

Analytical Data Package Prepared For

Fluor Hanford

Radiochemical Analysis By

TAL Richland STLRL*2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.**Data Package Contains 147 Pages*

Report Nbr: 36140

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH	
1 W05180	I07-043	B1N2N4	J7F040193-1	JX8PD1AA	9JX8PD10	7159344	
		B1N2R0	J7F040193-2	JX8P41AA	9JX8P410	7159344	
		B1N2P6	J7F040193-3	JX8QJ1AA	9JX8QJ10	7159344	
		B1N2N8	J7F040193-4	JX8QM1AA	9JX8QM10	7159344	
	W07-005		B1N5X6	J7F040203-1	JX8R01AA	9JX8R010	7159370
			B1N5X6	J7F040203-1	JX8R01AC	9JX8R010	7159353
			B1N5X6	J7F040203-1	JX8R01AD	9JX8R010	7159364
			B1N5W6	J7F040203-2	JX8R51AA	9JX8R510	7159370
			B1N5W6	J7F040203-2	JX8R51AC	9JX8R510	7159353
			B1N5W6	J7F040203-2	JX8R51AD	9JX8R510	7159364
			B1N5Y1	J7F040203-3	JX8R91AA	9JX8R910	7159370
			B1N5Y1	J7F040203-3	JX8R91AC	9JX8R910	7159348
			B1N5Y1	J7F040203-3	JX8R91AD	9JX8R910	7159346
			B1N5Y1	J7F040203-3	JX8R91AF	9JX8R910	7159364
			B1N5Y1	J7F040203-3	JX8R92AE	9JX8R920	7184191

JUL 31 2007

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05180	W07-005	B1N5X1	J7F040203-4	JX8TC1AA	9JX8TC10	7159370
		B1N5X1	J7F040203-4	JX8TC1AC	9JX8TC10	7159347
		B1N5X1	J7F040203-4	JX8TC1AD	9JX8TC10	7159353
		B1N5X1	J7F040203-4	JX8TC1AE	9JX8TC10	7159364
	I07-044	B1N2R3	J7F050117-1	JX9L91AA	9JX9L910	7159344
		B1N302	J7F050117-2	JX93W1AA	9JX93W10	7159344
		B1N302	J7F050117-2	JX93W1AC	9JX93W10	7159347
		B1N302	J7F050117-2	JX93W2AD	9JX93W20	7184191
		B1N306	J7F050117-3	JX9341AA	9JX93410	7159344
		B1N306	J7F050117-3	JX9342AC	9JX93420	7184191
		B1N307	J7F050117-4	JX95A1AA	9JX95A10	7159344
		B1N307	J7F050117-4	JX95A2AC	9JX95A20	7184191
	G07-005	B1N230	J7F050208-1	J0AN41AA	9J0AN410	7159348
		B1N231	J7F050208-2	J0APG1AA	9J0APG10	7159348
	S07-005	B1N3L5	J7F060349-1	J0E6M1AA	9J0E6M10	7159344
	I07-043	B1NH93	J7F070101-1	J0F651AC	9J0F6510	7159368
		B1NH93	J7F070101-1	J0F651AD	9J0F6510	7159346
		B1NH93	J7F070101-1	J0F651AE	9J0F6510	7159344
		B1NH93	J7F070101-1	J0F651AF	9J0F6510	7159357
		B1NH93	J7F070101-1	J0F651AG	9J0F6510	7159347
		B1NH93	J7F070101-1	J0F652AA	9J0F6520	7198273
		B1NH87	J7F070101-2	J0F681AC	9J0F6810	7159368
		B1NH87	J7F070101-2	J0F681AD	9J0F6810	7159346
		B1NH87	J7F070101-2	J0F681AE	9J0F6810	7159344
		B1NH87	J7F070101-2	J0F681AF	9J0F6810	7159357
		B1NH87	J7F070101-2	J0F681AG	9J0F6810	7159347

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Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05180	I07-043	B1NH87	J7F070101-2	J0F682AA	9J0F6820	7198273
		B1N2N1	J7F070105-1	J0F7N1AA	9J0F7N10	7159344

Comments:

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 2800 George Washington Way
 Richland, WA 99354

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 www.stl-inc.com

Certificate of Analysis

Fluor Hanford
 1200 Jadwin Ave.
 Richland, WA 99352

July 30, 2007

Attention: Steve Trent

SAF Number	:	I07-043, W07-0054, I07-044, G07-005, S07-005
Date SDG Closed	:	June 5, 2007
Number of Samples	:	Eighteen (18)
Sample Type	:	Water
SDG Number	:	W05180
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between June 1, 2007 and June 5, 2007 eighteen 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 Pacific Northwest National Laboratories (PGW) specific IDs:

<u>PGW ID#</u>	<u>STLR ID#</u>	<u>DATE OF RECEIPT</u>	<u>MATRIX</u>
B1N2N4	JX8PD	6/1/07	WATER
B1N2R0	JX8P4	6/1/07	WATER
B1N2P6	JX8QJ	6/1/07	WATER
B1N2N8	JX8QM	6/1/07	WATER
B1N5X6	JX8R0	6/1/07	WATER
B1N5W6	JX8R5	6/1/07	WATER
B1N5Y1	JX8R9	6/1/07	WATER
B1N5X1	JX8TC	6/1/07	WATER
B1N2R3	JX9L9	6/4/07	WATER
B1N302	JX93W	6/4/07	WATER
B1N306	JX934	6/4/07	WATER
B1N307	JX95A	6/4/07	WATER
B1N230	J0AN4	6/4/07	WATER

B1N231	JOAPG	6/4/07	WATER
B1N3L5	JOEGM	6/5/07	WATER
B1NH93	JOF65	6/5/07	WATER
B1NH87	JOF68	6/5/07	WATER
B1N2N1	JOF7N	6/5/07	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:

Alpha Spectroscopy

Neptunium-237 by method RICH-RC-5009

Gas Proportional Counting

Gross Beta by method RICH-RC-5014

Strontium-90 by method RICH-RC-5006

Gamma Spectroscopy

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

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

Liquid Scintillation Counting

Selenium-79 by method RICH-RC-5043

Technetium-99 by TEVA method RICH-RC-5065

Technetium-99 by method RICH-RC-5078

Tritium by method RICH-RC-5007

Carbon-14 by method RICH-RC-5022

Laser Induced Phosphorimetry

Total Uranium by method RICH-RC-5058

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy

Neptunium-237 by method RICH-RC-5009:

The original batch was analyzed using the wrong preparation method. The samples were reanalyzed using the correct preparation method. Except as noted, the LCS, batch blank, samples and sample duplicate (B1NH87) results are within contractual requirements.

Gas Proportional Counting

Gross Beta by method RICH-RC-5014:

Samples B1N230, B1N5Y1 and B1N230 (DUP) were analyzed with reduced volumes based on weight screen results. Samples B1N230 and B1N230 (DUP) both had results that exceed the achieved MDA. Except as noted, the LCS, batch blank, samples and sample duplicate (B1N230) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1NH93) results are within contractual requirements.

Gamma Spectroscopy

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

Sample B1NH93 and B1NH93 DUP had a reduced aliquot size due to insufficient sample volume. Except as noted, the LCS, batch blank, samples and sample duplicate (B1NH93) results are within contractual requirements.

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

The LCS, batch blank, samples and sample duplicate (B1N2N4) results are within contractual requirements.

Liquid Scintillation Counting

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

The TSIE was out of limits on the original results, therefore the data could not be calculated. The samples were shaken, wiped and recounted. The recounted results were acceptable. The LCS, batch blank, samples, sample duplicate (B1N302), and sample matrix spike (B1N306) results are within contractual requirements.

Technetium-99 by method RICH-RC-5078:

The LCS, batch blank, samples, sample duplicate (B1N5X1), and sample matrix spike (B1N5X6) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1N5X1) results are within contractual requirements.

Pacific Northwest National Laboratories
July 30, 2007

Selenium-79 by method RICH-RC-5043:

There is no LCS for selenium-79. Except as noted, the batch blank, samples and sample duplicate (B1NH93) results are within contractual requirements.

Carbon-14 by method RICH-RC-5022:

The LCS, batch blank, samples and sample duplicate (B1NH93) results are within contractual requirements.

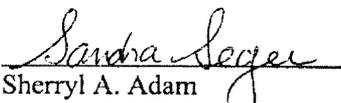
Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1N5X6), and sample matrix spike (B1N5W6) 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:


for Sherryl A. Adam
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 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

Uncertainty Estimation

STL 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 (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) <i>u_c Combined Uncertainty.</i>	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, <i>u_c the combined uncertainty.</i> The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$. 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%. $MDC = (4.65 * \text{Sqrt}((\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin}) + 2.71/\text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$. 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 = $(S-D)/[\text{sqrt}(\text{TPUs}^2 + \text{TPUd}^2)]$ 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.

STL RICHLAND

7/30/2007 11:53:05 AM

TAL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 36140 File Name: h:\Reportdb\edd\FeadIV\Rad\W05180.Edd, h:\Reportdb\edd\FeadIV\Rad\36140.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:				
9J0AN410	B1N230		MW6-SBB-A1	G07-005	W05180					06/04/2007 09:31				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159348	BETA	12587-47-2	4.87E+03	pCi/L	3.8E+01	6.4E+02		3.86E+00	100.0	9310_ALPHABETA	1.40E-01	L	07/13/2007 12:50	I
9J0APG10	B1N231		MW6-SBB-A1	G07-005	W05180					06/04/2007 08:00				
7159348	BETA	12587-47-2	4.49E-01	pCi/L	1.1E+00	1.1E+00	U	2.37E+00	100.0	9310_ALPHABETA	1.997E-01	L	07/13/2007 14:35	I
9J0E6M10	B1N3L5		MW6-SBB-A1	S07-005	W05180					06/05/2007 09:32				
7159344	I-129L	15046-84-1	6.47E-02	pCi/L	1.2E-01	1.2E-01	U	2.47E-01	87.3	I129LL_SEP_LEPS	3.9117E+00	L	07/14/2007 09:52	I
9J0F6510	B1NH93		MW6-SBB-A1	I07-043	W05180					06/05/2007 10:49				
7159368	C-14	14762-75-5	1.36E+00	pCi/L	3.3E+00	6.5E+00	U	7.99E+00	100.0	C14_LSC	2.00E-01	L	06/22/2007 18:55	I
7159346	BE-7	13966-02-4	-3.80E+01	pCi/L	3.3E+01	3.3E+01	U	4.91E+01		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159346	CO-60	10198-40-0	3.63E-01	pCi/L	2.9E+00	2.9E+00	U	5.64E+00		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159346	CS-134	13967-70-9	1.17E+00	pCi/L	2.6E+00	2.6E+00	U	5.27E+00		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159346	CS-137	10045-97-3	-6.70E-03	pCi/L	2.4E+00	2.4E+00	U	4.35E+00		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159346	EU-152	14683-23-9	-5.39E-01	pCi/L	6.5E+00	6.5E+00	U	1.17E+01		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159346	EU-154	15585-10-1	3.78E+00	pCi/L	6.6E+00	6.6E+00	U	1.43E+01		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159346	EU-155	14391-16-3	-3.18E-01	pCi/L	5.1E+00	5.1E+00	U	8.89E+00		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159346	K-40	13966-00-2	3.41E+01	pCi/L	6.8E+01	6.8E+01	U	4.46E+01		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159346	RU-106	13967-48-1	6.21E+00	pCi/L	2.6E+01	2.6E+01	U	4.79E+01		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159346	SB-125	14234-35-6	4.13E+00	pCi/L	6.3E+00	6.3E+00	U	1.22E+01		GAMMALL_GS	1.9603E+00	L	07/12/2007 17:40	I
7159344	I-129L	15046-84-1	-1.24E-02	pCi/L	1.3E-01	1.3E-01	U	2.39E-01	96.2	I129LL_SEP_LEPS	3.7687E+00	L	07/14/2007 11:34	I
7159357	Se-79	15758-45-9	4.09E-01	pCi/L	4.1E+00	8.8E+00	U	9.87E+00	73.4	SE79_SEP_IE_LS	1.988E-01	L	07/18/2007 18:32	I
7159347	SR-90	10098-97-2	3.27E-01	pCi/L	2.6E-01	2.6E-01	U	5.13E-01	80.1	SRISO_SEP_PRE	9.884E-01	L	07/18/2007 05:21	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.

7/30/2007 11:53:05 AM

TAL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 36140 File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.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:				
9J0F6520	B1NH93		MW6-SBB-A1	I07-043	W05180					06/05/2007 10:49				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7198273	NP-237	13994-20-2	0.00E+00	pCi/L	8.9E-02	8.9E-02	U	2.09E-01	93.1	NP237_LLE_PLAT	1.999E-01	L	07/18/2007 13:32	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J0F6810	B1NH87		MW6-SBB-A1	I07-043	W05180					06/05/2007 13:04				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159368	C-14	14762-75-5	7.08E+00	pCi/L	3.6E+00	7.1E+00	U	8.01E+00	100.0	C14_LSC	2.00E-01	L	06/22/2007 20:19	I
7159346	BE-7	13966-02-4	1.42E+01	pCi/L	2.9E+01	2.9E+01	U	5.50E+01		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159346	CO-60	10198-40-0	1.05E+00	pCi/L	2.9E+00	2.9E+00	U	5.95E+00		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159346	CS-134	13967-70-9	1.37E+00	pCi/L	3.2E+00	3.2E+00	U	6.18E+00		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159346	CS-137	10045-97-3	2.56E-01	pCi/L	2.4E+00	2.4E+00	U	4.39E+00		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159346	EU-152	14683-23-9	5.02E+00	pCi/L	7.3E+00	7.3E+00	U	1.38E+01		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159346	EU-154	15585-10-1	-2.03E+00	pCi/L	7.4E+00	7.4E+00	U	1.33E+01		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159346	EU-155	14391-16-3	2.94E+00	pCi/L	4.7E+00	4.7E+00	U	8.77E+00		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159346	K-40	13966-00-2	-2.64E+01	pCi/L	6.0E+01	6.0E+01	U	1.32E+02		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159346	RU-106	13967-48-1	9.00E+00	pCi/L	2.3E+01	2.3E+01	U	4.47E+01		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159346	SB-125	14234-35-6	-1.98E-01	pCi/L	6.9E+00	6.9E+00	U	1.22E+01		GAMMALL_GS	2.0024E+00	L	07/12/2007 19:25	I
7159344	I-129L	15046-84-1	2.71E-02	pCi/L	1.5E-01	1.5E-01	U	2.83E-01	95.9	I129LL_SEP_LEPS	3.8847E+00	L	07/14/2007 11:36	I
7159357	Se-79	15758-45-9	9.97E+00	pCi/L	1.2E+01	2.6E+01	U	2.79E+01	25.7	SE79_SEP_IE_LS	2.003E-01	L	07/18/2007 20:17	I
7159347	SR-90	10098-97-2	2.33E-01	pCi/L	2.5E-01	2.5E-01	U	5.11E-01	82.7	SRISO_SEP_PRE	9.995E-01	L	07/18/2007 05:21	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:				
9J0F6820	B1NH87		MW6-SBB-A1	I07-043	W05180					06/05/2007 13:04				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7198273	NP-237	13994-20-2	-2.44E-02	pCi/L	8.6E-02	8.6E-02	U	2.57E-01	100.9	NP237_LLE_PLAT	1.996E-01	L	07/18/2007 13:32	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J0F7N10	B1N2N1		MW6-SBB-A1	I07-043	W05180					06/05/2007 12:42				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159344	I-129L	15046-84-1	1.55E+00	pCi/L	3.6E-01	3.6E-01	U	6.28E-01	91.1	I129LL_SEP_LEPS	3.9632E+00	L	07/14/2007 11:37	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.

7/30/2007 11:53:05 AM

TAL Richland Report

Lab Code: STLR

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 36140 File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.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:					
9JX8P410	B1N2R0		MW6-SBB-A1	I07-043	W05180					06/01/2007 12:11					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7159344	I-129L	15046-84-1	2.89E-01	pCi/L	1.6E-01	1.6E-01	U	3.35E-01	93.8	I129LL_SEP_LEPS	3.9522E+00	L	07/13/2007 19:04	I	
9JX8PD10	B1N2N4		MW6-SBB-A1	I07-043	W05180					06/01/2007 13:26					
7159344	I-129L	15046-84-1	1.52E-02	pCi/L	1.1E-01	1.1E-01	U	2.15E-01	94.1	I129LL_SEP_LEPS	3.959E+00	L	07/13/2007 17:09	I	
9JX8QJ10	B1N2P6		MW6-SBB-A1	I07-043	W05180					06/01/2007 11:16					
7159344	I-129L	15046-84-1	9.66E-01	pCi/L	2.6E-01	2.6E-01	U	5.06E-01	92.4	I129LL_SEP_LEPS	3.9603E+00	L	07/13/2007 19:02	I	
9JX8QM10	B1N2N8		MW6-SBB-A1	I07-043	W05180					06/01/2007 09:32					
7159344	I-129L	15046-84-1	3.76E+00	pCi/L	6.2E-01	6.2E-01		3.55E-01	93.0	I129LL_SEP_LEPS	3.9671E+00	L	07/13/2007 21:00	I	
9JX8R010	B1N5X6		MW6-SBB-A1	W07-005	W05180					06/01/2007 09:59					
7159370	H-3	10028-17-8	1.26E+04	pCi/L	3.8E+02	6.3E+02		2.94E+02	100.0	906.0_H3_LSC	5.00E-03	L	06/23/2007 17:19	I	
7159353	TC-99	14133-76-7	1.89E+02	pCi/L	8.5E+00	1.7E+01		9.95E+00	100.0	TC99_SEP_LSC	1.273E-01	L	06/30/2007 16:08	I	
7159364	Uranium	7440-61-1	6.36E+00	ug/L	7.5E-01	7.5E-01		8.32E-02		UTOT_KPA	2.52E-02	ML	07/16/2007 09:52	I	
9JX8R510	B1N5W6		MW6-SBB-A1	W07-005	W05180					06/01/2007 09:21					
7159370	H-3	10028-17-8	1.39E+03	pCi/L	1.7E+02	2.0E+02		2.93E+02	100.0	906.0_H3_LSC	5.00E-03	L	06/23/2007 18:41	I	
7159353	TC-99	14133-76-7	2.92E+01	pCi/L	5.1E+00	7.6E+00		1.02E+01	100.0	TC99_SEP_LSC	1.244E-01	L	06/30/2007 16:08	I	
7159364	Uranium	7440-61-1	3.51E+00	ug/L	3.6E-01	3.6E-01		8.09E-02		UTOT_KPA	2.59E-02	ML	07/16/2007 09:58	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.

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W07GR01707
Client ID: B1P392

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20071151
Department: Radiochemistry
Sampled: 07/08/07
Received: 07/09/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		2.50e+03	pCi/L	+300	pCi/L	1.00	9.6		07/12/07
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		92.4	Percent			1.00	0.0		07/12/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

B - The analyte < the RDL but > = the IDL/MDL (inorg)
 D - Analyte was identified at a secondary dilution factor
 U - Analyzed for but not detected above limiting criteria(inorg)

C - The Analyte was found in the Associated Blank.(inorg)
 D - Analyte was identified at a secondary dilution factor(inorg)
 U - Analyzed for but not detected above limiting criteria.

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W07GR01708
Client ID: B1P393

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20071151
Department: Radiochemistry
Sampled: 07/08/07
Received: 07/09/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		560	pCi/L	+72.8	pCi/L	1.00	8.9		07/12/07
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		100	Percent			1.00	0.0		07/12/07

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

B - The analyte < the RDL but > = the IDL/MDL (inorg)

D - Analyte was identified at a secondary dilution factor

U - Analyzed for but not detected above limiting criteria(inorg)

C - The Analyte was found in the Associated Blank.(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)

U - Analyzed for but not detected above limiting criteria.

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W07GR01709
Client ID: B1P394

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20071151
Department: Radiochemistry
Sampled: 07/08/07
Received: 07/09/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		1.40e+03	pCi/L	+168	pCi/L	1.00	9.6		07/12/07
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		92.0	Percent			1.00	0.0		07/12/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

B - The analyte < the RDL but > = the IDL/MDL (inorg)
 D - Analyte was identified at a secondary dilution factor
 U - Analyzed for but not detected above limiting criteria(inorg)

C - The Analyte was found in the Associated Blank. (inorg)
 D - Analyte was identified at a secondary dilution factor(inorg)
 U - Analyzed for but not detected above limiting criteria.

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2
Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W07GR01710
Client ID: B1P395

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20071151
Department: Radiochemistry
Sampled: 07/08/07
Received: 07/09/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		1.40e+03	pCi/L	+168	pCi/L	1.00	9.0		07/12/07
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		98.4	Percent			1.00	0.0		07/12/07

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

B - The analyte < the RDL but > = the IDL/MDL (inorg)

D - Analyte was identified at a secondary dilution factor

U - Analyzed for but not detected above limiting criteria(inorg)

C - The Analyte was found in the Associated Blank.(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)

U - Analyzed for but not detected above limiting criteria.

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W07GR01711
Client ID: B1P396

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20071151
Department: Radiochemistry
Sampled: 07/08/07
Received: 07/09/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		3.90e + 03	pCi/L	+ -468	pCi/L	1.00	9.3		07/12/07
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		95.4	Percent			1.00	0.0		07/12/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

B - The analyte < the RDL but > = the IDL/MDL (inorg)
 D - Analyte was identified at a secondary dilution factor
 U - Analyzed for but not detected above limiting criteria(inorg)

C - The Analyte was found in the Associated Blank.(inorg)
 D - Analyte was identified at a secondary dilution factor(inorg)
 U - Analyzed for but not detected above limiting criteria.

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2
Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F06-027
Sample # W07GR01712
Client ID: B1P397

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20071151
Department: Radiochemistry
Sampled: 07/08/07
Received: 07/09/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		1.10e+03	pCi/L	+ -132	pCi/L	1.00	9.8		07/12/07
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		90.9	Percent			1.00	0.0		07/12/07

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

B - The analyte < the RDL but > = the IDL/MDL (inorg)

D - Analyte was identified at a secondary dilution factor

U - Analyzed for but not detected above limiting criteria(inorg)

C - The Analyte was found in the Associated Blank.(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)

U - Analyzed for but not detected above limiting criteria.

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

STL RICHLAND

7/30/2007 11:53:05 AM

TAL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 36140 File Name: h:\Reportdb\ledd\Fead\VRad\W05180.Edd, h:\Reportdb\ledd\Fead\VRad\36140.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:				
9JX8R910	B1N5Y1		MW6-SBB-A1	W07-005	W05180					06/01/2007 10:56				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159370	H-3	10028-17-8	6.56E+04	pCi/L	8.3E+02	2.6E+03		2.94E+02	100.0	906.0_H3_LSC	5.00E-03	L	06/23/2007 20:03	I
7159348	BETA	12587-47-2	8.75E+03	pCi/L	7.3E+01	1.1E+03		1.13E+01	100.0	9310_ALPHABETA	3.53E-02	L	07/13/2007 13:41	I
7159346	BE-7	13966-02-4	-2.20E+00	pCi/L	2.7E+01	2.7E+01	U	4.85E+01		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159346	CO-60	10198-40-0	1.06E+02	pCi/L	1.6E+01	1.6E+01		2.74E+00		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159346	CS-134	13967-70-9	-9.90E-01	pCi/L	2.7E+00	2.7E+00	U	4.70E+00		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159346	CS-137	10045-97-3	1.78E+00	pCi/L	2.5E+00	2.5E+00	U	4.73E+00		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159346	EU-152	14683-23-9	-1.12E+00	pCi/L	5.8E+00	5.8E+00	U	1.01E+01		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159346	EU-154	15585-10-1	2.48E+00	pCi/L	4.7E+00	4.7E+00	U	1.01E+01		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159346	EU-155	14391-16-3	-2.55E+00	pCi/L	5.5E+00	5.5E+00	U	9.34E+00		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159346	K-40	13966-00-2	2.31E+01	pCi/L	3.1E+01	3.1E+01	U	6.86E+01		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159346	RU-106	13967-48-1	1.15E+01	pCi/L	2.2E+01	2.2E+01	U	4.06E+01		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159346	SB-125	14234-35-6	6.12E+00	pCi/L	5.5E+00	5.5E+00	U	1.07E+01		GAMMALL_GS	2.0025E+00	L	07/12/2007 17:41	I
7159364	Uranium	7440-61-1	4.88E+00	ug/L	5.0E-01	5.0E-01		8.06E-02		UTOT_KPA	2.60E-02	ML	07/16/2007 10:01	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:				
9JX8R920	B1N5Y1		MW6-SBB-A1	W07-005	W05180					06/01/2007 10:56				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7184191	TC-99	14133-76-7	3.00E+04	pCi/L	9.3E+01	1.8E+03		9.97E+00	100.0	TC99_ETVDSK_LS	1.265E-01	L	07/03/2007 17:33	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:				
9JX8TC10	B1N5X1		MW6-SBB-A1	W07-005	W05180					06/01/2007 08:43				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159370	H-3	10028-17-8	1.26E+04	pCi/L	3.8E+02	6.3E+02		2.94E+02	100.0	906.0_H3_LSC	5.00E-03	L	06/23/2007 21:24	I
7159347	SR-90	10098-97-2	3.51E-01	pCi/L	2.3E-01	2.4E-01	U	4.59E-01	80.5	SRISO_SEP_PRE	1.0056E+00	L	07/18/2007 05:21	I
7159353	TC-99	14133-76-7	4.79E+01	pCi/L	5.6E+00	8.6E+00		1.01E+01	100.0	TC99_SEP_LSC	1.259E-01	L	06/30/2007 16:08	I
7159364	Uranium	7440-61-1	7.52E+00	ug/L	8.9E-01	8.9E-01		8.38E-02		UTOT_KPA	2.50E-02	ML	07/16/2007 10:04	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:				
9JX93410	B1N306		MW6-SBB-A1	I07-044	W05180					06/04/2007 10:03				

7/30/2007 11:53:05 AM

TAL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 36140 File Name: h:\Reportdb\edd\Fead\Rad\W05180.Edd, h:\Reportdb\edd\Fead\Rad\36140.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159344	I-129L	15046-84-1	1.33E-01	pCi/L	1.5E-01	1.5E-01	U	3.04E-01	95.1	I129LL_SEP_LEPS	3.8216E+00	L	07/14/2007 09:48	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:				
9JX93420	B1N306		MW6-SBB-A1	I07-044	W05180					06/04/2007 10:03				
7184191	TC-99	14133-76-7	1.31E+02	pCi/L	7.4E+00	1.4E+01		1.00E+01	100.0	TC99_ETVDSK_LS	1.262E-01	L	07/03/2007 20:41	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:				
9JX93W10	B1N302		MW6-SBB-A1	I07-044	W05180					06/04/2007 11:17				
7159344	I-129L	15046-84-1	9.27E-03	pCi/L	1.3E-01	1.3E-01	U	2.52E-01	94.6	I129LL_SEP_LEPS	3.766E+00	L	07/13/2007 21:03	I
7159347	SR-90	10098-97-2	2.38E-02	pCi/L	1.5E-01	2.2E-01	U	4.84E-01	86.5	SRISO_SEP_PRE	9.851E-01	L	07/18/2007 05:21	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:				
9JX93W20	B1N302		MW6-SBB-A1	I07-044	W05180					06/04/2007 11:17				
7184191	TC-99	14133-76-7	9.16E+01	pCi/L	6.6E+00	1.1E+01		1.01E+01	100.0	TC99_ETVDSK_LS	1.249E-01	L	07/03/2007 18:36	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JX95A10	B1N307		MW6-SBB-A1	I07-044	W05180					06/04/2007 10:03				
7159344	I-129L	15046-84-1	2.36E-01	pCi/L	2.7E-01	2.7E-01	U	3.34E-01	93.5	I129LL_SEP_LEPS	3.6755E+00	L	07/14/2007 09:51	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:				
9JX95A20	B1N307		MW6-SBB-A1	I07-044	W05180					06/04/2007 10:03				
7184191	TC-99	14133-76-7	1.36E+02	pCi/L	7.4E+00	1.4E+01		9.88E+00	100.0	TC99_ETVDSK_LS	1.274E-01	L	07/03/2007 22:47	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:				
9JX9L910	B1N2R3		MW6-SBB-A1	I07-044	W05180					06/04/2007 12:44				
7159344	I-129L	15046-84-1	3.29E-01	pCi/L	1.5E-01	1.5E-01	U	3.76E-01	95.1	I129LL_SEP_LEPS	3.7971E+00	L	07/13/2007 21:03	I

STL RICHLAND

Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\WRad\W05180.Edd, h:\Reportdb\edd\Fead\WRad\36140.Edd

Lab Sample Id: J0LC91AB Sdg/Rept Nbr: W05180 36140 Collection Date: 06/01/2007 13:26
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BE	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159344 BLK	I-129L 15046-84-1	1.11E-02	pCi/L	1.3E-01 1.3E-01	U	2.43E-01	95.7		I129LL_SEP_L	3.9275E+00 L	07/14/2007 13:22				D

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Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.Edd

Lab Sample Id: J0LDD1AB

Sdg/Rept Nbr: W05180

36140

Collection Date: 06/05/2007 10:49

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 06/05/2007

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
7159346 BLK	BE-7 13966-02-4	-2.12E+01	pCi/L	2.4E+01 2.4E+01	U	3.92E+01			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D
7159346 BLK	CO-60 10198-40-0	4.91E-01	pCi/L	2.2E+00 2.2E+00	U	4.47E+00			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D
7159346 BLK	CS-134 13967-70-9	-3.74E-01	pCi/L	2.0E+00 2.0E+00	U	3.66E+00			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D
7159346 BLK	CS-137 10045-97-3	5.15E-01	pCi/L	1.7E+00 1.7E+00	U	3.41E+00			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D
7159346 BLK	EU-152 14683-23-9	-9.61E-01	pCi/L	5.2E+00 5.2E+00	U	9.10E+00			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D
7159346 BLK	EU-154 15585-10-1	5.92E-01	pCi/L	4.6E+00 4.6E+00	U	9.87E+00			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D
7159346 BLK	EU-155 14391-16-3	-3.40E-01	pCi/L	4.0E+00 4.0E+00	U	6.89E+00			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D
7159346 BLK	K-40 13966-00-2	-8.88E+00	pCi/L	2.7E+01 2.7E+01	U	5.52E+01			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D
7159346 BLK	RU-106 13967-48-1	6.15E+00	pCi/L	1.9E+01 1.9E+01	U	3.69E+01			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D
7159346 BLK	SB-125 14234-35-6	-3.32E+00	pCi/L	5.7E+00 5.7E+00	U	9.77E+00			GAMMALL_GS	1.9972E+00 L	07/12/2007 21:36				D

STL RICHLAND

Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\FeadIVRad\W05180.Edd, h:\Reportdb\ledd\FeadIVRad\36140.Edd

Lab Sample Id: JOLDH1AB

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/05/2007 10:49

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BI	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159347 BLK	SR-90 10098-97-2	1.08E-01	pCi/L	2.2E-01 2.1E-01	U	4.66E-01	92.9		SRISO_SEP_P	9.965E-01 L	07/18/2007 05:21				D

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STL
RICHLAND

Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05180.Edd, h:\Reportdb\edd\Fead\I\Rad\36140.Edd

Lab Sample Id: J0LDP1AB

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/04/2007 09:31

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 06/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BK	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
7159348 BLK	BETA 12587-47-2	8.44E-01	pCi/L	9.0E-01 8.8E-01	U	1.71E+00	100.0		9310_ALPHAB	1.984E-01 L	07/13/2007 13:41				D

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Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05180.Edd, h:\Reportdb\edd\FeadIV\Rad\36140.Edd

Lab Sample Id: J0LDW2AB Sdg/Rept Nbr: W05180 36140 Collection Date: 06/04/2007 11:17
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 06/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BM	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7184191 BLK	TC-99 14133-76-7	-7.60E-01	pCi/L	5.9E+00 4.1E+00	U	1.00E+01	100.0		TC99_ETVDSK	1.256E-01 L	07/03/2007 23:50				D

STL RICHLAND

Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\Fead\VRad\W05180.Edd, h:\Reportdb\eddd\Fead\VRad\36140.Edd

Lab Sample Id: J0LEG1AB

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 08:43

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BO	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159353 BLK	TC-99 14133-76-7	7.48E+00	pCi/L	6.4E+00 4.5E+00	U	1.04E+01	100.0		TC99_SEP_LS	1.256E-01 L	06/30/2007 16:08				D

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Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLR

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05180.Edd, h:\Reportdb\edd\FeadIV\Rad\36140.Edd

Lab Sample Id: J0LEP1AB

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/05/2007 10:49

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BQ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159357 BLK	Se-79 15758-45-9	-5.05E-01	pCi/L	1.1E+01 5.0E+00	U	1.22E+01	59.3		SE79_SEP_IE	1.994E-01	07/18/2007 21:10				D

Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\WRad\W05180.Edd, h:\Reportdb\edd\Fead\WRad\36140.Edd

Lab Sample Id: JOLF31AB

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 09:59

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BR	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ ML	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159364 BLK	Uranium 7440-61-1	-1.98E-02	ug/L	2.9E-03 2.9E-03	U	8.25E-02			UTOT_KPA	2.54E-02	07/16/2007 09:42				D

Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.Edd

Lab Sample Id: J0LFM2AB **Sdg/Rept Nbr:** W05180 36140 **Collection Date:** 06/05/2007 13:04
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BU	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7198273 BLK	NP-237 13994-20-2	-1.79E-02	pCi/L	9.3E-02 9.3E-02	U	2.53E-01	102.2		NP237_LLE_P	1.996E-01 L	07/18/2007 13:35				D

Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.Edd

Lab Sample Id: JOLGA1AB Sdg/Rept Nbr: W05180 36140 Collection Date: 06/05/2007 10:49
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BW	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
7159368 BLK	C-14 14762-75-5	1.96E+00	pCi/L	6.6E+00 3.4E+00	U	8.01E+00	100.0		C14_LSC	2.00E-01 L	06/22/2007 17:30				D

Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W05180.Edd, h:\Reportdb\edd\Fead\Rad\36140.Edd

Lab Sample Id: J0LGQ1AB Sdg/Rept Nbr: W05180 36140 Collection Date: 06/01/2007 08:43
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BY	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
7159370 BLK	H-3 10028-17-8	-5.37E-01	pCi/L	1.3E+02 1.2E+02	U	2.93E+02	100.0		906.0_H3_LSC	5.00E-03 L	06/23/2007 11:52				D

Monday, July 30, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05180.Edd, h:\Reportdb\edd\FeadIV\Rad\36140.Edd

Lab Sample Id: J0LGQ1DX

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 08:43

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CA	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
7159370 BLK	H-3 10028-17-8	1.25E+02	pCi/L	1.4E+02 1.3E+02	U	3.00E+02	100.0		906.0_H3_LSC	5.00E-03 L	06/23/2007 14:36				D

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.Edd

Lab Sample Id: J0LC91CS

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 13:26

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BF	H					
Batch #/ Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159344 BS	I-129L 15046-84-1	9.01E+00	pCi/L	1.1E+00 1.1E+00		2.93E-01	96.8	9.92E+00 90.8	I129LL_SEP_L	3.9001E+00 L	07/14/2007 13:23			70 130	D

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\eddd\Fead\VRad\W05180.Edd, h:\Reportdb\eddd\Fead\VRad\36140.Edd

Lab Sample Id: J0LDD1CS Sdg/Rept Nbr: W05180 36140 Collection Date: 06/05/2007 10:49
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 06/05/2007

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/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159346 BS	CO-60 10198-40-0	4.27E+01	pCi/L	9.6E+00 9.6E+00		4.14E+00		3.82E+01 111.7	GAMMALL_GS	1.9986E+00 L	07/12/2007 21:37			70 130	D
7159346 BS	CS-137 10045-97-3	2.61E+01	pCi/L	6.6E+00 6.6E+00		5.50E+00		2.43E+01 107.3	GAMMALL_GS	1.9986E+00 L	07/12/2007 21:37			70 130	D
7159346 BS	EU-152 14683-23-9	9.14E+01	pCi/L	2.0E+01 2.0E+01		1.22E+01		7.73E+01 118.4	GAMMALL_GS	1.9986E+00 L	07/12/2007 21:37			70 130	D

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W05180.Edd, h:\Reportdb\edd\Fead\Rad\36140.Edd

Lab Sample Id: JOLDH1CS Sdg/Rept Nbr: W05180 36140 Collection Date: 06/05/2007 10:49
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BJ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159347 BS	SR-90 10098-97-2	1.40E+01	pCi/L	2.1E+00 6.9E-01		4.55E-01	90.4	1.38E+01 101.1	SRISO_SEP_P	9.959E-01 L	07/18/2007 05:21			70 130	D

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.Edd

Lab Sample Id: J0LDP1CS

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/04/2007 09:31

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 06/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BL	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Toi/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
7159348 BS	BETA 12587-47-2	1.69E+01	pCi/L	2.8E+00 1.6E+00		1.81E+00	100.0	2.27E+01 74.7	9310_ALPHAB	2.003E-01 L	07/13/2007 13:41			70 130	D

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.Edd

Lab Sample Id: JOLDW2CS **Sdg/Rept Nbr:** W05180 36140 **Collection Date:** 06/04/2007 11:17
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
	MW6-SBB-A19981								BN	H				
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7184191 BS	TC-99 14133-76-7	5.25E+02	pCi/L	3.7E+01 1.3E+01	1.01E+01	100.0	5.49E+02 95.8	TC99_ETVDSK	1.243E-01 L	07/04/2007 00:52			75 125	D

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\VRad\W05180.Edd, h:\Reportdb\ledd\Fead\VRad\36140.Edd

Lab Sample Id: J0LEG1CS Sdg/Rept Nbr: W05180 36140 Collection Date: 06/01/2007 08:43
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
	MW6-SBB-A19981								BP	H				
Batch #/ Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159353 BS	TC-99 14133-76-7	4.76E+02	pCi/L	3.3E+01 1.2E+01	9.98E+00	100.0	5.37E+02 88.5	TC99_SEP_LS	1.269E-01 L	06/30/2007 16:08			70 130	D

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLR

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05180.Edd, h:\Reportdb\edd\Fead\Rad\36140.Edd

Lab Sample Id: J0LF31CS

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 09:59

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BS	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159364 BS	Uranium 7440-61-1	3.62E+01	ug/L	4.3E+00 4.3E+00		8.32E-02		3.60E+01 100.6	UTOT_KPA	2.52E-02 ML	07/16/2007 09:46			75 125	D

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05180.Edd, h:\Reportdb\edd\Fead\Rad\36140.Edd

Lab Sample Id: J0LF31DS

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 09:59

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
	MW6-SBB-A19981								BT	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/ ML	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159364 BS	Uranium 7440-61-1	3.52E+00	ug/L	3.6E-01 3.6E-01	8.03E-02		3.47E+00 101.3	UTOT_KPA	2.61E-02	07/16/2007 09:49			75 125	D

STL RICHLAND

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIVRad\W05180.Edd, h:\Reportdb\edd\FeadIVRad\36140.Edd

Lab Sample Id: J0LFM2CS

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/05/2007 13:04

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BV	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
7198273 BS	NP-237 13994-20-2	9.21E+00	pCi/L	1.9E+00 1.3E+00		2.18E-01	93.1	9.11E+00 101.1	NP237_LLE_P	1.992E-01 L	07/18/2007 13:35			70 130	D

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STL RICHLAND

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\VRad\W05180.Edd, h:\Reportdb\ledd\Fead\VRad\36140.Edd

Lab Sample Id: JOLGA1CS

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/05/2007 10:49

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BX	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159368 BS	C-14 14762-75-5	4.82E+01	pCi/L	1.1E+01 4.8E+00		8.01E+00	100.0	4.61E+01 104.6	C14_LSC	2.00E-01	06/22/2007 18:12			70 130	D

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STL
RICHLAND

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\VRad\W05180.Edd, h:\Reportdb\ledd\Fead\VRad\36140.Edd

Lab Sample Id: J0LGQ1CS

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 08:43

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BZ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159370 BS	H-3 10028-17-8	2.51E+03	pCi/L	2.4E+02 2.0E+02		2.93E+02	100.0	2.72E+03 92.3	906.0_H3_LSC	5.00E-03	06/23/2007 13:14			75 125	D

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STL RICHLAND

Monday, July 30, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\VRad\W05180.Edd, h:\Reportdb\ledd\Fead\VRad\36140.Edd

Lab Sample Id: J0LGQ1EM Sdg/Rept Nbr: W05180 36140 Collection Date: 06/01/2007 08:43
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
	MW6-SBB-A19981								CB	H				
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159370 BS	H-3 10028-17-8	2.62E+03	pCi/L	2.5E+02 2.0E+02	2.94E+02	100.0	2.72E+03 96.5	906.0_H3_LSC	5.00E-03	06/23/2007 15:58			75 125	D

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Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\WRad\W05180.Edd, h:\Reportdb\edd\Fead\WRad\36140.Edd

Lab Sample Id: J0AN41CR

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/04/2007 09:31

Client Id: B1N230

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 06/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
G07-005	MW6-SBB-A19981								AY	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
7159348	BETA	4.64E+03	pCi/L	8.1E+02		4.16E+00	100.0		9310_ALPHAB	1.406E-01	07/13/2007	4.9	0.4		D
DUP	12587-47-2	4.87E+03		3.7E+01						L	12:50	20.0	3		

Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.Edd

Lab Sample Id: J0F651HR Sdg/Rept Nbr: W05180 36140 Collection Date: 06/05/2007 10:49
 Client Id: B1NH93 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
107-043	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
7159346 DUP	BE-7 13966-02-4	-2.94E+01 -3.80E+01	pCi/L	2.4E+01 2.4E+01	U	3.68E+01		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	0.0 20.0	0.5 3		D
7159346 DUP	CO-60 10198-40-0	-1.06E-02 3.63E-01	pCi/L	1.9E+00 1.9E+00	U	3.72E+00		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	212.1 20.0	0.3 3		D
7159346 DUP	CS-134 13967-70-9	1.60E+00 1.17E+00	pCi/L	1.9E+00 1.9E+00	U	3.93E+00		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	31.3 20.0	0.3 3		D
7159346 DUP	CS-137 10045-97-3	9.65E-01 -6.70E-03	pCi/L	1.8E+00 1.8E+00	U	3.50E+00		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	202.8 20.0	0.8 3		D
7159346 DUP	EU-152 14683-23-9	-5.51E-01 -5.39E-01	pCi/L	4.9E+00 4.9E+00	U	8.74E+00		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	0.0 20.0	0. 3		D
7159346 DUP	EU-154 15585-10-1	4.40E+00 3.78E+00	pCi/L	5.2E+00 5.2E+00	U	1.15E+01		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	15.0 20.0	0.2 3		D
7159346 DUP	EU-155 14391-16-3	1.41E+00 -3.18E-01	pCi/L	4.0E+00 4.0E+00	U	7.42E+00		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	316.9 20.0	0.6 3		D
7159346 DUP	K-40 13966-00-2	-3.42E+01 3.41E+01	pCi/L	2.9E+01 2.9E+01	U	5.51E+01		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	0.0 20.0	3.4 3		D
7159346 DUP	RU-106 13967-48-1	-1.33E+01 6.21E+00	pCi/L	2.0E+01 2.0E+01	U	3.28E+01		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	0.0 20.0	1.4 3		D
7159346 DUP	SB-125 14234-35-6	-3.17E+00 4.13E+00	pCi/L	5.0E+00 5.0E+00	U	8.43E+00		GAMMALL_GS	1.8866E+00 L	07/12/2007 19:26	1530.0 20.0	2.1 3		D

Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\VRad\W05180.Edd, h:\Reportdb\ledd\Fead\VRad\36140.Edd

Lab Sample Id: J0F651JR Sdg/Rept Nbr: W05180 36140 Collection Date: 06/05/2007 10:49
 Client Id: B1NH93 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-043	MW6-SBB-A19981								BA	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
7159347 DUP	SR-90 10098-97-2	2.64E-02 3.27E-01	pCi/L	2.4E-01 1.2E-01	U	5.15E-01	87.0		SRISO_SEP_P	9.934E-01 L	07/18/2007 05:21	170.1 20.0	1.8 3		D

Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\Rad\W05180.Edd, h:\Reportdb\ledd\Fead\Rad\36140.Edd

Lab Sample Id: J0F651KR

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/05/2007 10:49

Client Id: B1NH93

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
I07-043	MW6-SBB-A19981								BB	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
7159357 DUP	Se-79 15758-45-9	6.15E+00 4.09E-01	pCi/L	2.0E+01 9.5E+00	U	2.24E+01	32.4		SE79_SEP_IE	1.982E-01 L	07/18/2007 19:25	175.1 20.0	0.4 3		D

Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05180.Edd, h:\Reportdb\edd\Fead\Rad\36140.Edd

Lab Sample Id: J0F651LR

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/05/2007 10:49

Client Id: B1NH93

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-043	MW6-SBB-A19981								BC	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159368 DUP	C-14 14762-75-5	2.91E+00 1.36E+00	pCi/L	6.7E+00 3.4E+00	U	7.99E+00	100.0		C14_LSC	2.00E-01 L	06/22/2007 19:37	72.7 20.0	0.3 3		D

STL RICHLAND

Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05180.Edd, h:\Reportdb\edd\FeadIV\Rad\36140.Edd

Lab Sample Id: J0F682HR

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/05/2007 13:04

Client Id: B1NH87

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 06/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-043	MW6-SBB-A19981								BD	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
7198273 DUP	NP-237 13994-20-2	1.92E-02 -2.44E-02	pCi/L	1.0E-01 1.0E-01	U	3.03E-01	85.5		NP237_LLE_P	2.029E-01 L	07/18/2007 13:33	0.0 20.0	0.6 3		D

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RICHLAND

Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05180.Edd, h:\Reportdb\edd\Fead\Rad\36140.Edd

Lab Sample Id: JX8PD1CR

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 13:26

Client Id: B1N2N4

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-043	MW6-SBB-A19981								CC	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
7159344 DUP	I-129L 15046-84-1	-4.01E-03 1.52E-02	pCi/L	1.5E-01 1.5E-01	U	2.71E-01	93.8		I129LL_SEP_L	3.9305E+00 L	07/13/2007 19:03	343.6 20.0	0.2 3		D

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Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.Edd

Lab Sample Id: JX8R01FR

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 09:59

Client Id: B1N5X6

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
W07-005	MW6-SBB-A19981								CE	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
7159364 DUP	Uranium 7440-61-1	6.34E+00 6.36E+00	ug/L	7.5E-01 7.5E-01	8.15E-02			UTOT_KPA	2.57E-02 ML	07/16/2007 09:55	.3 20.0	0. 3		D

STL
RICHLAND

Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\IVRad\W05180.Edd, h:\Reportdb\edd\Fead\IVRad\36140.Edd

Lab Sample Id: JX8TC1FR

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 08:43

Client Id: B1N5X1

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W07-005	MW6-SBB-A19981								CG	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
7159353	TC-99	4.92E+01	pCi/L	8.7E+00		1.03E+01	100.0		TC99_SEP_LS	1.258E-01	06/30/2007	2.7	0.2		D
DUP	14133-76-7	4.79E+01		5.7E+00						L	16:08	20.0	3		

47

Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05180.Edd, h:\Reportdb\edd\Fead\Rad\36140.Edd

Lab Sample Id: JX8TC1GR

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 08:43

Client Id: B1N5X1

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
W07-005	MW6-SBB-A19981								CH	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
7159370 DUP	H-3 10028-17-8	1.28E+04 1.26E+04	pCi/L	6.4E+02 3.8E+02	2.93E+02	100.0		906.0_H3_LSC	5.00E-03 L	06/23/2007 22:46	1.6 20.0	0.5 3		D

Monday, July 30, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\Rad\W05180.Edd, h:\Reportdb\ledd\Fead\Rad\36140.Edd

Lab Sample Id: JX93W2ER Sdg/Rept Nbr: W05180 36140 Collection Date: 06/04/2007 11:17
 Client Id: B1N302 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 06/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-044	MW6-SBB-A19981								CJ	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
7184191 DUP	TC-99 14133-76-7	9.28E+01 9.16E+01	pCi/L	1.1E+01 6.6E+00		1.01E+01	100.0		TC99_ETVDSK	1.251E-01 L	07/03/2007 19:39	1.3 20.0	0.1 3		D

STL
RICHLAND

Monday, July 30, 2007

TAL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\VRad\W05180.Edd, h:\Reportdb\edd\Fead\VRad\36140.Edd

Lab Sample Id: JX8R01EW Sdg/Rept Nbr: W05180 36140 Collection Date: 06/01/2007 09:59
 Client Id: B1N5X6 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: MS Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W07-005	MW6-SBB-A19981								CD	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
7159353 MS	TC-99 14133-76-7	2.86E+03	pCi/L	1.9E+02 3.0E+01		1.02E+01	100.0	3.63E+03 78.8	TC99_SEP_LS	1.253E-01 L	06/30/2007 16:08			60 140	D

50

Monday, July 30, 2007

TAL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05180.Edd, h:\Reportdb\edd\FeadIV\Rad\36140.Edd

Lab Sample Id: JX8R51EW

Sdg/Rept Nbr: W05180 36140

Collection Date: 06/01/2007 09:21

Client Id: B1N5W6

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W07-005	MW6-SBB-A19981								CF	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
7159364 MS	Uranium 7440-61-1	3.49E+01	ug/L	4.5E+00 4.5E+00		7.91E-02		3.42E+01 102.1	UTOT_KPA	2.65E-02 ML	07/16/2007 09:59			60 140	D

Monday, July 30, 2007

TAL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05180.Edd, h:\Reportdb\edd\Fead\Rad\36140.Edd

Lab Sample Id: JX9342DW

Sdg/Rept Nbr: W05180

36140

Collection Date: 06/04/2007 10:03

Client Id: B1N306

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 06/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
I07-044	MW6-SBB-A19981								CI	H					
Batch #/ Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7184191 MS	TC-99 14133-76-7	3.37E+03	pCi/L	2.2E+02 3.2E+01		9.99E+00	100.0	3.59E+03 94.0	TC99_ETVDSK	1.259E-01	07/03/2007 21:44			60 140	D

Lot No., Due Date: J7F070101; 07/20/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7198273; RNP237 Np-237 w/tracer
SDG, Matrix: W05180; 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:
Please see NCM#10-10443

SXA
7-24-07

First Level Review

[Signature]

Date

7-24-7



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

7198273

W05180

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other			
1. Are all Nonconformances included and noted?	/		
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	//		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response:

See NCM

Second Level Review:

Sheryl A. Olson

Date:

7-24-07

**Clouseau
Nonconformance Memo**

STL

NCM #: 10-10443 NCM Initiated By: John Norton Date Opened: 07/24/2007 Date Closed:	Classification: Anomaly Status: GLREVIEW Production Area: Environmental - Prep Tests: Np-237 w/tracer Lot #'s (Sample #'s): J7F070101 (1,2), J7F080000 (362), QC Batches: 7159362,
Nonconformance: Other (describe in detail) Subcategory: Other (explanation required)	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	07/24/2007	The batch was analyzed using the wrong prep method.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	07/24/2007	The technician became aware of the error during processing, and the batch was re-analyzed according to the appropriate preparation procedure.

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>
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Lot No., Due Date: J7F050208,J7F040203; 07/19/2007,07/16/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7159348; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05180; WATER

8.0 Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02 Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03 Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JX8R91AC 35.30<200.00 JOAN41AA 140.00<200.00 Q:VB	Yes	No	N/A
8.07 The Correct Count Geometry was Used. OK	Yes	No	N/A
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09 Method Blank is within Control Limits. OK	Yes	No	N/A
8.1 Comments: NCM 10-10381			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	Yes	No	N/A
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14 LCS within Control Limits. OK	Yes	No	N/A
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17 Tracer within Control Limits. OK	Yes	No	N/A
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	Yes	No	N/A
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => JX8R91AC BETA 1.1E+01>4.0E+00 JOAN41AC BETA 4.2E+00>4.0E+00 Q:C1	Yes	No	N/A
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JX8R91AC BETA 8.7E+03 L:1.1E+01 JOAN41AA BETA 4.9E+03 L:3.9E+00	Yes	No	N/A
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	Yes	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A

8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes No N/A	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
8.26 Instruments have Current Calibrations.	Yes No N/A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes No N/A	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
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	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
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	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
8.3 Comments:		
8.31 Results Blank Subtracted as Appropriate. OK	Yes No N/A	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

First Level Review *Oliver Antonson* Date 7/16/07



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number: 7159348
W05180

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?	/		
C. Other			
1. Are all Nonconformances 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: Sherryl A. Allen Date: 7-17-07

Clouseau Nonconformance Memo

STL

NCM #: 10-10381 NCM Initiated By: Lisa Antonson Date Opened: 07/16/2007 Date Closed:	Classification: Anomaly Status: GLREVIEW Production Area: Environmental - Prep Tests: Beta by GPC-Sr/Y Lot #'s (Sample #'s): J7F040203 (3), J7F050208 (1,2), J7F080000 (348), QC Batches: 7159348,
Nonconformance: MDA not met Subcategory: Data accepted	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	07/16/2007	In this Beta batch, two of the samples do not meet CRDL. JX8R9 was reduced based on weight screens, and J0AB41AA and it's dup were reduced based on activity screens. Both had results that exceed the MDA achieved. The technician noted that the LCS was heavier than normal, but observed nothing abnormal during processing. The result is within limits, data accepted.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	07/16/2007	NA

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>
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STL

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

7/18/2007 11:24:23 AM

Lot No., Due Date: J7F070101,J7F040203,J7F050117; 07/20/2007,07/18/2007,07/19/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7159347; RSR85907 Sr-85/90 by GPC-7
 SDG, Matrix: W05180; 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 Angela Long Date 7/18/07
 STL Richland
 QAS RADCALCv4.8.27
 STL RICHLAND
 Page 1



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number: 7159347

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Erika Jorde Date: 7/19/17

Lot No., Due Date: J7F070101, J7F040203; 07/20/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7159346; RGAMMA Gamma by GER
 SDG, Matrix: W05180; 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

7/23/07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7159346
WO 5180

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances 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: Sherryl R Adams Date: 7-24-07

Lot No., Due Date: J7F060349,J7F070101,J7F070105,J7F040193,J7F050117; 07/20/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7159344; RGAMLEPS Gamma by LEPS
SDG, Matrix: W05180; 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

Handwritten signature: Ann E. Wilhelm

Date

Handwritten date: 7/23/07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7159344
W05180

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?			✓
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?			
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review Sheryl A. Adams Date: 7-24-07

Lot No., Due Date: J7F040203,J7F050117; 07/16/2007,07/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7184191; RTC99 Tc-99 by LSC

SDG, Matrix: W05180; WATER

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

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A <input checked="" type="checkbox"/>
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: <i>NCM 10-10307</i>			
8.31 Results Blank Subtracted as Appropriate. OK	Yes	No	N/A <input checked="" type="checkbox"/>

First Level Review *Lisa Antonson* Date *7/11/07*



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7184191

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?	✓		
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: See Num

Second Level Review: Erika Jordan Date: 7/12/7

Clouseau Nonconformance Memo

STL

NCM #: 10-10347 NCM Initiated By: Lisa Antonson Date Opened: 07/11/2007 Date Closed:	Classification: Anomaly Status: GLREVIEW Production Area: Environmental - Prep Tests: Tc-99 by LSC Lot #'s (Sample #'s): J7F040203 (3), J7F050117 (2,3,4), J7F080000 (350), QC Batches: 7184191,
Nonconformance: Other (describe in detail) Subcategory: Other (explanation required)	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	07/11/2007	In the original count of this Tc99 batch, the TSIE was out and data could not be calculated. The samples were shaken, rewiped and submitted for recount with good results.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	07/11/2007	Samples were shaken, wiped and recounted.

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>
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Lot No., Due Date: J7F040203; 07/16/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 7159353; RTC99 Tc-99 by LSC
 SDG, Matrix: W05180; 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 OK	<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. OK	<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. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.17 Tracer within Control Limits. No Tracers found in Batch!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.19 Sample Specific MDC <= CRDL. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Nct Calculated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.24 Result + 3s >=0, Not Too Negative. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 version) ~~Yes~~ No N/A

8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later version) ~~Yes~~ No N/A

8.3 Comments:

8.31 Results Blank Subtracted as Appropriate. Yes No N/A
OK ✓

First Level Review Lisa Anderson Date 7/11/07



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number: 7169353

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?	✓		
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?	✓	9/12/17	✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Erika Orde

Date: 7/12/17

Lot No., Due Date: J7F040203; 07/16/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7159370; RTRITIUM H-3 by LSC
SDG, Matrix: W05180; WATER

8.0 Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02 Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03 Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JX8R01AA 5.00<10.00 JX8R51AA 5.00<10.00 JX8R91AA 5.00<10.00 JX8TC1AA 5.00<10.00 Q:VB	Yes	No	N/A
8.07 The Correct Count Geometry was Used. Count Geometry => J0LGQ1AF SVP15/5<>SVP10/10 J0LGQ1AG SVP15/5<>SVP10/10 J0LGQ1AA SVP15/5<>SVP10/10 J0LGQ1AC SVP 5/5<>SVP10/10 J0LGQ1AD SVP 5/5<>SVP10/10 J0LGQ1AE SVP15/5<>SVP10/10 JX8R01AA SVP15/5<>SVP10/10 JX8R51AA SVP15/5<>SVP10/10 JX8R91AA SVP15/5<>SVP10/10 JX8TC1AA SVP15/5<>SVP10/10 JX8TC1AG SVP15/5<>SVP10/10 Q:VC	Yes	No	N/A
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09 Method Blank is within Control Limits. OK	Yes	No	N/A
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. OK	Yes	No	N/A
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14 LCS within Control Limits. OK	Yes	No	N/A
8.15 MLCS within Control Limits. OK	Yes	No	N/A
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17 Tracer within Control Limits. No Tracers found in Batch!	Yes	No	N/A
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	Yes	No	N/A
8.19 Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A

OK AL 6/25/07

OK AL 6/25/07

8.22	Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	Yes	No	N/A
8.23	Result <= Action Level, when Defined. OK; No Action Level Found => H-3 OK; No Callin Level Found => H-3	Yes	No	N/A
8.24	Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A
8.25	Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A
8.26	Instruments have Current Calibrations.	Yes	No	N/A
8.27	Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A
8.28	Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later 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:			
8.31	Results Blank Subtracted as Appropriate. OK	Yes	No	N/A

First Level Review Angela Long Date 6/25/07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

OC Batch Number: 7159370
W05180

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		✓
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Sheryl A. Adams Date: 6-25-07

Lot No., Due Date: J7F070101; 07/20/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test:7159357; RSE79 Se-79 by LSC
SDG, Matrix: W05180; 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

Tricia Antonson

Date

7/26/07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7159357

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	/		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
8. Do the MS/MSD results and yields meet acceptance criteria?			/
9. Do the duplicate sample results and yields meet acceptance criteria?			/
C. Other			
1. Are all Nonconformances included and noted?			/
2. Are all required forms filled out?	/		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: _____

Second Level Review: Sheryl A. Adams Date: 7-27-07

Lot No., Due Date: J7F070101; 07/20/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7159368; RC14 C-14 by LSC
SDG, Matrix: W05180; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	✓		
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> J0F651AL C-14 73.0 (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	✓		
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	✓		
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 => C-14 OK; No Callin Level Found => C-14	✓		
8.24 Result + 3s >=0. Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	✓		

OK AL 6/25/07

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

First Level Review

Angela Long

Date

6/25/07



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number: 7159368
W05180

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances 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: *Daryl A. Adams* Date: 6-25-07

Lot No., Due Date: J7F040203; 07/18/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 7159364; RUNAT UNat by KPA
SDG, Matrix: W05180; 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

Lisa Antonson

Date

7/18/07

SEVERN
TRENT

STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7159364

Review Item	Yes (✓)	No (✓)	N/A (✓)
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 with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?	✓		
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			✓
1. Are all Nonconformances 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: Eirhe Jorde Date: 7/19/17



STL

Sample Check-in List

Date/Time Received: 6/1/07 3:30PM

Client: PNML SDG #: W05180 NA SAF #: 107-043 NA

Work Order Number: J7F040193 Chain of Custody # 107-043-22,54,46,30

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? Yes No

4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry

6. Number of samples in shipping container: 4 → 1x20ML
2x4000ML

7. Sample holding times exceeded? NA Yes No

8. Samples have: _____ tape _____ hazard labels 1x20ML
_____ custody seals 2x4000ML
_____ appropriate samples labels

9. Samples are: in good condition _____ leaking 1x20ML
_____ broken _____ have air bubbles 2x4000ML
(Only for samples requiring head space)

10. Sample pH taken? NA pH<2 pH>2 pH>9 1x20ML
2x4000ML

11. Sample Location, Sample Collector Listed? * Yes No
*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: S. Smith Date: 06-01-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date: 6/1/07

SETL RICHLAND

SDG # 5180
DUE 7/16/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W07-005-198

Page 1 of 1

Collector Fluor Hanford D. R. BREWINGTON	Contact/Requester Dot Stewart	Telephone No. 509-376-5056
SAF No. W07-005	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA MAY 2007	HNF-N-506-8	Ice Chest No. SKINS Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	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 07 SAFs into one SDG, not to exceed SDG closure of 14 days.

WSCF: Batch all GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N5X1		W	6-1-07	0843	1x20-mL P	Activity Scan	None
B1N5X1		W			3x1000-mL G/P	TC99_SEP_LSC: Tc-99 (1)	HCl to pH <2
B1N5X1		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1N5X1		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1N5X1		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
91							

JX87C

Relinquished By Fluor Hanford D. R. BREWINGTON	Print <i>D. R. Brewington</i>	Sign <i>[Signature]</i>	Date/Time 1525 JUN 01 2007	Received By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 1525 JUN 01 2007		
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time		

Matrix *

S = Soil	DS = Drum Solid
SF = Sediment	DI = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wine
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
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STL

Sample Check-in List

Date/Time Received: 6/1/07 3:30 PM

Client: PNNL SDG #: W0580 NA SAF #: W07-005 NA

Work Order Number: J7F040203 Chain of Custody # W07-005-206,190,214,

Shipping Container ID: _____ Air Bill # _____ 198

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? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 _____ tape _____ hazard labels
 _____ custody seals _____ appropriate samples labels
9. Samples are:
 _____ in good condition _____ leaking
 _____ broken _____ have air bubbles
 (Only for samples requiring head space)
10. Sample pH taken? NA pH < 2 pH > 2 pH > 9
11. Sample Location, Sample Collector Listed? * Yes No
 *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: S. Smith Date: 06-07-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

No action necessary; process as is.

Project Manager _____ Date 6/1/07

LS-023, 9/03, Rev. 5

SHL J7F050117
 W05180
 RICHMOND Ave 07-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **107-044-46**

Page 1 of 1

Collector R.F. CARRIGAN	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. 107-044	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2ZP1-LOL MAY 2007	Method of Shipment Govt. Vehicle	Ice Chest No. Temp. SML-595
Shipped To (Lab) Severn Trent Incorporated, Richland	Priority: 45 Days	Bill of Lading/Air Bill No.
Protocol CERCLA	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 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N302		W	6-4-07	1117	1x20-mL P	Activity Scan	None
B1N302		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N302		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1N302		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
JX93W							

Relinquished By R.F. Carrigan Print Sign Date/Time JUN 04 2007	Received By LINDSEY ANDERSON Print Sign Date/Time JUN 04 2007	Matrix * S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge Wl = 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

Collector CARRIGAN	Contact/Requester Dot Stewart	Telephone No. 509-376-5056
SAF No. 107-044	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2ZP1-LOI MAY 2007	Method of Shipment Govt. Vehicle	Ice Chest No. SM1595 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Priority: 45 Days	Bill of Lading/Air Bill No.
Protocol CERCLA		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 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N307		W	6-4-07	1003	1x20-mL P	Activity Scan	None
B1N307		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N307		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
JX95A							

Relinquished By <i>Ret. Carrigan</i>	Print	Sign	Date/Time JUN 04 2007	Received By <i>Wendy Anderson</i>	Print	Sign	Date/Time JUN 04 2007		
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 _____

Matrix *

S = Soil	DS = Drum Solid
SE = Sediment	DI = Drum Liquid
SO = Solid	T = Tissue
SI = Sludge	WI = Wine
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

Sample Check-in List

Date/Time Received: 6/4/07 3:15 P

Client: PNNL SDG #: W05180 NA SAF #: I07-044 NA

Work Order Number: J7F050117 Chain of Custody # I07-044-2,46,80,51

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? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 _____ tape _____ hazard labels
 _____ custody seals _____ appropriate samples labels
9. Samples are:
 _____ in good condition _____ leaking
 _____ broken _____ have air bubbles
 (Only for samples requiring head space)
10. Sample pH taken? NA pH < 2 pH > 2 pH > 9
11. Sample Location, Sample Collector Listed? * Yes No
 *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: S. Smith Date: 06-04-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

No action necessary; process as is.

Project Manager _____ Date 6/4/07



STL

Sample Check-in List

Date/Time Received: 6/4/07 3:15P
 Client: PNL SDG #: W05780 NA SAF #: G07-005 NA
 Work Order Number: J7F050208 Chain of Custody # G07-005-8,9
 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? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 _____ tape _____ hazard labels
 _____ custody seals _____ appropriate samples labels
9. Samples are:
 _____ in good condition _____ leaking
 _____ broken _____ have air bubbles
 (Only for samples requiring head space)
10. Sample pH taken? NA pH<2 pH>2 pH>9
11. Sample Location, Sample Collector Listed? * Yes No
 *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: S. Smith Date: 06.04.07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date 6/4/07



STL

Sample Check-in List

Date/Time Received: 06.05.07 1515

Client: PGW SDG #: W05180 NA SAF #: 807-005 NA

Work Order Number: J7F060349 Chain of Custody # 807-005-76

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? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 - _____ tape _____ hazard labels
 - _____ custody seals / appropriate samples labels
9. Samples are:
 - / in good condition _____ leaking
 - _____ broken _____ have air bubbles
 (Only for samples requiring head space)
10. Sample pH taken? NA pH<2 pH>2 pH>9
11. Sample Location, Sample Collector Listed? * Yes No
*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: S. Smith Date: 06.05.07 1515

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

SNL JTF010101
WO 5180
Due 07-20-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **107-043-65**

Page 1 of 1

Collector	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN FAX
SAF No. 107-043	Sampling Origin Hanford Site	Purchase Order/Charge Code	
Project Title 2UPL-LOL MAY 2007	HIV-N-506-9	Ice Chest No. EIL-1	Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.	
Protocol SURV	Priority: 45 Days	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 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1NH93		W	6-5-07	11:44	1x20-mL P	Activity Scan	None
B1NH93		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1NH93		W			2x1000-mL G/P	C14_LSC: C-14 (1)	None
B1NH93		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1NH93		W			1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1)	HNO3 to pH <2
B1NH93		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1NH93		W			2x1000-mL G/P	Selenium-79	HNO3 to pH <2
JOF65							

Relinquished By <i>Rose Frazier</i>	Print	Sign	Date/Time JUN 05 2007	1515	Received By <i>S. Smith</i>	Print	Sign	Date/Time JUN 05 2007	1515	Matrix *
Relinquished By	Date/Time	Received By	Date/Time		Relinquished By	Date/Time	Received By	Date/Time		S = Soil DS = Drum Solid SF = Sediment DL = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wire 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		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
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SERIAL # **1F070101**
W05180
Due 07-20-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **107-043-60**

Page 1 of 1

Collector <i>FLA DANICAN</i>	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN FAX
SAF No. 107-043	Sampling Origin Hanford Site	Purchase Order/Charge Code	
Project Title 2UPL-LOL MAY 2007	<i>HNF-a-5069</i>	Ice Chest No. <i>ENC-1</i>	Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.	
Protocol SURV	Priority: 45 Days	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 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
 WSCF: Batch all GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1NH87		W	<i>6-5-07</i>	<i>1304</i>	1x20-mL P	Activity Scan	None
B1NH87		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1NH87		W			2x1000-mL G/P	C14_LSC: C-14 (1)	None
B1NH87		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1NH87		W			1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1)	HNO3 to pH <2
B1NH87		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1NH87		W			2x1000-mL G/P	Selenium-79	HNO3 to pH <2
						<i>JOF68</i>	

Relinquished By <i>FLA DANICAN</i>	Print	Sign <i>Ron F. Danican</i>	Date/Time <i>JUN 05 2007</i>	Received By <i>R. Sm. TH</i>	Print	Sign <i>S. Sm. TH</i>	Date/Time <i>JUN 05 2007</i>			
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By	Date/Time		

- Matrix ***
- S = Soil
 - SE = Sediment
 - SO = Solid
 - SL = Sludge
 - W = Water
 - O = Oil
 - A = Air
 - DS = Drum Solid
 - DL = Drum Liquid
 - T = Tissue
 - WL = Wine
 - L = Liquid
 - V = Vegetation
 - X = Other



STL

Sample Check-in List

Date/Time Received: 06-05-07 1515

Client: P6W SDG #: W05180 NA SAF #: I07-043 NA

Work Order Number: J7F070 101 Chain of Custody # I07-043-65,60,16

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? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 _____ tape _____ hazard labels
 _____ custody seals appropriate samples labels
9. Samples are:
 in good condition _____ leaking
 _____ broken _____ have air bubbles
 (Only for samples requiring head space)
10. Sample pH taken? NA pH<2 pH>2 pH>9
11. Sample Location, Sample Collector Listed? * Yes No
 *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: S. Smith Date: 06-05-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

STL NNE ⁵⁴ JOF 77F070108 WOS180 Due 0720-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **107-043-16**

Page 1 of 1

Collector L.D. WALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056
SAF No. 107-043	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2UPL-LOI MAY 2007	HMF-N-506 8	Ice Chest No. SMIL 125 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	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 <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all GW samples submitted into one SDG, daily closure.
--	--

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N2N1		W	6-5-07	1242	1x20-mL P	Activity Scan	None
B1N2N1		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
						<i>JOF 7N</i>	
106							

Relinquished By L.D. WALL <i>L.D. Wall</i>	Date/Time JUN 05 2007	Received By <i>J. Smith</i> <i>S. Smith</i>	Date/Time JUN 05 2007	Matrix *
Relinquished By	Date/Time	Received By	Date/Time	S = Soil DS = Drum Solid SF = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = 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	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By	Date/Time



STL

Sample Check-in List

Date/Time Received: 06.05.07 15:15

Client: P6W SDG #: W05780 NA SAF #: I07043 NA

Work Order Number: 07F070105 Chain of Custody # 107043-16

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? Yes No
4. Cooler temperature: _____ NA 5. Vermiculite/packing materials is NA Wet Dry
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 - _____ tape _____ hazard labels
 - _____ custody seals appropriate samples labels
9. Samples are:
 - in good condition _____ leaking
 - _____ broken _____ have air bubbles
 (Only for samples requiring head space)
10. Sample pH taken? NA pH<2 pH>2 pH>9
11. Sample Location, Sample Collector Listed? * Yes No
*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: J. Smith Date: 06.05.07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

No action necessary; process as is.

Project Manager _____ Date _____



STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 7/20/07

CUSTOMER P&W

ANALYSIS Nep

MATRIX water

LOT NUMBER J7F07001

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 7159362

NEW BATCH NUMBER

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

07/17/2007 10:32:39 AM

Sample Preparation/Analysis

Balance Id:11

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #:

AnalyDueDate: 07/20/2007

Sep1 DT/Tm Tech: 7-17-07

8:35 PM

Batch: 7198273 WATER pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: BockJ

Work Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 J0F65-2-AA J7F070101-1-SAMP 06/05/2007 10:49			199.90g,in	199.90g	NPTA6736 07/10/07,pd 06/01/01,r			200				
			AmtRec: 20ML,8XLP,3X4LP		#Containers: 12				Scr:	Alpha: -7.01E-04 uCi/Sa	Beta: 2.81E-03 uCi/Sa	
2 J0F68-2-AA J7F070101-2-SAMP 06/05/2007 13:04			199.60g,in	199.60g	NPTA6737 07/10/07,pd 06/01/01,r							
			AmtRec: 20ML,8XLP,3X4LP		#Containers: 12				Scr:	Alpha: 2.25E-03 uCi/Sa	Beta: 3.73E-06 uCi/Sa	
3 J0F68-2-AH-X J7F070101-2-DUP 06/05/2007 13:04			202.90g,in	202.90g	NPTA6738 07/10/07,pd 06/01/01,r							
			AmtRec: 20ML,8XLP,3X4LP		#Containers: 12				Scr:	Alpha: 2.25E-03 uCi/Sa	Beta: 3.73E-06 uCi/Sa	
4 J0LFM-2-AA-B J7F080000-362-BLK 06/05/2007 13:04			199.60g,in	199.60g	NPTA6739 07/10/07,pd 06/01/01,r							
			AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:	
5 J0LFM-2-AC-C J7F080000-362-LCS 06/05/2007 13:04			199.20g,in	199.20g	NPSE0427 06/05/07,pd 06/01/01,r							
			AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:	

Comments: ~~J0F65-SAMP~~ Comments
PALZO 8/7-17-07

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

J0F652AA-SAMP Constituent List:

07/17/2007 10:32:41 AM

Sample Preparation/Analysis

Balance Id:11

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

Pipet #: _____

AnalyDueDate: 07/20/2007

Sep1 DT/Tm Tech: _____

Batch: 7198273
SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: _____

Prep Tech: ,BockJ

Work Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Np-237 J0LFM2AA-BLK:	RDL:0.6	pCi/L	LCL:	UCL:	RPD:							
Np-237 J0LFM2AC-LCS:	RDL:1	pCi/L	LCL:	UCL:	RPD:							
J0F652AA-SAMP Calc Info:												
Uncert Level (#s): 2	Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y	ODRs: B						
Uncert Level (#s): 2	Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y	ODRs: B						
Uncert Level (#s): 2	Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y	ODRs: B						

Approved By _____ Date: _____

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7/24/2007 11:15:06 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/24/2006, 7/29/2007, Batch: '7198273', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7198273				
AC	CalcC	BockJ	7/17/2007 10:32:43	
SC		antonsonl	IsBatched 7/17/2007 8:46:49 AM	ICOC_RADCALC v4.8.26
SC		BockJ	Prep1C 7/17/2007 10:32:43 AM	RICH-RC-5016 REVISION 7
SC		FABREM	Sep1C 7/17/2007 10:03:50 PM	RICH-RC-5064 REVISION 5
SC		FABREM	Sep2C 7/18/2007 9:30:17 AM	RICH-RC-5003 REVISION 7
SC		StringerR	InCnt1 7/18/2007 9:48:23 AM	RICH-RD-0008 REVISION 4
SC		DAWKINSO	CalcC 7/18/2007 4:14:39 PM	RICH-RD-0008 REVISION 4
AC		FABREM	7/17/2007 10:03:50	
AC		FABREM	7/18/2007 9:30:17	
AC		StringerR	7/18/2007 9:48:23	
AC		DAWKINSO	7/18/2007 4:14:39 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

7/10/2007 12:26:53 PM

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 #: 235

AnalyDueDate: 07/16/2007 *W05180*

Sep1 DT/Tm Tech:

Batch: 7159348 WATER pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: BockJ / *APA*

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 JX8R9-1-AC J7F040203-3-SAMP 06/01/2007 10:56	35.30g,in									
AmtRec: 20ML,2X500ML,2XLP,4LP #Containers: 6				Scr: Alpha: 4.71E-03 uCi/Sa 2.7E-01L Beta: -1.52E-04 uCi/Sa						
2 J0AN4-1-AA J7F050208-1-SAMP 06/04/2007 09:31	140.00g,in									
AmtRec: 20ML,LP #Containers: 2				Scr: Alpha: 7.20E-04 uCi/Sa 2.5E-01L Beta: 6.58E-04 uCi/Sa 1.4E-01L						
3 J0AN4-1-AC-X J7F050208-1-DUP 06/04/2007 09:31	140.60g,in									
AmtRec: 20ML,LP #Containers: 2				Scr: Alpha: 7.20E-04 uCi/Sa 2.5E-01L Beta: 6.58E-04 uCi/Sa 1.4E-01L						
4 J0APG-1-AA J7F050208-2-SAMP 06/04/2007 08:00	199.70g,in									
AmtRec: 20ML,LP #Containers: 2				Scr: Alpha: -1.28E-04 uCi/Sa Beta: 7.57E-05 uCi/Sa						
5 J0LDP-1-AA-B J7F080000-348-BLK 06/04/2007 09:31	198.40g,in									
AmtRec: #Containers: 1				Scr: Alpha: Beta:						
6 J0LDP-1-AC-C J7F080000-348-LCS 06/04/2007 09:31	200.30g,in		BESB3080 06/13/07.pd 08/08/06.r							
AmtRec: #Containers: 1				Scr: Alpha: Beta:						

Handwritten notes and corrections:

- Row 1: *1.5* (above 35.30g), *108.6* (above AmtRec), *200* (above #Containers), *27D* (above Detector Id), *1517* (above Count), *7/13/07 R* (above CR Analyst).
- Row 2: *49.2* (above 140.00g), *150* (above AmtRec), *32C* (above Detector Id), *1337* (above Count), *7/13/07 R* (above CR Analyst).
- Row 3: *46.8* (above 140.60g), *32D* (above Detector Id).
- Row 4: *∅* (above 199.70g), *↓* (above AmtRec), *31A* (above Detector Id), *1521* (above Count), *7/13/07 R* (above CR Analyst).
- Row 5: *0.8* (above 198.40g), *200* (above AmtRec), *28A* (above Detector Id), *1517* (above Count), *7/13/07 R* (above CR Analyst).
- Row 6: *↓ 7.9* (above 200.30g), *↓* (above AmtRec), *28B* (above Detector Id).

07/10/2007 12:26:56 PM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech: _____

Batch: 7159348

pCi/L

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None

Prep Tech: ,BockJ



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: JX8R9-SAMP "Comments. Aliquot reduced due to weight screen. JB 7/10/07"
JOAN4-SAMP "Comments. Aliquots reduced due to high screening results. JB 7/10/07"

PA < 2.0 @ 7-10-07

- LCS came out real heavy. I noticed nothing abnormal while running procedure. It was not switched w/any other sample while I was running procedure. 7/13/07 APA

All Clients for Batch:

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

JX8R91AC-SAMP Constituent List:

BETA	RDL:4.00E+00	pCi/L	LCL:	UCL:	RPD:
J0LDP1AA-BLK:					
BETA	RDL:4.00E+00	pCi/L	LCL:	UCL:	RPD:
J0LDP1AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JX8R91AC-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J0LDP1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J0LDP1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

7/16/2007 4:34:57 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/16/2006, 7/21/2007, Batch: '7159348', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7159348				
AC		CalcC	BockJ 7/10/2007 12:20:28	
SC		wagarr	IsBatched 6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep 7/10/2007 12:20:28 PM	RICH-RC-5014 Revision 7
SC		BockJ	Prep1C 7/10/2007 12:26:59 PM	RICH-RC-5014 REVISION 7
SC		AshworthA	InPrep2 7/12/2007 10:20:28 AM	RICH-RC-5014 REVISION 7
SC		AshworthA	Prep2C 7/13/2007 11:37:01 AM	RICH-RC-5014 REVISION 7
SC		StringerR	InCnt1 7/13/2007 11:42:36 AM	RICH-RD-0003 REVISION 5
SC		DAWKINSO	CalcC 7/13/2007 4:51:12 PM	RICH-RD-0003 REVISION 5
AC		BockJ	7/10/2007 12:26:59	
AC		AshworthA	7/12/2007 10:20:28	
AC		AshworthA	7/13/2007 11:37:01	
AC		StringerR	7/13/2007 11:42:36	
AC		DAWKINSO	7/13/2007 4:51:12 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa

07/16/2007 3:40:11 PM

Sample Preparation/Analysis

Balance Id:1120482733,1120482733,1120

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: _____

Analysis Due Date: 07/16/2007

W05180

Sep1 DT/Tm Tech: 07/09/2007 15:20,ManisD

Batch: 7159347 WATER pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech: 07/16/2007 08:55,ManisD

EQ Batch, Test: None All Tests: 7159346 AWTA, 7159347 CLTL, 7159348 BCS8, 7159350 FPS5, 7159353 AMS5, 7159364 DHSS, 7159370
ARS6, 7184191 FPS5,

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:
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1 JX8TC-1-AC J7F040203-4-SAMP	1005.60g,in	SRTB14989 06/27/07,pd 05/22/07,r	.802	1.5	24	100	SA	0647 0606	7/17/07 7/18/07		
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06/01/2007 08:43 AmtRec: 20ML,500ML,7XLP #Containers: 9 Scr: Alpha: -6.26E-04 uCi/Sa Beta: -8.10E-05 uCi/Sa

2 JX93W-1-AC J7F050117-2-SAMP	985.10g,in	SRTB14990 06/27/07,pd 05/22/07,r	.923	1.5	23.8	100	SB	0647 0606	7/17/07 7/18/07		
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06/04/2007 11:17 AmtRec: 20ML,500ML,3XLP,2X4LP #Containers: 7 Scr: Alpha: -2.47E-04 uCi/Sa Beta: 7.47E-04 uCi/Sa

3 J0F65-1-AG J7F070101-1-SAMP	988.40g,in	SRTB14991 06/27/07,pd 05/22/07,r	.848	1.5	24	100	SC	0647 0606	7/17/07 7/18/07		
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06/05/2007 10:49 AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: -7.01E-04 uCi/Sa Beta: 2.81E-03 uCi/Sa

4 J0F65-1-AJ-X J7F070101-1-DUP	993.40g,in	SRTB14992 06/27/07,pd 05/22/07,r	.948	1.5	23.3	100	SD	0647 0606	7/17/07 7/18/07		
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06/05/2007 10:49 AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: -7.01E-04 uCi/Sa Beta: 2.81E-03 uCi/Sa

07/16/2007 3:40:13 PM

Sample Preparation/Analysis

Balance Id:1120482733,1120482733,1120

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech: 07/09/2007 15:20,ManisD

Batch: 7159347 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech: 07/16/2007 08:55,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 J0F68-1-AG J7F070101-2-SAMP 	999.50g,in		SRTB14993 06/27/07,pd 05/22/07,r	.872	1.5	24.1	100	GC	GC	7/17/07 7/18/07	
07/09/2007 15:20,st, 07/16/2007											
06/05/2007 13:04 AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: 2.25E-03 uCi/Sa Beta: 3.73E-06 uCi/Sa											
6 J0LDH-1-AA-B J7F080000-347-BLK 	996.50g,in		SRTB14994 06/27/07,pd 05/22/07,r	.959	1.5	24.6	100	GC	GC	7/17/07 7/18/07	
07/09/2007 15:20,st, 07/16/2007											
06/05/2007 10:49 AmtRec: #Containers: 1 Scr: Alpha: Beta:											
7 J0LDH-1-AC-C J7F080000-347-LCS 	995.90g,in		SRSR1352 05/24/07,pd 09/11/06,r	.941	1.5	24.4	100	GC	GC	7/17/07 7/18/07	
07/09/2007 15:20,st, 07/16/2007											
06/05/2007 10:49 AmtRec: #Containers: 1 Scr: Alpha: Beta:											

Comments: J0F65-SAMP Comments

All Clients for Batch:

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

JX8TCLAC-SAMP Constituent List:

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

ISV - Insufficient Volume for Analysis

WO Cnt: 7
Prep_SamplePrep v4.8.26

7/16/2007 3:40:16 PM

Sample Preparation/Analysis

Balance Id:1120482733,1120482733,1120

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech: 07/09/2007 15:20,ManisD

Batch: 7159347
SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: 07/16/2007 08:55,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:
Sr-85 RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20	
JOLDH1AA-BLK:											
Sr-85 RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:	
JOLDH1AC-LCS:											
Sr-85 RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20	
JK8TC1AC-SAMP Calc Info:											
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B							
JOLDH1AA-BLK:											
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B							
JOLDH1AC-LCS:											
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B							

Approved By _____ Date: _____

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7/18/2007 11:23:28 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/18/2006, 7/23/2007, Batch: '7159347', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7159347				
AC	CalcC	BockJ	7/5/2007 7:09:14 AM	
SC		wagarr	IsBatched 6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep 7/5/2007 7:09:14 AM	RICH-RC-5016 Revision 7
SC		BockJ	Prep1C 7/5/2007 7:19:20 AM	RICH-RC-5016 REVISION 7
SC		ManisD	Sep1C 7/9/2007 4:26:54 PM	RICH-RC-5006 REVISION 7
SC		DAWKINSO	InCnt1 7/9/2007 4:41:41 PM	RICH-RD-0007 REVISION 6
SC		BlackCL	Cnt1C 7/10/2007 6:09:35 AM	RICH-RD-0007 REVISION 6
SC		ManisD	InSep2 7/16/2007 8:54:21 AM	RICH-RC-5071 REVISION 5
SC		ManisD	Sep2C 7/16/2007 3:45:38 PM	RICH-RC-5071 REVISION 5
SC		DAWKINSO	InCnt2 7/16/2007 4:09:11 PM	RICH-RD-0003 REVISION 5
SC		BlackCL	CalcC 7/18/2007 6:40:16 AM	RICH-RD-0003 REVISION 5
AC		BockJ	7/5/2007 7:19:20 AM	
AC		ManisD	7/9/2007 4:26:54 PM	
AC		ManisD	7/9/2007 4:27:07 PM	
AC		DAWKINSO	7/9/2007 4:41:41 PM	
AC		BlackCL	7/10/2007 6:09:35	
AC		ManisD	7/16/2007 8:54:21	
AC		ManisD	7/16/2007 3:45:38 PM	
AC		DAWKINSO	7/16/2007 4:09:11 PM	
AC		BlackCL	7/18/2007 6:40:16	

AC: Accepting Entry, SC: Status Change

STL Richland
Richland Wa.

PGW WATER

09/2007 1:21:33 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 #: _____

AnalDueDate: 07/16/2007 *W05180*

Sep1 DT/Tm Tech:

Batch: 7159346 WATER pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: *BockJ/APA*

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 JX8R9-1-AD J7F040203-3-SAMP 06/01/2007 10:56	2002.50g,in						<i>G10</i>	<i>1921</i>	<i>7/12/0700</i>	
<p>AmtRec: 20ML,2X500ML,2XLP,4LP #Containers: 6 Scr: Alpha: 4.71E-03 uCi/Sa 2.7E-01L Beta: -1.52E-04 uCi/Sa</p>										
2 J0F65-1-AD J7F070101-1-SAMP 06/05/2007 10:49	1960.30g,in						<i>G15</i>	<i>1920</i>	<i>7/12/0700</i>	
<p>AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: -7.01E-04 uCi/Sa Beta: 2.81E-03 uCi/Sa</p>										
3 J0F65-1-AH-X J7F070101-1-DUP 06/05/2007 10:49	1886.60g,in						<i>G10</i>	<i>2106</i>	<i>7/12/0700</i>	
<p>AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: -7.01E-04 uCi/Sa Beta: 2.81E-03 uCi/Sa</p>										
4 J0F68-1-AD J7F070101-2-SAMP 06/05/2007 13:04	2002.40g,in						<i>G15</i>	<i>2105</i>	<i>7/12/0700</i>	
<p>AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: 2.25E-03 uCi/Sa Beta: 3.73E-06 uCi/Sa</p>										
5 J0LDD-1-AA-B J7F080000-346-BLK 06/05/2007 10:49	1997.20g,in						<i>G8</i>	<i>2316</i>	<i>7/12/0700</i>	
<p>AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>										
6 J0LDD-1-AC-C J7F080000-346-LCS 06/05/2007 10:49	1998.60g,in		QCAG1378 06/25/07,pd 03/29/04,r				<i>G7</i>	<i>2317</i>		
<p>AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>										

100-15-100
7/12/07
APA

↓

↓

9/29/2007 1:21:35 PM

Sample Preparation/Analysis

Balance Id:1120482733

AW Gamma PrpRC5017
TA Gamma by HPGE
SI CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech:

Batch: 7159346

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: BockJ



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: J0F65-SAMP "Comments. Not full 2000 ml. pour due to insufficient sample amount. JB 7/9/07"

PH < 2.0 JB 7-9-07

All Clients for Batch:

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

JX8R91AD-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:

J0LDD1AA-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:

J0LDD1AC-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						

JX8R91AD-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
J0LDD1AA-BLK:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J0LDD1AC-LCS:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

7/23/2007 1:37:07 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/23/2006, 7/28/2007, Batch: '7159346', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7159346				
AC	CalcC	BockJ	7/9/2007 12:48:11 PM	
SC		wagarr	IsBatched 6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep 7/9/2007 12:48:11 PM	RICH-RC-5015 Revision 6
SC		BockJ	Prep1C 7/9/2007 1:21:36 PM	RICH-RC-5017 REVISION 6
SC		AshworthA	InPrep2 7/11/2007 12:18:43 PM	RICH-RC-5017 REVISION 6
SC		AshworthA	Prep2C 7/12/2007 4:14:19 PM	RICH-RC-5017 REVISION 6
SC		DAWKINSO	InCnt1 7/12/2007 4:38:55 PM	RICH-RD-0007 REVISION 6
SC		StringerR	CalcC 7/13/2007 8:00:29 AM	RICH-RD-0007 REVISION 6
AC		BockJ	7/9/2007 1:21:36 PM	
AC		BockJ	7/9/2007 1:22:11 PM	
AC		AshworthA	7/11/2007 12:18:43	
AC		AshworthA	7/12/2007 4:14:19 PM	
AC		DAWKINSO	7/12/2007 4:38:55 PM	
AC		StringerR	7/13/2007 8:00:29	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa

STL RICHLAND

2/9/2007 11:52:15 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 07/16/2007 **W05180**

Sep1 DT/Tm Tech: _____

Batch: 7159344 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None

Prep Tech: ,BockJ

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 JX8PD-1-AA J7F040193-1-SAMP 06/01/2007 13:26	3959.00g,in	3959.00g,in	ITA6408 06/14/07			100	L2	1849	7/13/07OR	
AmtRec: 20ML, 2X4LP #Containers: 3 Scr: Alpha: 1.56E-03 uCi/Sa Beta: 5.19E-04 uCi/Sa										
2 JX8PD-1-AC-X J7F040193-1-DUP 06/01/2007 13:26	3930.50g,in	3930.50g,in	ITA6409 06/14/07				L4	2044		
AmtRec: 20ML, 2X4LP #Containers: 3 Scr: Alpha: 1.56E-03 uCi/Sa Beta: 5.19E-04 uCi/Sa										
3 JX8P4-1-AA J7F040193-2-SAMP 06/01/2007 12:11	3952.20g,in	3952.20g,in	ITA6410 06/14/07				L5	2044		
AmtRec: 20ML, 2X4LP #Containers: 3 Scr: Alpha: 1.24E-03 uCi/Sa Beta: -8.65E-05 uCi/Sa										
4 JX8QJ-1-AA J7F040193-3-SAMP 06/01/2007 11:16	3960.30g,in	3960.30g,in	ITA6411 06/14/07				L2	2042		
AmtRec: 20ML, 2X4LP #Containers: 3 Scr: Alpha: 1.20E-03 uCi/Sa Beta: -5.21E-04 uCi/Sa										
5 JX8QM-1-AA J7F040193-4-SAMP 06/01/2007 09:32	3967.10g,in	3967.10g,in	ITA6412 06/14/07				L2	2240		
AmtRec: 20ML, 2X4LP #Containers: 3 Scr: Alpha: -1.38E-03 uCi/Sa Beta: 1.38E-03 uCi/Sa										
6 JX9L9-1-AA J7F050117-1-SAMP 06/04/2007 12:44	3797.10g,in	3797.10g,in	ITA6413 06/14/07				L4	2243		
AmtRec: 20ML, 2X4LP #Containers: 3 Scr: Alpha: 8.84E-04 uCi/Sa Beta: 1.48E-03 uCi/Sa										
7 JX93W-1-AA J7F050117-2-SAMP 06/04/2007 11:17	3766.00g,in	3766.00g,in	ITA6414 06/14/07				L5	2243		
AmtRec: 20ML, 500ML, 3XLP, 2X4LP #Containers: 7 Scr: Alpha: -2.47E-04 uCi/Sa Beta: 7.47E-04 uCi/Sa										

06/09/2007 11:52:23 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025
TB Gamma by LE PD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech:

Batch: 7159344 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

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 JX934-1-AA J7F050117-3-SAMP 06/04/2007 10:03	3821.60g.in	3821.60g.in	ITA6415 06/14/07		35.2	100	L2	1128	7/14/07 R	
AmtRec: 20ML,500ML,2X4LP		#Containers: 4		Scr:		Alpha: 1.54E-03 uCi/Sa		Beta: -5.5E-04 uCi/Sa		
9 JX95A-1-AA J7F050117-4-SAMP 06/04/2007 10:03	3675.50g.in	3675.50g.in	ITA6416 06/14/07		34.6		L4	1131		
AmtRec: 20ML,500ML,2X4LP		#Containers: 4		Scr:		Alpha: 1.50E-04 uCi/Sa		Beta: 1.10E-03 uCi/Sa		
10 JOE6M-1-AA J7F060349-1-SAMP 06/05/2007 09:32	3911.70g.in	3911.70g.in	ITA6417 06/14/07		32.3		L5	1132		
AmtRec: 20ML,2X4LP		#Containers: 3		Scr:		Alpha: 5.98E-04 uCi/Sa		Beta: 4.33E-04 uCi/Sa		
11 JOF65-1-AE J7F070101-1-SAMP 06/05/2007 10:49	3768.70g.in	3768.70g.in	ITA6418 06/14/07		35.6		L2	1314	7/14/07 R	
AmtRec: 20ML,8XLP,3X4LP		#Containers: 12		Scr:		Alpha: -7.01E-04 uCi/Sa		Beta: 2.81E-03 uCi/Sa		
12 JOF68-1-AE J7F070101-2-SAMP 06/05/2007 13:04	3884.70g.in	3884.70g.in	ITA6419 06/14/07		35.5		L4	1316	7/14/07 R	
AmtRec: 20ML,8XLP,3X4LP		#Containers: 12		Scr:		Alpha: 2.25E-03 uCi/Sa		Beta: 3.73E-06 uCi/Sa		
13 JOF7N-1-AA J7F070105-1-SAMP 06/05/2007 12:42	3963.20g.in	3963.20g.in	ITA6420 06/14/07		33.7		L5	1317	7/14/07 R	
AmtRec: 20ML,2X4LP		#Containers: 3		Scr:		Alpha: 1.50E-03 uCi/Sa		Beta: 7.76E-04 uCi/Sa		
14 JOLC9-1-AA-B J7F080000-344-BLK 06/01/2007 13:26	3927.50g.in	3927.50g.in	ITA6421 06/14/07		35.4		L4	1502	7/14/07 R	
AmtRec:		#Containers: 1		Scr:		Alpha:		Beta:		

07/09/2007 11:52:25 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech:

Batch: 7159344

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ



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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15 J0LC9-1-AC-C J7F080000-344-LCS	3900.10g,in	ISD0757 06/13/07			36.7	150	LS	1503	7/14/07	2
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06/01/2007 13:26 AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: *PH-neutral job 7-9-07*

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

JK8PD1AA-SAMP Constituent List:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
J0LC91AA-BLK:					
I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
J0LC91AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

JK8PD1AA-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J0LC91AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J0LC91AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

7/23/2007 1:44:05 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/23/2006, 7/28/2007, Batch: '7159344', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7159344				
AC	CalcC	BockJ	7/9/2007 11:18:17	
SC		wagarr	IsBatched 6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep 7/9/2007 11:18:17 AM	RICH-RC-5015 Revision 6
SC		BockJ	Prep1C 7/9/2007 11:52:16 AM	RICH-RC-5017 REVISION 6
SC		BostedD	InPrep2 7/9/2007 2:36:24 PM	RICHRC5025 REVISION 4
SC		BostedD	Prep2C 7/13/2007 3:53:46 PM	RICHRC5025 REVISION 4
SC		DAWKINSO	InCnt1 7/13/2007 9:02:34 PM	RICH-RD-0007 REVISION 6
SC		StringerR	CalcC 7/15/2007 12:46:45 PM	RICH-RD-0007 REVISION 6
AC		BockJ	7/9/2007 11:52:16	
AC		BostedD	7/9/2007 2:36:24 PM	
AC		BostedD	7/13/2007 3:53:46 PM	
AC		DAWKINSO	7/13/2007 9:02:34 PM	
AC		StringerR	7/15/2007 12:46:45	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

STL RICHLAND



STL

*** RE-COUNT REQUEST ***

DUE DATE 7/16/07

CUSTOMER PBW

ANALYSIS TC99

MATRIX water

LOT NUMBER 57FO 40203

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 7159350

7181191

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) <u>all</u>	<u>TS12</u>
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	

7/3/2007 9:00:02 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: 07/16/2007

Sep1 DT/Tm Tech:

Batch: 7184191 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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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1 JX8R9-2-AE J7F040203-3-SAMP 	06/01/2007 10:56									
AmtRec: 20ML,2X500ML,2XLP,4LP			#Containers: 6		Scr: Alpha: 4.71E-03 uCi/Sa 2.7E-01L			Beta: -1.52E-04 uCi/Sa		

2 JX93W-2-AD J7F050117-2-SAMP 	06/04/2007 11:17									
AmtRec: 20ML,500ML,3XLP,2X4LP			#Containers: 7		Scr: Alpha: -2.47E-04 uCi/Sa			Beta: 7.47E-04 uCi/Sa		

3 JX93W-2-AE-X J7F050117-2-DUP 	06/04/2007 11:17									
AmtRec: 20ML,500ML,3XLP,2X4LP			#Containers: 7		Scr: Alpha: -2.47E-04 uCi/Sa			Beta: 7.47E-04 uCi/Sa		

4 JX934-2-AC J7F050117-3-SAMP 	06/04/2007 10:03									
AmtRec: 20ML,500ML,2X4LP			#Containers: 4		Scr: Alpha: 1.54E-03 uCi/Sa			Beta: -5.51E-04 uCi/Sa		

5 JX934-2-AD-S J7F050117-3-MS 	06/04/2007 10:03									
AmtRec: 20ML,500ML,2X4LP			#Containers: 4		Scr: Alpha: 1.54E-03 uCi/Sa			Beta: -5.51E-04 uCi/Sa		

6 JX95A-2-AC J7F050117-4-SAMP 	06/04/2007 10:03									
AmtRec: 20ML,500ML,2X4LP			#Containers: 4		Scr: Alpha: 1.50E-04 uCi/Sa			Beta: 1.10E-03 uCi/Sa		

7 J0LDW-2-AA-B J7F080000-350-BLK 	06/04/2007 11:17										
AmtRec:			#Containers: 1		Scr:			Alpha:			Beta:

7/3/2007 9:00:03 AM

Sample Preparation/Analysis

Balance Id:

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech:

Batch: 7184191
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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8 JOLDW-2-AC-C
J7F080000-350-LCS



06/04/2007 11:17 AmtRec: #Containers: 1 Scr: Alpha: Beta:

9 JOLDW-2-AD-BN
J7F080000-350-IBLK



06/04/2007 11:17 AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: JW5XJ-SAMP "No DUP. poured due to being out of sample. Please recount on diff. detector. JB 7/3/07"
JW551-SAMP ""

128

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

JX8R92AE-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

JX9342AD-MS:

JOLDW2AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

JOLDW2AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

JOLDW2AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

JX8R92AE-SAMP Calc Info:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JX9342AD-MS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JOLDW2AA-BLK:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JOLDW2AC-LCS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

3/2007 9:00:04 AM

Sample Preparation/Analysis

Balance Id: _____

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

Pipet #: _____

Analysis Due Date: 07/16/2007

Sep1 DT/Tm Tech: _____

Batch: 7184191

pCi/L

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

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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J0LDW2AD-IBLK:

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

Approved By _____ Date: _____

129

7/11/2007 4:28:50 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/11/2006, 7/16/2007, Batch: '7184191', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7184191				
	AC	CalcC	HarveyK	7/3/2007 10:40:05	
	SC		HarveyK	Sep1C 7/3/2007 10:40:05 AM	RICH-RC-5065 REV 6
	SC		BlackCL	InCnt1 7/3/2007 10:45:31 AM	RICH-RD-0001 REVISION 4
	SC		BlackCL	CalcC 7/5/2007 8:20:06 AM	RICH-RD-0001 REVISION 4
	AC		BlackCL	7/3/2007 10:45:31	
	AC		BlackCL	7/5/2007 8:20:06 AM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

STL RICHLAND

06/21/2007 2:25:30 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #:

AnalyDueDate: 07/16/2007 *205180*

Sep1 DT/Tm Tech:

Batch: 7159353 WATER pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

EQ Batch, Test: None

Prep Tech: BockJ



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JX8R0-1-AC J7F040203-1-SAMP 06/01/2007 09:59	127.30g,in			60				
		AmtRec: 20ML, 500ML, 4XLP	#Containers: 6			Scr: Alpha: 7.55E-04 uCi/Sa	Beta: 4.86E-05 uCi/Sa	
2 JX8R0-1-AE-S J7F040203-1-MS 06/01/2007 09:59	125.30g,in		TCSG1834 06/14/07,pd 01/10/06,r					
		AmtRec: 20ML, 500ML, 4XLP	#Containers: 6			Scr: Alpha: 7.55E-04 uCi/Sa	Beta: 4.86E-05 uCi/Sa	
3 JX8R5-1-AC J7F040203-2-SAMP 06/01/2007 09:21	124.40g,in							
		AmtRec: 20ML, 500ML, 4XLP	#Containers: 6			Scr: Alpha: -1.35E-04 uCi/Sa	Beta: 3.89E-04 uCi/Sa	
4 JX8TC-1-AD J7F040203-4-SAMP 06/01/2007 08:43	125.90g,in							
		AmtRec: 20ML, 500ML, 7XLP	#Containers: 9			Scr: Alpha: -6.26E-04 uCi/Sa	Beta: -8.10E-05 uCi/Sa	
5 JX8TC-1-AF-X J7F040203-4-DUP 06/01/2007 08:43	125.80g,in							
		AmtRec: 20ML, 500ML, 7XLP	#Containers: 9			Scr: Alpha: -6.26E-04 uCi/Sa	Beta: -8.10E-05 uCi/Sa	
6 J0LEG-1-AA-B J7F080000-353-BLK 06/01/2007 08:43	125.60g,in							
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	
7 J0LEG-1-AC-C J7F080000-353-LCS 06/01/2007 08:43	126.90g,in		TCSE2126 06/14/07,pd 01/10/06,r					
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	

06/21/2007 2:25:37 PM

Sample Preparation/Analysis

Balance Id: _____

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech: _____

Batch: 7159353

pCi/L

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

Prep Tech: _____



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

J7F080000-353-IBLK



06/01/2007 08:43

AmtRec:

#Containers: 1

Scr:

Alpha:

Beta:

Comments: *PH < 2.0 936-21-07*

All Clients for Batch:

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

JK8R01AC-SAMP Constituent List:

Tc-99 RDL:1.50E+01 pCi/L LCL:70 UCL:130 RPD:20

JX8R01AE-MS Constituent List:

JOLEG1AA-BLK:

Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

JOLEG1AC-LCS:

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

JOLEG1AD-IBLK:

Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

JX8R01AC-SAMP Calc Info:

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

JX8R01AE-MS Calc Info:

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

JOLEG1AA-BLK:

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

JOLEG1AC-LCS:

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

JOLEG1AD-IBLK:

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

Approved By _____

Date: _____

7/11/2007 4:31:40 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/11/2006, 7/16/2007, Batch: '7159353', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7159353				
AC	CalcC	BockJ	6/21/2007 2:18:22 PM	
SC		wagarr	IsBatched 6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep 6/21/2007 2:18:22 PM	RICH-RC-5014 Revision 7
SC		BockJ	Prep1C 6/21/2007 2:25:34 PM	RICH-RC-5016 REVISION 7
SC		FABREM	Sep1C 6/29/2007 4:20:20 PM	RICH-RC-5078 REVISION 4
SC		DAWKINSO	InCnt1 6/29/2007 4:31:59 PM	RICH-RD-0001 REVISION 4
SC		StringerR	CalcC 7/1/2007 1:10:43 PM	RICH-RD-0001 REVISION 4
AC		BockJ	6/21/2007 2:25:34 PM	
AC		FABREM	6/29/2007 4:20:20 PM	
AC		DAWKINSO	6/29/2007 4:31:59 PM	
AC		StringerR	7/1/2007 1:10:43 PM	

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa

STL RICHLAND

08/2007 11:36:23 AM

Sample Preparation/Analysis

Balance Id: 12445

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 07/16/2007 W05180

Sep1 DT/Tm Tech: 6-21-07om

Batch: 7159370 WATER pCi/L PM, Quote: SA, 57671

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

Prep Tech: _____



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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1 JX8R0-1-AA J7F040203-1-SAMP 								
06/01/2007 09:59		AmtRec: 20ML, 500ML, 4XLP	#Containers: 6			Scr:	Alpha:	Beta:

2 JX8R5-1-AA J7F040203-2-SAMP 								
06/01/2007 09:21		AmtRec: 20ML, 500ML, 4XLP	#Containers: 6			Scr:	Alpha:	Beta:

3 JX8R9-1-AA J7F040203-3-SAMP 								
06/01/2007 10:56		AmtRec: 20ML, 2X500ML, 2XLP, 4LP	#Containers: 6			Scr:	Alpha:	Beta:

4 JX8TC-1-AA J7F040203-4-SAMP 								
06/01/2007 08:43		AmtRec: 20ML, 500ML, 7XLP	#Containers: 9			Scr:	Alpha:	Beta:

5 JX8TC-1-AG-X J7F040203-4-DUP 								
06/01/2007 08:43		AmtRec: 20ML, 500ML, 7XLP	#Containers: 9			Scr:	Alpha:	Beta:

6 JOLGQ-1-AA-B J7F080000-370-BLK 								
06/01/2007 08:43		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

7 JOLGQ-1-AC-C J7F080000-370-LCS 								
06/01/2007 08:43		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

6/8/2007 11:36:27 AM

Sample Preparation/Analysis

Balance Id: 12445

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech: 6-21-07 Tom

Batch: 7159370

pCi/L

Sep2 DT/Tm Tech: _____

REQ 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:
8 J0LGQ-1-AD-BX J7F080000-370-MBLK 								
06/01/2007 08:43		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
9 J0LGQ-1-AE-CM J7F080000-370-MLCS 								
06/01/2007 08:43		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
10 J0LGQ-1-AF-BN J7F080000-370-IBLK 								
06/01/2007 08:43		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
11 J0LGQ-1-AG-BN J7F080000-370-IBLK 								
06/01/2007 08:43		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

JX8R01AA-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
J0LGQ1AA-BLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
J0LGQ1AC-LCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
J0LGQ1AD-MBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

8/2007 11:36:32 AM

Sample Preparation/Analysis

Balance Id: 12445

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech: 6-21-07 *Raw*

Batch: 7159370

pCi/L

Sep2 DT/Tm Tech: _____

EQ Batch, Test: None

Prep Tech: _____



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
J0LGQ1AE-MLCS: H-3	RDL:400 pCi/L	LCL:70	UCL:130	RPD:20				
J0LGQ1AF-IBLK: H-3	RDL:400 pCi/L	LCL:	UCL:	RPD:				
J0LGQ1AG-IBLK: H-3	RDL:400 pCi/L	LCL:	UCL:	RPD:				
JX8R01AA-SAMP Calc Info:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J0LGQ1AA-BLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J0LGQ1AC-LCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J0LGQ1AD-MBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J0LGQ1AE-MLCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J0LGQ1AF-IBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J0LGQ1AG-IBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				

Approved By _____ Date: _____

6/25/2007 2:22:07 PM

ICOC Fraction Transfer/Status Report

ByDate: 6/25/2006, 6/30/2007, Batch: '7159370', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7159370				
AC	CalcC	McDowellD	6/21/2007 9:21:08	
SC		wagarr	IsBatched 6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC		McDowellD	InSep1 6/21/2007 9:21:08 AM	RICH-RC-5007 REVISION 6
SC		McDowellD	Sep1C 6/21/2007 3:01:12 PM	RICH-RC-5007 REVISION 6
SC		DAWKINSO	InCnt1 6/21/2007 3:13:00 PM	RICH-RD-0001 REVISION 4
SC		StringerR	CalcC 6/24/2007 9:33:21 AM	RICH-RD-0001 REVISION 4
AC		McDowellD	6/21/2007 3:01:12 PM	
AC		DAWKINSO	6/21/2007 3:13:00 PM	Revision 4
AC		StringerR	6/24/2007 9:33:21	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

2/12/2007 11:21:51 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 07/20/2007 *W05180*

Sep1 DT/Tm Tech:

Batch: 7159357 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: BockJ



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 J0F65-1-AF J7F070101-1-SAMP 06/05/2007 10:49	198.80g,in	198.80g,in	SETA0189 09/22/06		<i>50</i>				
	AmtRec: 20ML,8XLP,3X4LP		#Containers: 12				Scr: Alpha: -7.01E-04 uCi/Sa	Beta: 2.81E-03 uCi/Sa	
2 J0F65-1-AK-X J7F070101-1-DUP 06/05/2007 10:49	198.20g,in	198.20g,in	SETA0190 09/22/06						
	AmtRec: 20ML,8XLP,3X4LP		#Containers: 12				Scr: Alpha: -7.01E-04 uCi/Sa	Beta: 2.81E-03 uCi/Sa	
3 J0F68-1-AF J7F070101-2-SAMP 06/05/2007 13:04	200.30g,in	200.30g,in	SETA0191 09/22/06						
	AmtRec: 20ML,8XLP,3X4LP		#Containers: 12				Scr: Alpha: 2.25E-03 uCi/Sa	Beta: 3.73E-06 uCi/Sa	
4 J0LEP-1-AA-B J7F080000-357-BLK 06/05/2007 10:49	199.40g,in	199.40g,in	SETA0192 09/22/06						
	AmtRec:		#Containers: 1				Scr: Alpha:	Beta:	
5 J0LEP-1-AC-C J7F080000-357-LCS 06/05/2007 10:49									
	AmtRec:		#Containers: 1				Scr: Alpha:	Beta:	
6 J0LEP-1-AD-BN J7F080000-357-IBLK 06/05/2007 10:49									
	AmtRec:		#Containers: 1				Scr: Alpha:	Beta:	

7/12/2007 11:21:53 AM

Sample Preparation/Analysis

Balance Id: _____

CY Se-79 PrpRC5016, SepRC5043
TM Selenium-79 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 07/20/2007

Sep1 DT/Tm Tech: _____

Batch: 7159357

pCi/L

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	Tracer Yield	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Comments: ~~J0F65-SAMP~~ Comments
 JOLEP-BLK *Comments. LCS not needed. Per L.A., JB 7/12/07"
PH < 2.0 7-12-07

All Clients for Batch:

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

J0F651AF-SAMP Constituent List:

Se-79	RDL:3.00E+01	pCi/L	LCL:	UCL:	RPD:
JOLEP1AA-BLK:					
Se-79	RDL:3.00E+01	pCi/L	LCL:	UCL:	RPD:
JOLEP1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20
JOLEP1AD-IBLK:					
Se-79	RDL:3.00E+01	pCi/L	LCL:	UCL:	RPD:

J0F651AF-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JOLEP1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JOLEP1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JOLEP1AD-IBLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____

Date: _____

7/26/2007 12:47:55 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/26/2006, 7/31/2007, Batch: '7159357', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7159357				
AC	CalcC	BockJ	7/12/2007 11:15:00	
SC		wagarr	IsBatched	6/8/2007 11:39:37 AM
SC		BockJ	InPrep	7/12/2007 11:15:00 AM
SC		BockJ	Prep1C	7/12/2007 11:21:55 AM
SC		FABREM	Sep1C	7/18/2007 11:46:58 AM
SC		BlackCL	InCnt1	7/18/2007 12:01:59 PM
SC		BlackCL	CalcC	7/26/2007 9:37:52 AM
AC		BockJ	7/12/2007 11:21:55	
AC		FABREM	7/18/2007 11:46:58	
AC		BlackCL	7/18/2007 12:01:59	
AC		BlackCL	7/26/2007 9:37:52	

AC: Accepting Entry, SC: Status Change

STL Richland

Grp Rec Cnt:5

08/2007 11:36:17 AM

Sample Preparation/Analysis

Balance Id: *N/A*

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

5S C-14 Prp/SepRC5022
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 07/20/2007

W0510

Sep1 DT/Tm Tech: *G-Holtz*

Batch: 7159368 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 J0F65-1-AC J7F070101-1-SAMP  06/05/2007 10:49								
		AmtRec: 20ML,8XLP,3X4LP	#Containers: 12			Scr:	Alpha:	Beta:

2 J0F65-1-AL-X J7F070101-1-DUP  06/05/2007 10:49								
		AmtRec: 20ML,8XLP,3X4LP	#Containers: 12			Scr:	Alpha:	Beta:

3 J0F68-1-AC J7F070101-2-SAMP  06/05/2007 13:04								
		AmtRec: 20ML,8XLP,3X4LP	#Containers: 12			Scr:	Alpha:	Beta:

4 J0LGA-1-AA-B J7F080000-368-BLK  06/05/2007 10:49								
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

5 J0LGA-1-AC-C J7F080000-368-LCS  06/05/2007 10:49								
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

6 J0LGA-1-AD-BN J7F080000-368-IBLK  06/05/2007 10:49								
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

8/20/2007 11:36:23 AM

Sample Preparation/Analysis

Balance Id: *N/A*

5S C-14 Prp/SepRC5022
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 07/20/2007

Sep1 DT/Tm Tech: *6-11-07 Tom*

Batch: 7159368

pCi/L

Sep2 DT/Tm Tech: _____

REQ 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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Comments:

All Clients for Batch:

384868, Pacific Northwest National Laboratory

Pacific Northwest National Lab, SA , 57671

JOF651AC-SAMP Constituent List:

C-14	RDL:2.00E+02	pCi/L	LCL:70	UCL:130	RPD:20
JOLGALAA-BLK:					
C-14	RDL:2.00E+02	pCi/L	LCL:	UCL:	RPD:
JOLGALAC-LCS:					
C-14	RDL:200	pCi/L	LCL:70	UCL:130	RPD:20
JOLGALAD-IBLK:					
C-14	RDL:2.00E+02	pCi/L	LCL:	UCL:	RPD:

JOF651AC-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JOLGALAA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JOLGALAC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JOLGALAD-IBLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____

Date: _____

6/25/2007 2:20:28 PM

ICOC Fraction Transfer/Status Report

ByDate: 6/25/2006, 6/30/2007, Batch: '7159368', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments	
7159368					
AC	CalcC	McDowellD	6/21/2007 9:21:32		
SC		wagarr	IsBatched	6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC		McDowellD	InSep1	6/21/2007 9:21:32 AM	RICH-RC-5022 REVISION 3
SC		McDowellD	Sep1C	6/22/2007 11:10:46 AM	RICH-RC-5022 REVISION 3
SC		StringerR	InCnt1	6/22/2007 11:14:03 AM	RICH-RD-0001 REVISION 4
SC		StringerR	CalcC	6/23/2007 12:28:38 PM	RICH-RD-0001 REVISION 4
AC		McDowellD	6/22/2007 11:10:46		
AC		StringerR	6/22/2007 11:14:03		
AC		StringerR	6/23/2007 12:28:38		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

7/9/2007 10:19:27 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: _____

AnalYDueDate: 07/16/2007 **W05180**

Sep1 DT/Tm Tech: _____

Batch: 7159364 WATER ug/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JX8R0-1-AD J7F040203-1-SAMP 	25.20g,in							
06/01/2007 09:59		AmtRec: 20ML, 500ML, 4XLP	#Containers: 6			Scr: Alpha: 7.55E-04 uCi/Sa	Beta: 4.86E-05 uCi/Sa	
2 JX8R0-1-AF-X J7F040203-1-DUP 	25.70g,in							
06/01/2007 09:59		AmtRec: 20ML, 500ML, 4XLP	#Containers: 6			Scr: Alpha: 7.55E-04 uCi/Sa	Beta: 4.86E-05 uCi/Sa	
3 JX8R5-1-AD J7F040203-2-SAMP 	25.90g,in							
06/01/2007 09:21		AmtRec: 20ML, 500ML, 4XLP	#Containers: 6			Scr: Alpha: -1.35E-04 uCi/Sa	Beta: 3.89E-04 uCi/Sa	
4 JX8R5-1-AE-S J7F040203-2-MS 	26.50g,in		UNSF3807 06/27/07,pd 01/23/07,r					
06/01/2007 09:21		AmtRec: 20ML, 500ML, 4XLP	#Containers: 6			Scr: Alpha: -1.35E-04 uCi/Sa	Beta: 3.89E-04 uCi/Sa	
5 JX8R9-1-AF J7F040203-3-SAMP 	26.00g,in							
06/01/2007 10:56		AmtRec: 20ML,2X500ML,2XLP,4LP	#Containers: 6			Scr: Alpha: 4.71E-03 uCi/Sa 2.7E-01L	Beta: -1.52E-04 uCi/Sa	
6 JX8TC-1-AE J7F040203-4-SAMP 	25.00g,in							
06/01/2007 08:43		AmtRec: 20ML, 500ML,7XLP	#Containers: 9			Scr: Alpha: -6.26E-04 uCi/Sa	Beta: -8.10E-05 uCi/Sa	
7 J0LF3-1-AA-B J7F080000-364-BLK 	25.40g,in							
06/01/2007 09:59		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	

07/19/2007 10:19:28 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech:

Batch: 7159364

ug/L

Sep2 DT/Tm Tech:

EQ Batch, Test: None

Prep Tech: ,BockJ



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:
9 JOLF3-1-AC-C J7F080000-364-LCS  06/01/2007 09:59		25.20g,in	UNSF3808 06/27/07,pd 01/23/07,r					
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
9 JOLF3-1-AD-C J7F080000-364-LCS  06/01/2007 09:59		26.10g,in	UNSC1764 06/14/07,pd 04/28/06,r					
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments: PH < 2.0 JB 7-9-07

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

JX8R01AD-SAMP Constituent List:

Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:
JX8R51AE-MS:					
JOLF31AA-BLK:					
JOLF31AC-LCS:					
JOLF31AD-LCS:					
JX8R01AD-SAMP Calc Info:					
JX8R51AE-MS:					
JOLF31AA-BLK:					
JOLF31AC-LCS:					
JOLF31AD-LCS:					

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

7/9/2007 10:19:29 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 07/16/2007

Sep1 DT/Tm Tech:

Batch: 7159364
EQ Batch, Test: None

ug/L

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ



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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Approved By _____ Date: _____

146

7/18/2007 2:12:19 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/18/2006, 7/23/2007, Batch: '7159364', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7159364				
AC		Cnt1C	BockJ 7/9/2007 10:13:17	
SC		wagarr	IsBatched 6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep 7/9/2007 10:13:17 AM	RICH-RC-5015 Revision 6
SC		BockJ	Prep1C 7/9/2007 10:19:29 AM	RICH-RC-5015 REVISION 6
SC		AshworthA	InPrep2 7/11/2007 2:43:37 PM	RICH-RC-5015 REVISION 6
SC		AshworthA	Prep2C 7/12/2007 7:43:22 PM	RICH-RC-5015 REVISION 6
SC		NelsonT	Cnt1C 7/16/2007 10:10:01 AM	RICH-RC-5058 REV 7
AC		BockJ	7/9/2007 10:19:29	
AC		AshworthA	7/11/2007 2:43:37 PM	
AC		AshworthA	7/12/2007 7:43:22 PM	
AC		NelsonT	7/16/2007 10:10:01	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.