

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 _____ Pages*

Report Nbr: 38333

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05289	G08-012	B1RTB2	J7L180111-1	KECRN1AA	9KECRN10	7362393
		B1R9Y5	J7L180111-2	KECRT1AA	9KECRT10	7362393
		B1R9Y3	J7L180111-3	KECRV1AA	9KECRV10	7362393
		B1R9V8	J7L180111-4	KECRW1AA	9KECRW10	7362392
		B1R9V8	J7L180111-4	KECRW1AC	9KECRW10	7362393
		B1R9V8	J7L180111-4	KECRW1AD	9KECRW10	7362396
		B1RB06	J7L180111-5	KECRX1AA	9KECRX10	7362392
		B1RB06	J7L180111-5	KECRX1AC	9KECRX10	7362393
		B1RB06	J7L180111-5	KECRX1AD	9KECRX10	7362394
		B1RB06	J7L180111-5	KECRX1AE	9KECRX10	7362396
	S08-012	B1RDX2	J7L180115-1	KECTG1AA	9KECTG10	7362392
		B1RDX2	J7L180115-1	KECTG1AC	9KECTG10	7362393
		B1RDX6	J7L180115-2	KECTH1AA	9KECTH10	7362392
		B1RDX6	J7L180115-2	KECTH1AC	9KECTH10	7362393
	G08-012	B1R9K6	J7L180116-1	KECTN1AA	9KECTN10	7362392

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JUL 28 2008
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Comments:

RECEIVED FEBRUARY 15, 2008

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Report Nbr: 38333

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05289	G08-012	B1R9K6	J7L180116-1	KECTNIAC	9KECTN10	7362393
		B1R9K6	J7L180116-1	KECTNIAD	9KECTN10	7362396
		B1R9L3	J7L180116-2	KECTPIAA	9KECTP10	7362392
		B1R9L3	J7L180116-2	KECTPIAC	9KECTP10	7362393
		B1R9L3	J7L180116-2	KECTPIAD	9KECTP10	7362396
		B1R9Y7	J7L180223-1	KEDNW1AA	9KEDNW10	7362393
		B1R9X1	J7L180223-2	KEDN91AA	9KEDN910	7362393
		B1R9Y9	J7L180223-3	KEDPD1AA	9KEDPD10	7362393
		B1R9T1	J7L180223-4	KEDPE1AA	9KEDPE10	7362393
		B1RB01	J7L180223-5	KEDPG1AA	9KEDPG10	7362393
			W08-011	B1R6K6	J7L190118-1	KEE412AA
	G08-012	B1R9J3	J7L190122-1	KEE501AA	9KEE5010	7362392
		B1R9J3	J7L190122-1	KEE501AC	9KEE5010	7362393
		B1R9J3	J7L190122-1	KEE501AD	9KEE5010	7362394
		B1R9J3	J7L190122-1	KEE501AE	9KEE5010	7362396
		B1R9P7	J7L190122-2	KEE551AA	9KEE5510	7362392
		B1R9P7	J7L190122-2	KEE551AC	9KEE5510	7362393
		B1R9P7	J7L190122-2	KEE551AD	9KEE5510	7362394
		B1R9P7	J7L190122-2	KEE551AE	9KEE5510	7362396
		B1R9R1	J7L190122-3	KEE561AA	9KEE5610	7362392
		B1R9R1	J7L190122-3	KEE561AC	9KEE5610	7362393
		B1R9R1	J7L190122-3	KEE561AD	9KEE5610	7362394
	B1R9R1	J7L190122-3	KEE561AE	9KEE5610	7362396	
	S08-012	B1RDH6	J7L210137-1	KEL902AA	9KEL9020	8018256
	108-011	B1RBD6	J7L240106-1	KEQP81AA	9KEQP810	7362399

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Fluor Hanford
1200 Jadwin Ave.
Richland, WA 99352

February 14, 2008

Attention: Steve Trent

SAF Number	:	G08-012, S08-012, W08-011, I08-011
Date SDG Closed	:	December 21, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05289
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between November 6, 2007 and November 9, 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>
B1RTB2	KECRN	12/17/07	WATER
B1R9Y5	KECRT	12/17/07	WATER
B1R9Y3	KECRV	12/17/07	WATER
B1R9V8	KECRW	12/17/07	WATER
B1RB06	KECRX	12/17/07	WATER
B1RDX2	KECTG	12/17/07	WATER
B1RDX6	KECTH	12/17/07	WATER
B1R9K6	KECTN	12/17/07	WATER
B1R9L3	KECTP	12/17/07	WATER
B1R9Y7	KEDNW	12/18/07	WATER
B1R9X1	KEDN9	12/18/07	WATER
B1R9Y9	KEDPD	12/18/07	WATER
B1R9T1	KEDPE	12/18/07	WATER

Fluor Hanford
February 14, 2007

B1RB01	KEDPG	12/18/07	WATER
B1R6K6	KEE41	12/18/07	WATER
B1R9J3	KEE50	12/18/07	WATER
B1R9P7	KEE55	12/18/07	WATER
B1R9R1	KEE56	12/18/07	WATER
B1RDH6	KEL90	12/20/07	WATER
B1RBD6	KEQP8	12/20/07	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

Strontium-90 by method RICH-RC-5006

Gamma Spectroscopy

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

Liquid Scintillation Counting

Enriched Tritium by method RICH-RC-5024

Technetium-99 by TEVA method RICH-RC-5065

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 B1R9V8, B1RB06, B1R9L3, B1R9J3, B1R9P7 and B1R9R1 were analyzed with reduced aliquots based upon weight screens. Except as noted, the LCS, batch blank, samples and sample duplicate (B1RDX2) results are within contractual requirements.

Fluor Hanford
February 14, 2007

Gross Beta by method RICH-RC-5014:

Samples B1R9Y5, B1RB06, B1R9K6, B1R9J3, B1R9P7 and B1R9R1 were analyzed with reduced aliquots based upon weight screens. Except as noted, the LCS, batch blank, samples and sample duplicate (B1R9Y7) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1R9V8) results are within contractual requirements.

Gamma Spectroscopy

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

The LCS, batch blank, samples and sample duplicate (B1R9R1) results are within contractual requirements.

Liquid Scintillation Counting

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

The LCS, batch blank, samples, sample duplicate (B1R6K6), and sample matrix spike (B1R6K6) results are within contractual requirements.

Enriched Tritium by method RICH-RC-5024

The blank was high in the original batch. A recount of the blank confirmed the original count. The samples were reanalyzed. The blank result was high again. The reanalysis blank was recounted and the result was acceptable. Except as noted, the LCS, batch blank, samples and sample duplicate (B1RDH6) results are within contractual requirements.

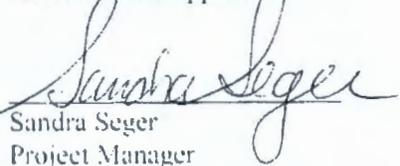
Chemical Analysis

Hexavalent Chromium by EPA method 7196A

The LCS, batch blank, samples, sample duplicate (B1RBD6), sample matrix spike (B1RBD6), and matrix spike duplicate (B1RBD6) 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 900.02	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, $R = \text{constants} * f(x,y,z,\dots)$. 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 $(\text{Result}/\text{Expected}) - 1$ 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%. $L_c = (1.645 * \sqrt{2 * (\text{BkgndCnt}/\text{BkgndCntMin}) / \text{SCntMin}}) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. 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%. $MDC = (4.65 * \sqrt{(\text{BkgndCnt} / \text{BkgndCntMin}) / \text{SCntMin}} + 2.71 / \text{SCntMin}) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = $(S-D) / [\sqrt{(\text{TPUs}^2 + \text{TPUd}^2)}]$ 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.

2/14/2008 3:13:22 PM

TAL Richland Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 38333 File Name: h:\Reportdb\edd\Fead\VRad\W05289.Edd, h:\Reportdb\edd\Fead\VRad\38333.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:				
9KECRN10	B1RTB2		MW6-SBB-A1	G08-012	W05289					12/17/2007 10:06				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362393	BETA	12587-47-2	1.19E+00	pCi/L	1.8E+00	1.8E+00	U	3.92E+00	100.0	9310_ALPHABETA	2.00E-01	L	01/24/2008 14:48	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:				
9KECRT10	B1R9Y5		MW6-SBB-A1	G08-012	W05289					12/17/2007 13:43				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362393	BETA	12587-47-2	2.77E+03	pCi/L	3.7E+01	4.4E+02		4.61E+00	100.0	9310_ALPHABETA	1.601E-01	L	01/24/2008 14:48	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:				
9KECRV10	B1R9Y3		MW6-SBB-A1	G08-012	W05289					12/17/2007 13:34				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362393	BETA	12587-47-2	2.28E+03	pCi/L	3.1E+01	2.8E+02		4.11E+00	100.0	9310_ALPHABETA	2.003E-01	L	01/24/2008 14:48	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:				
9KECRW10	B1R9V8		MW6-SBB-A1	G08-012	W05289					12/17/2007 10:45				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362392	ALPHA	12587-46-1	1.84E+00	pCi/L	8.9E-01	9.7E-01		1.06E+00	100.0	9310_ALPHABETA	1.563E-01	L	01/28/2008 16:26	I
7362393	BETA	12587-47-2	1.28E+03	pCi/L	2.4E+01	1.6E+02		4.11E+00	100.0	9310_ALPHABETA	2.001E-01	L	01/24/2008 14:48	I
7362396	SR-90	10098-97-2	6.58E+02	pCi/L	5.6E+00	9.5E+01		4.38E-01	78.5	SRISO_SEP_PRE	1.00E+00	L	01/13/2008 10:12	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:				
9KECRX10	B1RB06		MW6-SBB-A1	G08-012	W05289					12/17/2007 12:32				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362392	ALPHA	12587-46-1	9.03E-01	pCi/L	8.3E-01	8.5E-01	U	1.30E+00	100.0	9310_ALPHABETA	1.639E-01	L	01/28/2008 17:55	I
7362393	BETA	12587-47-2	3.41E+03	pCi/L	5.8E+01	4.3E+02		9.27E+00	100.0	9310_ALPHABETA	8.19E-02	L	01/24/2008 14:48	I
7362394	BE-7	13966-02-4	8.51E+00	pCi/L	1.9E+01	1.9E+01	U	3.51E+01		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I
7362394	CO-60	10198-40-0	-3.78E-01	pCi/L	1.7E+00	1.7E+00	U	3.07E+00		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I
7362394	CS-134	13967-70-9	7.68E-01	pCi/L	2.0E+00	2.0E+00	U	3.67E+00		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I
7362394	CS-137	10045-97-3	6.66E-01	pCi/L	1.7E+00	1.7E+00	U	3.17E+00		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I
7362394	EU-152	14683-23-9	4.49E-01	pCi/L	4.1E+00	4.1E+00	U	7.21E+00		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I
7362394	EU-154	15585-10-1	-2.25E+00	pCi/L	5.0E+00	5.0E+00	U	8.65E+00		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I

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.

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TAL Richland Report

Lab Code: TARL

FormNbr:	FormatType:	Version:	Rpt Nbr:	File Name:										
7362394	EU-155	14391-16-3	1.75E+00	pCi/L	4.3E+00	4.3E+00	U	7.76E+00		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I
7362394	K-40	13966-00-2	-2.67E+01	pCi/L	4.0E+01	4.0E+01	U	8.31E+01		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I
7362394	RU-106	13967-48-1	-9.89E+00	pCi/L	1.6E+01	1.6E+01	U	2.67E+01		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I
7362394	SB-125	14234-35-6	1.91E+00	pCi/L	4.2E+00	4.2E+00	U	7.75E+00		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:30	I
7362396	SR-90	10098-97-2	1.60E+03	pCi/L	9.8E+00	2.3E+02		4.83E-01	90.9	SRISO_SEP_PRE	9.0001E-01	L	01/13/2008 11:54	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:				
9KECTG10	B1RDX2		MW6-SBB-A1	S08-012	W05289					12/17/2007 10:11				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362392	ALPHA	12587-46-1	8.30E-01	pCi/L	8.2E-01	8.4E-01	U	1.32E+00	100.0	9310_ALPHABETA	2.00E-01	L	01/28/2008 17:55	I
7362393	BETA	12587-47-2	5.50E+00	pCi/L	2.3E+00	2.5E+00		4.04E+00	100.0	9310_ALPHABETA	2.004E-01	L	01/24/2008 14:48	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:				
9KECTH10	B1RDX6		MW6-SBB-A1	S08-012	W05289					12/17/2007 11:10				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362392	ALPHA	12587-46-1	7.39E-01	pCi/L	7.6E-01	7.8E-01	U	1.20E+00	100.0	9310_ALPHABETA	2.00E-01	L	01/28/2008 17:55	I
7362393	BETA	12587-47-2	1.00E+01	pCi/L	2.7E+00	3.0E+00		4.17E+00	100.0	9310_ALPHABETA	2.001E-01	L	01/24/2008 14:48	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:				
9KECTN10	B1R9K6		MW6-SBB-A1	G08-012	W05289					12/17/2007 11:06				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362392	ALPHA	12587-46-1	2.27E-01	pCi/L	5.5E-01	5.5E-01	U	1.30E+00	100.0	9310_ALPHABETA	2.00E-01	L	01/28/2008 17:55	I
7362393	BETA	12587-47-2	1.30E+03	pCi/L	2.5E+01	1.7E+02		4.42E+00	100.0	9310_ALPHABETA	1.70E-01	L	01/24/2008 14:48	I
7362396	SR-90	10098-97-2	7.46E+02	pCi/L	6.0E+00	1.1E+02		4.45E-01	76.6	SRISO_SEP_PRE	1.00E+00	L	01/13/2008 10:12	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:				
9KECTP10	B1R9L3		MW6-SBB-A1	G08-012	W05289					12/17/2007 12:49				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362392	ALPHA	12587-46-1	5.42E-01	pCi/L	9.5E-01	9.6E-01	U	2.02E+00	100.0	9310_ALPHABETA	9.61E-02	L	01/28/2008 16:26	I
7362393	BETA	12587-47-2	5.14E+02	pCi/L	1.5E+01	6.6E+01		4.31E+00	100.0	9310_ALPHABETA	1.961E-01	L	01/24/2008 14:48	I
7362396	SR-90	10098-97-2	3.85E+02	pCi/L	4.2E+00	5.6E+01		4.56E-01	78.6	SRISO_SEP_PRE	1.00E+00	L	01/13/2008 10:07	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:				
9KEDN910	B1R9X1		MW6-SBB-A1	G08-012	W05289					12/18/2007 10:32				

TAL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

rptFeadRadSummaryEdd v3.48

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.

2/14/2008 3:13:22 PM

TAL Richland Report

Lab Code: TARL

FormNbr:	R	FormatType:	FEAD	Version:	05	Rpt Nbr:	38333	File Name:	In:\Report\5\edd\FeadIV\Rad\W05289.Edd, h:\Report\5\edd\FeadIV\Rad\38333.Edd						
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7362393	BETA	12587-47-2	5.41E+02	pCi/L	1.5E+01	8.3E+01		4.12E+00	100.0	9310_ALPHABETA	2.001E-01	L	01/24/2008 14:48	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:					
9KFDNW10	B1R9Y7		MW6-SBB-A1	G08-012	W05289					12/18/2007 09:35					
7362393	BETA	12587-47-2	2.14E+01	pCi/L	3.5E+00	4.4E+00		4.13E+00	100.0	9310_ALPHABETA	1.998E-01	L	01/24/2008 14:48	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:					
9KEDPD10	B1R9Y9		MW6-SBB-A1	G08-012	W05289					12/18/2007 09:50					
7362393	BETA	12587-47-2	1.59E+03	pCi/L	2.5E+01	2.1E+02		4.26E+00	100.0	9310_ALPHABETA	2.00E-01	L	01/24/2008 17:04	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:					
9KEDPE10	B1R9T1		MW6-SBB-A1	G08-012	W05289					12/18/2007 09:04					
7362393	BETA	12587-47-2	1.22E+02	pCi/L	7.1E+00	1.7E+01		3.74E+00	100.0	9310_ALPHABETA	2.00E-01	L	01/24/2008 17:04	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:					
9KEDPG10	B1RB01		MW6-SBB-A1	G08-012	W05289					12/18/2007 10:02					
7362393	BETA	12587-47-2	2.06E+03	pCi/L	2.9E+01	2.7E+02		3.77E+00	100.0	9310_ALPHABETA	2.001E-01	L	01/24/2008 17:04	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:					
9KEE4120	B1R6K6		MW6-SBB-A1	W08-011	W05289					12/18/2007 13:50					
8015178	TC-99	14133-76-7	2.92E+01	pCi/L	4.9E+00	7.3E+00		9.64E+00	100.0	TC99_ETVDSK_LS	1.2503E-01	L	01/18/2008 23:57	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:					
9KEE5010	B1R9J3		MW6-SBB-A1	G08-012	W05289					12/18/2007 11:02					
7362392	ALPHA	12587-46-1	6.29E-01	pCi/L	5.9E-01	6.0E-01	U	9.45E-01	100.0	9310_ALPHABETA	1.561E-01	L	01/28/2008 16:26	I	
7362393	BETA	12587-47-2	2.11E+03	pCi/L	3.6E+01	2.7E+02		5.51E+00	100.0	9310_ALPHABETA	1.401E-01	L	01/24/2008 17:04	I	
7362394	BE-7	13966-02-4	1.58E+00	pCi/L	1.9E+01	1.9E+01	U	3.33E+01		GAMMALL_GS	2.0001E+00	L	01/24/2008 10:32	I	

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.

2/14/2008 3:13:22 PM

TAL Richland Report

Lab Code: TARL

FormNbr:	R	FormatType:	FEAD	Version:	05	Rpt Nbr:	38333	File Name:	h:\Reportdb\edd\Fead\Rad\W05289.Edd, h:\Reportdb\edd\Fead\Rad\38333.Edd					
7362394	CO-60	10198-40-0	1.53E+00	pCi/L	2.0E+00	2.0E+00	U	3.97E+00	GAMMALL_GS	2.1-001E+00	L	01/24/2008	10:32	I
7362394	CS-134	13967-70-9	1.98E+00	pCi/L	1.9E+00	1.9E+00	U	3.74E+00	GAMMALL_GS	2.0001E+00	L	01/24/2008	10:32	I
7362394	CS-137	10045-97-3	-7.38E-02	pCi/L	1.8E+00	1.8E+00	U	3.29E+00	GAMMALL_GS	2.0001E+00	L	01/24/2008	10:32	I
7362394	EU-152	14683-23-9	-2.05E+00	pCi/L	4.4E+00	4.4E+00	U	7.55E+00	GAMMALL_GS	2.0001E+00	L	01/24/2008	10:32	I
7362394	EU-154	15585 10-1	2.87E+00	pCi/L	4.9E+00	4.9E+00	U	9.86E+00	GAMMALL_GS	2.0001E+00	L	01/24/2008	10:32	I
7362394	EU-155	14391-16-3	1.83E+00	pCi/L	4.0E+00	4.0E+00	U	6.96E+00	GAMMALL_GS	2.0001E+00	L	01/24/2008	10:32	I
7362394	K-40	13966-00-2	1.20E+00	pCi/L	4.1E+01	4.1E+01	U	3.10E+01	GAMMALL_GS	2.0001E+00	L	01/24/2008	10:32	I
7362394	RU-106	13967-48-1	5.24E+00	pCi/L	1.5E+01	1.5E+01	U	2.78E+01	GAMMALL_GS	2.0001E+00	L	01/24/2008	10:32	I
7362394	SB-125	14234-35-6	-9.58E-01	pCi/L	4.4E+00	4.4E+00	U	7.61E+00	GAMMALL_GS	2.0001E+00	L	01/24/2008	10:32	I
7362396	SR-90	10098-97-2	1.22E+03	pCi/L	7.5E+00	1.8E+02		4.76E-01 76.8	SRISO_SEP_PRE	1.00E+00	L	01/13/2008	10:07	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:				
9KEE5510	B1R9P7		MW6-SBB-A1	G08-012	W05289					12/18/2007 12:02				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362392	ALPHA	12587-46-1	2.97E+00	pCi/L	1.5E+00	1.6E+00		1.90E+00	100.0	9310_ALPHABETA	1.252E-01	L	01/28/2008 16:26	I
7362393	BETA	12587-47-2	1.76E+01	pCi/L	3.6E+00	4.2E+00		4.68E+00	100.0	9310_ALPHABETA	1.725E-01	L	01/24/2008 17:04	I
7362394	BE-7	13966-02-4	-8.05E+00	pCi/L	1.8E+01	1.8E+01	U	3.12E+01		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362394	CO-60	10198-40-0	8.00E-01	pCi/L	1.8E+00	1.8E+00	U	3.60E+00		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362394	CS-134	13967-70-9	8.93E-02	pCi/L	1.9E+00	1.9E+00	U	3.33E+00		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362394	CS-137	10045-97-3	5.36E-01	pCi/L	1.7E+00	1.7E+00	U	3.14E+00		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362394	EU-152	14683-23-9	2.28E-01	pCi/L	3.8E+00	3.8E+00	U	6.66E+00		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362394	EU-154	15585-10-1	5.53E-01	pCi/L	5.1E+00	5.1E+00	U	9.44E+00		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362394	EU-155	14391-16-3	-5.59E-02	pCi/L	2.5E+00	2.5E+00	U	4.47E+00		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362394	K-40	13966-00-2	-3.67E+01	pCi/L	3.4E+01	3.4E+01	U	6.82E+01		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362394	RU-106	13967-48-1	2.12E+01	pCi/L	1.5E+01	1.5E+01	U	2.96E+01		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362394	SB-125	14234-35-6	-1.16E+00	pCi/L	3.8E+00	3.8E+00	U	6.45E+00		GAMMALL_GS	2.0002E+00	L	01/24/2008 10:33	I
7362396	SR-90	10098-97-2	5.70E+00	pCi/L	6.2E-01	1.0E+00		5.39E-01 60.4		SRISO_SEP_PRE	1.00E+00	L	01/13/2008 10:07	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:				
9KEE5610	B1R9R1		MW6-SBB-A1	G08-012	W05289					12/18/2007 13:08				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7362392	ALPHA	12587-46-1	0.00E+00	pCi/L	4.0E-01	4.0E-01	U	1.26E+00	100.0	9310_ALPHABETA	1.852E-01	L	01/28/2008 17:55	I
7362393	BETA	12587-47-2	2.16E+03	pCi/L	3.4E+01	3.1E+02		4.99E+00	100.0	9310_ALPHABETA	1.50E-01	L	01/24/2008 17:04	I

TAL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

rptFeadRadSummaryEdd v3.48

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2/14/2008 3:13:22 PM

TAL Richland Report

Lab Code: TARL

FormNbr:	R	FormatType:	FEAD	Version:	05	Rpt Nbr:	38333	File Name:	h:\Reportdb\edd\FeadIV\RadW05289.Edd, h:\Reportdb\edd\FeadIV\Rad\38333.Edd					
7362394	BE-7	13966-02-4	3.01E+01	pCi/L	2.0E+01	2.0E+01	U	3.97E+01	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362394	CO-60	10198-40-0	8.96E-01	pCi/L	2.0E+00	2.0E+00	U	3.91E+00	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362394	CS-134	13967-70-9	6.34E-02	pCi/L	1.8E+00	1.8E+00	U	3.24E+00	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362394	CS-137	10045-97-3	2.01E-01	pCi/L	1.5E+00	1.5E+00	U	2.79E+00	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362394	EU-152	14683-23-9	1.28E+00	pCi/L	4.2E+00	4.2E+00	U	7.44E+00	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362394	EU-154	15585-10-1	-2.73E+00	pCi/L	4.8E+00	4.8E+00	U	8.13E+00	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362394	EU-155	14391-16-3	2.36E+00	pCi/L	3.8E+00	3.8E+00	U	6.86E+00	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362394	K-40	13966-00-2	2.01E+01	pCi/L	3.4E+01	3.4E+01	U	6.98E+01	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362394	RU-106	13967-48-1	-1.57E+00	pCi/L	1.7E+01	1.7E+01	U	2.93E+01	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362394	SB-125	14234-35-6	2.11E+00	pCi/L	4.0E+00	4.0E+00	U	7.43E+00	GAMMALL_GS	2.0003E+00	L	01/24/2008	10:33	I
7362396	SR-90	10098-97-2	1.28E+03	pCi/L	7.6E+00	1.8E+02		4.51E-01 76.3	SRISO_SEP_PRE	1.00E+00	L	01/13/2008	10:07	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:				
9KEL9020	B1RDH6		MW6-SBB-A1	S08-012	W05289					12/20/2007 11:41				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8018256	H-3	10028-17-8	1.16E+02	pCi/L	1.2E+01	2.5E+01		7.30E+00	100.0	TRITIUM_ELECT_L	1.50E-01	L	02/07/2008 14:46	I

Thursday, February 14, 2008

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\IVRad\W05289.Edd, h:\Reportdb\edd\Fead\IVRad\38333.Edd

Lab Sample Id: KEXA31AB Sdg/Rept Nbr: W05289 38333 Collection Date: 12/17/2007 10:11
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 12/17/2007

SAF Nbr Contract Nbr Test User Case Nbr SAS Nbr Suffix Decant Distilled Volume File Id FSuffix RTyp
 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
7362392 BLK	ALPHA 12587-46-1	1.97E-01	pCi/L	2.9E-01 2.9E-01	U	5.72E-01	100.0		9310_ALPHAB	2.004E-01 L	01/28/2008 16:26				D

Thursday, February 14, 2008

TAL Richland QC Blank Report

Lab Code: TARRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W05289.Edd, h:\Reportdb\edd\Fead\Rad\38333.Edd

Lab Sample Id: KEXA41AB Sdg/Rept Nbr: W05289 38333 Collection Date: 12/18/2007 09:35
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 12/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BC	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
7362393 BLK	BETA 12587-47-2	1.51E+00	pCi/L	1.7E+00 1.7E+00	U	3.64E+00	100.0		9310_ALPHAB	2.001E-01 L	01/24/2008 17:04				D

Thursday, February 14, 2008

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05289.Edd, h:\Reportdb\edd\Fead\VRad\38333.Edd

Lab Sample Id: KEXA91AB

Sdg/Rept Nbr: W05289 38333

Collection Date: 12/18/2007 13:08

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 12/18/2007

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	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
7362394 BLK	BE-7 13966-02-4	-7.42E+00	pCi/L	1.6E+01 1.6E+01	U	2.66E+01			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D
7362394 BLK	CO-60 10198-40-0	5.81E-01	pCi/L	1.4E+00 1.4E+00	U	2.83E+00			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D
7362394 BLK	CS-134 13967-70-9	-8.28E-01	pCi/L	1.5E+00 1.5E+00	U	2.56E+00			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D
7362394 BLK	CS-137 10045-97-3	3.23E-01	pCi/L	1.4E+00 1.4E+00	U	2.56E+00			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D
7362394 BLK	EU-152 14683-23-9	2.12E+00	pCi/L	3.5E+00 3.5E+00	U	6.46E+00			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D
7362394 BLK	EU-154 15585-10-1	1.64E+00	pCi/L	3.5E+00 3.5E+00	U	7.40E+00			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D
7362394 BLK	EU-155 14391-16-3	1.23E+00	pCi/L	2.9E+00 2.9E+00	U	5.04E+00			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D
7362394 BLK	K-40 13966-00-2	-5.59E+00	pCi/L	2.1E+01 2.1E+01	U	3.65E+01			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D
7362394 BLK	RU-106 13967-48-1	-4.02E+00	pCi/L	1.4E+01 1.4E+01	U	2.43E+01			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D
7362394 BLK	SB-125 14234-35-6	2.23E+00	pCi/L	3.8E+00 3.8E+00	U	7.16E+00			GAMMALL_GS	2.0002E+00 L	01/24/2008 10:34				D

15

Thursday, February 14, 2008

TAL Richland QC Blank Report

Lab Code: ARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05289.Edd, h:\Reportdb\edd\Fead\VRad\38333.Edd

Lab Sample Id: KExCA1AB

Sdg/Rept Nbr: W05289

38333

Collection Date: 12/17/2007 10:45

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 12/17/2007

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	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7362396 BLK	SR-90 10098-97-2	3.67E-02	pCi/L	1.9E-01 1.3E-01	U	4.29E-01	80.7		SRISO_SEP_P	1.00E+00 L	01/13/2008 10:07				D

Thursday, February 14, 2008

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FFAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05289.Edd, h:\Reportdb\edd\FeadIV\Rad\38333.Edd

Lab Sample Id: KEXCC2AB

Sdg/Rept Nbr: W05289 38333

Collection Date: 12/18/2007 13:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 12/18/2007

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	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8015178 BLK	TC-99 14133-76-7	-3.49E+00	pCi/L	5.4E+00 3.9E+00	U	9.68E+00	100.0		TC99_ETVDSK	1.2503E-01 L	01/18/2008 23:57				D

Thursday, February 14, 2008

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\IVRad\W05289.Edd, h:\Reportdb\edd\Fead\IVRad\38333.Edd

Lab Sample Id: KEXA31CS

Sdg/Rept Nbr: W05289

38333

Collection Date: 12/17/2007 10:11

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 12/17/2007

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/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
7362392 BS	ALPHA 12587-46-1	2.02E+01	pCi/L	4.6E+00 2.0E+00		5.92E-01	100.0	2.26E+01 89.3	9310_ALPHAB	2.00E-01	01/28/2008 16:26			70 130	D

Thursday, February 14, 2008

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Report\h\edd\FeadIV\Rad\W05289 Edd. h\Report\h\edd\FeadIV\Rad\38333 Edd

Lab Sample Id: KEXA41CS

Sdg/Rept Nbr: W05289 38333

Collection Date: 12/18/2007 09:35

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 12/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								B0	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
7362393 BS	BETA 12587-47-2	2.61E+01	pCi/L	4.8E+00 3.6E+00		3.86E+00	100.0	2.25E+01 116.0	9310_ALPHA	2.00E-01 L	01/24/2008 17:04			70 130	D

Thursday, February 14, 2008

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05289.Edd, h:\Reportdb\edd\Fead\VRad\38333.Edd

Lab Sample Id: KEXA91CS

Sdg/Rept Nbr: W05289

38333

Collection Date: 12/18/2007 13:08

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 12/18/2007

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
7362394 BS	CO-60 10198-40-0	4.28E+01	pCi/L	7.1E+00 7.1E+00		2.49E+00		3.73E+01 114.9	GAMMALL_GS	2.0002E+00 L	01/24/2008 10:35			70 130	D
7362394 BS	CS-137 10045-97-3	5.47E+01	pCi/L	7.7E+00 7.7E+00		2.19E+00		4.93E+01 111.1	GAMMALL_GS	2.0002E+00 L	01/24/2008 10:35			70 130	D
7362394 BS	EU-152 14683-23-9	7.91E+01	pCi/L	1.4E+01 1.4E+01		5.85E+00		7.60E+01 104.1	GAMMALL_GS	2.0002E+00 L	01/24/2008 10:35			70 130	D

Thursday, February 14, 2008

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05289.Edd h:\Reportdb\edd\FeadIV\Rad\38333.Edd

Lab Sample Id: KEXCA1CS Sdg/Rept Nbr: W05289 38333 Collection Date: 12/17/2007 10:45
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 12/17/2007

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	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7362396 BS	SR-90 10098-97-2	1.47E+01	pCi/L	2.3E+00 8.7E-01		5.06E-01	75.5	1.34E+01 109.6	SRISO_SEP_P	1.00E+00	01/13/2008 10:07			70 130	D

Thursday, February 14, 2008

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Report\tdh\edd\Fead\IVRad\W05289.Edd, h:\Report\tdh\edd\Fead\IVRad\38333.Edd

Lab Sample Id: KEXCC2CS

Sdg/Rept Nbr: W05289 38333

Collection Date: 12/18/2007 13:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 12/18/2007

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	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8015178	TC-99	5.19E+02	pCi/L	3.6E+01		9.67E+00	100.0	5.45E+02	TC99_ETVDSK	1.2501E-01	01/18/2008			70	D
BS	14133-76-7			1.3E+01				95.2		L	23:58			130	

Thursday, February 14, 2008

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\VRad\W05289.Edd, h:\Reportdb\edd\Fead\VRad\38333.Edd

Lab Sample Id: KECRW1ER Sdg/Rept Nbr: W05289 38333 Collection Date: 12/17/2007 10:45
 Client Id: B1R9V8 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 12/17/2007

SAF Nbr Contract Nbr Test User Case Nbr SAS Nbr Suffix Decant Distilled Volume File Id FSuffix RTyp
 G08-012 MW6-SBB-A19981

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
7362396 DUP	SR-90 10098-97-2	7.33E+02 6.58E+02	pCi/L	1.1E+02 6.1E+00		4.55E-01	72.5		SRISO_SEP_P	1.00E+00 L	01/13/2008 10:12	10.7 20.0	1. 3		D

Thursday, February 14, 2008

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportd\ledd\FeadIV\Rad\W05289.Edd h:\Reportd\ledd\FeadIV\Rad\38333.Edd

Lab Sample Id: KECTG1DR

Sdg/Rept Nbr: W05289 38333

Collection Date: 12/17/2007 10:11

Client Id: B1RDX2

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 12/17/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S08-012	MW6-SBB-A19981								AU	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
7362392 DUP	ALPHA 12587-46-1	4.75E-01 8.30E-01	pCi/L	7.5E-01 7.4E-01	U	1.56E+00	100.0		9310_ALPHAB	1.999E-01 L	01/28/2008 17:55	54.4 20.0	0.7 3		D

Thursday, February 14, 2008

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\RadW05289 Edd. h:\Reportdb\edd\FeadIV\Rad\38333.Edd

Lab Sample Id: KEDNW1CR Sdg/Rept Nbr: W05289 38333 Collection Date: 12/18/2007 09:35
 Client Id: B1R9Y7 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 12/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G08-012	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
7362393 DUP	BETA 12587-47-2	1.98E+01 2.14E+01	pCi/L	4.3E+00 3.4E+00		3.99E+00	100.0		9310_ALPHAB	2.00E-01 L	01/24/2008 14:48	7.8 20.0	0.5 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.

Thursday, February 14, 2008

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05289.Fdd h:\Reportdb\edd\Fead\VRad\38333.Edd

Lab Sample Id: KEE412DR

Sdg/Rept Nbr: W05289 38333

Collection Date: 12/18/2007 13:50

Client Id: B1R6K6

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 12/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W08-011	MW6-SBB-A19981								AX	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
8015178	TC-99	2.61E+01	pCi/L	7.1E+00		9.65E+00	100.0		TC99_ETVDSK	1.2503E-01	01/18/2008	11.2	0.6		D
DUP	14133-76-7	2.92E+01		4.8E+00						L	23:57	20.0	3		

Thursday, February 14, 2008

TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\IVRad\W05289 Edd. h:\Reportdb\edd\Fead\IVRad\38333.Edd

Lab Sample Id: KEL902CR Sdg/Rept Nbr: W05289 38333 Collection Date: 12/20/2007 11:41
 Client Id: B1RDH6 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 12/20/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S08-012	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
8018256	H-3	1.04E+02	pCi/L	2.5E+01		7.31E+00	100.0		TRITIUM_ELE	1.50E-01	02/07/2008	10.4	0.7		D
DUP	10028-17-8	1.16E+02		1.3E+01						L	14:46	20.0	3		

Thursday, February 14, 2008

TAL Richland Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05289.Edd. h:\Reportdb\edd\FeadIV\Rad\38333 Edd

Lab Sample Id: KEE412CW Sdg/Rept Nbr: W05289 38333 Collection Date: 12/18/2007 13:50
 Client Id: B1R6K6 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: MS Received Date: 12/18/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W08-011	MW6-SBB-A19981								AW	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
8015178	TC-99	3.64E+03	pCi/L	2.2E+02		9.65E+00	100.0	3.80E+03	TC99_ETVDSK	1.2503E-01	01/18/2008			60	D
MS	14133-76-7			3.3E+01				95.8		L	23:57			140	

Lot No., Due Date: J7L180111,J7L180115,J7L180116,J7L190122; 02/04/2008
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7362392; RALPHA-A Alpha by GPC-Am
 SDG, Matrix: W05289; 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 *John Horvath*

Date 1-29-8

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7362392

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

Comments on any "No" response: _____

Second Level Review: Jodie A Date: 2/11/08

Lot No., Due Date: J7L180111,J7L180115,J7L180116,J7L180223,J7L190122; 02/04/2008

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7362393; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05289; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.02 Final Results Are in the Appropriate Activity Units OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.03 Batch Contains the Required QC Appropriate for the Method OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => KECRT1AA 160.10<200.00 KECRX1AC 81.90<200.00 KECTN1AC 170.00<200.00 KEE501AC 140.10<200.00 KEE551AC 172.50<200.00 KEE561AC 150.00<200.00 Q:VB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.07 The Correct Count Geometry was Used. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. Count Duration => KECRT1AA 50.0<100.0 KECRV1AA 50.0<100.0 KECRW1AC 50.0<100.0 KECRX1AC 50.0<100.0 KECTG1AC 50.0<100.0 KECTH1AC 50.0<100.0 KECTN1AC 50.0<100.0 KECTP1AC 50.0<100.0 KEDNW1AA 50.0<100.0 KEDN91AA 50.0<100.0 KEDPD1AA 50.0<100.0 KEE501AC 50.0<100.0 KEE551AC 50.0<100.0 KEE561AC 50.0<100.0 Q:VD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.09 Method Blank is within Control Limits. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.14 LCS within Control Limits. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.17 Tracer within Control Limits. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => KECRT1AA BETA 4.6E+00>4.0E+00 KECRV1AA BETA 4.1E+00>4.0E+00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

KECRW1AC BETA 4.1E+00>4.0E+00
 KECRX1AC BETA 9.3E+00>4.0E+00
 KECTH1AC BETA 4.2E+00>4.0E+00
 KECTN1AC BETA 4.4E+00>4.0E+00
 KECTP1AC BETA 4.3E+00>4.0E+00
 KEDNW1AA BETA 4.1E+00>4.0E+00
 KEDN91AA BETA 4.1E+00>4.0E+00
 KEDPD1AA BETA 4.3E+00>4.0E+00
 KEE501AC BETA 5.5E+00>4.0E+00
 KEE551AC BETA 4.7E+00>4.0E+00
 KEE561AC BETA 5.0E+00>4.0E+00 Q:C1

8.2 Comments:

- 8.21 Result < Lc, Activity Not Detected, U Flag. Yes No N/A
 No Limit Specified! ✓
- 8.22 Result < Mdc, Activity Not Detected, U Flag. Yes No N/A
 Batch Positive Result => ✓
 KECRT1AA BETA 2.8E+03 L:4.6E+00
 KECRV1AA BETA 2.3E+03 L:4.1E+00
 KECRW1AC BETA 1.3E+03 L:4.1E+00
 KECRX1AC BETA 3.4E+03 L:9.3E+00
 KECTG1AC BETA 5.5E+00 L:4.0E+00
 KECTH1AC BETA 1.0E+01 L:4.2E+00
 KECTN1AC BETA 1.3E+03 L:4.4E+00
 KECTP1AC BETA 5.1E+02 L:4.3E+00
 KEDNW1AA BETA 2.1E+01 L:4.1E+00
 KEDN91AA BETA 5.4E+02 L:4.1E+00
 KEDPD1AA BETA 1.6E+03 L:4.3E+00
 KEDPE1AA BETA 1.2E+02 L:3.7E+00
 KEDPG1AA BETA 2.1E+03 L:3.8E+00
 KEE501AC BETA 2.1E+03 L:5.5E+00
 KEE551AC BETA 1.8E+01 L:4.7E+00
 KEE561AC BETA 2.2E+03 L:5.0E+00
- 8.23 Result <= Action Level, when Defined. Yes No N/A
 OK: No Action Level Found => BETA ✓
 OK: No Callin Level Found => BETA
- 8.24 Result + 3s >=0, Not Too Negative. Yes No N/A
 OK ✓
- 8.25 Counting Spectrum are within FWHM Limits. Yes No N/A
 No FWHM found in Batch Data! ✓
- 8.26 Instruments have Current Calibrations. Yes No N/A
- 8.27 Correct Count Library Used. Yes No N/A
 No Count Library found in Batch Data! ✓
- 8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions) 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 versions) Yes No N/A
- 8.3 Comments:
 Only samples KECRN
 KEDPE and KEDPG meet CRDL
 all others have results that exceed MDA achieved
 data accepted.
- 8.31 Results Blank Subtracted as Appropriate. Yes No N/A
 OK ✓

First Level Review Loa Antonson Date 1/28/08

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 7362393

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

Comments on any "No" response: _____

Second Level Review: Jodie Co Date: 2/11/08

Lot No., Due Date: J7L180111,J7L180116,J7L190122; 02/04/2008

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7362396; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05289; WATER

1.0 COC

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

2.0 QC Batch

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

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

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

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

3.0 QC & Samples

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

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

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

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

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

4.0 Raw Data

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

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

4.3 Were Yields entered correctly? Yes No N/A

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

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

5.0 Other

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

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

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

5.4 Was transcription checked? Yes No N/A

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

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

6.0 Comments on any No response:

First Level Review

[Signature]

Date

1-17-8

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7362396

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: *Jodine* Date: 1/21/08

Lot No., Due Date: J7L180111,J7L190122; 02/04/2008
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7362394; RGAMMA Gamma by GER
 SDG, Matrix: W05289; WATER

1.0 COC

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

✓ Yes No N/A

2.0 QC Batch

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

✓ Yes No N/A

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

✓ Yes No N/A

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

✓ Yes No N/A

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

✓ Yes No N/A

3.0 QC & Samples

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

✓ Yes No N/A

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

✓ Yes No N/A

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

✓ Yes No N/A

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

✓ Yes No N/A

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

✓ Yes No N/A

4.0 Raw Data

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

✓ Yes No N/A

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

✓ Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

✓ Yes No N/A

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

✓ Yes No N/A

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

✓ Yes No N/A

5.0 Other

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

✓ Yes No N/A

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

✓ Yes No N/A

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

✓ Yes No N/A

5.4 Was transcription checked? Yes No N/A

✓ Yes No N/A

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

✓ Yes No N/A

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

✓ Yes No N/A

6.0 Comments on any No response:

First Level Review

Lisa Johnson

Date

1/28/08

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 7362394

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

Comments on any "No" response: _____

Second Level Review: Jodie Date: 2/11/08

Lot No., Due Date: J7L190118; 02/04/2008
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 8015178; RTC99 Tc-99 by LSC
SDG, Matrix: W05289; 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 JK	✓		
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. OK (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. Yes No N/A
 No Count Library found in Batch Data! ✓
- 8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions) 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 versions) Yes No N/A
- 8.3 Comments:
- In the original count the TSIE was out for all of the KEE41 samples. The samples were mixed on the vortex re-wiped and recounted with acceptable results.
- 8.31 Results Blank Subtracted as Appropriate. Yes No N/A
 OK ✓

First Level Review *Lisa Gustafson* Date 1/21/08

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 8015178

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: *Jodan* Date: 1/21/08

Lot No., Due Date: ;

Client, Site:

QC Batch No., Method Test: 8042227;

SDG, Matrix: ; W05289 Batch # 736298, 808256, 804227

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:

Please see NCM # 10-11841

First Level Review *[Signature]*

Date 2-13-8

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8042227

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

Comments on any "No" response: _____

Second Level Review: Jodie G Date: 2/13/08

Clouseau Nonconformance Memo



NCM #: 10-11841 NCM Initiated By: John Norton Date Opened: 02/13/2008 Date Closed:	Classification: Anomaly Status: GLREVIEW Production Area: Environmental - Sep Tests: None Lot #'s (Sample #'s): , QC Batches: None.,
Nonconformance: Blank result above Contract Limit Subcategory: Unknown	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	02/13/2008	Originally analyzed as batch #7362398, this batch failed due to a high blank and a high LCS.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	02/13/2008	The samples were re-analyzed as batch # 8018256, which also showed a high blank, this blank was re-counted in batch 8042227, providing acceptable results.

Client Notification Summary

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

Quality Assurance Verification

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

Approval History

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



STL

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 7362399				
Lab Sample Numbers or: W05289				
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: Thomas E. Wilkins

Date: 12/31/2007

Second-Level Review: Jodie

Date: 2/14/08

Sample Check-in List

DUE 013108

Date/Time Received: 121707 1505

Client: PGW SDG#: W05289 NA [] SAF#: G08-012 NA []

Work Order Number: J7L180111 Chain of Custody # G08-012-220,-194,-190,-142,-212

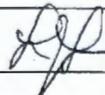
Shipping Container ID: _____ Air Bill # _____

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: 5
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:

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

<input checked="" type="checkbox"/> In Good Condition	<input type="checkbox"/> Leaking
<input type="checkbox"/> Broken	<input type="checkbox"/> 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: 121707

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 013108

Date/Time Received: 121707 1530

Client: PCW SDG#: W05289 NA [] SAF#: 508-012 NA []

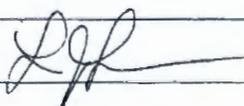
Work Order Number: JTL180115 Chain of Custody # 508-012-2,-5

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:

<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 (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: 121707

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 013108

Date/Time Received: 121707 1530

Client: PCW SDG#: W05289 NA [] SAF#: G08-012 NA []

Work Order Number: J7L180116 Chain of Custody # G08-012-28,-36

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: *RJR* Date: 121707

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: 12-18-07 11:35

Client: P6W SDG#: W05289 NA [] SAF#: 608-012 NA []

Work Order Number: J7L180223 Chain of Custody # 608-012-198, 166, 202, 112, 206

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: 5
7. Sample holding times exceeded? NA [] Yes [] No []
8. Samples have:

_____ Tape	_____ Hazard Labels
_____ Custody Seals	<u> / </u> 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: AK S. Smith Date: 12/18/07

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 020108

Date/Time Received: 121807 1540

Client: PGW SDG #: W05289 NA [] SAF #: W08-011 NA []

Work Order Number: 572190118 Chain of Custody # W08-011-9

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 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 (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: 121807

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 020108

Date/Time Received: 121807 1540

Client: PGW SDG#: W05289 NA SAF#: G08-012 NA

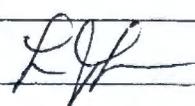
Work Order Number: JTL190122 Chain of Custody # G08-01290,-8,-84

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 S. 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 type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input 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: 121807

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

FLUOR HANFORD	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S08-012-239
JTL210137 W05289 DUE 020408 KEL90		Page 1 of 1

Collector R. R. FOX	Contact/Requester Steve Trent	Telephone No. MSIN FAX 509-373-5869
SAF No. S08-012	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV DECEMBER 2007	Ice Chest No. <i>506-441</i> Temp.	Method of Shipment Govt. Vehicle
Shipped To (Lab) TestAmerica Incorporated Richland	Priority: 45 Days	Bill of Lading/Air Bill No.
Protocol SURV	Offsite Property No.	

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

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
 All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 08 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all GW samples submitted into one SDG, daily closure.
 FY07 and FY08 samples cannot be in the same SDG.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1RDH6		W	12/20/07	1141	1x20-mL P	Activity Scan	None
B1RDH6		W	↓	↓	3x1000-mL P	TRITIUM_ELECT_LSC_LL: H-3 (1)	None
<div style="position: relative; width: 100%; height: 100%;"> 73 </div>							

Relinquished By R. R. FOX <i>[Signature]</i>	Date/Time DEC 20 2007	Received By <i>[Signature]</i> WILLIAMS TALKER	Date/Time 122007	Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liner SO = Solid T = Tissue SL = Sludge W = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By	Date/Time



Sample Check-in List DUE 020408

Date/Time Received: 122007 1245

Client: PAW SDG#: W05289 NA [] SAF#: 508-012 NA []

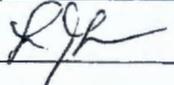
Work Order Number: J7210137 Chain of Custody # 508-012-239

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: 122007

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 020408

Date/Time Received: 122107 1345

Client: PGW SDG#: W05289 NA [] SAF#: I08-011 NA []

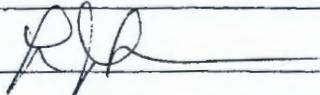
Work Order Number: JTL240106 Chain of Custody # I08-011-22

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 type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input 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 (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: 122107

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

77

1/18/2008 10:10:38 AM

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 #: 245

AnalyDueDate: 01/31/2008 005289

Sep1 DT/Tm Tech:

Batch: 7362392 WATER pCi/L PM, Quote: SA, 57671
SEQ Batch, Test: None All Tests: 7362392 AZS7, 7362393 BCS8, 7362394 AWTA, 7362396 CLTL,

Sep2 DT/Tm Tech:

Prep Tech: HarrisD/Bal



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 KECRW-1-AA J7L180111-4-SAMP 12/17/2007 10:45 AmtRec: VIAL20,4XLP #Containers: 5	156.30g.in			1.5	24.9	100	10F	1717		1/28/0800
2 KECRX-1-AA J7L180111-5-SAMP 12/17/2007 12:32 AmtRec: VIAL20,4XLP,4LP #Containers: 6	163.90g.in			15.1	50		10A	1821		
3 KECTG-1-AA J7L180115-1-SAMP 12/17/2007 10:11 AmtRec: VIAL20,LP #Containers: 2	200.00g.in			32.8			10B			
4 KECTG-1-AD-X J7L180115-1-DUP 12/17/2007 10:11 AmtRec: VIAL20,LP #Containers: 2	199.90g.in			32.8			10C			
5 KECTH-1-AA J7L180115-2-SAMP 12/17/2007 11:10 AmtRec: VIAL20,LP #Containers: 2	200.00g.in			33.7			10D			
6 KECTN-1-AA J7L180116-1-SAMP 12/17/2007 11:06 AmtRec: VIAL20,4XLP #Containers: 5	200.00g.in			21.9			10E			
7 KECTP-1-AA J7L180116-2-SAMP 12/17/2007 12:49 AmtRec: VIAL20,4XLP #Containers: 5	96.10g.in			31.7	100		10E	1717		

TESTAMERICA RICHLAND

1/18/2008 10:10:39 AM **Sample Preparation/Analysis** Balance Id:1120482733
 384868, Pacific Northwest National Laboratory, AZ Gross Alpha PrpRC5014 Pipet #: _____
 Pacific Northwest National Lab, S7 Gross Alpha by GPC using Am-241 curve
AnalytDueDate: 01/31/2008 5I CLIENT: HANFORD Sep1 DT/Tm Tech: _____
Batch: 7362392 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 KEE50-1-AA J7L190122-1-SAMP 12/18/2007 11:02	156.10g.in			1.5	31.3	100	10D	1717		1/24/0800
AmtRec: VIAL20,4XLP,4LP #Containers: 6 Scr: Alpha: 1.90E-03 uCi/Sa Beta: 5.05E-03 uCi/Sa 1.4E-01L										
9 KEE55-1-AA J7L190122-2-SAMP 12/18/2007 12:02	125.20g.in				43.5		10C			
AmtRec: VIAL20,4XLP,4LP #Containers: 6 Scr: Alpha: 1.28E-03 uCi/Sa Beta: 2.89E-04 uCi/Sa										
10 KEE56-1-AA J7L190122-3-SAMP 12/18/2007 13:08	185.20g.in			17.8		50	10F	1821		
AmtRec: VIAL20,4XLP,4LP #Containers: 6 Scr: Alpha: 3.82E-03 uCi/Sa Beta: 4.80E-03 uCi/Sa 1.5E-01L										
11 KEXA3-1-AA-B J7L280000-392-BLK 12/17/2007 10:11	200.40g.in			0.3		100	10B	1717		
AmtRec: #Containers: 1 Scr: Alpha: Beta:										
12 KEXA3-1-AC-C J7L280000-392-LCS 12/17/2007 10:11	200.00g.in		ASD4394 01/09/08,pd	1.1			10A	1717		
AmtRec: #Containers: 1 Scr: Alpha: Beta:										

Comments: PHC.D. Aliquots reduced due to weight screens. Dtt 1/18/08

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

KECRW1AA-SAMP Constituent List:
 ALPHA RDL:3 pCi/L LCL: UCL: RPD:

78

TESTAMERICA RICHLAND

1/18/2008 10:10:40 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 01/31/2008

Sep1 DT/Tm Tech: _____

Batch: 7362392
 SEO 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:
--------------------------------------	-------------------	-----------------------------	------------------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

KEXA31AA-BLK:
 ALPHA RDL:3 pCi/L LCL: UCL: RPD:
 KEXA31AC-LCS:
 Am-241 RDL: pCi/L LCL:70 UCL:130 RPD:20
 KECRW1AA-SAMP Calc Info:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
 KEXA31AA-BLK:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
 KEXA31AC-LCS:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____

Date: _____

79

1/29/2008 8:12:55 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/29/2007, 2/3/2008, Batch: '7362392', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7362392				
AC		Rev1C	HarrisD	1/18/2008 9:20:30	
SC			wagarr	IsBatched 12/28/2007 3:26:03 PM	ICOC_RADCALC v4.8.29
SC			HarrisD	InPrep 1/18/2008 9:20:30 AM	RICH-RC-5014 Revision 7
SC			HarrisD	Prep1C 1/18/2008 10:10:43 AM	RICH-RC-5016 REVISION 7
SC			BockJ	InPrep2 1/24/2008 9:05:18 AM	RICH-RC-5014 REVISION 7
SC			BockJ	Prep2C 1/28/2008 3:19:14 PM	RICH-RC-5014 REVISION 7
SC			DAWKINSO	InCnt1 1/28/2008 3:56:56 PM	RICH-RD-0003 REVISION 5
SC			DAWKINSO	CalcC 1/28/2008 7:45:39 PM	RICH-RD-0003 REVISION 5
SC			nortonj	Rev1C 1/29/2008 8:12:48 AM	RICH-RC-0002 REV 8
AC			HarrisD	1/18/2008 10:10:43	
AC			BockJ	1/24/2008 9:05:18	
AC			BockJ	1/28/2008 3:19:14 PM	
AC			DAWKINSO	1/28/2008 3:56:56 PM	
AC			DAWKINSO	1/28/2008 7:45:39 PM	
AC			nortonj	1/29/2008 8:12:48	

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

TEST AMERICA RICHLAND

1/21/2008 10:05:24 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
SI CLIENT: HANFORD

Pipet #: 245

AnalysDueDate: 01/31/2008 *W05289*

Sep1 DT/Tm Tech:

Batch: 7362393 WATER pCi/L PM, Quote: SA, 57671
SEQ Batch. Test: None All Tests: 7362392 AZS7, 7362393 BCS8, 7362394 AWTA, 7362396 CLTL

Sep2 DT/Tm Tech:

Prep Tech: HarrisD/Bock



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 KECRN-1-AA J7L180111-1-SAMP 12/17/2007 10:06 AmtRec: VIAL20.LP #Containers: 2	200.00g.in			1.5	23.3	50	28A	1511		1/24/08 <i>W</i>
2 KECRT-1-AA J7L180111-2-SAMP 12/17/2007 13:43 AmtRec: VIAL20.LP #Containers: 2	160.10g.in				21.2		28B			
3 KECRV-1-AA J7L180111-3-SAMP 12/17/2007 13:34 AmtRec: VIAL20.LP #Containers: 2	200.30g.in				26.7		28C			
4 KECRW-1-AC J7L180111-4-SAMP 12/17/2007 10:45 AmtRec: VIAL20.4XLP #Containers: 5	200.10g.in				733		28D			
5 KECRX-1-AC J7L180111-5-SAMP 12/17/2007 12:32 AmtRec: VIAL20.4XLP.4LP #Containers: 6	81.90g.in				11.9		31A			
6 KECTG-1-AC J7L180115-1-SAMP 12/17/2007 10:11 AmtRec: VIAL20.LP #Containers: 2	200.40g.in				61.9		31B			
7 KECTH-1-AC J7L180115-2-SAMP 12/17/2007 11:10 AmtRec: VIAL20.LP #Containers: 2	200.10g.in				54.8		31C			

81

TESTAMERICA RICHLAND

82

1/21/2008 10:05:26 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 #: _____
AnalytDueDate: 01/31/2008		Sep1 DT/Tm Tech: _____
Batch: 7362393 WATER	pCi/L	Sep2 DT/Tm Tech: _____
SEO Batch, Test: None	PM, Quote: SA , 57671	Prep Tech: ,HarrisD



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, Init/Date	Comments:
8 KECTN-1-AC J7L180116-1-SAMP 12/17/2007 11:06	170.00g.in			1.5	25.4	50	31P	1511		1/24/07nc
9 KECTP-1-AC J7L180116-2-SAMP 12/17/2007 12:49	196.10g.in				92.4		72A			
10 KEDNW-1-AA J7L180223-1-SAMP 12/18/2007 09:35	199.80g.in				95.5		72B			
11 KEDNW-1-AC-X J7L180223-1-DUP 12/18/2007 09:35	200.00g.in				94.7		72C			
12 KEDN9-1-AA J7L180223-2-SAMP 12/18/2007 10:32	200.10g.in				339		32D			
13 KEDPD-1-AA J7L180223-3-SAMP 12/18/2007 09:50	200.00g.in				38.5		26A	1729		1/24/0800
14 KEDPE-1-AA J7L180223-4-SAMP 12/18/2007 09:04	200.00g.in				333		26B	↓		6

TESTAMERICA RICHLAND

83

1/21/2008 10:05:27 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 #: _____

AnalyDueDate: 01/31/2008

Sep1 DT/Tm Tech: _____

Batch: 7362393 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:
15 KEDPG-1-AA J7L180223-5-SAMP 12/18/2007 10:02 AmtRec: 20ML.LP #Containers: 2	200.10g.in			1.5	335	90	26C	1729	1/24/08OK	
16 KEE50-1-AC J7L190122-1-SAMP 12/18/2007 11:02 AmtRec: VIAL20.4XLP.4LP #Containers: 6	140.10g.in				445		26A			
17 KEE55-1-AC J7L190122-2-SAMP 12/18/2007 12:02 AmtRec: VIAL20.4XLP.4LP #Containers: 6	172.50g.in				1144		27A			
18 KEE56-1-AC J7L190122-3-SAMP 12/18/2007 13:08 AmtRec: VIAL20.4XLP.4LP #Containers: 6	150.00g.in				29.0		27B			
19 KEXA4-1-AA-B J7L280000-393-BLK 12/18/2007 09:35 AmtRec: #Containers: 1	200.10g.in				4		27C			
20 KEXA4-1-AC-C J7L280000-393-LCS 12/18/2007 09:35 AmtRec: #Containers: 1	200.00g.in	BESB3204 12/24 07.pd			0.4		27D			

TESTAMERICA RICHLAND

1/21/2008 10:05:28 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #:

AnalyDueDate: 01/31/2008

Sep1 DT/Tm Tech:

Batch: 7362393 pCi/L
 SEO Batch. Test: None

Sep2 DT/Tm Tech:

Prep Tech: HarrisD



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. Init/Date	Comments:
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Comments: PHC20. Samples #2, 5, 8, 10, 18 reduced due to screening. Other aliquots reduced due to weight screens. Dlt 1/21/08

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

KECRN1AA-SAMP Constituent List:

BETA	RDL:4.00E+00	pCi/L	LCL:	UCL:	RPD:
KEXA41AA-BLK:					
BETA	RDL:4.00E+00	pCi/L	LCL:	UCL:	RPD:
KEXA41AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20
KECRN1AA-SAMP Calc Info:					
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N
Sci.Not.:	Y	ODRs:	B		
KEXA41AA-BLK:					
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N
Sci.Not.:	Y	ODRs:	B		
KEXA41AC-LCS:					
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N
Sci.Not.:	Y	ODRs:	B		

Approved By

Date:

84

1/25/2008 11:33:32 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/25/2007, 1/30/2008, Batch: '7362393', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7362393				
AC	Rev1C	HarrisD	1/21/2008 9:42:48	
SC		wagarr	IsBatched	12/28/2007 3:26:03 PM RICH-RC-5014 Revision 7
SC		HarrisD	InPrep	1/21/2008 9:42:48 AM RICH-RC-5014 REVISION 7
SC		HarrisD	Prep1C	1/21/2008 10:05:33 AM RICH-RC-5014 REVISION 7
SC		BockJ	InPrep2	1/23/2008 8:57:51 AM RICH-RC-5014 REVISION 7
SC		BockJ	Prep2C	1/24/2008 1:55:09 PM RICH-RC-5014 REVISION 7
SC		ClarkR	InCnt1	1/24/2008 2:05:54 PM RICH-RD-0003 REVISION 5
SC		DAWKINSO	CalcC	1/24/2008 9:55:44 PM RICH-RD-0003 REVISION 5
SC		antonsonl	Rev1C	1/25/2008 11:33:20 AM RICH-RC-0002 REV 8
AC		HarrisD	1/21/2008 10:05:33	
AC		BockJ	1/23/2008 8:57:51	
AC		BockJ	1/24/2008 1:55:09 PM	
AC		ClarkR	1/24/2008 2:05:54 PM	
AC		DAWKINSO	1/24/2008 9:55:44 PM	
AC		antonsonl	1/25/2008 11:33:20	

AC: Accepting Entry; SC: Status Change

TAL Richland
Richland Wa.

TESTAMERICA RICHLAND

86

1/11/2008 1:48:08 PM

Sample Preparation/Analysis

Balance Id:1120373922,E32905

384868, Pacific Northwest National Laboratory
Pacific Northwest National LabCL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by Nal and Sr-90 by GPC 7 day ingrowth
SI CLIENT: HANFORD

Pipet #:

AnalyDueDate: 01/31/2008

Sep1 DT/Tm Tech: 01/04/2008 15:27,ManisD

Batch: 7362396 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA, 57671

Sep2 DT/Tm Tech: 01/11/2008 07:50,ManisD

Prep Tech: ManisD



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KECRW-1-AD J7L180111-4-SAMP		1000.01g.in	SRTB15854 12/26/07.pd 05/22/07	1.741 2.0075	1.0	23	100	2A 2B	1220 1100	1/12/0800 1/13/0800	
0.8072 ----- 01/04/2008 15:27.st; 01/11/2008											
12/17/2007 10:45		AmtRec: VIAL20,4XLP	#Containers: 5					Scr:	Alpha: 1.04E-03 uCi/Sa	Beta: -1.15E-04 uCi/Sa	
2 KECRW-1-AE-X J7L180111-4-DUP		1000.03g.in	SRTB15855 12/26/07.pd 05/22/07	1.596 2.0114	1.0	23.2	100	2B 2C	1220 1100	1/12/0800 1/13/0800	
0.7935 ----- 01/04/2008 15:27.st; 01/11/2008											
12/17/2007 10:45		AmtRec: VIAL20,4XLP	#Containers: 5					Scr:	Alpha: 1.04E-03 uCi/Sa	Beta: -1.15E-04 uCi/Sa	
3 KECRX-1-AE J7L180111-5-SAMP		900.01g.in	SRTB15856 12/26/07.pd 05/22/07	1.968 2.0127	1.0	23.6	100	178 2C 2C	1220 1345 1231	1/12/0800 1/20/0800 1/20/0800	
0.9448 ----- 01/04/2008 15:27.st; 01/11/2008											
12/17/2007 12:32		AmtRec: VIAL20,4XLP,ALP	#Containers: 6					Scr:	Alpha: 2.23E-04 uCi/Sa	Beta: 8.76E-03 uCi/Sa	8.2E-02L
4 KECTN-1-AD J7L180116-1-SAMP		1000.03g.in	SRTB15857 12/26/07.pd 05/22/07	1.655 2.0088	1.0	23.6	100	2D 2D	1220 1100	1/12/0800 1/13/0800	
0.8239 ----- 01/04/2008 15:27.st; 01/11/2008											
12/17/2007 11:06		AmtRec: VIAL20,4XLP	#Containers: 5					Scr:	Alpha: 8.06E-04 uCi/Sa	Beta: 2.18E-03 uCi/Sa	1.7E-01L

TESTAMERICA RICHLAND

87

1/11/2008 1:48:08 PM **Sample Preparation/Analysis** Balance Id:1120373922,1120373922,1120

384868, Pacific Northwest National Laboratory , CL Sr-90 Prp/SepRC5006(5071) Pipet #: _____
 Pacific Northwest National Lab TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
AnalyDueDate: 01/31/2008 5I CLIENT: HANFORD Sep1 DT/Tm Tech: 01/04/2008 15:27,ManisD

Batch: 7362396 WATER pCi/L PM, Quote: SA , 57671 Sep2 DT/Tm Tech: 01/11/2008 07:50,ManisD
 SEQ Batch, Test: None Prep Tech: ,ManisD

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 KECTP-1-AD		1000.02g,in	SRTB15858	1.921	1.0	23.1	100	3A	1220	1/2/0802	
J7L180116-2-SAMP			12/26/07,pd 05/22/07	1.9971				3A	1058	1/13/0802	
0.8648 ----- 01/04/2008 15:27,st; 01/11/2008											
12/17/2007 12:49		AmtRec: VIAL20,4XLP	#Containers: 5					Scr:	Alpha: -2.31E-04 uCi/Sa	Beta: 1.75E-03 uCi/Sa	
6 KEE50-1-AE		1000.00g,in	SRTB15859	1.647	1.0	23.7	100	3B	1220	1/12/0802	
J7L190122-1-SAMP			12/26/07,pd 05/22/07	2.0023				3B	1058	1/13/0802	
0.8226 ----- 01/04/2008 15:27,st; 01/11/2008											
12/18/2007 11:02		AmtRec: VIAL20,4XLP,4LP	#Containers: 6					Scr:	Alpha: 1.90E-03 uCi/Sa	Beta: 5.05E-03 uCi/Sa	1.4E-01L
7 KEE55-1-AE		1000.00g,in	SRTB15860	1.383	1.0	23	100	3C	1220	1/12/0802	
J7L190122-2-SAMP			12/26/07,pd 05/22/07	1.9971				3C	1058	1/13/0802	
0.6670 ----- 01/04/2008 15:27,st; 01/11/2008											
12/18/2007 12:02		AmtRec: VIAL20,4XLP,4LP	#Containers: 6					Scr:	Alpha: 1.28E-03 uCi/Sa	Beta: 2.89E-04 uCi/Sa	
8 KEE56-1-AE		1000.01g,in	SRTB15861	1.671	1.0	23.3	100	3D	1220	1/12/0802	
J7L190122-3-SAMP			12/26/07,pd 05/22/07	2.0100				3D	1058	1/13/0802	
0.8313 ----- 01/04/2008 15:27,st; 01/11/2008											
12/18/2007 13:08		AmtRec: VIAL20,4XLP,4LP	#Containers: 6					Scr:	Alpha: 3.82E-03 uCi/Sa	Beta: 4.80E-03 uCi/Sa	1.5E-01L

TESTAMERICA RICHLAND

1/11/2008 1:48:09 PM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

CL Sr-90 Prp/SepRC5006(5071)
 TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
 SI CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/31/2008

Sep1 DT/Tm Tech: 01/04/2008 15:27,ManisD

Batch: 7362396
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: 01/11/2008 07:50,ManisD

Prep Tech: ManisD



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
9 KEXCA-1-AA-B		1000.03g,in	SRTB15862	1.916	1.0	24	100	4A	1220	1/12/08 oal	
J7L280000-396-BLK			12/26/07,pd	2.0100				4A	1058	1/13/08 oal	

01/04/2008 15:27:st, 01/11/2008

0.8537

12/17/2007 10:45	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:						
10 KEXCA-1-AC-C		1000.01g,in	SRS1432	1.633	1.0	23.6	100	4B	1220	1/12/08 oal	
J7L280000-396-LCS			12/12/07,pd	2.0085				4B	1058	1/13/08 oal	

01/04/2008 15:27:st, 01/11/2008

0.8180

12/17/2007 10:45	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

KECRWIAD-SAMP Constituent List:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20
KEXCA1AA-BLK:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
KEXCALAC-LCS:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

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

KEXCA1AA-BLK:

88

TESTAMERICA RICHLAND

1/11/2008 1:48:09 PM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

CL Sr-90 Prp/SepRC5006(5071)
 TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
 5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/31/2008

Sep1 DT/Tm Tech: 01/04/2008 15:27,ManisD

Batch: 7362396
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: 01/11/2008 07:50,ManisD

Prep Tech: ManisD



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Ini/Date	Comments:
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Uncert Level (#s) : 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
 KEXCA1AC-LCS:
 Uncert Level (#s) : 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

89

1/17/2008 10:51:22 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/17/2007, 1/22/2008, Batch: '7362396', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7362396				
AC	Rev1C	Barcotl	1/3/2008 9:58:54 AM	
SC		wagarr	IsBatched	12/28/2007 3:26:03 PM
SC		Barcotl	InPrep	1/3/2008 9:58:54 AM
SC		Barcotl	Prep1C	1/3/2008 9:59:09 AM
SC		ManisD	InSep1	1/3/2008 10:38:02 AM
SC		ManisD	Sep1C	1/5/2008 12:30:10 PM
SC		BlackCL	InCnt1	1/5/2008 12:31:11 PM
SC		ManisD	InSep2	1/9/2008 7:28:46 AM
SC		ManisD	Sep2C	1/11/2008 1:48:38 PM
SC		DAWKINSO	InCnt2	1/11/2008 3:22:50 PM
SC		ClarkR	CalcC	1/14/2008 9:33:13 AM
SC		nortonj	Rev1C	1/17/2008 10:51:12 AM
AC		Barcotl	1/3/2008 9:59:09 AM	
AC		ManisD	1/3/2008 10:38:02	
AC		ManisD	1/5/2008 12:30:10 PM	RICH-RC-5071
AC		BlackCL	1/5/2008 12:31:11 PM	
AC		ManisD	1/9/2008 7:28:46 AM	
AC		ManisD	1/11/2008 1:48:38 PM	
AC		DAWKINSO	1/11/2008 3:22:50 PM	
AC		ClarkR	1/14/2008 9:33:13	
AC		nortonj	1/17/2008 10:51:12	

AC: Accepting Entry; SC: Status Change

TAL Richland
Richland Wa.

TESTAMERICA RICHLAND

1/16/2008 2:39:28 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

AW Gamma PrpRC5017
TA Gamma by HPGE
SI CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/31/2008 *U05289*

Sep1 DT/Tm Tech:

Batch: 7362394 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

Prep Tech: *HarrisD/Box J.*

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 KECRX-1-AD	2000.10g.in									
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J7L180111-5-SAMP										
12/17/2007 12:32		AmtRec: VIAL20,4XLP,4LP	#Containers: 6					Scr: Alpha: 2.23E-04 uCi/Sa	Beta: 8.76E-03 uCi/Sa	8.2E-02L

2 KEE50-1-AD	2000.10g.in									
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J7L190122-1-SAMP										
12/18/2007 11:02		AmtRec: VIAL20,4XLP,4LP	#Containers: 6					Scr: Alpha: 1.90E-03 uCi/Sa	Beta: 5.05E-03 uCi/Sa	1.4E-01L

3 KEE55-1-AD	2000.20g.in									
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J7L190122-2-SAMP										
12/18/2007 12:02		AmtRec: VIAL20,4XLP,4LP	#Containers: 6					Scr: Alpha: 1.28E-03 uCi/Sa	Beta: 2.89E-04 uCi/Sa	

4 KEE56-1-AD	2000.30g.in									
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J7L190122-3-SAMP										
12/18/2007 13:08		AmtRec: VIAL20,4XLP,4LP	#Containers: 6					Scr: Alpha: 3.82E-03 uCi/Sa	Beta: 4.80E-03 uCi/Sa	1.5E-01L

5 KEE56-1-AF-X										
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J7L190122-3-DUP										
12/18/2007 13:08		AmtRec: VIAL20,4XLP,4LP	#Containers: 6					Scr: Alpha: 3.82E-03 uCi/Sa	Beta: 4.80E-03 uCi/Sa	1.5E-01L

6 KEXA9-1-AA-B	2000.20g.in									
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J7L280000-394-BLK										
12/18/2007 13:08		AmtRec:	#Containers: 1					Scr: Alpha:	Beta:	

7 KEXA9-1-AC-C	2000.20g.in		QCAG1434							
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J7L280000-394-LCS			11/12/07.pd							
12/18/2007 13:08		AmtRec:	#Containers: 1					Scr: Alpha:	Beta:	

TESTAMERICA RICHLAND

1/16/2008 2:39:29 PM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 01/31/2008

Sep1 DT/Tm Tech:

Batch: 7362394 pCi/L
SEQ Batch, Test: None

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: *pH 2.0. Insuff volume for dup. count on different detector. Date 1/16/08*

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

KECRX1AD-SAMP Constituent List:

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:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20
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:

KEXA91AA-BLK:

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:

KEXA91AC-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						

KECRX1AD-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KEXA91AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KEXA91AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

1/25/2008 11:05:04 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/25/2007, 1/30/2008, Batch: '7362394', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7362394				
AC	Rev1C	HarrisD	1/16/2008 2:08:18 PM	
SC		wagarr	IsBatched	12/28/2007 3:26:03 PM
SC		HarrisD	InPrep	1/16/2008 2:08:18 PM
SC		HarrisD	Prep1C	1/16/2008 2:39:34 PM
SC		BockJ	InPrep2	1/23/2008 8:57:57 AM
SC		BockJ	InPrep2	1/23/2008 8:58:37 AM
SC		BockJ	Prep2C	1/24/2008 10:12:48 AM
SC		ClarkR	InCnt1	1/24/2008 10:22:35 AM
SC		DAWKINSO	CalcC	1/24/2008 9:59:54 PM
SC		antonsonl	Rev1C	1/25/2008 11:04:13 AM
AC		HarrisD	1/16/2008 2:39:34 PM	ICOC RADCALC v4.8.29
AC		BockJ	1/23/2008 8:57:57	RICH-RC-5014 Revision 7
AC		BockJ	1/23/2008 8:58:37	RICH-RC-5017 REVISION 6
AC		BockJ	1/24/2008 10:12:48	RICH-RC-5017 REVISION 7
AC		ClarkR	1/24/2008 10:22:35	RICH-RC-5014 REVISION 7
AC		DAWKINSO	1/24/2008 9:59:54 PM	RICH-RC-5017 REVISION 6
AC		antonsonl	1/25/2008 11:04:13	RICH-RC-5017 REVISION 6
				RICH-RD-0007 REVISION 6
				RICH-RC-0002 REV 8

AC: Accepting Entry; SC: Status Change

TAL Richland
Richland Wa.

35



RE-COUNT REQUEST
DUE DATE 2/11/08

CUSTOMER P6W

ANALYSIS TC99

MATRIX water

LOT NUMBER JTL 190118

SAMPLE DELIVERY GROUP _____

OLD BATCH NUMBER 7362397

NEW BATCH NUMBER 8015178

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) <u>all</u>		<u>TSR</u>
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

TESTAMERICA RI CHILAND

1/16/2008 8:34:34 AM

Sample Preparation/Analysis

Balance Id:

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #:

AnalyDueDate: 02/01/2008

Sep1 DT/Tm Tech:

Batch: 8015178 WATER pCi/L
SEQ Batch. Test: None

PM, Quote: SA , 57671

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
1 KEE41-2-AA										
J7L190118-1-SAMP										
12/18/2007 13:50			AmtRec: VIAL20.500MLP	#Containers: 2				Scr: Alpha: 4.45E-05 uCi/Sa	Beta: 7.22E-06 uCi/Sa	
2 KEE41-2-AC-S										
J7L190118-1-MS										
12/18/2007 13:50			AmtRec: VIAL20.500MLP	#Containers: 2				Scr: Alpha: 4.45E-05 uCi/Sa	Beta: 7.22E-06 uCi/Sa	
3 KEE41-2-AD-X										
J7L190118-1-DUP										
12/18/2007 13:50			AmtRec: VIAL20.500MLP	#Containers: 2				Scr: Alpha: 4.45E-05 uCi/Sa	Beta: 7.22E-06 uCi/Sa	
4 KEXCC-2-AA-B										
J7L280000-397-BLK										
12/18/2007 13:50			AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	
5 KEXCC-2-AC-C										
J7L280000-397-LCS										
12/18/2007 13:50			AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	
6 KEXCC-2-AD-B										
J7L280000-397-BLK										
12/18/2007 13:50			AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	

95

TESTAMERICA RICHLAND

1/16/2008 8:34:34 AM

Sample Preparation/Analysis

Balance Id:

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

Pipet #:

AnalyDueDate: 02/01/2008

Sep1 DT/Tm Tech:

Batch: 8015178
 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:

All Clients for Batch:

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

KEE412AA-SAMP Constituent List:

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

KEE412AC-MS Constituent List:

KEXCC2AA-BLK:

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

KEXCC2AC-LCS:

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

KEXCC2AD-BLK:

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

KEE412AA-SAMP Calc Info:

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

KEE412AC-MS Calc Info:

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

KEXCC2AA-BLK:

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

KEXCC2AC-LCS:

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

KEXCC2AD-BLK:

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

Approved By

Date:

96

1/21/2008 2:56:26 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/21/2007, 1/26/2008, Batch: '8015178', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8015178				
AC	Rev1C	BlackCL	1/18/2008 11:49:52	
SC		BlackCL	InCnt1 1/18/2008 11:49:52 AM	RICH-RD-0001 REVISION 4
SC		BlackCL	CalcC 1/19/2008 6:54:47 AM	RICH-RD-0001 REVISION 4
SC		antonsonl	Rev1C 1/21/2008 2:56:15 PM	RICH-RC-0002 REV 8
AC		BlackCL	1/19/2008 6:54:47	
AC		antonsonl	1/21/2008 2:56:15 PM	

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.



RE-ANALYSIS REQUEST

DUE DATE 2.4

CUSTOMER PGW

ANALYSIS E 3H

MATRIX H₂O

LOT NUMBER J7L210137

SAMPLE DELIVERY GROUP W05289

OLD BATCH NUMBER 7362398

NEW BATCH NUMBER 8018256

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) KEL901AA	3845768	HIGH BLANK
2) KEL901A-X		
3) B		
4) C		
5) BN		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID	Assigned with new batch.	

TESTAMERICA RICHLAND

1/18/2008 11:20:27 AM

Sample Preparation/Analysis

Balance Id: *12424*

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

AS H-3 Prp/SepRC5024
U3 Enriched Tritium by Liquid Scint
SI CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 02/04/2008

Sep1 DT/Tm Tech: *1-29-08 pm*

Batch: 8018256 WATER pCi/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 KEL90-2-AA								
J7L210137-1-SAMP								
12/20/2007 11:41		AmtRec: VIAL20,3XLP		#Containers: 4		Scr: Alpha: -2.79E-04 uCi/Sa	Beta: 7.11E-04 uCi/Sa	

2 KEL90-2-AC-X								
J7L210137-1-DUP								
12/20/2007 11:41		AmtRec: VIAL20,3XLP		#Containers: 4		Scr: Alpha: -2.79E-04 uCi/Sa	Beta: 7.11E-04 uCi/Sa	

3 KFQ5P-1-AA-B								
J8A180000-256-BLK								
12/20/2007 11:41		AmtRec:		#Containers: 1		Scr: Alpha:	Beta:	

4 KFQ5P-1-AC-C								
J8A180000-256-LCS								
12/20/2007 11:41		AmtRec:		#Containers: 1		Scr: Alpha:	Beta:	

5 KFQ5P-1-AD-B								
J8A180000-256-BLK								
12/20/2007 11:41		AmtRec:		#Containers: 1		Scr: Alpha:	Beta:	

Comments:

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

KEL902AA-SAMP Constituent List:

99

TESTAMERICA RICHLAND

1/18/2008 11:20:28 AM

Sample Preparation/Analysis

Balance Id: 12424

AS H-3 Prp/SepRC5024
 U3 Enriched Tritium by Liquid Scint
 5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 02/04/2008

Sep1 DT/Tm Tech: 1-29-08 AM

Batch: 8018256 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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KFQ5P1AA-BLK:

KFQ5P1AC-LCS:

KFQ5P1AD-BLK:

KEL902AA-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KFQ5P1AA-BLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KFQ5P1AC-LCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KFQ5P1AD-BLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

100



RE-COUNT REQUEST

DUE DATE 2-4

CUSTOMER PGW

ANALYSIS E 3H

MATRIX H₂O

LOT NUMBER J7L210137

SAMPLE DELIVERY GROUP WO 5289

OLD BATCH NUMBER 736 2398 - 8018256

NEW BATCH NUMBER 8042227

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) KFQ5P _{1AA} B	384868	HIGH BLNK
2) KFQ5P _{1AD} BN		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

RC-126, 12/07, Rev 5

TESTAMERICA RICHLAND

2/11/2008 1:29:27 PM

Sample Preparation/Analysis

Balance Id: _____

AS H-3 Prp/SepRC5024
 U3 Enriched Tritium by Liquid Scint
 SI CLIENT: HANFORD

Pipet #: _____

Sep1 DT/Tm Tech: _____

Batch: 8042227

pCi/L

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None All Tests: 8018226 AZTZ, 8018237 5NS1, 8018239 GUSR, 8018241 8BU4, 8018243 8BU4, 8018253 ASU3, 8018256 ASU3, 8018283 88EA, 8018285 88EA, 8018402 FPS5, 8018404 AZTZ, 8018405 BCS8, 8018407 B0S7, 8018415 7YSR, 8018416 AZS7.

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 KFQ5P-2-AA-B

J8A180000-256-BLK



12/20/2007 11:41

AmtRec:

#Containers: 1

Scr:

Alpha:

Beta:

2 KFQ5P-2-AD-B

J8A180000-256-BLK



12/20/2007 11:41

AmtRec:

#Containers: 1

Scr:

Alpha:

Beta:

Comments:

All Clients for Batch:

KFQ5P2AA-BLK Constituent List:

KFQ5P2AD-BLK Constituent List:

KFQ5P2AA-BLK Calc Info:

Uncert Level (#s): 4 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

KFQ5P2AD-BLK Calc Info:

Uncert Level (#s): 4 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____

Date: _____

102

2/13/2008 11:35:21 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/13/2007, 2/18/2008, Batch: '8042227', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8042227				
AC	Rev1C	ClarkR	2/11/2008 1:58:22 PM	
SC		nortonj	IsBatched 2/11/2008 1:29:07 PM	ICOC_RADCALC v4.8.32
SC		ClarkR	InCnt1 2/11/2008 1:58:22 PM	RICH-RD-0001 REVISION 4
SC		BlackCL	CalcC 2/13/2008 7:11:38 AM	RICH-RD-0001 REVISION 4
SC		nortonj	Rev1C 2/13/2008 11:35:10 AM	RICH-RC-0002 REV 8
AC		BlackCL	2/13/2008 7:11:38	
AC		nortonj	2/13/2008 11:35:10	

AC: Accepting Entry, SC: Status Change

TAL Richland

Richland Wa.

TESTAMERICA RICHLAND

12/28/2007 3:23:21 PM

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: 02/04/2008

WO 5289

SI CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 7362399 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 KEQP8-1-AA

J7L240106-1-SAMP

12/21/2007 09:00		AmtRec: VIAL20,500G	#Containers: 2				Scr:	Alpha:	Beta:
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2 KEQP8-1-AC-S

J7L240106-1-MS

12/21/2007 09:00		AmtRec: VIAL20,500G	#Containers: 2				Scr:	Alpha:	Beta:
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3 KEQP8-1-AD-X

J7L240106-1-DUP

12/21/2007 09:00		AmtRec: VIAL20,500G	#Containers: 2				Scr:	Alpha:	Beta:
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4 KEQP8-1-AE-S

J7L240106-1-MS

12/21/2007 09:00		AmtRec: VIAL20,500G	#Containers: 2				Scr:	Alpha:	Beta:
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5 KEXCE-1-AA-B

J7L280000-399-BLK

12/21/2007 09:00		AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
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6 KEXCE-1-AC-C

J7L280000-399-LCS

12/21/2007 09:00		AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
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104

TESTAMERICA RICHLAND

12/28/2007 3:23:21 PM

Sample Preparation/Analysis

Balance Id: _____

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

Pipet #: _____

AnalyDueDate: 02/04/2008

Sep1 DT/Tm Tech: _____

Batch: 7362399
 SEQ Batch, Test: None

mg/L

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, Ini/Date	Comments:
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Comments:

All Clients for Batch:

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

KEQP81AA-SAMP Constituent List:

HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20

KEQP81AC-MS Constituent List:

KEQP81AE-MS:

KEXCE1AA-BLK:

KEXCE1AC-LCS:

KEQP81AA-SAMP Calc Info:

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

KEQP81AC-MS Calc Info:

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

KEQP81AE-MS:

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

KEXCE1AA-BLK:

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

KEXCE1AC-LCS:

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

Approved By _____

Date: _____

105