	11.32	10.21
%RSD	4.4157	.9099	1.541	2.4618	15.940	9.0190	3.8584
#1	1312.2	2068.	2326.	1533.9	.83172	117.48	257.41
#2	1396.8	2042.	2276.	1481.4	.66322	133.49	271.85

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.006**	**-1.4931**	**.83380**	**532.47**	**2.6796**	**74.820**	**11.679**
Stddev	1.822	2.4204	.14302	16.39	.4211	1.831	2.300
%RSD	15.172	162.11	17.153	3.0781	15.714	2.4474	19.691
#1	10.718	-3.2046	.73267	544.06	2.9773	76.115	13.305
#2	13.294	.21842	.93494	520.88	2.3819	73.525	10.053

Sample Name: 711067-042-042-1/1 Acquired: 12/8/2007 3:54:29 Type: Unk
Method: TRACEPB 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	**7636.8**	**.82834**	**366.30**	**111.08**
Stddev	289.0	.63572	9.18	4.96
%RSD	3.7844	76.746	2.5052	4.4673
#1	7841.1	1.2779	372.79	107.57
#2	7432.4	.37882	359.82	114.59

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	44588.	19314.	635640.
Stddev	1529.	127.	9377.
%RSD	3.4295	.65960	1.4752
#1	45669.	19224.	629010.
#2	43506.	19404.	642270.

Sample Name: CCV Acquired: 12/8/2007 4:01:27 Type: QC
Method: TRACEPB 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	**519.12**	**51760.**	**526.57**	**522.60**	**502.66**	**51.568**	**98973.**
Stddev	.23	469.	4.02	.94	2.65	.039	840.
%RSD	.04501	.90682	.76372	.17991	.52711	.07628	.84882
#1	519.29	51428.	523.73	521.93	504.53	51.540	98379.
#2	518.96	52092.	529.42	523.26	500.79	51.595	99567.
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	**517.37**	**510.86**	**516.84**	F **610.5**	F **570.7**	**488.9**	**47592.**
Stddev	.94	.81	.61	.8	2.9	17.1	480.
%RSD	.18223	.15901	.11775	.1236	.5018	3.497	1.0087
#1	516.70	510.28	516.41	609.9	568.7	501.0	47252.
#2	518.04	511.43	517.27	611.0	572.7	476.8	47931.
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	**27050.**	**95720.**	**101200.**	**507.96**	**525.60**	**107180.**	**507.06**
Stddev	292.	1249.	859.	1.61	1.82	1202.	.35
%RSD	1.0806	1.305	.8491	.31672	.34661	1.1211	.06868
#1	26843.	94840.	100600.	509.09	524.32	106330.	506.81
#2	27257.	96610.	101800.	506.82	526.89	108030.	507.31
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/8/2007 4:01:27 Type: QC
Method: TRACEPB 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	**516.95**	**522.67**	**522.38**	**520.89**	**518.46**	**502.97**	**515.93**
Stddev	.69	1.38	.09	2.54	.38	5.63	2.41
%RSD	.13347	.26365	.01746	.48739	.07359	1.1203	.46766
#1	516.46	523.64	522.44	522.68	518.19	506.95	514.22
#2	517.44	521.69	522.31	519.09	518.73	498.98	517.63
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	**516.88**	**514.67**	**516.99**	F **625.65**
Stddev	1.06	3.32	.67	1.15
%RSD	.20589	.64505	.12907	.18308
#1	517.63	512.32	517.46	624.84
#2	516.12	517.01	516.52	626.46
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	44273.	18952.	613610.
Stddev	25.	185.	36.
%RSD	.05655	.97571	.00582
#1	44291.	19083.	613590.
#2	44255.	18821.	613640.

Sample Name: CCB Acquired: 12/8/2007 4:05:03 Type: QC
Method: TRACEPB 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	**-.62640**	**.10661**	**.11252**	**-.52335**	**.53239**	**.07839**	**.08706**	**-.40630**
Stddev	.09742	.45634	.00377	.22225	.05635	.07253	.05842	.04825
%RSD	15.552	428.06	3.3522	42.468	10.585	92.525	67.105	11.876
#1	-.69529	-.21607	.10985	-.68050	.57224	.12968	.12837	-.37218
#2	-.55752	.42929	.11519	-.36619	.49254	.02710	.04575	-.44042
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	45801.	19109.	625660.
Stddev	84.	64.	614.
%RSD	.18322	.33504	.09808
#1	45860.	19154.	625220.
#2	45741.	19064.	626090.

Sample Name: CCB Acquired: 12/8/2007 4:05:03 Type: QC
Method: TRACEPB 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	**.36242**	**32.860**	**.16587**	**.32867**	**.12325**	**-.00567**	**41.326**	**.10819**
Stddev	.31419	17.466	.55186	.40967	.01535	.00055	9.178	.02458
%RSD	86.691	53.151	332.70	124.64	12.453	9.6243	22.207	22.720
#1	.58458	45.210	.55610	.61836	.13411	-.00528	47.816	.12558
#2	.14026	20.510	-.22435	.03899	.11240	-.00605	34.837	.09081
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	**-.04659**	**.11824**	**.1064**	**.1956**	**-2.592**	**36.947**	**-42.045**	F **50.79**
Stddev	.19940	.34077	.9121	.5209	3.310	3.735	73.296	6.66
%RSD	427.95	288.20	857.2	266.3	127.7	10.109	174.33	13.11
#1	-.18759	.35920	-.5386	-.1728	-4.933	39.588	-93.874	55.50
#2	.09440	-.12272	.7514	.5639	-.2512	34.306	9.7832	46.08
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 **49.81**	**.32201**	**.02572**	**105.58**	**.13174**	**-1.1800**	**-.35798**	**1.6729**
Stddev	8.49	.01805	.03118	1.73	.31364	.2007	.27352	1.1649
%RSD	17.05	5.6057	121.23	1.6346	238.08	17.008	76.407	69.632
#1	55.81	.30925	.04777	106.80	.35351	-1.0381	-.55139	.84922
#2	43.80	.33478	.00367	104.36	-.09004	-1.3220	-.16457	2.4966
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: ICSA Acquired: 12/8/2007 4:08:31 Type: QC
Method: TRACEPB 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	**-.84544**	**508680.**	**2.4353**	**6.6585**	**1.8435**	**-.05934**
Stddev	.14780	3257.	7.3306	.4368	.0283	.01364
%RSD	17.482	.64026	301.01	6.5602	1.5344	22.990
#1	-.94995	506370.	-2.7482	6.9674	1.8635	-.06899
#2	-.74093	510980.	7.6189	6.3496	1.8235	-.04970
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	**516350.**	**1.5694**	**.24060**	**.68701**	F **-188.5**	F **264.7**
Stddev	1796.	.1006	.04420	.25157	1.4	2.0
%RSD	.34775	6.4107	18.372	36.619	.7341	.7591
#1	515080.	1.4983	.20935	.86490	-187.5	263.3
#2	517620.	1.6406	.27186	.50912	-189.5	266.2
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 **204.4**	**178800.**	**-217.73**	F **234900.**	F **221300.**	**.11931**
Stddev	3.3	594.	24.27	1124.	1330.	.02758
%RSD	1.632	.33199	11.149	.4785	.6012	23.116
#1	202.0	178380.	-234.89	234100.	220300.	.13881
#2	206.7	179220.	-200.56	235700.	222200.	.09981
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: 12/8/2007 4:08:31 Type: QC
Method: TRACEPB 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	**.71335**	**-99.631**	**-2.6983**	**5.4765**	**-.48078**	**-3.1088**
Stddev	.85311	7.569	.6041	2.7206	1.0480	1.4382
%RSD	119.59	7.5967	22.389	49.678	217.98	46.263
#1	1.3166	-104.98	-3.1254	7.4003	-1.2218	-4.1258
#2	.11011	-94.280	-2.2711	3.5527	.26027	-2.0918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Si	Sn	Sr	Te	Ti	Tl
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.07260**	**.49622**	**.00722**	**8.1331**	**1.0470**	**.48482**
Stddev	.38646	.19033	.03518	2.7511	.1196	.54190
%RSD	532.32	38.356	487.12	33.826	11.421	111.77
#1	.20067	.63080	.03210	6.1877	.96244	.10164
#2	-.34587	.36164	-.01766	10.078	1.1316	.86801
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	V	Zn
Units	ppb	ppb
Avg	**-.02723**	**-1.0543**
Stddev	.10681	.2191
%RSD	392.22	20.781
#1	.04829	-.89941
#2	-.10275	-1.2093
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Sample Name: ICSA Acquired: 12/8/2007 4:08:31 Type: QC
Method: TRACEPB 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	42999.	18721.	586920.
Stddev	198.	17.	1114.
%RSD	.46142	.09070	.18972
#1	42859.	18733.	586130.
#2	43139.	18709.	587710.

Sample Name: ICSAB Acquired: 12/8/2007 4:12:01 Type: QC
Method: TRACEPB 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	**210.96**	**508340.**	**100.51**	**926.26**	**499.54**	**502.77**	**520230.**
Stddev	.01	2448.	3.00	.89	3.29	.55	1606.
%RSD	.00344	.48150	2.9897	.09595	.65819	.11022	.30865
#1	210.96	506610.	102.64	926.89	497.22	503.16	521360.
#2	210.95	510070.	98.385	925.63	501.87	502.38	519090.
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	**950.48**	**466.63**	**496.44**	F **335.5**	F **769.7**	F **633.9**	**178090.**
Stddev	.72	.27	.13	3.3	1.1	.6	618.
%RSD	.07526	.05777	.02681	.9940	.1404	.0959	.34690
#1	950.99	466.82	496.53	333.2	768.9	633.5	177650.
#2	949.97	466.44	496.35	337.9	770.5	634.3	178530.
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	**4980.8**	**240900.**	**228100.**	**492.21**	**922.20**	**10237.**	**935.14**
Stddev	72.6	6756.	1090.	.40	.62	34.	.58
%RSD	1.4577	2.805	.4780	.08053	.06764	.32972	.06203
#1	4929.5	236100.	227300.	491.92	922.64	10213.	934.73
#2	5032.1	245700.	228800.	492.49	921.75	10261.	935.55
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 12/8/2007 4:12:01 Type: QC
Method: TRACEPB 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	**51.487**	**601.25**	**51.864**	**1182.6**	**899.87**	**495.79**	**205.48**
Stddev	1.304	1.01	4.634	.5	.98	1.06	3.78
%RSD	2.5321	.16719	8.9346	.04395	.10879	.21304	1.8394
#1	52.409	601.96	48.588	1182.9	899.18	496.54	208.15
#2	50.565	600.54	55.141	1182.2	900.57	495.05	202.81
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	**931.23**	**94.714**	**499.82**	**1073.4**
Stddev	1.32	.678	.22	1.3
%RSD	.14149	.71563	.04395	.12330
#1	932.16	94.234	499.97	1074.3
#2	930.30	95.193	499.66	1072.4
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	43034.	18561.	584510.
Stddev	46.	28.	698.
%RSD	.10782	.15232	.11935
#1	43001.	18581.	584020.
#2	43067.	18541.	585000.

Sample Name: CCV Acquired: 12/8/2007 4:15:51 Type: QC
Method: TRACEPB 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	**513.89**	**52639.**	**514.83**	**515.92**	**509.00**	**51.345**	**99239.**
Stddev	7.61	534.	6.81	5.83	1.23	.736	847.
%RSD	1.4801	1.0144	1.3231	1.1306	.24222	1.4340	.85365
#1	508.51	52262.	510.01	511.79	508.13	50.825	98640.
#2	519.27	53017.	519.65	520.04	509.87	51.866	99838.
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	**505.49**	**504.83**	**509.16**	F **605.9**	F **561.8**	**501.5**	**47423.**
Stddev	1.16	.88	5.74	2.1	.2	9.7	446.
%RSD	.22974	.17519	1.1271	.3502	.0426	1.942	.94104
#1	504.67	504.20	505.10	604.4	561.6	508.4	47107.
#2	506.31	505.45	513.22	607.4	561.9	494.7	47738.
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	**27410.**	**96290.**	**102500.**	**499.90**	**514.59**	**107320.**	**509.15**
Stddev	134.	480.	813.	6.11	1.90	933.	.42
%RSD	.49010	.4987	.7930	1.2223	.36996	.86922	.08339
#1	27315.	95950.	101900.	495.58	513.24	106660.	508.85
#2	27505.	96630.	103100.	504.22	515.93	107980.	509.45
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: CCV Acquired: 12/8/2007 4:15:51 Type: QC
Method: TRACEPB 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	**502.99**	**518.04**	**505.27**	**514.19**	**506.65**	**512.79**	**505.72**
Stddev	1.57	3.48	4.82	8.11	2.22	.03	3.17
%RSD	.31220	.67165	.95436	1.5780	.43895	.00612	.62781
#1	501.88	515.58	501.86	508.45	505.07	512.82	503.47
#2	504.10	520.50	508.68	519.92	508.22	512.77	507.96
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	**518.47**	**502.70**	**508.81**	F **610.87**
Stddev	6.95	1.65	5.06	1.63
%RSD	1.3406	.32768	.99423	.26665
#1	513.55	501.53	505.24	609.71
#2	523.38	503.86	512.39	612.02
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	42671.	18679.	577060.
Stddev	1372.	37.	23154.
%RSD	3.2154	.19704	4.0124
#1	41701.	18705.	593440.
#2	43641.	18653.	560690.

Sample Name: CCB Acquired: 12/8/2007 4:19:27 Type: QC
Method: TRACEPB 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	**.50607**	**107.89**	**-.36911**	**1.2625**	**.17751**	**.03390**	**115.69**	**.16433**
Stddev	.08184	10.73	.45564	.1301	.05202	.00372	27.44	.03738
%RSD	16.172	9.9453	123.44	10.305	29.307	10.970	23.715	22.750
#1	.56394	115.48	-.69129	1.3544	.21430	.03127	135.09	.19076
#2	.44819	100.31	-.04693	1.1705	.14073	.03652	96.288	.13789
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	**.29378**	**.48093**	**-.7714**	**.7126**	F **3.643**	**55.797**	**-124.36**	F **88.54**
Stddev	.11701	.12958	.8002	.6864	2.733	12.275	3.62	15.35
%RSD	39.830	26.944	103.7	96.33	75.04	21.999	2.9133	17.34
#1	.37652	.38931	-.2056	1.198	1.710	64.476	-121.79	99.39
#2	.21104	.57256	-1.337	.2272	5.575	47.117	-126.92	77.68
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 **92.08**	**.37948**	**.35451**	**86.975**	**-.17513**	**-1.3556**	**1.3046**	**.05240**
Stddev	17.35	.03258	.11944	5.554	.31048	.6170	.1313	2.2489
%RSD	18.84	8.5858	33.691	6.3863	177.29	45.514	10.064	4291.3
#1	104.3	.35644	.43896	90.902	-.39468	-1.7918	1.2118	1.6426
#2	79.81	.40251	.27005	83.047	.04441	-.91930	1.3974	-1.5378
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: 12/8/2007 4:19:27 Type: QC
Method: TRACEPB 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	-.56733	.91107	.17846	1.9810	.58352	1.2236	.05091	-.20952
Stddev	.57505	.34497	.02570	2.6922	.11818	1.4083	.04632	.14311
%RSD	101.36	37.865	14.403	135.90	20.253	115.10	90.993	68.306
#1	-.97395	.66714	.19664	3.8847	.66708	.22776	.08366	-.31071
#2	-.16071	1.1550	.16029	.07736	.49995	2.2194	.01815	-.10832
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	46500.	18841.	632600.
Stddev	248.	312.	10713.
%RSD	.53367	1.6546	1.6935
#1	46325.	18621.	625020.
#2	46676.	19062.	640170.

ICP ANALYSIS LOG

Instrument ID: ICAP 6500 (20072904) Inst. Method: Nebulizer: Analytical Batch No: 071211

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 41513

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~~ MC 12/11/07 Reviewed: [illegible] 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: BLK 119 Acquired: 12/11/2007 19:24:32 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	**.05352**	**-19.352**	**-5.9468**	**.09437**	**-.43713**	**-.00637**	**110.46**
Stddev	.37256	12.437	1.3000	.21987	.01518	.00195	4.29
%RSD	696.12	64.266	21.861	232.98	3.4723	30.556	3.8824
#1	.31696	-10.558	-5.0275	.24984	-.42640	-.00775	107.43
#2	-.20992	-28.147	-6.8661	-.06110	-.44786	-.00499	113.49
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	**-.42412**	**-1.3657**	**1.6099**	**-.8412**	**1.169**	F **5.131**	**-2.9827**
Stddev	.06487	.0015	.2774	1.208	.343	2.649	3.5639
%RSD	15.295	.10759	17.232	143.6	29.38	51.62	119.49
#1	-.46999	-1.3667	1.4137	-1.696	.9260	3.258	-.46259
#2	-.37825	-1.3646	1.8061	.0132	1.412	7.004	-5.5027
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 **-268.66**	F **-11.72**	F **-16.66**	**-.28635**	**-1.0969**	**-142.48**	**-.78456**
Stddev	11.71	.22	1.34	.01449	.0762	5.37	.14783
%RSD	4.3577	1.840	8.029	5.0614	6.9484	3.7710	18.843
#1	-276.94	-11.87	-17.60	-.29660	-1.1508	-146.28	-.68002
#2	-260.38	-11.57	-15.71	-.27610	-1.0430	-138.68	-.88909
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 119 Acquired: 12/11/2007 19:24:32 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	**-1.3062**	**.07560**	**.75026**	F **11.631**	F **26.558**	**.36163**	**-2.2004**
Stddev	.1635	1.9964	2.3055	1.484	.006	.00749	.9758
%RSD	12.520	2640.7	307.30	12.763	.02092	2.0714	44.346
#1	-1.4218	1.4873	2.3805	12.681	26.562	.36692	-2.8904
#2	-1.1905	-1.3361	-.87999	10.581	26.554	.35633	-1.5105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
High Limit				10.000	20.000		
Low Limit				-10.000	-20.000		

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.13563**	**-4.7581**	**-.44809**	**14.936**
Stddev	.03610	.5635	.08972	.018
%RSD	26.619	11.842	20.023	.12009
#1	.16116	-4.3597	-.51153	14.948
#2	.11010	-5.1565	-.38465	14.923
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	40335.	26448.	562250.
Stddev	96.	791.	1134.
%RSD	.23910	2.9895	.20177
#1	40267.	27007.	561450.
#2	40403.	25889.	563050.

Sample Name: BKS 119 Acquired: 12/11/2007 19:28:00 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	**101.51**	**10414.**	**96.370**	**951.74**	**1007.8**	**50.751**	**10110.**
Stddev	.56	275.	.344	1.08	4.9	.014	249.
%RSD	.55492	2.6445	.35659	.11318	.48288	.02717	2.4590
#1	101.11	10609.	96.127	952.50	1011.2	50.741	10286.
#2	101.90	10219.	96.613	950.98	1004.4	50.761	9934.7
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	**103.64**	**508.34**	**523.42**	F **562.9**	F **941.7**	F **503.6**	**9947.3**
Stddev	.02	.63	1.01	3.4	2.7	12.4	247.7
%RSD	.02380	.12370	.19267	.6089	.2852	2.453	2.4899
#1	103.65	508.78	522.71	565.4	943.6	512.3	10122.
#2	103.62	507.89	524.13	560.5	939.8	494.8	9772.2
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	**10001.**	F **10250.**	F **11360.**	**1019.0**	**524.22**	**10280.**	**516.80**
Stddev	269.	240.	305.	3.0	.25	248.	2.06
%RSD	2.6875	2.338	2.686	.29805	.04825	2.4146	.39831
#1	10191.	10420.	11570.	1021.1	524.40	10456.	518.25
#2	9811.3	10080.	11140.	1016.8	524.04	10105.	515.34
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 119 Acquired: 12/11/2007 19:28:00 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	**1017.2**	**93.976**	**99.640**	**8161.6**	**544.18**	F **1008.7**	**377.13**
Stddev	1.0	.129	2.447	23.7	2.08	6.0	1.52
%RSD	.09789	.13691	2.4557	.29062	.38296	.59365	.40307
#1	1017.9	94.067	101.37	8178.4	545.65	1004.5	378.21
#2	1016.5	93.885	97.910	8144.9	542.70	1012.9	376.06
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	**2058.6**	**98.139**	**520.79**	**1014.0**
Stddev	2.5	.139	.90	2.2
%RSD	.12104	.14187	.17335	.21756
#1	2060.3	98.237	521.43	1015.5
#2	2056.8	98.040	520.15	1012.4
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	**40402.**	**25858.**	**562310.**
Stddev	54.	597.	152.
%RSD	.13365	2.3095	.02709
#1	40364.	25436.	562210.
#2	40440.	26280.	562420.

Sample Name: S 711067-001-001-1/1 Acquired: 12/11/2007 19:31:36 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	**.54464**	**44983.**	**11.519**	**-3.4236**	**56.680**	**2.5285**	**1613.4**
Stddev	.12909	3.	3.691	.0172	.449	.0501	10.8
%RSD	23.702	.00761	32.044	.50363	.79290	1.9827	.66660
#1	.63592	44980.	8.9091	-3.4114	56.998	2.5640	1605.8
#2	.45336	44985.	14.129	-3.4358	56.362	2.4931	1621.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.9594**	**18.040**	**473.44**	**285.2**	**291.7**	**196.9**	**205430.**
Stddev	.1810	.147	2.96	3.2	1.0	1.5	1225.
%RSD	9.2394	.81701	.62467	1.116	.3453	.7387	.59636
#1	2.0874	18.145	475.54	287.4	291.0	195.9	204570.
#2	1.8314	17.936	471.35	282.9	292.4	197.9	206300.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**641.09**	**1760.**	**1990.**	**814.48**	**2.2050**	**-56.813**	**120.42**
Stddev	13.05	8.	1.	6.86	.1200	14.556	.66
%RSD	2.0361	.4762	.0391	.84267	5.4404	25.620	.54925
#1	650.32	1754.	1990.	819.33	2.2898	-67.105	120.89
#2	631.86	1766.	1989.	809.63	2.1201	-46.520	119.95

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**68.344**	**-.89952**	**4.1653**	**518.85**	**4.9733**	**38.298**	**27.973**
Stddev	1.792	.86389	.4847	1.71	1.2189	.293	1.563
%RSD	2.6215	96.039	11.637	.32931	24.509	.76419	5.5885
#1	69.611	-1.5104	4.5081	520.06	5.8352	38.505	26.868
#2	67.078	-.28865	3.8226	517.64	4.1114	38.091	29.078

Sample Name: S 711067-001-001-1/1 Acquired: 12/11/2007 19:31:36 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	**12019.**	**2.3593**	**518.35**	**164.17**
Stddev	139.	2.2991	3.72	.39
%RSD	1.1528	97.448	.71743	.23482
#1	12117.	3.9851	520.98	164.44
#2	11921.	.73361	515.72	163.90

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42076.	26995.	575220.
Stddev	93.	18.	1011.
%RSD	.22111	.06544	.17584
#1	42010.	27007.	575930.
#2	42141.	26982.	574500.

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: SP711067-001-001-1/1 Acquired: 12/11/2007 19:42:03 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	**11.172**	**62514.**	**17.372**	**90.507**	**170.37**	^ *****	**2617.2**
Stddev	.034	2070.	1.785	.555	2.63	-----	85.9
%RSD	.30495	3.3119	10.275	.61304	1.5415	-----	3.2824
#1	11.148	61050.	16.110	90.115	172.22	^ -----	2556.5
#2	11.196	63978.	18.635	90.900	168.51	^ -----	2678.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**13.154**	**70.835**	**570.45**	**362.4**	**363.6**	**273.5**	**213260.**
Stddev	.332	.316	4.32	2.0	7.6	8.4	7149.
%RSD	2.5216	.44575	.75663	.5614	2.099	3.068	3.3522
#1	13.389	70.612	573.51	363.9	358.2	279.4	208210.
#2	12.920	71.058	567.40	361.0	369.0	267.5	218320.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1800.5**	**3025.**	**3406.**	**982.84**	**45.386**	**983.34**	**219.32**
Stddev	13.0	101.	112.	14.76	.375	34.95	.17
%RSD	.72003	3.346	3.298	1.5018	.82698	3.5546	.07727
#1	1791.3	2953.	3327.	993.27	45.120	958.62	219.20
#2	1809.7	3096.	3486.	972.40	45.651	1008.1	219.44

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**176.73**	**3.2246**	**10.172**	**573.31**	**52.013**	**153.64**	**66.200**
Stddev	1.98	.1104	.189	8.76	.738	2.24	1.421
%RSD	1.1223	3.4237	1.8597	1.5273	1.4186	1.4566	2.1470
#1	178.14	3.3026	10.306	579.50	52.535	155.23	65.195
#2	175.33	3.1465	10.039	567.11	51.491	152.06	67.205

Sample Name: SP711067-001-001-1/1 Acquired: 12/11/2007 19:42:03 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	**13460.**	**11.375**	**616.85**	**290.42**
Stddev	294.	.581	7.83	1.15
%RSD	2.1863	5.1066	1.2687	.39718
#1	13668.	10.965	622.38	291.24
#2	13251.	11.786	611.32	289.61

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41958.	27246.	567050.
Stddev	60.	615.	7167.
%RSD	.14296	2.2577	1.2639
#1	41915.	27681.	561980.
#2	42000.	26811.	572120.

Sample Name: SD711067-001-001-1/1 Acquired: 12/11/2007 19:45:27 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	**10.626**	**67086.**	**20.902**	**88.156**	**168.54**	^ *****	**2820.2**
Stddev	.219	633.	2.706	.640	.34	-----	29.0
%RSD	2.0647	.94301	12.945	.72611	.20046	-----	1.0292
#1	10.781	67533.	22.816	88.609	168.78	^ -----	2840.8
#2	10.471	66639.	18.989	87.704	168.30	^ -----	2799.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.729**	**68.790**	**562.10**	**356.9**	**375.3**	**267.2**	**227260.**
Stddev	.065	.879	2.74	.7	3.5	3.2	2564.
%RSD	.54989	1.2775	.48714	.2018	.9441	1.213	1.1284
#1	11.683	69.412	564.04	356.4	377.8	264.9	229070.
#2	11.775	68.169	560.17	357.4	372.8	269.5	225440.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1899.6**	**3156.**	**3557.**	**971.96**	**44.072**	**1027.6**	**217.89**
Stddev	26.3	33.	27.	3.86	.604	1.6	1.01
%RSD	1.3838	1.046	.7578	.39755	1.3712	.15901	.46271
#1	1918.2	3180.	3576.	974.70	44.500	1028.7	218.60
#2	1881.0	3133.	3538.	969.23	43.645	1026.4	217.18

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**173.01**	**4.7548**	**12.047**	**545.96**	**51.503**	**150.80**	**68.303**
Stddev	.66	2.0297	.675	2.83	1.042	.56	1.433
%RSD	.38180	42.687	5.5997	.51815	2.0229	.36835	2.0975
#1	172.54	3.3196	11.570	547.96	50.767	151.19	69.316
#2	173.47	6.1901	12.524	543.96	52.240	150.41	67.290

Sample Name: SD711067-001-001-1/1 Acquired: 12/11/2007 19:45:27 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	**13279.**	**12.024**	**607.12**	**284.66**
Stddev	110.	2.037	3.51	.60
%RSD	.82670	16.940	.57774	.21201
#1	13201.	10.584	609.60	285.08
#2	13357.	13.465	604.64	284.23

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41683.	26361.	573350.
Stddev	86.	158.	3802.
%RSD	.20741	.60073	.66321
#1	41622.	26249.	576040.
#2	41744.	26473.	570660.

Sample Name: PS711067-001-001-1/1 Acquired: 12/11/2007 19:48:52 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	**47.873**	**44526.**	**98.038**	**74.920**	**79.094**	**11.382**	**6845.5**
Stddev	.104	1008.	1.630	.057	.024	.057	152.9
%RSD	.21758	2.2638	1.6621	.07662	.02988	.49915	2.2339
#1	47.799	43814.	99.190	74.879	79.077	11.422	6737.4
#2	47.947	45239.	96.885	74.960	79.110	11.342	6953.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.918**	**51.708**	**490.61**	**317.0**	**630.6**	**228.4**	**198760.**
Stddev	.153	.203	.94	1.9	2.5	5.6	3877.
%RSD	.61420	.39293	.19161	.5842	.3891	2.450	1.9506
#1	25.026	51.564	489.95	318.3	628.9	232.3	196020.
#2	24.810	51.851	491.28	315.6	632.4	224.4	201500.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6059.4**	**7038.**	**7872.**	**897.20**	**35.877**	**5438.6**	**165.16**
Stddev	230.1	174.	173.	.37	.634	142.4	.28
%RSD	3.7966	2.473	2.191	.04086	1.7680	2.6175	.17246
#1	5896.8	6915.	7750.	897.45	35.428	5337.9	164.96
#2	6222.1	7161.	7994.	896.94	36.325	5539.2	165.36

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**158.87**	**91.070**	**80.272**	**6120.0**	**116.11**	**60.950**	**549.40**
Stddev	1.89	.309	2.732	13.5	.46	.061	.13
%RSD	1.1894	.33923	3.4038	.22034	.39649	.09937	.02452
#1	160.21	91.289	78.340	6110.5	115.78	60.993	549.49
#2	157.54	90.852	82.204	6129.6	116.43	60.907	549.30

Sample Name: PS711067-001-001-1/1 Acquired: 12/11/2007 19:48:52 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	**11873.**	**112.17**	**536.16**	**255.49**
Stddev	142.	.55	1.17	.26
%RSD	1.1979	.49368	.21831	.10146
#1	11973.	112.56	535.33	255.67
#2	11772.	111.78	536.99	255.30

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41710.**	**27078.**	**571270.**
Stddev	64.	476.	1262.
%RSD	.15434	1.7588	.22086
#1	41664.	27415.	570370.
#2	41756.	26742.	572160.

Sample Name: SE711067-001-001-1/1 Acquired: 12/11/2007 19:52:17 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	**-.11796**	**9477.9**	**.97323**	**-1.9279**	**11.512**	**.05141**	**313.19**	**.23259**
Stddev	.11968	86.6	2.0192	.1744	.006	.00136	4.76	.04460
%RSD	101.46	.91372	207.47	9.0477	.05287	2.6412	1.5187	19.175
#1	-.20258	9416.6	-.45455	-2.0512	11.508	.05045	316.56	.26413
#2	-.03333	9539.1	2.4010	-1.8046	11.517	.05237	309.83	.20106

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.3305**	**100.59**	**60.84**	**61.56**	**51.38**	**43811.**	**-164.27**	**358.3**
Stddev	.0837	.02	.12	.11	5.10	216.	51.09	1.5
%RSD	2.5118	.02292	.1969	.1799	9.927	.49346	31.101	.4231
#1	3.3897	100.61	60.75	61.48	47.77	43658.	-128.14	357.2
#2	3.2714	100.57	60.92	61.64	54.99	43964.	-200.39	359.4

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**396.8**	**170.97**	**-.46191**	**-139.27**	**24.797**	**14.362**	**1.0244**	**-.46361**
Stddev	1.1	.31	.16149	2.57	.207	.215	.1908	3.1956
%RSD	.2664	.18146	34.962	1.8442	.83660	1.4959	18.627	689.29
#1	396.1	171.19	-.34771	-137.46	24.944	14.210	.88949	-2.7233
#2	397.6	170.75	-.57610	-141.09	24.650	14.514	1.1594	1.7960

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**109.66**	**.11823**	**7.8436**	**8.7940**	**2582.6**	**.45846**	**109.47**	**36.356**
Stddev	.39	.35116	.0128	2.7736	4.7	.83721	.25	.300
%RSD	.35435	297.02	.16268	31.539	.18195	182.61	.22462	.82466
#1	109.93	.36654	7.8526	10.755	2586.0	-.13353	109.64	36.144
#2	109.38	-.13008	7.8346	6.8328	2579.3	1.0505	109.30	36.568

Sample Name: SE711067-001-001-1/1 Acquired: 12/11/2007 19:52:17 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	41968.	26302.	573890.
Stddev	86.	66.	1973.
%RSD	.20523	.25072	.34386
#1	42028.	26349.	572490.
#2	41907.	26256.	575280.

Sample Name: S 711067-002-002-1/1 Acquired: 12/11/2007 19:55:41 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	**.35430**	**30194.**	**9.1550**	**-7.0893**	**59.920**	**3.4342**	**1724.2**
Stddev	.53505	544.	.2305	.2450	.852	.1288	36.8
%RSD	151.02	1.8009	2.5173	3.4553	1.4217	3.7492	2.1331
#1	-.02404	29810.	9.3180	-7.2625	60.522	3.3431	1698.2
#2	.73264	30579.	8.9921	-6.9161	59.318	3.5252	1750.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.6578**	**30.493**	**569.87**	**385.1**	**340.3**	**251.0**	**211820.**
Stddev	.1861	.502	5.74	1.8	4.5	9.1	4941.
%RSD	7.0033	1.6468	1.0071	.4713	1.323	3.638	2.3324
#1	2.7894	30.138	573.93	386.4	337.1	257.4	208330.
#2	2.5262	30.848	565.81	383.8	343.5	244.5	215320.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**557.27**	**2026.**	**2274.**	**1236.1**	**2.4065**	**-75.797**	**114.44**
Stddev	14.83	38.	41.	17.0	.0509	3.911	.01
%RSD	2.6605	1.867	1.817	1.3714	2.1135	5.1597	.00740
#1	567.75	2000.	2245.	1248.1	2.3705	-78.563	114.43
#2	546.78	2053.	2304.	1224.1	2.4424	-73.032	114.45

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**87.734**	**.92270**	**2.1679**	**507.09**	**3.7741**	**43.279**	**31.366**
Stddev	1.466	.38870	.9947	8.71	.0665	.595	1.889
%RSD	1.6711	42.126	45.883	1.7167	1.7623	1.3743	6.0230
#1	88.770	.64785	1.4646	513.25	3.7271	43.700	30.031
#2	86.697	1.1975	2.8713	500.94	3.8211	42.859	32.702

Sample Name: S 711067-002-002-1/1 Acquired: 12/11/2007 19:55:41 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	**16357.**	**-1.0810**	**710.94**	**211.25**
Stddev	152.	.5648	9.38	.46
%RSD	.93197	52.252	1.3189	.21787
#1	16465.	-1.4804	717.57	211.58
#2	16249.	-.68158	704.31	210.93

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41464.	26469.	565610.
Stddev	73.	477.	7509.
%RSD	.17590	1.8015	1.3276
#1	41516.	26806.	560300.
#2	41413.	26132.	570920.

Sample Name: S 711067-003-003-1/1 Acquired: 12/11/2007 19:59:08 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	**.51006**	**42723.**	**12.561**	**-6.6717**	**239.01**	**2.2058**	**1107.6**
Stddev	.47494	352.	6.271	.3913	.70	.0674	4.4
%RSD	93.115	.82480	49.924	5.8654	.29376	3.0544	.40113
#1	.17422	42473.	8.1268	-6.9484	239.50	2.2534	1104.4
#2	.84589	42972.	16.995	-6.3950	238.51	2.1581	1110.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.4357**	**65.909**	**440.68**	**392.6**	**321.5**	**246.3**	**207360.**
Stddev	.1104	.010	2.10	2.8	3.0	5.4	1423.
%RSD	4.5340	.01545	.47619	.7110	.9405	2.200	.68624
#1	2.5138	65.917	442.16	394.5	319.4	250.1	206350.
#2	2.3576	65.902	439.20	390.6	323.6	242.4	208370.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**663.97**	**1408.**	**1584.**	**10974.**	**2.4455**	**-71.140**	**142.49**
Stddev	25.07	13.	14.	18.	.0751	9.049	.07
%RSD	3.7756	.9466	.8838	.16574	3.0702	12.720	.05188
#1	681.70	1398.	1574.	10987.	2.3924	-64.742	142.44
#2	646.25	1417.	1594.	10961.	2.4986	-77.539	142.54

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.809**	**-1.0157**	**-1.4307**	**504.86**	**3.4515**	**38.065**	**26.710**
Stddev	1.256	.0125	1.5451	2.66	.8129	.131	2.102
%RSD	5.0619	1.2265	108.00	.52776	23.554	.34313	7.8687
#1	25.697	-1.0245	-2.5233	502.98	2.8767	38.158	25.224
#2	23.921	-1.0069	-.33810	506.74	4.0264	37.973	28.196

Sample Name: S 711067-003-003-1/1 Acquired: 12/11/2007 19:59:08 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	**10974.**	**2.6661**	**515.16**	**180.81**
Stddev	93.	1.3293	1.09	.11
%RSD	.84365	49.858	.21174	.05930
#1	11040.	3.6060	515.93	180.73
#2	10909.	1.7262	514.39	180.88

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41567.**	**26416.**	**569690.**
Stddev	6.	280.	1385.
%RSD	.01374	1.0602	.24304
#1	41563.	26614.	568710.
#2	41571.	26218.	570670.

Sample Name: S 711067-004-004-1/1 Acquired: 12/11/2007 20:02:41 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	**.33520**	**35933.**	**19.024**	**-4.6406**	**94.157**	**2.2874**	**2125.6**
Stddev	.11121	385.	.331	.3807	.202	.0406	21.5
%RSD	33.177	1.0719	1.7422	8.2027	.21461	1.7764	1.0123
#1	.41383	36205.	19.259	-4.9098	94.300	2.3161	2140.8
#2	.25656	35660.	18.790	-4.3715	94.014	2.2587	2110.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.9267**	**16.072**	**566.58**	**317.2**	**318.4**	**201.1**	**289040.**
Stddev	.2107	.057	.73	.5	3.2	13.5	3541.
%RSD	7.2003	.35773	.12806	.1688	1.002	6.725	1.2250
#1	2.7777	16.032	567.09	317.6	320.6	210.6	291540.
#2	3.0758	16.113	566.07	316.8	316.1	191.5	286540.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**431.09**	**1533.**	**1725.**	**859.07**	**3.2904**	**-114.76**	**85.049**
Stddev	54.23	19.	15.	.87	.2362	.48	.413
%RSD	12.581	1.261	.8423	.10070	7.1768	.41521	.48555
#1	469.44	1547.	1735.	859.68	3.4574	-114.42	85.341
#2	392.74	1519.	1714.	858.46	3.1235	-115.09	84.757

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**43.726**	**1.4413**	**5.9033**	**527.13**	**5.5155**	**150.67**	**41.849**
Stddev	1.417	.5311	1.8058	2.01	.4828	.11	.704
%RSD	3.2397	36.847	30.590	.38204	8.7530	.07158	1.6817
#1	42.724	1.0658	7.1802	525.70	5.8569	150.74	42.346
#2	44.727	1.8168	4.6264	528.55	5.1741	150.59	41.351

Sample Name: S 711067-004-004-1/1 Acquired: 12/11/2007 20:02:41 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	**11658.**	**1.0583**	**652.60**	**150.58**
Stddev	27.	.5989	.58	.26
%RSD	.23203	56.587	.08955	.17107
#1	11677.	1.4818	653.02	150.40
#2	11639.	.63487	652.19	150.77

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41761.	25988.	568630.
Stddev	12.	164.	18.
%RSD	.02801	.63194	.00313
#1	41770.	25872.	568610.
#2	41753.	26104.	568640.

Sample Name: S 711067-005-005-1/1 Acquired: 12/11/2007 20:06:08 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	**.00534**	**24531.**	**11.673**	**-5.4375**	**93.358**	**2.9530**	**3757.1**
Stddev	.26326	290.	3.403	.0703	.378	.1592	54.3
%RSD	4930.9	1.1835	29.154	1.2936	.40477	5.3894	1.4444
#1	.19149	24736.	14.079	-5.4873	93.626	2.8404	3795.5
#2	-.18082	24326.	9.2663	-5.3878	93.091	3.0655	3718.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.2662**	**28.927**	**513.80**	**406.0**	**369.7**	**268.2**	**235290.**
Stddev	.1068	.165	.29	.6	3.2	7.0	2503.
%RSD	4.7126	.56945	.05660	.1449	.8556	2.617	1.0639
#1	2.1907	28.811	513.60	406.4	371.9	273.1	237060.
#2	2.3417	29.044	514.01	405.6	367.4	263.2	233520.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**415.35**	**2451.**	**2756.**	**1030.7**	**2.7691**	**-92.490**	**97.272**
Stddev	38.41	32.	41.	3.4	.0596	10.722	.839
%RSD	9.2468	1.286	1.480	.33330	2.1525	11.592	.86295
#1	442.51	2473.	2784.	1033.1	2.8113	-84.908	96.678
#2	388.19	2428.	2727.	1028.2	2.7270	-100.07	97.865

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**230.96**	**-.83990**	**2.5914**	**504.49**	**6.3917**	**128.70**	**37.393**
Stddev	.66	.96968	.1729	5.79	.2967	.35	.603
%RSD	.28721	115.45	6.6733	1.1474	4.6415	.27332	1.6132
#1	230.49	-.15423	2.4691	508.58	6.6014	128.95	37.819
#2	231.43	-1.5256	2.7137	500.39	6.1819	128.45	36.966

Sample Name: S 711067-005-005-1/1 Acquired: 12/11/2007 20:06:08 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	**13989.**	**1.1011**	**692.05**	**207.36**
Stddev	68.	.9944	1.70	.07
%RSD	.48900	90.304	.24525	.03345
#1	14038.	1.8043	693.25	207.31
#2	13941.	.39801	690.85	207.41

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41573.	26060.	570010.
Stddev	9.	313.	801.
%RSD	.02050	1.2014	.14046
#1	41567.	25839.	570580.
#2	41579.	26281.	569450.

Sample Name: S 711067-006-006-1/1 Acquired: 12/11/2007 20:09:35 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	**.01140**	**70739.**	**16.650**	**-3.4959**	**98.875**	^ *****	**2736.0**
Stddev	.53906	634.	2.767	.4681	.763	-----	29.7
%RSD	4730.1	.89628	16.618	13.390	.77169	-----	1.0844
#1	-.36978	71187.	14.693	-3.1649	99.415	^ -----	2757.0
#2	.39257	70291.	18.606	-3.8269	98.336	^ -----	2715.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.7537**	**27.801**	**466.99**	**281.1**	**303.5**	**215.2**	**191440.**
Stddev	.0367	.046	3.10	1.5	.1	3.6	1411.
%RSD	2.0946	.16649	.66470	.5447	.0296	1.657	.73703
#1	1.7277	27.768	469.19	282.2	303.5	217.8	192440.
#2	1.7796	27.833	464.80	280.0	303.4	212.7	190440.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**929.93**	**1914.**	**2145.**	**2784.1**	**2.1316**	**-74.881**	**107.94**
Stddev	76.94	16.	13.	49.9	.4322	6.484	.47
%RSD	8.2736	.8564	.6101	1.7911	20.278	8.6590	.43626
#1	984.34	1925.	2154.	2819.4	1.8259	-79.466	108.27
#2	875.53	1902.	2136.	2748.8	2.4372	-70.296	107.61

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**44.897**	**-.05681**	**1.4860**	**550.52**	**4.0437**	**131.14**	**28.503**
Stddev	1.355	.93272	1.0882	5.23	.1089	.76	1.002
%RSD	3.0176	1641.9	73.230	.95010	2.6941	.57833	3.5160
#1	43.939	-.71633	.71655	554.22	3.9667	131.67	29.212
#2	45.855	.60272	2.2555	546.82	4.1208	130.60	27.795

Sample Name: S 711067-006-006-1/1 Acquired: 12/11/2007 20:09:35 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	**9118.1**	**.75353**	**464.31**	**181.03**
Stddev	57.3	.26146	3.43	.69
%RSD	.62810	34.699	.73857	.38046
#1	9158.6	.56865	466.73	180.54
#2	9077.6	.93841	461.89	181.51

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41681.	25658.	567770.
Stddev	7.	571.	2436.
%RSD	.01787	2.2259	.42899
#1	41686.	26062.	566040.
#2	41675.	25255.	569490.

Sample Name: S 711067-007-007-1/1 Acquired: 12/11/2007 20:13:08 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	**-.02469**	**68370.**	**15.883**	**-1.9585**	**134.69**	**1.5673**	**2665.2**
Stddev	.04796	83.	2.274	.3060	1.66	.0790	1.0
%RSD	194.20	.12149	14.317	15.623	1.2356	5.0389	.03772
#1	-.05861	68311.	14.275	-2.1748	135.87	1.5115	2664.5
#2	.00922	68429.	17.491	-1.7421	133.52	1.6232	2665.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.9862**	**37.560**	**405.22**	**300.4**	**310.2**	**231.3**	**188730.**
Stddev	.0453	.277	5.79	2.5	.3	1.0	533.
%RSD	2.2791	.73743	1.4287	.8478	.1064	.4537	.28216
#1	1.9541	37.364	409.31	302.2	310.0	230.5	188360.
#2	2.0182	37.755	401.12	298.6	310.4	232.0	189110.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**935.83**	**1961.**	**2196.**	**4331.8**	**2.2041**	**-88.385**	**110.58**
Stddev	8.52	1.	2.	42.2	.1802	7.457	.34
%RSD	.91003	.0415	.0946	.97479	8.1774	8.4375	.31026
#1	929.81	1961.	2197.	4361.6	2.3315	-93.658	110.82
#2	941.85	1960.	2194.	4301.9	2.0766	-83.111	110.34

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**42.334**	**-.55898**	**.37844**	**571.61**	**4.8073**	**150.52**	**29.166**
Stddev	.002	.51480	.71359	12.54	.1881	2.08	2.041
%RSD	.00478	92.096	188.56	2.1935	3.9126	1.3829	6.9984
#1	42.333	-.19496	.88302	580.48	4.9403	151.99	30.609
#2	42.336	-.92300	-.12614	562.75	4.6743	149.04	27.722

Sample Name: S 711067-007-007-1/1 Acquired: 12/11/2007 20:13:08 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	**9002.6**	**1.1294**	**457.77**	**198.11**
Stddev	71.7	1.2689	5.89	.65
%RSD	.79632	112.35	1.2875	.32797
#1	9053.3	.23218	461.94	197.65
#2	8951.9	2.0267	453.60	198.57

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41840.**	**26365.**	**571620.**
Stddev	81.	252.	4167.
%RSD	.19389	.95615	.72900
#1	41897.	26543.	568680.
#2	41783.	26187.	574570.

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: S 711067-008-008-1/1 Acquired: 12/11/2007 20:23:44 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	**-.03840**	**32761.**	**10.854**	**-4.5840**	**112.66**	**2.6809**	**3680.1**
Stddev	.45623	784.	.767	.3297	.93	.1827	82.2
%RSD	1188.0	2.3918	7.0628	7.1922	.82905	6.8140	2.2329
#1	-.36101	32207.	10.312	-4.8172	113.32	2.8101	3622.0
#2	.28420	33315.	11.396	-4.3509	112.00	2.5517	3738.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.3029**	**26.036**	**500.11**	**363.0**	**335.3**	**236.6**	**226540.**
Stddev	.2350	.247	4.44	1.8	4.8	3.4	4972.
%RSD	10.204	.94763	.88877	.5052	1.435	1.429	2.1947
#1	2.4690	25.861	503.25	364.3	331.9	234.2	223020.
#2	2.1367	26.210	496.96	361.7	338.7	239.0	230050.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**518.63**	**2399.**	**2686.**	**1036.8**	**2.1876**	**-56.377**	**98.135**
Stddev	14.81	57.	60.	9.0	.0777	9.665	.032
%RSD	2.8564	2.383	2.251	.86454	3.5532	17.144	.03236
#1	508.16	2358.	2643.	1043.2	2.2425	-63.212	98.158
#2	529.11	2439.	2728.	1030.5	2.1326	-49.543	98.113

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**75.737**	**1.1762**	**1.1057**	**523.52**	**5.6825**	**175.41**	**31.449**
Stddev	.719	.9132	1.4609	8.23	.5354	1.70	1.213
%RSD	.94950	77.641	132.12	1.5713	9.4226	.96812	3.8559
#1	75.228	1.8220	.07269	529.34	5.3039	176.62	32.306
#2	76.245	.53047	2.1387	517.70	6.0612	174.21	30.591

Sample Name: S 711067-008-008-1/1 Acquired: 12/11/2007 20:23:44 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	**13100.**	**1.0815**	**622.73**	**208.58**
Stddev	75.	.8368	4.81	.37
%RSD	.57107	77.374	.77308	.17693
#1	13153.	1.6733	626.13	208.32
#2	13047.	.48981	619.32	208.84

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41636.	26336.	565890.
Stddev	53.	536.	2545.
%RSD	.12721	2.0339	.44973
#1	41673.	26715.	564090.
#2	41598.	25957.	567690.

Sample Name: S 711067-009-009-1/1 Acquired: 12/11/2007 20:27:11 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	**.19368**	**37179.**	**17.041**	**-6.5165**	**72.480**	**2.9057**	**1197.4**
Stddev	.01910	443.	2.603	.2417	.172	.0319	18.3
%RSD	9.8608	1.1924	15.275	3.7093	.23662	1.0982	1.5304
#1	.20719	36866.	18.882	-6.6875	72.601	2.8831	1184.5
#2	.18018	37493.	15.200	-6.3456	72.359	2.9282	1210.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.1200**	**15.737**	**608.66**	**360.2**	**383.0**	**225.1**	**308230.**
Stddev	.4202	.159	4.29	1.5	4.7	4.0	4394.
%RSD	13.468	1.0103	.70541	.4033	1.225	1.771	1.4255
#1	3.4171	15.850	611.70	361.3	379.7	227.9	305120.
#2	2.8229	15.625	605.63	359.2	386.3	222.2	311340.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**173.64**	**1289.**	**1428.**	**789.25**	**3.3812**	**-104.17**	**80.503**
Stddev	11.14	10.	18.	4.27	.4395	3.67	.177
%RSD	6.4168	.7763	1.239	.54159	12.998	3.5215	.21950
#1	181.52	1282.	1416.	792.28	3.6920	-106.77	80.628
#2	165.77	1296.	1441.	786.23	3.0704	-101.58	80.378

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**40.864**	**.81667**	**6.0454**	**1263.9**	**6.6938**	**92.236**	**40.874**
Stddev	.587	.37579	.1289	14.5	.4917	.508	2.635
%RSD	1.4366	46.015	2.1323	1.1440	7.3459	.55124	6.4460
#1	40.449	.55094	6.1366	1274.2	7.0415	92.596	39.011
#2	41.279	1.0824	5.9543	1253.7	6.3461	91.877	42.737

Sample Name: S 711067-009-009-1/1 Acquired: 12/11/2007 20:27:11 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	**13894.**	**2.5971**	**733.46**	**156.55**
Stddev	28.	.3404	4.02	1.16
%RSD	.20183	13.105	.54855	.74290
#1	13874.	2.8377	736.31	157.37
#2	13913.	2.3564	730.62	155.73

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41549.	26313.	562080.
Stddev	87.	214.	124.
%RSD	.20966	.81494	.02199
#1	41487.	26464.	562000.
#2	41611.	26161.	562170.

Sample Name: S 711067-010-010-1/1 Acquired: 12/11/2007 20:30:37 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	**.05140**	**26455.**	**14.093**	**-5.9290**	**65.796**	**2.8839**	**2692.9**
Stddev	.00902	5.	2.955	.3287	.113	.0041	3.1
%RSD	17.555	.01870	20.966	5.5442	.17126	.14316	.11354
#1	.04502	26459.	16.182	-5.6965	65.716	2.8810	2695.1
#2	.05778	26452.	12.004	-6.1614	65.876	2.8868	2690.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.2919**	**18.440**	**576.15**	**368.4**	**344.5**	**221.5**	**311110.**
Stddev	.0072	.005	1.18	2.5	1.1	.6	407.
%RSD	.21990	.02478	.20466	.6793	.3319	.2652	.13091
#1	3.2970	18.444	576.99	370.2	345.3	221.9	311400.
#2	3.2867	18.437	575.32	366.6	343.7	221.1	310820.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**120.06**	**1701.**	**1896.**	**790.69**	**3.7695**	**-101.57**	**80.963**
Stddev	58.40	3.	2.	1.06	.2016	9.91	.242
%RSD	48.644	.1564	.1291	.13368	5.3479	9.7525	.29902
#1	161.35	1703.	1898.	789.95	3.6270	-94.562	81.134
#2	78.762	1699.	1895.	791.44	3.9120	-108.57	80.792

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**75.132**	**-.82954**	**5.0443**	**638.20**	**6.4317**	**121.77**	**41.410**
Stddev	1.275	1.7782	1.5432	.85	.8128	.23	.022
%RSD	1.6970	214.36	30.593	.13361	12.637	.19286	.05219
#1	76.034	.42785	6.1355	637.59	7.0065	121.60	41.395
#2	74.231	-2.0869	3.9531	638.80	5.8570	121.93	41.425

Sample Name: S 711067-010-010-1/1 Acquired: 12/11/2007 20:30:37 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	**13858.**	**1.5082**	**772.94**	**138.35**
Stddev	124.	1.1415	.85	.49
%RSD	.89189	75.687	.10978	.35125
#1	13945.	.70103	773.54	138.69
#2	13770.	2.3154	772.34	138.00

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41405.	**25762.**	**559580.**
Stddev	151.	132.	1340.
%RSD	.36538	.51244	.23952
#1	41298.	25856.	560520.
#2	41512.	25669.	558630.

Sample Name: S 711067-011-011-1/1 Acquired: 12/11/2007 20:34:04 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	**.27247**	**54217.**	**9.2507**	**-2.3108**	**37.539**	^ *****	**2139.0**
Stddev	.33672	1074.	.8692	.0096	.334	-----	38.4
%RSD	123.58	1.9800	9.3959	.41386	.88849	-----	1.7969
#1	.03438	53458.	8.6361	-2.3040	37.775	^ -----	2111.8
#2	.51057	54976.	9.8653	-2.3175	37.303	^ -----	2166.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.4437**	**21.529**	**413.74**	**236.1**	**266.7**	**178.7**	**170690.**
Stddev	.2460	.124	4.85	.2	4.0	9.8	3231.
%RSD	17.039	.57538	1.1731	.0949	1.488	5.505	1.8931
#1	1.6177	21.617	417.17	236.3	263.9	185.7	168410.
#2	1.2698	21.441	410.31	236.0	269.5	171.8	172980.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**677.31**	**1661.**	**1860.**	**970.02**	**1.4710**	**-60.754**	**104.36**
Stddev	48.38	34.	34.	10.08	.5824	6.005	.22
%RSD	7.1433	2.068	1.849	1.0397	39.594	9.8840	.20633
#1	711.52	1636.	1836.	977.15	1.0592	-56.508	104.51
#2	643.10	1685.	1884.	962.89	1.8829	-65.001	104.20

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**46.547**	**-1.1848**	**2.4163**	**721.67**	**4.0226**	**46.382**	**24.361**
Stddev	1.263	1.9780	1.5915	14.82	.0042	.439	.886
%RSD	2.7134	166.95	65.866	2.0535	.10544	.94564	3.6354
#1	47.441	-2.5834	1.2909	732.15	4.0196	46.692	23.735
#2	45.654	.21389	3.5417	711.19	4.0256	46.072	24.987

Sample Name: S 711067-011-011-1/1 Acquired: 12/11/2007 20:34:04 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	**9041.4**	**.44523**	**423.23**	**127.10**
Stddev	75.6	.01891	4.83	1.07
%RSD	.83668	4.2483	1.1421	.83958
#1	9094.9	.45860	426.65	127.86
#2	8987.9	.43185	419.82	126.35

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41647.	26367.	567420.
Stddev	40.	447.	1445.
%RSD	.09636	1.6958	.25465
#1	41619.	26683.	566400.
#2	41675.	26051.	568440.

Sample Name: S 711067-012-012-1/1 Acquired: 12/11/2007 20:37:31 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	**-.09477**	**57319.**	**2.0367**	**-.92738**	**262.97**	^ *****	**3367.8**
Stddev	.27691	118.	1.6891	.88737	.68	-----	8.3
%RSD	292.21	.20609	82.932	95.686	.25854	-----	.24735
#1	.10104	57236.	3.2311	-.29991	262.49	1.8318	3361.9
#2	-.29057	57403.	.84235	-1.5549	263.45	^ -----	3373.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.7987**	**174.09**	**322.48**	**431.2**	**379.9**	**321.7**	**116150.**
Stddev	.0357	.40	.18	3.5	.8	1.7	254.
%RSD	1.9819	.23009	.05723	.8097	.2236	.5228	.21857
#1	1.7735	174.37	322.61	428.7	379.3	322.9	115970.
#2	1.8239	173.81	322.35	433.7	380.5	320.6	116330.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1501.6**	**2663.**	**2972.**	**7407.0**	**.23580**	**93.329**	**379.03**
Stddev	1.7	6.	8.	.8	.25974	10.296	.00
%RSD	.11024	.2255	.2662	.01143	110.15	11.032	.00121
#1	1500.4	2659.	2966.	7407.6	.05214	100.61	379.03
#2	1502.8	2668.	2978.	7406.4	.41947	86.049	379.03

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**23.957**	**-.48658**	**-2.9403**	**489.97**	**1.3830**	**57.476**	**16.348**
Stddev	1.611	1.9989	.9325	1.01	.8420	.111	.642
%RSD	6.7241	410.80	31.713	.20690	60.881	.19338	3.9258
#1	25.097	.92685	-2.2810	489.25	1.9784	57.398	15.894
#2	22.818	-1.9000	-3.5997	490.68	.78764	57.555	16.801

Sample Name: S 711067-012-012-1/1 Acquired: 12/11/2007 20:37:31 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	**8932.7**	**2.8226**	**349.35**	**198.32**
Stddev	54.4	.8709	.83	.41
%RSD	.60867	30.854	.23712	.20427
#1	8894.2	3.4385	348.76	198.03
#2	8971.1	2.2068	349.93	198.61

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42647.**	**26562.**	**579050.**
Stddev	27.	72.	1227.
%RSD	.06437	.27241	.21193
#1	42667.	26614.	579920.
#2	42628.	26511.	578180.

Sample Name: S 711067-013-013-1/1 Acquired: 12/11/2007 20:41:06 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	**.30138**	**58236.**	**5.9158**	**.46272**	**169.01**	^ *****	**4182.4**
Stddev	.10139	531.	.6707	.41865	2.56	-----	47.1
%RSD	33.643	.91131	11.338	90.477	1.5125	-----	1.1272
#1	.37308	58611.	6.3901	.16669	170.81	^ -----	4215.7
#2	.22969	57861.	5.4415	.75874	167.20	^ -----	4149.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.6585**	**65.697**	**388.19**	**393.5**	**365.4**	**308.1**	**122740.**
Stddev	.0053	.477	3.91	.0	.7	9.3	1113.
%RSD	.31800	.72553	1.0083	.0031	.1893	3.020	.90689
#1	1.6547	65.360	390.95	393.5	365.8	301.5	123530.
#2	1.6622	66.034	385.42	393.5	364.9	314.7	121960.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1191.4**	**2433.**	**2733.**	**4555.1**	**.30744**	**147.19**	**279.27**
Stddev	59.9	21.	27.	69.5	.01556	1.15	.38
%RSD	5.0265	.8619	.9807	1.5250	5.0603	.78006	.13692
#1	1233.7	2448.	2752.	4604.2	.29644	148.00	279.00
#2	1149.0	2418.	2714.	4506.0	.31844	146.38	279.54

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**37.023**	**-2.1639**	**-.14727**	**503.47**	**3.2666**	**65.070**	**18.413**
Stddev	.764	.0732	.55089	6.79	.0920	.877	1.612
%RSD	2.0636	3.3825	374.08	1.3493	2.8160	1.3480	8.7568
#1	36.483	-2.1121	.24227	508.28	3.2015	65.690	19.553
#2	37.564	-2.2157	-.53680	498.67	3.3316	64.450	17.272

Sample Name: S 711067-013-013-1/1 Acquired: 12/11/2007 20:41:06 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	**9429.3**	**1.7364**	**367.20**	**177.62**
Stddev	92.6	.5027	4.72	.81
%RSD	.98223	28.953	1.2867	.45398
#1	9494.7	2.0918	370.54	177.05
#2	9363.8	1.3809	363.86	178.19

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41982.	26027.	574120.
Stddev	207.	63.	547.
%RSD	.49246	.24151	.09527
#1	42128.	25982.	573730.
#2	41836.	26071.	574500.

Sample Name: S 711067-014-014-1/1 Acquired: 12/11/2007 20:44:39 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	**.07701**	**46906.**	**6.2841**	**-3.5022**	**25.369**	^ *****	**1541.7**
Stddev	.16491	790.	.6832	.7248	.106	-----	37.2
%RSD	214.12	1.6840	10.872	20.697	.41684	-----	2.4102
#1	-.03959	46347.	5.8010	-4.0147	25.295	^ -----	1515.4
#2	.19362	47464.	6.7672	-2.9896	25.444	^ -----	1568.0

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.5666**	**18.300**	**602.77**	**299.6**	**297.8**	**221.5**	**155720.**
Stddev	.1976	.087	2.72	.4	2.1	1.5	2298.
%RSD	12.614	.47774	.45060	.1399	.7061	.6757	1.4754
#1	1.7063	18.238	600.85	299.9	296.3	220.4	154100.
#2	1.4268	18.362	604.69	299.3	299.3	222.5	157350.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**594.14**	**1937.**	**2171.**	**710.98**	**.40361**	**-27.117**	**114.59**
Stddev	41.50	30.	39.	2.22	.09513	5.708	.07
%RSD	6.9856	1.533	1.796	.31198	23.569	21.050	.06163
#1	623.49	1916.	2144.	709.41	.47088	-31.153	114.64
#2	564.79	1958.	2199.	712.54	.33635	-23.081	114.54

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**18.192**	**-1.0057**	**2.5745**	**616.42**	**3.0176**	**26.411**	**22.603**
Stddev	.356	.5197	3.4153	1.32	.4314	.090	3.129
%RSD	1.9592	51.679	132.66	.21347	14.295	.34065	13.841
#1	18.444	-.63816	.15955	617.35	2.7126	26.347	20.391
#2	17.940	-1.3731	4.9895	615.49	3.3226	26.475	24.815

Sample Name: S 711067-014-014-1/1 Acquired: 12/11/2007 20:44:39 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	**10196.**	**.86159**	**427.28**	**111.63**
Stddev	26.	.21822	1.58	.21
%RSD	.25135	25.328	.37055	.18629
#1	10178.	1.0159	426.16	111.78
#2	10214.	.70728	428.40	111.48

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41456.	**25885.**	**561720.**
Stddev	101.	343.	3373.
%RSD	.24411	1.3232	.60039
#1	41527.	26127.	564110.
#2	41384.	25642.	559340.

Sample Name: S 711067-015-015-1/1 Acquired: 12/11/2007 20:48:08 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	**.30640**	**34149.**	**7.9611**	**-7.8478**	**31.657**	**3.0573**	**714.80**
Stddev	.16835	1123.	3.7243	.1144	.159	.0233	27.19
%RSD	54.946	3.2871	46.781	1.4572	.50332	.76114	3.8037
#1	.42544	34943.	10.595	-7.9287	31.769	3.0408	734.02
#2	.18735	33356.	5.3276	-7.7669	31.544	3.0737	695.57

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.7986**	**24.523**	**573.23**	**327.8**	**303.1**	**211.2**	**221650.**
Stddev	.4656	.244	2.11	1.0	7.7	.4	6906.
%RSD	25.888	.99541	.36892	.3110	2.530	.2130	3.1156
#1	1.4694	24.351	574.72	328.5	308.5	211.5	226530.
#2	2.1279	24.696	571.73	327.1	297.7	210.9	216770.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**410.99**	**1629.**	**1820.**	**781.02**	**2.0053**	**-109.38**	**106.58**
Stddev	37.84	54.	59.	2.29	.6596	11.96	.68
%RSD	9.2069	3.306	3.242	.29312	32.890	10.937	.64014
#1	437.74	1667.	1862.	782.64	2.4717	-100.92	107.07
#2	384.23	1591.	1779.	779.40	1.5390	-117.84	106.10

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25.107**	**1.0150**	**1.0393**	**529.42**	**3.4074**	**20.157**	**31.356**
Stddev	.838	2.7608	1.0682	3.91	.3266	.070	2.344
%RSD	3.3381	272.01	102.78	.73785	9.5835	.34623	7.4756
#1	25.700	-.93720	1.7946	532.18	3.1765	20.207	33.014
#2	24.514	2.9671	.28400	526.66	3.6383	20.108	29.699

Sample Name: S 711067-015-015-1/1 Acquired: 12/11/2007 20:48:08 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	**14842.**	**.22690**	**659.46**	**173.92**
Stddev	103.	.11875	1.38	.73
%RSD	.69511	52.336	.20961	.42206
#1	14915.	.14293	660.44	173.40
#2	14769.	.31087	658.48	174.44

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41459.	25475.	563730.
Stddev	83.	791.	2161.
%RSD	.20054	3.1054	.38339
#1	41517.	24916.	562200.
#2	41400.	26034.	565250.

Sample Name: S 711067-016-016-1/1 Acquired: 12/11/2007 20:51:36 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	**.35775**	**69325.**	**7.1912**	**-5.0833**	**36.959**	^ *****	**802.05**
Stddev	.13783	212.	1.3474	.3751	.002	-----	9.64
%RSD	38.527	.30564	18.737	7.3790	.00641	-----	1.2024
#1	.26029	69475.	6.2385	-5.3485	36.961	2.0435	795.23
#2	.45521	69176.	8.1440	-4.8180	36.958	^ -----	808.87

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.6247**	**12.872**	**467.90**	**214.7**	**252.5**	**168.0**	**191000.**
Stddev	.0328	.133	.87	2.7	2.0	.9	452.
%RSD	2.0176	1.0323	.18572	1.270	.7899	.5359	.23682
#1	1.6016	12.778	467.29	216.6	253.9	167.4	191320.
#2	1.6479	12.966	468.52	212.8	251.1	168.7	190680.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**391.67**	**1259.**	**1403.**	**486.32**	**1.3870**	**-84.995**	**179.26**
Stddev	2.13	1.	12.	.51	.1140	2.908	.66
%RSD	.54267	.1071	.8561	.10480	8.2165	3.4207	.36671
#1	390.17	1260.	1411.	485.96	1.4676	-82.939	178.79
#2	393.17	1258.	1394.	486.68	1.3064	-87.051	179.72

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20.208**	**.11791**	**2.7092**	**553.27**	**2.7109**	**25.357**	**24.524**
Stddev	.363	2.0217	1.1857	2.27	1.1997	.073	1.452
%RSD	1.7962	1714.7	43.765	.40944	44.254	.28741	5.9223
#1	20.465	1.5475	1.8708	551.67	3.5593	25.306	23.497
#2	19.952	-1.3117	3.5476	554.87	1.8626	25.409	25.551

Sample Name: S 711067-016-016-1/1 Acquired: 12/11/2007 20:51:36 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	**10534.**	**1.6269**	**451.31**	**120.89**
Stddev	7.	1.2638	.76	.05
%RSD	.07008	77.680	.16807	.03901
#1	10529.	2.5205	450.78	120.93
#2	10539.	.73327	451.85	120.86

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41794.	25775.	567510.
Stddev	22.	53.	1674.
%RSD	.05167	.20716	.29489
#1	41778.	25813.	568700.
#2	41809.	25737.	566330.

Sample Name: S 711067-017-017-1/1 Acquired: 12/11/2007 20:55:03 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	**.53267**	**49701.**	**14.758**	**-7.7806**	**125.44**	**2.2712**	**649.35**
Stddev	.22104	878.	1.322	.9963	2.36	.0596	28.81
%RSD	41.495	1.7660	8.9585	12.806	1.8804	2.6226	4.4371
#1	.37638	50321.	15.693	-8.4852	127.11	2.3133	669.73
#2	.68897	49080.	13.823	-7.0761	123.77	2.2291	628.98

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.2397**	**90.407**	**454.35**	**357.6**	**316.5**	**222.2**	**235220.**
Stddev	.0773	.173	6.57	3.8	3.7	3.9	4039.
%RSD	6.2357	.19172	1.4453	1.075	1.183	1.747	1.7169
#1	1.1850	90.530	458.99	360.3	319.2	224.9	238080.
#2	1.2943	90.284	449.71	354.8	313.9	219.4	232370.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**399.95**	**1302.**	**1454.**	**8988.8**	**2.2938**	**-73.489**	**118.63**
Stddev	77.18	23.	25.	195.4	.4078	2.185	.26
%RSD	19.298	1.760	1.752	2.1737	17.777	2.9733	.22004
#1	454.52	1318.	1472.	9127.0	2.5821	-71.943	118.81
#2	345.37	1286.	1436.	8850.6	2.0055	-75.034	118.44

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.028**	**-2.2717**	**.50129**	**544.12**	**4.1105**	**28.126**	**32.637**
Stddev	.009	.2593	1.7523	10.16	.3535	.480	3.938
%RSD	.03929	11.414	349.55	1.8671	8.6009	1.7078	12.065
#1	24.021	-2.4550	1.7403	551.30	4.3605	28.466	35.421
#2	24.035	-2.0884	-.73775	536.94	3.8605	27.786	29.852

Sample Name: S 711067-017-017-1/1 Acquired: 12/11/2007 20:55:03 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	**11247.**	**2.1883**	**537.00**	**158.61**
Stddev	206.	.1799	8.19	.55
%RSD	1.8273	8.2196	1.5246	.34466
#1	11392.	2.3155	542.79	159.00
#2	11102.	2.0611	531.21	158.22

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41745.**	**25363.**	**565800.**
Stddev	186.	294.	306.
%RSD	.44456	1.1594	.05412
#1	41614.	25156.	565580.
#2	41877.	25571.	566020.

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: S 711067-018-018-1/1 Acquired: 12/11/2007 21:05:41 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	**-.20243**	**45846.**	**17.269**	**-5.2745**	**81.137**	**2.0663**	**1238.7**
Stddev	.00693	728.	.485	.2274	1.851	.0050	13.8
%RSD	3.4215	1.5881	2.8071	4.3114	2.2808	.24433	1.1166
#1	-.20733	45331.	16.926	-5.1137	82.445	2.0627	1228.9
#2	-.19753	46361.	17.612	-5.4353	79.828	2.0698	1248.5

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.5144**	**10.291**	**614.62**	**287.9**	**301.9**	**187.6**	**307530.**
Stddev	.4331	.382	13.55	4.3	3.7	14.3	3803.
%RSD	17.226	3.7159	2.2041	1.480	1.233	7.615	1.2366
#1	2.8206	10.561	624.20	290.9	299.3	197.7	304840.
#2	2.2081	10.020	605.04	284.9	304.5	177.5	310220.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**137.59**	**877.5**	**970.5**	**651.79**	**2.3983**	**-97.981**	**81.372**
Stddev	45.08	15.8	8.1	14.95	.2692	9.902	.169
%RSD	32.762	1.801	.8323	2.2932	11.225	10.106	.20815
#1	105.72	866.3	964.8	662.36	2.2079	-104.98	81.252
#2	169.47	888.6	976.2	641.22	2.5886	-90.979	81.492

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**27.968**	**-1.1266**	**6.0444**	**444.85**	**5.4612**	**138.81**	**45.028**
Stddev	.006	1.1643	1.0097	14.98	.4833	3.29	1.656
%RSD	.01993	103.34	16.706	3.3672	8.8492	2.3718	3.6779
#1	27.964	-.30334	5.3304	455.44	5.8030	141.14	46.199
#2	27.972	-1.9499	6.7584	434.26	5.1195	136.48	43.857

Sample Name: S 711067-018-018-1/1 Acquired: 12/11/2007 21:05:41 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	**10477.**	**.91670**	**628.94**	**136.20**
Stddev	232.	3.2771	13.83	1.64
%RSD	2.2166	357.49	2.1994	1.2066
#1	10642.	3.2340	638.72	137.36
#2	10313.	-1.4006	619.16	135.03

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	41440.	25585.	562400.
Stddev	99.	457.	5481.
%RSD	.23832	1.7866	.97451
#1	41370.	25908.	558520.
#2	41510.	25262.	566270.

Sample Name: S 711067-019-019-1/1 Acquired: 12/11/2007 21:09:09 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	**-.02845**	**27250.**	**12.740**	**-5.9601**	**89.275**	**2.4576**	**1775.1**
Stddev	.39278	970.	1.828	.1247	1.639	.0552	58.0
%RSD	1380.5	3.5588	14.351	2.0917	1.8360	2.2460	3.2674
#1	.24929	27935.	14.033	-6.0482	90.435	2.4966	1816.2
#2	-.30619	26564.	11.447	-5.8719	88.116	2.4185	1734.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0534**	**19.673**	**523.88**	**320.0**	**306.6**	**205.0**	**248760.**
Stddev	.3345	.302	7.12	5.3	10.8	1.2	8702.
%RSD	31.750	1.5356	1.3581	1.663	3.506	.5955	3.4983
#1	.81693	19.460	528.91	323.7	314.2	204.1	254910.
#2	1.2899	19.887	518.85	316.2	299.0	205.8	242600.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**185.67**	**1670.**	**1866.**	**786.25**	**1.9195**	**-113.78**	**84.326**
Stddev	7.56	57.	76.	13.70	.4645	14.75	1.147
%RSD	4.0743	3.403	4.045	1.7427	24.198	12.967	1.3607
#1	191.02	1710.	1920.	795.94	1.5910	-124.21	85.138
#2	180.32	1630.	1813.	776.57	2.2479	-103.35	83.515

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**42.796**	**-2.1563**	**2.5593**	**417.96**	**5.8857**	**116.36**	**39.506**
Stddev	.190	.0300	5.4172	10.32	.1288	2.02	2.319
%RSD	.44490	1.3899	211.67	2.4688	2.1885	1.7334	5.8710
#1	42.931	-2.1351	6.3898	425.25	5.7946	117.78	41.146
#2	42.661	-2.1775	-1.2713	410.66	5.9768	114.93	37.866

Sample Name: S 711067-019-019-1/1 Acquired: 12/11/2007 21:09:09 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	**12149.**	**2.7804**	**635.16**	**161.78**
Stddev	190.	1.6299	10.51	.51
%RSD	1.5631	58.621	1.6544	.31481
#1	12283.	3.9329	642.60	162.14
#2	12015.	1.6279	627.73	161.42

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41690.**	**25482.**	**565260.**
Stddev	36.	685.	2785.
%RSD	.08650	2.6898	.49273
#1	41715.	24997.	567230.
#2	41664.	25967.	563290.

Sample Name: S 711067-020-020-1/1 Acquired: 12/11/2007 21:12:37 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	**-.03912**	**106890.**	**16.773**	**-4.3764**	**51.205**	**1.2845**	**603.68**
Stddev	.01415	1742.	.361	.1916	.305	.0395	9.61
%RSD	36.179	1.6295	2.1499	4.3790	.59595	3.0757	1.5911
#1	-.04912	108120.	16.518	-4.2409	51.420	1.3124	610.47
#2	-.02911	105660.	17.028	-4.5119	50.989	1.2565	596.89

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3734**	**14.436**	**551.91**	**201.8**	**278.8**	**185.9**	**213030.**
Stddev	.1742	.178	1.49	.8	4.3	9.0	3888.
%RSD	12.680	1.2320	.26955	.4086	1.559	4.842	1.8250
#1	1.2502	14.562	552.96	202.4	281.8	192.3	215780.
#2	1.4965	14.310	550.86	201.2	275.7	179.6	210280.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**459.96**	**1066.**	**1183.**	**1303.9**	**1.6262**	**-99.970**	**87.023**
Stddev	45.13	17.	20.	6.3	.1949	3.761	.954
%RSD	9.8110	1.638	1.708	.48575	11.984	3.7619	1.0959
#1	491.87	1078.	1198.	1308.3	1.7640	-102.63	87.698
#2	428.05	1053.	1169.	1299.4	1.4884	-97.310	86.349

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.096**	**-.80754**	**1.1536**	**516.08**	**4.6577**	**61.653**	**30.539**
Stddev	1.255	.21814	1.0325	2.97	.5306	.342	.069
%RSD	5.2094	27.012	89.508	.57549	11.392	.55534	.22689
#1	23.209	-.65330	1.8836	518.18	5.0329	61.895	30.588
#2	24.984	-.96179	.42345	513.98	4.2826	61.411	30.490

Sample Name: S 711067-020-020-1/1 Acquired: 12/11/2007 21:12:37 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	**7751.4**	**2.0972**	**441.57**	**152.92**
Stddev	13.7	1.1031	2.20	.46
%RSD	.17735	52.599	.49753	.30330
#1	7741.6	2.8772	443.12	153.25
#2	7761.1	1.3172	440.01	152.60

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41955.**	**25581.**	**566820.**
Stddev	84.	100.	3911.
%RSD	.20127	.39166	.69001
#1	41895.	25510.	569590.
#2	42015.	25652.	564060.

Sample Name: BLK 120 Acquired: 12/11/2007 21:16:03 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	**-.17832**	**-3.0501**	**-2.7029**	**-.19727**	**-.43620**	**.00785**	**-31.598**
Stddev	.11577	22.788	.3423	.15094	.01090	.00190	5.845
%RSD	64.922	747.13	12.666	76.514	2.4991	24.137	18.498
#1	-.09646	-19.164	-2.4608	-.09054	-.42849	.00920	-27.465
#2	-.26017	13.063	-2.9449	-.30400	-.44390	.00651	-35.731
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	**-.38491**	**-1.4356**	**1.2216**	**.2704**	**.6001**	**2.546**	**-5.5237**
Stddev	.05858	.0371	.2974	.0884	.8773	9.162	11.477
%RSD	15.218	2.5836	24.346	32.71	146.2	359.9	207.78
#1	-.42633	-1.4619	1.0113	.3329	1.220	9.025	2.5918
#2	-.34349	-1.4094	1.4319	.2079	-.0203	-3.933	-13.639
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 **-383.39**	F **-14.78**	F **-18.24**	**-.08027**	**-.93380**	**-176.13**	**-.68728**
Stddev	20.19	.01	.51	.00342	.06793	2.55	.20535
%RSD	5.2672	.0847	2.811	4.2550	7.2742	1.4475	29.879
#1	-397.67	-14.79	-18.60	-.08268	-.98183	-174.32	-.83249
#2	-369.11	-14.77	-17.88	-.07785	-.88577	-177.93	-.54207
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 120 Acquired: 12/11/2007 21:16:03 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	**-1.1902**	**.39786**	**3.3161**	F **12.800**	F **26.090**	**-.10586**	**1.0973**
Stddev	1.7286	1.4585	.1246	.400	.095	.00253	1.1412
%RSD	145.23	366.59	3.7566	3.1264	.36226	2.3872	104.00
#1	.03206	1.4292	3.2281	13.083	26.023	-.10407	1.9043
#2	-2.4125	-.63347	3.4042	12.517	26.157	-.10765	.29038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
High Limit				10.000	20.000		
Low Limit				-10.000	-20.000		

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**.37498**	**-2.9003**	**-.52929**	**4.7115**
Stddev	.09153	1.6060	.01076	.0170
%RSD	24.409	55.373	2.0335	.36118
#1	.31026	-4.0359	-.52168	4.6995
#2	.43970	-1.7647	-.53690	4.7236
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	40612.	24624.	560840.
Stddev	106.	996.	3702.
%RSD	.26126	4.0461	.66008
#1	40537.	23920.	558220.
#2	40687.	25329.	563460.

Sample Name: BKS 120 Acquired: 12/11/2007 21:19:32 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	**101.50**	**10269.**	**92.458**	**936.42**	**1006.6**	**50.504**	**9769.5**
Stddev	.31	40.	.134	2.66	5.8	.100	.1
%RSD	.30357	.38533	.14498	.28381	.57460	.19749	.00126
#1	101.72	10241.	92.553	934.54	1010.7	50.574	9769.6
#2	101.28	10297.	92.363	938.30	1002.5	50.433	9769.4
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	**100.88**	**501.05**	**517.11**	F **558.0**	F **908.1**	F **459.8**	**9454.9**
Stddev	.02	2.11	1.15	.4	1.3	4.5	3.7
%RSD	.01735	.42139	.22281	.0730	.1432	.9776	.03959
#1	100.87	499.56	517.93	557.7	907.2	463.0	9452.3
#2	100.90	502.54	516.30	558.3	909.0	456.7	9457.6
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	**9816.6**	F **10080.**	F **11080.**	**1025.6**	**513.99**	**10201.**	**516.16**
Stddev	15.8	22.	11.	1.1	1.26	15.	2.11
%RSD	.16075	.2151	.0982	.10321	.24504	.14746	.40890
#1	9805.5	10100.	11070.	1026.3	513.10	10211.	514.67
#2	9827.8	10070.	11090.	1024.8	514.88	10190.	517.65
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 120 Acquired: 12/11/2007 21:19:32 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	**992.70**	**93.106**	**93.984**	F **7684.9**	**534.82**	F **1005.7**	**372.66**
Stddev	1.96	1.849	.263	22.0	1.18	5.1	1.13
%RSD	.19761	1.9857	.27983	.28605	.22136	.50554	.30289
#1	991.31	91.799	94.170	7700.4	533.99	1009.3	373.46
#2	994.08	94.413	93.798	7669.3	535.66	1002.1	371.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass
Value				10000.		500.00	
Range				-20.000%		20.000%	

Elem	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb
Avg	**2103.0**	**97.401**	**518.82**	**985.43**
Stddev	3.5	.326	1.57	2.17
%RSD	.16525	.33509	.30186	.21997
#1	2105.4	97.170	519.93	983.90
#2	2100.5	97.631	517.71	986.96
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	**40829.**	**25030.**	**561100.**
Stddev	65.	78.	1115.
%RSD	.15865	.31266	.19875
#1	40875.	25086.	560310.
#2	40784.	24975.	561890.

Sample Name: S 711067-021-021-1/1 Acquired: 12/11/2007 21:23:08 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	**-.17016**	**80848.**	**17.049**	**-3.2200**	**80.525**	^ *****	**528.77**
Stddev	.35931	967.	.696	.2939	.824	-----	5.93
%RSD	211.17	1.1964	4.0833	9.1260	1.0228	-----	1.1222
#1	.08392	81532.	16.557	-3.4278	81.107	1.3979	532.97
#2	-.42423	80164.	17.541	-3.0122	79.942	^ -----	524.58

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.6966**	**25.696**	**429.01**	**242.5**	**281.9**	**201.6**	**194910.**
Stddev	.1487	.107	2.71	.5	4.6	13.4	2567.
%RSD	8.7654	.41664	.63165	.1983	1.626	6.648	1.3168
#1	1.5914	25.772	430.93	242.2	285.1	211.1	196730.
#2	1.8017	25.621	427.09	242.9	278.6	192.2	193100.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**503.88**	**1251.**	**1389.**	**2297.0**	**2.0354**	**-109.33**	**88.309**
Stddev	36.14	16.	14.	25.6	.2189	6.52	.196
%RSD	7.1727	1.240	.9853	1.1146	10.757	5.9651	.22177
#1	478.33	1262.	1398.	2315.1	1.8806	-113.94	88.171
#2	529.44	1240.	1379.	2278.9	2.1902	-104.72	88.448

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**29.710**	**-.16742**	**-2.7722**	**561.67**	**4.7463**	**88.369**	**26.906**
Stddev	.232	.73260	3.5871	5.67	.0759	.917	1.028
%RSD	.77942	437.57	129.40	1.0103	1.5984	1.0378	3.8205
#1	29.547	-.68545	-.23569	565.69	4.7999	89.017	27.633
#2	29.874	.35060	-5.3086	557.66	4.6926	87.720	26.179

Sample Name: S 711067-021-021-1/1 Acquired: 12/11/2007 21:23:08 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	**8239.4**	**.36323**	**440.54**	**156.89**
Stddev	15.4	.03133	3.87	.10
%RSD	.18685	8.6246	.87812	.06403
#1	8228.5	.34108	443.27	156.82
#2	8250.3	.38538	437.80	156.96

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42698.	25701.	576360.
Stddev	45.	217.	1481.
%RSD	.10511	.84299	.25703
#1	42730.	25548.	575310.
#2	42666.	25854.	577400.

Sample Name: SP711067-021-021-1/1 Acquired: 12/11/2007 21:26:35 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	**10.512**	**98139.**	**30.499**	**86.123**	**249.02**	^ *****	**1696.4**
Stddev	.258	2005.	.245	.744	1.03	-----	37.7
%RSD	2.4506	2.0426	.80226	.86407	.41341	-----	2.2199
#1	10.330	99556.	30.672	86.649	249.75	^ -----	1723.0
#2	10.695	96721.	30.326	85.597	248.29	^ -----	1669.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.335**	**75.765**	**508.24**	**317.4**	**360.7**	**264.8**	**212240.**
Stddev	.201	.824	1.17	.0	6.4	1.2	4142.
%RSD	1.7716	1.0873	.23026	.0032	1.763	.4527	1.9515
#1	11.193	76.347	509.07	317.5	365.2	263.9	215170.
#2	11.477	75.182	507.42	317.4	356.2	265.6	209310.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1835.3**	**2505.**	**2796.**	**2492.1**	**37.056**	**996.16**	**162.26**
Stddev	65.4	43.	58.	2.8	.267	11.57	1.61
%RSD	3.5639	1.729	2.057	.11312	.72177	1.1611	.99526
#1	1881.6	2536.	2837.	2494.1	36.867	1004.3	163.40
#2	1789.1	2475.	2756.	2490.1	37.245	987.98	161.12

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**132.87**	**3.8604**	**9.5394**	**589.60**	**51.914**	**285.98**	**63.612**
Stddev	.26	.3935	1.1743	3.47	.900	2.54	.893
%RSD	.19313	10.193	12.310	.58871	1.7328	.88845	1.4033
#1	132.69	3.5822	8.7090	592.06	52.550	287.77	64.243
#2	133.05	4.1387	10.370	587.15	51.278	284.18	62.981

Sample Name: SP711067-021-021-1/1 Acquired: 12/11/2007 21:26:35 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	**9014.3**	**11.771**	**528.41**	**278.54**
Stddev	.7	.604	.76	1.72
%RSD	.00731	5.1306	.14359	.61620
#1	9013.9	12.198	528.94	279.75
#2	9014.8	11.344	527.87	277.32

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42423.	25584.	574700.
Stddev	106.	240.	2975.
%RSD	.24914	.93676	.51770
#1	42348.	25414.	576810.
#2	42498.	25753.	572600.

Sample Name: SD711067-021-021-1/1 Acquired: 12/11/2007 21:30:05 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	**10.201**	**101230.**	**30.755**	**85.722**	**246.73**	^ *****	**1771.4**
Stddev	.085	3080.	1.891	1.076	.42	-----	54.0
%RSD	.83686	3.0430	6.1474	1.2557	.16853	-----	3.0473
#1	10.141	103400.	32.092	84.961	247.03	^ -----	1809.6
#2	10.262	99048.	29.418	86.483	246.44	^ -----	1733.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.245**	**76.860**	**515.76**	**322.9**	**369.4**	**275.1**	**216600.**
Stddev	.559	.280	.61	.5	5.7	1.5	6286.
%RSD	4.9733	.36435	.11863	.1540	1.532	.5587	2.9019
#1	10.850	76.662	516.19	323.2	373.4	276.2	221050.
#2	11.640	77.058	515.32	322.5	365.4	274.1	212160.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1819.6**	**2588.**	**2893.**	**2581.7**	**37.332**	**1008.3**	**164.87**
Stddev	102.4	69.	87.	4.9	.359	54.3	.54
%RSD	5.6300	2.670	3.004	.18845	.96210	5.3901	.32617
#1	1892.1	2637.	2955.	2585.1	37.586	1046.7	164.49
#2	1747.2	2539.	2832.	2578.2	37.078	969.85	165.25

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**133.77**	**2.1887**	**6.8312**	**620.28**	**51.585**	**285.17**	**66.069**
Stddev	1.20	2.0065	1.3170	2.13	.089	.34	7.020
%RSD	.89849	91.678	19.279	.34355	.17326	.11804	10.625
#1	132.92	.76985	7.7625	621.79	51.521	285.41	71.033
#2	134.62	3.6075	5.9000	618.78	51.648	284.93	61.106

Sample Name: SD711067-021-021-1/1 Acquired: 12/11/2007 21:30:05 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	**9271.7**	**11.572**	**534.42**	**282.32**
Stddev	14.3	.583	.71	1.77
%RSD	.15408	5.0367	.13360	.62540
#1	9261.6	11.984	534.93	281.07
#2	9281.8	11.160	533.92	283.57

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42468.	25231.	573620.
Stddev	138.	670.	501.
%RSD	.32427	2.6544	.08742
#1	42565.	24757.	573980.
#2	42370.	25704.	573270.

Sample Name: PS711067-021-021-1/1 Acquired: 12/11/2007 21:33:36 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	**48.152**	**83066.**	**108.04**	**75.035**	**103.67**	**11.845**	**6096.1**
Stddev	.424	3222.	3.59	.343	.10	.031	231.8
%RSD	.88115	3.8783	3.3183	.45709	.09938	.26313	3.8025
#1	48.452	85344.	110.57	74.793	103.60	11.867	6260.0
#2	47.852	80788.	105.50	75.278	103.74	11.823	5932.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.006**	**59.004**	**450.99**	**278.7**	**644.2**	**233.0**	**198210.**
Stddev	.225	.299	2.76	2.0	10.5	6.5	7485.
%RSD	.93725	.50600	.61241	.7123	1.635	2.779	3.7763
#1	23.847	58.793	449.03	280.1	651.6	237.6	203500.
#2	24.165	59.215	452.94	277.3	636.7	228.4	192920.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6408.3**	**6967.**	**7749.**	**2381.7**	**36.109**	**5816.2**	**134.63**
Stddev	216.4	265.	313.	3.3	.057	229.5	.90
%RSD	3.3772	3.809	4.037	.14028	.15776	3.9463	.66582
#1	6561.3	7155.	7970.	2379.4	36.149	5978.5	135.26
#2	6255.2	6779.	7527.	2384.1	36.069	5653.9	133.99

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**116.48**	**90.414**	**79.129**	**6293.9**	**118.00**	**111.67**	**552.03**
Stddev	1.03	.178	.879	31.0	.05	.28	4.39
%RSD	.88650	.19671	1.1110	.49315	.04618	.24971	.79468
#1	117.21	90.540	78.507	6272.0	118.03	111.47	555.13
#2	115.75	90.289	79.751	6315.9	117.96	111.87	548.92

Sample Name: PS711067-021-021-1/1 Acquired: 12/11/2007 21:33:36 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	**8201.3**	**109.76**	**463.00**	**245.50**
Stddev	79.2	2.45	1.51	.14
%RSD	.96559	2.2312	.32532	.05701
#1	8257.3	108.03	461.93	245.40
#2	8145.4	111.49	464.06	245.60

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42191.**	**25266.**	**569320.**
Stddev	26.	748.	1279.
%RSD	.06187	2.9596	.22463
#1	42172.	24737.	570230.
#2	42209.	25795.	568420.

Sample Name: SE711067-021-021-1/1 Acquired: 12/11/2007 21:37:00 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	**-.27021**	**16827.**	**1.7939**	**-2.2316**	**16.827**	**.12031**	**80.108**	**.22875**
Stddev	.13510	28.	1.0152	.0798	.113	.00920	2.424	.00338
%RSD	49.998	.16832	56.590	3.5779	.66959	7.6496	3.0254	1.4761
#1	-.17468	16806.	2.5117	-2.1751	16.747	.12682	81.822	.23114
#2	-.36574	16847.	1.0761	-2.2880	16.907	.11381	78.394	.22637

Elem	Co	Cr	Cu2199	Cu2218	Cu3273	Fe	K	Mg2802
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.6351**	**92.204**	**53.05**	**59.28**	**43.26**	**41213.**	**-220.78**	**248.0**
Stddev	.2725	1.013	1.20	.97	4.84	63.	24.23	.2
%RSD	5.8791	1.0983	2.260	1.630	11.18	.15326	10.974	.0895
#1	4.8278	91.488	52.20	59.96	39.84	41169.	-203.65	247.9
#2	4.4424	92.920	53.90	58.60	46.68	41258.	-237.91	248.2

Elem	Mg2852	Mn	Mo	Na	Ni	Pb	Sb	Se
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**268.0**	**494.48**	**-.60500**	**-150.65**	**18.075**	**5.0390**	**-.51235**	**-1.0100**
Stddev	2.8	2.28	.33576	1.69	.018	.4672	1.0720	.9600
%RSD	1.056	.46059	55.497	1.1241	.10176	9.2710	209.24	95.050
#1	270.0	492.87	-.36758	-149.46	18.088	4.7087	.24569	-1.6887
#2	266.0	496.09	-.84242	-151.85	18.062	5.3694	-1.2704	-.33116

Elem	Si	Sn	Sr	Te	Ti	Tl	V	Zn
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**121.72**	**-.26744**	**18.746**	**8.6905**	**1793.4**	**-.54153**	**94.425**	**34.957**
Stddev	.15	.23834	.096	.1632	9.2	.26462	.707	.090
%RSD	.12140	89.120	.50949	1.8781	.51255	48.864	.74915	.25817
#1	121.62	-.43597	18.678	8.8059	1786.9	-.35442	93.925	35.021
#2	121.83	-.09891	18.813	8.5751	1799.9	-.72865	94.925	34.893

Sample Name: SE711067-021-021-1/1 Acquired: 12/11/2007 21:37:00 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	42636.	25891.	569690.
Stddev	63.	75.	3647.
%RSD	.14723	.28916	.64022
#1	42592.	25944.	572270.
#2	42681.	25838.	567110.

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: S 711067-022-022-1/1 Acquired: 12/11/2007 21:47:29 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	**-.15899**	**51365.**	**8.7094**	**-4.8389**	**88.374**	**2.4141**	**1988.1**
Stddev	.35601	891.	2.4036	.0739	.769	.1010	34.6
%RSD	223.92	1.7343	27.598	1.5264	.87013	4.1818	1.7423
#1	.09275	51995.	10.409	-4.7867	88.918	2.3427	2012.6
#2	-.41073	50735.	7.0098	-4.8912	87.830	2.4854	1963.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.0653**	**20.035**	**509.24**	**304.8**	**306.0**	**208.0**	**223850.**
Stddev	.0687	.150	2.25	1.8	4.0	2.0	3256.
%RSD	3.3279	.74783	.44105	.6066	1.317	.9445	1.4547
#1	2.0167	19.929	510.82	303.5	308.8	209.4	226150.
#2	2.1139	20.141	507.65	306.1	303.1	206.6	221540.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**208.06**	**1590.**	**1765.**	**869.84**	**1.9449**	**-53.683**	**100.93**
Stddev	9.82	23.	32.	6.08	.0424	4.485	.32
%RSD	4.7196	1.458	1.805	.69947	2.1780	8.3548	.31709
#1	215.00	1607.	1788.	874.14	1.9150	-56.854	101.16
#2	201.11	1574.	1743.	865.54	1.9749	-50.511	100.71

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**27.456**	**-1.0339**	**1.0612**	**565.16**	**3.9177**	**128.13**	**30.699**
Stddev	.551	.6450	2.7120	6.44	.0339	1.01	1.495
%RSD	2.0075	62.391	255.57	1.1393	.86527	.79001	4.8696
#1	27.066	-1.4900	2.9789	569.72	3.8938	128.85	29.642
#2	27.845	-.57776	-.85652	560.61	3.9417	127.42	31.756

Sample Name: S 711067-022-022-1/1 Acquired: 12/11/2007 21:47:29 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	**11567.**	**-.62593**	**560.97**	**182.80**
Stddev	83.	.89962	3.47	.39
%RSD	.71350	143.73	.61911	.21544
#1	11625.	.01020	563.42	183.08
#2	11509.	-1.2621	558.51	182.53

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42212.	25430.	569870.
Stddev	53.	324.	3438.
%RSD	.12550	1.2748	.60337
#1	42174.	25201.	567440.
#2	42249.	25660.	572300.

Sample Name: S 711067-023-023-1/1 Acquired: 12/11/2007 21:50:56 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	**-.66005**	**27889.**	**13.582**	**-5.9014**	**60.335**	**2.9468**	**1722.6**
Stddev	.40233	377.	3.913	.3105	.215	.0531	38.6
%RSD	60.955	1.3510	28.809	5.2605	.35662	1.8002	2.2409
#1	-.37556	28155.	16.348	-6.1209	60.183	2.9093	1749.9
#2	-.94455	27623.	10.815	-5.6819	60.487	2.9843	1695.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.6285**	**16.363**	**532.71**	**353.8**	**337.6**	**219.8**	**283980.**
Stddev	.1842	.054	3.65	3.8	3.9	11.3	4153.
%RSD	7.0077	.33205	.68445	1.076	1.155	5.140	1.4623
#1	2.4983	16.401	530.13	356.5	340.4	227.8	286920.
#2	2.7588	16.324	535.29	351.1	334.9	211.8	281040.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.81777**	**1662.**	**1835.**	**733.48**	**3.3974**	**-103.10**	**74.255**
Stddev	39.268	20.	34.	4.63	.0440	11.12	.580
%RSD	4801.8	1.232	1.842	.63158	1.2940	10.787	.78113
#1	28.584	1676.	1859.	730.20	3.3663	-95.233	74.665
#2	-26.949	1647.	1811.	736.75	3.4285	-110.96	73.845

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.161**	**-1.9140**	**5.3791**	**795.89**	**6.1943**	**84.095**	**37.329**
Stddev	.959	1.2177	.7323	5.80	.0796	.459	.305
%RSD	1.9121	63.619	13.614	.72875	1.2849	.54628	.81619
#1	50.840	-2.7751	4.8613	791.79	6.2505	83.770	37.114
#2	49.483	-1.0530	5.8970	799.99	6.1380	84.420	37.545

Sample Name: S 711067-023-023-1/1 Acquired: 12/11/2007 21:50:56 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	**13442.**	**.95237**	**698.39**	**152.33**
Stddev	20.	2.0918	5.07	.28
%RSD	.14517	219.64	.72653	.18558
#1	13428.	-.52675	694.81	152.53
#2	13455.	2.4315	701.98	152.13

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42204.**	**25658.**	**572210.**
Stddev	201.	42.	4653.
%RSD	.47685	.16439	.81310
#1	42061.	25628.	575500.
#2	42346.	25688.	568920.

Sample Name: S 711067-024-024-1/1 Acquired: 12/11/2007 21:54:24 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	**-.11114**	**32173.**	**14.591**	**-6.5488**	**52.914**	**2.4723**	**1048.1**
Stddev	.17398	931.	.240	.1591	.209	.0095	26.7
%RSD	156.53	2.8952	1.6470	2.4298	.39576	.38323	2.5517
#1	.01188	32831.	14.761	-6.4363	53.062	2.4656	1067.0
#2	-.23416	31514.	14.421	-6.6613	52.766	2.4790	1029.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.1088**	**12.154**	**595.80**	**315.2**	**300.4**	**191.1**	**312440.**
Stddev	.4923	.147	.03	.4	11.7	6.3	8439.
%RSD	15.834	1.2062	.00481	.1362	3.904	3.322	2.7009
#1	2.7607	12.258	595.82	315.5	308.7	195.6	318400.
#2	3.4569	12.051	595.78	314.9	292.1	186.6	306470.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-54.070**	**854.1**	**943.6**	**610.47**	**3.6169**	**-130.62**	**70.344**
Stddev	31.422	24.6	26.3	.99	.1126	5.32	.167
%RSD	58.115	2.886	2.790	.16287	3.1138	4.0730	.23785
#1	-76.289	871.5	962.2	611.18	3.6966	-134.38	70.462
#2	-31.850	836.7	925.0	609.77	3.5373	-126.85	70.225

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**38.220**	**-2.4975**	**7.0966**	**550.03**	**5.4983**	**86.976**	**38.675**
Stddev	1.342	.1227	.1865	4.85	.6389	.133	4.805
%RSD	3.5119	4.9125	2.6280	.88261	11.621	.15315	12.424
#1	37.271	-2.5843	7.2284	553.46	5.0465	87.070	42.072
#2	39.170	-2.4108	6.9647	546.60	5.9501	86.881	35.277

Sample Name: S 711067-024-024-1/1 Acquired: 12/11/2007 21:54:24 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	**12151.**	**.41525**	**716.99**	**111.84**
Stddev	50.	.95641	1.49	.51
%RSD	.40876	230.32	.20805	.45774
#1	12186.	-.26104	718.04	111.47
#2	12116.	1.0915	715.93	112.20

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**41816.**	**26054.**	**569540.**
Stddev	197.	563.	715.
%RSD	.47171	2.1611	.12550
#1	41677.	25656.	570050.
#2	41956.	26452.	569040.

Sample Name: S 711067-025-025-1/1 Acquired: 12/11/2007 21:57:52 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	**.02143**	**58371.**	**10.730**	**-4.3521**	**27.778**	^ *****	**530.77**
Stddev	.19911	597.	1.808	.0225	.248	-----	1.84
%RSD	929.25	1.0234	16.846	.51702	.89186	-----	.34743
#1	.16222	58793.	12.008	-4.3362	27.953	^ -----	532.07
#2	-.11937	57948.	9.4519	-4.3680	27.603	^ -----	529.47

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.1852**	**20.457**	**417.99**	**232.9**	**259.3**	**177.8**	**183410.**
Stddev	.0569	.258	3.43	.2	2.3	8.8	1748.
%RSD	4.8025	1.2627	.82018	.0703	.8938	4.966	.95327
#1	1.2255	20.639	420.42	232.8	261.0	184.0	184650.
#2	1.1450	20.274	415.57	233.0	257.7	171.5	182170.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**444.49**	**1115.**	**1233.**	**901.71**	**1.2824**	**-115.15**	**112.91**
Stddev	1.20	13.	15.	6.36	.0345	19.95	.54
%RSD	.26954	1.206	1.194	.70576	2.6914	17.321	.47994
#1	443.65	1124.	1243.	906.21	1.3068	-129.25	113.29
#2	445.34	1105.	1222.	897.21	1.2580	-101.05	112.53

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**17.373**	**-1.9640**	**1.6394**	**594.37**	**3.2017**	**22.911**	**27.229**
Stddev	.099	.3512	2.6321	5.31	.4478	.176	1.059
%RSD	.56959	17.884	160.55	.89417	13.986	.76981	3.8897
#1	17.304	-2.2123	3.5006	598.13	3.5184	23.036	27.977
#2	17.443	-1.7156	-.22174	590.61	2.8851	22.786	26.480

Sample Name: S 711067-025-025-1/1 Acquired: 12/11/2007 21:57:52 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	**9245.5**	**-.58077**	**447.22**	**125.27**
Stddev	6.6	.71251	3.40	1.07
%RSD	.07118	122.68	.76017	.85347
#1	9250.2	-.07695	449.62	126.02
#2	9240.9	-1.0846	444.81	124.51

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42292.**	**25614.**	**570210.**
Stddev	162.	83.	381.
%RSD	.38343	.32437	.06677
#1	42177.	25556.	569940.
#2	42407.	25673.	570480.

Sample Name: S 711067-026-026-1/1 Acquired: 12/11/2007 22:01:20 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	**-.33065**	**64101.**	**2.7993**	**-2.9329**	**248.48**	**2.0161**	**2431.3**
Stddev	.07698	2211.	1.9933	.0314	.83	.0994	79.6
%RSD	23.281	3.4492	71.209	1.0693	.33467	4.9300	3.2724
#1	-.27622	65665.	4.2088	-2.9551	249.07	2.0864	2487.6
#2	-.38508	62538.	1.3898	-2.9107	247.89	1.9459	2375.1

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.2153**	**168.73**	**325.61**	**435.8**	**385.7**	**317.0**	**122150.**
Stddev	.1349	.43	.02	.5	5.9	.2	3952.
%RSD	11.101	.25461	.00569	.1219	1.522	.0758	3.2352
#1	1.1199	169.03	325.62	436.1	389.9	317.1	124950.
#2	1.3107	168.42	325.60	435.4	381.6	316.8	119360.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1371.0**	**2431.**	**2702.**	**7745.0**	**.19553**	**94.501**	**406.64**
Stddev	84.9	87.	94.	38.0	.11529	6.498	1.08
%RSD	6.1921	3.561	3.491	.49057	58.964	6.8759	.26571
#1	1431.0	2492.	2769.	7771.9	.11400	99.095	407.40
#2	1311.0	2370.	2636.	7718.2	.27705	89.906	405.88

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**15.202**	**-1.8688**	**-1.5485**	**537.01**	**1.5790**	**46.581**	**16.553**
Stddev	.951	2.3437	2.1936	.85	.6789	.145	.206
%RSD	6.2557	125.41	141.67	.15901	42.998	.31092	1.2435
#1	15.875	-3.5260	.00267	537.61	2.0591	46.684	16.698
#2	14.530	-.21161	-3.0996	536.40	1.0989	46.479	16.407

Sample Name: S 711067-026-026-1/1 Acquired: 12/11/2007 22:01:20 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	**9204.3**	**1.7215**	**359.00**	**171.24**
Stddev	87.9	.9035	.51	.51
%RSD	.95473	52.485	.14242	.29569
#1	9266.4	2.3603	359.36	171.60
#2	9142.1	1.0826	358.64	170.88

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43517.	25848.	587000.
Stddev	32.	629.	122.
%RSD	.07292	2.4343	.02073
#1	43540.	25403.	586910.
#2	43495.	26293.	587090.

Sample Name: S 711067-027-027-1/1 Acquired: 12/11/2007 22:04:54 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	**-.25676**	**64442.**	**6.7859**	**-1.7786**	**113.79**	^ *****	**2573.2**
Stddev	.21106	1409.	1.7625	.1450	1.64	-----	60.1
%RSD	82.200	2.1859	25.974	8.1513	1.4418	-----	2.3368
#1	-.40600	65438.	5.5396	-1.8811	114.95	^ -----	2615.7
#2	-.10752	63446.	8.0322	-1.6761	112.63	^ -----	2530.7

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.82864**	**57.013**	**423.95**	**371.2**	**353.7**	**289.3**	**130010.**
Stddev	.16550	.468	6.05	3.2	5.9	8.6	2726.
%RSD	19.973	.82169	1.4277	.8648	1.657	2.968	2.0970
#1	.71161	57.345	428.23	373.4	357.8	295.3	131940.
#2	.94567	56.682	419.67	368.9	349.5	283.2	128080.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**999.52**	**2141.**	**2382.**	**3518.6**	**-.19965**	**148.65**	**268.36**
Stddev	76.53	40.	53.	57.1	.11366	6.60	1.78
%RSD	7.6565	1.888	2.218	1.6215	56.931	4.4414	.66194
#1	1053.6	2169.	2419.	3559.0	-.11928	153.31	269.61
#2	945.41	2112.	2344.	3478.3	-.28002	143.98	267.10

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**14.233**	**-1.0282**	**-1.2355**	**538.72**	**1.8076**	**45.340**	**20.490**
Stddev	2.362	.3450	.4235	6.75	.3279	.670	1.354
%RSD	16.596	33.548	34.282	1.2537	18.138	1.4771	6.6069
#1	12.562	-.78431	-.93597	543.49	1.5757	45.814	21.447
#2	15.903	-1.2722	-1.5349	533.94	2.0394	44.866	19.533

Sample Name: S 711067-027-027-1/1 Acquired: 12/11/2007 22:04:54 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	**9812.1**	**2.5618**	**388.15**	**138.09**
Stddev	111.3	1.5824	5.75	.63
%RSD	1.1342	61.772	1.4815	.45866
#1	9890.8	1.4428	392.22	138.54
#2	9733.4	3.6807	384.08	137.64

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42845.	25667.	582750.
Stddev	146.	333.	2756.
%RSD	.34133	1.2988	.47293
#1	42742.	25431.	580810.
#2	42949.	25903.	584700.

Sample Name: S 711067-028-028-1/1 Acquired: 12/11/2007 22:08:29 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	**-.24842**	**42543.**	**9.1661**	**-5.4817**	**29.883**	^ *****	**1019.5**
Stddev	.02629	195.	.5371	.1796	.294	-----	3.1
%RSD	10.582	.45882	5.8600	3.2756	.98433	-----	.30695
#1	-.22984	42681.	9.5459	-5.6087	30.091	^ -----	1021.7
#2	-.26701	42405.	8.7863	-5.3547	29.675	^ -----	1017.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.2604**	**25.852**	**539.13**	**371.9**	**343.3**	**275.3**	**159720.**
Stddev	.1125	.294	5.89	.0	2.3	7.8	1056.
%RSD	8.9261	1.1391	1.0920	.0017	.6793	2.832	.66109
#1	1.1809	25.644	543.30	371.9	344.9	280.8	160470.
#2	1.3400	26.061	534.97	371.9	341.6	269.7	158970.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**542.36**	**2261.**	**2513.**	**919.52**	**.43323**	**-79.936**	**132.05**
Stddev	36.18	13.	11.	9.14	.32822	13.151	.36
%RSD	6.6704	.5602	.4184	.99410	75.762	16.452	.27319
#1	567.94	2270.	2521.	925.99	.66532	-89.235	132.31
#2	516.78	2252.	2506.	913.06	.20114	-70.637	131.80

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.996**	**-2.1439**	**2.4000**	**537.64**	**2.9555**	**20.737**	**21.446**
Stddev	1.555	1.3768	1.1408	2.98	.0861	.212	.577
%RSD	12.959	64.222	47.532	.55412	2.9144	1.0201	2.6907
#1	13.095	-3.1175	3.2067	539.75	2.8946	20.887	21.038
#2	10.897	-1.1703	1.5934	535.54	3.0164	20.588	21.854

Sample Name: S 711067-028-028-1/1 Acquired: 12/11/2007 22:08:29 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	**12406.**	**2.7564**	**479.57**	**133.64**
Stddev	173.	.3482	4.91	.58
%RSD	1.3927	12.631	1.0245	.43335
#1	12528.	2.5102	483.05	134.05
#2	12284.	3.0026	476.10	133.23

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42333.**	**25619.**	**569330.**
Stddev	60.	36.	1540.
%RSD	.14212	.14246	.27044
#1	42290.	25644.	568240.
#2	42376.	25593.	570420.

Sample Name: S 711067-029-029-1/1 Acquired: 12/11/2007 22:11:57 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	**-.10245**	**52916.**	**3.9626**	**-1.1141**	**116.25**	^ *****	**2470.8**
Stddev	.33671	1027.	.7169	.4963	.48	-----	45.3
%RSD	328.65	1.9398	18.092	44.549	.40861	-----	1.8315
#1	.13564	53642.	4.4696	-1.4650	116.59	^ -----	2502.8
#2	-.34054	52191.	3.4557	-.76312	115.91	^ -----	2438.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.1519**	**48.154**	**526.14**	**305.2**	**283.3**	**219.3**	**129200.**
Stddev	.2413	.518	1.75	.3	4.7	.3	2757.
%RSD	20.947	1.0747	.33285	.0851	1.663	.1269	2.1342
#1	.98128	47.788	527.37	305.3	286.7	219.1	131150.
#2	1.3225	48.520	524.90	305.0	280.0	219.5	127250.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**765.83**	**2423.**	**2697.**	**4067.3**	**-.19831**	**-1.2574**	**296.43**
Stddev	48.30	46.	55.	12.6	.04285	2.1168	.55
%RSD	6.3065	1.909	2.051	.30893	21.608	168.35	.18613
#1	799.98	2456.	2736.	4076.2	-.16801	.23940	296.04
#2	731.68	2391.	2658.	4058.4	-.22861	-2.7542	296.82

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**16.508**	**1.6038**	**-.25317**	**513.21**	**2.2983**	**35.400**	**16.995**
Stddev	.052	1.6888	.35085	3.26	.4146	.168	2.536
%RSD	.31346	105.30	138.59	.63605	18.040	.47450	14.923
#1	16.471	.40965	-.00508	515.52	2.5915	35.519	18.789
#2	16.545	2.7980	-.50126	510.90	2.0051	35.281	15.202

Sample Name: S 711067-029-029-1/1 Acquired: 12/11/2007 22:11:57 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	**8018.1**	**1.3646**	**352.81**	**127.21**
Stddev	123.1	.3883	1.40	.22
%RSD	1.5353	28.458	.39623	.17551
#1	8105.2	1.6392	353.80	127.05
#2	7931.1	1.0900	351.82	127.37

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42598.	25609.	579650.
Stddev	21.	491.	2251.
%RSD	.05011	1.9190	.38833
#1	42613.	25262.	578060.
#2	42583.	25957.	581240.

Sample Name: S 711067-030-030-1/1 Acquired: 12/11/2007 22:15:31 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	**-.17815**	**60701.**	**7.3001**	**.50805**	**173.29**	^ *****	**4314.8**
Stddev	.05840	45.	.9650	.36488	1.77	-----	6.5
%RSD	32.779	.07354	13.219	71.820	1.0217	-----	.15102
#1	-.13686	60733.	6.6177	.76607	174.54	^ -----	4319.4
#2	-.21944	60670.	7.9824	.25004	172.03	^ -----	4310.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.7432**	**59.093**	**385.47**	**422.8**	**380.3**	**329.7**	**121830.**
Stddev	.2146	.175	4.50	.2	1.3	4.8	71.
%RSD	12.312	.29657	1.1675	.0515	.3301	1.446	.05801
#1	1.8950	59.217	388.65	422.6	381.2	326.4	121880.
#2	1.5915	58.969	382.28	422.9	379.4	333.1	121780.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1483.5**	**2961.**	**3283.**	**5028.1**	**1.0802**	**140.43**	**347.33**
Stddev	41.0	1.	5.	63.1	.2779	3.54	.13
%RSD	2.7666	.0170	.1536	1.2556	25.724	2.5190	.03800
#1	1512.5	2962.	3287.	5072.7	1.2767	137.93	347.24
#2	1454.5	2961.	3280.	4983.4	.88373	142.93	347.42

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**54.105**	**-1.1177**	**-1.5318**	**459.40**	**4.2923**	**67.486**	**15.940**
Stddev	.897	1.7133	2.0384	5.37	.2408	.649	3.613
%RSD	1.6587	153.30	133.07	1.1698	5.6105	.96130	22.668
#1	53.471	.09384	-.09041	463.20	4.1220	67.944	18.495
#2	54.740	-2.3292	-2.9732	455.60	4.4626	67.027	13.385

Sample Name: S 711067-030-030-1/1 Acquired: 12/11/2007 22:15:31 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	**8748.8**	**.52996**	**336.95**	**202.04**
Stddev	52.5	.16810	3.21	.23
%RSD	.60035	31.719	.95347	.11242
#1	8785.9	.41110	339.22	202.20
#2	8711.7	.64882	334.67	201.88

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42549.**	**25857.**	**575110.**
Stddev	45.	332.	4995.
%RSD	.10560	1.2842	.86859
#1	42517.	26092.	571580.
#2	42581.	25622.	578640.

Sample Name: S 711067-031-031-1/1 Acquired: 12/11/2007 22:19:06 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	**-.51046**	**69570.**	**2.7345**	**-.73465**	**308.40**	^ *****	**3723.6**
Stddev	.30727	711.	3.3087	.50255	.12	-----	49.2
%RSD	60.195	1.0217	121.00	68.406	.04043	-----	1.3210
#1	-.29319	70072.	5.0741	-.37930	308.31	^ -----	3758.4
#2	-.72774	69067.	.39496	-1.0900	308.49	1.4328	3688.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.7451**	**132.19**	**291.10**	**481.4**	**416.8**	**360.5**	**108780.**
Stddev	.1366	.50	.69	1.7	3.4	4.7	1522.
%RSD	2.0257	.37852	.23847	.3528	.8203	1.314	1.3991
#1	6.6485	132.55	290.61	482.6	419.2	363.9	109860.
#2	6.8417	131.84	291.59	480.2	414.3	357.2	107710.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2081.2**	**2379.**	**2641.**	**9551.8**	**.85765**	**156.69**	**437.61**
Stddev	46.3	23.	36.	51.0	.09163	2.73	.88
%RSD	2.2245	.9647	1.354	.53411	10.684	1.7425	.20200
#1	2113.9	2396.	2666.	9587.9	.92244	158.62	438.24
#2	2048.4	2363.	2616.	9515.7	.79286	154.76	436.99

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**37.265**	**-.90111**	**-3.7931**	**494.99**	**1.8588**	**77.185**	**18.680**
Stddev	.642	2.3153	1.5368	1.22	.0244	.057	1.062
%RSD	1.7235	256.94	40.516	.24609	1.3121	.07376	5.6836
#1	37.719	.73608	-4.8798	494.13	1.8760	77.226	19.431
#2	36.811	-2.5383	-2.7064	495.85	1.8416	77.145	17.930

Sample Name: S 711067-031-031-1/1 Acquired: 12/11/2007 22:19:06 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	**7651.2**	**.48729**	**312.17**	**248.21**
Stddev	50.8	1.3769	.37	.82
%RSD	.66396	282.56	.11714	.32844
#1	7687.1	1.4609	311.91	248.79
#2	7615.3	-.48633	312.43	247.63

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	43564.	26044.	583450.
Stddev	56.	438.	806.
%RSD	.12843	1.6815	.13817
#1	43524.	25734.	582880.
#2	43603.	26354.	584020.

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: S 711067-032-032-1/1 Acquired: 12/11/2007 22:29:42 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	**-.28578**	**64811.**	**10.016**	**.80567**	**89.031**	^ *****	**3892.4**
Stddev	.33500	2285.	2.050	.21332	.957	-----	146.8
%RSD	117.22	3.5252	20.469	26.477	1.0750	-----	3.7723
#1	-.04890	66426.	11.465	.65483	89.708	^ -----	3996.2
#2	-.52266	63195.	8.5660	.95651	88.354	^ -----	3788.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.2674**	**54.598**	**354.92**	**354.6**	**338.8**	**277.8**	**123940.**
Stddev	.2085	.168	3.76	1.1	5.6	9.0	4425.
%RSD	16.455	.30848	1.0597	.3133	1.665	3.248	3.5705
#1	1.1199	54.479	357.58	355.4	342.8	271.5	127060.
#2	1.4148	54.717	352.26	353.8	334.8	284.2	120810.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1621.8**	**2210.**	**2451.**	**4717.8**	**.73377**	**171.87**	**178.32**
Stddev	26.5	80.	85.	65.9	.08514	5.17	.81
%RSD	1.6354	3.638	3.458	1.3968	11.603	3.0088	.45407
#1	1640.5	2267.	2510.	4764.4	.67357	168.21	178.89
#2	1603.0	2153.	2391.	4671.2	.79398	175.52	177.75

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**27.970**	**-.79969**	**-.27883**	**519.29**	**2.5154**	**68.012**	**20.043**
Stddev	.707	1.9043	2.2490	5.48	.1326	.677	.639
%RSD	2.5276	238.13	806.57	1.0562	5.2712	.99489	3.1889
#1	27.471	-2.1462	1.3114	523.17	2.4216	68.490	20.495
#2	28.470	.54683	-1.8691	515.42	2.6092	67.533	19.591

Sample Name: S 711067-032-032-1/1 Acquired: 12/11/2007 22:29:42 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	**8588.3**	**1.4860**	**355.97**	**169.51**
Stddev	131.7	.5850	4.20	.26
%RSD	1.5340	39.366	1.1805	.15329
#1	8681.4	1.8996	358.94	169.33
#2	8495.1	1.0724	353.00	169.69

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42432.	25057.	572270.
Stddev	13.	627.	4368.
%RSD	.03026	2.5018	.76322
#1	42423.	24614.	569180.
#2	42441.	25500.	575360.

Sample Name: S 711067-033-033-1/1 Acquired: 12/11/2007 22:33:17 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	**-.47988**	**47217.**	**7.7388**	**-2.6328**	**66.897**	^ *****	**3161.4**
Stddev	.15716	896.	.3121	.6034	.328	-----	58.3
%RSD	32.750	1.8982	4.0328	22.917	.49059	-----	1.8444
#1	-.59101	47850.	7.9595	-3.0594	67.129	^ -----	3202.6
#2	-.36875	46583.	7.5182	-2.2062	66.665	^ -----	3120.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.6990**	**33.600**	**442.22**	**406.8**	**366.4**	**293.6**	**152500.**
Stddev	.2178	.109	3.09	2.8	3.4	3.1	2909.
%RSD	12.817	.32384	.69959	.6896	.9405	1.055	1.9076
#1	1.5450	33.523	444.41	408.8	368.8	295.8	154560.
#2	1.8529	33.677	440.03	404.8	364.0	291.4	150440.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1141.3**	**2626.**	**2909.**	**2405.0**	**.90832**	**-12.827**	**131.24**
Stddev	95.5	38.	41.	8.6	.17615	6.635	.15
%RSD	8.3669	1.443	1.412	.35949	19.393	51.727	.11637
#1	1208.9	2653.	2938.	2411.1	1.0329	-17.519	131.14
#2	1073.8	2599.	2880.	2398.9	.78376	-8.1354	131.35

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**29.844**	**-1.5319**	**-.02186**	**500.94**	**1.8401**	**66.094**	**20.008**
Stddev	.955	1.7892	.85826	1.36	1.2223	.315	2.178
%RSD	3.2002	116.79	3926.5	.27223	66.425	.47721	10.885
#1	30.519	-2.7971	-.62874	501.91	2.7043	66.317	18.468
#2	29.169	-.26679	.58502	499.98	.97579	65.871	21.548

Sample Name: S 711067-033-033-1/1 Acquired: 12/11/2007 22:33:17 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	**11193.**	**2.4901**	**454.29**	**162.02**
Stddev	85.	1.2749	1.34	.18
%RSD	.75701	51.197	.29412	.11021
#1	11253.	1.5887	455.23	161.89
#2	11133.	3.3916	453.35	162.15

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42336.**	**25465.**	**571980.**
Stddev	16.	293.	1165.
%RSD	.03679	1.1512	.20370
#1	42325.	25258.	571160.
#2	42347.	25673.	572810.

Sample Name: S 711067-034-034-1/1 Acquired: 12/11/2007 22:36:44 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	**.11664**	**35129.**	**6.4592**	**-4.8532**	**59.345**	^ *****	**2786.2**
Stddev	.06691	1241.	5.1078	.3143	1.061	-----	93.2
%RSD	57.365	3.5339	79.077	6.4760	1.7871	-----	3.3433
#1	.06933	36007.	10.071	-5.0754	60.095	3.2003	2852.1
#2	.16395	34251.	2.8475	-4.6309	58.595	^ -----	2720.4

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.8059**	**27.516**	**674.67**	**449.1**	**390.6**	**301.4**	**206910.**
Stddev	.4258	.294	11.63	4.8	9.3	8.3	7922.
%RSD	23.579	1.0672	1.7244	1.076	2.372	2.739	3.8288
#1	1.5048	27.308	682.90	452.6	397.1	307.3	212520.
#2	2.1070	27.724	666.44	445.7	384.0	295.6	201310.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**876.53**	**2447.**	**2721.**	**1251.0**	**1.2587**	**-65.179**	**93.007**
Stddev	70.91	92.	100.	21.3	.1963	2.940	.745
%RSD	8.0901	3.766	3.660	1.6995	15.597	4.5113	.80139
#1	926.67	2512.	2791.	1266.0	1.3975	-67.258	93.534
#2	826.39	2382.	2650.	1235.9	1.1199	-63.099	92.480

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25.179**	**.38657**	**-.82923**	**527.95**	**3.5324**	**53.991**	**25.652**
Stddev	.463	.97301	1.9186	13.11	.6332	.893	3.174
%RSD	1.8373	251.70	231.38	2.4834	17.925	1.6541	12.371
#1	24.852	1.0746	.52745	537.22	3.9801	54.623	27.896
#2	25.506	-.30145	-2.1859	518.68	3.0846	53.360	23.408

Sample Name: S 711067-034-034-1/1 Acquired: 12/11/2007 22:36:44 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	**14155.**	**1.4661**	**605.27**	**160.87**
Stddev	280.	.0928	10.95	.23
%RSD	1.9816	6.3310	1.8085	.14099
#1	14353.	1.5318	613.01	160.71
#2	13956.	1.4005	597.53	161.03

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42270.**	**25012.**	**575170.**
Stddev	55.	824.	8814.
%RSD	.12913	3.2951	1.5324
#1	42232.	24429.	568940.
#2	42309.	25595.	581410.

Sample Name: S 711067-035-035-1/1 Acquired: 12/11/2007 22:40:13 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	**-.07385**	**53653.**	**1.6063**	**5.3774**	**68.925**	^ *****	**9422.8**
Stddev	.08874	139.	1.4974	.0190	.855	-----	44.7
%RSD	120.16	.25903	93.222	.35276	1.2408	-----	.47412
#1	-.01110	53751.	2.6652	5.3640	69.530	^ -----	9454.4
#2	-.13660	53555.	.54746	5.3908	68.320	^ -----	9391.2

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.4792**	**30.727**	**557.27**	**286.5**	**282.1**	**216.3**	**137810.**
Stddev	.0296	.085	5.33	.7	.8	4.7	344.
%RSD	1.9994	.27559	.95687	.2439	.2661	2.176	.24985
#1	1.5001	30.667	561.04	287.0	282.6	213.0	138060.
#2	1.4582	30.786	553.50	286.0	281.6	219.6	137570.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**996.16**	**2134.**	**2362.**	**2030.6**	**.15378**	**-12.586**	**257.27**
Stddev	73.41	7.	2.	21.7	.04179	6.677	.20
%RSD	7.3690	.3122	.0710	1.0699	27.173	53.055	.07944
#1	944.26	2139.	2364.	2045.9	.12423	-17.307	257.42
#2	1048.1	2129.	2361.	2015.2	.18333	-7.8641	257.13

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**15.105**	**-.92291**	**-.63498**	**583.05**	**1.7218**	**96.633**	**17.372**
Stddev	.104	.85635	.02176	7.92	.3916	1.109	.905
%RSD	.69106	92.787	3.4262	1.3582	22.745	1.1476	5.2090
#1	15.031	-.31738	-.65037	588.65	1.9987	97.417	16.733
#2	15.179	-1.5284	-.61960	577.45	1.4449	95.849	18.012

Sample Name: S 711067-035-035-1/1 Acquired: 12/11/2007 22:40:13 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	**7776.9**	**.46699**	**365.10**	**116.89**
Stddev	69.0	.35105	4.38	.00
%RSD	.88732	75.173	1.1991	.00208
#1	7825.7	.71523	368.19	116.89
#2	7728.1	.21876	362.00	116.89

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42411.	**25694.**	**575720.**
Stddev	136.	106.	4752.
%RSD	.32126	.41181	.82537
#1	42315.	25619.	572360.
#2	42507.	25769.	579080.

Sample Name: S 711067-036-036-1/1 Acquired: 12/11/2007 22:43:41 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	**-.09190**	**51960.**	**3.4019**	**-2.4242**	**78.565**	^ *****	**1337.6**
Stddev	.02398	277.	2.3523	.0712	.744	-----	9.4
%RSD	26.092	.53269	69.146	2.9360	.94650	-----	.70387
#1	-.10885	52156.	1.7386	-2.3739	78.040	^ -----	1344.2
#2	-.07494	51765.	5.0653	-2.4745	79.091	^ -----	1330.9

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.75793**	**33.126**	**489.31**	**204.5**	**202.4**	**156.1**	**110360.**
Stddev	.06555	.455	4.75	.6	1.4	8.3	894.
%RSD	8.6480	1.3730	.97026	.3138	.6688	5.313	.80973
#1	.71158	33.447	485.95	204.1	203.3	150.3	110990.
#2	.80428	32.804	492.66	205.0	201.4	162.0	109730.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**613.11**	**1238.**	**1373.**	**2787.0**	**-.90921**	**-11.133**	**252.33**
Stddev	24.17	9.	4.	.8	.03767	1.574	.62
%RSD	3.9427	.7177	.2973	.02768	4.1436	14.140	.24684
#1	630.21	1245.	1376.	2787.6	-.88257	-12.247	251.89
#2	596.02	1232.	1370.	2786.5	-.93585	-10.020	252.77

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.4003**	**-1.7427**	**.59118**	**344.36**	**-.56617**	**21.809**	**15.279**
Stddev	.5699	.2453	.43755	.77	.31221	.150	.791
%RSD	7.7005	14.077	74.012	.22471	55.145	.68882	5.1747
#1	7.8033	-1.9162	.90057	344.91	-.34540	21.703	15.838
#2	6.9974	-1.5692	.28179	343.82	-.78693	21.915	14.720

Sample Name: S 711067-036-036-1/1 Acquired: 12/11/2007 22:43:41 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	**5396.4**	**.92851**	**283.67**	**85.149**
Stddev	63.8	.38033	2.60	.242
%RSD	1.1824	40.962	.91503	.28426
#1	5351.3	.65958	281.84	84.978
#2	5441.5	1.1975	285.51	85.320

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42771.	25548.	576870.
Stddev	33.	102.	4521.
%RSD	.07619	.39896	.78374
#1	42794.	25476.	580070.
#2	42748.	25620.	573670.

Sample Name: S 711067-037-037-1/1 Acquired: 12/11/2007 22:47:17 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	**-.65672**	**59374.**	**8.5424**	**-1.1486**	**151.75**	^ *****	**2207.5**
Stddev	.08621	2700.	2.4132	.3215	.90	-----	99.2
%RSD	13.127	4.5466	28.250	27.993	.59127	-----	4.4956
#1	-.71767	57465.	6.8360	-1.3760	152.39	^ -----	2137.3
#2	-.59576	61282.	10.249	-.92125	151.12	^ -----	2277.6

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.5815**	**59.024**	**387.97**	**396.2**	**359.6**	**298.9**	**115230.**
Stddev	.3842	.212	1.94	.8	5.2	.7	5224.
%RSD	24.294	.35932	.49937	.1958	1.441	.2356	4.5340
#1	1.8532	58.874	389.34	395.6	355.9	298.4	111530.
#2	1.3098	59.174	386.60	396.7	363.2	299.4	118920.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1136.6**	**2137.**	**2381.**	**4736.2**	**.26707**	**80.061**	**345.81**
Stddev	29.1	90.	105.	61.8	.01422	26.015	1.23
%RSD	2.5629	4.225	4.421	1.3044	5.3246	32.494	.35665
#1	1116.0	2073.	2306.	4779.9	.27713	61.665	344.94
#2	1157.2	2201.	2455.	4692.5	.25702	98.457	346.69

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**28.245**	**-.39528**	**-1.9611**	**518.19**	**3.0455**	**42.538**	**14.866**
Stddev	1.494	1.0508	1.9939	4.16	.2569	.256	1.815
%RSD	5.2908	265.83	101.67	.80244	8.4345	.60193	12.205
#1	29.302	-1.1383	-3.3710	521.13	3.2271	42.719	13.583
#2	27.188	.34773	-.55117	515.25	2.8638	42.357	16.149

Sample Name: S 711067-037-037-1/1 Acquired: 12/11/2007 22:47:17 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	**8335.3**	**.65965**	**335.32**	**162.16**
Stddev	61.6	1.0955	2.45	.45
%RSD	.73957	166.07	.73005	.27545
#1	8378.9	1.4343	337.05	162.48
#2	8291.8	-.11499	333.59	161.85

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**42782.**	**26493.**	**577810.**
Stddev	71.	905.	4036.
%RSD	.16622	3.4174	.69841
#1	42832.	27133.	574950.
#2	42732.	25853.	580660.

Sample Name: S 711067-038-038-1/1 Acquired: 12/11/2007 22:50:51 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	**-.54753**	**73252.**	**3.8834**	**-2.6725**	**201.83**	^ *****	**1788.7**
Stddev	.07344	1267.	.3846	.3701	3.55	-----	40.9
%RSD	13.413	1.7302	9.9035	13.849	1.7581	-----	2.2865
#1	-.59946	74148.	3.6115	-2.4108	204.33	^ -----	1817.6
#2	-.49560	72356.	4.1554	-2.9342	199.32	1.3224	1759.8

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3686**	**97.757**	**307.79**	**379.4**	**360.9**	**303.7**	**112150.**
Stddev	.1760	.930	4.71	8.4	4.9	3.9	2132.
%RSD	12.857	.95165	1.5311	2.214	1.361	1.284	1.9013
#1	1.2441	98.414	311.12	385.4	364.4	306.4	113660.
#2	1.4930	97.099	304.46	373.5	357.4	300.9	110650.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1403.8**	**1811.**	**2010.**	**6216.5**	**.13449**	**118.14**	**362.40**
Stddev	30.7	34.	32.	71.2	.01880	12.55	4.47
%RSD	2.1864	1.894	1.604	1.1446	13.978	10.619	1.2345
#1	1425.5	1835.	2032.	6266.8	.12120	127.01	365.56
#2	1382.1	1787.	1987.	6166.2	.14778	109.27	359.23

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**16.665**	**-3.2938**	**-2.5793**	**494.56**	**2.0570**	**44.483**	**19.946**
Stddev	1.171	2.0400	1.7387	7.49	.8917	.841	.808
%RSD	7.0279	61.934	67.407	1.5154	43.349	1.8902	4.0487
#1	15.836	-4.7363	-3.8088	499.86	1.4265	45.078	20.517
#2	17.493	-1.8513	-1.3499	489.26	2.6876	43.889	19.375

Sample Name: S 711067-038-038-1/1 Acquired: 12/11/2007 22:50:51 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	**7298.7**	**1.4288**	**310.61**	**171.52**
Stddev	78.1	.3386	5.43	1.69
%RSD	1.0699	23.698	1.7493	.98432
#1	7353.9	1.1894	314.45	172.72
#2	7243.4	1.6682	306.76	170.33

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	**43366.**	**25759.**	**581480.**
Stddev	140.	198.	1440.
%RSD	.32355	.76895	.24760
#1	43267.	25619.	580460.
#2	43465.	25899.	582500.

Sample Name: S 711067-039-039-1/1 Acquired: 12/11/2007 22:54:26 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	k **.20843**	k **-14.622**	s **.22354**	s **-1.7741**	k **-.69039**	k **-.36413**	k **-50.395**
Stddev	.10870	24.929	1.1567	.8878	.01411	.01305	4.184
%RSD	52.153	170.48	517.45	50.041	2.0436	3.5847	8.3021
#1	k .13157	k 3.0048	s -.59437	s -1.1464	k -.70037	k -.35490	k -47.436
#2	.28530	-32.250	1.0414	-2.4019	-.68042	-.37336	-53.353

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	s **-.17385**	s **-1.1353**	k **-.35398**	s **-1.378**	s **.9473**	s **11.80**	k **-16.919**
Stddev	.04303	.3822	.09565	1.518	2.848	7.00	2.139
%RSD	24.753	33.667	27.021	110.2	300.6	59.29	12.640
#1	s -.14342	s -1.4056	k -.28634	s -.3039	s 2.961	s 16.75	k -18.431
#2	-.20428	-.86504	-.42161	-2.451	-1.066	6.855	-15.407

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	k **-539.20**	k **-16.71**	k **-24.44**	k **-.28719**	s **-1.1698**	k **-237.02**	s **-.92406**
Stddev	94.96	.19	.76	.01511	.0052	6.81	.14261
%RSD	17.612	1.133	3.106	5.2606	.44269	2.8722	15.433
#1	k -472.05	k -16.58	k -23.90	k -.27651	s -1.1662	k -232.21	s -1.0249
#2	-606.35	-16.84	-24.97	-.29787	-1.1735	-241.84	-.82322

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	s **-2.7100**	s **.06475**	s **-.49110**	k **-3.8601**	s **-1.2117**	k **-.22115**	s **2.7401**
Stddev	3.1938	1.5777	1.0882	1.0418	.7047	.00062	.3187
%RSD	117.85	2436.7	221.57	26.989	58.158	.27835	11.629
#1	s -4.9684	s 1.1803	s .27834	k -3.1234	s -1.7099	k -.22158	s 2.9655
#2	-.45167	-1.0508	-1.2605	-4.5967	-.71338	-.22071	2.5148

Sample Name: S 711067-039-039-1/1 Acquired: 12/11/2007 22:54:26 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	k **.29594**	s **-2.1678**	k **-.50491**	s **-2.3174**
Stddev	.27996	1.1739	.06927	.0444
%RSD	94.600	54.152	13.720	1.9163
#1	k .49390	s -2.9978	k -.45592	s -2.3488
#2	.09798	-1.3377	-.55389	-2.2860
Int. Std.	Y_2243	Y_3774	Y_3774-2	
Units	Cts/S	Cts/S	Cts/S	
Avg	^ *****	24114.	990720.	
Stddev	-----	4017.	30746.	
%RSD	-----	16.659	3.1033	
#1	^ -----	26954.	968980.	
#2	67531.	21273.	1012500.	

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: S 711067-040-040-1/1 Acquired: 12/11/2007 23:12:23 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	**-.23565**	**47829.**	**9.1091**	**-3.3292**	**44.569**	^ *****	**1270.0**
Stddev	.16422	48.	2.5055	.0961	.107	-----	.9
%RSD	69.685	.10056	27.505	2.8874	.23960	-----	.07269
#1	-.11954	47863.	7.3374	-3.2612	44.645	^ -----	1270.6
#2	-.35177	47795.	10.881	-3.3972	44.494	^ -----	1269.3

Elem	Cd	Co	Cr	Cu2199	Cu2218	Cu3273	Fe
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0285**	**29.584**	**470.26**	**344.7**	**325.1**	**260.0**	**151590.**
Stddev	.1300	.606	.71	2.6	.0	1.0	298.
%RSD	12.637	2.0499	.15004	.7463	.0071	.3662	.19670
#1	.93661	30.013	470.76	346.5	325.1	260.7	151800.
#2	1.1204	29.155	469.76	342.9	325.1	259.3	151380.

Elem	K	Mg2802	Mg2852	Mn	Mo	Na	Ni
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**876.95**	**1908.**	**2113.**	**1938.6**	**.90248**	**-22.615**	**110.73**
Stddev	.92	2.	4.	1.0	.04533	11.856	1.18
%RSD	.10498	.0879	.1708	.05081	5.0232	52.424	1.0678
#1	876.30	1906.	2116.	1939.3	.93454	-30.998	111.56
#2	877.60	1909.	2111.	1937.9	.87043	-14.232	109.89

Elem	Pb	Sb	Se	Si	Sn	Sr	Te
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**23.964**	**-2.0879**	**-1.0911**	**541.37**	**2.3717**	**31.925**	**21.208**
Stddev	.142	.9266	1.1134	4.23	.3154	.023	1.306
%RSD	.59437	44.382	102.04	.78144	13.299	.07205	6.1604
#1	24.065	-1.4326	-1.8785	544.36	2.1487	31.942	22.131
#2	23.863	-2.7431	-.30383	538.38	2.5948	31.909	20.284

Sample Name: S 711067-040-040-1/1 Acquired: 12/11/2007 23:12:23 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	**9708.8**	**.64600**	**442.88**	**128.97**
Stddev	3.0	.83289	1.70	1.08
%RSD	.03102	128.93	.38429	.83655
#1	9710.9	1.2349	444.09	129.74
#2	9706.7	.05705	441.68	128.21

Int. Std.	Y_2243	Y_3774	Y_3774-2
Units	Cts/S	Cts/S	Cts/S
Avg	42520.	25533.	572050.
Stddev	20.	159.	4223.
%RSD	.04812	.62090	.73815
#1	42505.	25646.	575040.
#2	42534.	25421.	569060.

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.

Metals Preparation & Sample Description Log

Prep: 200.7 / 3005A / 3020A / 3050B / 3010A/ ILC03.1 / ILM04.1 / ILM05.3 / ILM05.4

Date: 11-20-2007 Batch No.: 202 - 119

Analyst: D.S.S Comments: MOD BLOCK DIGESTION (SOIL)

Reviewed by: [illegible] Date: 12/10/07 Spike Witness: MM Pep. Seq: 101678

GPL Work Order No.	Sample	Frac	Size mL (g)	Final Vol. (mL)	Matrix S, W Other	Color Before	Color After	Clarity Before or Soil Texture	Clarity After Clear, Cloudy, Opaque	Soil Artifacts or Water pH
						R, Bl, Y, G, O, V, W, Colorless, Br, Grey, Bk.				
1 BLK	119		1.00	100	S				Clear	—
2 BKS	119		1.00							—
3 711067	001	001-1/4	1.17		SOIL	Brown	Yellow	Medium		—
4	MS		1.22							
5	MSD	↓	1.24							
6	002	002-1/4	1.24							
7	003	003-1/4	1.18							
8	004	004-1/4	1.19							
9	005	005-1/4	1.22							
10	006	006-1/4	1.18							
11	007	007-1/4	1.22							
12	008	008-1/4	1.18							
13	009	009-1/4	1.22							
14	010	010-1/4	1.27							
15	011	011-1/4	1.18							
16	012	012-1/4	1.23							
17	013	013-1/4	1.20							
18	014	014-1/4	1.22							
19	015	015-1/4	1.26							
20	016	016-1/4	1.21							
21	017	017-1/4	1.20							
22	018	018-1/4	1.22							
23	019	019-1/4	1.18							
24	020	020-1/4	1.26					D.S.S	11-20-2007	

LCS ID/ Amt. Added (ml ,g) : 0.2 ml (41862 41863 41864)

Spiking ID / Amt. Added (ml) : 0.2 ml (41862 41863 41864)

10 ml 1:1 HNO_3 10 ml HNO_3 conc 7 ml H_2O_2 10 ml HCL conc

Temperature C: 95°C

HNO3(1+1) ID: GP-057 164-08

HNO3(conc) ID: GP-129-11-08

HCl(conc) ID: GP-129-11-06

HCl(1+1) ID: —

Peroxide ID: GP-129-10-12

Metals Preparation & Sample Description Log

Prep: 200.7 / 3005A / 3020A / (3050B) / 3010A/ ILC03.1 / ILM04.1 / ILM05.3 / ILM05.4

Date: 11-20-2007 **Batch No.: 202-120**

Analyst: D.S. Comments: MCD BLOCK DIGESTION (SOIL)

Reviewed by: [illegible] Date: 12/6/07 Spike Witness: MM Pep. Seq: 101679

	GPL Work Order No.	Sample	Frac	Size mL (g)	Final Vol. (mL)	Matrix S, W Other	Color Before	Color After	Clarity Before or Soil Texture	Clarity After Clear, Cloudy, Opaque	Soil Artifacts or Water pH
							R, Bl, Y, G, O, V, W, Colorless, Br, Grey, Bk.				
1	BLK	120		1.00	100	S				Clear	—
2	BKS	120		1.00							—
3	711067	021	021-1/1	1.17		SOIL	Brown	Yellow	Medium		—
4		MS		1.22							
5		MSD	↓	1.25							
6		022	022-1/1	1.21							
7		023	023-1/1	1.20							
8		024	024-1/1	1.26							
9		025	025-1/1	1.25							
10		026	026-1/1	1.25							
11		027	027-1/1	1.23							
12		028	028-1/1	1.20							
13		029	029-1/1	1.18							
14		030	030-1/1	1.20							
15		031	031-1/1	1.25							
16		032	032-1/1	1.21							
17		033	033-1/1	1.18							
18		034	034-1/1	1.21							
19		035	035-1/1	1.23							
20		036	036-1/1	1.24							
21		037	037-1/1	1.25							
22		038	038-1/1	1.20							
23		039	039-1/1	1.19							
24	↓	040	040-1/1	1.23	↓	↓	↓	↓	11-20-2007	↓	↓

LCS ID/ Amt. Added (ml ,g) 0.2 ml (41862 41863 41864)	HNO3(1+1) ID: GP-057-164-08
Spiking ID / Amt. Added (ml) 0.2 ml (41862 41863 41864)	HNO3(conc) ID: GP-129-11-08
10 ml 1:1 HNO_3, 10 ml HNO_3 CHC, 2 ml H_2O_2, 10 ml HCL CHC	HCl(conc) ID: GP-129-11-06
Temperature C: 95°C	HCl(1+1) ID: —
	Peroxide ID: GP-129-10-12

Metals Preparation & Sample Description Log

Prep: 200.7 / 3005A / 3020A / 3050B / 3010A/ ILC03.1 / ILM04.1 / ILM05.3 / ILM05.4

Date: 11-20-2007 Batch No.: 202-121

Analyst: D.S.S. Comments: MOD BLOCK DIGESTION (SOIL)

Reviewed by: [illegible] Date: 12/19/07 Spike Witness: MIL Pep. Seq: 101759

	GPL Work Order No.	Sample	Frac	Size mL (g)	Final Vol. (mL)	Matrix S, W Other	Color Before	Color After	Clarity Before or Soil Texture	Clarity After Clear, Cloudy, Opaque	Soil Artifacts or Water pH
							R, Bl, Y, G, O, V, W, Colorless, Br, Grey, Bk.				
1	BLK	121		1.00	100	S				Clear	—
2	BKS	121		1.01							—
3	711067	041	041 1/4	1.17		SOIL	Brown	Yellow	Medium		—
4		MS		1.20							
5		MSD		1.24							
6		042	042 1/4	1.22							
7											
8											
9											
10											
11											
12											
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24											

11-20-2007

11.5.5

LCS ID/ Amt. Added (ml ,g) : 0.2 ml (H1862 H1862 H1864)	HNO3(1+1) ID: GP-057-164-08
Spiking ID / Amt. Added (ml) : 0.2 ml (H1862 H1863 H1864)	HNO3(conc) ID: GP-129-11-08
10 ml 1:1 HNO_3 10 ml HNO_3 CHC, 7 ml H_2O_2 10 ml HCL CHC	HCl(conc) ID: GP-129-11-06
Temperature C: 94°C	HCl(1+1) ID: —
	Peroxide ID: GP-129-10-12