LABORATORY DATA CONSULTANTS, INC.
7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

ERM
2525 Natomas Park Drive, Suite 350
Sacramento, CA 95833
ATTN: Ms. Maria Barajas-Albalawi

April 28, 2008

SUBJECT: BRC Tronox Parcel H, Data Validation

Dear Ms. Barajas-Albalawi

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on March 21, 2008. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 18484:

SDG #	Fraction
204220	Gross Alpha and Beta, Gamma Spectroscopy

The data validation was performed under EPA Level III and Level IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Erlinda T. Rauto
Operations Manager/Senior Chemist

214 Pages-EX

Attachment 1

80/20

LDC #18484 (ERM-Sacramento / BRC Tronox Parcel H)

LDC	SDG#	DATE REC'D	(3) DATE DUE	Gross α&β (900.0)		Gamma Spec. (HASL)																													
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	204220	03/21/08	04/11/08	0	2	0	2																												
A	204220	03/21/08	04/11/08	0	1	0	1																												
Total	T/LR			0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6

Shaded cells indicate Level IV validation (all other cells are Level IIII validation). These sample counts do not include MS/MSD, and DUPs

18484ST-A.wpd

LDC Report# 18484A22

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: BRC Tronox Parcel H

Collection Date: March 6, 2008

LDC Report Date: April 3, 2008

Matrix: Soil

Parameters: Gross Alpha and Beta

Validation Level: EPA Level III & IV

Laboratory: General Engineering Laboratories, LLC.

Sample Delivery Group (SDG): 204220

Sample Identification

TSB-HJ-10-Surf
TSB-HJ-01-Surf**
TSB-HR-05-Surf
TSB-HJ-10-SurfMS
TSB-HJ-10-SurfMSD
TSB-HJ-10-SurfDUP

**Indicates sample underwent Level IV review

Introduction

This data review covers 6 soil samples listed on the cover sheet. The analyses were per EPA Method 900.0 for Gross Alpha and Beta Radioactivity.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section VIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

J+ Data are qualified as estimated, with a high bias likely to occur. False positives or false negatives are unlikely to have been reported.

J- Data are qualified as estimated, with a low bias likely to occur. False positives or false negatives are unlikely to have been reported.

J Data are qualified as estimated; it is not possible to assess the direction of the potential bias. False positives or false negatives are unlikely to have been reported.

R Data are qualified as rejected. There is a significant potential for the reporting of false negatives or false positives.

U Data are qualified as non-detected, because the analyte was observed in as associated laboratory or field blank.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration were met.

Detector efficiency was determined and a self-absorption curve was generated for each radionuclide of interest.

b. Continuing Calibration

Calibration verification and background determination were performed at the required frequencies. Results were within laboratory control limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. Blank results contained less than the minimum detectable activity (MDA) with the following exceptions:

Method Blank ID	Analyte	Activity	Associated Samples
PB (prep blank)	Gross beta	4.34 pCi/g	All samples in SDG 204220

No sample data were qualified based on the gross alpha or beta contaminants found in the method blanks.

No field blanks were identified in this SDG.

IV. Accuracy and Precision Data

a. Matrix Spike/(Matrix Spike) Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

b. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Minimum Detectable Activity (MDA)

All minimum detectable activities met required detection limits.

VI. Sample Result Verification

All sample result verifications were acceptable for samples on which a Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

VII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

VIII. Field Duplicates

No field duplicates were identified in this SDG.

BRC Tronox Parcel H
Gross Alpha and Beta - Data Qualification Summary - SDG 204220

No Sample Data Qualified in this SDG

BRC Tronox Parcel H
Gross Alpha and Beta - Laboratory Blank Data Qualification Summary - SDG 204220

No Sample Data Qualified in this SDG

BRC Tronox Parcel H
Gross Alpha and Beta - Field Blank Data Qualification Summary - SDG 204220

No Sample Data Qualified in this SDG

LDC #: 18484A22 **VALIDATION COMPLETENESS WORKSHEET** Date: 4-1-08
SDG #: 204220 Level III/IV Page: 1 of 1
Laboratory: GEL Laboratories LLC Reviewer: MG
2nd Reviewer:

METHOD: Gross Alpha & Beta (EPA ~~SW 846~~ Method 900.0)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3-6-08
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	SW	
IVa.	Matrix Spike/(Matrix Spike) Duplicates	A	MS/MSD/DUP
IVb.	Laboratory control samples	A	LCS
V.	Minimum dectectable activity (MDA)	A	
VI.	Sample result verification	A	Not reviewed for Level III validation.
VII.	Overall assessment of data	A	
VIII.	Field duplicates	N	
IX	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV validation

All Soil

1	TSB-HJ-10-Surf	11		21		31	
2	TSB-HJ-01-Surf**	12		22		32	
3	TSB-HR-05-Surf	13		23		33	
4	TSB-HJ-10-SurfMS	14		24		34	
5	TSB-HJ-10-SurfMSD	15		25		35	
6	TSB-HJ-10-SurfDUP	16		26		36	
7	PBS	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 18484A22
SDG #: 204220

VALIDATION FINDINGS CHECKLIST

Reviewer: MG
2nd Reviewer: W

Method: Radiochemistry (EPA Method 900.0)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
II. Calibration				
Were all instruments and detectors calibration as required?	✓			
Were NIST traceable standards used for all calibrations?	✓			
Was the check source identified by activity and radionuclide?	✓			
Were check sources including background counts analyzed at the requiried frequency and within laboratory control limits?	✓			
III. Blanks				
Were blank analyses performed as required?	✓			
Were any activities detected in the blanks greater than the minimum detectable activity (MDA)? If yes, please see the Blanks validation completeness worksheet.	✓			
IV. Matrix spikes and Duplicates				
Were a matrix spike (MS) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS percent recoveries (%R) within the QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Was a duplicate sample anaylzed at the required frequency of 5% in this SDG?	✓			
Were all duplicate sample duplicate error rations (DER) $\leq$1.42?.	✓			
V. Laboratory control samples				
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 75-125%	✓			
VI. Sample Chemical/Carrier Recovery				
Was a tracer/carrier added to each sample?		✓		
Were tracer/carrier recoveries within the QC limits?			✓	
VII. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
VIII. Sample Result Verification				
Were activities adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were the Minimum Detectable Activities (MDA) < RL?	✓			

LDC #: 18484A22
SDG #: 204220

VALIDATION FINDINGS CHECKLIST

Reviewer: MG
2nd Reviewer: [signature]

Validation Area	Yes	No	NA	Findings/Comments
IX. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
X. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
XI. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

LDC #: 18484A22
SDG #: 204220

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: MG
2nd Reviewer: L

METHOD: Radiochemistry (Method: 900.0)

(Y) N N/A Were blank analyses performed as required? If no, please see qualifications below.

(Y) N N/A Were any activities detected in the blanks greater than the minimum detectable activity (MDA)? If yes, please see qualifications below.

Units: pCi/g Associated Samples: all (> R.L.)

Isotope	Blank ID	Blank Action Level	Sample Identification									
	PBS		—	—	No samples	were	qualified	—	—	—		
Gross Beta	4.34	-										

Units: Associated Samples:

Isotope	Blank ID	Blank Action Level	Sample Identification									

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
If there is activity in the blank above the MDA, sample results within 10x the blank activity will be qualified as not detected "U".

LDC #: 18484A22
SDG #: 204220

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: MG
2nd Reviewer: [illegible]

METHOD: Radiochemistry (Method: 900.0)

Percent recoveries (%R) for a laboratory control sample, a matrix spike and a matrix spike duplicate sample were recaluculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = activity of each analyte measured in the analysis of the sample.
True = activity of each analyte in the source.

A matrix spike and matrix spike duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample activity
D = Duplicate sample activity

Sample ID	Type of Analysis	Analyte	Found/S (units)	True/D (units)	Recalculated %R or RPD	Reported %R or RPD	Acceptable (Y/N)
LCS	Laboratory control sample	Gross Beta	314 (pCi/g)	301 (pCi/g)	104	104	Y
4	Matrix spike sample	Gross Alpha	111.4 (pCi/g)	116 (pCi/g)	96	96	↓
6	Duplicate RPD	Gross Beta	33.0 (pCi/g)	34.3 (pCi/g)	4	4	↓
—	Chemical recovery	—	—	—	—	—	—

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 18484A22
SDG #: 204220

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: MG
2nd reviewer: [illegible]

METHOD: Radiochemistry (Method: 900.0)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
(Y) N N/A Have results been reported and calculated correctly?
(Y) N N/A Are results within the calibrated range of the instruments?

Analyte results for #2 Gross α reported with a positive detect were recalculated and verified using the following equation:

Activity =

$$\frac{(\text{cpm} - \text{bckgrd cpm})}{(2.22)(E)(\text{Vol})(CF)}$$

E = Efficiency
Vol = Volume
CF = %R, Self-absorbance, abundance, ect.

Recalculation:

$$\frac{0.5428 - \left(\frac{487}{130} \times 0.01061\right)}{(2.22)(0.1355)(0.109\,g)} = 15.342\ pCi/g$$

#	Sample ID	Analyte	Reported Concentration (pCi/g)	Calculated Concentration (pCi/g)	Acceptable (Y/N)
1	2	Gross α	15.3	15.3	Y
		Gross β	33.7	34.0	↓

Note: _____

LDC Report# 18484A35

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: BRC Tronox Parcel H

Collection Date: March 6, 2008

LDC Report Date: April 3, 2008

Matrix: Soil

Parameters: Gamma Spectroscopy

Validation Level: EPA Level III & IV

Laboratory: General Engineering Laboratories, LLC.

Sample Delivery Group (SDG): 204220

Sample Identification

TSB-HJ-10-Surf
TSB-HJ-01-Surf**
TSB-HR-05-Surf
TSB-HJ-10-SurfDUP

**Indicates sample underwent Level IV review

Introduction

This data review covers 4 soil samples listed on the cover sheet. The analyses were per EML HASL Method 300.4.5.2.3 for Gamma Spectroscopy.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section VIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

J+ Data are qualified as estimated, with a high bias likely to occur. False positives or false negatives are unlikely to have been reported.

J- Data are qualified as estimated, with a low bias likely to occur. False positives or false negatives are unlikely to have been reported.

J Data are qualified as estimated; it is not possible to assess the direction of the potential bias. False positives or false negatives are unlikely to have been reported.

R Data are qualified as rejected. There is a significant potential for the reporting of false negatives or false positives.

U Data are qualified as non-detected, because the analyte was observed in as associated laboratory or field blank.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration were met.

Detector efficiency was determined for each radionuclide of interest.

b. Continuing Calibration

Calibration verification and background determination was performed at the required frequencies.

III. Blanks

Method blanks were reviewed for each matrix as applicable. Blank results contained less than the minimum detectable activity (MDA).

No field blanks were identified in this SDG.

IV. Accuracy and Precision Data

a. Matrix Spike/(Matrix Spike) Duplicates

A matrix spike (MS) analysis was not required by the method.

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

b. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Minimum Detectable Activity

All minimum detectable activities met required detection limits.

VI. Sample Result Verification

All sample result verifications were acceptable for samples on which a Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

VII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

VIII. Field Duplicates

No field duplicates were identified in this SDG.

BRC Tronox Parcel H
Gamma Spectroscopy - Data Qualification Summary - SDG 204220

No Sample Data Qualified in this SDG

BRC Tronox Parcel H
Gamma Spectroscopy - Laboratory Blank Data Qualification Summary - SDG 204220

No Sample Data Qualified in this SDG

BRC Tronox Parcel H
Gamma Spectroscopy - Field Blank Data Qualification Summary - SDG 204220

No Sample Data Qualified in this SDG

LDC #: 18484A35 **VALIDATION COMPLETENESS WORKSHEET** Date: 4-1-08
SDG #: 204220 Level III/IV Page: 1 of 1
Laboratory : GEL Laboratories LLC Reviewer: MG
2nd Reviewer:

METHOD: Gamma Spectroscopy (EML HASL 300,4.5.2.3)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3-6-08
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IVa.	Matrix Spike/(Matrix Spike) Duplicates	A	DUP
IVb.	Laboratory control samples	A	LCS
V.	Minimum dectectable activity (MDA)	A	
VI.	Sample result verification	A	Not reviewed for Level III validation.
VII.	Overall assessment of data	A	
VIII.	Field duplicates	N	
IX	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV validation
all soil

1	TSB-HJ-10-Surf	11		21		31	
2	TSB-HJ-01-Surf**	12		22		32	
3	TSB-HR-05-Surf	13		23		33	
4	TSB-HJ-10-SurfDUP	14		24		34	
5	PBS	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 18484A35
SDG #: 204220

VALIDATION FINDINGS CHECKLIST

Reviewer: MG
2nd Reviewer:

Method: Radiochemistry (EPA Method EML HASL) 300, 4.5.2.3

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
II. Calibration				
Were all instruments and detectors calibration as required?	✓			
Were NIST traceable standards used for all calibrations?	✓			
Was the check source identified by activity and radionuclide?	✓			
Were check sources including background counts analyzed at the requiried frequency and within laboratory control limits?	✓			
III. Blanks				
Were blank analyses performed as required?	✓			
Were any activities detected in the blanks greater than the minimum detectable activity (MDA)? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix spikes and Duplicates				
Were a matrix spike (MS) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. (Soil) Water.		✓		
Were the MS percent recoveries (%R) within the QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.			✓	
Was a duplicate sample anaylzed at the required frequency of 5% in this SDG?	✓			
Were all duplicate sample duplicate error rations (DER) $\leq$1.42?.	✓			
V. Laboratory control samples				
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 75-125%	✓			
VI. Sample Chemical/Carrier Recovery				
Was a tracer/carrier added to each sample?		✓		
Were tracer/carrier recoveries within the QC limits?			✓	
VII. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
VIII. Sample Result Verification				
Were activities adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were the Minimum Detectable Activities (MDA) < RL?	✓			

LDC #: 18484A35
SDG #: 204220

VALIDATION FINDINGS CHECKLIST

Reviewer: MG
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
IX. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
X. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
XI. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

LDC #: 18484A35
SDG #: 204220

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: MG
2nd Reviewer: [illegible]

METHOD: Radiochemistry (Method: EML HASL 300, 4.5.2.3)

Percent recoveries (%R) for a laboratory control sample, a matrix spike and a matrix spike duplicate sample were recaluculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = activity of each analyte measured in the analysis of the sample.
True = activity of each analyte in the source.

A matrix spike and matrix spike duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample activity
D = Duplicate sample activity

Sample ID	Type of Analysis	Analyte	Found/S (units)	True/D (units)	Recalculated %R or RPD	Reported %R or RPD	Acceptable (Y/N)
LCS	Laboratory control sample	Am-241	15.2 (pCi/g)	16.0 (pCi/g)	95	95	Y
—	Matrix spike sample	—	—	—	—	—	—
4	Duplicate RPD	Ac-228	1.85 (pCi/g)	1.98 (pCi/g)	7	6	* N
—	Chemical recovery	—	—	—	—	—	—

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.
* both values in limits; No Qual.

LDC #: 18484A35
SDG #: 204220

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: MG
2nd reviewer: ✓

METHOD: Radiochemistry (Method: EML HASL 300, 4.5.2.3)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Have results been reported and calculated correctly?

(Y) N N/A Are results within the calibrated range of the instruments?

Analyte results for #2, Ac-228 reported with a positive detect were recalculated and verified using the following equation:

Activity = $\frac{(cpm - bckgrd\ cpm)}{(2.22)(E)(Vol)(CF)}$

Recalculation:

$$\frac{(211/120)}{(2.22)(0.01181)(0.2770)(153.050g)} = 1.582\ pCi/g$$

E = Efficiency
Vol = Volume
CF = %R, Self-absorbance, abundance, ect.

#	Sample ID	Analyte	Reported Concentration (pCi/g)	Calculated Concentration (pCi/g)	Acceptable (Y/N)
1	2	Ac - 228	1.58	1.58	Y
		Bi - 214	1.16	1.16	
		Pb - 212	1.69	1.68	
		Pb - 214	0.996	0.996	
		Po - 212	1.69	1.68	
		Po - 214	0.996	0.996	
		Po - 216	1.69	1.68	
		Po - 218	0.996	0.996	
		K - 40	21.3	21.3	
		Ra - 226	1.16	1.16	
		Ra - 228	1.58	1.58	
		Tl - 208	0.613	0.610	
		Th - 234	1.23	1.23	
		U - 238	1.23	1.23	

Note: