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Analytical Data Package Prepared For

Fluor Hanford Inc.

Radiochemical Analysis By

TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains _____ Pages

Report No.: 39477

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
W05414	F08-031	B1VDW3	J8E150273-1	KM95C1AF	9KM95C10	8136604
		B1VDW3	J8E150273-1	KM95C1AG	9KM95C10	8136605
		B1VDW3	J8E150273-1	KM95C1AC	9KM95C10	8136606
		B1VDW3	J8E150273-1		9KM95C10	8136608
		B1VDW3	J8E150273-1	KM95C1AE	9KM95C10	8136608
		B1VDW3	J8E150273-1	KM95C1AJ	9KM95C10	8136609
		B1VDW3	J8E150273-1	KM95C1AK	9KM95C10	8136610
		B1VDW3	J8E150273-1	KM95C1AL	9KM95C10	8136611
		B1VDW3	J8E150273-1	KM95C1AM	9KM95C10	8136613
		B1VDW3	J8E150273-1	KM95C1AA	9KM95C10	8137236
		B1VDW3	J8E150273-1	KM95C2AD	9KM95C20	8162174
		B1VDW3	J8E150273-1	KM95C3AH	9KM95C30	8183225

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Certificate of Analysis

Fluor Hanford
1200 Jadwin Ave.
Richland, WA 99352

July 15, 2008

Attention: Steve Trent

SAF Number	:	F08-031
Date SDG Closed	:	May 15, 2008
Number of Samples	:	One (1)
Sample Type	:	Soil
SDG Number	:	W05414
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

On May 15, 2008 one soil sample was received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Fluor Hanford specific IDs:

FLH ID#	STLR ID#	DATE OF RECEIPT	MATRIX
B1VDW3	KM95C	5/15/08	SOIL

II. Sample Receipt

The sample was received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Alpha Spectroscopy
Plutonium-238, -239/240 by method RICH-RC-5010
Thorium-228,230,232 by method RICH-RC-5084
Uranium 234, 235 and 238 by method RICH-RC-5039
Americium 241 by method RICH-RC-5072
Neptunium-237 by method RICH-RC-5009
Gamma Spectroscopy
Gamma Spec by method RICH-RC-5017
Gas Proportional Counting
Total Strontium by method RICH-RC-5006
Liquid Scintillation Counting
Technetium-99 by method RICH-RC-5078
Tritium by method RICH-RC-5007
Nickel-63 by method RICH-RC-5069
Chemical Analysis
Hexavalent Chromium by EPA method 7196A

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy
Plutonium-238, -239/240 by method RICH-RC-5010:
The LCS, batch blank, sample and sample duplicate (B1VDW3) results are within contractual requirements.

Thorium-228, 230,232 by method RICH-RC-5084:
The first analysis failed because the thorium was not completely isolated. The second analysis failed due to poor tracer recoveries. The third analysis was acceptable. Except as noted, the LCS, batch blank, sample and sample duplicate (B1VDW3) results are within contractual requirements.

Uranium 234, 235 and 238 by method RICH-RC-5039:
The LCS, batch blank, sample and sample duplicate (B1VDW3) results are within contractual requirements.

Americium 241 by method RICH-RC-5072:
The technician noted that there was some spillage in the matrix blank. The tracer yield for the matrix blank is low, data is accepted. Except as noted; The LCS, batch blank, sample and sample duplicate (B1VDW3) results are within contractual requirements.

Neptunium-237 by method RICH-RC-5009:
The LCS, batch blank, sample and sample duplicate (B1VDW3) results are within contractual requirements.

Gas Proportional Counting
Total Strontium by method RICH-RC-5006:
The incorrect vial was used in the LCS in the original batch. The samples were reanalyzed with acceptable results. Except as noted, the LCS, batch blank, sample and sample duplicate (B1VDW3) results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec by method RICH-RC-5017:
The Eu-154 achieved MDA for the LCS is slightly above the CRDL; the sample meets all other CRDL requirements. Data is accepted. Except as noted; The LCS, batch blank, sample and sample duplicate (B1VDW3) results are within contractual requirements.

Liquid Scintillation Counting
Technetium-99 by method RICH-RC-5078:
The LCS, batch blank, sample, sample duplicate (B1VDW3), and sample matrix spike (B1VDW3) results are within contractual requirements.

Tritium by method RICH-RC-5007:
The LCS, batch blank, sample and sample duplicate (B1VDW3) results are within contractual requirements.

Nickel-63 by method RICH-RC-5069:
The duplicate is out of agreement but is acceptable because the results are below the CRDL. Except as noted, the LCS, batch blank, sample and sample duplicate (B1VDW3) results are within contractual requirements.

Chemical Analysis
Hexavalent Chromium by EPA method 7196A
The LCS, batch blank, sample, sample duplicate (B1VDW3), sample matrix spike (B1VDW3), and matrix spike duplicate (B1VDW3) results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Sandra Seger
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 00-02	Gross Alpha (Coprecipitation)	RICH-RC-5021
EPA 903.0	Total Alpha Radium (Ra-226)	RICH-RC-5027
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr-89/90	RICH-RC-5006
ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty***. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 15-Jul-08

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 39477 **SDG No:** W05414

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
8136608 TBD									
B1VDW3									
	9KM95C10	NI-63	2.43E+01 +- 7.44E+00		pCi/g	53%	9.70E+00		
8136604 PUISO_PLATE_AEA									
B1VDW3									
	KM95C1AF	PU-238	0.00E+00 +- 1.23E-02	U	pCi/g	54%	2.89E-02	1.00E+00	
		PU239/40	0.00E+00 +- 1.23E-02	U	pCi/g	54%	2.89E-02	1.00E+00	
B1VDW3 DUP									
	KM95C1AN	PU-238	0.00E+00 +- 9.52E-03	U	pCi/g	67%	2.24E-02	1.00E+00	
		PU239/40	4.67E-03 +- 9.55E-03	U	pCi/g	67%	2.23E-02	1.00E+00	200.0
8136605 AMCMISO_EIE_PLT_AEA									
B1VDW3									
	KM95C1AG	AM-241	0.00E+00 +- 9.68E-03	U	pCi/g	78%	2.27E-02	1.00E+00	
B1VDW3 DUP									
	KM95C1AP	AM-241	7.11E-03 +- 1.02E-02	U	pCi/g	86%	1.70E-02	1.00E+00	200.0
8136606 UISO_IE_PLATE_AEA									
B1VDW3									
	KM95C1AC	U-234	9.21E-01 +- 1.89E-01		pCi/g	86%	1.61E-02	1.00E+00	
		U-235	2.89E-02 +- 2.08E-02		pCi/g	86%	1.90E-02	1.00E+00	
		U-238	8.65E-01 +- 1.80E-01		pCi/g	86%	2.31E-02	1.00E+00	
B1VDW3 DUP									
	KM95C1AQ	U-234	5.94E-01 +- 1.34E-01		pCi/g	89%	2.20E-02	1.00E+00	43.2
		U-235	3.14E-02 +- 2.16E-02		pCi/g	89%	1.67E-02	1.00E+00	8.1
		U-238	5.46E-01 +- 1.26E-01		pCi/g	89%	1.97E-02	1.00E+00	45.3
8183225 THISO_IE_PRECIP_AEA									
B1VDW3									
	KM95C3AH	TH-228	1.23E+00 +- 3.18E-01		pCi/g	53%	7.05E-02	1.00E+00	
		TH-230	1.12E+00 +- 2.92E-01		pCi/g	53%	5.64E-02	1.00E+00	
		TH-232	9.89E-01 +- 2.69E-01		pCi/g	53%	5.64E-02	1.00E+00	
B1VDW3 DUP									
	KM95C2A6	TH-228	1.02E+00 +- 2.52E-01		pCi/g	73%	4.29E-02	1.00E+00	18.7
		TH-230	8.63E-01 +- 2.20E-01		pCi/g	73%	4.05E-02	1.00E+00	25.6
		TH-232	9.98E-01 +- 2.44E-01		pCi/g	73%	4.05E-02	1.00E+00	0.9
8136611 GAMMA_GS									
B1VDW3									
	KM95C1AL	CO-60	-1.41E-03 +- 1.29E-02	U	pCi/g		2.22E-02	5.00E-02	
		CS-137	-6.41E-03 +- 1.23E-02	U	pCi/g		2.02E-02	1.00E-01	
		EU-152	-7.04E-03 +- 3.14E-02	U	pCi/g		5.17E-02	1.00E-01	
		EU-154	-4.43E-02 +- 4.22E-02	U	pCi/g		6.79E-02	1.00E-01	

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A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 15-Jul-08

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 39477 **SDG No:** W05414

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
8136611 GAMMA_GS									
B1VDW3									
	KM95C1AL	EU-155	3.43E-02 +- 3.28E-02	U	pCi/g		5.48E-02	1.00E-01	
		NB-94	2.60E-03 +- 1.15E-02	U	pCi/g		1.98E-02		
		RA-226	5.13E-01 +- 8.00E-02		pCi/g		3.83E-02		
		RA-228	6.21E-01 +- 1.29E-01		pCi/g		7.23E-02		
B1VDW3 DUP									
	KM95C1AX	CO-60	8.87E-03 +- 1.45E-02	U	pCi/g		2.54E-02	5.00E-02	
		CS-137	-5.48E-04 +- 1.35E-02	U	pCi/g		2.29E-02	1.00E-01	
		EU-152	1.42E-02 +- 3.33E-02	U	pCi/g		5.27E-02	1.00E-01	
		EU-154	-7.37E-02 +- 4.94E-02	U	pCi/g		7.61E-02	1.00E-01	
		EU-155	3.14E-02 +- 2.78E-02	U	pCi/g		4.72E-02	1.00E-01	
		NB-94	2.10E-03 +- 1.23E-02	U	pCi/g		2.13E-02		
		RA-226	5.03E-01 +- 7.78E-02		pCi/g		4.20E-02		
		RA-228	6.86E-01 +- 1.42E-01		pCi/g		8.20E-02		
8136613 NP237_LLE_PLATE_AEA									
B1VDW3									
	KM95C1AM	NP-237	1.44E-02 +- 1.69E-02	U	pCi/g	77%	2.30E-02	1.00E+00	
B1VDW3 DUP									
	KM95C1A1	NP-237	0.00E+00 +- 9.01E-03	U	pCi/g	70%	2.12E-02	1.00E+00	200.0
8162174 SRTOT_SEP_PRECIP_GPC									
B1VDW3									
	KM95C2AD	STRONTIUM	2.18E-01 +- 1.01E-01		pCi/g	89%	1.45E-01		
B1VDW3 DUP									
	KM95C1A5	STRONTIUM	2.13E-01 +- 1.02E-01		pCi/g	93%	1.53E-01		2.3
8136608 NI63_LSC									
B1VDW3									
	KM95C1AE	NI-63	2.43E+01 +- 7.44E+00		pCi/g	53%	9.70E+00	3.00E+01	
B1VDW3 DUP									
	KM95C1AT	NI-63	1.92E+00 +- 5.58E+00	U	pCi/g	62%	8.59E+00	3.00E+01	170.7
8136609 TC99_ETVDSK_LSC									
B1VDW3									
	KM95C1AJ	TC-99	-4.86E-01 +- 3.73E-01	U	pCi/g	100%	6.43E-01	1.50E+01	
B1VDW3 DUP									
	KM95C1AV	TC-99	-1.70E-01 +- 3.88E-01	U	pCi/g	100%	6.39E-01	1.50E+01	-96.2
8136610 906.0_H3_LSC									
B1VDW3									
	KM95C1AK	H-3	2.01E-01 +- 1.73E-01	U	pCi/g	100%	3.36E-01	4.00E+02	
B1VDW3 DUP									

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RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 15-Jul-08

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 39477 **SDG No:** W05414

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
8136610	906.0_H3_LSC								
	B1VDW3 DUP								
	KM95C1AW	H-3	1.15E+00 +- 2.12E-01		pCi/g	100%	3.35E-01	4.00E+02	140.7
8137236	7196_CR6								
	B1VDW3								
	KM95C1AA	HEXCHROME	3.50E-01 +- 0.00E+00	U	mg/kg	N/A	3.50E-01	3.50E-01	
	KM95C1A4	HEXCHROME	3.50E-01 +- 0.00E+00	U	mg/kg	N/A	3.50E-01	3.50E-01	0.0

No. of Results: 47

TestAmerica

rptSTLRchSaSummary2 V5.1.6
A2002

RPD - Relative Percent Difference.

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

QC Results Summary

Date: 15-Jul-08

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 39477 **SDG No.:** W05414

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
PUISO_PLATE_AEA								
8136604 BLANK QC,								
KNALC1AA	PU-238	0.00E+00 +- 7.02E-03	U	pCi/g	93%			1.65E-02
	PU239/40	1.03E-02 +- 1.21E-02	U	pCi/g	93%			1.65E-02
KNALC1AD	PU-238	0.00E+00 +- 9.31E-03	U	pCi/g	68%			2.19E-02
	PU239/40	2.28E-02 +- 2.08E-02		pCi/g	68%			2.19E-02
8136604 LCS,								
KNALC1AE	PU239/40	3.11E+00 +- 5.44E-01		pCi/g	79%	93%	-0.1	2.01E-02
KNALC1AC	PU239/40	3.35E+00 +- 5.63E-01		pCi/g	90%	101%	0.0	1.70E-02
AMCMISO_EIE_PLT_AEA								
8136605 BLANK QC,								
KNALD1AA	AM-241	0.00E+00 +- 1.06E-02	U	pCi/g	68%			2.50E-02
KNALD1AD	AM-241	7.14E-03 +- 1.46E-02	U	pCi/g	44%			3.42E-02
8136605 LCS,								
KNALD1AE	AM-241	4.31E+00 +- 8.13E-01		pCi/g	72%	97%	0.0	2.48E-02
KNALD1AC	AM-241	4.45E+00 +- 8.30E-01		pCi/g	73%	100%	0.0	2.39E-02
UISO_IE_PLATE_AEA								
8136606 BLANK QC,								
KNALF1AA	U-234	-2.56E-03 +- 6.89E-03	U	pCi/g	94%			2.19E-02
	U-235	-2.56E-03 +- 6.89E-03	U	pCi/g	94%			2.19E-02
	U-238	4.47E-03 +- 9.33E-03	U	pCi/g	94%			2.02E-02
8136606 LCS,								
KNALF1AC	U-234	8.35E-01 +- 1.71E-01		pCi/g	97%	96%	0.0	2.77E-02
	U-238	8.10E-01 +- 1.66E-01		pCi/g	97%	89%	-0.1	1.48E-02
THISO_IE_PRECIP_AEA								
8183225 BLANK QC,								
KQWH21AA	TH-228	7.11E-03 +- 2.46E-02	U	pCi/g	90%			6.69E-02
	TH-230	3.35E-02 +- 3.94E-02	U	pCi/g	90%			5.35E-02
	TH-232	0.00E+00 +- 2.28E-02	U	pCi/g	90%			5.35E-02
8183225 LCS,								
KQWH21AC	TH-230	2.90E+00 +- 5.89E-01		pCi/g	88%	123%	0.2	5.78E-02
GAMMA_GS								
8136611 BLANK QC,								
KNALW1AA	CO-60	-2.78E-03 +- 6.04E-03	U	pCi/g				1.04E-02
	CS-137	-1.15E-03 +- 5.97E-03	U	pCi/g				1.02E-02
	EU-152	-2.22E-02 +- 1.78E-02	U	pCi/g				2.80E-02
	EU-154	1.02E-02 +- 1.74E-02	U	pCi/g				3.30E-02
	EU-155	-1.08E-02 +- 1.49E-02	U	pCi/g				2.44E-02
	NB-94	-1.49E-03 +- 5.50E-03	U	pCi/g				9.52E-03
	RA-226	6.26E-02 +- 3.28E-02	U	pCi/g				3.58E-02
	RA-228	6.52E-02 +- 2.80E-02	U	pCi/g				5.32E-02

TestAmerica rptSTLRchQcSummary V5.1.6 A2002

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

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

QC Results Summary

Date: 15-Jul-08

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 39477

SDG No.: W05414

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
8136611 LCS,								
KNALW1AC	CS-137	2.98E-01 +- 5.82E-02		pCi/g		118%	0.2	3.87E-02
	K-40	2.00E+01 +- 3.02E+00		pCi/g		102%	0.0	3.15E-01
	RA-226	1.06E+00 +- 1.63E-01		pCi/g		93%	-0.1	6.19E-02
	RA-228	2.13E+00 +- 3.25E-01		pCi/g		114%	0.1	1.15E-01
	U-238	1.15E+00 +- 1.65E-01		pCi/g		110%	0.1	6.69E-02
NP237_LLE_PLATE_AEA								
8136613 BLANK QC,								
KNAL11AA	NP-237	3.99E-03 +- 8.16E-03	U	pCi/g	89%			1.91E-02
8136613 LCS,								
KNAL11AC	NP-237	8.94E-01 +- 1.89E-01		pCi/g	93%	95%	0.0	1.91E-02
SRTOT_SEP_PRECIP_GPC								
8162174 BLANK QC,								
KPL981AA	STRONTIUM	5.28E-02 +- 6.56E-02	U	pCi/g	93%			1.38E-01
8162174 LCS,								
KPL981AC	STRONTIUM	1.15E+00 +- 3.28E-01		pCi/g	94%	101%	0.0	1.33E-01
NI63_LSC								
8136608 BLANK QC,								
KNALK1AA	NI-63	5.84E+00 +- 4.32E+00	U	pCi/g	82%			6.27E+00
8136608 LCS,								
KNALK1AC	NI-63	4.72E+02 +- 3.02E+01		pCi/g	87%	83%	-0.2	5.75E+00
TC99_ETVDSK_LSC								
8136609 MATRIX SPIKE, B1VDW3								
KM95C1AU	TC-99	2.14E+02 +- 1.32E+01		pCi/g	100%	96%	0.0	6.43E-01
8136609 BLANK QC,								
KNALL1AA	TC-99	-2.29E-01 +- 3.91E-01	U	pCi/g	100%			6.45E-01
8136609 LCS,								
KNALL1AC	TC-99	2.13E+02 +- 1.31E+01		pCi/g	100%	94%	-0.1	6.44E-01
906.0_H3_LSC								
8136610 BLANK QC,								
KNALR1AA	H-3	1.28E-01 +- 1.70E-01	U	pCi/g	100%			3.35E-01
8136610 LCS,								
KNALR1AC	H-3	2.62E+00 +- 2.70E-01		pCi/g	100%	97%	0.0	3.34E-01
7196_CR6								
8137236 MATRIX SPIKE, B1VDW3								
KM95C1A2	HEXCHROME	8.67E+00 +- 0.00E+00		mg/kg	N/A	85%	-0.2	3.50E-01
8137236 LCS,								
KNC3C1AC	HEXCHROME	1.77E+01 +- 0.00E+00		mg/kg	N/A	89%	-0.1	3.50E-01
8137236 BLANK QC,								
KNC3C1AA	HEXCHROME	3.50E-01 +- 0.00E+00	U	mg/kg	N/A			3.50E-01

No. of Results: 46

TestAmerica

rptSTLRchQcSummary V5.1.6 A2002

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

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

TESTAMERICA

FORM I

SAMPLE RESULTS

Date: 15-Jul-08

Lab Name:	TestAmerica	**SDG:**	W05414	**Collection Date:**	5/13/2008 7:35:00 AM
Lot-Sample No.:	J8E150273-1	**Report No. :**	39477	**Received Date:**	5/15/2008 1:10:00 PM
Client Sample ID:	B1VDW3	**COC No. :**	F08-031-174	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8136604	PUISO_PLATE_AEA			**Work Order:** KM95C1AF			**Report DB ID:** 9KM95C10					
PU-238	***0.00E+00***	U	0.0E+00	1.2E-02	2.89E-02	pCi/g	54%	*0.*	6/13/08 01:54 p		2.0	ALP37
						6.28E-03	1.00E+00	*0.*			G	
PU239/40	***0.00E+00***	U	0.0E+00	1.2E-02	2.89E-02	pCi/g	54%	*0.*	6/13/08 01:54 p		2.0	ALP37
						6.27E-03	1.00E+00	*0.*			G	
Batch: 8136605	AMCMISO_EIE_PLT_AEA			**Work Order:** KM95C1AG			**Report DB ID:** 9KM95C10					
AM-241	***0.00E+00***	U	0.0E+00	9.7E-03	2.27E-02	pCi/g	78%	*0.*	6/13/08 05:48 p		2.0	ALP37
						4.94E-03	1.00E+00	*0.*			G	
Batch: 8136606	UISO_IE_PLATE_AEA			**Work Order:** KM95C1AC			**Report DB ID:** 9KM95C10					
U-234	***9.21E-01***		1.1E-01	1.9E-01	1.61E-02	pCi/g	86%	*(57.2)*	6/13/08 01:59 p		2.04	ALP1
						3.50E-03	1.00E+00	*(9.7)*			G	
U-235	***2.89E-02***		2.0E-02	2.1E-02	1.90E-02	pCi/g	86%	*(1.5)*	6/13/08 01:59 p		2.04	ALP1
						4.95E-03	1.00E+00	*(2.8)*			G	
U-238	***8.65E-01***		1.1E-01	1.8E-01	2.31E-02	pCi/g	86%	*(37.4)*	6/13/08 01:59 p		2.04	ALP1
						7.00E-03	1.00E+00	*(9.6)*			G	
								Ratio U-234/238 = 1.1				
Batch: 8136608	TBD			**Work Order:**			**Report DB ID:** 9KM95C10					
NI-63	***2.43E+01***			7.4E+00	9.70E+00	pCi/g	53%	*(2.5)*	6/14/08 08:38 a		0.26	LSC4
						4.70E+00		*(6.5)*			G	
Batch: 8136608	NI63_LSC			**Work Order:** KM95C1AE			**Report DB ID:** 9KM95C10					
NI-63	***2.43E+01***		4.6E+00	7.4E+00	9.70E+00	pCi/g	53%	*(2.5)*	6/14/08 08:38 a		0.26	LSC4
						4.70E+00	3.00E+01	*(6.5)*			G	

TestAmerica
rptSTLRchSample
V5.1.6 A2002

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

FORM I

SAMPLE RESULTS

Date: 15-Jul-08

Lab Name:	TestAmerica	**SDG:**	W05414	**Collection Date:**	5/13/2008 7:35:00 AM
Lot-Sample No.:	J8E150273-1	**Report No. :**	39477	**Received Date:**	5/15/2008 1:10:00 PM
Client Sample ID:	B1VDW3	**COC No. :**	F08-031-174	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC | MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8136609	TC99_ETVDSK_LSC			**Work Order:** KM95C1AJ			**Report DB ID:** 9KM95C10					
TC-99	***-4.86E-01***	U	2.6E-01	3.7E-01	6.43E-01	pCi/g	100%	*-0.76*	6/12/08 11:42 p		2.02	LSC4
						3.09E-01	1.50E+01	*-(2.6)*			G	
Batch: 8136610	906.0_H3_LSC			**Work Order:** KM95C1AK			**Report DB ID:** 9KM95C10					
H-3	***2.01E-01***	U	1.5E-01	1.7E-01	3.36E-01	pCi/g	100%	*0.6*	5/23/08 09:10 a		5.0	LSC6
						1.60E-01	4.00E+02	*(2.3)*			G	
Batch: 8136611	GAMMA_GS			**Work Order:** KM95C1AL			**Report DB ID:** 9KM95C10					
CO-60	***-1.41E-03***	U	1.3E-02	1.3E-02	2.22E-02	pCi/g		*-0.06*	6/13/08 05:55 p		324.1	GER7$1
							5.00E-02	*-0.22*			g	
CS-137	***-6.41E-03***	U	1.2E-02	1.2E-02	2.02E-02	pCi/g		*-0.32*	6/13/08 05:55 p		324.1	GER7$1
							1.00E-01	*-(1.)*			g	
EU-152	***-7.04E-03***	U	3.1E-02	3.1E-02	5.17E-02	pCi/g		*-0.14*	6/13/08 05:55 p		324.1	GER7$1
							1.00E-01	*-0.45*			g	
EU-154	***-4.43E-02***	U	4.2E-02	4.2E-02	6.79E-02	pCi/g		*-0.65*	6/13/08 05:55 p		324.1	GER7$1
							1.00E-01	*-(2.1)*			g	
EU-155	***3.43E-02***	U	3.3E-02	3.3E-02	5.48E-02	pCi/g		*0.63*	6/13/08 05:55 p		324.1	GER7$1
							1.00E-01	*(2.1)*			g	
NB-94	***2.60E-03***	U	1.2E-02	1.2E-02	1.98E-02	pCi/g		*0.13*	6/13/08 05:55 p		324.1	GER7$1
								0.45			g	
RA-226	***5.13E-01***		8.0E-02	8.0E-02	3.83E-02	pCi/g		*(13.4)*	6/13/08 05:55 p		324.1	GER7$1
								(12.8)			g	

TestAmerica
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V5.1.6 A2002

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TESTAMERICA

FORM I

SAMPLE RESULTS

Date: 15-Jul-08

Lab Name:	TestAmerica	**SDG:**	W05414	**Collection Date:**	5/13/2008 7:35:00 AM
Lot-Sample No.:	J8E150273-1	**Report No. :**	39477	**Received Date:**	5/15/2008 1:10:00 PM
Client Sample ID:	B1VDW3	**COC No. :**	F08-031-174	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC | MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
RA-228	***6.21E-01***		1.3E-01	1.3E-01	7.23E-02	pCi/g		*(8.6)*	6/13/08 05:55 p		324.1	GER7$1
						3.58E-02		*(9.6)*			g	
Batch: 8136613	NP237_LLE_PLATE_AEA			**Work Order:**	KM95C1AM		**Report DB ID:** 9KM95C10					
NP-237	***1.44E-02***	U	1.7E-02	1.7E-02	2.30E-02	pCi/g	77%	*0.63*	6/6/08 12:32 p		2.0	ALP37
						5.00E-03	1.00E+00	*(1.7)*			G	
Batch: 8137236	7196_CR6			**Work Order:**	KM95C1AA		**Report DB ID:** 9KM95C10					
HEXCHROME	***3.50E-01***	U		0.0E+00	3.50E-01	mg/kg	N/A	*(1.)*	5/27/08		2.5	
							3.50E-01	*N/A*			G	
Batch: 8162174	SRTOT_SEP_PRECIP_GPC			**Work Order:**	KM95C2AD		**Report DB ID:** 9KM95C20					
STRONTIUM	***2.18E-01***		8.3E-02	1.0E-01	1.45E-01	pCi/g	89%	*(1.5)*	6/20/08 03:20 p		6.02	GPC26B
						6.76E-02		*(4.3)*			G	
Batch: 8183225	THISO_IE_PRECIP_AEA			**Work Order:**	KM95C3AH		**Report DB ID:** 9KM95C30					
TH-228	***1.23E+00***		2.5E-01	3.2E-01	7.05E-02	pCi/g	53%	*(17.4)*	7/10/08 04:30 p		1.01	ALP118
						1.84E-02	1.00E+00	*(7.7)*			G	
TH-230	***1.12E+00***		2.3E-01	2.9E-01	5.64E-02	pCi/g	53%	*(19.8)*	7/10/08 04:30 p		1.01	ALP118
						1.23E-02	1.00E+00	*(7.6)*			G	
TH-232	***9.89E-01***		2.2E-01	2.7E-01	5.64E-02	pCi/g	53%	*(17.5)*	7/10/08 04:30 p		1.01	ALP118
						1.23E-02	1.00E+00	*(7.4)*			G	

No. of Results: 24 **Comments:**

TestAmerica
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FORM II

Date: 15-Jul-08

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	W05414	**Collection Date:**	5/13/2008 7:35:00 AM
Lot-Sample No.:	**J8E150273-1**	**Report No. :**	39477	**Received Date:**	5/15/2008 1:10:00 PM
Client Sample ID:	**B1VDW3**	**COC No. :**	F08-031-174	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8137236	7196_CR6			**Work Order:** KM95C1A4		**Report DB ID:** KM95C11ER			**Orig Sa DB ID:** 9KM95C10			
HEXCHROME	3.50E-01	U		0.0E+00	3.50E-01	mg/kg	N/A	(1.)	5/27/08		2.5	
	3.50E-01	U	**RPD**	**0.0**		3.50E-01		N/A			G	

No. of Results: 1 **Comments:**

RPD - Relative Percent Difference.

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

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TESTAMERICA

FORM II

Date: 15-Jul-08

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	W05414	**Collection Date:**	5/13/2008 7:35:00 AM
Lot-Sample No.:	**J8E150273-1**	**Report No. :**	39477	**Received Date:**	5/15/2008 1:10:00 PM
Client Sample ID:	**B1VDW3 DUP**	**COC No. :**	F08-031-174	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8136604	PUISO_PLATE_AEA			**Work Order:**	KM95C1AN	**Report DB ID:**	KM95C1NR		**Orig Sa DB ID:** 9KM95C10			
PU-238	0.00E+00	U	0.0E+00	9.5E-03	2.24E-02	pCi/g	67%	0.	6/13/08 01:54 p		2.04	ALP38
	0.00E+00	U	**RPD**			1.00E+00		0.			G	
PU239/40	4.67E-03	U	9.5E-03	9.5E-03	2.23E-02	pCi/g	67%	0.21	6/13/08 01:54 p		2.04	ALP38
	0.00E+00	U	**RPD**	**200.0**		1.00E+00		0.98			G	
									Alpha Spec Result Sum = 4.7E-03			
Batch: 8136605	AMCMISO_EIE_PLT_AEA			**Work Order:**	KM95C1AP	**Report DB ID:**	KM95C1PR		**Orig Sa DB ID:** 9KM95C10			
AM-241	7.11E-03	U	1.0E-02	1.0E-02	1.70E-02	pCi/g	86%	0.42	6/13/08 05:48 p		2.04	ALP38
	0.00E+00	U	**RPD**	**200.0**		1.00E+00		(1.4)			G	
									Alpha Spec Result Sum = 1.2E-02			
Batch: 8136606	UISO_IE_PLATE_AEA			**Work Order:**	KM95C1AQ	**Report DB ID:**	KM95C1QR		**Orig Sa DB ID:** 9KM95C10			
U-234	5.94E-01		9.1E-02	1.3E-01	2.20E-02	pCi/g	89%	(27.)	6/13/08 01:59 p		2.01	ALP2
	9.21E-01		**RPD**	**43.2**		1.00E+00		(8.8)			G	
U-235	3.14E-02		2.1E-02	2.2E-02	1.67E-02	pCi/g	89%	(1.9)	6/13/08 01:59 p		2.01	ALP2
	2.89E-02		**RPD**	**8.1**		1.00E+00		(2.9)			G	
U-238	5.46E-01		8.7E-02	1.3E-01	1.97E-02	pCi/g	89%	(27.7)	6/13/08 01:59 p		2.01	ALP2
	8.65E-01		**RPD**	**45.3**		1.00E+00		(8.7)			G	
						Ratio U-234/238 = 1.1			***Alpha Spec Result Sum = 1.2E+00***			
Batch: 8136608	NI63_LSC			**Work Order:**	KM95C1AT	**Report DB ID:**	KM95C1TR		**Orig Sa DB ID:** 9KM95C10			
NI-63	1.92E+00	U	3.6E+00	5.6E+00	8.59E+00	pCi/g	62%	0.22	6/14/08 10:21 a		0.25	LSC4
	2.43E+01		**RPD**	**170.7**		3.00E+01		0.69			G	

TestAmerica
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TESTAMERICA

FORM II

Date: 15-Jul-08

DUPLICATE RESULTS

Lab Name:	TestAmerica	SDG:	W05414	Collection Date:	5/13/2008 7:35:00 AM
Lot-Sample No.:	J8E150273-1	Report No. :	39477	Received Date:	5/15/2008 1:10:00 PM
Client Sample ID:	B1VDW3 DUP	COC No. :	F08-031-174	Matrix:	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC | MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8136609	TC99_ETVDSK_LSC			**Work Order:**	KM95C1AV	**Report DB ID:**	KM95C1VR		**Orig Sa DB ID:** 9KM95C10			
TC-99	-1.70E-01	U	2.7E-01	3.9E-01	6.39E-01	pCi/g	100%	-0.27	6/13/08 01:47 a		2.03	LSC4
	-4.86E-01	U	**RPD**	**-96.2**		1.50E+01		-0.88			G	
Batch: 8136610	906.0_H3_LSC			**Work Order:**	KM95C1AW	**Report DB ID:**	KM95C1WR		**Orig Sa DB ID:** 9KM95C10			
H-3	1.15E+00		1.8E-01	2.1E-01	3.35E-01	pCi/g	100%	(3.4)	5/23/08 10:32 a		5.0	LSC6
	2.01E-01	U	**RPD**	**140.7**		4.00E+02		(10.9)			G	
Batch: 8136611	GAMMA_GS			**Work Order:**	KM95C1AX	**Report DB ID:**	KM95C1XR		**Orig Sa DB ID:** 9KM95C10			
CO-60	8.87E-03	U	1.4E-02	1.4E-02	2.54E-02	pCi/g		0.35	6/13/08 07:37 a		324.1	GER6$1
	-1.41E-03	U	**RPD**	**275.9**		5.00E-02		(1.2)			g	
CS-137	-5.48E-04	U	1.3E-02	1.3E-02	2.29E-02	pCi/g		-0.02	6/13/08 07:37 a		324.1	GER6$1
	-6.41E-03	U	**RPD**	**-168.5**		1.00E-01		-0.08			g	
EU-152	1.42E-02	U	3.3E-02	3.3E-02	5.27E-02	pCi/g		0.27	6/13/08 07:37 a		324.1	GER6$1
	-7.04E-03	U	**RPD**	**592.7**		1.00E-01		0.85			g	
EU-154	-7.37E-02	U	4.9E-02	4.9E-02	7.61E-02	pCi/g		-0.97	6/13/08 07:37 a		324.1	GER6$1
	-4.43E-02	U	**RPD**	**-49.8**		1.00E-01		-(3.)			g	
EU-155	3.14E-02	U	2.8E-02	2.8E-02	4.72E-02	pCi/g		0.66	6/13/08 07:37 a		324.1	GER6$1
	3.43E-02	U	**RPD**	**8.8**		1.00E-01		(2.3)			g	
NB-94	2.10E-03	U	1.2E-02	1.2E-02	2.13E-02	pCi/g		0.1	6/13/08 07:37 a		324.1	GER6$1
	2.60E-03	U	**RPD**	**21.1**				0.34			g	

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.6 A2002

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

TESTAMERICA

FORM II

Date: 15-Jul-08

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	W05414	**Collection Date:**	5/13/2008 7:35:00 AM
Lot-Sample No.:	**J8E150273-1**	**Report No. :**	39477	**Received Date:**	5/15/2008 1:10:00 PM
Client Sample ID:	**B1VDW3 DUP**	**COC No. :**	F08-031-174	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
RA-226	5.03E-01		7.8E-02	7.8E-02	4.20E-02	pCi/g		(12.)	6/13/08 07:37 a		324.1	GER6$1
	5.13E-01		RPD	2.1				(12.9)			g	
RA-228	6.86E-01		1.4E-01	1.4E-01	8.20E-02	pCi/g		(8.4)	6/13/08 07:37 a		324.1	GER6$1
	6.21E-01		RPD	10.0				(9.7)			g	
Batch: 8136613	NP237_LLE_PLATE_AEA			**Work Order:**	KM95C1A1	**Report DB ID:**	KM95C11R		**Orig Sa DB ID:** 9KM95C10			
NP-237	0.00E+00	U	0.0E+00	9.0E-03	2.12E-02	pCi/g	70%	0.	6/6/08 12:33 p		2.03	ALP38
	1.44E-02	U	RPD	200.0		1.00E+00		0.			G	
Batch: 8162174	SRTOT_SEP_PRECIP_GPC			**Work Order:**	KM95C1A5	**Report DB ID:**	KM95C15R		**Orig Sa DB ID:** 9KM95C20			
STRONTIUM	2.13E-01		8.5E-02	1.0E-01	1.53E-01	pCi/g	93%	(1.4)	6/20/08 03:20 p		6.02	GPC26A
	2.18E-01		RPD	2.3				(4.2)			G	
Batch: 8183225	THISO_IE_PRECIP_AEA			**Work Order:**	KM95C2A6	**Report DB ID:**	KM95C26R		**Orig Sa DB ID:** 9KM95C30			
TH-228	1.02E+00		1.9E-01	2.5E-01	4.29E-02	pCi/g	73%	(23.8)	7/10/08 04:30 p		1.01	ALP117
	1.23E+00		RPD	18.7		1.00E+00		(8.1)			G	
TH-230	8.63E-01		1.7E-01	2.2E-01	4.05E-02	pCi/g	73%	(21.3)	7/10/08 04:30 p		1.01	ALP117
	1.12E+00		RPD	25.6		1.00E+00		(7.8)			G	
TH-232	9.98E-01		1.8E-01	2.4E-01	4.05E-02	pCi/g	73%	(24.6)	7/10/08 04:30 p		1.01	ALP117
	9.89E-01		RPD	0.9		1.00E+00		(8.2)			G	

Alpha Spec Result Sum = 2.9E+00

No. of Results: 22 **Comments:**

TestAmerica
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.6 A2002

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

TESTAMERICA

FORM II

BLANK RESULTS

Date: 15-Jul-08

Lab Name: TestAmerica

Matrix: SOIL

SDG: W05414

Report No. : 39477

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA ,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8137236	7196_CR6			**Work Order:**	KNC3C1AA		**Report DB ID:**	KNC3C1AB				
HEXCHROME	3.50E-01	U		0.0E+00	3.50E-01	mg/kg	N/A	(1.)	5/27/08		2.5	
						3.50E-01		N/A			G	
Batch: 8136604	PUISO_PLATE_AEA			**Work Order:**	KNALC1AA		**Report DB ID:**	KNALC1AB				
PU-238	0.00E+00	U	0.0E+00	7.0E-03	1.65E-02	pCi/g	93%	0.	6/13/08 01:55 p		2.02	ALP39
					3.58E-03	1.00E+00		0.			G	
PU239/40	1.03E-02	U	1.2E-02	1.2E-02	1.65E-02	pCi/g	93%	0.63	6/13/08 01:55 p		2.02	ALP39
					3.58E-03	1.00E+00		(1.7)			G	
Batch: 8136604	PUISO_PLATE_AEA			**Work Order:**	KNALC1AD		**Report DB ID:**	KNALC1DX				
PU-238	0.00E+00	U	0.0E+00	9.3E-03	2.19E-02	pCi/g	68%	0.	6/13/08 01:55 p		2.01	ALP41
					4.75E-03	1.00E+00		0.			G	
PU239/40	2.28E-02		2.0E-02	2.1E-02	2.19E-02	pCi/g	68%	(1.)	6/13/08 01:55 p		2.01	ALP41
					4.75E-03	1.00E+00		(2.2)			G	
Batch: 8136605	AMCMISO_EIE_PLT_AEA			**Work Order:**	KNALD1AA		**Report DB ID:**	KNALD1AB				
AM-241	0.00E+00	U	0.0E+00	1.1E-02	2.50E-02	pCi/g	68%	0.	6/13/08 05:49 p		2.02	ALP39
					5.43E-03	1.00E+00		0.			G	
Batch: 8136605	AMCMISO_EIE_PLT_AEA			**Work Order:**	KNALD1AD		**Report DB ID:**	KNALD1DX				
AM-241	7.14E-03	U	1.5E-02	1.5E-02	3.42E-02	pCi/g	44%	0.21	6/13/08 05:50 p		2.01	ALP41
					7.43E-03	1.00E+00		0.98			G	
Batch: 8136606	UISO_IE_PLATE_AEA			**Work Order:**	KNALF1AA		**Report DB ID:**	KNALF1AB				
U-234	-2.56E-03	U	6.9E-03	6.9E-03	2.19E-02	pCi/g	94%	-0.12	6/13/08 01:59 p		2.0	ALP3
					6.65E-03	1.00E+00		-0.74			G	

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V5.1.6 A2002

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

FORM II

BLANK RESULTS

Date: 15-Jul-08

Lab Name: TestAmerica

Matrix: SOIL

SDG: W05414

Report No. : 39477

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA ,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-235	-2.56E-03	U	6.9E-03	6.9E-03	2.19E-02	pCi/g	94%	-0.12	6/13/08 01:59 p		2.0	ALP3
					6.65E-03	1.00E+00		-0.74			G	
U-238	4.47E-03	U	9.3E-03	9.3E-03	2.02E-02	pCi/g	94%	0.22	6/13/08 01:59 p		2.0	ALP3
					5.76E-03	1.00E+00		0.96			G	
Batch: 8183225	THISO_IE_PRECIP_AEA			**Work Order:**	KQWH21AA		**Report DB ID:**	KQWH21AB				
TH-228	7.11E-03	U	2.5E-02	2.5E-02	6.69E-02	pCi/g	90%	0.11	7/10/08 04:30 p		1.0	ALP119
					1.74E-02	1.00E+00		0.58			G	
TH-230	3.35E-02	U	3.9E-02	3.9E-02	5.35E-02	pCi/g	90%	0.63	7/10/08 04:30 p		1.0	ALP119
					1.16E-02	1.00E+00		(1.7)			G	
TH-232	0.00E+00	U	0.0E+00	2.3E-02	5.35E-02	pCi/g	90%	0.	7/10/08 04:30 p		1.0	ALP119
					1.16E-02	1.00E+00		0.			G	
Batch: 8136608	NI63_LSC			**Work Order:**	KNALK1AA		**Report DB ID:**	KNALK1AB				
NI-63	5.84E+00	U	2.8E+00	4.3E+00	6.27E+00	pCi/g	82%	0.93	6/14/08 12:04 p		0.26	LSC4
					3.04E+00	3.00E+01		(2.7)			G	
Batch: 8136609	TC99_ETVDSK_LSC			**Work Order:**	KNALL1AA		**Report DB ID:**	KNALL1AB				
TC-99	-2.29E-01	U	2.7E-01	3.9E-01	6.45E-01	pCi/g	100%	-0.36	6/13/08 02:49 a		2.0	LSC4
					3.10E-01	2.00E+01		-(1.2)			G	
Batch: 8136610	906.0_H3_LSC			**Work Order:**	KNALR1AA		**Report DB ID:**	KNALR1AB				
H-3	1.28E-01	U	1.4E-01	1.7E-01	3.35E-01	pCi/g	100%	0.38	5/23/08 06:25 a		5.0	LSC6
					1.60E-01	4.00E+02		(1.5)			G	
Batch: 8136611	GAMMA_GS			**Work Order:**	KNALW1AA		**Report DB ID:**	KNALW1AB				

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

BLANK RESULTS

Date: 15-Jul-08

Lab Name: TestAmerica

Matrix: SOIL

SDG: W05414

Report No. : 39477

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA ,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
CO-60	-2.78E-03	U	6.0E-03	6.0E-03	1.04E-02	pCi/g		-0.27	6/13/08 05:56 p		348.0	GER8$1
						5.00E-02		-0.92			g	
CS-137	-1.15E-03	U	6.0E-03	6.0E-03	1.02E-02	pCi/g		-0.11	6/13/08 05:56 p		348.0	GER8$1
						1.00E-01		-0.39			g	
EU-152	-2.22E-02	U	1.8E-02	1.8E-02	2.80E-02	pCi/g		-0.79	6/13/08 05:56 p		348.0	GER8$1
						1.00E-01		-(2.5)			g	
EU-154	1.02E-02	U	1.7E-02	1.7E-02	3.30E-02	pCi/g		0.31	6/13/08 05:56 p		348.0	GER8$1
						1.00E-01		(1.2)			g	
EU-155	-1.08E-02	U	1.5E-02	1.5E-02	2.44E-02	pCi/g		-0.44	6/13/08 05:56 p		348.0	GER8$1
						1.00E-01		-(1.5)			g	
NB-94	-1.49E-03	U	5.5E-03	5.5E-03	9.52E-03	pCi/g		-0.16	6/13/08 05:56 p		348.0	GER8$1
								-0.54			g	
RA-226	6.26E-02	U	3.3E-02	3.3E-02	3.58E-02	pCi/g		(1.7)	6/13/08 05:56 p		348.0	GER8$1
								(3.8)			g	
RA-228	6.52E-02	U	2.8E-02	2.8E-02	5.32E-02	pCi/g		(1.2)	6/13/08 05:56 p		348.0	GER8$1
					2.64E-02			(4.7)			g	
Batch: 8162174	SRTOT_SEP_PRECIP_GPC			**Work Order:**	KPL981AA		**Report DB ID:**	KPL981AB				
STRONTIUM	5.28E-02	U	6.4E-02	6.6E-02	1.38E-01	pCi/g	93%	0.38	6/20/08 03:20 p		6.0	GPC26C
					6.40E-02			(1.6)			G	
Batch: 8136613	NP237_LLE_PLATE_AEA			**Work Order:**	KNAL11AA		**Report DB ID:**	KNAL11AB				
NP-237	3.99E-03	U	8.1E-03	8.2E-03	1.91E-02	pCi/g	89%	0.21	6/6/08 12:33 p		2.0	ALP39
					4.15E-03	1.00E+00		0.98			G	

No. of Results: 26 **Comments:**

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

TESTAMERICA

FORM II

LCS RESULTS

Date: 15-Jul-08

Lab Name: TestAmerica

Matrix: SOIL

SDG: W05414

Report No. : 39477

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 8137236	7196_CR6			**Work Order:**	KNC3C1AC		**Report DB ID:**	KNC3C1AS					
HEXCHROME	1.77E+01			0.0E+00	3.50E-01	mg/kg	N/A	2.00E+01		89%	5/27/08	2.5	
							Rec Limits:	80	120	-0.1		G	
Batch: 8136604	PUISO_PLATE_AEA			**Work Order:**	KNALC1AC		**Report DB ID:**	KNALC1CS					
PU239/40	3.35E+00		2.2E-01	5.6E-01	1.70E-02	pCi/g	90%	3.32E+00	1.12E-01	101%	6/13/08 01:55 p	2.05	ALP40
							Rec Limits:	70	130	0.0		G	
Batch: 8136604	PUISO_PLATE_AEA			**Work Order:**	KNALC1AE		**Report DB ID:**	KNALC1EM					
PU239/40	3.11E+00		2.3E-01	5.4E-01	2.01E-02	pCi/g	79%	3.34E+00	1.13E-01	93%	6/13/08 01:55 p	2.05	ALP42
							Rec Limits:	70	130	-0.1		G	
Batch: 8136605	AMCMISO_EIE_PLT_AEA			**Work Order:**	KNALD1AC		**Report DB ID:**	KNALD1CS					
AM-241	4.45E+00		3.0E-01	8.3E-01	2.39E-02	pCi/g	73%	4.44E+00	6.83E-02	100%	6/13/08 05:49 p	2.05	ALP40
							Rec Limits:	70	130	0.0		G	
Batch: 8136605	AMCMISO_EIE_PLT_AEA			**Work Order:**	KNALD1AE		**Report DB ID:**	KNALD1EM					
AM-241	4.31E+00		3.0E-01	8.1E-01	2.48E-02	pCi/g	72%	4.45E+00	6.85E-02	97%	6/13/08 05:50 p	2.05	ALP42
							Rec Limits:	70	130	0.0		G	
Batch: 8136606	UISO_IE_PLATE_AEA			**Work Order:**	KNALF1AC		**Report DB ID:**	KNALF1CS					
U-234	8.35E-01		1.0E-01	1.7E-01	2.77E-02	pCi/g	97%	8.67E-01	2.67E-02	96%	6/13/08 01:59 p	2.0	ALP4
							Rec Limits:	70	130	0.0		G	
U-238	8.10E-01		1.0E-01	1.7E-01	1.48E-02	pCi/g	97%	9.08E-01	2.80E-02	89%	6/13/08 01:59 p	2.0	ALP4
							Rec Limits:	70	130	-0.1		G	
Batch: 8183225	THISO_IE_PRECIP_AEA			**Work Order:**	KQWH21AC		**Report DB ID:**	KQWH21CS					
TH-230	2.90E+00		3.7E-01	5.9E-01	5.78E-02	pCi/g	88%	2.35E+00	7.05E-02	123%	7/10/08 04:31 p	1.0	ALP120
							Rec Limits:	70	130	0.2		G	

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

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V5.1.6 A2002

TESTAMERICA

FORM II

LCS RESULTS

Date: 15-Jul-08

Lab Name: TestAmerica

Matrix: SOIL

SDG: W05414

Report No. : 39477

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 8136608	NI63_LSC			**Work Order:**	KNALK1AC		**Report DB ID:**	KNALK1CS					
NI-63	4.72E+02		8.1E+00	3.0E+01	5.75E+00	pCi/g	87%	5.65E+02	1.88E+01	83%	6/14/08 01:46 p	0.27	LSC4
							Rec Limits:	70	130	-0.2		G	
Batch: 8136609	TC99_ETVDSK_LSC			**Work Order:**	KNALL1AC		**Report DB ID:**	KNALL1CS					
TC-99	2.13E+02		2.0E+00	1.3E+01	6.44E-01	pCi/g	100%	2.25E+02	2.28E-01	94%	6/13/08 03:52 a	2.0	LSC4
							Rec Limits:	70	130	-0.1		G	
Batch: 8136610	906.0_H3_LSC			**Work Order:**	KNALR1AC		**Report DB ID:**	KNALR1CS					
H-3	2.62E+00		2.2E-01	2.7E-01	3.34E-01	pCi/g	100%	2.71E+00	8.12E-02	97%	5/23/08 07:47 a	5.0	LSC6
							Rec Limits:	70	130	0.0		G	
Batch: 8136611	GAMMA_GS			**Work Order:**	KNALW1AC		**Report DB ID:**	KNALW1CS					
CS-137	2.98E-01		5.8E-02	5.8E-02	3.87E-02	pCi/g		2.53E-01	1.14E-02	118%	6/13/08 05:57 p	200.01	GER5$1
							Rec Limits:	70	130	0.2		g	
K-40	2.00E+01		3.0E+00	3.0E+00	3.15E-01	pCi/g		1.95E+01	1.88E+00	102%	6/13/08 05:57 p	200.01	GER5$1
							Rec Limits:	70	130	0.0		g	
RA-226	1.06E+00		1.6E-01	1.6E-01	6.19E-02	pCi/g		1.15E+00	5.17E-02	93%	6/13/08 05:57 p	200.01	GER5$1
							Rec Limits:	70	130	-0.1		g	
RA-228	2.13E+00		3.3E-01	3.3E-01	1.15E-01	pCi/g		1.87E+00	9.55E-02	114%	6/13/08 05:57 p	200.01	GER5$1
							Rec Limits:	70	130	0.1		g	
U-238	1.15E+00		1.7E-01	1.7E-01	6.69E-02	pCi/g		1.05E+00	5.36E-02	110%	6/13/08 05:57 p	200.01	GER5$1
							Rec Limits:	70	130	0.1		g	
Batch: 8162174	SRTOT_SEP_PRECIP_GPC			**Work Order:**	KPL981AC		**Report DB ID:**	KPL981CS					
STRONTIUM	1.15E+00		1.4E-01	3.3E-01	1.33E-01	pCi/g	94%	1.14E+00	2.25E-02	101%	6/20/08 03:20 p	6.0	GPC26D
							Rec Limits:	70	130	0.0		G	

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

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V5.1.6 A2002

TESTAMERICA

FORM II

LCS RESULTS

Date: 15-Jul-08

Lab Name: TestAmerica

Matrix: SOIL

SDG: W05414

Report No. : 39477

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 8136613	NP237_LLE_PLATE_AEA			**Work Order:**	KNAL11AC		**Report DB ID:**	KNAL11CS					
NP-237	8.94E-01		1.2E-01	1.9E-01	1.91E-02	pCi/g	93%	9.37E-01	2.81E-02	95%	6/6/08 12:33 p	2.0	ALP40
							Rec Limits:	70	130	0.0		G	

No. of Results: 18 **Comments:**

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

rptSTLRchLcs
V5.1.6 A2002

TESTAMERICA

FORM II

MATRIX SPIKE RESULTS

Date: 15-Jul-08

Lab Name: TestAmerica **SDG:** W05414

Lot-Sample No.: J8E150273-1, B1VDW3 **Report No. :** 39477 **Matrix:** SOIL

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Exp-ected	Exp Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 8136609	**Work Order:** KM95C1AU			**Report DB ID:** KM95C1UW			**Orig Sa DB ID:** 9KM95C10						
TC-99	2.14E+02		2.0E+00	1.3E+01	6.43E-01	pCi/g	100%	95.66%	2.24E+02	2.27E-0	6/13/08 12:45 a	2.01	TC99_ETVDSK_LSC
	-4.86E-01											G	LSC4
Batch: 8137236	**Work Order:** KM95C1A2			**Report DB ID:** KM95C1CW			**Orig Sa DB ID:** 9KM95C10						
HEXCHROME	8.67E+00			0.0E+00	3.50E-01	mg/kg	N/A	84.83%	1.02E+01		5/27/08	2.5	7196_CR6
	3.50E-01											G	

Number of Results: 2

Comments:

25

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

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

6/19/2008 2:54:05 PM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8136604; RPUISO Pulso by ALP

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Lisa Anderson **Date** 6/19/08

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 8136604

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

Comments on any "No" response: _____

Second Level Review: Erika [illegible] Date: 6/2012

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/11/2008 11:33:03 AM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8183225; RTHISO Thiso by ALP

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?	✓		
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Lisa Anderson **Date** 7/11/08

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 8183225

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

Comments on any "No" response: See Nar

Second Level Review: Erika Ford Date: 7/13/18

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-12659**
NCM Initiated By: Lisa Antonson
Date Opened: 07/11/2008
Date Closed:

Classification: **Anomaly**
Status: **QAREVIEW**
Production Area: Environmental - Sep
Tests: Thlso by ALP
Lot #'s (Sample #'s): J8E150273 (1), J8G010000 (225),
QC Batches: 8183225,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	07/11/2008	This batch is a rerun of batches 8136607 and 8172294. In 8136607 the Th was not completely isolated. In 8172294 the Tracers failed. The batch was rerun with good results.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	07/11/2008	The batch was rerun.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

6/19/2008 11:34:40 AM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8136606; RUISO Uiso by ALP

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Lisa Anderson **Date** 6/19/08

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 8136606

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

Comments on any "No" response: _____

Second Level Review: Erika Ord Date: 6/19/18

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

6/18/2008 3:38:14 PM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8136605; RAMISO Amlso by ALP

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?	✓		
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?			✓
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:
PLease see NCM # 10-12550

First Level Review John Porter **Date** 6-18-8

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 81366605

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

Comments on any "No" response: See Ncm

Second Level Review: Erika Ford Date: 6/19/18

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-12550**
NCM Initiated By: John Norton
Date Opened: 06/18/2008
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: None
Lot #'s (Sample #'s): J8E150000 (605),
QC Batches: None.,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
John Norton	06/18/2008	Some spillage was noted in the matrix blank.

Corrective Action

Name	Date	Corrective Action
John Norton	06/18/2008	While the tracer yield from the matrix blank is somewhat low, it is still acceptable.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 6/18/2008

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

6/11/2008 2:19:25 PM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8136613; RNP237 Np-237 w/tracer

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?			✓
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review John Worthington **Date** 6-11-8

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 8136613

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

Comments on any "No" response: _____

Second Level Review: Erika Ford Date: 4/12/15

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

6/26/2008 3:56:09 PM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8162174; RSRTOT SrTot by GPC

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?		✓	
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?			✓
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?	✓		
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

NCM 10-12580

First Level Review Lisa Anderson **Date** 6/26/08

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 8162174

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

Comments on any "No" response: See NCM

Second Level Review: Erika Ford Date: 6/30/18

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-12580**
NCM Initiated By: Lisa Antonson
Date Opened: 06/26/2008
Date Closed:

Classification: **Anomaly**
Status: **QAREVIEW**
Production Area: Environmental - Prep
Tests: SrTot by GPC
Lot #'s (Sample #'s): J8E150000 (612), J8E150273 (1),
QC Batches: 8136612,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	06/26/2008	In the original batch, an incorrect vial was used in the LCS. The batch was rerun with good results.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	06/26/2008	The batch was rerun with good results.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

6/18/2008 3:52:45 PM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8136611; RGAMMA Gamma by GER

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?	✓		
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:
NCM 10- 12551

First Level Review Lisa Anderson **Date** 6/18/08

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 8136611

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

Comments on any "No" response: See NCR

Second Level Review: [signature] Date: 6/19/18

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-12551**
NCM Initiated By: Lisa Antonson
Date Opened: 06/18/2008
Date Closed:

Classification: **Anomaly**
Status: **QAREVIEW**
Production Area: Environmental - Prep
Tests: Gamma by GER
Lot #'s (Sample #'s): J8E150000 (611), J8E150273 (1),
QC Batches: 8136611,

Nonconformance: LCS result out of limits
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	06/18/2008	The Eu-154 MDA for the LCS is slightly above CRDL. The sample meets all other CRDL requirements, data is accepted.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	06/18/2008	NA

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 6/18/2008

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

6/18/2008 11:29:44 AM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8136609; RTC99 Tc-99 by LSC

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	✓		
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?			✓
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Lisa Anderson **Date** 6/18/08

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 8136609

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

Comments on any "No" response: _____

Second Level Review: Erika Ford Date: 6/18/18

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/28/2008 10:42:46 AM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8136610; RTRITIUM H-3 by LSC

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?			✓
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?			✓
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review John Norton **Date** 5-28-8

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 8136010

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

Comments on any "No" response: _____

Second Level Review: Erika Jordan Date: 5/28/12

LS-038B, Rev. 10, 9/07

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/1/2008 2:18:59 PM

Lot No., Due Date: J8E150273; 06/30/2008

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 8136608; RNI63 Ni-63 by LSC

SDG, Matrix: W05414; SOIL

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?			✓
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review John Foster **Date** 7-1-8

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 81366008

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

Comments on any "No" response: Dup out of agreement but acceptable B/C below CRDL. Recount performed in error. Initial count will be reported

Second Level Review: [signature] Date: 7/3/8

LS-038B, Rev. 10, 9/07

TestAmerica

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s):8137236 J8E 150273 Due 6/30

Lab Sample Numbers or SDG: **W05414**

Method/Test/Parameter: **Cr+6 in SOLID / RICH-WC-5005, Rev 8**

Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level Review (✓)
A. Initial Calibration				
1. Performed at required frequency with required number of levels?	✓			✓
2. Correlation coefficient within QC limits?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			✓
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters ≤ reporting limit?	✓			✓
B. Continuing Calibration				
1. CCV analyzed at required frequency and all parameters within QC limits?	✓			✓
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			✓
C. Sample Analysis	✓			
1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed?				✓
2. Were all sample holding times met?	✓			✓
D. QC Samples				
1. All results for the preparat on blank below limits?	✓			✓
2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?	✓			✓
3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?	✓			✓
4. Analytical spikes within QC limits where applicable?			✓	✓
5. ICP only: One serial dilution performed per SDG?			✓	✓
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	✓
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?			✓	✓

Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level Review (✓)
E. Other 1. Are all nonconformances included and noted?	✓			No NCm ✓
2. Is the correct date and time of analysis shown?	✓			✓
3. Did the analyst sign and date the front page of the analytical run?	✓			✓
4. Correct methodology used?	✓			✓
5. Transcriptions checked?	✓			✓
6. Calculations checked at minimum frequency?	✓			✓
7. Units checked?	✓			✓

Comments on any "No" response:

Analyst: _____ Date: 5/27/08

Second-Level Review: _____ Date: 6/25/08

TESTAMERICA

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Fluor Hanford Inc. | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | F08-031-174 | PAGE 1 OF 1

COLLECTOR NCO Sampler Kauer, Rosane McIntyre	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL
SAMPLING LOCATION C6743, I-004-SP	**PROJECT DESIGNATION** 216-B-55 Supplemental Characterization		**SAF NO.** F08-031
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-583-1 Pg 2	**ACTUAL SAMPLE DEPTH** 27.5' - 30'	**COA** 123055J278
SHIPPED TO TestAmerica Incorporated, Richland	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A J8E150273 W05414

PRICE CODE 8N | **AIR QUALITY** ☐ | **DATA TURNAROUND** 45 Days / 45 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

6-30-08 Due 07-24-08 RW 5/15/08

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegitation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: B1VDT6 or B1TFM2

PRESERVATION	None	Cool~4C
TYPE OF CONTAINER	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196 (Hexavalent Chromium)

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1VDW3	SOIL	5-13-08	0735	✓	✓					KM95C			

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
ARMcIntyre/[illegible]	5-13-08 0830	B-55 site Ref	5-13-08 0830
B-55 site Ref	5/14/08 1100	ARMcIntyre/[illegible]	5/14/08 1100
ARMcIntyre/[illegible]	5/14/08 1230	MO 745 Rotor #1	5/14/08 1230
MO 745 Rotor #1	5 DWB 5/15/08 1230	DW Brothers/[illegible]	5/15/8 1230
DW Brothers/[illegible]	5/15/8 1310	LJ LANE TAL	5/15/08 1310

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** Analytical batch QC must be run on a sample associated with this SAF.
(1)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Gamma Spec - Add-on {Niobium-94, Radium-226, Radium-228} Isotopic Uranium; Neptunium-237; Strontium-89,90 -- Total Sr; Isotopic Plutonium; Americium-241; Tritium - H3; Isotopic Thorium {Thorium-232} Technetium-99 {Technetium-99} Nickel-63;

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

A-6003-618(01/06)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 5 15 08 1310 GM Screen Result 0.1 K

Client: FLH SDG #: W0541J NA[ ] SAF #: F08-031 NA [ ]

Work Order Number: J8E150273 Chain of Custody # F08-031-174

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ____ Tape
   - ✓ Custody Seals
   - ____ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ____ Broken
   - ____ Leaking
   - ____ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] SOIL pH<2 [ ] pH>2 [ ] pH>9 [ ] Amount HNO_3 Added _____
11. Sample Location, Sample Collector Listed? *
    *For documentat on only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 5 15 08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary: process as is.

Project Manager _____ Date _____

TESTAMERICA

6/11/2008 5:47:59 AM

Sample Preparation/Analysis

Balance Id:1120373922,I4 A

108302, Fluor Hanford Inc , Flour
Hanford Inc

6I PuAm PrpRC5013/RC5019, SepRC5080(5003)/RC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 06/30/2008 WC5414

Sep1 DT/Tm Tech:

Batch: 8136604 SOIL pCi/g PM, Quote: SS , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: 8136605, 6ISX 8136605, 6ISX

Prep Tech: ManisD,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-AF J8E150273-1-SAMP 05/13/2008 07:35	AmtRec: 100G,500G	2.00g,in	PATB4447 06/03/08,pd 06/07/94,r #Containers: 2	200		Scr:	Alpha:	Beta:
2 KM95C-1-AN-X J8E150273-1-DUP 05/13/2008 07:35	AmtRec: 100G,500G	2.04g,in	PATB4448 06/03/08,pd 06/07/94,r #Containers: 2			Scr:	Alpha:	Beta:
3 KNALC-1-AA-B J8E150000-604-BLK 05/13/2008 07:35	AmtRec:	2.02g,in	PATB4449 06/03/08,pd 06/07/94,r #Containers: 1			Scr:	Alpha:	Beta:
4 KNALC-1-AC-C J8E150000-604-LCS 05/13/2008 07:35	AmtRec:	2.05g,in	PASI0179 06/03/08,pd 06/07/94,r #Containers: 1			Scr:	Alpha:	Beta:
5 KNALC-1-AD-BX J8E150000-604-MBLK 05/13/2008 07:35	AmtRec:	2.01g,in	PATB4450 06/03/08,pd 06/07/94,r #Containers: 1			Scr:	Alpha:	Beta:
6 KNALC-1-AE-CM J8E150000-604-MLCS 05/13/2008 07:35	AmtRec:	2.05g,in	PASI0180 06/03/08,pd 06/07/94,r #Containers: 1			Scr:	Alpha:	Beta:

TESTAMERICA

6/11/2008 5:48:00 AM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

6I PuAm PrpRC5013/RC5019, SepRC5080(5003)/RC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8136604 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: KM95C-SAMP "Comments Sr-Longer count, due to low yields drm 6/9/08"
Antimonial lead used TKM 6/17/08

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C1AF-SAMP Constituent List:

PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35
Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35						
KNALC1AA-BLK:											
PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:	UCL:	RPD:
Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35						
KNALC1AC-LCS:											
PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35
KNALC1AD-MBLK:											
PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:	UCL:	RPD:
Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35						
KNALC1AE-MLCS:											
PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

KM95C1AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALC1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALC1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALC1AD-MBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALC1AE-MLCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

6/19/2008 2:53:03 PM

ICOC Fraction Transfer/Status Report

ByDate: 6/20/2007, 6/24/2008, Batch: '8136604', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
8136604						
AC		Rev1C	WoodT	6/3/2008 8:17:30 AM		
SC			wagarr	IsBatched	5/16/2008 10:03:28 AM	ICOC_RADCALC v4.8.32
SC			WoodT	InPrep	6/3/2008 8:17:30 AM	RICH-RC-5013 Revision 7
SC			WoodT	Prep1C	6/11/2008 5:48:40 AM	RICH-RC-5013 REVISION 7
SC			WoodT	InPrep2	6/11/2008 5:49:00 AM	RICH-RC-5019 REVISION 6
SC			WoodT	Prep2C	6/11/2008 5:49:26 AM	RICH-RC-5019 REVISION 6
SC			ManisD	Sep1C	6/12/2008 3:40:13 PM	RICH-RC-5087 REV 1
SC			AshworthA	Sep2C	6/13/2008 11:36:16 AM	RICH-RC-5039 REV5
SC			ClarkR	InCnt1	6/13/2008 11:46:39 AM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	6/13/2008 5:07:12 PM	RICH-RD-0008 REVISION 4
SC			antonsonl	Rev1C	6/19/2008 2:52:53 PM	RICH-RC-0002 REV 8
AC			WoodT	6/11/2008 5:48:40		
AC			WoodT	6/11/2008 5:49:00		
AC			WoodT	6/11/2008 5:49:26		
AC			ManisD	6/12/2008 3:40:13 PM		
AC			AshworthA	6/13/2008 11:36:16		
AC			ClarkR	6/13/2008 11:46:39		
AC			DAWKINSO	6/13/2008 5:07:12 PM		
AC			antonsonl	6/19/2008 2:52:53 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RE-ANALYSIS REQUEST

DUE DATE 6-30

CUSTOMER FLUOR

ANALAYSIS TH150

MATRIX SOIL

LOT NUMBER J8E150 273

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 813 6607 / 8172294

NEW BATCH NUMBER 8183225

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) ALL		TRACER FAILURE
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID		Assigned with new batch.

RC-048, 12/07, Rev 8

TESTAMERICA

7/10/2008 7:26:01 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

9R Thiso PrpRC5013/RC5019, SepRC5084(5003)
S1 Thorium-228,230,232 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8183225 SOIL pCi/g PM, Quote: SS , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 8136604 6ISO, 8136605 6ISX, 8136606 7SSR, 8136607 9RS1, 8136608 AFS4, 8136609 ANS5, 8136610 ATS6, 8136611 AXTA, 8136612 CHTH, 8136613 D3XW, 8137236 DWEA, 8162174 CHTH, 8172294 9RS1, 8177534 AFS4, 8183225 9RS1

Prep Tech: ManisD,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-2-A6-X J8E150273-1-DUP 05/13/2008 07:35	AmtRec: 100G,500G	1.01g,in	THTC12841 06/19/08,pd #Containers: 2	200	Scr:	Alpha:	Beta:	
2 KM95C-3-AH J8E150273-1-SAMP 05/13/2008 07:35	AmtRec: 100G,500G	1.01g,in	THTC12842 06/19/08,pd #Containers: 2		Scr:	Alpha:	Beta:	
3 KQWH2-1-AA-B J8G010000-225-BLK 05/13/2008 07:35	AmtRec:	1.00g,in	THTC12843 06/19/08,pd #Containers: 1		Scr:	Alpha:	Beta:	
4 KQWH2-1-AC-C J8G010000-225-LCS 05/13/2008 07:35	AmtRec:	1.00 38%yields	THSI1246 06/26/08,pd #Containers: 1		Scr:	Alpha:	Beta:	

Comments: KM95C-DUP "Comments Sr-Longer count, due to low yields drm 6/9/08"

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C2A6-DUP Constituent List:

Th-228	RDL:1	pCi/g	LCL:	UCL:	RPD:	Th-230	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35
Th-232	RDL:1	pCi/g	LCL:	UCL:	RPD:	Th-234	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

KQWH21AA-BLK:

Th-228	RDL:1	pCi/g	LCL:	UCL:	RPD:	Th-230	RDL:1	pCi/g	LCL:	UCL:	RPD:
Th-232	RDL:1	pCi/g	LCL:	UCL:	RPD:	Th-234	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

58

7/10/2008 7:26:02 PM

Sample Preparation/Analysis

9R Thiso PrpRC5013/RC5019, SepRC5084(5003)
S1 Thorium-228,230,232 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

AnalyDueDate: 06/30/2008

Batch: 8183225 pCi/g

SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

KQWH21AC-LCS:
Th-230 RDL:1 pCi/g LCL:70 UCL:130 RPD:35 Th-234 RDL: pCi/g LCL:20 UCL:105 RPD:35

KM95C2A6-DUP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KQWH21AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KQWH21AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/11/2008 11:29:07 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/12/2007, 7/16/2008, Batch: '8183225', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus		Accepting		Comments
	8183225						
AC			Rev1C	WoodT	7/5/2008 12:23:47 PM		
SC				nortonj	IsBatched	7/1/2008 9:23:58 AM	ICOC_RADCALC v4.8.32
SC				WoodT	InPrep	7/5/2008 12:23:47 PM	RICH-RC-5013 REVISION 7
SC				WoodT	Prep1C	7/5/2008 12:24:01 PM	RICH-RC-5013 REVISION 7
SC				WoodT	InPrep2	7/5/2008 12:24:14 PM	RICH-RC-5019 REVISION 6
SC				WoodT	Prep2C	7/5/2008 12:24:27 PM	RICH-RC-5019 REVISION 6
SC				AshworthA	Sep1C	7/9/2008 8:22:25 AM	ALP-001 REVISION 0
SC				AshworthA	Sep2C	7/10/2008 1:32:11 PM	ALP-016 REVISION 0
SC				Barcotl	Sep2C	7/10/2008 1:32:29 PM	ALP-016 REVISION 0
SC				ClarkR	CalcC	7/10/2008 1:39:33 PM	RL-CI-008 REVISION 0
SC				DAWKINSO	CalcC	7/10/2008 9:26:27 PM	RL-CI-008 REVISION 0
SC				antonsonl	Rev1C	7/11/2008 11:29:00 AM	RICH-RC-0002 REV 8
AC				WoodT	7/5/2008 12:24:01 PM		
AC				WoodT	7/5/2008 12:24:14 PM		
AC				WoodT	7/5/2008 12:24:27 PM		
AC				AshworthA	7/9/2008 8:22:25 AM		
AC				AshworthA	7/10/2008 1:32:11 PM		
AC				Barcotl	7/10/2008 1:32:29 PM		
AC				ClarkR	7/10/2008 1:39:33 PM		
AC				DAWKINSO	7/10/2008 9:26:27 PM		
AC				antonsonl	7/11/2008 11:29:00		

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

Grp Rec Cnt: 10

ICOCFractions v4.8.33

TESTAMERICA

6/11/2008 7:50:28 PM

Sample Preparation/Analysis

Balance Id:I4 A

108302, Fluor Hanford Inc , Flour Hanford Inc

7S Uiso PrpRC5013/RC5019, SepRC5079(5039)
SR Uranium-234,235,238 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 06/30/2008 WO 5414

Sep1 DT/Tm Tech:

Batch: 8136606 SOIL pCi/g PM, Quote: SS , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 8136604 6ISO, 8136605 6ISX, 8136606 7SSR, 8136607 9RS1, 8136608 AFS4, 8136609 ANS5, 8136610 ATS6, 8136611 AXTA, 8136612 CHTH, 8136613 D3XW, 8137236 DWEA, 8162174 CHTH

Prep Tech: ManisD,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-AC J8E150273-1-SAMP 05/13/2008 07:35	AmtRec: 100G,500G	2.04g,in	UITC19836 05/19/08,pd 06/15/01,r #Containers: 2	200		Scr:	Alpha:	Beta:
2 KM95C-1-AQ-X J8E150273-1-DUP 05/13/2008 07:35	AmtRec: 100G,500G	2.01g,in	UITC19835 05/19/08,pd 06/15/01,r #Containers: 2			Scr:	Alpha:	Beta:
3 KNALF-1-AA-B J8E150000-606-BLK 05/13/2008 07:35	AmtRec:	2.00g,in	UITC19834 05/19/08,pd 06/15/01,r #Containers: 1			Scr:	Alpha:	Beta:
4 KNALF-1-AC-C J8E150000-606-LCS 05/13/2008 07:35	AmtRec:	2.00g,in	UISG1651 04/23/08,pd 06/15/01,r #Containers: 1			Scr:	Alpha:	Beta:

Comments: KM95C-SAMP "Comments Sr-Longer count, due to low yields drm 6/9/08"

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C1AC-SAMP Constituent List:

U-232	RDL:	pCi/g	LCL:20	UCL:105	RPD:35	U-234	RDL:1	pCi/g	LCL:	UCL:	RPD:
U-235	RDL:1	pCi/g	LCL:	UCL:	RPD:	U-238	RDL:1	pCi/g	LCL:	UCL:	RPD:

KNALF1AA-BLK:

U-232	RDL:	pCi/g	LCL:20	UCL:105	RPD:35	U-234	RDL:1	pCi/g	LCL:	UCL:	RPD:
U-235	RDL:1	pCi/g	LCL:	UCL:	RPD:	U-238	RDL:1	pCi/g	LCL:	UCL:	RPD:

6/11/2008 7:50:29 PM

Sample Preparation/Analysis

7S Uiso PrpRC5013/RC5019, SepRC5079(5039)
SR Uranium-234,235,238 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:I4 A

Pipet #: ___ ___ ___ ___

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8136606 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

KNALF1AC-LCS:
U-232 RDL: pCi/g LCL:20 UCL:105 RPD:35 Uranium RDL: pCi/g LCL:70 UCL:130 RPD:35

KM95C1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALF1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALF1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

6/19/2008 11:33:51 AM

ICOC Fraction Transfer/Status Report

ByDate: 6/20/2007, 6/24/2008, Batch: '8136606', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
8136606						
IC		Rev1C	WoodT	6/3/2008 7:31:53 AM		
SC			wagarr	IsBatched	5/16/2008 10:03:28 AM	ICOC_RADCALC v4.8.32
SC			WoodT	InPrep	6/3/2008 7:31:53 AM	RICH-RC-5013 Revision 7
SC			WoodT	Prep1C	6/10/2008 10:29:02 AM	RICH-RC-5013 REVISION 7
SC			WoodT	InPrep2	6/10/2008 10:29:52 AM	RICH-RC-5019 REVISION 6
SC			WoodT	Prep2C	6/10/2008 10:31:57 AM	RICH-RC-5019 REVISION 6
SC			AshworthA	Sep1C	6/13/2008 8:23:13 AM	RICH-RC-5067 REV8
SC			AshworthA	Sep2C	6/13/2008 11:36:27 AM	RICH-RC-5039 REV5
SC			ClarkR	InCnt1	6/13/2008 11:46:51 AM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	6/13/2008 5:07:20 PM	RICH-RD-0008 REVISION 4
SC			antonsonl	Rev1C	6/19/2008 11:33:40 AM	RICH-RC-0002 REV 8
AC			WoodT	6/10/2008 10:29:02		
AC			WoodT	6/10/2008 10:29:52		
AC			WoodT	6/10/2008 10:31:57		
AC			AshworthA	6/13/2008 8:23:13		
AC			AshworthA	6/13/2008 11:36:27		
AC			ClarkR	6/13/2008 11:46:51		
AC			DAWKINSO	6/13/2008 5:07:20 PM		
AC			antonsonl	6/19/2008 11:33:40		

IC: Accepting Entry; SC: Status Change

TESTAMERICA

6/11/2008 5:48:00 AM

Sample Preparation/Analysis

Balance Id:I4

108302, Fluor Hanford Inc , Flour
Hanford Inc

6I PuAm PrpRC5013/RC5019, SepRC5080(5003)/RC5010(5039)
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8136605 SOIL pCi/g PM, Quote: SS , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: 8136604, 6ISO 8136604, 6ISO

Prep Tech: ManisD,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-AG J8E150273-1-SAMP 05/13/2008 07:35		2.00g,in AmtRec: 100G,500G	PATB4447 06/03/08,pd 06/07/04,r #Containers: 2	200		Scr:	Alpha:	Beta:
2 KM95C-1-AP-X J8E150273-1-DUP 05/13/2008 07:35		2.04g,in AmtRec: 100G,500G	PATB4448 06/03/08,pd 06/07/04,r #Containers: 2			Scr:	Alpha:	Beta:
3 KNALD-1-AA-B J8E150000-605-BLK 05/13/2008 07:35		2.02g,in AmtRec:	PATB4449 06/03/08,pd 06/07/04,r #Containers: 1			Scr:	Alpha:	Beta:
4 KNALD-1-AC-C J8E150000-605-LCS 05/13/2008 07:35		2.05g,in AmtRec:	PASI0179 06/03/08,pd 06/07/04,r #Containers: 1			Scr:	Alpha:	Beta:
5 KNALD-1-AD-BX J8E150000-605-MBLK 05/13/2008 07:35		2.01g,in AmtRec:	PATB4450 06/03/08,pd 06/07/04,r #Containers: 1			Scr:	Alpha:	Beta:
6 KNALD-1-AE-CM J8E150000-605-MLCS 05/13/2008 07:35		2.05g,in AmtRec:	PASI0180 06/03/08,pd 06/07/04,r #Containers: 1			Scr:	Alpha:	Beta:

TESTAMERICA

6/11/2008 5:48:00 AM

Sample Preparation/Analysis

6I PuAm PrpRC5013/RC5019, SepRC5080(5003)/RC5010(5039)
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,1120373922,1120

Pipet #:

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8136605 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: KM95C-SAMP "Comments Sr-Longer count, due to low yields drm 6/9/08"
Additional acid added DRM 6/12/08
Amonly - matrix blk foamed over, about 1/3 of sample DRM 6/12/08
6/12/08 DRM

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C1AG-SAMP Constituent List:

Am-241	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35
KNALD1AA-BLK:											
Am-241	RDL:1	pCi/g	LCL:	UCL:	RPD:	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35
KNALD1AC-LCS:											
Am-241	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35
KNALD1AD-MBLK:											
Am-241	RDL:1	pCi/g	LCL:	UCL:	RPD:	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35
KNALD1AE-MLCS:											
Am-241	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

KM95C1AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALD1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALD1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALD1AD-MBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALD1AE-MLCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

6/18/2008 3:05:43 PM

ICOC Fraction Transfer/Status Report

ByDate: 6/19/2007, 6/23/2008, Batch: '8136605', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
8136605						
AC		**Rev1C**	**WoodT**	6/11/2008 5:48:27		
SC			wagarr	IsBatched	5/16/2008 10:03:28 AM	ICOC_RADCALC v4.8.32
SC			WoodT	InPrep	6/11/2008 5:48:27 AM	RICH-RC-5013 REVISION 7
SC			WoodT	Prep1C	6/11/2008 5:48:49 AM	RICH-RC-5013 REVISION 7
SC			WoodT	InPrep2	6/11/2008 5:49:12 AM	RICH-RC-5019 REVISION 6
SC			WoodT	Prep2C	6/11/2008 5:49:40 AM	RICH-RC-5019 REVISION 6
SC			ManisD	Sep1C	6/12/2008 3:39:42 PM	RICH-RC-5087 REV 1
SC			AshworthA	Sep2C	6/13/2008 3:19:38 PM	RICH-RC-5003 REVISION 6
SC			DAWKINSO	InCnt1	6/13/2008 4:14:41 PM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	6/13/2008 9:38:40 PM	RICH-RD-0008 REVISION 4
SC			nortonj	Rev1C	6/18/2008 3:05:38 PM	RICH-RC-0002 REV 8
AC			**WoodT**	6/11/2008 5:48:49		
AC			**WoodT**	6/11/2008 5:49:12		
AC			**WoodT**	6/11/2008 5:49:40		
AC			**ManisD**	6/12/2008 3:39:42 PM		
AC			**AshworthA**	6/13/2008 3:19:38 PM		
AC			**DAWKINSO**	6/13/2008 4:14:41 PM		
AC			**DAWKINSO**	6/13/2008 9:38:40 PM		
AC			**nortonj**	6/18/2008 3:05:38 PM		

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

Grp Rec Cnt: 9

ICOCFractions v4.8.33

TESTAMERICA

6/2/2008 3:44:58 PM

Sample Preparation/Analysis

108302, Fluor Hanford Inc , Flour
Hanford Inc

D3 Np PrpRC5013/5077, SepRC5009(5003)
XW Neptunium-237 with tracer by alpha spec
5I CLIENT: HANFORD

Balance Id:1120373922
Pipet #: DRM
Sep1 DT/Tm Tech: 25Jun08 10:01:55
Sep2 DT/Tm Tech:
Prep Tech: ,WoodT

AnalyDueDate: 06/30/2008

Batch: 8136613 SOIL pCi/g PM, Quote: SS , 50639
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-AM J8E150273-1-SAMP 05/13/2008 07:35		2.00g,in AmtRec: 100G,500G	NPTA7077 05/15/08,pd #Containers: 2			200			Scr: Alpha: Beta:	
2 KM95C-1-A1-X J8E150273-1-DUP 05/13/2008 07:35		2.03g,in AmtRec: 100G,500G	NPTA7078 05/15/08,pd #Containers: 2						Scr: Alpha: Beta:	
3 KNAL1-1-AA-B J8E150000-613-BLK 05/13/2008 07:35		2.00g,in AmtRec:	NPTA7079 05/15/08,pd #Containers: 1						Scr: Alpha: Beta:	
4 KNAL1-1-AC-C J8E150000-613-LCS 05/13/2008 07:35		2.00g,in AmtRec:	NPSE0468 05/15/08,pd #Containers: 1						Scr: Alpha: Beta:	

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C1AM-SAMP Constituent List:

Np-237	RDL:1	pCi/g	LCL:	UCL:	RPD:	Np-239	RDL:	pCi/g	LCL:30	UCL:110	RPD:35

KNAL11AA-BLK:

Np-237	RDL:1	pCi/g	LCL:	UCL:	RPD:	Np-239	RDL:	pCi/g	LCL:30	UCL:110	RPD:35

KNAL11AC-LCS:

Np-237	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	Np-239	RDL:	pCi/g	LCL:30	UCL:110	RPD:35

6/2/2008 3:44:59 PM

Sample Preparation/Analysis

D3 Np PrpRC5013/5077, SepRC5009(5003)
XW Neptunium-237 with tracer by alpha spec
5I CLIENT: HANFORD

Balance Id:1120373922
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,WoodT

AnalyDueDate: 06/30/2008

Batch: 8136613 pCi/g
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
KM95C1AM-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
KNAL11AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
KNAL11AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

6/11/2008 2:18:12 PM

ICOC Fraction Transfer/Status Report

ByDate: 6/12/2007, 6/16/2008, Batch: '8136613', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
8136613						
AC		Rev1C	Barcotl	5/29/2008 7:33:53		
SC			wagarr	IsBatched	5/16/2008 10:03:28 AM	ICOC_RADCALC v4.8.32
SC			Barcotl	InPrep	5/29/2008 7:33:53 AM	RICH-RC-5013 Revision 7
SC			WoodT	InPrep	6/2/2008 7:16:11 AM	RICH-RC-5013 Revision 7
SC			WoodT	Prep1C	6/2/2008 3:42:55 PM	RICH-RC-5013 REVISION 7
SC			WoodT	InPrep2	6/2/2008 3:43:45 PM	RICH-RC-5077 REVISION 2
SC			WoodT	Prep2C	6/2/2008 3:44:00 PM	RICH-RC-5077 REVISION 2
SC			ManisD	InSep1	6/4/2008 8:58:49 AM	RICH-RC-5009 REV 5
SC			ManisD	Sep2C	6/6/2008 8:31:17 AM	RICH-RC-5003 REV 7
SC			BlackCL	InCnt1	6/6/2008 8:36:45 AM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	6/6/2008 8:03:07 PM	RICH-RD-0008 REVISION 4
SC			nortonj	Rev1C	6/11/2008 2:18:08 PM	RICH-RC-0002 REV 8
AC			WoodT	6/2/2008 7:16:11 AM		
AC			WoodT	6/2/2008 3:42:55 PM		
AC			WoodT	6/2/2008 3:43:45 PM		
AC			WoodT	6/2/2008 3:44:00 PM		
AC			ManisD	6/4/2008 8:58:49 AM		
AC			ManisD	6/6/2008 8:31:17 AM		
AC			BlackCL	6/6/2008 8:36:45 AM		
AC			DAWKINSO	6/6/2008 8:03:07 PM		
AC			nortonj	6/11/2008 2:18:08 PM		

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 10

ICOCFractions v4.8.33

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RE-ANALYSIS REQUEST

DUE DATE 6-30

CUSTOMER FLUOR

ANALAYSIS T St

MATRIX SOIL

LOT NUMBER J8E150273

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 8136612

NEW BATCH NUMBER 8162174

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) KM95C MD	108302	INCORRECT SPIKE VIAL WAS USED
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID		Assigned with new batch.

RC-048, 12/07, Rev 8

TESTAMERICA

6/20/2008 12:23:52 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

CH Sr-Total PrpRC5013, SepRC5006
TH Total Strontium by GPC
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech: 06/20/2008 10:31,ManisD

Batch: 8162174 SOIL pCi/g PM, Quote: SS , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 8136604 6ISO, 8136605 6ISX, 8136606 7SSR, 8136607 9RS1, 8136608 AFS4, 8136609 ANS5, 8136610 ATS6, 8136611 AXTA, 8136612 CHTH, 8136613 D3XW, 8137236 DWEA, 8162174 CHTH, 8172294 9RS1

Prep Tech: ManisD,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-A5-X J8E150273-1-DUP 05/13/2008 07:35		6.02g,in AmtRec: 100G,500G	SRTA17668 05/06/08,pd 05/22/07 r #Containers: 2	1.5	92.7 06/20/2008 10:31 s1 Scr:	50 Alpha:	26A	1544	6/20/08 AL Beta:	
2 KM95C-2-AD J8E150273-1-SAMP 05/13/2008 07:35		6.02g,in AmtRec: 100G,500G	SRTA17669 05/06/08,pd 05/22/07 r #Containers: 2	1.5	89.3 06/20/2008 10:31 s1 Scr:	50 Alpha:	26B		Beta:	
3 KPL98-1-AA-B J8F100000-174-BLK 05/13/2008 07:35		6.00g,in AmtRec:	SRTA17670 05/06/08,pd 05/22/07 r #Containers: 1	1.5	92.6 06/20/2008 10:31 s1 Scr:	50 Alpha:	26C		Beta:	
4 KPL98-1-AC-C J8F100000-174-LCS 05/13/2008 07:35		6.00g,in AmtRec:	STSB1274 06/11/08,pd 05/22/07 r #Containers: 1	1.5	93.8 06/20/2008 10:31 s1 Scr:	50 Alpha:	26D		Beta:	

Comments: KM95C-DUP "Comments Sr-Longer count, due to low yields drm 6/9/08"

```
All Clients for Batch:
   108302, Fluor Hanford Inc                    Flour Hanford Inc          ,  SS , 50639

KM95C1A5-DUP Constituent List:
  Sr-90        RDL:1          pCi/g     LCL:70      UCL:130     RPD:35
KPL981AA-BLK:
  Sr-90        RDL:1          pCi/g     LCL:        UCL:        RPD:
KPL981AC-LCS:
  Sr-90        RDL:1          pCi/g     LCL:70      UCL:130     RPD:35
```

6/20/2008 12:23:53 PM

Sample Preparation/Analysis

CH Sr-Total PrpRC5013, SepRC5006
TH Total Strontium by GPC
5I CLIENT: HANFORD

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech: 06/20/2008 10:31,ManisD

Batch: 8162174 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

KM95C1A5-DUP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KPL981AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KPL981AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

6/3/2008 6:45:15 AM

Sample Preparation/Analysis

Balance Id:1120421763

108302, Fluor Hanford Inc , Flour
Hanford Inc

AX Gamma PrpRC5013/5017 10 [illegible] needed 6/3/08 JSW
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8136611 SOIL pCi/g PM, Quote: SS , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 8136604 6ISO, 8136605 6ISX, 8136606 7SSR, 8136607 9RS1, 8136608 AFS4, 8136609 ANS5, 8136610 ATS6, 8136611 AXTA, 8136612 CHTH, 8136613 D3XW, 8137236 DWEA,

Prep Tech: ,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-AL J8E150273-1-SAMP 05/13/2008 07:35		324.10g,in AmtRec: 100G,500G	#Containers: 2		5200	600	G7	0355	6/13/08 [illegible]	
2 KM95C-1-AX-X J8E150273-1-DUP 05/13/2008 07:35		ISV – Please recount KM95C-1-AL on seperate detector 6/3/08 JSW AmtRec: 100G,500G	#Containers: 2				G6	1737	6/13/08 [illegible]	
3 KNALW-1-AA-B J8E150000-611-BLK 05/13/2008 07:35		348.00g,in AmtRec:	OSBK #Containers: 1		5200		G8	0356	6/13/08 [illegible]	
4 KNALW-1-AC-C J8E150000-611-LCS 05/13/2008 07:35		200.01g,in AmtRec:	CAL1491 #Containers: 1		200		G5	0357		

Comments: Sample KM95C-1-AX (dup) ISV. Please recount on a seperate detector 6/3/08 JSW

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C1AL-SAMP Constituent List:

Co-60	RDL:5.00E-02	pCi/g	LCL:	UCL:	RPD:	Cs-137	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Cs-137DA	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-152	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Eu-154	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-155	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:

KNALW1AA-BLK:

Co-60	RDL:5.00E-02	pCi/g	LCL:	UCL:	RPD:	Cs-137	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Cs-137DA	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-152	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:

TESTAMERICA

6/3/2008 6:45:15 AM

Sample Preparation/Analysis

AX Gamma PrpRC5013/5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Balance Id:1120421763,1120373922

Pipet #: ___ _____

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8136611 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Eu-154	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-155	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
KNALW1AC-LCS:											
Cs-137	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35	Cs-137DA	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35
K-40	RDL:--	pCi/g	LCL:70	UCL:130	RPD:35	Ra-226	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35
RA-228	RDL:0.2	pCi/g	LCL:70	UCL:130	RPD:35	RA-228DA	RDL:0.2	pCi/g	LCL:70	UCL:130	RPD:35
U-238	RDL:	pCi/g	LCL:70	UCL:130	RPD:35						

KM95C1AL-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALW1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALW1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/15/2008 8:05:45 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/16/2007, 7/20/2008, Batch: '8136611', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
8136611						
AC		**Rev1C**	**WoodT**	6/3/2008 6:11:45 AM		
SC			wagarr	IsBatched	5/16/2008 10:03:28 AM	ICOC_RADCALC v4.8.32
SC			WoodT	InPrep	6/3/2008 6:11:45 AM	RICH-RC-5013 Revision 7
SC			WoodT	Prep1C	6/3/2008 6:45:47 AM	RICH-RC-5013 REVISION 7
SC			WoodT	InPrep2	6/3/2008 6:45:58 AM	RICH RC 5017 REVISION 6
SC			WoodT	Prep2C	6/3/2008 6:46:07 AM	RICH RC 5017 REVISION 6
SC			BlackCL	InCnt1	6/3/2008 7:09:03 AM	RICH-RD-0007 REVISION 6
SC			BlackCL	CalcC	6/14/2008 6:58:45 AM	RICH-RD-0007 REVISION 6
SC			antonsonl	Rev1C	6/18/2008 3:49:38 PM	RICH-RC-0002 REV 8
SC			nortonj	Rev1C	7/15/2008 8:05:34 AM	RICH-RC-0002 REV 8
AC			**WoodT**	6/3/2008 6:45:47 AM		
AC			**WoodT**	6/3/2008 6:45:58 AM		
AC			**WoodT**	6/3/2008 6:46:07 AM		
AC			**BlackCL**	6/3/2008 7:09:03 AM		
AC			**BlackCL**	6/14/2008 6:58:45		
AC			**antonsonl**	6/18/2008 3:49:38 PM		
AC			**nortonj**	7/15/2008 8:05:34		

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 8

ICOCFractions v4.8.33

TESTAMERICA

6/3/2008 2:40:11 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

AN Tc-99 Prp/SepRC5013/5078
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8136609 **SOIL** **pCi/g** **PM, Quote: SS , 50639**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 8136604 6ISO, 8136605 6ISX, 8136606 7SSR, 8136607 9RS1, 8136608 AFS4, 8136609 ANS5, 8136610 ATS6, 8136611 AXTA, 8136612 CHTH, 8136613 D3XW, 8137236 DWEA,

Prep Tech: ,WoodT

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-AJ J8E150273-1-SAMP 05/13/2008 07:35	AmtRec: 100G,500G	2.02g,in	#Containers: 2	60		Scr:	Alpha:	Beta:
2 KM95C-1-AU-S J8E150273-1-MS 05/13/2008 07:35	AmtRec: 100G,500G	2.01g,in	TCSG2060 05/20/08,pd 01/10/06,r #Containers: 2			Scr:	Alpha:	Beta:
3 KM95C-1-AV-X J8E150273-1-DUP 05/13/2008 07:35	AmtRec: 100G,500G	2.03g,in	#Containers: 2			Scr:	Alpha:	Beta:
4 KNALL-1-AA-B J8E150000-609-BLK 05/13/2008 07:35	AmtRec:	2.00g,in	#Containers: 1			Scr:	Alpha:	Beta:
5 KNALL-1-AC-C J8E150000-609-LCS 05/13/2008 07:35	AmtRec:	2.00g,in	TCSG2061 05/20/08,pd 01/10/06,r #Containers: 1			Scr:	Alpha:	Beta:
6 KNALL-1-AD-BN J8E150000-609-IBLK 05/13/2008 07:35	AmtRec:		#Containers: 1			Scr:	Alpha:	Beta:

TAL Richland Key: In - Initial Amt, fi - Final Amt, dl - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 6
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.32

6/3/2008 2:40:12 PM

Sample Preparation/Analysis

AN Tc-99 Prp/SepRC5013/5078
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 06/30/2008

Batch: 8136609 pCi/g
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C1AJ-SAMP Constituent List:
Tc-99 RDL:15 pCi/g LCL:70 UCL:130 RPD:35
KM95C1AU-MS Constituent List:

KNALL1AA-BLK:
Tc-99 RDL:15 pCi/g LCL: UCL: RPD:
KNALL1AC-LCS:
Tc-99 RDL:15 pCi/g LCL:70 UCL:130 RPD:35
KNALL1AD-IBLK:
Tc-99 RDL:15 pCi/g LCL: UCL: RPD:

KM95C1AJ-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KM95C1AU-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALL1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALL1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALL1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

6/18/2008 11:28:49 AM

ICOC Fraction Transfer/Status Report

ByDate: 6/19/2007, 6/23/2008, Batch: '8136609', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
8136609						
AC		Rev1C	WoodT	6/3/2008 7:18:34 AM		
SC			wagarr	IsBatched	5/16/2008 10:03:28 AM	ICOC_RADCALC v4.8.32
SC			WoodT	InPrep	6/3/2008 7:18:34 AM	RICH-RC-5013 Revision 7
SC			WoodT	Prep1C	6/3/2008 2:41:19 PM	RICH-RC-5013 REVISION 7
SC			WoodT	InPrep2	6/3/2008 2:41:52 PM	RICH-RC-5078 REVISION 4
SC			WoodT	Prep2C	6/3/2008 2:42:18 PM	RICH-RC-5078 REVISION 4
SC			Barcotl	InPrep2	6/12/2008 9:07:56 AM	RICH-RC-5078 REVISION 4
SC			Barcotl	Prep2C	6/12/2008 9:08:09 AM	RICH-RC-5078 REVISION 4
SC			ClarkR	InCnt1	6/12/2008 9:14:20 AM	RICH-RD-0001 REVISION 4
SC			BlackCL	CalcC	6/13/2008 6:13:36 AM	RICH-RD-0001 REVISION 4
SC			antonsonl	Rev1C	6/18/2008 11:28:24 AM	RICH-RC-0002 REV 8
AC			WoodT	6/3/2008 2:41:19 PM		
AC			WoodT	6/3/2008 2:41:52 PM		
AC			WoodT	6/3/2008 2:42:18 PM		
AC			Barcotl	6/12/2008 9:07:56		
AC			Barcotl	6/12/2008 9:08:09		
AC			ClarkR	6/12/2008 9:14:20		
AC			BlackCL	6/13/2008 6:13:36		
AC			antonsonl	6/18/2008 11:28:24		

AC: Accepting Entry; SC: Status Change

TESTAMERICA

5/16/2008 9:56:25 AM

Sample Preparation/Analysis

Balance Id: 12445

108302, Fluor Hanford Inc , Flour
Hanford Inc

AT H-3 Prp/SepRC5037
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 06/30/2008 W05414

Sep1 DT/Tm Tech: 5-22-08 pm

Batch: 8136610 SOIL pCi/g PM, Quote: SS , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-AK								
J8E150273-1-SAMP								
05/13/2008 07:35		AmtRec: 100G,500G	#Containers: 2			Scr:	Alpha:	Beta:
2 KM95C-1-AW-X								
J8E150273-1-DUP								
05/13/2008 07:35		AmtRec: 100G,500G	#Containers: 2			Scr:	Alpha:	Beta:
3 KNALR-1-AA-B								
J8E150000-610-BLK								
05/13/2008 07:35		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
4 KNALR-1-AC-C								
J8E150000-610-LCS								
05/13/2008 07:35		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 KNALR-1-AD-B								
J8E150000-610-BLK								
05/13/2008 07:35		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C1AK-SAMP Constituent List:

TESTAMERICA

5/16/2008 9:56:25 AM

Sample Preparation/Analysis

AT H-3 Prp/SepRC5037
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 5-22-08
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 06/30/2008

Batch: 8136610 pCi/g
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

KNALR1AA-BLK:

KNALR1AC-LCS:

KNALR1AD-BLK:

KM95C1AK-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALR1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALR1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNALR1AD-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

80

5/28/2008 10:42:00 AM

ICOC Fraction Transfer/Status Report

ByDate: 5/29/2007, 6/2/2008, Batch: '8136610', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
8136610						
AC		**Rev1C**	**McDowellD**	5/22/2008 10:21:07		
SC			wagarr	IsBatched	5/16/2008 10:03:28 AM	ICOC_RADCALC v4.8.32
SC			McDowellD	InSep1	5/22/2008 10:21:07 AM	RICH-RC-5037 REVISION 3
SC			McDowellD	Sep1C	5/22/2008 1:22:38 PM	RICH-RC-5037 REVISION 3
SC			ClarkR	CalcC	5/23/2008 2:42:46 PM	RICH-RD-0001 REVISION 4
SC			nortonj	Rev1C	5/28/2008 10:41:54 AM	RICH-RC-0002 REV 8
AC			**McDowellD**	5/22/2008 1:22:38 PM		
AC			**ClarkR**	5/23/2008 2:42:46 PM		
AC			**nortonj**	5/28/2008 10:41:54		

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 4

ICOCFractions v4.8.33

TESTAMERICA

6/12/2008 3:02:35 PM

Sample Preparation/Analysis

Balance Id:l4 A

108302, Fluor Hanford Inc , Flour
Hanford Inc

AF Ni-63 PrpRC5013/5019, SepRC5069
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8136608 SOIL pCi/g PM, Quote: SS , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ManisD,WoodT

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-AE J8E150273-1-SAMP 05/13/2008 07:35		AmtRec: 100G,500G	0.26g,in #Containers: 2	0.26g	NITA2514 05/14/08	100		Scr:	Alpha:	Beta:
2 KM95C-1-AT-X J8E150273-1-DUP 05/13/2008 07:35		AmtRec: 100G,500G	0.25g,in #Containers: 2	0.25g	NITA2515 05/14/08			Scr:	Alpha:	Beta:
3 KNALK-1-AA-B J8E150000-608-BLK 05/13/2008 07:35		AmtRec:	0.26g,in #Containers: 1	0.26g	NITA2516 05/14/08			Scr:	Alpha:	Beta:
4 KNALK-1-AC-C J8E150000-608-LCS 05/13/2008 07:35		AmtRec:	0.27g,in #Containers: 1	0.27g	NISA0797 03/13/08			Scr:	Alpha:	Beta:
5 KNALK-1-AD-BN J8E150000-608-IBLK 05/13/2008 07:35		AmtRec:	#Containers: 1		nita2531 06/05/08			Scr:	Alpha:	Beta:

Comments: KM95C-SAMP "Comments Sr-Longer count, due to low yields drm 6/9/08"

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C1AE-SAMP Constituent List:

TAL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 5
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.32

6/12/2008 3:02:35 PM

Sample Preparation/Analysis

AF Ni-63 PrpRC5013/5019, SepRC5069
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:E32905

Pipet #: _____

AnalyDueDate: 06/30/2008

Sep1 DT/Tm Tech:

Batch: 8136608 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ManisD

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
 Ni-63        RDL:30          pCi/g     LCL:70      UCL:130     RPD:35
KNALK1AA-BLK:
 Ni-63        RDL:30          pCi/g     LCL:        UCL:        RPD:
KNALK1AC-LCS:
 Ni-63        RDL:30          pCi/g     LCL:70      UCL:130     RPD:35
KNALK1AD-IBLK:
 Ni-63        RDL:30          pCi/g     LCL:        UCL:        RPD:
KM95C1AE-SAMP Calc Info:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
KNALK1AA-BLK:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
KNALK1AC-LCS:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
KNALK1AD-IBLK:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

Approved By _____ Date: _____

7/1/2008 2:17:42 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/2/2007, 7/6/2008, Batch: '8136608', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
8136608						
AC		**Rev1C**	**WoodT**	6/3/2008 8:04:17 AM		
SC			wagarr	IsBatched	5/16/2008 10:03:28 AM	ICOC_RADCALC v4.8.32
SC			WoodT	InPrep	6/3/2008 8:04:17 AM	RICH-RC-5013 Revision 7
SC			WoodT	Prep1C	6/11/2008 5:46:42 AM	RICH-RC-5019 REVISION 6
SC			WoodT	Prep1C	6/11/2008 5:47:00 AM	RICH-RC-5013 REVISION 7
SC			WoodT	InPrep2	6/11/2008 5:47:12 AM	RICH-RC-5019 REVISION 6
SC			WoodT	Prep2C	6/11/2008 5:47:23 AM	RICH-RC-5019 REVISION 6
SC			MarisD	Sep1C	6/13/2008 10:47:27 AM	RICH-RC-5069 REV 6
SC			ClarkR	InCnt1	6/13/2008 11:03:25 AM	RICH-RD-0001 REVISION 4
SC			DAWKINSO	CalcC	6/16/2008 9:57:15 PM	RICH-RD-0001 REVISION 4
SC			nortonj	Rev1C	7/1/2008 2:14:33 PM	RICH-RC-0002 REV 8
AC			**WoodT**	6/11/2008 5:46:42		
AC			**WoodT**	6/11/2008 5:47:00		
AC			**WoodT**	6/11/2008 5:47:12		
AC			**WoodT**	6/11/2008 5:47:23		
AC			**MarisD**	6/13/2008 10:47:27		
AC			**ClarkR**	6/13/2008 11:03:25		
AC			**DAWKINSO**	6/16/2008 9:57:15 PM		
AC			**nortonj**	7/1/2008 2:14:33 PM		

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

Grp Rec Cnt: 9

ICOCFractions v4.8.33

TESTAMERICA

5/16/2008 9:10:40 AM

Sample Preparation/Analysis

108302, Fluor Hanford Inc , Flour
Hanford Inc

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

AnalyDueDate: 06/30/2008

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Batch: 8137236 SOIL mg/kg PM, Quote: SS , 50639

SEQ Batch, Test: None All Tests: 8136604 6ISO, 8136605 6ISX, 8136606 7SSR, 8136607 9RS1, 8136608 AFS4, 8136609 ANS5, 8136610 ATS6, 8136611 AXTA, 8136612 CHTH, 8136613 D3XW, 8137236 DWEA,

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KM95C-1-AA J8E150273-1-SAMP 05/13/2008 07:35		AmtRec: 100G,500G		#Containers: 2	2.4959g		Scr:	Alpha:	Beta:	
2 KM95C-1-A2-S J8E150273-1-MS 05/13/2008 07:35		AmtRec: 100G,500G		#Containers: 2	2.5035g		Scr:	Alpha:	Beta:	
3 KM95C-1-A3-D J8E150273-1-MSD PbCrO4 05/13/2008 07:35		0.0098g AmtRec: 100G,500G		#Containers: 2	2.5016g		Scr:	Alpha:	Beta:	
4 KM95C-1-A4-X J8E150273-1-DUP 05/13/2008 07:35		AmtRec: 100G,500G		#Containers: 2	2.4920g		Scr:	Alpha:	Beta:	
5 KNC3C-1-AA-B J8E160000-236-BLK 05/13/2008 07:35		AmtRec:		#Containers: 1			Scr:	Alpha:	Beta:	
6 KNC3C-1-AC-C J8E160000-236-LCS 05/13/2008 07:35		AmtRec:		#Containers: 1			Scr:	Alpha:	Beta:	

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TESTAMERICA

5/16/2008 9:10:41 AM

Sample Preparation/Analysis

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 06/30/2008

Batch: 8137236 mg/kg
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SS , 50639

KM95C1AA-SAMP Constituent List:

KM95C1A2-MS Constituent List:

KM95C1A3-MSD:

KNC3C1AA-BLK:

KNC3C1AC-LCS:

KM95C1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KM95C1A2-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KM95C1A3-MSD:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNC3C1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
KNC3C1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By Date:

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