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Analytical Data Package Prepared For

Fluor Hanford

Radiochemical Analysis By

TAL Richland TARL*2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.**Data Package Contains 128 Pages*

Report Nbr: 37920

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
<u>W05257</u>	108-008	B1R2Y7	J7J270205-1	J92HQ1AA	9J92HQ10	7317597
		B1R309	J7J270205-2	J92HR1AA	9J92HR10	7317597
		B1R301	J7J270205-3	J92HT1AA	9J92HT10	7317597
	S08-010	B1PW22	J7J270208-1	J92H71AA	9J92H710	7317602
	108-008	B1R2X8	J7J310125-1	J97P61AA	9J97P610	7317597
	W08-011	B1R5M2	J7J310128-1	J97QJ1AA	9J97QJ10	7317594
		B1R5M2	J7J310128-1	J97QJ1AC	9J97QJ10	7317595
		B1R5M2	J7J310128-1	J97QJ1AD	9J97QJ10	7317599
	108-005	B1R189	J7J310131-1	J97Q51AA	9J97Q510	7317594
		B1R189	J7J310131-1	J97Q51AC	9J97Q510	7317595
		B1R183	J7J310131-2	J97RE1AA	9J97RE10	7317594
		B1R183	J7J310131-2	J97RE1AC	9J97RE10	7317595
		B1R184	J7J310131-3	J97RF1AA	9J97RF10	7317594
		B1R184	J7J310131-3	J97RF1AC	9J97RF10	7317595
		B1R192	J7J310131-4	J97RH1AA	9J97RH10	7317594

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Comments:

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Report Nbr: 37920

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05257	I08-005	B1R192	J7J310131-4	J97RH1AC	9J97RH10	7317595
	S08-010	B1PVW6	J7J310353-1	J99VG1AA	9J99VG10	7317597
	A08-010	B1PPL0	J7J310354-1	J99V41AA	9J99V410	7317597
		B1PPL1	J7J310354-2	J99WC1AA	9J99WC10	7317597
	W08-010	B1PX17	J7J310357-1	J99W61AA	9J99W610	7317594
		B1PX17	J7J310357-1	J99W61AC	9J99W610	7317595
		B1PX86	J7J310357-2	J99X21AA	9J99X210	7317595
		B1PX86	J7J310357-2	J99X22AC	9J99X220	7353438
		B1PX85	J7J310357-3	J99X61AA	9J99X610	7317595
		B1PX85	J7J310357-3	J99X62AC	9J99X620	7353438
I08-005	B1R158	J7J310360-1	J990F1AA	9J990F10	7317594	
	B1R158	J7J310360-1	J990F1AC	9J990F10	7317595	
	B1R159	J7J310360-2	J990G1AA	9J990G10	7317594	
	B1R159	J7J310360-2	J990G1AC	9J990G10	7317595	
I08-006	B1R2F9	J7K050131-1	KAJFD1AA	9KAJFD10	7317604	
I08-005	B1R199	J7K060161-1	KAK6C1AA	9KAK6C10	7317603	
	B1R199	J7K060161-1	KAK6C1AC	9KAK6C10	7317598	
	B1R199	J7K060161-1	KAK6C1AD	9KAK6C10	7317594	
	B1R199	J7K060161-1	KAK6CIAE	9KAK6C10	7317595	

Comments:

Certificate of Analysis

Fluor Hanford
1200 Jadwin Ave.
Richland, WA 99352

December 31, 2007

Attention: Steve Trent

SAF Number : I08-008, S08-010, W08-011, I08-005, A08-010,
W08-010, I08-006
Date SDG Closed : November 5, 2007
Number of Samples : Twenty (20)
Sample Type : Water
SDG Number : W05257
Data Deliverable : 45-Day / Summary

CASE NARRATIVE

I. Introduction

Between October 25, 2007 and November 5, 2007 twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Fluor Hanford specific IDs:

<u>PGW ID#</u>	<u>STLR ID#</u>	<u>DATE OF RECEIPT</u>	<u>MATRIX</u>
B1R2Y7	J92HQ	10/25/07	WATER
B1R309	J92HR	10/25/07	WATER
B1R301	J92HT	10/25/07	WATER
B1PW22	J92H7	10/25/07	WATER
B1R2X8	J97P6	10/30/07	WATER
B1R5M2	J97QJ	10/30/07	WATER
B1R189	J97Q5	10/30/07	WATER
B1R183	J97RE	10/30/07	WATER
B1R184	J97RF	10/30/07	WATER
B1R192	J97RH	10/30/07	WATER
B1PVW6	J99VG	10/31/07	WATER
B1PPL0	J99V4	10/31/07	WATER
B1PPL1	J99WC	10/31/07	WATER

Fluor Hanford
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B1PX17	J99W6	10/31/07	WATER
B1PX86	J99X2	10/31/07	WATER
B1PX85	J99X6	10/31/07	WATER
B1R158	J990F	10/31/07	WATER
B1R159	J990G	10/31/07	WATER
B1R2F9	KAJFD	11/02/07	WATER
B1R199	KAK6C	11/05/07	WATER

II. Sample Receipt

The samples were 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:

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014

Gross Beta by method RICH-RC-5014

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017

Iodine-129 (LL) by method RICH-RC-5025

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065

Technetium-99 by method RICH-RC-5078

Tritium by method RICH-RC-5007

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:

Samples B1R198, B1R5M2, B1R183, B1R192, B1R158, B1R159, B1R199 and B1R158 DUP were analyzed with reduced volumes based on weight screens. Sample B1R5M2 did not the CRDL due to the reduced aliquot. The sample was counted for 200 minutes which is the maximum count time. Except as noted, the LCS, batch blank, samples and sample duplicate (B1R158) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

Samples B1R189, B1R5M2, B1R183, B1R192, B1R158, B1R159, B1R199 and B1R159 DUP was analyzed with reduced aliquots based on weight screens. Samples B1R189, B1R184, B1R192, B1R158, B1PX17, B1PX86, B1PX85, B1R199 and B1R159 DUP did not the CRDL, however the MDA is greater than the CRDL therefore the data is acceptable. Except as noted, the LCS, batch blank, samples and sample duplicate (B1R159) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017:

There was only 1L of sample B1R5M2 received. On 11/21/07 TestAmerica Richland proposed to aliquot 1L for sample B1R5M2. The result would be accepted even though the detection limit may not be achieved. The proposed resolution (IRF Tracking No. 07-119) was accepted on 11/27/07.

Approximately 1L was aliquoted for sample B1R5M2. The sample was counted for 500 minutes to ensure that the CRDL would be met.

Sample B1R5M2 was also recounted for 500 minutes on a different detector for the duplicate.

Except as noted, the LCS, batch blank, samples and sample duplicate (B1R5M2) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025:

The LCS, batch blank, samples and sample duplicate (B1R2Y7) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:

The LCS, batch blank, samples, sample duplicate (B1PW22), and sample matrix spike (B1PW22) results are within contractual requirements.

Technetium-99 by method RICH-RC-5078:

The original batch had a high blank and low LCS had a low recovery. A recount verified the original results. The entire batch was reanalyzed. The LCS was slightly low at 74%. The matrix spike (B1PX85) has an acceptable recovery of 88%, the batch will be accepted based on this result. Except as noted, the LCS, batch blank, samples, sample duplicate (B1PX86), and sample matrix spike (B1PX85) results are within contractual requirements.

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Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1R199) results are within contractual requirements.

Chemical Analysis

Hexavalent Chromium by EPA method 7196A:

BATCH 7317603:

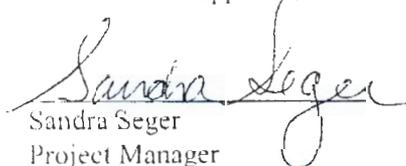
The analyst forgot to run a CCV and CCB at the end of batch 7317603. The hexavalent chromium for W05260 was analyzed later in the afternoon with the same set of standards used with batch 7317603. The CCV and CCB was acceptable for the W05260 batch. On 11/15/07 TestAmerica Richland proposed to accept the results for batch 7317603. The proposed resolution (IRF Tracking No. 07-118) was accepted on 11/15/07. Except as noted, the LCS, batch blank, samples, sample duplicate (B1R199), sample matrix spike (B1R199), and matrix spike duplicate (B1R199) results are within contractual requirements.

BATCH 7317604:

The LCS, batch blank, samples, sample duplicate (B1R2F9), sample matrix spike (B1R2F9), and matrix spike duplicate (B1R2F9) 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)	STL Richland's SOP number
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

Uncertainty Estimation

Test America 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 STL Richland.
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 STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \sqrt{2 * (BkgrndCnt / BkgrndCntMin) / SCntMin}) * (ConvFct / (Eff * Yld * Abn * Vol)) * IngrFct$. For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \sqrt{((BkgrndCnt / BkgrndCntMin) / SCntMin) + 2.71 / SCntMin}) * (ConvFct / (Eff * Yld * Abn * Vol)) * IngrFct$. For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUncert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = $(S-D) / [\sqrt{(TPUs^2 + TPUD^2)}]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUD is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland 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.

TESTAMERICA RICHLAND

12/31/2007 11:09:06 AM

TAL Richland Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 37920 File Name: h:\Reportdb\edd\Fead\IV\Rad\W05257.Edd, h:\Reportdb\edd\Fead\IV\Rad\37920.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J92H710	B1PW22		MW6-SBB-A1	S08-010	W05257					10/25/2007 09:17				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7317602	TC-99	14133-76-7	1.00E+02	pCi/L	6.8E+00	1.2E+01		9.98E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	12/14/2007 02:37	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J92HQ10	B1R2Y7		MW6-SBB-A1	I08-008	W05257					10/25/2007 09:50				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7317597	I-129L	15046-84-1	4.17E-01	pCi/L	2.1E-01	2.1E-01	U	4.20E-01	90.8	I129LL_SEP_LEPS	3.8714E+00	L	12/17/2007 15:36	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J92HR10	B1R309		MW6-SBB-A1	I08-008	W05257					10/25/2007 12:17				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7317597	I-129L	15046-84-1	3.23E+00	pCi/L	5.7E-01	5.7E-01		3.45E-01	90.3	I129LL_SEP_LEPS	3.9197E+00	L	12/17/2007 15:37	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J92HT10	B1R301		MW6-SBB-A1	I08-008	W05257					10/25/2007 11:40				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7317597	I-129L	15046-84-1	2.76E+00	pCi/L	5.2E-01	5.2E-01		2.75E-01	88.4	I129LL_SEP_LEPS	3.8714E+00	L	12/17/2007 17:25	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J97P610	B1R2X8		MW6-SBB-A1	I08-008	W05257					10/29/2007 14:08				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7317597	I-129L	15046-84-1	2.16E-01	pCi/L	2.0E-01	2.0E-01	U	3.87E-01	83.8	I129LL_SEP_LEPS	3.897E+00	L	12/17/2007 17:26	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J97Q510	B1R189		MW6-SBB-A1	I08-005	W05257					10/30/2007 10:41				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7317594	ALPHA	12587-46-1	1.26E+00	pCi/L	1.1E+00	1.1E+00	U	1.74E+00	100.0	9310_ALPHABETA	1.25E-01	L	12/14/2007 20:16	I
7317595	BETA	12587-47-2	8.13E+00	pCi/L	2.0E+00	2.3E+00		3.19E+00	100.0	9310_ALPHABETA	1.785E-01	L	12/14/2007 13:09	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J97QJ10	B1R5M2		MW6-SBB-A1	W08-011	W05257					10/30/2007 09:32				

TAL Richland
rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

TESTAMERICA RICHLAND

12/31/2007 11:09:06 AM

TAL Richland Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 37920 File Name: h:\Reportdb\ledd\Fead\Rad\W05257.Edd, h:\Reportdb\ledd\Fead\Rad\37920.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7317594	ALPHA	12587-46-1	1.79E+00	pCi/L	1.3E+00	1.4E+00	U	1.84E+00	100.0	9310_ALPHABETA	1.111E-01	L	12/14/2007 20:16	I
7317595	BETA	12587-47-2	6.75E+00	pCi/L	2.0E+00	2.3E+00		3.50E+00	100.0	9310_ALPHABETA	1.587E-01	L	12/14/2007 13:10	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J990G10	B1R159		MW6-SBB-A1	I08-005	W05257					10/31/2007 12:56				
7317594	ALPHA	12587-46-1	1.59E+00	pCi/L	1.3E+00	1.4E+00	U	2.21E+00	100.0	9310_ALPHABETA	1.04E-01	L	12/17/2007 06:53	I
7317595	BETA	12587-47-2	6.73E+00	pCi/L	2.3E+00	2.4E+00		4.03E+00	100.0	9310_ALPHABETA	1.538E-01	L	12/14/2007 14:24	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J99V410	B1PPL0		MW6-SBB-A1	A08-010	W05257					10/31/2007 09:15				
7317597	I-129L	15046-84-1	2.55E-01	pCi/L	1.6E-01	1.6E-01	U	3.38E-01	87.6	I129LL_SEP_LEPS	3.9247E+00	L	12/17/2007 19:11	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J99VG10	B1PVW6		MW6-SBB-A1	S08-010	W05257					10/31/2007 12:01				
7317597	I-129L	15046-84-1	3.21E-01	pCi/L	1.6E-01	1.6E-01	U	3.57E-01	89.2	I129LL_SEP_LEPS	3.8594E+00	L	12/17/2007 17:27	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J99W610	B1PX17		MW6-SBB-A1	W08-010	W05257					10/31/2007 10:41				
7317594	ALPHA	12587-46-1	1.95E+00	pCi/L	1.2E+00	1.3E+00		1.40E+00	100.0	9310_ALPHABETA	2.00E-01	L	12/17/2007 12:21	I
7317595	BETA	12587-47-2	6.82E+00	pCi/L	1.7E+00	1.9E+00		2.76E+00	100.0	9310_ALPHABETA	2.001E-01	L	12/14/2007 13:10	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J99WC10	B1PPL1		MW6-SBB-A1	A08-010	W05257					10/31/2007 09:15				
7317597	I-129L	15046-84-1	9.48E-02	pCi/L	1.4E-01	1.4E-01	U	2.77E-01	97.6	I129LL_SEP_LEPS	3.9305E+00	L	12/17/2007 19:12	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J99X210	B1PX86		MW6-SBB-A1	W08-010	W05257					10/31/2007 09:15				
7317595	BETA	12587-47-2	1.26E+01	pCi/L	2.1E+00	2.6E+00		2.83E+00	100.0	9310_ALPHABETA	2.001E-01	L	12/14/2007 13:10	I

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TAL Richland
 rptFeadRadSummaryEdd v3.48
 U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

12/31/2007 11:09:06 AM

TAL Richland Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 37920 File Name: h:\Reportdb\ledd\Fead\I\Rad\W05257.Edd, h:\Reportdb\ledd\Fead\I\Rad\37920.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J99X220	B1PX86		MW6-SBB-A1	W08-010	W05257					10/31/2007 09:15				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7353438	TC-99	14133-76-7	1.20E+01	pCi/L	4.8E+00	7.1E+00		1.07E+01	100.0	TC99_SEP_LSC	1.25E-01	L	12/26/2007 20:28	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J99X610	B1PX85		MW6-SBB-A1	W08-010	W05257					10/31/2007 09:15				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7317595	BETA	12587-47-2	1.10E+01	pCi/L	2.0E+00	2.5E+00		2.76E+00	100.0	9310_ALPHABETA	2.00E-01	L	12/14/2007 13:10	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J99X620	B1PX85		MW6-SBB-A1	W08-010	W05257					10/31/2007 09:15				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7353438	TC-99	14133-76-7	1.24E+01	pCi/L	4.8E+00	7.1E+00		1.06E+01	100.0	TC99_SEP_LSC	1.25E-01	L	12/26/2007 22:32	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9KAK6C10	B1R199		MW6-SBB-A1	I08-005	W05257					11/05/2007 12:52				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7317598	H-3	10028-17-8	3.88E+02	pCi/L	1.4E+02	1.5E+02		3.00E+02	100.0	906.0_H3_LSC	5.00E-03	L	11/21/2007 08:19	I
7317594	ALPHA	12587-46-1	2.23E+00	pCi/L	1.5E+00	1.6E+00	U	2.23E+00	100.0	9310_ALPHABETA	1.021E-01	L	12/17/2007 06:53	I
7317595	BETA	12587-47-2	7.39E+00	pCi/L	2.0E+00	2.2E+00		3.28E+00	100.0	9310_ALPHABETA	1.665E-01	L	12/14/2007 14:24	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland QC Blank Report

Lab Code: TARI

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05257.Edd, h:\Reportdb\edd\Fead\Rad\37920.Edd

Lab Sample Id: KA6661AB

Sdg/Rept Nbr: W05257 37920

Collection Date: 10/31/2007 12:56

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BD	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317594 BLK	ALPHA 12587-46-1	4.54E-02	pCi/L	1.5E-01 1.5E-01	U	3.36E-01	100.0		9310_ALPHAB	2.003E-01 L	12/14/2007 17:29				D

Monday, December 31, 2007

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05257.Edd, h:\Reportdb\edd\FeadIV\Rad\37920.Edd

Lab Sample Id: KA6681AB

Sdg/Rept Nbr: W05257 37920

Collection Date: 10/31/2007 12:56

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BF	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317595 BLK	BETA 12587-47-2	1.24E+00	pCi/L	9.2E-01 9.0E-01	U	1.70E+00	100.0		9310_ALPHAB	2.001E-01 L	12/14/2007 14:00				D

Monday, December 31, 2007

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05257.Edd, h:\Reportdb\edd\FeadIV\Rad\37920.Edd

Lab Sample Id: KA6691AB

Sdg/Rept Nbr: W05257

37920

Collection Date: 10/25/2007 09:50

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/25/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BH	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317597 BLK	I-129L 15046-84-1	-8.86E-02	pCi/L	1.0E-01 1.0E-01	U	1.69E-01	98.1		I129LL_SEP_L	3.8207E+00 L	12/17/2007 19:12				D

Monday, December 31, 2007

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05257.Edd, h:\Reportdb\edd\FeadIV\Rad\37920.Edd

Lab Sample Id: KA67C1AB

Sdg/Rept Nbr: W05257 37920

Collection Date: 11/05/2007 12:52

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 11/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BJ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317598 BLK	H-3 10028-17-8	-2.21E+01	pCi/L	1.4E+02 1.2E+02	U	2.97E+02	100.0		906.0_H3_LSC	5.00E-03	11/21/2007 02:48				D

Monday, December 31, 2007

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W05257.Edd, h:\Reportdb\edd\Fead\Rad\37920.Edd

Lab Sample Id: KA67C1DX Sdg/Rept Nbr: W05257 37920 Collection Date: 11/05/2007 12:52
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 11/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BL	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317598 BLK	H-3 10028-17-8	2.36E+02	pCi/L	1.5E+02 1.3E+02	U	3.16E+02	100.0		906.0_H3_LSC	5.00E-03 L	11/21/2007 05:34				D

Monday, December 31, 2007

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\FeadIV\Rad\W05257.Edd, h:\Reportdb\ledd\FeadIV\Rad\37920.Edd

Lab Sample Id: KA67D1AB Sdg/Rept Nbr: W05257 37920 Collection Date: 10/30/2007 09:32
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 10/30/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BN	H					
Batch #/ Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317599	BE-7	-1.09E+00	pCi/L	1.2E+01	U	2.12E+01			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 13966-02-4			1.2E+01						L	12:51				
7317599	CO-60	8.70E-01	pCi/L	1.2E+00	U	2.32E+00			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 10198-40-0			1.2E+00						L	12:51				
7317599	CS-134	-3.06E-01	pCi/L	1.1E+00	U	1.95E+00			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 13967-70-9			1.1E+00						L	12:51				
7317599	CS-137	-4.62E-01	pCi/L	1.0E+00	U	1.72E+00			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 10045-97-3			1.0E+00						L	12:51				
7317599	EU-152	-1.28E+00	pCi/L	2.4E+00	U	4.04E+00			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 14683-23-9			2.4E+00						L	12:51				
7317599	EU-154	9.68E-02	pCi/L	3.6E+00	U	6.30E+00			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 15585-10-1			3.6E+00						L	12:51				
7317599	EU-155	-9.10E-02	pCi/L	1.6E+00	U	2.76E+00			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 14391-16-3			1.6E+00						L	12:51				
7317599	K-40	-2.97E+01	pCi/L	2.5E+01	U	4.18E+01			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 13966-00-2			2.5E+01						L	12:51				
7317599	RU-106	4.48E+00	pCi/L	1.0E+01	U	1.78E+01			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 13967-48-1			1.0E+01						L	12:51				
7317599	SB-125	2.04E+00	pCi/L	2.5E+00	U	4.55E+00			GAMMALL_GS	1.9999E+00	12/14/2007				D
	BLK 14234-35-6			2.5E+00						L	12:51				

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Monday, December 31, 2007

TAL Richland QC Blank Report

Lab Code: TARI

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05257.Edd, h:\Reportdb\edd\FeadIV\Rad\37920.Edd

Lab Sample Id: KA67G2AB Sdg/Rept Nbr: W05257 37920 Collection Date: 10/31/2007 09:15
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 10/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BP	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7353438 BLK	TC-99 14133-76-7	-6.22E+00	pCi/L	6.0E+00 4.2E+00	U	1.05E+01	100.0		TC99_SEP_LS	1.251E-01 L	12/27/2007 00:37				D

Monday, December 31, 2007

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\Rad\W05257.Edd, h:\Reportdb\ledd\Fead\Rad\37920.Edd

Lab Sample Id: KA67K1AB Sdg/Rept Nbr: W05257 37920 Collection Date: 10/25/2007 09:17
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 10/25/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BR	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317602 BLK	TC-99 14133-76-7	-3.30E-01	pCi/L	5.9E+00 4.1E+00	U	9.97E+00	100.0		TC99_ETVDSK	1.251E-01 L	12/14/2007 05:45				D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\eddi\Fead\I\Rad\W05257.Edd, h:\Reportdb\eddi\Fead\I\Rad\37920.Edd

Lab Sample Id: KA6661CS	Sdg/Rept Nbr: W05257 37920	Collection Date: 10/31/2007 12:56
Client Id: NA	Matrix: WATER WATER	Sample On Date:
Moisture/Solids%*:	QC Type: BS	Received Date: 10/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BE	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317594 BS	ALPHA 12587-46-1	1.99E+01	pCi/L	4.8E+00 1.4E+00		3.52E-01	100.0	2.26E+01 88.0	9310_ALPHAB	2.003E-01 L	12/14/2007 17:29			70 130	D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05257.Edd, h:\Reportdb\edd\FeadIV\Rad\37920.Edd

Lab Sample Id: KA6681CS Sdg/Rept Nbr: W05257 37920 Collection Date: 10/31/2007 12:56
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 10/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BG	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	Rpd/ Ucl	RER/ UCL	LCS LCL/UCL	R Typ
7317595 BS	BETA 12587-47-2	2.39E+01	pCi/L	3.4E+00 1.7E+00		1.66E+00	100.0	2.26E+01 105.6	9310_ALPHAB	2.002E-01 L	12/14/2007 14:00			70 130	D

Monday, December 31, 2007

TAL Richland QC Control Sample Report

Lab Code: TARI

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\MRad\W05257.Edd, h:\Reportdb\edd\Fead\MRad\37920.Edd

Lab Sample Id: KA6691CS Sdg/Rept Nbr: W05257 37920 Collection Date: 10/25/2007 09:50
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 10/25/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BI	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317597	I-129L	7.63E+00	pCi/L	1.1E+00		3.86E-01	98.0	9.44E+00	I129LL_SEP_L	3.9973E+00	12/17/2007			70	D
BS	15046-84-1			1.1E+00				80.8		L	21:57			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland QC Control Sample Report

Lab Code: 1A-RL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05257.Edd, h:\Reportdb\edd\FeadIV\Rad\37920.Edd

Lab Sample Id: KA67C1CS

Sdg/Rept Nbr: W05257 37920

Collection Date: 11/05/2007 12:52

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 11/05/2007

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317598 BS	H-3 10028-17-8	2.02E+03	pCi/L	2.2E+02 1.8E+02		2.99E+02	100.0	2.71E+03 74.3	906.0_H3_LSC	5.00E-03 L	11/21/2007 04:11			75 125	D

Monday, December 31, 2007

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05257.Edd, h:\Reportdb\edd\Fead\Rad\137920.Edd

Lab Sample Id: KA67C1EM

Sdg/Rept Nbr: W05257 37920

Collection Date: 11/05/2007 12:52

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 11/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BM	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317598 BS	H-3 10028-17-8	2.01E+03	pCi/L	2.2E+02 1.8E+02		2.91E+02	100.0	2.71E+03 74.2	906.0_H3_LSC	5.00E-03 L	11/21/2007 06:57			75 125	D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\eddi\FeadIV\Rad\W05257.Edd, h:\Reportdb\eddi\FeadIV\Rad\37920.Edd

Lab Sample Id: KA67D1CS Sdg/Rept Nbr: W05257 37920 Collection Date: 10/30/2007 09:32
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 10/30/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BO	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317599 BS	CO-60 10198-40-0	4.03E+01	pCi/L	6.5E+00 6.5E+00		2.27E+00		3.84E+01 104.9	GAMMALL_GS	2.0002E+00 L	12/14/2007 21:30			70 130	D
7317599 BS	CS-137 10045-97-3	5.41E+01	pCi/L	7.5E+00 7.5E+00		2.14E+00		4.97E+01 108.8	GAMMALL_GS	2.0002E+00 L	12/14/2007 21:30			70 130	D
7317599 BS	EU-152 14683-23-9	8.14E+01	pCi/L	1.3E+01 1.3E+01		5.35E+00		7.68E+01 106.1	GAMMALL_GS	2.0002E+00 L	12/14/2007 21:30			70 130	D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05257.Edd, h:\Reportdb\edd\FeadIV\Rad\37920.Edd

Lab Sample Id: KA67G3CS

Sdg/Rept Nbr: W05257 37920

Collection Date: 10/31/2007 09:15

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/31/2007

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Test User	Case Nbr	Qu- al	SAS Nbr	Tracer Yield	Suffix	Decant	Distilled Volume	Date/Time Analyzed	File Id	FSuffix	RTyp
Unit		Unit											BQ	H
7353438	TC-99	4.02E+02												
BS	14133-76-7	pCi/L												
		3.0E+01												
		1.2E+01												
		1.06E+01												
		100.0												
		5.45E+02												
		73.9												
		TC99_SEP_LS												
		1.25E-01												
		L												
		12/27/2007												
		01:39												
		70												
		130												

Monday, December 31, 2007

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\VRad\W05257.Edd, h:\Reportdb\edd\Fead\VRad\37920.Edd

Lab Sample Id: KA67K1CS Sdg/Rept Nbr: W05257 37920 Collection Date: 10/25/2007 09:17
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 10/25/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BS	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317602	TC-99	5.23E+02	pCi/L	3.7E+01		9.99E+00	100.0	5.44E+02	TC99_ETVDSK	1.251E-01	12/14/2007			70	D
BS	14133-76-7			1.3E+01				96.2		L	06:48			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\eddi\Fead\I\Rad\W05257.Edd, h:\Reportdb\eddi\Fead\I\Rad\37920.Edd

Lab Sample Id: J92H71DR Sdg/Rept Nbr: W05257 37920 Collection Date: 10/25/2007 09:17
 Client Id: B1PW22 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 10/25/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S08-010	MW6-SBB-A19981								AW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317602 DUP	TC-99 14133-76-7	9.97E+01 1.00E+02	pCi/L	1.2E+01 6.8E+00		9.98E+00	100.0		TC99_ETVDSK	1.251E-01 L	12/14/2007 04:43	.7 20.0	0.1 3		D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\W\Rad\W05257.Edd, h:\Reportdb\edd\Fead\W\Rad\37920.Edd

Lab Sample Id: J92HQ1CR Sdg/Rept Nbr: W05257 37920 Collection Date: 10/25/2007 09:50

Client Id: B1R2Y7 Matrix: WATER WATER Sample On Date:

Moisture/Solids%*: QC Type: DUP Received Date: 10/25/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ
I08-008	MW6-SBB-A19981								AX	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317597 DUP	I-129L 15046-84-1	3.29E-01 4.17E-01	pCi/L	1.9E-01 1.9E-01	U	3.74E-01	91.4		I129LL_SEP_L	3.9144E+00 L	12/17/2007 15:36	23.6 20.0	0.7 3		D

Monday, December 31, 2007

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05257.Edd, h:\Reportdb\edd\FeadIV\Rad\37920.Edd

Lab Sample Id: J97QJ1ER
 Client Id: B1R5M2
 Moisture/Solids%*:

Sdg/Rept Nbr: W05257 37920
 Matrix: WATER WATER
 QC Type: DUP

Collection Date: 10/30/2007 09:32
 Sample On Date:
 Received Date: 10/30/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W08-011	MW6-SBB-A19981								AY	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317599 DUP	BE-7 13966-02-4	4.54E+01 9.92E+00	pCi/L	3.6E+01 3.6E+01	U	6.43E+01			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	128.3 20.0	1.4 3		D
7317599 DUP	CO-60 10198-40-0	1.62E+02 1.71E+02	pCi/L	2.8E+01 2.8E+01		4.45E+00			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	5.8 20.0	0.5 3		D
7317599 DUP	CS-134 13967-70-9	1.01E+00 1.75E+00	pCi/L	3.4E+00 3.4E+00	U	5.98E+00			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	53.5 20.0	0.3 3		D
7317599 DUP	CS-137 10045-97-3	1.78E+00 2.38E+00	pCi/L	2.6E+00 2.6E+00	U	4.55E+00			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	29.2 20.0	0.3 3		D
7317599 DUP	EU-152 14683-23-9	6.72E-01 -8.86E-01	pCi/L	5.5E+00 5.5E+00	U	9.57E+00			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	0.0 20.0	0.4 3		D
7317599 DUP	EU-154 15585-10-1	-4.35E-01 -4.48E-01	pCi/L	7.5E+00 7.5E+00	U	1.30E+01			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	0.0 20.0	0. 3		D
7317599 DUP	EU-155 14391-16-3	5.34E-01 3.15E+00	pCi/L	3.7E+00 3.7E+00	U	6.28E+00			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	142.1 20.0	1. 3		D
7317599 DUP	K-40 13966-00-2	-5.31E+00 -4.91E+01	pCi/L	5.1E+01 5.1E+01	U	9.05E+01			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	0.0 20.0	1.2 3		D
7317599 DUP	RU-106 13967-48-1	-6.75E-01 -2.69E+01	pCi/L	2.6E+01 2.6E+01	U	4.40E+01			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	0.0 20.0	1.4 3		D
7317599 DUP	SB-125 14234-35-6	-2.12E-01 -5.63E-01	pCi/L	5.9E+00 5.9E+00	U	1.02E+01			GAMMALL_GS	9.998E-01 L	12/14/2007 21:31	0.0 20.0	0.1 3		D

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Monday, December 31, 2007

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\I\Rad\W05257.Edd, h:\Reportdb\edd\Fead\I\Rad\37920.Edd

Lab Sample Id: J990F1DR Sdg/Rept Nbr: W05257 37920 Collection Date: 10/31/2007 12:56
 Client Id: B1R158 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 10/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
108-005	MW6-SBB-A19981								AZ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317594 DUP	ALPHA 12587-46-1	8.33E-01 1.79E+00	pCi/L	9.7E-01 9.5E-01	U	1.67E+00	100.0		9310_ALPHAB	1.111E-01 L	12/14/2007 20:16	72.9 20.0	1.4 3		D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05257.Edd, h:\Reportdb\edd\FeadIV\Rad\37920.Edd

Lab Sample Id: J990G1DR **Sdg/Rept Nbr:** W05257 37920 **Collection Date:** 10/31/2007 12:56
Client Id: B1R159 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I08-005	MW6-SBB-A19981								BA	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317595 DUP	BETA 12587-47-2	7.32E+00 6.73E+00	pCi/L	2.5E+00 2.3E+00		3.91E+00	100.0		9310_ALPHAB	1.538E-01 L	12/14/2007 14:24	8.3 20.0	0.3 3		D

Monday, December 31, 2007

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\I\Rad\W05257.Edd, h:\Reportdb\edd\Fead\I\Rad\37920.Edd

Lab Sample Id: J99X22DR Sdg/Rept Nbr: W05257 37920 Collection Date: 10/31/2007 09:15
 Client Id: B1PX86 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 10/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W08-010	MW6-SBB-A19981								BB	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7353438	TC-99	7.23E+00	pCi/L	6.8E+00	U	1.05E+01	100.0		TC99_SEP_LS	1.25E-01	12/26/2007	49.5	1.		D
DUP	14133-76-7	1.20E+01		4.6E+00						L	21:30	20.0	3		

Monday, December 31, 2007

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W05257.Edd, h:\Reportdb\edd\Fead\Rad\37920.Edd

Lab Sample Id: KAK6C1FR **Sdg/Rept Nbr:** W05257 37920 **Collection Date:** 11/05/2007 12:52
Client Id: B1R199 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 11/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
108-005	MW6-SBB-A19981								BT	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317598 DUP	H-3 10028-17-8	2.75E+02 3.88E+02	pCi/L	1.5E+02 1.3E+02	U	2.97E+02	100.0		906.0_H3_LSC	5.00E-03 L	11/21/2007 09:42	34.0 20.0	1.1 3		D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual - Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\FeadIV\Rad\W05257.Edd, h:\Reportdb\ledd\FeadIV\Rad\37920.Edd

Lab Sample Id: J92H71CW Sdg/Rept Nbr: W05257 37920 Collection Date: 10/25/2007 09:17
 Client Id: B1PW22 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: MS Received Date: 10/25/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S08-010	MW6-SBB-A19981								AV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7317602 MS	TC-99 14133-76-7	3.65E+03	pCi/L	2.2E+02 3.3E+01		1.00E+01	100.0	3.61E+03 100.9	TC99_ETVDSK	1.249E-01 L	12/14/2007 03:40			60 140	D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 31, 2007

TAL Richland Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\FeadIV\Rad\W05257.Edd, h:\Reportdb\ledd\FeadIV\Rad\37920.Edd

Lab Sample Id: J99X62DW

Sdg/Rept Nbr: W05257 37920

Collection Date: 10/31/2007 09:15

Client Id: B1PX85

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 10/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W08-010	MW6-SBB-A19981								BC	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7353438 MS	TC-99 14133-76-7	3.19E+03	pCi/L	2.0E+02 3.1E+01		1.05E+01	100.0	3.64E+03 87.5	TC99_SEP_LS	1.25E-01 L	12/26/2007 23:34			60 140	D

Analyst:	J. Peterson	Calibration Curve Information				SOP Information		BATCH #	7317604
Start Date:	11/2/2007		Amount	Conc.(mg/L)	ABS.	RICH-WC-5003		SDG #	W05257
Start Time:	14:00	Blank	0.000	0.000	0.000	Revision 7		Matrix	Water
End Date:	11/2/2007	Std. 1	0.100	0.050	0.088				
End Time	15:50	Std. 2	0.500	0.250	0.471				
		Std. 3	0.750	0.375	0.69	MDL (mg/L)	0.002	Instrument Information	
Analyst Signature: <i>J. Peterson</i>		Std. 4	1.500	0.750	1.385			Instrument:	Hach DR2010
		Std 5	2.000	1.000	1.824			Wavelength:	540
Date:	11/14/07	Standard Volume (mL):			100.000			R Squared	0.99987
		Date of Curve:			11/2/2007			Slope:	1.82974
								Intercept:	0.00348

	Calibration Information:	ICV Information:	LCS Information:	Matrix Spike Information:
Dilution ID #	Cr-07-0137	Cr-07-0138	Cr-07-0137	Cr-07-0137
Prep Date:	11/02/07	11/02/07	11/02/07	11/02/07
Concentration (mg/L)	50	50	50	50
Expiration Date:	11/03/07	11/03/07	11/03/07	11/03/07
Pipettor(s)	70,190	190	190	190
Volume Used (Expected Value		1.000 0.50000	1.00 0.50000	0.50 0.26316

Expected values are only amounts added in mg and not final concentrations

Sample ID	Client ID	Type	Sample Volume (mL)	Sample ABS.	Blank ABS.	Corrected ABS.	Dilution Factor	Curve Conc. (mg/L)	Final Conc. (mg/L)	% Rec.
n/a	n/a	ICV	100.000	0.939	0.000	0.939	1	0.5113	0.511	102.26%
n/a	n/a	ICB	100.000	0.000	0.000	0.000	1	<MDL	<MDL	
KA67M-1AA	n/a	Prep Blank	100.000	-0.004		-0.004	1	<MDL	<MDL	
KA67M-1AC	n/a	LCS	100.000	0.967		0.967	1	0.5266	0.527	105.32%
KAJFD-1AA	B1R2F9	Sample	100.000	0.278	0.002	0.276	1	0.1489	0.149	
KAJFD-1AC-S	B1R2F9-MS	MS	100.000	0.787	0.002	0.785	1	0.4271 ⁵⁶⁵	0.4270 ²¹⁸	105.71%
KAJFD-1AD-D	B1R2F9-MSD	MSD	100.000	0.785	0.002	0.783	1	0.4260 ³³⁰	0.426 ^{0,217}	105.29%
KAJFD-1AE-X	B1R2F9-DUP	Duplicate	100.000	0.275	0.002	0.273	1	0.1473	0.147	
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
n/a	n/a	CCV	100.000	0.939		0.939	1	0.5113	0.511	102.26%
n/a	n/a	CCB	100.000	0.000		0.000	1	<MDL	<MDL	
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			

IAE
IAD

Lot No., Due Date: J7J310131,J7J310128,J7J310360,J7J310357,J7K060161; 12/20/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7317594; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05257; WATER

8.0	Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01	The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02	Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03	Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04	The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05	Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06	At Least the Minimum Sample Volume Was Used Analysis Volume => J97QJ1AA 21.80<200.00 J97Q51AA 125.00<200.00 J97RE1AA 79.30<200.00 J97RH1AA 113.70<200.00 J990F1AA 111.10<200.00 J990G1AA 104.00<200.00 KAK6C1AD 102.10<200.00 Q:VB	Yes	No	N/A
8.07	The Correct Count Geometry was Used. OK	Yes	No	N/A
8.08	The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09	Method Blank is within Control Limits. OK	Yes	No	N/A
8.1	Comments:			
8.11	Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	Yes	No	N/A
8.12	Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13	QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> J990F1AD ALPHA 73.0 (RPD)	Yes	No	N/A
8.14	LCS within Control Limits. OK	Yes	No	N/A
8.15	MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16	MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17	Tracer within Control Limits. OK	Yes	No	N/A
8.18	Samples are above Minimum Tracer Yield (No Failed Samples) OK	Yes	No	N/A
8.19	Sample Specific MDC <= CRDL. MDC/MDA > CRDL => J97QJ1AA ALPHA 7.4E+00>3.0E+00 Q:C1	Yes	No	N/A
8.2	Comments:			
8.21	Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22	Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => J99W61AA ALPHA 2.0E+00 L:1.4E+00	Yes	No	N/A
8.23	Result <= Action Level, when Defined. OK; No Action Level Found => ALPHA OK; No Callin Level Found => ALPHA	Yes	No	N/A

8.24	Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A
8.25	Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A
8.26	Instruments have Current Calibrations.	Yes	No	N/A
8.27	Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A
8.28	Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version)	Yes	No	N/A
8.29	Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later version)	Yes	No	N/A
8.3	Comments: ACM 10-11481			
8.31	Results Blank Subtracted as Appropriate. OK	Yes	No	N/A

First Level Review Dea Gustafson

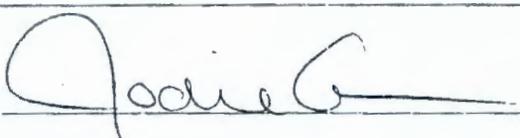
Date 12/28/07

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 7317594

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

Comments on any "No" response: See NCM

Second Level Review:  Date: 12/18/07

Clouseau Nonconformance Memo



NCM #: 10-11481 NCM Initiated By: Lisa Antonson Date Opened: 12/17/2007 Date Closed:	Classification: Anomaly Status: PMREVIEW Production Area: Environmental - Prep Tests: Alpha by GPC-Am Lot #'s (Sample #'s): J7J310128 (1), J7J310131 (1,2,3,4), J7J310357 (1), J7J310360 (1,2), J7K060161 (1), J7K130000 (594), QC Batches: 7317594.
Nonconformance: MDA not met Subcategory: Sample size reduced due to high residue mass	

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	12/17/2007	Sample J97QJ didn't meet CRDL due to reduced aliquots based on weight screens. The sample was counted for 200 minutes.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	12/17/2007	NA

Client Notification Summary

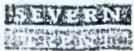
Client	Project Manager	Notified	Response	How Notified	Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position



STL

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

12/17/2007 5:00:45 PM

Lot No., Due Date: [redacted] J310128, J7J310360, J7J310357, J7K060161; 12/20/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7317595; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: W05257; 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:

NCM# 10-11494

First Level Review

Date 12-17-2007

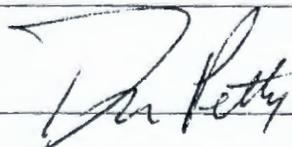
Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7317595

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

Comments on any "No" response: See NCR

Second Level Review: _____



Date: 12-18-07

Lot No., Due Date: J7J310128; 12/20/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7317599; RGAMMA Gamma by GER
SDG, Matrix: W05257; 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:
NCM 10-11483

First Level Review

Aria Antonson

Date

12/18/07

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 7317599

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?	✓		

→ J.C. 12/18/07

Comments on any "No" response: _____

Second Level Review: Jodie [Signature] Date: 12/18/07

**TAL RICHLAND ISSUE RESOLUTION FORM
FOR CONTRACT 615 WITH BHI/FH/PNNL**

IRF Tracking No. 07-119

SAF No.: W08-011

Date: November 21, 2007

SDG: W05257

Sample No.(s) B1R5M2

Submitted By: Sherryl Adam

Submitted To: **Steve Trent (FH)**

Phone No. 509-375-3131 x164

Phone No. **509-373-5869**

Fax No. 509-375-5590

Fax No. **866-252-5816**

ISSUE

This sample has a gamma analysis requested on it which requires a 2L pour up. Usually, we receive 4L for this test but we only received 1L. This will effect reaching the detection limit.

PROPOSED RESOLUTION

Pour up the 1L of sample and accept the results even though the detection limit may not be achieved.

BHI/FH/PNNL COMMENTS -

Accept proposed resolution.

Heidi Hampt 11/27/07
Signature and date

Adam, Sherryl

From: Hampt, Heidi [Heidi_Hampt@RL.gov]
Sent: Tuesday, November 27, 2007 11:46 AM
To: Adam, Sherryl; Trent, Stephen J; Anastos, Heather L
Subject: RE: IRF for W05257
Attachments: 07-119.DOC

From: Adam, Sherryl [mailto:Sherryl.Adam@testamericainc.com]
Sent: Wednesday, November 21, 2007 1:10 PM
To: Trent, Stephen J; Hampt, Heidi; Anastos, Heather L
Subject: IRF for W05257

Steve,
Please see the attached IRF and advise us how to proceed. Thanks.

<<IRFW05257A.DOC>>

Sherryl A. Adam
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
(formerly STL Richland)

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Clouseau Nonconformance Memo



NCM #: 10-11483 NCM Initiated By: Lisa Antonson Date Opened: 12/17/2007 Date Closed:	Classification: Anomaly Status: PMREVIEW Production Area: Environmental - Prep Tests: Gamma by GER Lot #'s (Sample #'s): J7J310128 (1), J7K130000 (599), QC Batches: 7317599,
Nonconformance: Other (describe in detail) Subcategory: Other (explanation required)	

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	12/17/2007	There was not enough sample for a full 2000 ml pour up for this sample. The sample was counted for 500 minutes to ensure the CRDL was met using the smaller sample volume.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	12/17/2007	The sample count time was extended.

Client Notification Summary

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

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Lot No., Due Date: J7J270205,J7J310125,J7J310354,J7J310353; 12/20/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7317597; RGAMLEPS Gamma by LEPS

SDG, Matrix: W05257; 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

Traci Antonson

Date

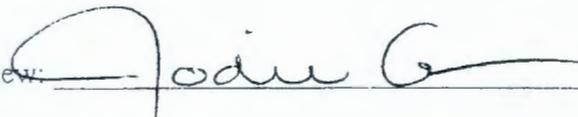
12/19/07

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7317597

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: 12/20/07

Lot No., Due Date: J7J270208; 12/20/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7317602; RTC99 Tc-99 by LSC
 SDG, Matrix: W05257; 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

William E. Michael

Date

12/14/07

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 7317602

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

Comments on any "No" response: _____

Second Level Review: Erika Jock Date: 12/17/17

Lot No., Due Date: J7J310357; 12/20/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7353438; RTC99 Tc-99 by LSC
 SDG, Matrix: W05257; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	✓		
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> J99X22AD TC-99 50.0 (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	✓		
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	✓		
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	✓		
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK: No Action Level Found => TC-99 OK: No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	✓		

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later version)	Yes	No	N/A
8.3 Comments: NCM 10-11553			
8.31 Results Blank Subtracted as Appropriate. OK	Yes	No	N/A ✓

First Level Review *[Signature]*

Date 10/31/07

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7353438

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

Comments on any "No" response: see NCM

Second Level Review: Jodie C Date: 12/31/07

Clouseau Nonconformance Memo

TestAmerica

TESTAMERICA ENVIRONMENTAL SYSTEMS

NCM #: <u>10-11553</u>	Classification: Anomaly
NCM Initiated By: Lisa Antonson	Status: PMREVIEW
Date Opened: 12/31/2007	Production Area: Environmental - Sep
Date Closed:	Tests: Tc-99 by LSC
	Lot #'s (Sample #'s): J7J310357 (2,3), J7K130000 (601),
	QC Batches: 7317601,
Nonconformance: LCS result out of limits	
Subcategory: Analyte was recovered low in the LCS	

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	12/31/2007	The LCS was recovered low in this batch. A recount verified the low recovery. The blank was also high. The batch was rerun as 7353438. The LCS was slightly low at 74%. The MS has an acceptable recovery of 88%, the batch will be accepted based on this result.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	12/31/2007	Investigation will continue into the cause of the low LCSs.

Client Notification Summary

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

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position
---------------	-------------	----------

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 7317598
W05257

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: Sheryl A. Adam Date: 11-28-07



STL

Richland Laboratory Data Review Check List Hexavalent Chromium

Batch Number(s): 7317603		WCB 5257		JTK 060161	
Lab Sample Numbers or					
Method/Test/Parameter: Cr+6 in Water / RICH-WC-5003					
Review Item	Yes (✓)	No (✓)	N/A (✓)	2 nd Level Review (✓)	
A. Initial Calibration					
1. Performed at required frequency with required number of levels?	✓			/	
2. Correlation coefficient within QC limits?	✓			/	
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			/	
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters ≤ reporting limit?	✓			/	
B. Continuing Calibration					
1. CCV analyzed at required frequency and all parameters within QC limits?		✓		/	
2. CCB analyzed at required frequency and all results ≤ reporting limit?		✓		/	
C. Sample Analysis					
1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed?			✓	/	
2. Were all sample holding times met?	✓			/	
D. QC Samples					
1. All results for the preparation blank below limits?	✓	PR		/	
2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?	✓			/	
3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?	✓			/	
4. Analytical spikes within QC limits where applicable?			✓	/	
5. ICP only: One serial dilution performed per SDG?			✓	/	
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	/	
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?			✓	/	

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

Comments on any "No" response:

Forgot to run CCV and CCB after analysis. WO5260 run in the same day and contains valid/passing CCV and CCB it is the same solution and calibration curve used on both batches.

Analyst: *Jan Pet*

Date: 11/14/2007

Second-Level Review: *Jodie C*

Date: 12/31/07

**STL RICHLAND ISSUE RESOLUTION FORM
FOR CONTRACT 615 WITH BHI/FH/PNNL**

IRF Tracking Number: 07-118

SAF No.: I08-005

Date: November 15, 2007

SDG: W05257

Sample No.(s) B1R199

Submitted By: Sherryl Adam

Submitted To: Steve Trent (FH)

Phone No. 509-375-3131 x164

Phone No. 509-373-5869

Fax No. 509-375-5590

Fax No. 866-252-5816

ISSUE

On this Cr-VI analysis the tech forgot to run a CCV and CCB at the end. W05260 was run later that afternoon with the same standards. The CCV and CCB had acceptable results.

PROPOSED RESOLUTION

Accept results based on the CCV and CCB results from second batch.

BHI/FH/PNNL COMMENTS -

Accept proposed resolution and note in the case narrative. Also, please let us know what the lab is doing to prevent this type of occurrence in the future. This is the second IRF in two days documenting missed QC.

Heidi Hampt 11/15/07
Signature and date

Adam, Sherryl

From: Hampt, Heidi [Heidi_Hampt@RL.gov]
Sent: Thursday, November 15, 2007 2:04 PM
To: Adam, Sherryl; Trent, Stephen J; Anastos, Heather L
Subject: RE: IRF W05257/07-118
Attachments: 07-118.DOC

From: Adam, Sherryl [mailto:Sherryl.Adam@testamericainc.com]
Sent: Thursday, November 15, 2007 1:42 PM
To: Trent, Stephen J; Hampt, Heidi; Anastos, Heather L
Subject: IRF W05257

Steve et al,

Please see the attached IRF and advise us how to proceed. Thanks.

<<IRFW05257.DOC>>

Sherryl A. Adam
Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
(formerly STL Richland)

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Richland, WA 99354
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STL

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 7317604				
Lab Sample Numbers or <u>WQ5257 JTK 050131</u>				
Method/Test/Parameter: Cr+6 in Water / RICH-WC-5003				
Review Item	Yes (✓)	No (✓)	N/A (✓)	2 nd Level Review (✓)
A. Initial Calibration				
1. Performed at required frequency with required number of levels?	✓			/
2. Correlation coefficient within QC limits?	✓			/
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			/
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters ≤ reporting limit?	✓			/
B. Continuing Calibration				
1. CCV analyzed at required frequency and all parameters within QC limits?	✓			/
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			/
C. Sample Analysis				
1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed?			✓	/
2. Were all sample holding times met?	✓			/
D. QC Samples				
1. All results for the preparation blank below limits?	✓			/
2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?	✓			/
3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?	✓			/
4. Analytical spikes within QC limits where applicable?			✓	/
5. ICP only: One serial dilution performed per SDG?			✓	/
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	/
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?			✓	/

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

Comments on any "No" response:

Analyst: *Jane P. [Signature]*

Date: 11/14/2007

Second-Level Review: *Jodie [Signature]*

Date: 12/31/07

Sample Check-in List

Date/Time Received: 102507 1425

Client: PGW SDG #: W05257 NA [] SAF #: I08-008 NA []

Work Order Number: J7J270305 Chain of Custody # I08-008-11,20,-14

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes [X] No []

2. Custody Seals dated and signed? NA [] Yes [X] No []

3. Chain of Custody record present? NA [] Yes [X] No []

4. Cooler Temperature: _____ NA [X] 5. Vermiculite/packing materials is NA [X] Wet [] Dry []

6. Number of samples in shipping container: 3

7. Sample holding times exceeded? NA [X] Yes [] No []

8. Samples have:
 Tape Hazard Labels
 Custody Seals Appropriate Sample Labels

9. Samples are:
 In Good Condition Leaking
 Broken Have Air Bubbles
 (Only for samples requiring no head space.)

10. Sample pH taken? NA [] pH<2 [] pH>2 [X] pH>9 []

11. Sample Location, Sample Collector Listed? *
 *For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt? Yes [] No [X]

13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 102507

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

Sample Check-in List

Date/Time Received: 102507 1425

Client: PGW SDG #: W05257 NA SAF #: S08-010 NA

Work Order Number: 575370208 Chain of Custody # S08-010-248

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA Yes No
2. Custody Seals dated and signed? NA Yes No
3. Chain of Custody record present? NA Yes No
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes No
8. Samples have:

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA pH < 2 pH > 2 pH > 9
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:  Date: 102507

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

No action necessary; process as is.

Project Manager _____ Date _____

Sample Check-in List

DUE 121407

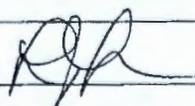
Date/Time Received: 103007 1530

Client: PGW SDG#: W05257 NA [] SAF#: I08-008 NA []

Work Order Number: J75310125 Chain of Custody # I08-008-2

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:
 Tape _____ Hazard Lables
 Custody Seals _____ Appropriate Sample Lables
9. Samples are:
 In Good Condition _____ Leaking
 Broken _____ Have Air Bubbles
 (Only for samples requiring no head space.)
10. Sample pH taken? NA [] pH<2 [] pH>2 pH>9 []
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:  Date: 103007

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

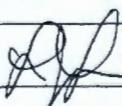
Project Manager _____ Date _____

Sample Check-in List

DUE 121407

Date/Time Received: 103007 1530
 Client: PGW SDG#: W05257 NA| SAF#: W08-011 NA|
 Work Order Number: J7J310128 Chain of Custody # W08-011-164
 Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:
 Tape _____ Hazard Lables
 Custody Seals _____ Appropriate Sample Lables
9. Samples are:
 In Good Condition _____ Leaking
 Broken _____ Have Air Bubbles
(Only for samples requiring no head space.)
10. Sample pH taken? NA [] pH < 2 pH > 2 [] pH > 9 []
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:  Date: 103007

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

Sample Check-in List

DUE 12/4/07

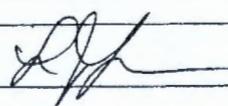
Date/Time Received: 103007 1530

Client: PGW SDG#: W05257 NA [] SAF#: I08-005 NA []

Work Order Number: J7J310131 Chain of Custody # I08-005-44,38,-39,50

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:
 Tape Hazard Labels
 Custody Seals Appropriate Sample Labels
9. Samples are:
 In Good Condition Leaking
 Broken Have Air Bubbles
(Only for samples requiring no head space.)
10. Sample pH taken? NA [] pH < 2 pH > 2 [] pH > 9 []
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:  Date: 103007

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

Sample Check-in List

DUE 12/4/07

Date/Time Received: 10/3/07 1400

Client: PGW SDG#: W05257 NA [] SAF#: 508-010 NA []

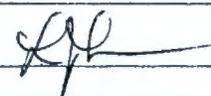
Work Order Number: 171310353 Chain of Custody # 508-010-260

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Labels <input checked="" type="checkbox"/> Appropriate Sample Labels
---	--
9. Samples are:

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [] pH<2 [] pH>2 pH>9 []
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:  Date: 10/3/07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

Sample Check-in List

DUE 121407

Date/Time Received: 103107 1400

Client: PGW SDG #: W05257 NA [] SAF #: A08-010 NA []

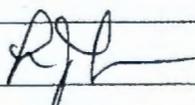
Work Order Number: J7J310354 Chain of Custody # A08-010-33,-34

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:

<input type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
--	---
9. Samples are:

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [] pH<2 [] pH>2 pH>9 []
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:  Date: 103107

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

Sample Check-in List

DUE 121407

Date/Time Received: 103107 1400

Client: PGW SDG #: W05257 NA [] SAF #: W08-010 NA []

Work Order Number: J7J310357 Chain of Custody # _____

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [] pH < 2 pH > 2 [] pH > 9 []
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: RJH Date: 103107

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

Sample Check-in List

Date/Time Received: 103107 1530
 Client: PGW SDG #: W05257 NA [] SAF #: I08-005 NA []
 Work Order Number: J7J310360 Chain of Custody # I08-005-4,-5
 Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:
 Tape Hazard Labels
 Custody Seals Appropriate Sample Labels
9. Samples are:
 In Good Condition Leaking
 Broken Have Air Bubbles
(Only for samples requiring no head space.)
10. Sample pH taken? NA [] pH<2 pH>2 [] pH>9 []
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: 103107

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

Sample Check-in List

Date/Time Received: 11 207 1434

Client: PGW SDG #: W05257 NA [] SAF #: I08-006 NA []

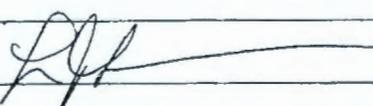
Work Order Number: J7K050131 Chain of Custody # I08-006-18

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [] pH < 2 [] pH > 2 pH > 9 []
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:  Date: 11 207

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

Sample Check-in List

DUE 122007

Date/Time Received: 11-5-07 1515

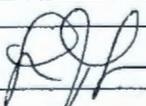
Client: PGW SDG #: W05257 NA [] SAF #: I08-005 NA []

Work Order Number: J7K060161 Chain of Custody # I08-005-58

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:
 - Tape
 - Custody Seals
 - Hazard 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 []
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:  Date: 11-5-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

TESTAMERICA RICHLAND

12/7/2007 5:02:05 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: 235

AnalyDueDate: 12/14/2007 W05257

Sep1 DT/Tm Tech:

Batch: 7317594 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

Prep Tech: HarrisD/Bockg.



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:
1 J97QJ-1-AA J7J310128-1-SAMP 10/30/2007 09:32 AmtRec: VIAL20,500MLP,LP #Containers: 3	21.80g,in			1.5	49.9	200	10A	1909	12/14/0702	Scr: Alpha: 9.61E-04 uCi/Sa 2.8E-01L Beta: -8.17E-06 uCi/Sa
2 J97Q5-1-AA J7J310131-1-SAMP 10/30/2007 10:41 AmtRec: VIAL20,LP #Containers: 2	125.00g,in				40.0	100	10A	2107	12/14/0702	Scr: Alpha: 8.35E-05 uCi/Sa Beta: 8.10E-05 uCi/Sa
3 J97RE-1-AA J7J310131-2-SAMP 10/30/2007 09:42 AmtRec: VIAL20,LP #Containers: 2	79.30g,in				49.7		10B			Scr: Alpha: 9.63E-05 uCi/Sa Beta: -1.02E-04 uCi/Sa
4 J97RF-1-AA J7J310131-3-SAMP 10/30/2007 07:45 AmtRec: VIAL20,LP #Containers: 2	199.90g,in				0.2	50	10A	1247	12/17/0702	Scr: Alpha: -2.95E-05 uCi/Sa Beta: -9.19E-05 uCi/Sa
5 J97RH-1-AA J7J310131-4-SAMP 10/30/2007 13:40 AmtRec: VIAL20,LP #Containers: 2	113.70g,in				24.3	100	10C	2167	12/14/0702	Scr: Alpha: -3.46E-05 uCi/Sa Beta: 1.79E-04 uCi/Sa
6 J99W6-1-AA J7J310357-1-SAMP 10/31/2007 10:41 AmtRec: VIAL20,LP #Containers: 2	200.00g,in				25.5	50	10C	1247	12/17/0702	Scr: Alpha: -1.29E-04 uCi/Sa Beta: 4.69E-04 uCi/Sa
7 J990F-1-AA J7J310360-1-SAMP 10/31/2007 12:56 AmtRec: 20ML,LP #Containers: 2	111.10g,in				42.0	100	10D	2107	12/14/0702	Scr: Alpha: 2.64E-04 uCi/Sa Beta: 3.80E-05 uCi/Sa

99

TESTAMERICA RICHLAND

12/7/2007 5:02:07 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: _____

AnalysisDueDate: 12/14/2007

Sep1 DT/Tm Tech:

Batch: 7317594 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: HarrisD



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:
8 J990F-1-AD-X J7J310360-1-DUP 10/31/2007 12:56 AmtRec: 20MLLP #Containers: 2	111.10g,in			1.5	43.0	100	10F	2107	12/14/07 OK	
9 J990G-1-AA J7J310360-2-SAMP 10/31/2007 12:56 AmtRec: 20MLLP #Containers: 2	104.00g,in				39.9		10A	0744	12/17/07 KC	
10 KAK6C-1-AD J7K060161-1-SAMP 11/05/2007 12:52 AmtRec: ViAL20,500MLP,2XLP #Containers: 4	102.10g,in				41.4		10B/OC n=12/17/07			
11 KA666-1-AA-B J7K130000-594-BLK 10/31/2007 12:56 AmtRec: #Containers: 1	200.30g,in				0.3	200	10C	1909	12/14/07 OK	
12 KA666-1-AC-C J7K130000-594-LCS 10/31/2007 12:56 AmtRec: #Containers: 1	200.30g,in		ASD4351 10/31/07,pd 06/01/01		0.4		10D			

Comments:

PH 2.0. Aliquots reduced due to weight screens. DUH 12/7/07

All Clients for Batch:

384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

J97QJ1AA-SAMP Constituent List:

ALPHA RDL:3 pCi/L LCL: UCL: RPD:

100

TESTAMERICA RICHLAND

12/7/2007 5:02:07 PM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 12/14/2007

Sep1 DT/Tm Tech:

Batch: 7317594
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,HarrisD



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, Ini/Date	Comments:
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KA6661AA-BLK:
 ALPHA RDL:3 pCi/L LCL: UCL: RPD:
 KA6661AC-LCS:
 Am-241 RDL: pCi/L LCL:70 UCL:130 RPD:20

J97QJ1AA-SAMP Calc Info:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

KA6661AA-BLK:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

KA6661AC-LCS:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

101

12/17/2007 3:05:13 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/17/2006, 12/22/2007, Batch: '7317594', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7317594				
AC	CalcC	HarrisD	12/7/2007 4:48:23 PM	
SC		wagarr	isBatched 11/14/2007 8:09:22 AM	ICOC_RADCALC v4.8.29
SC		HarrisD	InPrep 12/7/2007 4:48:23 PM	RICH-RC-5017 Revision 6
SC		HarrisD	Prep1C 12/7/2007 5:02:09 PM	RICH-RC-5014 REVISION 7
SC		BockJ	InPrep2 12/13/2007 10:55:06 AM	RICH-RC-5014 REVISION 7
SC		BockJ	Prep2C 12/14/2007 11:48:06 AM	RICH-RC-5014 REVISION 7
SC		BlackCL	InCnt1 12/14/2007 12:11:12 PM	RICH-RD-0003 REVISION 5
SC		ClarkR	CalcC 12/17/2007 1:26:50 PM	RICH-RD-0003 REVISION 5
AC		HarrisD	12/7/2007 5:02:09 PM	
AC		BockJ	12/13/2007 10:55:06	
AC		BockJ	12/14/2007 11:48:06	
AC		BlackCL	12/14/2007 12:11:12	
AC		ClarkR	12/17/2007 1:26:50	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

TESTAMERICA RICHLAND

12/8/2007 10:28:57 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: 235

AnalyDueDate: 12/14/2007 W05257

Sep1 DT/Tm Tech:

Batch: 7317595 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,Harris/ Box 8

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	OC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Ini/Date	Comments:
1 J97QJ-1-AC J7J310128-1-SAMP 10/30/2007 09:32 AmtRec: VIAL20,500MLP,LP #Containers: 3	24.70g,in			1.5	93.8	200	32A	1535	12/14/07	
2 J97Q5-1-AC J7J310131-1-SAMP 10/30/2007 10:41 AmtRec: VIAL20,LP #Containers: 2	178.50g,in				98.0	100	31A	1355		
3 J97RE-1-AC J7J310131-2-SAMP 10/30/2007 09:42 AmtRec: VIAL20,LP #Containers: 2	131.40g,in				90.4		31B			
4 J97RF-1-AC J7J310131-3-SAMP 10/30/2007 07:45 AmtRec: VIAL20,LP #Containers: 2	200.10g,in				0.1		31C			
5 J97RH-1-AC J7J310131-4-SAMP 10/30/2007 13:40 AmtRec: VIAL20,LP #Containers: 2	158.80g,in				94.3		31D			
6 J99W6-1-AC J7J310357-1-SAMP 10/31/2007 10:41 AmtRec: VIAL20,LP #Containers: 2	200.10g,in				49.7		32A			
7 J99X2-1-AA J7J310357-2-SAMP 10/31/2007 09:15 AmtRec: VIAL20,4XLP #Containers: 5	200.10g,in				86.9		32B			
<p>Scr: Alpha: 9.61E-04 uCi/Sa 2.8E-01L Beta: -8.17E-06 uCi/Sa</p> <p>Scr: Alpha: 8.35E-05 uCi/Sa Beta: 8.10E-05 uCi/Sa</p> <p>Scr: Alpha: 9.63E-05 uCi/Sa Beta: -1.02E-04 uCi/Sa</p> <p>Scr: Alpha: -2.95E-05 uCi/Sa Beta: -9.19E-05 uCi/Sa</p> <p>Scr: Alpha: -3.46E-05 uCi/Sa Beta: 1.79E-04 uCi/Sa</p> <p>Scr: Alpha: 1.29E-04 uCi/Sa Beta: 4.69E-04 uCi/Sa</p> <p>Scr: Alpha: 1.96E-04 uCi/Sa Beta: 1.06E-03 uCi/Sa</p>										

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TESTAMERICA RICHLAND

104

12/8/2007 10:28:59 AM Sample Preparation/Analysis Balance Id:1120482733
 384868, Pacific Northwest National Laboratory, Pacific Northwest National Lab BC Gross Beta PrpRC5014 Pipet #: _____
 S8 Gross Beta by GPC using Sr/Y-90 curve SI CLIENT: HANFORD Sep1 DT/Tm Tech: _____
 AnalyDueDate: 12/14/2007

Batch: 7317595 WATER pCi/L PM, Quote: SA, 57671 Sep2 DT/Tm Tech: _____
 SEQ Batch, Test: None Prep Tech: ,HarrisD

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:
8 J99X6-1-AA J7J310357-3-SAMP 10/31/2007 09:15	200.00g.in			1.5	98.3	100	32C	1355	12/14/07	
AmtRec: VIAL20,4XLP #Containers: 5 Scr: Alpha: -1.81E-04 uCi/Sa Beta: 8.42E-04 uCi/Sa										
9 J990F-1-AC J7J310360-1-SAMP 10/31/2007 12:56	158.70g.in				106.4		32D			
AmtRec: 20MLLP #Containers: 2 Scr: Alpha: 2.64E-04 uCi/Sa Beta: 3.80E-05 uCi/Sa										
10 J990G-1-AC J7J310360-2-SAMP 10/31/2007 12:56	153.80g.in				105.8		26A	1509	12/14/07 RC	
AmtRec: 20MLLP #Containers: 2 Scr: Alpha: 1.52E-04 uCi/Sa Beta: 2.70E-05 uCi/Sa										
11 J990G-1-AD-X J7J310360-2-DUP 10/31/2007 12:56	153.80g.in				98.9		213			
AmtRec: 20MLLP #Containers: 2 Scr: Alpha: 1.52E-04 uCi/Sa Beta: 2.70E-05 uCi/Sa										
12 KAK6C-1-AE J7K060161-1-SAMP 11/05/2007 12:52	166.50g.in				92.8		21C			
AmtRec: VIAL20,500MLP,2XLP #Containers: 4 Scr: Alpha: -1.35E-04 uCi/Sa Beta: 2.13E-04 uCi/Sa										
13 KA668-1-AA-B J7K130000-595-BLK 10/31/2007 12:56	200.10g.in			1.0	200		21B	1535	12/14/07	
AmtRec: #Containers: 1 Scr: Alpha: Beta:										
14 KA668-1-AC-C J7K130000-595-LCS 10/31/2007 12:56	200.20g.in		BESB3171 11/12/07.pd	0.5			27C			
AmtRec: #Containers: 1 Scr: Alpha: Beta:										

TESTAMERICA RICHLAND

12/8/2007 10:29:00 AM

Sample Preparation/Analysis

Balance Id:1120482733

BC Gross Beta PrpRC5014
 S8 Gross Beta by GPC using Sr/Y-90 curve
 5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 12/14/2007

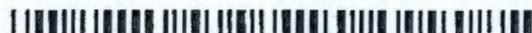
Sep1 DT/Tm Tech:

Batch: 7317595
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,HarrisD



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:
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Comments: *At least 3 aliquots reduced due to weight screens. Dat 12/8/07*

All Clients for Batch:
 384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

J97QJ1AC-SAMP Constituent List:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
KA6681AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
KA6681AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20
J97QJ1AC-SAMP Calc Info:					
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N Sci.Not.: Y ODRs: B
KA6681AA-BLK:					
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N Sci.Not.: Y ODRs: B
KA6681AC-LCS:					
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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12/17/2007 4:59:47 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/17/2006, 12/22/2007, Batch: '7317595', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7317595				
AC		InRev1	HarrisD	12/8/2007 10:18:50	
SC			wagarr	IsBatched 11/14/2007 8:09:22 AM	ICOC_RADCALC v4.8.29
SC			HarrisD	InPrep 12/8/2007 10:18:50 AM	RICH-RC-5014 Revision 7
SC			HarrisD	Prep1C 12/8/2007 10:29:02 AM	RICH-RC-5014 REVISION 7
SC			BockJ	InPrep2 12/13/2007 10:54:56 AM	RICH-RC-5014 REVISION 7
SC			BockJ	Prep2C 12/14/2007 11:53:19 AM	RICH-RC-5014 REVISION 7
SC			DAWKINSO	CalcC 12/14/2007 8:37:48 PM	RICH-RD-0003 REVISION 5
SC			HARBINSOND	InRev1 12/17/2007 9:56:18 AM	RICH-RC-0002 REVISION 8
AC			HarrisD	12/8/2007 10:29:02	
AC			BockJ	12/13/2007 10:54:56	
AC			BockJ	12/14/2007 11:53:19	
AC			DAWKINSO	12/14/2007 8:37:48	
AC			HARBINSOND	12/17/2007 9:56:18	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

TESTAMERICA RICHLAND

12/13/2007 8:37:35 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 12/14/2007 *WDS*

Sep1 DT/Tm Tech:

Batch: 7317599 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

Prep Tech: HarrisD / *Boyle*

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:
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1 J97QJ-1-AD	999.80g,in									
<p>J7J310128-1-SAMP 10/30/2007 09:32 AmtRec: VIAL20,500MLP,LP #Containers: 3</p> <p>Scr: Alpha: 9.61E-04 uCi/Sa 2.8E-01L Beta: -8.17E-06 uCi/Sa</p> <p><i>100mls 500 266 211 12/14/07</i></p>										

2 J97QJ-1-AE-X										
<p>J7J310128-1-DUP 10/30/2007 09:32 AmtRec: VIAL20,500MLP,LP #Containers: 3</p> <p>Scr: Alpha: 9.61E-04 uCi/Sa 2.8E-01L Beta: -8.17E-06 uCi/Sa</p> <p><i>66 2551 12/14/07</i></p>										

3 KA67D-1-AA-B	1999.90g,in									
<p>J7K130000-599-BLK 10/30/2007 09:32 AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p> <p><i>6866 211 12/14/07</i></p>										

4 KA67D-1-AC-C	2000.20g,in	QCAG1428								
<p>J7K130000-599-LCS 10/30/2007 09:32 AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p> <p><i>65 0550 12/14/07</i></p>										

Comments: J97QJ-SAMP "Comments: sample poured at 999.8mls and no duplicate due to insuff sample volume. DLH 12/13/07" *Please recount Duj on diff detector. 12-13-07*

PH20 out 12/13/07

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA, 57671

J97QJ1AD-SAMP Constituent List:

Co-60	Cs-137	Eu-154	K-40	RDL:	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:	pCi/L	LCL:	UCL:	RPD:
				0.00E+00						0.00E+00				
				6.00E+00		70	130	20	Cs-137DA	6.00E+00			130	20
				0.00E+00					Eu-155	.00E+00				
				0.00E+00					Sb-125	0.00E+00				

KA67D1AA-BLK:

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TESTAMERICA RICHLAND

12/13/2007 8:37:35 AM

Sample Preparation/Analysis

Balance Id:1120482733

AW Gamma PrpRC5017
 TA Gamma by HPGE
 5I CLIENT: HANFORD

Pipet #: _____

AnalytDueDate: 12/14/2007

Sep1 DT/Tm Tech:

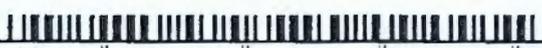
Batch: 7317599

pCi/L

Sep2 DT/Tm Tech:

SEO Batch, Test: None

Prep Tech: ,HarrisD



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:	
Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
KA67D1AC-LCS:											
Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						
J97QJ1AD-SAMP Calc Info:											
Uncert Level (#s): 2	Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B				
KA67D1AA-BLK:											
Uncert Level (#s): 2	Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B				
KA67D1AC-LCS:											
Uncert Level (#s): 2	Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B				

Approved By _____ Date: _____

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12/17/2007 3:12:41 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/17/2006, 12/22/2007, Batch: '7317599', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7317599				
AC	CalcC	HarrisD	12/13/2007 8:00:12	
SC		wagarr	IsBatched 11/14/2007 8:09:22 AM	ICOC_RADCALC v4.8.29
SC		HarrisD	InPrep 12/13/2007 8:00:12 AM	RICH-RC-5017 Revision 6
SC		HarrisD	Prep1C 12/13/2007 8:06:09 AM	RICH-RC-5017 REVISION 6
SC		BockJ	InPrep2 12/13/2007 9:42:36 AM	RICH-RC-5017 REVISION 6
SC		BockJ	Prep2C 12/14/2007 9:23:07 AM	RICH-RC-5017 REVISION 6
SC		BlackCL	InCnt1 12/14/2007 12:58:08 PM	RICH-RD-0007 REVISION 6
SC		DAWKINSO	CalcC 12/15/2007 1:03:50 PM	RICH-RD-0007 REVISION 6
AC		HarrisD	12/13/2007 8:06:09	
AC		BockJ	12/13/2007 9:42:36	
AC		BockJ	12/14/2007 9:23:07	
AC		BlackCL	12/14/2007 12:58:08	
AC		DAWKINSO	12/15/2007 1:03:50	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

TESTAMERICA RICHLAND

12/11/2007 10:52:52 AM

Sample Preparation/Analysis

Balance Id:2113224201

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 12/10/2007 **W05257**

Sep1 DT/Tm Tech:

Batch: 7317597 WATER pCi/L PM, Quote: SA, 57671
SEQ Batch, Test: None All Tests: 7317597 BNTB,

Sep2 DT/Tm Tech:

Prep Tech: ,BostedD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 J92HQ-1-AA J7J270205-1-SAMP 10/25/2007 09:50 AmtRec: 20ML,2X4LP #Containers: 3	3871.40g,in		ITA6820 12/06/07		33.6	100	L2	1716		12/19/07 OK
2 J92HQ-1-AC-X J7J270205-1-DUP 10/25/2007 09:50 AmtRec: 20ML,2X4LP #Containers: 3	3914.40g,in		ITA6821 12/06/07		33.8		L4	1716		
3 J92HR-1-AA J7J270205-2-SAMP 10/25/2007 12:17 AmtRec: 20ML,2X4LP #Containers: 3	3919.70g,in		ITA6822 12/06/07		33.4		L5	1717		
4 J92HT-1-AA J7J270205-3-SAMP 10/25/2007 11:40 AmtRec: 20ML,2X4LP #Containers: 3	3871.40g,in		ITA6823 12/06/07		32.7		L2	1905		
5 J97P6-1-AA J7J310125-1-SAMP 10/29/2007 14:08 AmtRec: VIAL20,2X4LP #Containers: 3	3897.00g,in		ITA6824 12/06/07		31.0		L4	906		
6 J99VG-1-AA J7J310353-1-SAMP 10/31/2007 12:01 AmtRec: VIAL20,2X4LP #Containers: 3	3859.40g,in		ITA6825 12/06/07		33.0		L5	1907		
7 J99V4-1-AA J7J310354-1-SAMP 10/31/2007 09:15 AmtRec: VIAL20,2X4LP #Containers: 3	3924.70g,in		ITA6826 12/06/07		32.4	✓	L2	2051		

TIO

TESTAMERICA RICHLAND

12/11/2007 10:52:53 AM

Sample Preparation/Analysis

Balance Id:2113224201

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 12/10/2007

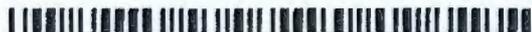
Sep1 DT/Tm Tech:

Batch: 7317597 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,BostedD



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:
8 J99WC-1-AA J7J310354-2-SAMP 10/31/2007 09:15		3930.50g.in	ITA6827 12/06/07		36.1	100	L4	2052	12/17/07	
<p>AmtRec: VIAL20,2X4LP #Containers: 3 Scr: Alpha: -1.24E-03 uCi/Sa Beta: 3.94E-03 uCi/Sa</p>										
9 KA669-1-AA-B J7K130000-597-BLK 10/25/2007 09:50		3820.70g.in	ITA6828 12/06/07		36.3		L5	2052		
<p>AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>										
10 KA669-1-AC-C J7K130000-597-LCS 10/25/2007 09:50		3997.30g.in	ISD0794 11/27/07		37.1		L4	2337		
<p>AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>										

Comments:

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

J92HQ1AA-SAMP Constituent List:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
KA6691AA-BLK:					
I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
KA6691AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

J92HQ1AA-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KA6691AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KA6691AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

TESTAMERICA RICHLAND

12/11/2007 10:52:53 AM

Sample Preparation/Analysis

Balance Id:2113224201

BN I-129 Prp/SepRC5025

Pipet #: _____

TB Gamma by LEPD

SI CLIENT: HANFORD

AnalyDueDate: 12/10/2007

Sep1 DT/Tm Tech: _____

Batch: 7317597

pCi/L

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None

Prep Tech: ,BostedD



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, Ini/Date	Comments:
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Approved By _____

Date: _____

112

12/19/2007 10:53:36 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/19/2006, 12/24/2007, Batch: '7317597', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7317597				
AC	CalcC	BostedD	12/11/2007 2:22:51	
SC		wagarr	IsBatched	11/14/2007 8:09:22 AM
SC		BostedD	InPrep2	12/11/2007 2:22:51 PM
SC		BostedD	Prep2C	12/17/2007 3:33:13 PM
SC		DAWKINSO	InCnt1	12/17/2007 3:47:19 PM
SC		BlackCL	CalcC	12/18/2007 6:57:07 AM
AC		BostedD		12/17/2007 3:33:13
AC		DAWKINSO		12/17/2007 3:47:19
AC		BlackCL		12/18/2007 6:57:07

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

TESTAMERICA RICHLAND

12/6/2007 3:11:00 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalysisDueDate: 12/10/2007 *W05257*

Sep1 DT/Tm Tech:

Batch: 7317602 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,HarrisD

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 J92H7-1-AA J7J270208-1-SAMP 10/25/2007 09:17			125.00g,in	125.00g						
 <p>AmtRec: 20ML,500MLP #Containers: 2</p> <p>Scr: Alpha: 1.96E-05 uCi/Sa Beta: -2.43E-05 uCi/Sa</p>										
2 J92H7-1-AC-S J7J270208-1-MS 10/25/2007 09:17			124.90g,in	124.90g	TCSG1934 11/20/07,pd 01/10/06,r					
 <p>AmtRec: 20ML,500MLP #Containers: 2</p> <p>Scr: Alpha: 1.96E-05 uCi/Sa Beta: -2.43E-05 uCi/Sa</p>										
3 J92H7-1-AD-X J7J270208-1-DUP 10/25/2007 09:17			125.10g,in	125.10g						
 <p>AmtRec: 20ML,500MLP #Containers: 2</p> <p>Scr: Alpha: 1.96E-05 uCi/Sa Beta: -2.43E-05 uCi/Sa</p>										
4 KA67K-1-AA-B J7K130000-602-BLK 10/25/2007 09:17			125.10g,in	125.10g						
 <p>AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p>										
5 KA67K-1-AC-C J7K130000-602-LCS 10/25/2007 09:17			125.10g,in	125.10g	TCSE2178 11/20/07,pd 01/10/06,r					
 <p>AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p>										
6 KA67K-1-AD-BN J7K130000-602-IBLK 10/25/2007 09:17										
 <p>AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p>										

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12/14/2007 4:12:55 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/14/2006, 12/19/2007, Batch: '7317602', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7317602				
AC	CalcC	HarrisD	12/6/2007 3:03:12 PM	
SC		wagarr	IsBatched 11/14/2007 8:09:22 AM	ICOC_RADCALC v4.8.29
SC		HarrisD	InPrep 12/6/2007 3:03:12 PM	RICH-RC-5015 Revision 6
SC		HarrisD	Prep1C 12/6/2007 3:11:09 PM	RICH-RC-5016 REVISION 7
SC		FABREM	Sep1C 12/13/2007 2:37:08 PM	RICH-RC-5065 REVISION 6
SC		DAWKINSO	InCnt1 12/13/2007 7:47:13 PM	RICH-RD-0001 REVISION 4
SC		BlackCL	CalcC 12/14/2007 10:25:15 AM	RICH-RD-0001 REVISION 4
AC		HarrisD	12/6/2007 3:11:09 PM	
AC		FABREM	12/13/2007 2:37:08	
AC		DAWKINSO	12/13/2007 7:47:13	
AC		BlackCL	12/14/2007 10:25:15	

AC: Accepting Entry, SC: Status Change

STL Richland
Richland Wa.

TESTAMERICA RICHLAND

12/6/2007 3:11:02 PM

Sample Preparation/Analysis

Balance Id:

FP Tc-99 Prp/SepRC5065
 S5 Technetium-99 by Liquid Scint
 5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 12/10/2007

Sep1 DT/Tm Tech:

Batch: 7317602
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech:



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:
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Comments:

PH 2.0 out 12/10/07

All Clients for Batch:

384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

J92H71AA-SAMP Constituent List:

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

J92H71AC-MS Constituent List:

KA67K1AA-BLK:

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

KA67K1AC-LCS:

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

KA67K1AD-IBLK:

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

J92H71AA-SAMP Calc Info:

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

J92H71AC-MS Calc Info:

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

KA67K1AA-BLK:

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

KA67K1AC-LCS:

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

KA67K1AD-IBLK:

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

Approved By _____

Date: _____

115



STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 12/20/07

CUSTOMER PGW

ANALYSIS Tc 99

MATRIX H₂O

LOT NUMBER J7J310357

SAMPLE DELIVERY GROUP _____

OLD BATCH NUMBER 7317601

NEW BATCH NUMBER _____

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)	
2) <u>all</u>	<u>low LCS</u>
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	
LAB QC ID	Assigned with new batch.

TESTAMERICA RICHLAND

118

12/21/2007 8:31:15 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National LabAM Tc-99 Prp/SepRC5078
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalytDueDate: 12/14/2007

Sep1 DT/Tm Tech:

Batch: 7353438 WATER pCi/L PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 7317594 AZS7, 7317595 BCS8, 7317601 AMS5, 7353438 AMS5.

Prep Tech: ,HarrisD



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:
1 J99X2-2-AC J7J310357-2-SAMP 10/31/2007 09:15	125.00g,in							
			AmtRec: VIAL20,4XLP	#Containers: 5		Scr: Alpha: 1.96E-04 uCi/Sa	Beta: 1.06E-03 uCi/Sa	
2 J99X2-2-AD-X J7J310357-2-DUP 10/31/2007 09:15	125.00g,in							
			AmtRec: VIAL20,4XLP	#Containers: 5		Scr: Alpha: 1.96E-04 uCi/Sa	Beta: 1.06E-03 uCi/Sa	
3 J99X6-2-AC J7J310357-3-SAMP 10/31/2007 09:15	125.00g,in							
			AmtRec: ViAL20,4XLP	#Containers: 5		Scr: Alpha: -1.81E-04 uCi/Sa	Beta: 8.42E-04 uCi/Sa	
4 J99X6-2-AD-S J7J310357-3-MS 10/31/2007 09:15	125.00g,in		tcsq1942 11/20/07,pd 01/10/08					
			AmtRec: VIAL20,4XLP	#Containers: 5		Scr: Alpha: -1.81E-04 uCi/Sa	Beta: 8.42E-04 uCi/Sa	
5 KA67G-2-AA-B J7K130000-601-BLK 10/31/2007 09:15	125.10g,in							
			AmtRec:	#Containers: 1		Scr: Alpha:	Beta:	
6 KA67G-3-AC-C J7K130000-601-LCS 10/31/2007 09:15	125.00g,in		lcse2190 12/20/07,pd 08/15/08					
			AmtRec:	#Containers: 1		Scr: Alpha:	Beta:	
7 KA67G-3-AD-B J7K130000-601-BLK 10/31/2007 09:15								
			AmtRec:	#Containers: 1		Scr: Alpha:	Beta:	

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

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7
Prep SamplePrep v4.8.29

TESTAMERICA RICHLAND

12/21/2007 8:31:16 AM

Sample Preparation/Analysis

Balance Id: _____

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

Pipet #: _____

AnalyDueDate: 12/14/2007

Sep1 DT/Tm Tech: _____

Batch: 7353438
 SEQ Batch, Test: None

pCi/L

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:
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Comments: *HAZU OUT 12/21/07*

All Clients for Batch:
 384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

J99X22AC-SAMP Constituent List:					
Tc-99	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20
J99X62AD-MS:					
KA67G2AA-BLK:					
Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:
KA67G3AC-LCS:					
Tc-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
KA67G3AD-BLK:					
Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:
J99X22AC-SAMP Calc Info:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J99X62AD-MS:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KA67G2AA-BLK:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KA67G3AC-LCS:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KA67G3AD-BLK:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

119

12/31/2007 10:09:14 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/31/2006, 1/5/2008, Batch: '7353438', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7353438				
AC	InCnt1	HarrisD	12/21/2007 8:22:06	
SC		antonsonl	IsBatched	12/19/2007 2:35:09 PM
SC		HarrisD	InPrep	12/21/2007 8:22:06 AM
SC		HarrisD	Prep1C	12/21/2007 8:31:27 AM
SC		FABREM	Sep1C	12/26/2007 1:33:52 PM
SC		BlackCL	InCnt1	12/26/2007 1:42:30 PM
AC		HarrisD	12/21/2007 8:31:27	ICOC_RADCALC v4.8.29
AC		FABREM	12/26/2007 1:33:52	RICH-RC-5016 Revision 7
AC		BlackCL	12/26/2007 1:42:30	RICH-RC-5016 REVISION 7
				RICH-RC-5078 REVISION 4
				RICH-RD-0001 REVISION 4

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

TESTAMERICA RICHLAND

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11/14/2007 8:05:01 AM

Sample Preparation/Analysis

Balance Id: 12445

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint

Pipet #: _____

AnalyDueDate: 12/20/2007

W05257

SI CLIENT: HANFORD

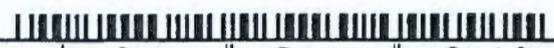
Sep1 DT/Tm Tech: 11-20-07on

Batch: 7317598 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA, 57671

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:
1 KAK6C-1-AC								
J7K060161-1-SAMP 11/05/2007 12:52								
		AmtRec: VIAL20,500MLP,2XLP		#Containers: 4		Scr:	Alpha:	Beta:
2 KAK6C-1-AF-X								
J7K060161-1-DUP 11/05/2007 12:52								
		AmtRec: VIAL20,500MLP,2XLP		#Containers: 4		Scr:	Alpha:	Beta:
3 KA67C-1-AA-B								
J7K130000-598-BLK 11/05/2007 12:52								
		AmtRec:		#Containers: 1		Scr:	Alpha:	Beta:
4 KA67C-1-AC-C								
J7K130000-598-LCS 11/05/2007 12:52								
		AmtRec:		#Containers: 1		Scr:	Alpha:	Beta:
5 KA67C-1-AD-BX								
J7K130000-598-MBLK 11/05/2007 12:52								
		AmtRec:		#Containers: 1		Scr:	Alpha:	Beta:
6 KA67C-1-AE-CM								
J7K130000-598-MLCS 11/05/2007 12:52								
		AmtRec:		#Containers: 1		Scr:	Alpha:	Beta:
7 KA67C-1-AF-BN								
J7K130000-598-IBLK 11/05/2007 12:52								
		AmtRec:		#Containers: 1		Scr:	Alpha:	Beta:

TESTAMERICA RICHLAND

11/14/2007 8:05:01 AM

Sample Preparation/Analysis

Balance Id: 124115

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

Pipet #: _____

AnalyDueDate: 12/20/2007

Sep1 DT/Tm Tech: 11-26-07cm

Batch: 7317598 pCi/L
 SEQ Batch, Test: None

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:
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8 KA67C-1-AG-BN

J7K130000-598-IBLK

11/05/2007 12:52	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:
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Comments:

All Clients for Batch:
 384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

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KA67C1AC-SAMP Constituent List:

- KA67C1AA-BLK:
- KA67C1AC-LCS:
- KA67C1AD-MBLK:
- KA67C1AE-MLCS:
- KA67C1AF-IBLK:
- KA67C1AG-IBLK:

KA67C1AC-SAMP Calc Info:	Uncert Level (#s):	Decay to SaDt:	Blk Subt.:	Sci.Not.:	ODRs:
KA67C1AA-BLK:	2	Y	N	Y	B
KA67C1AC-LCS:	2	Y	N	Y	B
KA67C1AD-MBLK:	2	Y	N	Y	B
KA67C1AE-MLCS:	2	Y	N	Y	B
KA67C1AF-IBLK:	2	Y	N	Y	B

TESTAMERICA RICHLAND

11/14/2007 8:05:01 AM

Sample Preparation/Analysis

Balance Id: 12445

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 12/20/2007

Sep1 DT/Tm Tech: 11-JO STAN

Batch: 7317598 pCi/L
SEQ Batch, Test: None

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:
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KCA67C1AG-IBLK:

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

Approved By _____ Date: _____

123

11/27/2007 3:46:23 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/27/2006, 12/2/2007, Batch: '7317598', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7317598				
AC	CalcC	McDowellD	11/20/2007 11:02:32	
SC		wagarr	IsBatched 11/14/2007 8:09:22 AM	ICOC_RADCALC v4.8.29
SC		McDowellD	InSep1 11/20/2007 11:02:32 AM	RICH-RC-5007 REVISION 6
SC		McDowellD	Sep1C 11/20/2007 2:53:06 PM	RICH-RC-5007 REVISION 6
SC		DAWKINSO	InCnt1 11/20/2007 3:13:37 PM	RICH-RD-0001 REVISION 4
SC		ClarkR	CalcC 11/21/2007 1:23:50 PM	RICH-RD-0001 REVISION 4
AC		McDowellD	11/20/2007 2:53:06	
AC		DAWKINSO	11/20/2007 3:13:37	
AC		ClarkR	11/21/2007 1:23:50	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

TESTAMERICA RICHLAND

11/14/2007 8:05:02 AM

Sample Preparation/Analysis

Balance Id:

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)

Pipet #:

AnalyDueDate: 12/20/2007

W05257

5l CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 7317603 WATER mg/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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1 KAK6C-1-AA

J7K060161-1-SAMP

11/05/2007 12:52								
	AmtRec: VIAL20,500MLP,2XLP	#Containers: 4				Scr:	Alpha:	Beta:

2 KAK6C-1-AG-S

J7K060161-1-MS

11/05/2007 12:52								
	AmtRec: VIAL20,500MLP,2XLP	#Containers: 4				Scr:	Alpha:	Beta:

3 KAK6C-1-AH-X

J7K060161-1-DUP

11/05/2007 12:52								
	AmtRec: VIAL20,500MLP,2XLP	#Containers: 4				Scr:	Alpha:	Beta:

4 KAK6C-1-AJ-S

J7K060161-1-MS

11/05/2007 12:52								
	AmtRec: VIAL20,500MLP,2XLP	#Containers: 4				Scr:	Alpha:	Beta:

5 KA67L-1-AA-B

J7K130000-603-BLK

11/05/2007 12:52								
	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

6 KA67L-1-AC-C

J7K130000-603-LCS

11/05/2007 12:52								
	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

125

TESTAMERICA RICHLAND

11/14/2007 8:05:03 AM

Sample Preparation/Analysis

Balance Id: _____

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
 EA Chromium, Hexavalent (7196A)
 5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 12/20/2007

Sep1 DT/Tm Tech: _____

Batch: 7317603 mg/L
 SEQ Batch, Test: None

Sep2 DT/Tm Tech: _____

Prep Tech: _____



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

All Clients for Batch:
 384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

KAK6C1AA-SAMP Constituent List:

KAK6C1AG-MS Constituent List:

KAK6C1AJ-MS:

KA67L1AA-BLK:

KA67L1AC-LCS:

KAK6C1AA-SAMP Calc Info:							
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B			
KAK6C1AG-MS Calc Info:							
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B			
KAK6C1AJ-MS:							
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B			
KA67L1AA-BLK:							
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B			
KA67L1AC-LCS:							
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B			

Approved By _____ Date: _____

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TESTAMERICA RICHLAND

11/14/2007 8:05:03 AM

Sample Preparation/Analysis

Balance Id:

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)

Pipet #: _____

AnalysisDueDate: 12/17/2007 *W05257*

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 7317604 WATER mg/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ 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:
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1 KAJFD-1-AA								
J7K050131-1-SAMP								
11/02/2007 12:07		AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha:	Beta:
2 KAJFD-1-AC-S								
J7K050131-1-MS								
11/02/2007 12:07		AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha:	Beta:
3 KAJFD-1-AD-X								
J7K050131-1-DUP								
11/02/2007 12:07		AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha:	Beta:
4 KAJFD-1-AE-S								
J7K050131-1-MS								
11/02/2007 12:07		AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha:	Beta:
5 KA67M-1-AA-B								
J7K130000-604-BLK								
11/02/2007 12:07		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 KA67M-1-AC-C								
J7K130000-604-LCS								
11/02/2007 12:07		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

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TESTAMERICA RICHLAND

11/14/2007 8:05:03 AM

Sample Preparation/Analysis

Balance Id:

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
 EA Chromium, Hexavalent (7196A)
 5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 12/17/2007

Sep1 DT/Tm Tech:

Batch: 7317604 mg/L
 SEQ Batch, Test: None

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:
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Comments:

All Clients for Batch:
 384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

KAJFD1AA-SAMP Constituent List:

KAJFD1AC-MS Constituent List:

KAJFD1AE-MS:

KA67M1AA-BLK:

KA67M1AC-LCS:

KAJFD1AA-SAMP Calc Info:							
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B		
KAJFD1AC-MS Calc Info:							
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B		
KAJFD1AE-MS:							
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B		
KA67M1AA-BLK:							
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B		
KA67M1AC-LCS:							
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B		

Approved By _____

Date: _____

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