

Analytical Data Package Prepared For
CH2M Hill Plateau Remediation

Radiochemical Analysis By
TestAmerica

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

Assigned Laboratory Code: TARL
Data Package Contains _____ Pages

Report No.: 40143

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.
W05523	F08-086	B1TRR9	J8I260269-1	KXN701AG	9KXN7010	8273368
		B1TRR9	J8I260269-1	KXN701AF	9KXN7010	8273369
		B1TRR9	J8I260269-1	KXN701AK	9KXN7010	8273371
		B1TRR9	J8I260269-1	KXN701AL	9KXN7010	8273372
		B1TRR9	J8I260269-1	KXN701AH	9KXN7010	8273373
		B1TRR9	J8I260269-1	KXN701AJ	9KXN7010	8273375
		B1TRR9	J8I260269-1	KXN701AC	9KXN7010	8273376
		B1TRR9	J8I260269-1	KXN701AD	9KXN7010	8273377
		B1TRR9	J8I260269-1	KXN701AA	9KXN7010	8273378
		B1TRR9	J8I260269-1	KXN701AE	9KXN7010	8273379

RECEIVED
JUN 24 2009
EDMC

Certificate of Analysis

CH2M Hill Plateau Remediation Company
P.O. Box 1600
Mail Stop - B6-06
Richland, WA 99352

November 10, 2008

Attention: Mike Neely

SAF Number	:	F08-086
Date SDG Closed	:	September 24, 2008
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	W05523
Data Deliverable	:	45/45 Day

CASE NARRATIVE

I. Introduction

On September 24, 2008 one sample was received at TestAmerica for radiochemical analysis. Upon receipt, the sample was assigned to lot J8I260269 and assigned the following laboratory ID number to correspond with the Fluor Hanford (FH) specific ID:

<u>FH ID#</u>	<u>TARL ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
B1TRR9	KXN70	WATER	9/24/08

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

Uranium 234, 235 and 238 by method RL-ALP-015 (RICH-RC-5039)*

Neptunium-237 by method RL-ALP-013 (RICH-RC-5009)*

Gas Proportional Counting

Gross Alpha by method RL-GPC-001 (RICH-RC-5014)*

Gross Beta by method RL-GPC-001 (RICH-RC-5014)*

Strontium-90 by method RL-GPC-003 (RICH-RC-5006)*

Gamma Spectroscopy

Iodine-129 by method RL-GAM-002 (RICH-RC-5025)*

Liquid Scintillation Counting

Selenium-79 by method RL-LSC-012 (RICH-RC-5043)*

Technetium-99 by method RL-LSC-013 (RICH-RC-5078)*

Tritium by method RL-LSC-005 (RICH-RC-5007)*

Laser Induced Phosphorimetry

Total Uranium by method RL-KPA-003 (RICH-RC-5058)*

*SOP ID's changed effective 7-01-2008. Attached is a cross reference until SOP ID's are changed in all systems.

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

Uranium 234, 235 and 238 by method RL-ALP-015 (RICH-RC-5039):

The LCS, batch blank, sample and sample duplicate (B1TRR9) results are within contractual requirements.

Neptunium-237 by method RL-ALP-013 (RICH-RC-5009):

The LCS yield was high at 132%. The LCS was recounted for an acceptable yield of 109%. Except as noted, the LCS, batch blank, sample and sample duplicate (B1TRR9) results are within contractual requirements.

Gas Proportional Counting

Gross Alpha by method RL-GPC-001 (RICH-RC-5014):

Sample B1TRR9 and its duplicate (B1TRR9 DUP) were analyzed with reduced aliquots based on weight screen results. Except as noted, the LCS, batch blank, sample and sample duplicate (B1TRR9) results are within contractual requirements.

Gross Beta by method RL-GPC-001 (RICH-RC-5014):

The LCS, batch blank, sample and sample duplicate (B1TRR9) results are within contractual requirements.

Strontium-90 by method RL-GPC-003 (RICH-RC-5006):

The LCS, batch blank, sample and sample duplicate (B1TRR9) results are within contractual requirements.

Gamma Spectroscopy

Iodine-129 by method RL-GAM-002 (RICH-RC-5025):

The sample aliquot was reduced for sample B1TRR9 and there is no duplicate due to insufficient sample volume. Except as noted, the LCS, batch blank and sample results are within contractual requirements.

Liquid Scintillation Counting

Selenium-79 by method RL-LSC-012 (RICH-RC-5043):

There is no LCS for selenium-79. Except as noted, the batch blank, sample and sample duplicate (B1TRR9) results are within contractual requirements.

Technetium-99 by method RL-LSC-013 (RICH-RC-5078):

The LCS, batch blank, sample, sample duplicate (B1TRR9), and sample matrix spike (B1TRR9) results are within contractual requirements.

Tritium by method RL-LSC-005 (RICH-RC-5007):

The LCS, batch blank, sample and sample duplicate (B1TRR9) results are within contractual requirements.

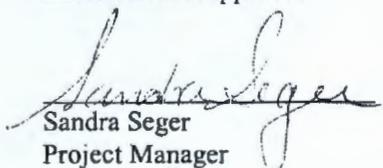
Total Uranium

Total Uranium by method RL-KPA-003 (RICH-RC-5058):

The LCS, batch blank, sample, sample duplicate (B1TRR9), and sample matrix spike (B1TRR9) 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, $R = \text{constants} * f(x,y,z,...)$. The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

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

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

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or 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) <i>u_c - Combined Uncertainty.</i>	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, <i>u_c the combined uncertainty.</i> 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%. $Lc = (1.645 * \sqrt{2 * (BkgndCnt/BkgndCntMin)/SCntMin}) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct)$. 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%. $MDC = (4.65 * \sqrt{((BkgndCnt/BkgndCntMin)/SCntMin) + 2.71/SCntMin}) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct)$. 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.
REER	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: 10-Nov-08

TestAmerica TARL

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

Report No. : 40143

SDG No: W05523

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
8273372	KOXW								
	B1TRR9								
	KXN701AL	NP-237	0.00E+00 +- 1.10E-01	U	pCi/L	80%	2.57E-01	1.00E+00	
	B1TRR9 DUP								
	KXN701AQ	NP-237	0.00E+00 +- 8.72E-02	U	pCi/L	97%	2.05E-01	1.00E+00	
8273375	SRTOT_SEP_PRECIP_GPC								
	B1TRR9								
	KXN701AJ	STRONTIUM	1.02E-01 +- 4.55E-01	U	pCi/L	100%	9.95E-01		
	B1TRR9 DUP								
	KXN701AT	STRONTIUM	1.66E-01 +- 4.27E-01	U	pCi/L	100%	9.18E-01		47.6
8273371	UIISO_PLATE_AEA								
	B1TRR9								
	KXN701AK	U-234	3.94E-01 +- 2.29E-01		pCi/L	103%	2.07E-01	1.00E+00	
		U-235	1.13E-02 +- 5.96E-02	U	pCi/L	103%	1.78E-01	1.00E+00	
		U-238	2.87E-01 +- 1.94E-01		pCi/L	103%	1.93E-01	1.00E+00	
	B1TRR9 DUP								
	KXN701AP	U-234	2.09E-01 +- 1.62E-01		pCi/L	103%	1.43E-01	1.00E+00	61.5
		U-235	-5.97E-03 +- 6.08E-02	U	pCi/L	103%	1.43E-01	1.00E+00	651.4
		U-238	2.33E-01 +- 1.73E-01		pCi/L	103%	1.43E-01	1.00E+00	21.0
8273379	I129_SEP_LEPS_GS								
	B1TRR9								
	KXN701AE	I-129L	3.06E-02 +- 1.63E-01	U	pCi/L	104%	3.12E-01		
8273368	9310_ALPHABETA_GPC								
	B1TRR9								
	KXN701AG	ALPHA	7.77E-01 +- 7.27E-01	U	pCi/L	100%	9.08E-01	3.00E+00	
	B1TRR9 DUP								
	KXN701AM	ALPHA	1.20E+00 +- 9.06E-01		pCi/L	100%	9.54E-01	3.00E+00	42.8
8273369	BETA_GPC								
	B1TRR9								
	KXN701AF	BETA	1.74E+00 +- 1.40E+00	U	pCi/L	100%	2.77E+00	4.00E+00	
	B1TRR9 DUP								
	KXN701AN	BETA	2.87E+00 +- 1.50E+00		pCi/L	100%	2.78E+00	4.00E+00	49.0
8273373	RICHRC5043								
	B1TRR9								
	KXN701AH	Se-79	6.60E-02 +- 7.89E+00	U	pCi/L	75%	4.79E+00	3.00E+01	
	B1TRR9 DUP								
	KXN701AR	Se-79	1.99E-01 +- 8.05E+00	U	pCi/L	72%	5.01E+00	3.00E+01	100.5
8273376	TC99_SEP_LSC								
	B1TRR9								
	KXN701AC	TC-99	-1.83E+00 +- 5.97E+00	U	pCi/L	100%	1.02E+01	1.50E+01	

TestAmerica

RPD - Relative Percent Difference.

rptSTLRchSaSummary2 V5.2 A2002

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

Sample Results Summary

Date: 10-Nov-08

TestAmerica TARL

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

Report No. : 40143

SDG No: W05523

Batch	Client Id Work Order	Parameter	Result +/- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
8273376	TC99_SEP_LSC								
	B1TRR9 DUP								
	KXN701AV TC-99		2.91E+00 +/- 6.24E+00	U	pCi/L	100%	1.02E+01	1.50E+01	882.1
8273377	UTOT_KPA								
	B1TRR9								
	KXN701AD TOTAL-URANIUM		4.30E-01 +/- 4.40E-02		pCi/L		5.62E-02	1.40E-01	
	B1TRR9 DUP								
	KXN701AX TOTAL-URANIUM		4.13E-01 +/- 4.24E-02		pCi/L		5.62E-02	1.40E-01	
8273378	906.0_H3_LSC								
	B1TRR9								
	KXN701AA H-3		-2.11E+01 +/- 1.15E+02	U	pCi/L	100%	2.53E+02	4.00E+02	
	B1TRR9 DUP								
	KXN701A1 H-3		7.20E+01 +/- 1.20E+02	U	pCi/L	100%	2.53E+02	4.00E+02	365.3
	No. of Results: 23								

TestAmerica

RPD - Relative Percent Difference.

rptSTLRchSaSummary2 V5.2 A2002

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: 10-Nov-08

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 40143

SDG No.: W05523

Batch	Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC MDA
KOXW									
8273372	BLANK QC,								
	KXTAQ1AA	NP-237	0.00E+00 +- 1.40E-01	U	pCi/L	68%			3.29E-01
8273372	LCS,								
	KXTAQ2AC	NP-237	1.00E+01 +- 2.28E+00		pCi/L	65%	109%	0.1	3.16E-01
SRTOT_SEP_PRECIP_GPC									
8273375	BLANK QC,								
	KXTAV1AA	STRONTIUM	2.84E-02 +- 4.19E-01	U	pCi/L	97%			9.32E-01
8273375	LCS,								
	KXTAV1AC	STRONTIUM	2.65E+01 +- 6.99E+00		pCi/L	97%	110%	0.1	8.94E-01
UIISO_PLATE_AEA									
8273371	BLANK QC,								
	KXTAP1AA	U-234	-6.09E-03 +- 6.21E-02	U	pCi/L	102%			1.46E-01
		U-235	0.00E+00 +- 6.21E-02	U	pCi/L	102%			1.46E-01
		U-238	1.22E-02 +- 6.44E-02	U	pCi/L	102%			1.92E-01
8273371	LCS,								
	KXTAP1AC	U-234	8.11E+00 +- 1.71E+00		pCi/L	101%	91%	-0.1	1.41E-01
		U-238	9.22E+00 +- 1.90E+00		pCi/L	101%	99%	0.0	1.98E-01
I129_SEP_LEPS_GS									
8273379	BLANK QC,								
	KXTA21AA	I-129L	9.85E-03 +- 1.24E-01	U	pCi/L	100%			2.33E-01
8273379	LCS,								
	KXTA21AC	I-129L	1.03E+01 +- 1.27E+00		pCi/L	101%	106%	0.1	3.81E-01
9310_ALPHABETA_GPC									
8273368	BLANK QC,								
	KXTAK1AA	ALPHA	2.39E-01 +- 4.10E-01	U	pCi/L	100%			8.57E-01
8273368	LCS,								
	KXTAK1AC	ALPHA	1.99E+01 +- 5.00E+00		pCi/L	100%	87%	-0.1	9.54E-01
BETA_GPC									
8273369	BLANK QC,								
	KXTAM1AA	BETA	3.38E+00 +- 1.53E+00		pCi/L	100%			2.74E+00
8273369	LCS,								
	KXTAM1AC	BETA	2.15E+01 +- 3.55E+00		pCi/L	100%	94%	-0.1	2.34E+00
RICHRC5043									
8273373	BLANK QC,								
	KXTAR1AA	Se-79	2.54E+00 +- 1.07E+01	U	pCi/L	55%			6.53E+00
TC99_SEP_LSC									
8273376	MATRIX SPIKE, B1TRR9								
	KXN701AU	TC-99	3.14E+03 +- 1.93E+02		pCi/L	100%	85%	-0.1	1.03E+01
8273376	BLANK QC,								
	KXTAW1AA	TC-99	-1.12E+00 +- 6.00E+00	U	pCi/L	100%			1.02E+01
8273376	LCS,								
	KXTAW1AC	TC-99	4.17E+02 +- 3.06E+01		pCi/L	100%	76%	-0.2	1.02E+01

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

rptSTLRchQcSummary V5.2 A2002 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: 10-Nov-08

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 40143

SDG No.: W05523

Batch	Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC MDA
UTOT_KPA									
6273377	MATRIX SPIKE, B1TRR9								
	KXN701AW	TOTAL-URANIUM	2.40E+01 +- 2.90E+00		pCi/L		101%	0.0	5.62E-02
6273377	BLANK QC,								
	KXTA01AA	TOTAL-URANIUM	1.89E-03 +- 3.71E-04	U	pCi/L				5.62E-02
6273377	LCS,								
	KXTA01AC	TOTAL-URANIUM	2.48E+01 +- 2.93E+00		pCi/L		103%	0.0	5.62E-02
	KXTA01AD	TOTAL-URANIUM	2.53E+00 +- 2.59E-01		pCi/L		102%	0.0	5.62E-02
906.0_H3_LSC									
6273378	BLANK QC,								
	KXTA11AA	H-3	1.12E+01 +- 1.17E+02	U	pCi/L	100%			2.53E+02
	KXTA11AD	H-3	3.60E+01 +- 1.20E+02	U	pCi/L	100%			2.62E+02
6273378	LCS,								
	KXTA11AE	H-3	2.12E+03 +- 2.10E+02		pCi/L	100%	78%	-0.2	2.63E+02
	KXTA11AC	H-3	2.08E+03 +- 2.05E+02		pCi/L	100%	77%	-0.2	2.52E+02
No. of Results:		27							

TestAmerica

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

rptSTLRchQcSummary V5.2 A2002

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.

FORM I
SAMPLE RESULTS

Date: 10-Nov-08

Lab Name: TestAmerica
Lot-Sample No.: J81260269-1
Client Sample ID: B1TRR9

SDG: W05523
Report No. : 40143
COC No. : F08-086-018

Collection Date: 9/24/2008 8:55:00 AM
Received Date: 9/24/2008 2:45:00 PM
Matrix: WATER

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
STRONTIUM	1.02E-01	U	4.5E-01	4.6E-01	9.95E-01	pCi/L	100%	0.1	10/28/08 02:13 p		0.5	GPC26
						4.74E-01		0.45			L	
ch: 8273376	TC99_SEP_LSC				Work Order: KXN701AC		Report DB ID: 9KXN7010					
TC-99	-1.83E+00	U	4.2E+00	6.0E+00	1.02E+01	pCi/L	100%	-0.18	10/29/08 10:19 p		0.125	LSC3
						4.89E+00	1.50E+01	-0.61			L	
ch: 8273377	UTOT_KPA				Work Order: KXN701AD		Report DB ID: 9KXN7010					
TOTAL-URANIUM	4.30E-01			4.4E-02	5.62E-02	pCi/L		(7.7)	10/29/08 03:17 p		0.025	KPAW
						1.99E-02	1.40E-01	(19.5)			ML	
ch: 8273378	906.0_H3_LSC				Work Order: KXN701AA		Report DB ID: 9KXN7010					
H-3	-2.11E+01	U	1.0E+02	1.2E+02	2.53E+02	pCi/L	100%	-0.08	10/8/08 08:54 p		0.005	LSC8
						1.21E+02	4.00E+02	-0.36			L	
ch: 8273379	I129_SEP_LEPS_GS				Work Order: KXN701AE		Report DB ID: 9KXN7010					
I-129L	3.06E-02	U	0.0E+00	1.6E-01	3.12E-01	pCi/L	104%	0.1	10/28/08 02:27 p		2.8401	LCP25
						1.64E-01		0.37			L	

lo. of Results: 12 Comments:

America MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
TLRchSample 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.
A2002

FORM II

Date: 10-Nov-08

DUPLICATE RESULTS

Lab Name: TestAmerica
 Lot-Sample No.: J81260269-1
 Client Sample ID: B1TRR9 DUP

SDG: W05523
 Report No.: 40143
 COC No.: F08-086-018

Collection Date: 9/24/2008 8:55:00 AM
 Received Date: 9/24/2008 2:45:00 PM
 Matrix: WATER

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
Se-79	1.99E-01	U	2.1E+00	8.1E+00	5.01E+00	pCi/L	72%	0.04	11/1/08 10:39 p		0.2	LSC6
	6.60E-02	U	RPD	100.5		3.00E+01		0.05			L	
ch: 8273375	SRTOT_SEP_PRECIP_GPC		Work Order: KXN701AT		Report DB ID: KXN701TR		Orig Sa DB ID: 9KXN7010					
STRONTIUM	1.66E-01	U	4.2E-01	4.3E-01	9.18E-01	pCi/L	100%	0.18	10/28/08 02:13 p		0.5	GPC26B
	1.02E-01	U	RPD	47.6				0.78			L	
ch: 8273376	TC99_SEP_LSC		Work Order: KXN701AV		Report DB ID: KXN701VR		Orig Sa DB ID: 9KXN7010					
TC-99	2.91E+00	U	4.3E+00	6.2E+00	1.02E+01	pCi/L	100%	0.28	10/30/08 12:25 a		0.125	LSC3
	-1.83E+00	U	RPD	882.1		1.50E+01		0.93			L	
ch: 8273377	UTOT_KPA		Work Order: KXN701AX		Report DB ID: KXN701XR		Orig Sa DB ID: 9KXN7010					
TOTAL-URANIUM	4.13E-01			4.2E-02	5.62E-02	pCi/L		(7.3)	10/29/08 03:22 p		0.025	KPAW3
	4.30E-01		RPD	4.2		1.40E-01		(19.5)			ML	
ch: 8273378	906.0_H3_LSC		Work Order: KXN701A1		Report DB ID: KXN7011R		Orig Sa DB ID: 9KXN7010					
H-3	7.20E+01	U	1.1E+02	1.2E+02	2.53E+02	pCi/L	100%	0.28	10/8/08 10:16 p		0.005	LSC8
	-2.11E+01	U	RPD	365.3		4.00E+02		(1.2)			L	

o. of Results: 11 Comments:

America RPD - Relative Percent Difference.

TLRchDupV5.2 MDC|MDA,Le - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

02 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.

FORM II
BLANK RESULTS

Date: 10-Nov-08

Lab Name: TestAmerica
Matrix: WATER

SDG: W05523
Report No. : 40143

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
ch: 8273371	UIISO_PLATE_AEA				Work Order: KXTAP1AA		Report DB ID: KXTAP1AB					
U-234	-6.09E-03	U	6.2E-02	6.2E-02	1.46E-01	pCi/L	102%	-0.04	10/28/08 08:23 p		0.2	ALP7
					3.17E-02	1.00E+00		-0.2			L	
U-235	0.00E+00	U	0.0E+00	6.2E-02	1.46E-01	pCi/L	102%	0.	10/28/08 08:23 p		0.2	ALP7
					3.17E-02	1.00E+00		0.			L	
U-238	1.22E-02	U	6.4E-02	6.4E-02	1.92E-01	pCi/L	102%	0.06	10/28/08 08:23 p		0.2	ALP7
					5.48E-02	1.00E+00		0.38			L	
<i>Ratio U-234/238 = -0.5</i>												
ch: 8273376	TC99_SEP_LSC				Work Order: KXTAW1AA		Report DB ID: KXTAW1AB					
TC-99	-1.12E+00	U	4.2E+00	6.0E+00	1.02E+01	pCi/L	100%	-0.11	10/30/08 01:27 a		0.1251	LSC3
					4.89E+00			-0.37			L	
ch: 8273378	906.0_H3_LSC				Work Order: KXTA11AA		Report DB ID: KXTA11AB					
H-3	1.12E+01	U	1.0E+02	1.2E+02	2.53E+02	pCi/L	100%	0.04	10/8/08 06:11 p		0.005	LSC8
					1.20E+02	4.00E+02		0.19			L	
ch: 8273378	906.0_H3_LSC				Work Order: KXTA11AD		Report DB ID: KXTA11DX					
H-3	3.60E+01	U	1.1E+02	1.2E+02	2.62E+02	pCi/L	100%	0.14	10/8/08 11:39 p		0.005	LSC8
					1.25E+02	4.00E+02		0.6			L	
ch: 8273368	9310_ALPHABETA_GPC				Work Order: KXTAK1AA		Report DB ID: KXTAK1AB					
ALPHA	2.39E-01	U	4.1E-01	4.1E-01	8.57E-01	pCi/L	100%	0.28	10/27/08 08:15 p		0.2	GPC10C
					2.94E-01	3.00E+00		(1.2)			L	
ch: 8273369	BETA_GPC				Work Order: KXTAM1AA		Report DB ID: KXTAM1AB					
BETA	3.38E+00		1.5E+00	1.5E+00	2.74E+00	pCi/L	100%	(1.2)	10/27/08 09:19 p		0.2001	GPC27C
					1.31E+00	4.00E+00		(4.4)			L	

TestAmerica MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 L|RchBlank 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.
 A2002

FORM II
BLANK RESULTS

Date: 10-Nov-08

Lab Name: TestAmerica

SDG: W05523

Matrix: WATER

Report No. : 40143

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	Allquot Size	Primary Detector
ch: 8273379 I-129L	I129_SEP_LEPS_GS 9.85E-03	U	0.0E+00	1.2E-01	2.33E-01 1.18E-01	pCi/L	100%	0.04 0.16	10/28/08 04:11 p		3.9793 L	LEP2\$1
Work Order: KXTA21AA	Report DB ID: KXTA21AB											
ch: 8273375 STRONTIUM	SRTOT_SEP_PRECIP_GPC 2.84E-02	U	4.2E-01	4.2E-01	9.32E-01 4.42E-01	pCi/L	97%	0.03 0.14	10/28/08 02:13 p		0.5 L	GPC26C
Work Order: KXTAV1AA	Report DB ID: KXTAV1AB											
ch: 8273373 Se-79	RICHRC5043 2.54E+00	U	2.8E+00	1.1E+01	6.53E+00 3.21E+00	pCi/L	55%	0.39 0.47	11/2/08 01:02 a		0.2 L	LSC6
Work Order: KXTAR1AA	Report DB ID: KXTAR1AB											
ch: 8273377 TOTAL-URANIUM	UTOT_KPA 1.89E-03	U		3.7E-04	5.62E-02 1.99E-02	pCi/L		0.03 (10.2)	10/29/08 03:09 p		0.025 ML	KPAW3
Work Order: KXTA01AA	Report DB ID: KXTA01AB											
ch: 8273372 NP-237	KOXW 0.00E+00	U	0.0E+00	1.4E-01	3.29E-01 7.16E-02	pCi/L	68%	0. 0.	10/29/08 06:16 p		0.1999 L	ALP127
Work Order: KXTAQ1AA	Report DB ID: KXTAQ1AB											
o. of Results: 13			Comments:									

America MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 FLRchBlank A2002 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.

FORM II
LCS RESULTS

Date: 10-Nov-08

Lab Name: TestAmerica

SDG: W05523

Matrix: WATER

Report No. : 40143

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
ch: 8273371	UIISO_PLATE_AEA												
						Work Order: KXTAP1AC							
U-234	8.11E+00		1.1E+00	1.7E+00	1.41E-01	pCi/L	101%	8.88E+00	5.85E-02	91%	10/28/08 08:24 p	0.2001	ALP84
							Rec Limits:	75	125	-0.1		L	
U-238	9.22E+00		1.1E+00	1.9E+00	1.98E-01	pCi/L	101%	9.30E+00	6.13E-02	99%	10/28/08 08:24 p	0.2001	ALP84
							Rec Limits:	75	125	0.0		L	
ch: 8273376	TC99_SEP_LSC					Work Order: KXTAW1AC							
TC-99	4.17E+02		1.2E+01	3.1E+01	1.02E+01	pCi/L	100%	5.46E+02	5.74E+00	76%	10/30/08 02:30 a	0.125	LSC3
							Rec Limits:	70	130	-0.2		L	
ch: 8273378	906.0_H3_LSC					Work Order: KXTA11AC							
H-3	2.08E+03		1.7E+02	2.0E+02	2.52E+02	pCi/L	100%	2.71E+03	8.13E+01	77%	10/8/08 07:32 p	0.005	LSC8
							Rec Limits:	70	130	-0.2		L	
ch: 8273378	906.0_H3_LSC					Work Order: KXTA11AE							
H-3	2.12E+03		1.7E+02	2.1E+02	2.63E+02	pCi/L	100%	2.71E+03	8.13E+01	78%	10/9/08 01:01 a	0.005	LSC8
							Rec Limits:	70	130	-0.2		L	
ch: 8273368	9310_ALPHABETA_GPC					Work Order: KXTAK1AC							
ALPHA	1.99E+01		2.9E+00	5.0E+00	9.54E-01	pCi/L	100%	2.30E+01	7.53E-01	87%	10/27/08 08:15 p	0.2	GPC10D
							Rec Limits:	70	130	-0.1		L	
ch: 8273369	BETA_GPC					Work Order: KXTAM1AC							
BETA	2.15E+01		2.3E+00	3.5E+00	2.34E+00	pCi/L	100%	2.29E+01	2.99E-01	94%	10/27/08 09:19 p	0.2	GPC27A
							Rec Limits:	70	130	-0.1		L	
ch: 8273379	I129_SEP_LEPS_GS					Work Order: KXTA21AC							
I-129L	1.03E+01		0.0E+00	1.3E+00	3.81E-01	pCi/L	101%	9.71E+00	3.15E-01	106%	10/28/08 06:05 p	3.979	LEP2\$1
							Rec Limits:	70	130	0.1		L	

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

LRchLcs
A2002

FORM II
LCS RESULTS

Date: 10-Nov-08

Lab Name: TestAmerica
Matrix: WATER

SDG: W05523
Report No. : 40143

Parameter	Result	Count Qual	Error (2 s)	Total Uncert(2 s)	MDC MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
ch: 8273375	SRTOT_SEP_PRECIP_GPC					Work Order: KXTAV1AC			Report DB ID: KXTAV1CS				
STRONTIUM	2.65E+01		1.4E+00	7.0E+00	8.94E-01	pCi/L	97%	2.41E+01	4.75E-01	110%	10/28/08 02:13 p	0.5	GPC26D
							Rec Limits:	75	125	0.1		L	
ch: 8273377	UTOT_KPA					Work Order: KXTA01AC			Report DB ID: KXTA01CS				
TOTAL-URANIUM	2.48E+01			2.9E+00	5.62E-02	pCi/L		2.41E+01	7.44E-01	103%	10/29/08 03:14 p	0.025	KPAW3
							Rec Limits:	75	125	0.0		ML	
ch: 8273377	UTOT_KPA					Work Order: KXTA01AD			Report DB ID: KXTA01DS				
TOTAL-URANIUM	2.53E+00			2.6E-01	5.62E-02	pCi/L		2.48E+00	1.93E-02	102%	10/29/08 03:16 p	0.025	KPAW3
							Rec Limits:	75	125	0.0		ML	
ch: 8273372	KOXW					Work Order: KXTAQ2AC			Report DB ID: KXTAQ2CS				
NP-237	1.00E+01		1.5E+00	2.3E+00	3.16E-01	pCi/L	65%	9.21E+00	2.76E-01	109%	10/31/08 03:13 p	0.2001	ALP121
							Rec Limits:	70	130	0.1		L	

o. of Results: 12 Comments:

merica Bias - (Result/Expected)-1 as defined by ANSI N13.30.
LRchlcs
A2002

FORM II

Date: 10-Nov-08

MATRIX SPIKE RESULTS

Lab Name: TestAmerica

SDG: W05523

Lot-Sample No.: J8I260269-1, B1TRR9

Report No.: 40143

Matrix: WATER

Parameter	SpikeResult, Orig Rst	Count Error (2 s)	Total Uncert(2 s)	MDC MDA	Rpt Unit, CRDL	Yield	Rec- overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 8273376	Work Order: KXN701AU		Report DB ID: KXN701UW		Orig Sa DB ID: 9KXN7010						
TC-99	3.14E+03 -1.83E+00	3.1E+01	1.9E+02	1.03E+01	pCi/L	100%	85.35%	3.68E+03 2.16E+01	10/29/08 11:22 p	0.125 L	TC99_SEP_LSC LSC3
Batch: 8273377	Work Order: KXN701AW		Report DB ID: KXN701WW		Orig Sa DB ID: 9KXN7010						
DAL-URANIUM	2.40E+01 4.30E-01		2.9E+00	5.62E-02	pCi/L		100.52%	2.39E+01 7.39E-01	10/29/08 03:20 p	0.025 ML	UTOT_KPA KPAW3

Number of Results: 2

Comments:

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

TestAmerica V5.2 Bias - (Result/Expected)-1 as defined by ANSI N13.30.

2

Lot No., Due Date: **J81260269; 11/10/2008**
 Client, Site: **108302; FLH HANFORD**
 QC Batch No., Method Test: **8273371; RUIISO Uiso by ALP**
 SDG, Matrix: **W05523; WATER**

1.0 COC

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

✓

2.0 QC Batch

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

✓

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

✓

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

✓

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

✓

3.0 QC & Samples

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

✓

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

✓

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

✓

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

✓

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

✓

4.0 Raw Data

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

✓

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

✓

4.3 Were Yields entered correctly? Yes No N/A

✓

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

✓

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

✓

5.0 Other

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

✓

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

✓

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

✓

5.4 Was transcription checked? Yes No N/A

✓

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

✓

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

✓

6.0 Comments on any No response:

First Level Review

[Signature]

Date

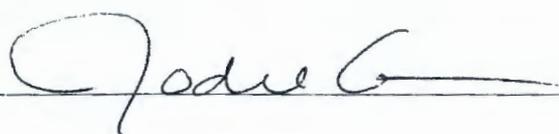
10-31-8

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8273371

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:  Date: 11/3/08

Lot No., Due Date: J81260269; 11/10/2008
 Client Site: 108302; FLH HANFORD
 QC Batch No., Method Test: 8273372; RNP237 Np-237 w/tracer
 SDG, Matrix: W05523; WATER

1.0 COC

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

Yes No N/A

2.0 QC Batch

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

3.0 QC & Samples

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

4.0 Raw Data

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

Yes No N/A

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

Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes No N/A

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

Yes No N/A

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

Yes No N/A

5.0 Other

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

5.4 Was transcription checked? Yes No N/A

Yes No N/A

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

Yes No N/A

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

Yes No N/A

6.0 Comments on any No response:

Please see NCM # 10-13246

First Level Review

[Handwritten Signature]

Date

11-3-08

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8273372

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: Jodie G Date: 11/4/08

Clouseau Nonconformance Memo



NCM #: 10-13246 NCM Initiated By: John Norton Date Opened: 11/03/2008 Date Closed:	Classification: Anomaly Status: CHREVIEW Production Area: Counting Tests: Np-237 w/tracer Lot #'s (Sample #'s): J81260269 (1), J31290000 (372), QC Batches: 8273372,
Nonconformance: LCS result out of limits Subcategory: Analyte was recovered high in the LCS	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	11/03/2008	The LCS yield was high at 132%.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	11/03/2008	The LCS was re-counted for an acceptable yield of 109%.

Client Notification Summary

<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>
			<u>Response</u>		<u>Response Note</u>

Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
			This section not yet completed by QA.

Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>
----------------------	--------------------	-----------------

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8273368

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: Jodie

Date: 10/29/08

Lot No., Due Date: J81260269; 11/10/2008
 Client, Site: 108302; FLH HANFORD
 QC Batch No., Method Test: 8273369; RBETA-SR Beta by GPC-Sr/Y
 SDG, Matrix: W05523; WATER

1.0 COC

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

✓

2.0 QC Batch

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

✓

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

✓

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

✓

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

✓

3.0 QC & Samples

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

✓

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

✓

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

✓

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

✓

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

✓

4.0 Raw Data

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

✓

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

✓

4.3 Were Yields entered correctly? Yes No N/A

✓

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

✓

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

✓

5.0 Other

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

✓

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

✓

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

✓

5.4 Was transcription checked? Yes No N/A

✓

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

✓

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

✓

6.0 Comments on any No response:

First Level Review *[Signature]*

Date 10-28-8

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 8273369

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: Jodice Date: 10/29/08

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8273375

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: Jodie G

Date: 11/3/08

Lot No., Due Date: J81260269; 11/10/2008
Client, Site: 108302; FLH HANFORD
QC Batch No., Method Test: 8273379; RGAMLEPS Gamma by LEPS
SDG, Matrix: W05523; WATER

1.0 COC

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

Yes No N/A

2.0 QC Batch

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

3.0 QC & Samples

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

4.0 Raw Data

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

Yes No N/A

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

Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes No N/A

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

Yes No N/A

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

Yes No N/A

5.0 Other

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

5.4 Was transcription checked? Yes No N/A

Yes No N/A

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

Yes No N/A

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

Yes No N/A

6.0 Comments on any No response:

First Level Review

Thomas E. Williams

Date

10/31/08

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8273379

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: Jodie G Date: 11/3/08

Lot No., Due Date: J81260269; 11/10/2008
Client, Site: 108302; FLH HANFORD
QC Batch No., Method Test: 8273373; RSE79 Se-79 by LSC
SDG, Matrix: W05523; WATER

1.0 COC

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

Yes No N/A

2.0 QC Batch

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

3.0 QC & Samples

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

4.0 Raw Data

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

Yes No N/A

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

Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes No N/A

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

Yes No N/A

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

Yes No N/A

5.0 Other

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

Yes No N/A

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

Yes No N/A

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

Yes No N/A

5.4 Was transcription checked? Yes No N/A

Yes No N/A

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

Yes No N/A

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

Yes No N/A

6.0 Comments on any No response:

First Level Review Thomas E. Wheland Date 11/3/08

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 8273373

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: Jodie A Date: 11/4/08

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8273376

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: Jodie Date: 11/3/08

Lot No., Due Date: J81260269; 11/10/2008
Client, Site: 108302; FLH HANFORD
QC Batch No., Method Test: 8273378; RTRITIUM H-3 by LSC
SDG, Matrix: W05523; WATER

1.0 COC

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

2.0 QC Batch

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

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

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

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

3.0 QC & Samples

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

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

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

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

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

4.0 Raw Data

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

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

4.3 Were Yields entered correctly? Yes No N/A

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

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

5.0 Other

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

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

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

5.4 Was transcription checked? Yes No N/A

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

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

6.0 Comments on any No response:

First Level Review

[Signature]

Date

10-22-8

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 827 3378

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: *Quho Jrd* Date: 10/22/8

Lot No., Due Date: J8I260269; 11/10/2008
Client, Site: 108302; FLH HANFORD
QC Batch No., Method Test: 8273377; RUNAT UNat by KPA
SDG, Matrix: W05523; WATER

1.0 COC

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

✓

2.0 QC Batch

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

✓

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

✓

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

✓

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

✓

3.0 QC & Samples

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

✓

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

✓

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

✓

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

✓

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

✓

4.0 Raw Data

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

✓

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

✓

4.3 Were Yields entered correctly? Yes No N/A

✓

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

✓

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

✓

5.0 Other

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

✓

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

✓

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

✓

5.4 Was transcription checked? Yes No N/A

✓

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

✓

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

✓

6.0 Comments on any No response:

First Level Review

Joh. H. Hester

Date 10-31-08

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8273377

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: Jodie C Date: 11/3/08

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-086-018

PAGE 1 OF 1

LECTOR *M. White L. Rosane*

COMPANY CONTACT
Trent, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
WIDRIG, DL

PRICE CODE 7N

DATA
TURNAROUND
45 Days / 45
Days

PLING LOCATION

6356-S

CHEST NO.

EW-14

PROJECT DESIGNATION

Aquifer Tube Installation Sampling and Analysis in the 200-PO-1 OU (Shore)

SAF NO.
F08-086

AIR QUALITY

FIELD LOGBOOK NO.

ANF-IV-451-3

ACTUAL SAMPLE DEPTH

N/A

COA

122588E10

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

PPED TO

America Incorporated, Richland

OFFSITE PROPERTY NO.

N/A

BILL OF LADING/AIR BILL NO.

N/A

MATRIX*

POSSIBLE SAMPLE HAZARDS/ REMARKS

Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

Matrix*
Drum
Drum
Liquid
Solid
Sediment
Sludge
Spillage
Water
Mud
Other

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2	HNO3 to pH <2	HNO3 to pH <2	HNO3 to pH <2	HNO3 to pH <2	HCl to pH <2	HNO3 to pH <2	None	None	None	
TYPE OF CONTAINER	G/P	G/P	G/P	G/P	G/P	G/P	G/P	P	G/P	P	
NO. OF CONTAINER(S)	1	1	1	2	3	3	1	1	3	1	
VOLUME	1000mL	1000mL	1000mL	1000mL	1000mL	1000mL	500mL	1000mL	1000mL	20mL	
SAMPLE ANALYSIS	Gross Alpha; Gross Beta;	Isotopic Uranium (Uranium-233/234, Uranium-238)	Neptunium-237;	Selenium-79;	Strontium-89,90 -- Total Sr;	Technetium-99;	Total Uranium;	Tritium - H3;	Iodine-129;	Activity Scan;	
SAMPLE NO.	3R9	MATRIX*	WATER	SAMPLE DATE	9/24/08	SAMPLE TIME	0855	031851	031851	031851	N/A
					X	X	X	X	X	X	X

KXM70

IN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

ACQUIRED BY/REMOVED FROM

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

RECEIVED BY/ STORED IN

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

*J8I260269
W05523
DUE 1107.08*

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE POSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME



Sample Check-in List

Date/Time Received: 92408 1445 GM Screen Result 0.1K

Client: FLH SDG #: 1205523 NA [] SAF #: F08-086 NA []

Work Order Number: J8I260269 Chain of Custody # F08-086-018

Shipping Container ID: N/A Air Bill # N/A

- 1. Custody Seals on shipping container intact? NA [] Yes No []
- 2. Custody Seals dated and signed? NA [] Yes No []
- 3. Chain of Custody record present? 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 Labels
 Appropriate Sample Labels
- 9. Samples are:
 In Good Condition
____ Broken
____ Leaking
____ Have Air Bubbles
(Only for samples requiring no head space.)
- 10. Sample pH taken? NA [] pH<2 pH>2 pH>9 [] Amount HNO₃ Added _____
- 11. Sample Location, Sample Collector Listed? *
*For documentation 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: 92408

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____

7/22/2008 9:27:36 AM

Sample Preparation/Analysis

Balance Id:1120482733

8302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

7Y Ulso PrpRC5016/5086, SepRC5067(5039)
SR Uranium-234,235,238 by Alpha Spec
SI CLIENT: HANFORD

Pipet #: _____

alyDueDate: 11/07/2008 *W05523*

Sep1 DT/Tm Tech:

itch: 8273371 WATER pCi/L PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

Q Batch, Test: None

Prep Tech: ,LaneL

ork 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:
XCN70-1-AK			200.00g,in	200.00g	UITC20175					
260269-1-SAMP					08/28/08,pd 06/15/01,r					
										
24/2008 08:55			AmtRec: 20ML,500MLP,15XLP	#Containers: 17				Scr: Alpha: 1.75E-04 uCi/Sa	Beta: 7.95E-04 uCi/Sa	
XCN70-1-AP-X			199.90g,in	199.90g	UITC20176					
260269-1-DUP					08/28/08,pd 06/15/01,r					
										
24/2008 08:55			AmtRec: 20ML,500MLP,15XLP	#Containers: 17				Scr: Alpha: 1.75E-04 uCi/Sa	Beta: 7.95E-04 uCi/Sa	
XTAP-1-AA-B			200.00g,in	200.00g	UITC20177					
290000-371-BLK					08/28/08,pd 06/15/01,r					
										
24/2008 08:55			AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	
XTAP-1-AC-C			200.10g,in	200.10g	UISG1680					
290000-371-LCS					08/21/08,pd 06/15/01,r					
										
24/2008 08:55			AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	

200

omments: *PH < 2.0. FJK 102208*

Clients for Batch:
108302, CH2M Hill Plateau Remediation DOE RL Waste Management Federal Servi, SS , 29754

701AK-SAMP Constituent List:

-232	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	U-234	RDL:1	pCi/L	LCL:	UCL:	RPD:
-235	RDL:1	pCi/L	LCL:	UCL:	RPD:	U-238	RDL:1	pCi/L	LCL:	UCL:	RPD:
AP1AA-BLK:											
-232	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	U-234	RDL:1	pCi/L	LCL:	UCL:	RPD:
-235	RDL:1	pCi/L	LCL:	UCL:	RPD:	U-238	RDL:1	pCi/L	LCL:	UCL:	RPD:

TESTAMERICA RICHLAND

11/22/2008 9:27:37 AM

Sample Preparation/Analysis

Balance Id:1120482733

7Y Uiso PrpRC5016/5086, SepRC5067(5039)
 SR Uranium-234,235,238 by Alpha Spec
 5I CLIENT: HANFORD

Pipet #: _____

Final Due Date: 11/07/2008

Sep1 DT/Tm Tech: _____

Batch: 8273371 pCi/L

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

Prep Tech: ,LaneL



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:
------------------------------	-----------------	----------------------	--------------------------	-----------------------------	---------------------	----------------	-------------	------------------------------	-----------------------	-----------

701AK-LCS: 7-232 RDL: pCi/L LCL:20 UCL:105 RPD:20 Uranium RDL: pCi/L LCL:70 UCL:130 RPD:20

701AK-SAMP Calc Info:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
 701AA-BLK:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
 701AC-LCS:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 11/1/2007, 11/5/2008, Batch: '8273371', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8273371				
AC	Rev1C	LaneL	10/22/2008 9:20:14	
SC		wagarr	IsBatched 9/29/2008 1:49:08 PM	ICOC_RADCALC v4 8.34
SC		LaneL	InPrep 10/22/2008 9:20:14 AM	RL-PRP-004 REVISION 0
SC		LaneL	Prep1C 10/22/2008 9:26:42 AM	RL-PRP-004 REVISION 0
SC		AshworthA	Prep2C 10/24/2008 7:22:37 PM	PRP-010 REVISION 0
SC		AshworthA	Sep2C 10/28/2008 1:34:14 PM	ALP-015 REVISION 0
SC		ClarkR	InCnt1 10/28/2008 1:43:07 PM	RL-CI-008 REVISION 0
SC		ClarkR	InCnt1 10/28/2008 1:56:53 PM	RL-CI-008 REVISION 0
SC		ClarkR	CalcC 10/29/2008 11:35:38 AM	RL-CI-008 REVISION 0
SC		nortonj	Rev1C 10/31/2008 3:07:45 PM	RL-DR-001 REV 0
AC		LaneL	10/22/2008 9:26:42	
AC		AshworthA	10/24/2008 7:22:37	
AC		AshworthA	10/28/2008 1:34:14	
AC		ClarkR	10/28/2008 1:43:07	
AC		ClarkR	10/28/2008 1:56:53	
AC		ClarkR	10/29/2008 11:35:38	
AC		nortonj	10/31/2008 3:07:45	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Grp Rec Cnt:8

11/22/2008 9:41:30 AM

Sample Preparation/Analysis

Balance Id:1120482733

108302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

KO Np-237 PrpRC5086, SepRC5064(5003)
XW Neptunium-237 with tracer by alpha spec
SI CLIENT: HANFORD

Pipel #: 10-25-08 12:14:50 p1

analyDueDate: 11/07/2008 **W05523**

Sep1 DT/Tm Tech:

Batch: 8273372 WATER pCi/L

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

QC Batch, Test: None

Prep Tech: ,LaneL



Work Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
CXN70-1-AL			199.90g,in	199.90g	NPTA7207							
260269-1-SAMP					10/10/08,pd							
11/24/2008 08:55			AmtRec: 20ML,500MLP,15XLP		09/17/08,r							
												200
												Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa
CXN70-1-AQ-X			200.00g,in	200.00g	NPTA7208							
260269-1-DUP					10/10/08,pd							
11/24/2008 08:55			AmtRec: 20ML,500MLP,15XLP		09/17/08,r							
												Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa
CXTAQ-1-AA-B			199.90g,in	199.90g	NPTA7209							
290000-372-BLK					10/10/08,pd							
11/24/2008 08:55			AmtRec:		09/17/08,r							
												#Containers: 1
												Scr: Alpha: Beta:
CXTAQ-1-AC-C			200.10g,in	200.10g	NPSE0490							
290000-372-LCS					08/25/08,pd							
11/24/2008 08:55			AmtRec:		06/01/01,r							
												#Containers: 1
												Scr: Alpha: Beta:

Comments: PH < 2.0, RFR 102208

Clients for Batch:

108302, CH2M Hill Plateau Remediation DOE RL Waste Management Federal Servi, SS , 29754

701AL-SAMP Constituent List:

p-237 RDL:1 pCi/L LCL: UCL: RPD:
 AQ1AA-BLK:
 p-237 RDL:1 pCi/L LCL: UCL: RPD:
 AQ1AC-LCS:

701AL-SAMP Calc Info:

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
 Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 4
 Prep_SamplePrep v4.8.1

11/22/2008 9:41:31 AM

Sample Preparation/Analysis

Balance Id:1120482733

KO Np-237 PrpRC5086, SepRC5064(5003)
 XW Neptunium-237 with tracer by alpha spec
 5I CLIENT: HANFORD

Pipet #:

Analysis Due Date: 11/07/2008

Sep1 DT/Tm Tech:

Batch: 8273372

pCi/L

Sep2 DT/Tm Tech:

Batch, Test: None

Prep Tech: ,Lanel



Work Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N			Sci.Not.: Y				ODRs: B	
QA1AA-BLK:												
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N			Sci.Not.: Y				ODRs: B	
QA1AC-LCS:												
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N			Sci.Not.: Y				ODRs: B	

Approved By _____ Date: _____



RE-COUNT REQUEST

DUE DATE 11-7

CUSTOMER CH2M HILL

ANALYSIS NP-237

MATRIX H₂O

LOT NUMBER J82 260269

SAMPLE DELIVERY GROUP _____

OLD BATCH NUMBER 8273372

NEW BATCH NUMBER _____

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) <u>KXTAQacc</u>		<u>HIGH LCS</u>
2)		
3)		
4)		<u>PLEASE RE-COUNT</u>
5)		
6)		
7)		
8)		<u>B & A</u>
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

31/2008 11:58:36 AM

Sample Preparation/Analysis

Balance Id:1120482733

3302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

KO Np-237 PrpRC5086, SepRC5064(5003)
XW Neptunium-237 with tracer by alpha spec

Pipet #:

alyDueDate: 11/07/2008

SI CLIENT: HANFORD

Sep1 DT/Tm Tech: 10/28/2008 12:14,BarcotI

tch: 8273372 WATER pCi/L PM, Quote: SS, 29754

Q Batch, Test: None All Tests: 8273368 AZS7, 8273369 BCS8, 8273371 7YSR, 8273372 KOXW, 8273373 CYTM, 8273375 CGTH,
3376 AMS5, 8273377 DHSS, 8273378 ARS6, 8273379 BNTB,

Sep2 DT/Tm Tech:

Prep Tech: LaneL

Ork Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
XN70-1-AL :60269-1-SAMP 24/2008 08:55			199.90g,in	199.90g	NPTA7207 10/10/08,pd 09/17/08,r							
												
					AmtRec: 20ML,50MLP,15XLP	#Containers: 17			Scr:	Alpha: 1.75E-04 uCi/Sa	Beta: 7.95E-04 uCi/Sa	
XN70-1-AQ-X :60269-1-DUP 24/2008 08:55			200.00g,in	200.00g	NPTA7208 10/10/08,pd 09/17/08,r							
												
					AmtRec: 20ML,50MLP,15XLP	#Containers: 17			Scr:	Alpha: 1.75E-04 uCi/Sa	Beta: 7.95E-04 uCi/Sa	
XTAQ-1-AA-B 90000-372-BLK 24/2008 08:55			199.90g,in	199.90g	NPTA7209 10/10/08,pd 09/17/08,r							
												
					AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
KTAQ-1-AC-C 90000-372-LCS 24/2008 08:55			200.10g,in	200.10g	NPSE0490 08/25/08,pd 06/01/01,r							
												
					AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
90000-372-LCS 24/2008 08:55												
												
					AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	

200.1 NPSE 0490 200

Comments: KXN70-SAMP "Comments Reduced vol and no dup d/I ISV. LJI 102208"

Clients for Batch:

108302, CH2M Hill Plateau Remediation DOE RL

Waste Management Federal Servi, SS, 29754

01AL-SAMP Constituent List:

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 5

ICOC v4.8.3

TESTAMERICA RICHLAND

3/31/2008 11:58:36 AM

Sample Preparation/Analysis

Balance Id:

KO Np-237 PrpRC5086, SepRC5064(5003)
 XW Neptunium-237 with tracer by alpha spec
 5I CLIENT: HANFORD

Pipet #:

alyDueDate: 11/07/2008

Sep1 DT/Tm Tech:

tch: 8273372

pCi/L

Sep2 DT/Tm Tech:

Q Batch, Test: None

Prep Tech:

ork Ord, Lot, ample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
--------------------------	-----------------	----------------------	--------------------------	-----------------------------	---------------------	-----------	-----------------	----------------	-------------	------------------------------	-----------------------	-----------

p-237 RDL:1 pCi/L LCL: UCL: RPD:

AQ1AA-BLK:

p-237 RDL:1 pCi/L LCL: UCL: RPD:

AQ1AC-LCS:

AQ2AC-LCS:

701AL-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
AQ1AA-BLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
AQ1AC-LCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
AQ2AC-LCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 11/4/2007, 11/8/2008, Batch: '8273372', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8273372				
AC	Rev1C	LaneL	10/22/2008 9:34:07	
SC		wagarr	IsBatched	9/29/2008 1:49:08 PM
SC		LaneL	InPrep	10/22/2008 9:34:07 AM
SC		LaneL	Prep1C	10/22/2008 9:42:12 AM
SC		Barcott	InSep1	10/29/2008 1:55:34 PM
SC		Barcott	Sep1C	10/29/2008 1:55:46 PM
SC		Barcott	InSep2	10/29/2008 1:56:00 PM
SC		Barcott	Sep2C	10/29/2008 1:56:09 PM
SC		DAWKINSO	InCnt1	10/29/2008 7:58:08 PM
SC		DAWKINSO	CalcC	10/31/2008 12:22:29 AM
SC		BlackCL	CalcC	11/2/2008 1:10:29 PM
SC		nortonj	Rev1C	11/3/2008 2:13:36 PM
AC		LaneL	10/22/2008 9:42:12	
AC		Barcott	10/29/2008 1:55:34	
AC		Barcott	10/29/2008 1:55:46	
AC		Barcott	10/29/2008 1:56:00	
AC		Barcott	10/29/2008 1:56:09	
AC		DAWKINSO	10/29/2008 7:58:08	
AC		DAWKINSO	10/31/2008 12:22:29	
AC		BlackCL	11/2/2008 1:10:29 PM	
AC		nortonj	11/3/2008 2:13:36 PM	

AC: Accepting Entry; SC: Status Change
 TestAmerica Richland

Grp Rec Cnt: 10

7/23/2008 7:16:43 AM

Sample Preparation/Analysis

Balance Id:1120482733

8302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: 245

alyDueDate: 11/07/2008 W05523

Sep1 DT/Tm Tech:

itch: 8273368 WATER pCi/L PM, Quote: SS, 29754
Q Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: LaneL (Back)

Work Order, Lot, Sample Date/Time	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:
XN70-1-AG	178.60g,in			1.5						
260269-1-SAMP 24/2008 08:55					19.9	50	10F	2041	10/27/08/02	
AmtRec: 20ML,500MLP,15XLP #Containers: 17 Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa										
XN70-1-AM-X	178.60g,in									
260269-1-DUP 24/2008 08:55					19.4		10E			
AmtRec: 20ML,500MLP,15XLP #Containers: 17 Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa										
XTAK-1-AA-B	200.00g,in									
290000-368-BLK 24/2008 08:55					0.4		10C			
AmtRec: #Containers: 1 Scr: Alpha: Beta:										
XTAK-1-AC-C	200.00g,in		ASD4621							
290000-368-LCS 24/2008 08:55			10/13/08,pd 03/26/03		0.4		10D			
AmtRec: #Containers: 1 Scr: Alpha: Beta:										

omments: KXN70-SAMP "Comments Reduced vol and no dup d/t ISV. LJJ 102208"

PH < 2.0, REDUCED VOL D/T WT SCREEN. LJJ 102308

Clients for Batch:

108302, CH2M Hill Plateau Remediation DOE RL Waste Management Federal Servi, SS, 29754

701AG-SAMP Constituent List:

Constituent	RDL	pCi/L	LCL	UCL	RPD
LPFA	3				
AK1AA-BLK:					
LPFA	3				
AK1AC-LCS:					
m-241			70	130	20

11/23/2008 7:16:43 AM

Sample Preparation/Analysis

Balance Id:1120482733

AZ Gross Alpha PrpRC5014
 S7 Gross Alpha by GPC using Am-241 curve
 5I CLIENT: HANFORD

Pipet #: _____

Analysis Due Date: 11/07/2008

Sep1 DT/Tm Tech: _____

Batch: 8273368

pCi/L

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

Prep Tech: ,LaneL



Work Order, Lot, Sample Date/Time	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:
--------------------------------------	-------------------	-----------------------------	------------------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

701AG-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
AK1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
AK1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

10/28/2008 3:22:18 PM

ICOC Fraction Transfer/Status Report

ByDate: 10/29/2007, 11/2/2008, Batch: '8273368', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8273368				
AC	Rev1C	LaneL	10/23/2008 7:10:00	
SC		wagarr	IsBatched	9/29/2008 1:49:08 PM
SC		LaneL	InPrep	10/23/2008 7:10:00 AM
SC		LaneL	Prep1C	10/23/2008 7:17:00 AM
SC		BockJ	InPrep2	10/24/2008 8:04:36 AM
SC		BockJ	Prep2C	10/27/2008 5:13:12 PM
SC		DAWKINSO	CalcC	10/27/2008 11:06:50 PM
SC		nortonj	Rev1C	10/28/2008 3:22:12 PM
AC		LaneL	10/23/2008 7:17:00	ICOC_RADCALC v4.3.34
AC		BockJ	10/24/2008 8:04:36	RL-PRP-004 REVISION 0
AC		BockJ	10/27/2008 5:13:12	RL-PRP-004 REVISION 0
AC		DAWKINSO	10/27/2008 11:06:50	RL-GPC-001 REVISION 0
AC		nortonj	10/28/2008 3:22:12	RL-GPC-001 REVISION 0
				RL-CI-006 REVISION 0
				RL-DR-001 REV 8

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Grp Rec Cnt: 6

TESTAMERICA RICHLAND

1/23/2008 7:27:59 AM

Sample Preparation/Analysis

Balance Id:1120482733

18302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
SI CLIENT: HANFORD

Pipet #: 245

Initial Due Date: 11/07/2008 W05523

Sep1 DT/Tm Tech:

Batch: 8273369 WATER pCi/L

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

EQ Batch, Test: None

Prep Tech: LaneL/Buck



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On (24hr) Circle	Off	CR Analyst, Init/Date	Comments:
CXN70-1-AF 260269-1-SAMP 1/24/2008 08:55	200.00g,in			1.5		100	27B	2209		10/27/08 JLC	
<p>AmtRec: 20ML,500MLP,15XLP #Containers: 17 Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa</p>											
CXN70-1-AN-X 260269-1-DUP 1/24/2008 08:55	200.00g,in						27D				
<p>AmtRec: 20ML,500MLP,15XLP #Containers: 17 Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa</p>											
XTAM-1-AA-B 290000-369-BLK 1/24/2008 08:55	200.10g,in						27C				
<p>AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>											
XTAM-1-AC-C 290000-369-LCS 1/24/2008 08:55	200.00g,in		BESB3329 07/16/08,pd 07/11/08				27A				
<p>AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>											

Comments: KXN70-SAMP "Comments Reduced vol and no dup d/t ISV. LJL 102208"

PH < 2.0, RPR 102308

Clients for Batch:

108302, CH2M Hill Plateau Remediation DOE RL Waste Management Federal Servi, SS , 29754

701AF-SAMP Constituent List:

Constituent	RDL	pCi/L	LCL	UCL	RPD
ETA	4				
AM1AA-BLK:					
ETA	4				
AM1AC-LCS:					
r-90			70	130	20

10/23/2008 7:27:59 AM

Sample Preparation/Analysis

Balance Id:1120482733

BC Gross Beta PrpRC5014
 S8 Gross Beta by GPC using Sr/Y-90 curve
 SI CLIENT: HANFORD

Pipet #: _____

Analysis Due Date: 11/07/2008

Sep1 DT/Tm Tech: _____

Batch: 8273369

pCi/L

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

Prep Tech: ,LaneL



Work Order, Lot, Sample Date/Time	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:
W701AF-SAMP Calc Info:										
Uncert Level (#s): 2		Decay to SaDt: Y	Blk Subt.: N		Sci.Not.: Y	ODRs: B				
FAM1AA-BLK:										
Uncert Level (#s): 2		Decay to SaDt: Y	Blk Subt.: N		Sci.Not.: Y	ODRs: B				
FAM1AC-LCS:										
Uncert Level (#s): 2		Decay to SaDt: Y	Blk Subt.: N		Sci.Not.: Y	ODRs: B				

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 10/29/2007, 11/2/2008, Batch: '8273369', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8273369				
AC	Rev1C	LaneL	10/23/2008 7:21:05	
SC		wagarr	IsBatched	9/29/2008 1:49:08 PM
SC		LaneL	InPrep	10/23/2008 7:21:05 AM
SC		LaneL	Prep1C	10/23/2008 7:26:16 AM
SC		BockJ	InPrep2	10/24/2008 8:04:30 AM
SC		BockJ	Prep2C	10/27/2008 3:33:56 PM
SC		DAWKINSO	InCnt1	10/27/2008 3:58:54 PM
SC		ClarkR	CalcC	10/28/2008 10:28:25 AM
SC		nortonj	Rev1C	10/28/2008 3:25:58 PM
AC		LaneL	10/23/2008 7:26:16	ICOC RADCALC v4.8.34
AC		BockJ	10/24/2008 8:04:30	RL-PRP-004 REVISION 0
AC		BockJ	10/27/2008 3:33:56	RL-PRP-004 REVISION 0
AC		DAWKINSO	10/27/2008 3:58:54	RL-GPC-001 REVISION 0
AC		ClarkR	10/28/2008 10:28:25	RL-GPC-001 REVISION 0
AC		nortonj	10/28/2008 3:25:58	RL-CI-006 REVISION 0
				RL-DR-001 REV 8

AC: Accepting Entry, SC: Status Change
 TestAmerica Richland

Grp Rec Cnt: 7

10/23/2008 6:58:10 AM

Sample Preparation/Analysis

Balance Id:1120482733

8302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

CG Sr-Total Prp/SepRC5006
TH Total Strontium by GPC
SI CLIENT: HANFORD

Pipet #: _____

analyDueDate: 11/07/2008 *W05523*

Sep1 DT/Tm Tech: *10-27-08 1455 Du*

Batch: 8273375 WATER pCi/L PM, Quote: SS, 29754

Sep2 DT/Tm Tech: _____

Q Batch, Test: None All Tests: 8273368 AZS7, 8273369 BCS8, 8273371 7YSR, 8273372 KOXW, 8273373 CYTM, 8273375 CGTH, 73376 AMS5, 8273377 DHSS, 8273378 ARS6, 8273379 BNTB,

Prep Tech: LaneL

Work Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
XN70-1-AJ 260269-1-SAMP 10/24/2008 08:55	500.00g	in	500.00g		SRTA17944 09/17/08, pd 05/22/07, r				<i>26A</i>	<i>1500</i>	<i>LJL/10/22/08</i>	
<p>AmtRec: 20ML,500MLP,15XLP #Containers: 17</p> <p>Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa</p>												
XN70-1-AT-X 260269-1-DUP 10/24/2008 08:55	500.00g	in	500.00g		SRTA17945 09/17/08, pd 05/22/07, r				<i>21B</i>			
<p>AmtRec: 20ML,500MLP,15XLP #Containers: 17</p> <p>Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa</p>												
XTAV-1-AA-B 290000-375-BLK 10/24/2008 08:55	500.00g	in	500.00g		SRTA17946 09/17/08, pd 05/22/07, r				<i>26C</i>			
<p>AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p>												
XTAV-1-AC-C 290000-375-LCS 10/24/2008 08:55	500.00g	in	500.00g		STSC2054 10/10/08, pd 05/22/07, r				<i>26D</i>			
<p>AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p>												

Comments: KXN70-SAMP "Comments Reduced vol and no dup d/t ISV. LJL 102208"

PH < 2.0. RR 102308

Clients for Batch:

108302, CH2M Hill Plateau Remediation DOE RL Waste Management Federal Servi, SS, 29754

701AJ-SAMP Constituent List:

Cr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20
AV1AA-BLK:					
Cr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
AV1AC-LCS:					
Cr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

1/23/2008 6:58:11 AM

Sample Preparation/Analysis

Balance Id:1120482733

CG Sr-Total Prp/SepRC5006
 TH Total Strontium by GPC
 5I CLIENT: HANFORD

Pipet #: _____

alyDueDate: 11/07/2008

Sep1 DT/Tm Tech: *10.2708 1455*

itck: 8273375

pCi/L

Sep2 DT/Tm Tech: _____

Q Batch, Test: None

Prep Tech: ,LaneL



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

1701AJ-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
AV1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
AV1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 11/1/2007, 11/5/2008, Batch: '8273375', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8273375				
AC		Rev1C	LaneL	10/23/2008 6:48:01
SC			wagarr	IsBatched 9/29/2008 1:49:08 PM
SC			LaneL	InPrep 10/23/2008 6:48:01 AM
SC			LaneL	Prep1C 10/23/2008 6:58:47 AM
SC			McDowellD	Sep1C 10/28/2008 10:46:13 AM
SC			DAWKINSO	CalcC 10/29/2008 12:38:43 AM
SC			nortonj	Rev1C 10/31/2008 3:06:18 PM
AC			LaneL	10/23/2008 6:58:47
AC			McDowellD	10/28/2008 10:46:13
AC			DAWKINSO	10/29/2008 12:38:43
AC			nortonj	10/31/2008 3:06:18

ICOC_RADCALC v4.8.34
 RL-PRP-004 REVISION 0
 RL-PRP-004 REVISION 0
 RL-GPC-003 REVISION 0
 RL-CI-006 REVISION 0
 RL-DR-001 REV 8

CHM I129

12/22/2008 11:14:37 AM

Sample Preparation/Analysis

Balance Id:1120482733

8302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
SI CLIENT: HANFORD

Pipet #: _____

alyDueDate: 11/07/2008 *W05523*

Sep1 DT/Tm Tech: _____

atch: 8273379 WATER pCi/L PM, Quote: SS , 29754

Sep2 DT/Tm Tech: _____

Q Batch, Test: None

Prep Tech: LaneL

Work Order, Lot, Sample Date	Time	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:
XN70-1-AE			2840.10g.in	ITA7654							
260269-1-SAMP				09/15/08							
											
'24/2008 08:55			AmtRec: 20ML,500MLP,15XLP	#Containers: 17					Scr: Alpha: 1.75E-04 uCi/Sa	Beta: 7.95E-04 uCi/Sa	
XN70-1-A2-X											
260269-1-DUP											
											
'24/2008 08:55			AmtRec: 20ML,500MLP,15XLP	#Containers: 17					Scr: Alpha: 1.75E-04 uCi/Sa	Beta: 7.95E-04 uCi/Sa	
XTA2-1-AA-B			3979.30g.in	ITA7656							
290000-379-BLK				09/15/08							
											
'24/2008 08:55			AmtRec:	#Containers: 1					Scr: Alpha:	Beta:	
XTA2-1-AC-C			3979.00g.in	ISD0883							
290000-379-LCS				10/08/08							
											
'24/2008 08:55			AmtRec:	#Containers: 1					Scr: Alpha:	Beta:	

omments: KXN70-SAMP "Comments Reduced vol and no dup d/t ISV. LJL 102208"

Clients for Batch:

108302, CH2M Hill Plateau Remediation DOE RL Waste Management Federal Servi, SS , 29754

701AE-SAMP Constituent List:

-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20
A21AA-BLK:					
-129	RDL:5	pCi/L	LCL:	UCL:	RPD:
A21AC-LCS:					
-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

TESTAMERICA RICHLAND

11/22/2008 11:14:38 AM

Sample Preparation/Analysis

Balance Id:1120482733

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
SI CLIENT: HANFORD

Pipet #: _____

analyDueDate: 11/07/2008

Sep1 DT/Tm Tech: _____

Batch: 8273379

pCi/L

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

Prep Tech: ,LaneL



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:
-------------------------------------	-------------------	-----------------------------	------------------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

701AE-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
701AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
701AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 11/1/2007, 11/5/2008, Batch: '8273379', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8273379				
AC	Rev1C	LaneL	10/21/2008 2:47:29	
SC		wagarr	IsBatched 9/29/2008 1:49:08 PM	ICOC_RADCALC v4.8.34
SC		LaneL	InPrep 10/21/2008 2:47:29 PM	RL-PRP-004 REVISION 0
SC		BostedD	InPrep2 10/22/2008 3:14:17 PM	RL-GAM-002 REVISION 0
SC		BostedD	Prep2C 10/27/2008 2:20:48 PM	RL-GAM-002 REVISION 0
SC		ClarkR	InCnt1 10/27/2008 2:25:30 PM	RL-CI-007 REVISION 0
SC		DAWKINSO	CalcC 10/29/2008 4:09:00 PM	RL-CI-007 REVISION 0
SC		whelands	Rev1C 10/31/2008 10:05:52 AM	RL-DR-001 REV 0
AC		BostedD	10/22/2008 3:14:17	
AC		BostedD	10/27/2008 2:20:48	
AC		ClarkR	10/27/2008 2:25:30	
AC		DAWKINSO	10/29/2008 4:09:00	
AC		whelands	10/31/2008 10:05:52	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa

TESTAMERICA RICHLAND

0/22/2008 9:53:52 AM

Sample Preparation/Analysis

Balance Id:1120482733

08302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

CY Se-79 PrpRC5016, SepRC5043
TM Selenium-79 by Liquid Scint
SI CLIENT: HANFORD

Pipet #: _____

nalyDueDate: 11/07/2008 *W05523*

Sep1 DT/Tm Tech:

atch: 8273373 WATER pCi/L PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

EQ Batch, Test: None

Prep Tech: ,Lanel



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
KXN70-1-AH 1260269-1-SAMP 1/24/2008 08:55	200.10g,in	200.10g,in	SETA0362 10/10/08						
<i>200</i>									
AmtRec: 20ML,500MLP,15XLP #Containers: 17 Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa									
KXN70-1-AR-X 1260269-1-DUP 1/24/2008 08:55	200.00g,in	200.00g,in	SETA0363 10/10/08						
AmtRec: 20ML,500MLP,15XLP #Containers: 17 Scr: Alpha: 1.75E-04 uCi/Sa Beta: 7.95E-04 uCi/Sa									
XTAR-1-AA-B 290000-373-BLK 1/24/2008 08:55	200.00g,in	200.00g,in	SETA0364 10/10/08						
AmtRec: #Containers: 1 Scr: Alpha: Beta:									
XTAR-1-AC-BN 290000-373-IBLK 1/24/2008 08:55			<i>SETA0374</i>						
AmtRec: #Containers: 1 Scr: Alpha: Beta:									

omments: *PH < 2.0. RR 102208*

Clients for Batch:
108302, CH2M Hill Plateau Remediation DOE RL Waste Management Federal Servi, SS , 29754

01AH-SAMP Constituent List:

1-79	RDL:30	pCi/L	LCL:	UCL:	RPD:
1-79	RDL:30	pCi/L	LCL:	UCL:	RPD:
1-79	RDL:30	pCi/L	LCL:	UCL:	RPD:

01AH-SAMP Calc Info:

estAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
chland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 4
Prep_SamplePrep v4.8.3

TESTAMERICA RICHLAND

11/22/2008 9:53:53 AM

Sample Preparation/Analysis

Balance Id: _____

CY Se-79 PrpRC5016, SepRC5043
TM Selenium-79 by Liquid Scint
SI CLIENT: HANFORD

Pipet #: _____

Analysis Due Date: 11/07/2008

Sep1 DT/Tm Tech: _____

Batch: 8273373

pCi/L

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

Prep Tech: _____



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Uncert Level (#s): 2 PAR1AA-BLK:	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B					
Uncert Level (#s): 2 PAR1AC-IBLK:	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B					
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B					

Approved By _____ Date: _____

11/3/2008 10:55:23 AM

ICOC Fraction Transfer/Status Report

ByDate: 11/4/2007, 11/8/2008, Batch: '8273373', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8273373				
AC	Rev1C	LaneL	10/22/2008 9:48:26	
SC		wagarr	IsBatched	9/29/2008 1:49:08 PM
SC		LaneL	InPrep	10/22/2008 9:48:26 AM
SC		LaneL	Prep1C	10/22/2008 9:55:14 AM
SC		Barcotl	InSep1	10/29/2008 8:33:33 AM
SC		Barcotl	Sep1C	10/29/2008 8:33:43 AM
SC		ClarkR	InCnt1	10/29/2008 9:13:00 AM
SC		BlackCL	CalcC	11/2/2008 12:28:54 PM
SC		whelands	Rev1C	11/3/2008 10:55:14 AM
AC		LaneL	10/22/2008 9:55:14	
AC		Barcotl	10/29/2008 8:33:33	
AC		Barcotl	10/29/2008 8:33:43	
AC		ClarkR	10/29/2008 9:13:00	
AC		BlackCL	11/2/2008 12:28:54	
AC		whelands	11/3/2008 10:55:14	

ICOC_RADCALC v4.8.34
 RL-PRP-004 REVISION 0
 RL-PRP-004 REVISION 0
 RL-LSC-012 REVISION 0
 RL-LSC-012 REVISION 0
 RL-CI-005 REVISION 0
 RL-CI-005 REVISION 0
 RL-DR-001 REV 0

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland, Mo

Page 1

Grp Rec Cnt: 7

TESTAMERICA RICHLAND

11/22/2008 9:02:44 AM

Sample Preparation/Analysis

Balance Id:1120482733

18302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

AM Tc-99 Prp/SepRC5078
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Initial Due Date: 11/07/2008 *W05523*

Sep1 DT/Tm Tech: _____

Batch: 8273376 WATER pCi/L PM, Quote: SS, 29754
EQ Batch, Test: None All Tests: 8273368 AZS7, 8273369 BCS8, 8273371 7YSR, 8273372 KOXW, 8273373 CYTM, 8273375 CGTH,
73376 AMS5, 8273377 DHSS, 8273378 ARS6, 8273379 BNTB,

Sep2 DT/Tm Tech: _____

Prep Tech: ,LaneL



Work Order, Lot, Sample Date/Time	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:
XN70-1-AC	125.00g.in							
260269-1-SAMP 24/2008 08:55								
XN70-1-AU-S	125.00g.in		TCSG2254					
260269-1-MS 24/2008 08:55			09/22/08,pd 09/01/05					
XN70-1-AV-X	125.00g.in							
260269-1-DUP 24/2008 08:55								
XTAW-1-AA-B	125.10g.in							
290000-376-BLK 24/2008 08:55								
XTAW-1-AC-C	125.00g.in		TCSE2259					
290000-376-LCS 24/2008 08:55			08/28/08,pd 07/01/05					
XTAW-1-AD-BN								
290000-376-IBLK 24/2008 08:55								

60

TESTAMERICA RICHLAND

0/22/2008 9:02:45 AM

Sample Preparation/Analysis

Balance Id:

AM Tc-99 Prp/SepRC5078
S5 Technetium-99 by Liquid Scint
51 CLIENT: HANFORD

Pipet #: _____

analyDueDate: 11/07/2008

Sep1 DT/Tm Tech:

atch: 8273376

pCi/L

Sep2 DT/Tm Tech:

EQ Batch, Test: None

Prep Tech:

Work Order, Lot, Sample Date/Time	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: PH < 2.0. RPR 102208

Clients for Batch:
108302, CH2M Hill Plateau Remediation DOE RL Waste Management Federal Servi, SS, 29754

701AC-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

701AU-MS Constituent List:

AW1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

AW1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

AW1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

701AC-SAMP Calc Info:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

701AU-MS Calc Info:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

AW1AA-BLK:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

AW1AC-LCS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

AW1AD-IBLK:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 11/1/2007, 11/5/2008, Batch: '8273376', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8273376				
AC	Rev1C	LaneL	10/22/2008 8:31:00	
SC		wagarr	IsBatched	9/29/2008 1:49:08 PM
SC		LaneL	InPrep	10/22/2008 8:31:00 AM
SC		LaneL	Prep1C	10/22/2008 9:03:21 AM
SC		Barcotl	InSep1	10/29/2008 2:31:09 PM
SC		Barcotl	Sep1C	10/29/2008 2:31:19 PM
SC		ClarkR	InCnt1	10/29/2008 3:23:11 PM
SC		ClarkR	CalcC	10/31/2008 8:44:53 AM
SC		nortonj	Rev1C	10/31/2008 11:50:40 AM
AC		LaneL	10/22/2008 9:03:21	
AC		Barcotl	10/29/2008 2:31:09	
AC		Barcotl	10/29/2008 2:31:19	
AC		ClarkR	10/29/2008 3:23:11	
AC		ClarkR	10/31/2008 8:44:53	
AC		nortonj	10/31/2008 11:50:40	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Grp Rec Cnt: 7

9/2008 1:23:41 PM

Sample Preparation/Analysis

Balance Id: 12415

3302, Fluor Hanford Inc
nagement Federal Servi

, Waste

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
SI CLIENT: HANFORD

Pipet #:

alyDueDate: 11/07/2008

WO5523

Sep1 DT/Tm Tech: 10-7-08 *pw*

tch: 8273378 WATER
Q Batch, Test: None

pCi/L

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample Date/Time	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:
XN70-1-AA								
260269-1-SAMP 24/2008 08:55								
24/2008 08:55			AmtRec: 20ML,500MLP,15XLP		#Containers: 17		Scr:	Alpha: Beta:
XN70-1-A1-X								
260269-1-DUP 24/2008 08:55								
24/2008 08:55			AmtRec: 20ML,500MLP,15XLP		#Containers: 17		Scr:	Alpha: Beta:
XTA1-1-AA-B								
290000-378-BLK 24/2008 08:55								
24/2008 08:55			AmtRec:		#Containers: 1		Scr:	Alpha: Beta:
XTA1-1-AC-C								
290000-378-LCS 24/2008 08:55								
24/2008 08:55			AmtRec:		#Containers: 1		Scr:	Alpha: Beta:
XTA1-1-AD-BX								
290000-378-MBLK 24/2008 08:55								
24/2008 08:55			AmtRec:		#Containers: 1		Scr:	Alpha: Beta:
XTA1-1-AE-CM								
290000-378-MLCS 24/2008 08:55								
24/2008 08:55			AmtRec:		#Containers: 1		Scr:	Alpha: Beta:
XTA1-1-AF-BN								
290000-378-IBLK 24/2008 08:55								
24/2008 08:55			AmtRec:		#Containers: 1		Scr:	Alpha: Beta:

TESTAMERICA RICHLAND

29/2008 1:23:41 PM

Sample Preparation/Analysis

Balance Id: 12445

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
SI CLIENT: HANFORD

Pipet #: _____

iallyDueDate: 11/07/2008

Sep1 DT/Tm Tech: 10-7-08 *Don*

atch: 8273378

pCi/L

Sep2 DT/Tm Tech: _____

Q Batch, Test: None

Prep Tech: _____

Work Order, Lot, Sample Date/Time	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:
--------------------------------------	-------------------	-----------------------------	------------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

CXTA1-1-AG-BN

290000-378-IBLK

24/2008 08:55	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:
---------------	---------	----------------	------	--------	-------

omments:

Clients for Batch:

108302, Fluor Hanford Inc

Waste Management Federal Servi, SS, 29754

701AA-SAMP Constituent List:

-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20

A11AA-BLK:

A11AC-LCS:

A11AD-MBLK:

A11AE-MLCS:

A11AF-IBLK:

A11AG-IBLK:

701AA-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
A11AA-BLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
A11AC-LCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
A11AD-MBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
A11AE-MLCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
A11AF-IBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

estAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
ichland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 8

ICOC v4.8.3

TESTAMERICA RICHLAND

29/2008 1:23:41 PM

Sample Preparation/Analysis

Balance Id: _____

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
SI CLIENT: HANFORD

Pipet #: _____

Valid Due Date: 11/07/2008

Sep1 DT/Tm Tech: _____

Batch: 8273378

pCi/L

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

Prep Tech: _____

Work Order, Lot, Sample Date/Time	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:
--------------------------------------	-------------------	-----------------------------	------------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

CALLAG-IBLK:

Uncert Level (#s) : 2 Decay to SaDt: Y Blk Subt.: N Sci. Not.: Y ODRs: B

Approved By _____ Date: _____

10/22/2008 11:59:19 AM

ICOC Fraction Transfer/Status Report

ByDate: 10/23/2007, 10/27/2008, Batch: '8273378', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8273378				
AC		Rev1C	McDowellD 10/8/2008 9:52:30	
SC		wagarr	IsBatched 9/29/2008 1:49:08 PM	ICOC_RADCALC v4.8.34
SC		McDowellD	Sep1C 10/8/2008 9:52:30 AM	RL-LSC-005 REVISION 0
SC		BlackCL	CalcC 10/9/2008 6:29:19 AM	RL-CI-005 REVISION 0
SC		nortonj	Rev1C 10/22/2008 11:59:09 AM	RL-DR-001 REV 0
AC		BlackCL	10/9/2008 6:29:19	
AC		nortonj	10/22/2008 11:59:09	

AC: Accepting Entry; SC: Status Change
TestAmerica Richland

Grp Rec Cnt: 3

/27/2008 1:04:00 PM

Sample Preparation/Analysis

Balance Id:1120482733

8302, CH2M Hill Plateau Remediation DOE RL
Waste Management Federal Servi

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA
SI CLIENT: HANFORD

Pipet #: _____

alyDueDate: 11/07/2008 *W05523*

Sep1 DT/Tm Tech:

itch: 8273377 WATER pCi/L PM, Quote: SS , 29754
Q Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: LaneL *Back 8*



Work Order, Lot, Sample Date/Time	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:
CXN70-1-AD 260269-1-SAMP /24/2008 08:55	25.00g,in							
		AmtRec: 20ML,500MLP,15XLP	#Containers: 17			Scr: Alpha: 1.75E-04 uCi/Sa	Beta: 7.95E-04 uCi/Sa	
CXN70-1-AW-S 260269-1-MS /24/2008 08:55	25.00g,in		UNSF4376 10/20/08,pd 08/01/57					
		AmtRec: 20ML,500MLP,15XLP	#Containers: 17			Scr: Alpha: 1.75E-04 uCi/Sa	Beta: 7.95E-04 uCi/Sa	
CXN70-1-AX-X 260269-1-DUP /24/2008 08:55	25.00g,in							
		AmtRec: 20ML,500MLP,15XLP	#Containers: 17			Scr: Alpha: 1.75E-04 uCi/Sa	Beta: 7.95E-04 uCi/Sa	
CXTA0-1-AA-B 290000-377-BLK /24/2008 08:55	25.00g,in							
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	
CXTA0-1-AC-C 290000-377-LCS /24/2008 08:55	25.00g,in		UNSF4377 10/20/08,pd 08/01/57					
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	
CXTA0-1-AD-C 290000-377-LCS /24/2008 08:55	25.00g,in		UNSC2688 09/25/08,pd 02/01/86					
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	

1/27/2008 1:04:02 PM

Sample Preparation/Analysis

Balance Id:1120482733

DH UNat_Laser PrpRC5015
 SS Total Uranium by KPA
 5I CLIENT: HANFORD

Pipet #: _____

iallyDueDate: 11/07/2008

Sep1 DT/Tm Tech: _____

atch: 8273377

pCi/L

Sep2 DT/Tm Tech: _____

:Q Batch, Test: None

Prep Tech: ,LaneL



Work Order, Lot, Sample Date/Time	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:
--------------------------------------	-------------------	-----------------------------	------------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

omments: KXN70-SAMP "Comments Reduced vol and no dup d/t ISV. LJL 102208"

PH < 2.0. RPR 102708

Clients for Batch:

108302, CH2M Hill Plateau Remediation DOE RL Waste Management Federal Servi, SS , 29754

701AD-SAMP Constituent List:

Uranium RDL:0.1 pCi/L LCL: UCL: RPD:

701AW-MS Constituent List:

7A01AA-BLK:

Uranium RDL:0.1 pCi/L LCL: UCL: RPD:

7A01AC-LCS:

Uranium RDL:0.1 pCi/L LCL:70 UCL:130 RPD:20

7A01AD-LCS:

Uranium RDL:0.1 pCi/L LCL:70 UCL:130 RPD:20

701AD-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

701AW-MS Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

7A01AA-BLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

7A01AC-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

7A01AD-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 11/1/2007, 11/5/2008, Batch: '8273377', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
8273377					
AC		Rev1C	LaneL	10/27/2008 9:10:12	
SC			wagarr	IsBatched 9/29/2008 1:49:08 PM	ICOC_RADCALC v4.8.34
SC			LaneL	InPrep 10/27/2008 9:10:12 AM	RL-PRP-004 REVISION 0
SC			LaneL	Prep1C 10/27/2008 1:04:17 PM	RL-PRP-004 REVISION 0
SC			BockJ	InPrep2 10/28/2008 8:10:08 AM	RL-KPA-001 REVISION 0
SC			BockJ	Prep2C 10/29/2008 2:34:31 PM	RL-KPA-001 REVISION 0
SC			NelsonT	Cnt1C 10/29/2008 3:12:27 PM	RL-KPA-003 REVISION 0
SC			nortonj	Rev1C 10/31/2008 11:54:04 AM	RL-DR-001 REV 0
AC			LaneL	10/27/2008 1:04:17	
AC			BockJ	10/28/2008 8:10:08	
AC			BockJ	10/29/2008 2:34:31	
AC			NelsonT	10/29/2008 3:12:27	
AC			nortonj	10/31/2008 11:54:04	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Grp Rec Cnt: 6