REVISED RDPowell 4/3/08

Analytical Data Package Prepared For

Pacific Northwest National Lab

Radiochemical Analysis By

STL Richland STLRL

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

Data Package Contains 136 *Pages*

Report Nbr: 35373

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05148	W07-003	B1MK98	J7C300314-1	JR4L31AA	9JR4L310	7100398
		B1MK98	J7C300314-1	JR4L31AC	9JR4L310	7100399
		B1MK98	J7C300314-1	JR4L31AE	9JR4L310	7100401
		B1MK98	J7C300314-1	JR4L31AF	9JR4L310	7100396
		B1MK98	J7C300314-1	JR4L31AG	9JR4L310	7100395
		B1MK98	J7C300314-1	JR4L31AH	9JR4L310	7100403
		B1MK99	J7C300314-2	JR4MC1AA	9JR4MC10	7100398
		B1MK99	J7C300314-2	JR4MC1AC	9JR4MC10	7100399
		B1MK99	J7C300314-2	JR4MC1AE	9JR4MC10	7100401
		B1MK99	J7C300314-2	JR4MC1AF	9JR4MC10	7100396
		B1MK99	J7C300314-2	JR4MC1AG	9JR4MC10	7100395
		B1MK99	J7C300314-2	JR4MC1AH	9JR4MC10	7100403
	I07-027	B1M701	J7D030114-1	JR72D1AA	9JR72D10	7100397
		B1M701	J7D030114-1	JR72D1AC	9JR72D10	7100396
	S07-003	B1MDT0	J7D030115-1	JR72J1AA	9JR72J10	7100403

Comments:

Rec 5/22/07

RECORD COPY
PROJ. 52484
CAT. T3.1
WORKING COPY

REV 1

Report Nbr: 35373

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05148	S07-003	B1MDT0	J7D030115-1	JR72J1AC	9JR72J10	7100398
		B1MDT0	J7D030115-1	JR72J1AD	9JR72J10	7100399
		B1MDT4	J7D030115-2	JR72K1AA	9JR72K10	7100398
		B1MDT4	J7D030115-2	JR72K1AC	9JR72K10	7100399
		B1MDT2	J7D030117-1	JR73C1AA	9JR73C10	7100398
		B1MDT2	J7D030117-1	JR73C1AC	9JR73C10	7100399
		B1MDX9	J7D030117-2	JR73G1AA	9JR73G10	7100402
	G07-003	B1MD09	J7D040104-1	JTAEM1AA	9JTAEM10	7100401
		B1MD09	J7D040104-1	JTAEM1AC	9JTAEM10	7100402
		B1MD14	J7D040104-2	JTAEP1AA	9JTAEP10	7100401
		B1MD14	J7D040104-2	JTAEP1AC	9JTAEP10	7100402
		B1MD19	J7D040104-3	JTAEQ1AA	9JTAEQ10	7100401
		B1MD19	J7D040104-3	JTAEQ1AC	9JTAEQ10	7100402
		B1MD24	J7D040104-4	JTAER1AA	9JTAER10	7100400
	I07-031	B1MDB2	J7D040106-1	JTAE31AA	9JTAE310	7100402
	S07-003	B1MF85	J7D050113-1	JTDP21AA	9JTDP210	7100397
		B1MF82	J7D050113-2	JTDQC1AA	9JTDQC10	7100397
	G07-003	B1MD41	J7D050115-1	JTDQR1AA	9JTDQR10	7100402
	S07-012	B1LD73	J7D050119-1	JTDR21AA	9JTDR210	7100403
		B1LD73	J7D050119-1	JTDR21AC	9JTDR210	7100398
		B1LD73	J7D050119-1	JTDR21AD	9JTDR210	7100399
		B1LD73	J7D050119-1	JTDR21AE	9JTDR210	7100395
	G07-003	B1MCX6	J7D060242-1	JTG121AA	9JTG1210	7100401
		B1MCX6	J7D060242-1	JTG121AC	9JTG1210	7100402
		B1MCY0	J7D060242-2	JTG131AA	9JTG1310	7100401
		B1MCY0	J7D060242-2	JTG131AC	9JTG1310	7100402

Comments:

Report Nbr: 35373

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05148	G07-003	B1MCY1	J7D060242-3	JTG171AA	9JTG1710	7100401
		B1MCY1	J7D060242-3	JTG171AC	9JTG1710	7100402
	S07-003	B1MF09	J7D060254-1	JTG391AA	9JTG3910	7100402

Comments:

SEVERN TRENT STL

STL Richland
2800 George Washington Way
Richland, WA 99354

Tel: 509 375 3131 Fax: 509 375 5590
www.stl-inc.com

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

May 21, 2007

Attention: Dot Stewart

SAF Number	:	W07-003, I07-027, S07-003, G07-003, I07-031, S07-012
Date SDG Closed	:	April 5, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05148
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between March 30, 2007 and April 05, 2007 twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	DATE OF RECEIPT	MATRIX
B1MK98	JR4L3	3/30/07	WATER
B1MK99	JR4MC	3/30/07	WATER
B1M701	JR72D	4/2/07	WATER
B1MDT0	JR72J	4/2/07	WATER
B1MDT4	JR72K	4/2/07	WATER
B1MDT2	JR73C	4/2/07	WATER
B1MDX9	JR73G	4/2/07	WATER
B1MD09	JTAEM	4/3/07	WATER
B1MD14	JTAEP	4/3/07	WATER
B1MD19	JTAEQ	4/3/07	WATER
B1MD24	JTAER	4/3/07	WATER
B1MDB2	JTAE3	4/3/07	WATER
B1MF85	JTDP2	4/4/07	WATER
B1MF82	JTDQC	4/4/07	WATER
B1MD41	JTDQR	4/4/07	WATER
B1LD73	JTDR2	4/4/07	WATER

B1MCX6	JTG12	4/5/07	WATER
B1MCT0	JTG13	4/5/07	WATER
B1MCY1	JTG17	4/5/07	WATER
B1MF09	JTG39	4/5/07	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:

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014
Strontium-90 by method RICH-RC-5006
Gamma Spectroscopy
Gamma Spec (LL) by method RICH-RC-5017
Gamma Spec by method RICH-RC-5017
Iodine-129 (LL) by method RICH-RC-5025
Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
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

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014:
Samples B1MK98 and B1MK99 were analyzed with reduced volumes based on an elevated screen results. Except as noted, the LCS, batch blank, samples and sample duplicate (B1LD73) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
Samples B1MK98 and B1MK99 were analyzed with reduced volumes based on an elevated screen results. Except as noted, the LCS, batch blank, samples and sample duplicate (B1MDT4) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006
The LCS, batch blank, samples and sample duplicate (B1MF09) results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec (LL) by method RICH-RC-5017:
The LCS, batch blank, samples and sample duplicate (B1MD09) results are within contractual requirements.

Gamma Spec by method RICH-RC-5017:
The LCS had a low recovery. The LCS was recounted, which brought the results within limits. Except as noted, the LCS, batch blank, samples and sample duplicate (B1MD24) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025:
The LCS, batch blank, samples and sample duplicate (B1MF85) results are within contractual requirements.

Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065:
The recovery on the matrix spike (B1MK98) is 185%. The activity in the sample is more than five times the expected value of the spike. Except as noted, the LCS, batch blank, samples, sample duplicate (B1M701), and sample matrix spike (B1MK98) results are within contractual requirements.

Tritium by method RICH-RC-5007:
The LCS, batch blank, samples and sample duplicate (B1MDT0) results are within contractual requirements.

Total Uranium
Total Uranium by method RICH-RC-5058:
The LCS, batch blank, samples, sample duplicate (B1MK98), and sample matrix spike (B1MK99) results are within contractual requirements.

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

Reviewed and approved:

Sandra Segu
Sherryl A. Adam
for 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 = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/vn), 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) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty.*** The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by 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.

5/21/2007 11:09:46 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35373 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.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:
9JR4L310	B1MK98		MW6-SBB-A1	W07-003	W05148					03/30/2007 08:46

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100403	H-3	10028-17-8	4.95E+04	pCi/L	7.2E+02	2.0E+03		2.89E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/19/2007 15:02	I
7100398	ALPHA	12587-46-1	8.93E+00	pCi/L	2.5E+00	3.3E+00		2.17E+00	100.0	9310_ALPHABETA	1.356E-01	L	04/20/2007 10:09	I
7100399	BETA	12587-47-2	1.09E+04	pCi/L	6.6E+01	1.4E+03		5.65E+00	100.0	9310_ALPHABETA	1.082E-01	L	04/20/2007 10:20	I
7100401	BE-7	13966-02-4	5.17E+00	pCi/L	1.7E+01	1.7E+01	U	3.11E+01		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100401	CO-60	10198-40-0	-2.94E-01	pCi/L	1.5E+00	1.5E+00	U	2.90E+00		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100401	CS-134	13967-70-9	2.05E-02	pCi/L	1.5E+00	1.5E+00	U	2.88E+00		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100401	CS-137	10045-97-3	-2.70E-02	pCi/L	1.9E+00	1.9E+00	U	3.45E+00		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100401	EU-152	14683-23-9	-2.33E+00	pCi/L	4.4E+00	4.4E+00	U	7.46E+00		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100401	EU-154	15585-10-1	-1.88E+00	pCi/L	4.6E+00	4.6E+00	U	8.15E+00		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100401	EU-155	14391-16-3	-1.82E+00	pCi/L	4.6E+00	4.6E+00	U	7.74E+00		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100401	K-40	13966-00-2	1.36E+01	pCi/L	2.8E+01	2.8E+01	U	6.09E+01		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100401	RU-106	13967-48-1	-2.59E+00	pCi/L	1.6E+01	1.6E+01	U	2.84E+01		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100401	SB-125	14234-35-6	2.49E+00	pCi/L	4.0E+00	4.0E+00	U	7.74E+00		GAMMALL_GS	1.997E+00	L	04/20/2007 13:18	I
7100396	TC-99	14133-76-7	4.08E+04	pCi/L	1.0E+02	2.5E+03		8.49E+00	100.0	TC99_ETVDSK_LS	1.259E-01	L	04/19/2007 13:05	I
7100395	Uranium	7440-61-1	1.16E+01	ug/L	1.2E+00	1.2E+00		8.00E-02		UTOT_KPA	2.62E-02	ML	05/03/2007 11:44	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:
9JR4MC10	B1MK99		MW6-SBB-A1	W07-003	W05148					03/30/2007 08:46

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100403	H-3	10028-17-8	5.13E+04	pCi/L	7.4E+02	2.1E+03		2.90E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/19/2007 16:23	I
7100398	ALPHA	12587-46-1	8.22E+00	pCi/L	2.3E+00	3.0E+00		1.72E+00	100.0	9310_ALPHABETA	1.425E-01	L	04/20/2007 10:09	I
7100399	BETA	12587-47-2	1.10E+04	pCi/L	6.2E+01	1.4E+03		4.67E+00	100.0	9310_ALPHABETA	1.234E-01	L	04/20/2007 10:20	I
7100401	BE-7	13966-02-4	-3.96E+00	pCi/L	1.5E+01	1.5E+01	U	2.68E+01		GAMMALL_GS	2.0004E+00	L	04/20/2007 13:19	I
7100401	CO-60	10198-40-0	8.99E-01	pCi/L	1.7E+00	1.7E+00	U	3.65E+00		GAMMALL_GS	2.0004E+00	L	04/20/2007 13:19	I
7100401	CS-134	13967-70-9	-6.15E-01	pCi/L	1.5E+00	1.5E+00	U	2.52E+00		GAMMALL_GS	2.0004E+00	L	04/20/2007 13:19	I
7100401	CS-137	10045-97-3	-8.12E-01	pCi/L	1.5E+00	1.5E+00	U	2.56E+00		GAMMALL_GS	2.0004E+00	L	04/20/2007 13:19	I
7100401	EU-152	14683-23-9	1.02E+00	pCi/L	3.7E+00	3.7E+00	U	6.79E+00		GAMMALL_GS	2.0004E+00	L	04/20/2007 13:19	I
7100401	EU-154	15585-10-1	1.06E+00	pCi/L	4.3E+00	4.3E+00	U	8.84E+00		GAMMALL_GS	2.0004E+00	L	04/20/2007 13:19	I
7100401	EU-155	14391-16-3	-1.17E+00	pCi/L	3.4E+00	3.4E+00	U	5.99E+00		GAMMALL_GS	2.0004E+00	L	04/20/2007 13:19	I
7100401	K-40	13966-00-2	6.19E+00	pCi/L	3.9E+01	3.9E+01	U	3.38E+01		GAMMALL_GS	2.0004E+00	L	04/20/2007 13:19	I

STL 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.

5/21/2007 11:09:46 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35373 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

7100401	RU-106	13967-48-1	2.48E+00	pCi/L	1.3E+01	1.3E+01	U	2.45E+01		GAMMALL_GS	2.0004E+00	L	04/20/2007	13:19	I
7100401	SB-125	14234-35-6	4.54E-02	pCi/L	3.3E+00	3.3E+00	U	6.16E+00		GAMMALL_GS	2.0004E+00	L	04/20/2007	13:19	I
7100396	TC-99	14133-76-7	4.08E+04	pCi/L	1.0E+02	2.5E+03		8.54E+00	100.0	TC99_ETVDSK_LS	1.264E-01	L	04/19/2007	15:10	I
7100395	Uranium	7440-61-1	1.24E+01	ug/L	1.3E+00	1.3E+00		7.85E-02		UTOT_KPA	2.67E-02	ML	05/03/2007	11:49	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:
9JR72D10	B1M701		MW6-SBB-A1	I07-027	W05148					04/02/2007 12:21

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100397	I-129L	15046-84-1	-1.61E-01	pCi/L	1.9E-01	1.9E-01	U	3.09E-01	68.4	I129LL_SEP_LEPS	3.9392E+00	L	05/15/2007 17:06	I
7100396	TC-99	14133-76-7	-2.32E+00	pCi/L	3.3E+00	4.9E+00	U	7.94E+00	100.0	TC99_ETVDSK_LS	1.258E-01	L	04/19/2007 16:13	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:
9JR72J10	B1MDT0		MW6-SBB-A1	S07-003	W05148					04/02/2007 11:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100403	H-3	10028-17-8	9.25E+03	pCi/L	3.3E+02	5.0E+02		2.89E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/19/2007 17:45	I
7100398	ALPHA	12587-46-1	4.05E+00	pCi/L	1.9E+00	2.1E+00		1.97E+00	100.0	9310_ALPHABETA	1.99E-01	L	04/20/2007 11:43	I
7100399	BETA	12587-47-2	8.45E+00	pCi/L	1.9E+00	2.2E+00		2.87E+00	100.0	9310_ALPHABETA	1.992E-01	L	04/20/2007 10:20	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:
9JR72K10	B1MDT4		MW6-SBB-A1	S07-003	W05148					04/02/2007 09:09

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100398	ALPHA	12587-46-1	8.55E-01	pCi/L	8.5E-01	8.7E-01	U	1.36E+00	100.0	9310_ALPHABETA	1.986E-01	L	04/20/2007 11:43	I
7100399	BETA	12587-47-2	7.21E+00	pCi/L	1.7E+00	2.0E+00		2.71E+00	100.0	9310_ALPHABETA	1.99E-01	L	04/20/2007 10:20	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:
9JR73C10	B1MDT2		MW6-SBB-A1	S07-003	W05148					04/02/2007 10:10

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100398	ALPHA	12587-46-1	2.81E+00	pCi/L	1.6E+00	1.7E+00		1.96E+00	100.0	9310_ALPHABETA	1.986E-01	L	04/20/2007 11:43	I
7100399	BETA	12587-47-2	1.20E+01	pCi/L	2.1E+00	2.6E+00		2.88E+00	100.0	9310_ALPHABETA	1.998E-01	L	04/20/2007 10:20	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:
9JR73G10	B1MDX9		MW6-SBB-A1	S07-003	W05148					04/02/2007 13:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100402	SR-90	10098-97-2	2.46E+01	pCi/L	1.0E+00	3.7E+00		3.73E-01	81.6	SRISO_SEP_PRE	1.0048E+00	L	04/27/2007 05:59	I

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

5/21/2007 11:09:46 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35373 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.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:
9JTAE310	B1MDB2		MW6-SBB-A1	I07-031	W05148					04/03/2007 13:14

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100402	SR-90	10098-97-2	4.68E+02	pCi/L	4.8E+00	6.8E+01		4.05E-01	67.0	SRISO_SEP_PRE	9.993E-01	L	04/27/2007 05:59	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:
9JTAEM10	B1MD09		MW6-SBB-A1	G07-003	W05148					04/03/2007 09:14

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100401	BE-7	13966-02-4	4.25E+00	pCi/L	1.9E+01	1.9E+01	U	3.50E+01		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100401	CO-60	10198-40-0	1.14E+00	pCi/L	2.1E+00	2.1E+00	U	4.31E+00		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100401	CS-134	13967-70-9	2.19E+00	pCi/L	2.5E+00	2.5E+00	U	4.82E+00		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100401	CS-137	10045-97-3	0.00E+00	pCi/L	0.0E+00	0.0E+00	U	3.83E+00		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100401	EU-152	14683-23-9	1.31E+00	pCi/L	5.8E+00	5.8E+00	U	1.04E+01		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100401	EU-154	15585-10-1	9.19E-02	pCi/L	6.1E+00	6.1E+00	U	1.15E+01		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100401	EU-155	14391-16-3	-2.68E+00	pCi/L	6.3E+00	6.3E+00	U	1.03E+01		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100401	K-40	13966-00-2	-2.09E+01	pCi/L	6.7E+01	6.7E+01	U	1.47E+02		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100401	RU-106	13967-48-1	5.41E+00	pCi/L	2.0E+01	2.0E+01	U	3.72E+01		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100401	SB-125	14234-35-6	-2.09E+00	pCi/L	5.4E+00	5.4E+00	U	9.31E+00		GAMMALL_GS	1.9726E+00	L	04/20/2007 13:19	I
7100402	SR-90	10098-97-2	2.80E+02	pCi/L	3.4E+00	4.0E+01		3.74E-01	80.5	SRISO_SEP_PRE	1.0039E+00	L	04/27/2007 05:59	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:
9JTAEP10	B1MD14		MW6-SBB-A1	G07-003	W05148					04/03/2007 10:28

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100401	BE-7	13966-02-4	-1.55E+00	pCi/L	1.6E+01	1.6E+01	U	2.93E+01		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I
7100401	CO-60	10198-40-0	8.56E-02	pCi/L	1.7E+00	1.7E+00	U	3.34E+00		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I
7100401	CS-134	13967-70-9	6.87E-01	pCi/L	1.7E+00	1.7E+00	U	3.42E+00		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I
7100401	CS-137	10045-97-3	7.44E-01	pCi/L	1.8E+00	1.8E+00	U	3.41E+00		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I
7100401	EU-152	14683-23-9	-3.91E-01	pCi/L	4.2E+00	4.2E+00	U	7.65E+00		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I
7100401	EU-154	15585-10-1	1.81E+00	pCi/L	4.7E+00	4.7E+00	U	9.66E+00		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I
7100401	EU-155	14391-16-3	1.59E-01	pCi/L	3.8E+00	3.8E+00	U	6.68E+00		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I
7100401	K-40	13966-00-2	2.69E+01	pCi/L	2.9E+01	2.9E+01	U	6.43E+01		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I
7100401	RU-106	13967-48-1	-1.37E+00	pCi/L	1.5E+01	1.5E+01	U	2.68E+01		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I
7100401	SB-125	14234-35-6	-2.64E+00	pCi/L	4.2E+00	4.2E+00	U	6.97E+00		GAMMALL_GS	2.0009E+00	L	04/20/2007 15:42	I

STL 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.

5/21/2007 11:09:46 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35373 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

7100402	SR-90	10098-97-2	2.68E+01	pCi/L	1.1E+00	4.0E+00		4.19E-01	75.3	SRISO_SEP_PRE	9.957E-01	L	04/27/2007	05:59	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:
9JTAEQ10	B1MD19		MW6-SBB-A1	G07-003	W05148					04/03/2007 11:35

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100401	BE-7	13966-02-4	-1.11E-01	pCi/L	2.0E+01	2.0E+01	U	3.53E+01		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100401	CO-60	10198-40-0	-1.24E+00	pCi/L	2.8E+00	2.8E+00	U	4.73E+00		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100401	CS-134	13967-70-9	-2.60E+00	pCi/L	2.7E+00	2.7E+00	U	4.23E+00		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100401	CS-137	10045-97-3	7.27E-04	pCi/L	2.3E+00	2.3E+00	U	4.18E+00		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100401	EU-152	14683-23-9	3.02E-01	pCi/L	6.1E+00	6.1E+00	U	1.07E+01		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100401	EU-154	15585-10-1	3.54E-01	pCi/L	6.0E+00	6.0E+00	U	1.15E+01		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100401	EU-155	14391-16-3	8.14E-01	pCi/L	6.4E+00	6.4E+00	U	1.10E+01		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100401	K-40	13966-00-2	-3.72E+00	pCi/L	6.7E+01	6.7E+01	U	1.47E+02		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100401	RU-106	13967-48-1	4.11E+00	pCi/L	1.9E+01	1.9E+01	U	3.45E+01		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100401	SB-125	14234-35-6	2.99E+00	pCi/L	5.6E+00	5.6E+00	U	1.04E+01		GAMMALL_GS	1.9995E+00	L	04/20/2007 15:43	I
7100402	SR-90	10098-97-2	1.90E-01	pCi/L	1.9E-01	1.9E-01	U	3.87E-01	84.5	SRISO_SEP_PRE	9.867E-01	L	04/27/2007 05:59	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:
9JTAER10	B1MD24		MW6-SBB-A1	G07-003	W05148					04/03/2007 13:14

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100400	BE-7	13966-02-4	-1.63E+01	pCi/L	1.9E+01	1.9E+01	U	3.11E+01		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	I
7100400	CO-60	10198-40-0	-1.51E+00	pCi/L	1.8E+00	1.8E+00	U	2.86E+00		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	I
7100400	CS-134	13967-70-9	1.75E+00	pCi/L	1.7E+00	1.7E+00	U	3.80E+00		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	I
7100400	CS-137	10045-97-3	6.71E-02	pCi/L	1.6E+00	1.6E+00	U	3.04E+00		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	I
7100400	EU-152	14683-23-9	1.62E+00	pCi/L	4.3E+00	4.3E+00	U	8.19E+00		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	I
7100400	EU-154	15585-10-1	-3.32E+00	pCi/L	4.7E+00	4.7E+00	U	7.69E+00		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	I
7100400	EU-155	14391-16-3	3.91E-01	pCi/L	3.6E+00	3.6E+00	U	6.33E+00		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	I
7100400	K-40	13966-00-2	-3.05E+01	pCi/L	3.3E+01	3.3E+01	U	7.21E+01		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	I
7100400	RU-106	13967-48-1	6.60E+00	pCi/L	1.7E+01	1.7E+01	U	3.30E+01		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	I
7100400	SB-125	14234-35-6	-3.74E+00	pCi/L	4.4E+00	4.4E+00	U	7.18E+00		GAMMA_GS	2.5008E+00	L	05/11/2007 11:50	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:
9JTDP210	B1MF85		MW6-SBB-A1	S07-003	W05148					04/04/2007 11:36

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.

5/21/2007 11:09:46 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35373 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100397	I-129L	15046-84-1	1.35E-01	pCi/L	2.1E-01	2.1E-01	U	3.32E-01	89.7	I129LL_SEP_LEPS	3.9222E+00	L	05/15/2007 17:09	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JTDQC10	B1MF82		MW6-SBB-A1	S07-003	W05148					04/04/2007 13:29

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100397	I-129L	15046-84-1	4.10E-01	pCi/L	2.1E-01	2.1E-01	U	4.28E-01	96.2	I129LL_SEP_LEPS	3.9337E+00	L	05/15/2007 18:57	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JTDQR10	B1MD41		MW6-SBB-A1	G07-003	W05148					04/04/2007 11:49

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100402	SR-90	10098-97-2	4.31E+02	pCi/L	3.9E+00	6.2E+01		3.40E-01	91.4	SRISO_SEP_PRE	1.0071E+00	L	04/27/2007 05:59	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:
9JTDR210	B1LD73		MW6-SBB-A1	S07-012	W05148					04/04/2007 09:36

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100403	H-3	10028-17-8	1.28E+04	pCi/L	3.8E+02	6.3E+02		2.88E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/19/2007 20:29	I
7100398	ALPHA	12587-46-1	5.05E+00	pCi/L	2.3E+00	2.6E+00		2.33E+00	100.0	9310_ALPHABETA	1.919E-01	L	04/20/2007 11:43	I
7100399	BETA	12587-47-2	1.56E+01	pCi/L	2.2E+00	3.0E+00		2.76E+00	100.0	9310_ALPHABETA	1.997E-01	L	04/20/2007 10:20	I
7100395	Uranium	7440-61-1	1.28E+01	ug/L	1.5E+00	1.5E+00		8.25E-02		UTOT_KPA	2.54E-02	ML	05/02/2007 15:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JTG1210	B1MCX6		MW6-SBB-A1	G07-003	W05148					04/05/2007 10:33

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100401	BE-7	13966-02-4	-4.24E+00	pCi/L	1.5E+01	1.5E+01	U	2.54E+01		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I
7100401	CO-60	10198-40-0	-8.38E-02	pCi/L	1.7E+00	1.7E+00	U	3.36E+00		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I
7100401	CS-134	13967-70-9	3.69E-01	pCi/L	1.5E+00	1.5E+00	U	3.00E+00		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I
7100401	CS-137	10045-97-3	7.02E-01	pCi/L	1.5E+00	1.5E+00	U	3.06E+00		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I
7100401	EU-152	14683-23-9	3.36E-01	pCi/L	4.6E+00	4.6E+00	U	8.44E+00		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I
7100401	EU-154	15585-10-1	-2.42E+00	pCi/L	5.2E+00	5.2E+00	U	8.99E+00		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I
7100401	EU-155	14391-16-3	-6.85E-01	pCi/L	4.8E+00	4.8E+00	U	8.29E+00		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I
7100401	K-40	13966-00-2	5.89E+00	pCi/L	2.6E+01	2.6E+01	U	5.65E+01		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I
7100401	RU-106	13967-48-1	-2.24E+00	pCi/L	1.6E+01	1.6E+01	U	2.87E+01		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I
7100401	SB-125	14234-35-6	1.20E+00	pCi/L	3.7E+00	3.7E+00	U	7.07E+00		GAMMALL_GS	1.995E+00	L	04/20/2007 18:07	I

STL 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.

5/21/2007 11:09:46 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35373 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

7100402	SR-90	10098-97-2	1.93E+03	pCi/L	1.3E+01	2.8E+02		5.47E-01	82.0	SRISO_SEP_PRE	1.0038E+00	L	04/27/2007	07:17	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:
9JTG1310	B1MCY0		MW6-SBB-A1	G07-003	W05148					04/05/2007 11:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
7100401	BE-7	13966-02-4	4.68E+00	pCi/L	1.3E+01	1.3E+01	U	2.54E+01		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100401	CO-60	10198-40-0	1.22E+00	pCi/L	1.6E+00	1.6E+00	U	3.60E+00		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100401	CS-134	13967-70-9	-1.50E+00	pCi/L	1.7E+00	1.7E+00	U	2.69E+00		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100401	CS-137	10045-97-3	3.44E-01	pCi/L	1.6E+00	1.6E+00	U	2.97E+00		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100401	EU-152	14683-23-9	-4.07E-01	pCi/L	3.8E+00	3.8E+00	U	6.71E+00		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100401	EU-154	15585-10-1	-2.57E+00	pCi/L	4.2E+00	4.2E+00	U	7.12E+00		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100401	EU-155	14391-16-3	-2.32E+00	pCi/L	3.8E+00	3.8E+00	U	6.41E+00		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100401	K-40	13966-00-2	-2.08E+00	pCi/L	3.4E+01	3.4E+01	U	7.36E+01		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100401	RU-106	13967-48-1	-2.80E+00	pCi/L	1.3E+01	1.3E+01	U	2.36E+01		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100401	SB-125	14234-35-6	-4.01E-01	pCi/L	3.5E+00	3.5E+00	U	6.38E+00		GAMMALL_GS	1.996E+00	L	04/20/2007	18:08	I
7100402	SR-90	10098-97-2	9.89E+02	pCi/L	6.0E+00	1.4E+02		3.21E-01	88.3	SRISO_SEP_PRE	1.0039E+00	L	04/27/2007	05:59	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:
9JTG1710	B1MCY1		MW6-SBB-A1	G07-003	W05148					04/05/2007 07:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
7100401	BE-7	13966-02-4	1.05E-01	pCi/L	1.9E+01	1.9E+01	U	3.35E+01		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100401	CO-60	10198-40-0	-3.14E-01	pCi/L	2.5E+00	2.5E+00	U	4.54E+00		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100401	CS-134	13967-70-9	-1.02E-01	pCi/L	2.4E+00	2.4E+00	U	4.30E+00		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100401	CS-137	10045-97-3	-7.55E-01	pCi/L	2.2E+00	2.2E+00	U	3.82E+00		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100401	EU-152	14683-23-9	-2.73E-01	pCi/L	5.9E+00	5.9E+00	U	1.01E+01		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100401	EU-154	15585-10-1	6.02E+00	pCi/L	7.1E+00	7.1E+00	U	1.45E+01		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100401	EU-155	14391-16-3	-3.11E-01	pCi/L	6.2E+00	6.2E+00	U	1.06E+01		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100401	K-40	13966-00-2	-1.55E+01	pCi/L	6.6E+01	6.6E+01	U	1.45E+02		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100401	RU-106	13967-48-1	-1.13E+01	pCi/L	1.8E+01	1.8E+01	U	3.08E+01		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100401	SB-125	14234-35-6	-3.22E-01	pCi/L	5.2E+00	5.2E+00	U	9.28E+00		GAMMALL_GS	1.9954E+00	L	04/20/2007	18:08	I
7100402	SR-90	10098-97-2	-1.06E-02	pCi/L	1.3E-01	1.8E-01	U	4.18E-01	72.7	SRISO_SEP_PRE	1.0069E+00	L	04/27/2007	05:59	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:

STL 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.

5/21/2007 11:09:46 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 35373 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

9JTG3910 B1MF09 MW6-SBB-A1 S07-003 W05148 04/05/2007 09:53

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7100402	SR-90	10098-97-2	1.40E+02	pCi/L	2.3E+00	2.1E+01		3.89E-01	90.0	SRISO_SEP_PRE	9.974E-01	L	04/27/2007 05:59	I

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

Monday, May 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQ01AB **Sdg/Rept Nbr:** W05148 35373 **Collection Date:** 04/03/2007 13:14

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 04/03/2007

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
7100400	BE-7	2.27E+00	pCi/L	1.3E+01	U	2.41E+01			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	13966-02-4			1.3E+01						L	11:53				
7100400	CO-60	1.02E-01	pCi/L	1.1E+00	U	2.26E+00			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	10198-40-0			1.1E+00						L	11:53				
7100400	CS-134	5.36E-01	pCi/L	1.1E+00	U	2.33E+00			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	13967-70-9			1.1E+00						L	11:53				
7100400	CS-137	3.27E-01	pCi/L	1.2E+00	U	2.34E+00			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	10045-97-3			1.2E+00						L	11:53				
7100400	EU-152	1.62E+00	pCi/L	2.9E+00	U	5.56E+00			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	14683-23-9			2.9E+00						L	11:53				
7100400	EU-154	-8.96E-01	pCi/L	2.9E+00	U	5.31E+00			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	15585-10-1			2.9E+00						L	11:53				
7100400	EU-155	-4.61E-01	pCi/L	2.3E+00	U	4.10E+00			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	14391-16-3			2.3E+00						L	11:53				
7100400	K-40	-2.57E+01	pCi/L	2.5E+01	U	5.07E+01			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	13966-00-2			2.5E+01						L	11:53				
7100400	RU-106	-1.61E+00	pCi/L	1.2E+01	U	2.10E+01			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	13967-48-1			1.2E+01						L	11:53				
7100400	SB-125	-1.59E+00	pCi/L	2.9E+00	U	4.83E+00			GAMMA_GS	2.5001E+00	05/11/2007				D
BLK	14234-35-6			2.9E+00						L	11:53				

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

Monday, May 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQ11AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: BLK

Collection Date: 04/03/2007 09:14
Sample On Date:
Received Date: 04/03/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100401	BE-7	3.67E+00	pCi/L	1.6E+01	U	3.03E+01			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	13966-02-4			1.6E+01						L	19:51				
7100401	CO-60	-6.47E-01	pCi/L	1.9E+00	U	3.48E+00			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	10198-40-0			1.9E+00						L	19:51				
7100401	CS-134	7.33E-01	pCi/L	1.5E+00	U	3.13E+00			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	13967-70-9			1.5E+00						L	19:51				
7100401	CS-137	1.34E+00	pCi/L	1.7E+00	U	3.41E+00			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	10045-97-3			1.7E+00						L	19:51				
7100401	EU-152	-1.64E+00	pCi/L	4.6E+00	U	8.07E+00			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	14683-23-9			4.6E+00						L	19:51				
7100401	EU-154	-1.93E-01	pCi/L	3.9E+00	U	7.73E+00			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	15585-10-1			3.9E+00						L	19:51				
7100401	EU-155	-8.41E-01	pCi/L	3.9E+00	U	6.80E+00			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	14391-16-3			3.9E+00						L	19:51				
7100401	K-40	-9.41E+00	pCi/L	2.6E+01	U	5.40E+01			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	13966-00-2			2.6E+01						L	19:51				
7100401	RU-106	-1.99E+00	pCi/L	1.6E+01	U	2.93E+01			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	13967-48-1			1.6E+01						L	19:51				
7100401	SB-125	-2.34E+00	pCi/L	4.3E+00	U	7.34E+00			GAMMALL_GS	1.9972E+00	04/20/2007				D
BLK	14234-35-6			4.3E+00						L	19:51				

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

Monday, May 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id:	JTMQ31AB	**Sdg/Rept Nbr:**	W05148	35373	**Collection Date:** 04/05/2007 09:53
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 04/05/2007

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
7100402	SR-90	6.50E-02	pCi/L	2.1E-01	U	4.39E-01	79.1		SRISO_SEP_P	1.0049E+00	04/27/2007				
BLK	10098-97-2			2.1E-01						L	05:59				D

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

Monday, May 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQ51AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: BLK

Collection Date: 04/02/2007 11:00
Sample On Date:
Received Date: 04/02/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100403	H-3	9.22E+01	pCi/L	1.4E+02	U	2.89E+02	100.0		906.0_H3_LSC	5.00E-03	04/19/2007				
BLK	10028-17-8			1.2E+02						L	09:35				D

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

Monday, May 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQ51DX
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: BLK

Collection Date: 04/02/2007 11:00
Sample On Date:
Received Date: 04/02/2007

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	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100403	H-3	1.64E+02	pCi/L	1.4E+02	U	2.94E+02	100.0		906.0_H3_LSC	5.00E-03	04/19/2007				D
BLK	10028-17-8			1.3E+02						L	12:18				

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

Monday, May 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id:	JTMQJ1AB	**Sdg/Rept Nbr:**	W05148 35373	**Collection Date:**	03/30/2007 08:46
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	03/30/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100395	Uranium	-1.46E-02	ug/L	2.6E-03	U	8.00E-02			UTOT_KPA	2.62E-02	05/02/2007				D
BLK	7440-61-1			2.6E-03						ML	15:07				

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.

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id:	JTMQL1AB	**Sdg/Rept Nbr:**	W05148	35373	**Collection Date:**	04/02/2007 12:21
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:**	04/02/2007

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
7100396	TC-99	-5.92E+00	pCi/L	4.6E+00	UN	7.56E+00	100.0		TC99_ETVDSK	1.249E-01	04/19/2007				D
BLK	14133-76-7			3.1E+00						L	18:19				

REVISED
Rockwell 4-3-08

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

Monday, May 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id:	JTMQM1AB	**Sdg/Rept Nbr:**	W05148	35373	**Collection Date:** 04/04/2007 11:36
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 04/04/2007

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 Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100397	I-129L	2.39E-02	pCi/L	1.3E-01	U	2.50E-01	99.5		I129LL_SEP_L	3.9963E+00	05/15/2007				
BLK	15046-84-1			1.3E-01						L	19:00				D

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

Monday, May 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQP1AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: BLK

Collection Date: 04/04/2007 09:36
Sample On Date:
Received Date: 04/04/2007

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	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100398	ALPHA	4.30E-01	pCi/L	4.2E-01	U	7.24E-01	100.0		9310_ALPHAB	2.023E-01	04/20/2007				D
BLK	12587-46-1			4.0E-01						L	10:09				

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

Monday, May 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQW1AB **Sdg/Rept Nbr:** W05148 35373 **Collection Date:** 04/02/2007 09:09
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 04/02/2007

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
7100399	BETA	8.23E-01	pCi/L	1.1E+00	U	2.39E+00	100.0		9310_ALPHAB	2.00E-01	04/20/2007				D
BLK	12587-47-2			1.1E+00						L	10:20				

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

Monday, May 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQ02CS **Sdg/Rept Nbr:** W05148 35373 **Collection Date:** 04/03/2007 13:14

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 04/03/2007

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
7100400	CO-60	2.65E+01	pCi/L	5.8E+00		3.01E+00		3.00E+01	GAMMA_GS	2.4994E+00	05/15/2007			70	D
BS	10198-40-0			5.8E+00				88.2		L	13:34			130	
7100400	CS-137	1.65E+01	pCi/L	3.9E+00		2.79E+00		1.98E+01	GAMMA_GS	2.4994E+00	05/15/2007			70	D
BS	10045-97-3			3.9E+00				83.3		L	13:34			130	
7100400	EU-152	5.29E+01	pCi/L	1.1E+01		6.64E+00		6.12E+01	GAMMA_GS	2.4994E+00	05/15/2007			70	D
BS	14683-23-9			1.1E+01				86.4		L	13:34			130	

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

Monday, May 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQ11CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: BS

Collection Date: 04/03/2007 09:14
Sample On Date:
Received Date: 04/03/2007

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
7100401	CO-60	3.85E+01	pCi/L	8.6E+00		5.22E+00		3.79E+01	GAMMALL_GS	1.9965E+00	04/20/2007			70	D
BS	10198-40-0			8.6E+00				101.7		L	19:52			130	
7100401	CS-137	2.30E+01	pCi/L	5.4E+00		4.66E+00		2.49E+01	GAMMALL_GS	1.9965E+00	04/20/2007			70	D
BS	10045-97-3			5.4E+00				92.4		L	19:52			130	
7100401	EU-152	8.38E+01	pCi/L	1.8E+01	U	2.31E+01		7.69E+01	GAMMALL_GS	1.9965E+00	04/20/2007			70	D
BS	14683-23-9			1.8E+01				108.9		L	19:52			130	

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

Monday, May 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQ31CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: BS

Collection Date: 04/05/2007 09:53
Sample On Date:
Received Date: 04/05/2007

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
7100402	SR-90	1.36E+01	pCi/L	2.2E+00		4.78E-01	80.8	1.36E+01	SRISO_SEP_P	1.0011E+00	04/27/2007			70	D
BS	10098-97-2			7.6E-01				100.1		L	05:59			130	

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

Monday, May 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQ51CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: BS

Collection Date: 04/02/2007 11:00
Sample On Date:
Received Date: 04/02/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100403	H-3	2.71E+03	pCi/L	2.5E+02		2.88E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	04/19/2007			70	D
BS	10028-17-8			2.0E+02				99.8		L	10:56			130	

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

Monday, May 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id:	JTMQ51EM	**Sdg/Rept Nbr:**	W05148 35373	**Collection Date:**	04/02/2007 11:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	04/02/2007

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
7100403	H-3	2.63E+03	pCi/L	2.5E+02		2.94E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	04/19/2007			70	D
BS	10028-17-8			2.0E+02				97.0		L	13:40			130	

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

Monday, May 21, 2007

STL Richland QC Control Sample Report

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd Lab Code: STLRL

Lab Sample Id:	JTMQJ1CS	**Sdg/Rept Nbr:**	W05148 35373	**Collection Date:**	03/30/2007 08:46
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	03/30/2007

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/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100395	Uranium	3.50E+01	ug/L	4.1E+00		8.06E-02		3.48E+01	UTOT_KPA	2.60E-02	05/02/2007			70	D
BS	7440-61-1			4.1E+00				100.7		ML	15:17			130	

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

Monday, May 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQJ1DS **Sdg/Rept Nbr:** W05148 35373 **Collection Date:** 03/30/2007 08:46

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 03/30/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100395	Uranium	3.52E+00	ug/L	3.6E-01		8.03E-02		3.47E+00	UTOT_KPA	2.61E-02	05/02/2007			70	D
BS	7440-61-1			3.6E-01				101.2		ML	15:20			130	

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

Wednesday, August 29, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQL1CS **Sdg/Rept Nbr:** W05148 35373 **Collection Date:** 04/02/2007 12:21

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 04/02/2007

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	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100396	TC-99	4.41E+02	pCi/L	3.1E+01	N	8.51E+00	100.0	5.36E+02	TC99_ETVDSK	1.266E-01	04/19/2007			70	D
BS	14133-76-7			1.1E+01				82.3		L	19:22			130	

REVISED
Rdowell 4368

33

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.

Wednesday, August 29, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQM1CS **Sdg/Rept Nbr:** W05148 35373 **Collection Date:** 04/04/2007 11:36
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 04/04/2007

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
7100397	I-129L	1.19E+01	pCi/L	1.5E+00		3.79E-01	81.7	9.59E+00	I129LL_SEP_L	4.0011E+00	05/15/2007			70	D
BS	15046-84-1			1.5E+00				123.9		L	19:00			130	

REVISED
Rpowell 4-3-08

34

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.

Wednesday, August 29, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTMQP1CS **Sdg/Rept Nbr:** W05148 35373 **Collection Date:** 04/04/2007 09:36

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 04/04/2007

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/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100398	ALPHA	1.86E+01	pCi/L	4.7E+00		6.41E-01	100.0	2.30E+01	9310_ALPHAB	2.00E-01	04/20/2007			70	D
BS	12587-46-1			2.0E+00				80.8		L	10:09			130	

REVISED
Powell 4-8-08

35

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.

Wednesday, August 29, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id:	JTMQW1CS	**Sdg/Rept Nbr:**	W05148	35373	**Collection Date:** 04/02/2007 09:09
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 04/02/2007

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/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100399	BETA	2.35E+01	pCi/L	4.1E+00		2.61E+00	100.0	2.27E+01	9310_ALPHAB	1.994E-01	04/20/2007			70	D
BS	12587-47-2			2.5E+00				103.2		L	10:20			130	

REVISED 8/29/07

36

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.

Wednesday, August 29, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id:	JR4L31JR	**Sdg/Rept Nbr:**	W05148	35373	**Collection Date:**	03/30/2007 08:46
Client Id:	B1MK98	**Matrix:**	WATER	WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:**	03/30/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-003	MW6-SBB-A19981								AU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100395	Uranium	1.19E+01	ug/L	1.2E+00		8.52E-02			UTOT_KPA	2.46E-02	05/03/2007	2.5	0.3		D
DUP	7440-61-1	1.16E+01		1.2E+00						ML	11:47	20.0	3		

REVISED 4-5-08

31

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.

Wednesday, August 29, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JR72D1DR **Sdg/Rept Nbr:** W05148 35373 **Collection Date:** 04/02/2007 12:21

Client Id: B1M701 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 04/02/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-027	MW6-SBB-A19981								AX	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100396	TC-99	1.48E+00	pCi/L	5.1E+00	UN	8.21E+00	100.0		TC99_ETVDSK	1.248E-01	04/19/2007	0.0	1.		D
DUP	14133-76-7	-2.32E+00		3.5E+00						L	17:16	20.0	3		

REVISED RDPowell 4-3-08

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

Monday, May 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id:	JR72J1ER	**Sdg/Rept Nbr:**	W05148	35373	**Collection Date:** 04/02/2007 11:00
Client Id:	B1MDT0	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 04/02/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-003	MW6-SBB-A19981								AY	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100403	H-3	9.54E+03	pCi/L	5.1E+02		2.88E+02	100.0		906.0_H3_LSC	5.00E-03	04/19/2007	3.1	0.8		
DUP	10028-17-8	9.25E+03		3.3E+02						L	19:07	20.0	3		D

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

Monday, May 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id:	JR72K1DR	**Sdg/Rept Nbr:**	W05148	35373	**Collection Date:** 04/02/2007 09:09
Client Id:	B1MDT4	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 04/02/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-003	MW6-SBB-A19981								AZ	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
7100399	BETA	5.53E+00	pCi/L	1.8E+00		2.81E+00	100.0		9310_ALPHAB	1.987E-01	04/20/2007	26.3	1.3		
DUP	12587-47-2	7.21E+00		1.7E+00						L	10:20	20.0	3		D

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

Monday, May 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTAEM1DR
Client Id: B1MD09
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: DUP

Collection Date: 04/03/2007 09:14
Sample On Date:
Received Date: 04/03/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G07-003	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
7100401	BE-7	2.98E+00	pCi/L	1.2E+01	U	2.34E+01			GAMMALL_GS	1.9487E+00	04/20/2007	35.1	0.1		D
DUP	13966-02-4	4.25E+00		1.2E+01						L	15:42	20.0	3		
7100401	CO-60	-3.94E-01	pCi/L	1.6E+00	U	2.91E+00			GAMMALL_GS	1.9487E+00	04/20/2007	410.1	1.4		D
DUP	10198-40-0	1.14E+00		1.6E+00						L	15:42	20.0	3		
7100401	CS-134	9.53E-02	pCi/L	1.6E+00	U	2.94E+00			GAMMALL_GS	1.9487E+00	04/20/2007	183.3	1.9		D
DUP	13967-70-9	2.19E+00		1.6E+00						L	15:42	20.0	3		
7100401	CS-137	2.34E-01	pCi/L	1.5E+00	U	2.82E+00			GAMMALL_GS	1.9487E+00	04/20/2007	200.0	0.2		D
DUP	10045-97-3	0.00E+00		1.5E+00						L	15:42	20.0	3		
7100401	EU-152	9.02E-02	pCi/L	3.9E+00	U	6.88E+00			GAMMALL_GS	1.9487E+00	04/20/2007	174.2	0.4		D
DUP	14683-23-9	1.31E+00		3.9E+00						L	15:42	20.0	3		
7100401	EU-154	1.62E-01	pCi/L	4.7E+00	U	9.15E+00			GAMMALL_GS	1.9487E+00	04/20/2007	55.1	0.		D
DUP	15585-10-1	9.19E-02		4.7E+00						L	15:42	20.0	3		
7100401	EU-155	2.97E+00	pCi/L	3.5E+00	U	6.79E+00			GAMMALL_GS	1.9487E+00	04/20/2007	3858.2	2.3		D
DUP	14391-16-3	-2.68E+00		3.5E+00						L	15:42	20.0	3		
7100401	K-40	-3.37E+01	pCi/L	3.1E+01	U	6.45E+01			GAMMALL_GS	1.9487E+00	04/20/2007	0.0	0.6		D
DUP	13966-00-2	-2.09E+01		3.1E+01						L	15:42	20.0	3		
7100401	RU-106	-7.17E+00	pCi/L	1.4E+01	U	2.41E+01			GAMMALL_GS	1.9487E+00	04/20/2007	0.0	1.3		D
DUP	13967-48-1	5.41E+00		1.4E+01						L	15:42	20.0	3		
7100401	SB-125	2.68E+00	pCi/L	3.7E+00	U	7.33E+00			GAMMALL_GS	1.9487E+00	04/20/2007	1617.8	1.8		D
DUP	14234-35-6	-2.09E+00		3.7E+00						L	15:42	20.0	3		

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

Monday, May 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTAER1CR
Client Id: B1MD24
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: DUP

Collection Date: 04/03/2007 13:14
Sample On Date:
Received Date: 04/03/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G07-003	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
7100400	BE-7	2.98E+00	pCi/L	2.0E+01	U	3.68E+01			GAMMA_GS	2.5008E+00	05/11/2007	0.0	1.4		D
DUP	13966-02-4	-1.63E+01		2.0E+01						L	13:49	20.0	3		
7100400	CO-60	7.27E-02	pCi/L	2.1E+00	U	4.03E+00			GAMMA_GS	2.5008E+00	05/11/2007	0.0	1.1		D
DUP	10198-40-0	-1.51E+00		2.1E+00						L	13:49	20.0	3		
7100400	CS-134	9.08E-01	pCi/L	2.0E+00	U	4.06E+00			GAMMA_GS	2.5008E+00	05/11/2007	63.2	0.6		D
DUP	13967-70-9	1.75E+00		2.0E+00						L	13:49	20.0	3		
7100400	CS-137	7.69E-01	pCi/L	1.9E+00	U	3.65E+00			GAMMA_GS	2.5008E+00	05/11/2007	167.9	0.5		D
DUP	10045-97-3	6.71E-02		1.9E+00						L	13:49	20.0	3		
7100400	EU-152	-1.14E+00	pCi/L	4.5E+00	U	7.83E+00			GAMMA_GS	2.5008E+00	05/11/2007	1155.8	0.9		D
DUP	14683-23-9	1.62E+00		4.5E+00						L	13:49	20.0	3		
7100400	EU-154	1.69E+00	pCi/L	5.5E+00	U	1.13E+01			GAMMA_GS	2.5008E+00	05/11/2007	0.0	1.3		D
DUP	15585-10-1	-3.32E+00		5.5E+00						L	13:49	20.0	3		
7100400	EU-155	3.55E-01	pCi/L	3.2E+00	U	5.62E+00			GAMMA_GS	2.5008E+00	05/11/2007	9.6	0.		D
DUP	14391-16-3	3.91E-01		3.2E+00						L	13:49	20.0	3		
7100400	K-40	-1.68E+01	pCi/L	3.8E+01	U	8.31E+01			GAMMA_GS	2.5008E+00	05/11/2007	0.0	0.5		D
DUP	13966-00-2	-3.05E+01		3.8E+01						L	13:49	20.0	3		
7100400	RU-106	1.32E+00	pCi/L	1.8E+01	U	3.37E+01			GAMMA_GS	2.5008E+00	05/11/2007	133.4	0.4		D
DUP	13967-48-1	6.60E+00		1.8E+01						L	13:49	20.0	3		
7100400	SB-125	-1.70E+00	pCi/L	4.5E+00	U	7.70E+00			GAMMA_GS	2.5008E+00	05/11/2007	0.0	0.6		D
DUP	14234-35-6	-3.74E+00		4.5E+00						L	13:49	20.0	3		

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

Monday, May 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTDP21CR
Client Id: B1MF85
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: DUP

Collection Date: 04/04/2007 11:36
Sample On Date:
Received Date: 04/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-003	MW6-SBB-A19981								BC	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7100397	I-129L	5.85E-01	pCi/L	2.4E-01	U	4.95E-01	81.4		I129LL_SEP_L	3.939E+00	05/15/2007	125.2	2.7		D
DUP	15046-84-1	1.35E-01		2.4E-01						L	17:09	20.0	3		

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

Monday, May 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTDR21FR
Client Id: B1LD73
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: DUP

Collection Date: 04/04/2007 09:36
Sample On Date:
Received Date: 04/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	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
7100398	ALPHA	6.71E+00	pCi/L	2.9E+00		1.92E+00	100.0		9310_ALPHAB	1.924E-01	04/20/2007	28.1	0.8		D
DUP	12587-46-1	5.05E+00		2.5E+00						L	11:43	20.0	3		

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

Monday, May 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JTG391CR
Client Id: B1MF09
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: DUP

Collection Date: 04/05/2007 09:53
Sample On Date:
Received Date: 04/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-003	MW6-SBB-A19981								BE	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
7100402	SR-90	1.53E+02	pCi/L	2.3E+01		4.31E-01	78.0		SRISO_SEP_P	9.982E-01	04/27/2007	8.6	0.8		D
DUP	10098-97-2	1.40E+02		2.6E+00						L	05:59	20.0	3		

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.

Wednesday, August 29, 2007

TAL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd

Lab Sample Id: JR4L31KW **Sdg/Rept Nbr:** W05148 35373 **Collection Date:** 03/30/2007 08:46

Client Id: B1MK98 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 03/30/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-003	MW6-SBB-A19981								AV	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
7100396	TC-99	6.69E+03	pCi/L	3.8E+03	N	8.88E+00	100.0	3.62E+03	TC99_ETVDSK	1.263E-01	04/19/2007			60	D
MS	14133-76-7			1.1E+02				184.8		L	14:08			140	

REVISED
Rpwell 4-3-08

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

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Monday, May 21, 2007

STL Richland Qc Matrix Spike Report

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05148.Edd, h:\Reportdb\edd\FeadIV\Rad\35373.Edd Lab Code: STLRL

Lab Sample Id: JR4MC1JW
Client Id: B1MK99
Moisture/Solids%*:

Sdg/Rept Nbr: W05148 35373
Matrix: WATER WATER
QC Type: MS

Collection Date: 03/30/2007 08:46
Sample On Date:
Received Date: 03/30/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-003	MW6-SBB-A19981								AW	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
7100395 MS	Uranium 7440-61-1	3.79E+01	ug/L	4.8E+00 4.8E+00		7.97E-02		3.44E+01 110.3	UTOT_KPA	2.63E-02 ML	05/03/2007 11:51			60 140	D

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

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/3/2007 7:14:18 AM

Lot No., Due Date: J7C300314,J7D030115,J7D030117,J7D050119; 05/21/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7100398; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05148; 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 Analysis Volume => JR4L31AA 135.60<200.00 JR4MC1AA 142.50<200.00 Q:VB		✓	
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 (MBlks) 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=> JTDR21AF ALPHA 28.0 (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. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
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. Batch Positive Result => JR4L31AA ALPHA 8.9E+00 L:2.2E+00 JR4MC1AA ALPHA 8.2E+00 L:1.7E+00 JR72J1AC ALPHA 4.0E+00 L:2.0E+00 JR73C1AA ALPHA 2.8E+00 L:2.0E+00 JTDR21AC ALPHA 5.1E+00 L:2.3E+00		✓	
8.23 Result <= Action Level, when Defined. OK: No Action Level Found => ALPHA OK; No Callin Level Found => ALPHA	✓		

8.24 Result + 3s >=0, Not Too Negative. Yes No N/A
OK ✓

8.25 Counting Spectrum are within FWHM Limits. Yes No N/A
No FWHM found in Batch Data! ✓

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A
No Count Library found in Batch Data! ✓

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions) Yes No N/A

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

8.3 Comments:

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

First Level Review Lisa Autenson Date 5/3/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 710398, W05148

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. Adam Date: 5-3-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/3/2007 7:16:12 AM

Lot No., Due Date: J7C300314,J7D030115,J7D030117,J7D050119; 05/21/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7100399; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05148; 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 Analysis Volume => JR4L31AC 108.20<200.00 JR4MC1AC 123.40<200.00 Q:VB		✓	
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 (MBlks) 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=> JR72K1AD BETA 26.0 (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. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => JR4L31AC BETA 5.6E+00>4.0E+00 JR4MC1AC BETA 4.7E+00>4.0E+00 Q:C1		✓	
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JR4L31AC BETA 1.1E+04 L:5.6E+00 JR4MC1AC BETA 1.1E+04 L:4.7E+00 JR72J1AD BETA 8.5E+00 L:2.9E+00 JR72K1AC BETA 7.2E+00 L:2.7E+00 JR73C1AC BETA 1.2E+01 L:2.9E+00 JTDR21AD BETA 1.6E+01 L:2.8E+00		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => BETA	✓		

OK; No Callin Level Found => BETA

8.24 Result + 3s >=0, Not Too Negative. Yes ✓ No N/A
OK

8.25 Counting Spectrum are within FWHM Limits. Yes No N/A ✓
No FWHM found in Batch Data!

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A ✓
No Count Library found in Batch Data!

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions) Yes No N/A

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

8.3 Comments:

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

First Level Review Lisa Autonson Date 5/3/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7100399
W05148

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. Allen Date: 5-5-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/3/2007 7:20:34 AM

Lot No., Due Date: J7D030117,J7D040106,J7D040104,J7D050115,J7D060242,J7D060254; 05/21/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7100402; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05148; 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 Autonson **Date** 5/3/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7100402
W05148

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 Adam Date: 5-5-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/2/2007 3:45:32 PM

Lot No., Due Date:	J7C300314,J7D040104,J7D060242; 05/21/2007
Client, Site:	384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test:	7100401; RGAMMA Gamma by GER
SDG, Matrix:	W05148; WATER

1.0 COC

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

2.0 QC Batch

	Yes	No	N/A
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓

3.0 QC & Samples

	Yes	No	N/A
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		

4.0 Raw Data

	Yes	No	N/A
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		

5.0 Other

	Yes	No	N/A
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review: Lisa Cutsinson Date: 5/2/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7100401
W05148

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 Adam Date: 5-5-07

LS-038B, Rev. 10, 8/02
STL RICHLAND

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/17/2007 4:25:19 PM

Lot No., Due Date: J7D040104; 05/21/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7100400; RGAMMA Gamma by GER

SDG, Matrix: W05148; WATER

1.0 COC

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

2.0 QC Batch

	Yes	No	N/A
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓

3.0 QC & Samples

	Yes	No	N/A
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?		✓	
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		

4.0 Raw Data

	Yes	No	N/A
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		

5.0 Other

	Yes	No	N/A
5.1 Are all nonconformances included and noted?	✓		
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:
NCM 10-09932

First Level Review Lisa Autonson **Date** 5/17/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 710400
W05148

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: Cheryl R Adam Date: 7-18-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-09932**
NCM Initiated By: Lisa Antonson
Date Opened: 05/17/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Gamma by GER
Lot #'s (Sample #'s): J7D040104 (4), J7D100000 (400),
QC Batches: 7100400

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

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	05/17/2007	In this Gamma batch, the LCS had a low recovery. It was recounted, which brought the results within limits. Data accepted.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	05/17/2007	LCS was recounted

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 5/17/2007

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/17/2007 9:33:13 AM

Lot No., Due Date: J7D030114,J7D050113; 05/21/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7100397; RGAMLEPS Gamma by LEPS

SDG, Matrix: W05148; 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: Yes ✓ No N/A

First Level Review Matt Lowdy **Date** 5-17-07

STL Richland

QAS_RADCALCv4.8.26

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7102297
W05148

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 R Allen Date: 5-17-07

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/3/2007 7:26:35 AM

Lot No., Due Date: J7C300314,J7D030114; 05/21/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7100396; RTC99 Tc-99 by LSC

SDG, Matrix: W05148; 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 Incorrect Tracer/Vial => JR4L31AK TCSG<>TCSE Q:V9		✓	
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 (MBlks) 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=> JR72D1AD TC-99 290.0 (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. MS Exceeds Control Limit => => JR4L31AK TC-99 185 L:60|140 Q:S1		✓	
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A ✓
No Count Library found in Batch Data!

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions.) Yes No N/A

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

8.3 Comments: NCM 10-09836

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

First Level Review Lisa Antonson **Date** 5/3/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7100396 / W05148

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 Adam Date: 5-3-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09836
NCM Initiated By: Lisa Antonson
Date Opened: 05/03/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J7C300314 (1,2), J7D030114 (1), J7D100000 (396),
QC Batches: 7100396

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

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	05/03/2007	In this Tc99 batch, the recovery on the MS is 185%. The activity in the sample is more than 5Xs the expected value of the spike. Data accepted.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	05/03/2007	N/A

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 5/3/2007

STL RICHLAND

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/20/2007 3:52:45 PM

Lot No., Due Date: J7C300314,J7D030115,J7D050119; 05/21/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7100403; RTRITIUM H-3 by LSC

SDG, Matrix: W05148; WATER

8.0 Correction Calculation Protocol Used. — Yes ✓ No N/A
OK

8.01 The Appropriate Methods Were Used To Analyze the Samples — Yes ✓ No N/A
OK

8.02 Final Results Are in the Appropriate Activity Units — Yes ✓ No N/A
OK

8.03 Batch Contains the Required QC Appropriate for the Method — Yes ✓ No N/A
OK

8.04 The Correct Tracer and QC Vials Where Used in the Samples — Yes ✓ No N/A
OK

8.05 Sample was Appropriately Traced Before or After Fractionating the Sample — Yes ✓ No N/A
OK

8.06 At Least the Minimum Sample Volume Was Used — Yes No ✓ N/A
Analysis Volume => JR4L31AH 5.00<10.00
JR4MC1AH 5.00<10.00
JR72J1AA 5.00<10.00
JTDR21AA 5.00<10.00 Q:VB

Ok AL 4/20/07

8.07 The Correct Count Geometry was Used. — Yes No ✓ N/A
Count Geometry => JTMQ51AF SVP15/5<>SVP10/10
JTMQ51AG SVP15/5<>SVP10/10
JTMQ51AA SVP15/5<>SVP10/10
JTMQ51AC SVP15/5<>SVP10/10
JTMQ51AD SVP15/5<>SVP10/10
JTMQ51AE SVP15/5<>SVP10/10
JR4L31AH SVP15/5<>SVP10/10
JR4MC1AH SVP15/5<>SVP10/10
JR72J1AA SVP15/5<>SVP10/10
JR72J1AE SVP15/5<>SVP10/10
JTDR21AA SVP15/5<>SVP10/10 Q:VC

Ok AL 4/20/07

8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. — Yes ✓ No N/A
OK

8.09 Method Blank is within Control Limits. — Yes ✓ No N/A
OK

8.1 Comments:

8.11 Matrix Blank is within Control Limits. — Yes ✓ No N/A
OK

8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). — Yes ✓ No N/A
OK

8.13 QAS Specified Duplicate Equation Value within Control Limits. — Yes ✓ No N/A
OK (RPD)

8.14 LCS within Control Limits. — Yes ✓ No N/A
OK

8.15 MLCS within Control Limits. — Yes ✓ No N/A
OK

8.16 MS within Control Limits. — Yes No ✓ N/A
No Matrix Spike Samples (MS) found in Batch!

8.17 Tracer within Control Limits. — Yes No ✓ N/A
No Tracers found in Batch!

8.18 Samples are above Minimum Tracer Yield (No Failed Samples) — Yes No ✓ N/A
No Tracers found in Batch!

8.19 Sample Specific MDC <= CRDL. — Yes ✓ No N/A
OK

8.2 Comments:

8.21 Result < Lc, Activity Not Detected, U Flag. — Yes No ✓ N/A
No Limit Specified!

8.22 Result < Mdc, Activity Not Detected, U Flag. Yes ✓ No N/A
No Positive Results
OK Calc_IDL Not Calculated

8.23 Result <= Action Level, when Defined. Yes ✓ No N/A
OK; No Action Level Found => H-3

OK; No Callin Level Found => H-3

8.24 Result + 3s >=0, Not Too Negative. Yes ✓ No N/A
OK

8.25 Counting Spectrum are within FWHM Limits. Yes No N/A ✓
No FWHM found in Batch Data!

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A ✓
No Count Library found in Batch Data!

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions) Yes No N/A

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

8.3 Comments:

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

First Level Review Angela Long **Date** 4/20/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 710405
W05148

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: 4-23-07

LS-038B, Rev. 10, 8/02

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/4/2007 8:13:50 AM

Lot No., Due Date: J7C300314,J7D050119; 05/21/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7100395; RUNAT UNat by KPA

SDG, Matrix: W05148; 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 _____ **Date** 5/4/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7100295
W05148

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 Adam Date: 5-4-07

PNNL JTC 300314
WO 5148
Due 05 14 07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-003-392

Page 1 of 1

Collector Fluor Hanford R. BREWINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MARCH 2007	HNF-N-506 1	**Ice Chest No.** SML 538 **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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MK98		W	3-30-07	0846	1x20-mL P	Activity Scan	None
B1MK98		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MK98		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MK98		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1MK98		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1MK98		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JR 4L3	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. BREWINGTON	R. Brewington		MAR 30 2007 1345	Eric Darby			MAR 30 2007 1345
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	
SE = Sediment		DL = Drum Liqui	
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

SIL RICHLAND

72

PNNL JTC 300314
WO 5148
Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-003-393

Page 1 of 1

Collector Fluor Hanford ~~BREWINGTON~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MARCH 2007	HNF-N-506 1	**Ice Chest No.** SML 538 **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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MK99		W	3-30-07	0846	1x20-mL P	Activity Scan	None
B1MK99		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MK99		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MK99		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1MK99		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1MK99		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JR4MC	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford ~~R.R. BREWINGTON~~	D.R. Brewington		MAR 30 2007 1345	Eric Darby	Eric Darby		MAR 30 2007 1345
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	
SE = Sediment		DL = Drum Liquid	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
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

SIL RECEIVED

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 3/30/07 1345

Client: PGW SDG #: W05148 NA [ ] SAF #: W07-003 NA [ ]

Work Order Number: J7C300314 Chain of Custody # W07-003-392, 393

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [ ] No [✓] CD 3-30-07
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
   _____ custody seals
   _____ hazard labels
   [✓] appropriate samples labels
9. Samples are:
   [✓] in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] Additional pH [ ]
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: E. Darby Date: 3/30/07 1345

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J7D030114
W05148
Due 05-17-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-027-28

Page 1 of 1

Collector: Fluor Hanford F. M. HALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-027	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOI FEBRUARY 2007	HNF-M-506-2	Ice Chest No.: Ross Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: CERCLA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1M701		W	4/2/7	1221	1x20-mL P	Activity Scan	None
B1M701		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M701		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JR72D	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford F. M. HALL		APR 0 2 2007	1440		Eric Dykley	APR 0 2 2007	1440
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	
SE = Sediment		DL = Drum Liqui	
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

SEVERN TRENT **STL**

Sample Check-in List

Date/Time Received: 4/2/07 1440

Client: PGW SDG #: W05148 NA [ ] SAF #: I07-027 NA [ ]

Work Order Number: J7B030114 Chain of Custody #: I07-027-28

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 material is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   [✓] appropriate samples labels
9. Samples are:
   [✓] in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for [illegible] plastic head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] [illegible] [ ]
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: Eu Darby Date: 4/02/07 1440

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J7D030115
WD5148
Due 05-17-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-003-4**

Page 1 of 1

Collector K Hulse	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, MARCH 2007	HNF-N-306-6	**Ice Chest No.** SMC-538 **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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDT0		W	4-2-07	1100	1x20-mL P	Activity Scan	None
B1MDT0		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1MDT0		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JR72J	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K Hulse			APR 0 2 2007 1440	Kric Dunby			APR 0 2 2007 1440
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	
SE = Sediment		DL = 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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PNNL J7D030115
W05148
Due 05-17-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-003-9

Page 1 of 1

Collector: K Hulse	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, MARCH 2007	HNF-NJOC-6	Ice Chest No. SML 57P 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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDT4		W	4-2-07	0909	1x20-mL P	Activity Scan	None
B1MDT4		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JR72K	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K Hulse			APR 0 2 2007 1440	Eric Dougherty			APR 0 2 2007 1440
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	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
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

SIT RICHLAND

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 4/2/07 1440

Client: DGW SDG #: W05148 NA [ ] SAF #: 507 003 NA [ ]

Work Order Number: J7D030115 Chain of Custody #: 507-003-4,9

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 material is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ [illegible]
   [✓] appropriate samples labels
9. Samples are:
   [✓] in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for [illegible] in head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] [illegible] [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [✓] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: Eric Dailey Date: ~~4/07~~ 4/02/07 1440

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J7D030117
W05148
Due 05-17-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-003-7

Page 1 of 1

Collector: K Hulse	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, MARCH 2007	HNF-N-506-6	Ice Chest No.: SMC538 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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDT2		W	4-2-07	1010	1x20-mL P	Activity Scan	None
B1MDT2		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JR73C	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K Hulse			APR 0 2 2007 1440	Eric Daley	Eric Daley		APR 0 2 2007 1440
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	
SE = Sediment		DL = 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

80

PNNL J7R030117
W05148
Due 05-17-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-003-19

Page 1 of 1

Collector: FLUOR HANFORD M.R. WEIL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, MARCH 2007	HWF-N-506-1	Ice Chest No.: 54WS-108 ROSS. Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.: ~~9707 0733 9845~~ DP 4-2-07
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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDX9		W	4-2-07	1300	1x20-mL P	Activity Scan	None
B1MDX9		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

JR73G

DP 4-2-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD M.R. WEIL			APR 02 2007 1440	Eric Daly		E. Daly	APR 02 2007 1440
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	
SE = Sediment		DL = 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

SEL RICHLAND

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 4/02/07 1440

Client: PGW SDG #: W05148 NA [ ] SAF #: S07-003 NA [ ]

Work Order Number: J7D030117 Chain of Custody #: S07-003, 7, 19

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 material is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] [illegible]
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: Ean Danby Date: 4/2/07 1440

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J7D040104 W05148 Due 05.18.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-003-22

Page 1 of 1

Collector: DURATEK	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: K. J. YOUNG G07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 1NR2-RB, MARCH 2007	FNF-N-506-1	Ice Chest No.: 3AWS-109 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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MD09		W	4-3-07	0914	1x20-mL P	Activity Scan	None
B1MD09		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1MD09		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JTAEM	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK	K. J. YOUNG		APR 03 2007 1520	Eric Darby			APR 03 2007 1520
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	
SE = Sediment		DL = Drum Liqui	
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

SHF RICHLAND

PNNL J7D040104
WO 5148
Due 05-18-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-003-30

Page 1 of 1

Collector DURATEK K. J. YOUNG	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, MARCH 2007	HNF-N-506-1	**Ice Chest No.** SHWS-109 **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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MD14		W	4-3-07	1028	1x20-mL P	Activity Scan	None
B1MD14		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1MD14		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JTAEP	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK K. J. YOUNG			1520 APR 03 2007	Erie Dorsey		Erie Dorsey	1520 APR 03 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

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liqui
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
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

SEE RIGHTNEW

PNNL J7D040104
W05148
Due 05.18.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-003-38

Page 1 of 1

Collector: DURATEK K.J. YOUNG	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: G07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 1NR2-RB, MARCH 2007	HNF-N-506-1	Ice Chest No.: SAWS-109 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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MD19		W	4-3-07	1135	1x20-mL P	Activity Scan	None
B1MD19		W	↓		1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1MD19		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JTAEQ	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK K.J. YOUNG			APR 03 2007 1520		Eric Darby	E. Darby	APR 03 2007 1520
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	
SE = Sediment		DL = 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

PNNL J7D040104
W05148
Due 05-18-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-003-46

Page 1 of 1

Collector DURATEK K. J. YOUNG	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. G07-003	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 1NR2-RB, MARCH 2007	HNF-N-506-1	Ice Chest No. SAWS-109 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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MD24		W	4-3-07	1314	1x20-mL P	Activity Scan	None
B1MD24		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
						JTAER	

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
DURATEK K. J. YOUNG	Jon Young	APR 03 2007 1520	Eric Darby	Eric Darby	APR 03 2007 1520
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	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 4/3/07 1520

Client: PGW SDG #: W05148 NA [ ] SAF #: 607-003 NA [ ]

Work Order Number: J7D040104 Chain of Custody # 607-003-46, 38, 30, 22

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing material is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] adjusted pH [ ]
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: E. Darby Date: 4/3/07 1520

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J7D040106 WO 5148 Due 05-18-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-031-2

Page 1 of 1

Collector DURATEK K. J. YOUNG	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. I07-031	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 100NR2IAM-LOI, MARCH 2007	HNF-N-506 1	Ice Chest No. SAWS-109 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol CERCLA	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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDB2		W	4-3-07	1314	1x20-mL P	Activity Scan	None
B1MDB2		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JTAE3	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK K. J. YOUNG			APR 03 2007 1520	Eric Danby			APR 03 2007 1520
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	
SE = Sediment		DL = Drum Liqui	
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

STIL RIGHTS AND

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 4/3/07 1520

Client: PGW SDG #: W05148 NA [ ] SAF # J07-031 NA [ ]

Work Order Number: J7D040106 Chain of Custody # J07-031-2

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing material is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   [✓] appropriate sample labels
9. Samples are:
   [✓] in good condition
   _____ broken
   _____ leaking
   _____ [illegible]
   (Only for samples requiring headspace)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [✓] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers):

Sample Custodian: Ex Darby Date: 4/3/07 1520

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J7D050113
W05148
Due 05.18.07

Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-003-225

Page 1 of 1

Collector: D. E. PARCHEN	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, MARCH 2007	HAF-N-506-2	Ice Chest No. R055 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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MF85		W	4-4-07	1136	1x20-mL P	Activity Scan	None
B1MF85		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

JTPP2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. E. PARCHEN			APR 04 2007 1500		S. Smith	S. Smith	APR 04 2007 1500
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	
SE = Sediment		DL = Drum Liqui	
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

SITE RECEIPT

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PNNL J7D050113
W05148
due 05.18.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-003-219**

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Collector Fluor Hanford D. E. PARCHEN	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, MARCH 2007	HNF-N-506-2	**Ice Chest No.** R055 **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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MF82		W	4407	1329	1x20-mL P	Activity Scan	None
B1MF82		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
						JTDQC	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D.E. PARCHEN			APR 04 2007 1500		S. Smith	S. Smith	APR 04 2007 1500
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	
SE = Sediment		DL = Drum Liqui	
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

STL RICHLAND

SEVERN TRENT **STL**

Sample Check-in List

Date/Time Received: 04-04-07 1500

Client: PGW SDG #: W05148 NA [ ] SAF #: 007-003 NA [X]

Work Order Number: 7D050113 Chain of Custody # 007-003-219, 225

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? Yes [X] No [ ]
4. Cooler temperature: _____ NA [X] 5. Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [X] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   __/__ appropriate samples labels
9. Samples are:
   __/__ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [ ] pH>2 [X] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [X] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Smith Date: 04-04-07 1500

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

REVISED RDowell 4-3-08

PNNL J7D050115
W05148
Due 05-18-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-003-78

Page 1 of 1

Collector: D. P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: G07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 1NR2-RB, MARCH 2007	HNF-N-506 6	Ice Chest No.: SML-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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MD41		W	4-4-07	1149	1x20-mL P	Activity Scan	None
B1MD41		W	4-4-07	1149	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

JTDQR

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
P. CONNOLLY			APR 04 2007 1500	S. Smith		S. Smith	APR 04 2007 1500
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	
SE = Sediment		DL = Drum Liqui	
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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 04-04-07 1800

Client: PNW SDG #: WD5148 NA [ ] SAF #: G07-003 NA [ ]

Work Order Number: J7D050113 Chain of Custody # G07-003-78

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
   - ____ custody seals
   - ____ hazard labels
   - 1 appropriate samples labels
9. Samples are:
   - 1 in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] adjusted pH [ ]
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: L. Smith Date: 04-04-07 1500

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J7D050119
W05148
Due 05-18-07
Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-012-640

Page 1 of 1

Collector D. E. PARCHEN	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-506-2	**Ice Chest No.** ROSS **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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LD73		W	4-4-07	0936	1x20-mL P	Activity Scan	None
B1LD73		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1LD73		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1LD73		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JTDR2	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford	D. E. PARCHEN		APR 04 2007 1500		S. Smith	S. Smith	APR 04 2007 1500
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	
SE = Sediment		DL = 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

STL RICHLAND

95

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 04.04.07 1500

Client: PGW SDG #: W05148 NA [ ] SAF #: 807012 NA [ ]

Work Order Number: JTD050119 Chain of Custody # 807-012-640

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
   _____custody seals
   _____hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____broken
   _____leaking
   _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] adjusted pH [ ]
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: L. Smith Date: 04.04.07 1500

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J7D060242
W05148
Due 05.21.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-003-2

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, MARCH 2007	HNF-N-506 6	**Ice Chest No.** SML-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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MCX6		W	4-5-07	1033	1x20-mL P	Activity Scan	None
B1MCX6		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1MCX6		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JTG12	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			APR 0 5 2007 1420		S. Smith	S. SMITH	APR 0 5 2007 1420
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
SE	= Sediment	DL	= Drum Liqui
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wipe
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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PNNL J7D060242
W05148
Due 05-21-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-003-6

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, MARCH 2007	HNF-N-506-6	**Ice Chest No.** SMC-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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MCY0		W	4-5-7	1116	1x20-mL P	Activity Scan	None
B1MCY0		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1MCY0		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JTG13	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			1420 APR 0 5 2007		S. Smith	S. Smith	1420 APR 0 5 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

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
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

SIE RICHLAND

98

PNNL J7D060242
W05148
Due 05-21-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-003-7

Page 1 of 1

Collector: Fluor Hanford R. T. SICKLE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: G07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 1NR2-RB, MARCH 2007	HNFN-5C6-1	Ice Chest No.: 9-HL-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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MCY1		W	4507	0715	1x20-mL P	Activity Scan	None
B1MCY1		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1MCY1		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JTG17	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			APR 0 5 2007 1424		S. Smith	S. Smith	APR 0 5 2007 1424
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	
SE = Sediment		DL = Drum Liqui	
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

99

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 4/5/07

Client: PGW SDG #: W05148 NA [ ] Batch: G07-003

Work Order Number: J7D060242 Chain of Custody: G07-003-2,6,7

Shipping Container ID: _____ Air Bill #: _____

1. Custody Seals on shipping container intact? ✓
2. Custody Seals dated and signed? ✓
3. Chain of Custody record present? ✓
4. Cooler temperature: _____ NA [✓] 5.Vermiculite/packing ✓
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? ✓
8. Samples have:
   _____ tape
   _____ custody seals ✓
9. Samples are:
   ✓ in good condition
   _____ broken
10. Sample pH taken? NA [ ] pH<2 [✓] pH>12 [ ]
11. Sample Location, Sample Collector Listed? ✓
    *For documentation only. No corrective action needed
12. Were any anomalies identified in sample receipt? ✓
13. Description of anomalies (include sample numbers):

Sample Custodian: E. Darby Date: 4/5/07 1450

Client Sample ID	Analysis Requested	Sample Location

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev 6

PNNL J7D060254
W05148
Due 05-21-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-003-59

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, MARCH 2007	HNF-N-506/6	**Ice Chest No.** smc-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 PNNL 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 PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MF09		W	4-5-07	0957	1x20-mL P	Activity Scan	None
B1MF09		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

JTG39

Relinquished By Fluor Hanford R. T. SICKLE Print Sign	Date/Time 1420 APR 0 5 2007	Received By S. Smith Print S. Smith Sign	Date/Time 1420 APR 0 5 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

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
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

STL RICHLAND

101

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 4/5/07 ~~1000~~ 1450

Client: PGW SDG #: W05148 NA [ ] SAF: S07-003

Work Order Number: J7D060254 Chain of Custody: S07-003-59

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? ✓
2. Custody Seals dated and signed? ✓
3. Chain of Custody record present? ✓
4. Cooler temperature: _____ NA [ ] Vermiculite/packing
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? ✓
8. Samples have:
   _____ tape
   _____ custody seals ✓
9. Samples are:
   ✓ in good condition
   _____ broken
10. Sample pH taken? NA [ ] pH = 2 ✓
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. ✓
12. Were any anomalies identified in sample receipt? ✓
13. Description of anomalies (include sample numbers):

Sample Custodian: Eu Darby Date 4/5/07 1450

Client Sample ID	Analysis Requested	Sample

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev 6

STL RICHLAND

4/16/2007 8:11:05 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #: 235

AnalyDueDate: 05/21/2007 W05148

Batch: 7100398 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: BockJ /APA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JR4L3-1-AA J7C300314-1-SAMP 03/30/2007 08:46		135.60g,in AmtRec: 20ML,2X500ML,2XLP,4LP #Containers: 6		1.5	51.6	100	10A	1100	4/20/07 K	Scr: Alpha: 7.75E-03 uCi/Sa 1.6E-01L Beta: .04E-03 uCi/Sa
2 JR4MC-1-AA J7C300314-2-SAMP 03/30/2007 08:46		142.50g,in AmtRec: 20ML,2X500ML,2XLP,4LP #Containers: 6			50.7		10B			Scr: Alpha: 8.13E-03 uCi/Sa 1.6E-01L Beta: 1.13E-03 uCi/Sa
3 JR72J-1-AC J7D030115-1-SAMP 04/02/2007 11:00		199.00g,in AmtRec: 20ML,2XLP #Containers: 3			40.4	.50	10A	1209	4/20/07 K	Scr: Alpha: 3.11E-05 uCi/Sa Beta: 3.47E-04 uCi/Sa
4 JR72K-1-AA J7D030115-2-SAMP 04/02/2007 09:09		198.60g,in AmtRec: 20ML,LP #Containers: 2			26.5		10B			Scr: Alpha: 1.65E-04 uCi/Sa Beta: 5.53E-05 uCi/Sa
5 JR73C-1-AA J7D030117-1-SAMP 04/02/2007 10:10		198.60g,in AmtRec: 20ML,LP #Containers: 2			36.4		10c			Scr: Alpha: -1.63E-05 uCi/Sa Beta: 1.50E-04 uCi/Sa
6 JTDR2-1-AC J7D050119-1-SAMP 04/04/2007 09:36		191.90g,in AmtRec: 20ML,500ML,2XLP #Containers: 4			57.4		10d			Scr: Alpha: 2.73E-04 uCi/Sa Beta: 1.48E-04 uCi/Sa
7 JTDR2-1-AF-X J7D050119-1-DUP 04/04/2007 09:36		192.40g,in AmtRec: 20ML,500ML,2XLP #Containers: 4			48.8		10F			Scr: Alpha: 2.73E-04 uCi/Sa Beta: 1.48E-04 uCi/Sa

STL RICHLAND

4/16/2007 8:11:07 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 05/21/2007

Sep1 DT/Tm Tech:

Batch: 7100398 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JTMQP-1-AA-B J7D100000-398-BLK 04/04/2007 09:36	AmtRec:	202.30g,in	#Containers: 1	1.5	0.4	100	10c Scr:	1100 Alpha:	4/20/07 K Beta:	
9 JTMQP-1-AC-C J7D100000-398-LCS 04/04/2007 09:36	AmtRec:	200.00g,in	ASD4163 03/23/07,pd 06/01/01,r #Containers: 1		0.6		10d Scr:	Alpha:	Beta:	

Comments: JR4L3-SAMP "Comments. Aliquots reduced due to weight screen results.JB 04/16/07"
S+ JR4MC. was recommended to reduce aliquots to 160 mLs due to high screen results. JB 4-16-07
PH <2.0 JB 4-16-07

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

JR4L31AA-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JTMQP1AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JTMQP1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JR4L31AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQP1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQP1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

5/3/2007 7:13:42 AM

ICOC Fraction Transfer/Status Report

ByDate: 5/3/2006, 5/8/2007, Batch: '7100398', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100398						
AC		CalcC	BockJ	4/16/2007 8:04:53		
SC			wagarr	IsBatched	4/10/2007 1:53:15 PM	ICOC_RADCALC v4.8.26
SC			BockJ	Prep1C	4/16/2007 8:04:53 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	4/19/2007 10:22:05 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	4/20/2007 8:54:47 AM	RICH-RC-5014 REVISION 6
SC			StringerR	InCnt1	4/20/2007 9:01:16 AM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	4/20/2007 12:41:28 PM	RICH-RD-0003 REVISION 4
AC			AshworthA	4/19/2007 10:22:05		
AC			AshworthA	4/20/2007 8:54:47		
AC			StringerR	4/20/2007 9:01:16		
AC			StringerR	4/20/2007 12:41:28		

AC: Accepting Entry; SC: Status Change

STL RICHLAND

04/16/2007 7:52:55 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: 235

AnalyDueDate: 05/21/2007

Sep1 DT/Tm Tech:

Batch: 7100399 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ / APA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JR4L3-1-AC J7C300314-1-SAMP 03/30/2007 08:46		108.20g,in AmtRec: 20ML,2X500ML,2XLP,4LP #Containers: 6		1.5	102.1	100	26A	1108	4/20/07 R	Scr: Alpha: 7.75E-03 uCi/Sa 1.6E-01L Beta: 1.04E-03 uCi/Sa
2 JR4MC-1-AC J7C300314-2-SAMP 03/30/2007 08:46		123.40g,in AmtRec: 20ML,2X500ML,2XLP,4LP #Containers: 6			112.7		26B			Scr: Alpha: 8.13E-03 uCi/Sa 1.6E-01L Beta: 1.13E-03 uCi/Sa
3 JR72J-1-AD J7D030115-1-SAMP 04/02/2007 11:00		199.20g,in AmtRec: 20ML,2XLP #Containers: 3			79.3		26C			Scr: Alpha: 3.11E-05 uCi/Sa Beta: 3.47E-04 uCi/Sa
4 JR72K-1-AC J7D030115-2-SAMP 04/02/2007 09:09		199.00g,in AmtRec: 20ML,LP #Containers: 2			72.9		26d			Scr: Alpha: 1.65E-04 uCi/Sa Beta: 5.53E-05 uCi/Sa
5 JR72K-1-AD-X J7D030115-2-DUP 04/02/2007 09:09		198.70g,in AmtRec: 20ML,LP #Containers: 2			67.3		27A			Scr: Alpha: 1.65E-04 uCi/Sa Beta: 5.53E-05 uCi/Sa
6 JR73C-1-AC J7D030117-1-SAMP 04/02/2007 10:10		199.80g,in AmtRec: 20ML,LP #Containers: 2			102.7		27b			Scr: Alpha: -1.63E-05 uCi/Sa Beta: 1.50E-04 uCi/Sa
7 JTDR2-1-AD J7D050119-1-SAMP 04/04/2007 09:36		199.70g,in AmtRec: 20ML,500ML,2XLP #Containers: 4			103.2		27C			Scr: Alpha: 2.73E-04 uCi/Sa Beta: 1.48E-04 uCi/Sa

STL RICHLAND

4/16/2007 7:52:58 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #:

AnalyDueDate: 05/21/2007

Sep1 DT/Tm Tech:

Batch: 7100399 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JTMQW-1-AA-B J7D100000-399-BLK 04/02/2007 09:09	AmtRec:	200.00g,in	#Containers: 1	1.5	0.7	100	28A	1108	4/20/07 R Scr: Alpha: Beta:	
9 JTMQW-1-AC-C J7D100000-399-LCS 04/02/2007 09:09	AmtRec:	199.40g,in	BESB3045 03/23/07,pd 08/08/06,r #Containers: 1		0.5		28B		Scr: Alpha: Beta:	

Comments: #1 + #2 (JR4L3 + JR4MC) reduced aliquot due to weight screen activity, but was recomended to reduce to 160 mLs due to high screen results. JB 4-16-07
pH <2.0 JB 4-16-07

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

JR4L31AC-SAMP Constituent List:
BETA RDL:4 pCi/L LCL: UCL: RPD:
JTMQW1AA-BLK:
BETA RDL:4 pCi/L LCL: UCL: RPD:
JTMQW1AC-LCS:
Sr-90 RDL: pCi/L LCL:70 UCL:130 RPD:20

JR4L31AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQW1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQW1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

5/3/2007 7:15:53 AM

ICOC Fraction Transfer/Status Report

ByDate: 5/3/2006, 5/8/2007, Batch: '7100399', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100399						
AC		**CalcC**	**BockJ**	4/16/2007 7:53:05		
SC			wagarr	IsBatched	4/10/2007 1:53:15 PM	ICOC_RADCALC v4.8.26
SC			BockJ	Prep1C	4/16/2007 7:53:05 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	4/19/2007 10:21:58 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	4/20/2007 8:54:55 AM	RICH-RC-5014 REVISION 6
SC			StringerR	InCnt1	4/20/2007 9:01:20 AM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	4/20/2007 11:49:48 AM	RICH-RD-0003 REVISION 4
AC			**AshworthA**	4/19/2007 10:21:58		
AC			**AshworthA**	4/20/2007 8:54:55		
AC			**StringerR**	4/20/2007 9:01:20		
AC			**StringerR**	4/20/2007 11:49:48		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

STL RICHLAND

4/25/2007 4:18:39 PM

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 05/21/2007

Sample Preparation/Analysis

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

Balance Id:1120482733,E32905

Pipet #: _____

Sep1 DT/Tm Tech: 04/18/2007 10:11,ManisD

Sep2 DT/Tm Tech: 04/25/2007 10:03,ManisD

Prep Tech: ,ManisD

Batch: 7100402 **WATER** **pCi/L** **PM, Quote: SA , 57671**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 **JR73G-1-AA** J7D030117-2-SAMP		1004.80g,in	SRTB14652 04/09/07,pd 09/11/06,r	0.8227	1.0	25.2	100	2A	0737	4/26/03	
						~~04/18/2007 10:11,s1, 04/25/2007~~		2A	0644	4/27/03	
04/02/2007 13:00		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 3.57E-05 uCi/Sa		Beta: 5.94E-04 uCi/Sa
2 **JTAEM-1-AC** J7D040104-1-SAMP		1003.90g,in	SRTB14653 04/09/07,pd 09/11/06,r	0.8716	1.0	25.2	100	2B	0737	4/26/03	
						~~04/18/2007 10:11,s1, 04/25/2007~~		2B	0644	4/27/03	
04/03/2007 09:14		AmtRec: 20ML,3XLP,4LP	#Containers: 5					Scr:	Alpha: -1.91E-04 uCi/Sa		Beta: 1.79E-03 uCi/Sa
3 **JTAEP-1-AC** J7D040104-2-SAMP		995.70g,in	SRTB14654 04/09/07,pd 09/11/06,r	0.7655	1.0	25	100	2C	0737	4/26/03	
						~~04/18/2007 10:11,s1, 04/25/2007~~		2C	0644	4/27/03	
04/03/2007 10:28		AmtRec: 20ML,3XLP,4LP	#Containers: 5					Scr:	Alpha: -1.13E-03 uCi/Sa		Beta: 1.67E-03 uCi/Sa
4 **JTAEQ-1-AC** J7D040104-3-SAMP		986.70g,in	SRTB14655 04/09/07,pd 09/11/06,r	0.8520	1.0	25.2	100	2D	0737	4/26/03	
						~~04/18/2007 10:11,s1, 04/25/2007~~		2D	0644	4/27/03	
04/03/2007 11:35		AmtRec: 20ML,3XLP,4LP	#Containers: 5					Scr:	Alpha: 1.25E-04 uCi/Sa		Beta: 6.68E-07 uCi/Sa

STL RICHLAND

4/25/2007 4:18:44 PM

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 05/21/2007

Sample Preparation/Analysis

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

Balance Id:1120482733,1120482733,1120

Pipet #: _____

Sep1 DT/Tm Tech: 04/18/2007 10:11,ManisD

Sep2 DT/Tm Tech: 04/25/2007 10:03,ManisD

Prep Tech: ,ManisD

Batch: 7100402 **WATER** **pCi/L** **PM, Quote: SA , 57671**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	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 JTAE3-1-AA J7D040106-1-SAMP		999.30g,in	SRTB14656 04/09/07,pd 09/11/06,r	0.670	1.0	26	100	3A	0737	4/26/07	
						~~04/18/2007 10:11,s1, 04/25/2007~~		3A	0644	4/27/07	
04/03/2007 13:14		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 3.89E-04 uCi/Sa	Beta: 3.54E-04 uCi/Sa	
6 JTDQR-1-AA J7D050115-1-SAMP		1007.10g,in	SRTB14657 04/09/07,pd 09/11/06,r	0.935	1.0	25.5	100	3B	0737	4/26/07	
						~~04/18/2007 10:11,s1, 04/25/2007~~		3B	0644	4/27/07	
04/04/2007 11:49		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: -3.08E-04 uCi/Sa	Beta: 1.42E-03 uCi/Sa	
7 JTG12-1-AC J7D060242-1-SAMP		1003.80g,in	SRTB14658 04/09/07,pd 09/11/06,r	0.826	1.0	25.2	100 55	3C	0833 0737	4/26/07	
						~~04/18/2007 10:11,s1, 04/25/2007~~		3A	0742	4/27/07	
04/05/2007 10:33		AmtRec: 20ML,3XLP,4LP	#Containers: 5					Scr:	Alpha: 1.54E-03 uCi/Sa	Beta: 6.87E-03 uCi/Sa	9.2E-02L
8 JTG13-1-AC J7D060242-2-SAMP		1003.90g,in	SRTB14659 04/09/07,pd 09/11/06,r	0.832	1.0	25.6	100	3D	0737	4/26/07	
						~~04/18/2007 10:11,s1, 04/25/2007~~		3C	0644	4/27/07	
04/05/2007 11:16		AmtRec: 20ML,3XLP,4LP	#Containers: 5					Scr:	Alpha: -2.52E-04 uCi/Sa	Beta: 4.21E-03 uCi/Sa	1.5E-01L

110

4/25/2007 4:18:46 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 05/21/2007

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

Balance Id:1120482733,1120482733,1120

Pipet #: _____

Sep1 DT/Tm Tech: 04/18/2007 10:11,ManisD

Sep2 DT/Tm Tech: 04/25/2007 10:03,ManisD

Prep Tech: ,ManisD

Batch: 7100402 **WATER** **pCi/L** **PM, Quote: SA , 57671**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
9 **JTG17-1-AC** J7D060242-3-SAMP		1006.90g,in	SRTB14660 04/09/07,pd 09/11/06,r	0.7274	1.0	25.7	100	4A	0737	4/26/07	
						~~04/18/2007 10:11;s1, 04/25/2007~~		3D	0644	4/27/07	
04/05/2007 07:15		AmtRec: 20ML,3XLP,4LP	#Containers: 5					Scr:	Alpha: 5.58E-04 uCi/Sa		Beta: -4.13E-04 uCi/Sa
10 **JTG39-1-AA** J7D060254-1-SAMP		997.40g,in	SRTB14661 04/09/07,pd 09/11/06,r	0.9002	1.0	25.7	100	4B	0737	4/26/07	
						~~04/18/2007 10:11;s1, 04/25/2007~~		4A	0644	4/27/07	
04/05/2007 09:53		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 1.19E-04 uCi/Sa		Beta: 2.13E-04 uCi/Sa
11 **JTG39-1-AC-X** J7D060254-1-DUP		998.20g,in	SRTB14662 04/09/07,pd 09/11/06,r	0.8020	1.0	24.7	100	4C	0737	4/26/07	
						~~04/18/2007 10:11;s1, 04/25/2007~~		4B	0644	4/27/07	
04/05/2007 09:53		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 1.19E-04 uCi/Sa		Beta: 2.13E-04 uCi/Sa
12 **JTMQ3-1-AA-B** J7D100000-402-BLK		1004.90g,in	SRTB14663 04/09/07,pd 09/11/06,r	0.7909	1.0	25.8	100	4D	0737	4/26/07	
						~~04/18/2007 10:11;s1, 04/25/2007~~		4C	0644	4/27/07	
04/05/2007 09:53		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

STL RICHLAND

4/25/2007 4:18:48 PM

Sample Preparation/Analysis

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

Balance Id:1120482733,1120482733,1120

Pipet #: _____

AnalyDueDate: 05/21/2007

Sep1 DT/Tm Tech: 04/18/2007 10:11,ManisD

Batch: 7100402 pCi/L

Sep2 DT/Tm Tech: 04/25/2007 10:03,ManisD

SEQ Batch, Test: None

Prep Tech: ManisD

Work Order, Lot, Sample DateTime	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:
13 JTMQ3-1-AC-C J7D100000-402-LCS		1001.10g,in	SRSG1332 02/28/07,pd 09/11/06,r	0.8148	1.0	25.2	100	1B	0829	4/26/07	
								4D	0844	4/27/07	

~~04/18/2007 10:11;s1, 04/25/2007~~

04/05/2007 09:53 AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: JTAEM-SAMP "Comments. Not full 2000 ml. alliquot due to insufficient sample. JB 04/18/07"

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

JR73G1AA-SAMP Constituent List:

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

JTMQ31AA-BLK:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:

JTMQ31AC-LCS:

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

JR73G1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQ31AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQ31AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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5/3/2007 7:19:14 AM

ICOC Fraction Transfer/Status Report

ByDate: 5/3/2006, 5/8/2007, Batch: '7100402', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100402						
AC		CalcC	ManisD	4/16/2007 1:39:20 PM		
SC			wagarr	IsBatched	4/10/2007 1:53:15 PM	ICOC_RADCALC v4.8.26
SC			ManisD	InSep1	4/16/2007 1:39:20 PM	RICH-RC-5006 REV 6
SC			ManisD	Sep1C	4/18/2007 10:11:04 AM	RICH-RC-5006 REVISION 6
SC			BlackCL	InCnt1	4/18/2007 10:30:58 AM	RICH-RD-0007 REVISION 5
SC			StringerR	Cnt1C	4/18/2007 2:23:49 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	InCnt2	4/25/2007 4:29:49 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	4/27/2007 8:07:56 AM	RICH-RD-0003 REVISION 4
AC			ManisD	4/18/2007 10:11:04		
AC			BlackCL	4/18/2007 10:30:58		
AC			StringerR	4/18/2007 2:23:49 PM		
AC			DAWKINSO	4/25/2007 4:29:49 PM		
AC			StringerR	4/27/2007 8:07:56		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

STL RICHLAND

4/18/2007 2:43:27 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #: _____

AnalyDueDate: 05/21/2007 W05148

Sep1 DT/Tm Tech:

Batch: 7100401 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: BockJ / APA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JR4L3-1-AE J7C300314-1-SAMP 03/30/2007 08:46	1997.00g,in	AmtRec: 20ML,2X500ML,2XLP,4LP #Containers: 6			100mL	100	G10	1458	4/20/07 R	Scr: Alpha: 7.75E-03 uCi/Sa 1.6E-01L Beta: 1.04E-03 uCi/Sa
2 JR4MC-1-AE J7C300314-2-SAMP 03/30/2007 08:46	2000.40g,in	AmtRec: 20ML,2X500ML,2XLP,4LP #Containers: 6					G12	1459	4/20/07 R	Scr: Alpha: 8.13E-03 uCi/Sa 1.6E-01L Beta: 1.13E-03 uCi/Sa
3 JTAEM-1-AA J7D040104-1-SAMP 04/03/2007 09:14	1972.60g,in	AmtRec: 20ML,3XLP,4LP #Containers: 5					G13	1459	4/20/07 R	Scr: Alpha: -1.91E-04 uCi/Sa Beta: 1.79E-03 uCi/Sa
4 JTAEM-1-AD-X J7D040104-1-DUP 04/03/2007 09:14	1948.70g,in	AmtRec: 20ML,3XLP,4LP #Containers: 5					G12	1722	4/20/07 [illegible]	Scr: Alpha: -1.91E-04 uCi/Sa Beta: 1.79E-03 uCi/Sa
5 JTAEP-1-AA J7D040104-2-SAMP 04/03/2007 10:28	2000.90g,in	AmtRec: 20ML,3XLP,4LP #Containers: 5					G10	1722		Scr: Alpha: -1.13E-03 uCi/Sa Beta: 1.67E-03 uCi/Sa
6 JTAEQ-1-AA J7D040104-3-SAMP 04/03/2007 11:35	1999.50g,in	AmtRec: 20ML,3XLP,4LP #Containers: 5					G13	1723		Scr: Alpha: 1.25E-04 uCi/Sa Beta: 6.68E-07 uCi/Sa
7 JTG12-1-AA J7D060242-1-SAMP 04/05/2007 10:33	1995.00g,in	AmtRec: 20ML,3XLP,4LP #Containers: 5					G10	1947		Scr: Alpha: 1.54E-03 uCi/Sa Beta: 6.87E-03 uCi/Sa 9.2E-02L

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

STL RICHLAND

4/18/2007 2:43:30 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AW Gamma PrpRC5017
TA Gamma by HPGE

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 05/21/2007

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 7100401 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JTG13-1-AA J7D060242-2-SAMP 04/05/2007 11:16		1996.00g,in AmtRec: 20ML,3XLP,4LP	#Containers: 5		100mL	100	G12	1948	4/20/07	Scr: Alpha: -2.52E-04 uCi/Sa Beta: 4.21E-03 uCi/Sa 1.5E-01L
9 JTG17-1-AA J7D060242-3-SAMP 04/05/2007 07:15		1995.40g,in AmtRec: 20ML,3XLP,4LP	#Containers: 5				G13	1948		Scr: Alpha: 5.58E-04 uCi/Sa Beta: -4.13E-04 uCi/Sa
10 JTMQ1-1-AA-B J7D100000-401-BLK 04/03/2007 09:14		1997.20g,in AmtRec:	#Containers: 1				G10	2131		Scr: Alpha: Beta:
11 JTMQ1-1-AC-C J7D100000-401-LCS 04/03/2007 09:14		1996.50g,in AmtRec:	QCAG1354 03/23/07,pd 03/07/05,r #Containers: 1				G13	2132		Scr: Alpha: Beta:

Comments: JR4L3-SAMP ~~Comments~~.
JTAEM-SAMP "Comments. Not full 2000 ml. alliquot due to insufficient sample. JB 04/18/07"
pH < 2.0 JB 4-18-07

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

JR4L31AE-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:

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4/18/2007 2:43:33 PM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 05/21/2007

Sep1 DT/Tm Tech:

Batch: 7100401 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

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

```
JTMQ11AA-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:

JTMQ11AC-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

JR4L31AE-SAMP Calc Info:
    Uncert Level (#s).: 2   Decay to SaDt: Y   Blk Subt.: N   Sci.Not.: Y   ODRs: B
JTMQ11AA-BLK:
    Uncert Level (#s).: 2   Decay to SaDt: Y   Blk Subt.: N   Sci.Not.: Y   ODRs: B
JTMQ11AC-LCS:
    Uncert Level (#s).: 2   Decay to SaDt: Y   Blk Subt.: N   Sci.Not.: Y   ODRs: B
```

Approved By _____ Date: _____

5/2/2007 3:44:52 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/2/2006, 5/7/2007, Batch: '7100401', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100401						
AC		CalcC	BockJ	4/18/2007 2:20:35 PM		
SC			wagarr	IsBatched	4/10/2007 1:53:15 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	4/18/2007 2:20:35 PM	RICH-RC-5017 Revision 5
SC			BockJ	Prep1C	4/18/2007 2:43:36 PM	RICH-RC-5017 REVISION 5
SC			AshworthA	InPrep2	4/19/2007 10:21:40 AM	RICH-RC-5017 REVISION 4
SC			AshworthA	Prep2C	4/20/2007 1:10:56 PM	RICH-RC-5017 REVISION 4
SC			StringerR	InCnt1	4/20/2007 1:15:32 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	4/20/2007 9:38:00 PM	RICH-RD-0007 REVISION 5
AC			BockJ	4/18/2007 2:43:36 PM		
AC			BockJ	4/19/2007 9:52:41		
AC			AshworthA	4/19/2007 10:21:40		
AC			AshworthA	4/20/2007 1:10:56 PM		
AC			StringerR	4/20/2007 1:15:32 PM		
AC			DAWKINSO	4/20/2007 9:38:00 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

STL RICHLAND

5/9/2007 10:58:44 AM

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 05/21/2007 WO5148

Batch: 7100400 **WATER** **pCi/L**
SEQ Batch, Test: None

Sample Preparation/Analysis

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

PM, Quote: SA , 57671

Balance Id:1120482733

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: BockJ MPA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JTAER-1-AA J7D040104-4-SAMP 04/03/2007 13:14		2500.80g,in AmtRec: 20ML,3XLP			100mL	100	G5	1330	5/11/07 r Scr: Alpha: 1.07E-03 uCi/Sa	#Containers: 4 Beta: 1.07E-04 uCi/Sa
2 JTAER-1-AC-X J7D040104-4-DUP 04/03/2007 13:14		AmtRec: 20ML,3XLP			—		G6	1529	5/11/07 r Scr: Alpha: 1.07E-03 uCi/Sa	#Containers: 4 Beta: 1.07E-04 uCi/Sa
3 JTMQ0-1-AA-B J7D100000-400-BLK 04/03/2007 13:14		2500.10g,in AmtRec:			100mL		G12	1333	5/11/07 r Scr: Alpha:	#Containers: 1 Beta:
4 JTMQ0-1-AC-C J7D100000-400-LCS 04/03/2007 13:14		2499.40g,in AmtRec:	QCAG1359 03/23/07,pd 03/07/05,r				G13	1333	5/11/07 r Scr: Alpha:	#Containers: 1 Beta:

Comments: JTAER-SAMP "Comments. No Dup aliquot poured due to insufficient sample. Please recount on diff. detector. JB 5/9/07"

PH <2.0 JB 5-9-07

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

JTAER1AA-SAMP Constituent List:

Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						

JTMQ01AA-BLK:

5/9/2007 10:58:49 AM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,BockJ

AnalyDueDate: 05/21/2007

Batch: 7100400 pCi/L
SEQ Batch, Test: None

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

Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						
JTMQ01AC-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						

JTAER1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQ01AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQ01AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

SEVERN TRENT STL

*** RE-COUNT REQUEST ***

DUE DATE 5/21/07

CUSTOMER PGW

ANALYSIS Gamma

MATRIX Water

LOT NUMBER J7D010101

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 7100100

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) J7M001ACC	Low LCS
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	

STL RICHLAND

5/15/2007 12:13:40 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #:

AnalyDueDate: 05/21/2007

Sep1 DT/Tm Tech:

Batch: 7100400 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JTAER-1-AA J7D040104-4-SAMP 04/03/2007 13:14		2500.80g,in AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 1.07E-03 uCi/Sa	Beta: 1.07E-04 uCi/Sa
2 JTAER-1-AC-X J7D040104-4-DUP 04/03/2007 13:14		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 1.07E-03 uCi/Sa	Beta: 1.07E-04 uCi/Sa
3 JTMQ0-1-AA-B J7D100000-400-BLK 04/03/2007 13:14		2500.10g,in AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
4 JTMQ0-1-AC-C J7D100000-400-LCS 04/03/2007 13:14		2499.40g,in AmtRec:	QCAG1359 03/23/07,pd 03/07/05,r #Containers: 1					Scr:	Alpha:	Beta:
5 [redacted] J7D100000-400-LCS 04/03/2007 13:14		2499.40g AmtRec:	QCAG1359 #Containers: 1		100 ml	100 min	612	1514	5/15/07	
								Scr:	Alpha:	Beta:

Comments: JTAER-SAMP "Comments. No Dup aliquot poured due to insufficient sample. Please recount on diff. detector. JB 5/9/07"

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

JTAER1AA-SAMP Constituent List:

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Sample Preparation/Analysis

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

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

AnalyDueDate: 05/21/2007

Batch: 7100400 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Co-60	RDL:2.50E+01 pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01 pCi/L	LCL:	UCL:	RPD:	
Cs-137	RDL:1.50E+01 pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:1.50E+01 pCi/L	LCL:70	UCL:130	RPD:20	
Eu-152	RDL:5.00E+01 pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01 pCi/L	LCL:	UCL:	RPD:	
Eu-155	RDL:5.00E+01 pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00 pCi/L	LCL:	UCL:	RPD:	
Sb-125	RDL:5.00E+01 pCi/L	LCL:	UCL:	RPD:						
JTMQ01AA-BLK:										
Co-60	RDL:2.50E+01 pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01 pCi/L	LCL:	UCL:	RPD:	
Cs-137	RDL:1.50E+01 pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:1.50E+01 pCi/L	LCL:	UCL:	RPD:	
Eu-152	RDL:5.00E+01 pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01 pCi/L	LCL:	UCL:	RPD:	
Eu-155	RDL:5.00E+01 pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00 pCi/L	LCL:	UCL:	RPD:	
Sb-125	RDL:5.00E+01 pCi/L	LCL:	UCL:	RPD:						
JTMQ01AC-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						
JTMQ02AC-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						

JTAER1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JTMQ01AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JTMQ01AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JTMQ02AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

5/17/2007 4:22:22 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/17/2006, 5/22/2007, Batch: '7100400', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100400						
AC		CalcC	BockJ	5/9/2007 10:49:32		
SC			wagarr	IsBatched	4/10/2007 1:53:15 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	5/9/2007 10:49:32 AM	rich-rc-5015 rEVISION 4
SC			BockJ	Prep1C	5/9/2007 10:59:02 AM	RICH-RC-5017 REVISION 5
SC			AshworthA	InPrep2	5/10/2007 8:47:15 AM	RICH-RC-5017 REVISION 4
SC			BlackCL	InCnt1	5/11/2007 11:37:48 AM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	5/11/2007 4:19:51 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	5/15/2007 3:23:56 PM	RICH-RD-0007 REVISION 5
AC			BockJ	5/9/2007 10:59:02		
AC			BockJ	5/9/2007 10:59:11		
AC			AshworthA	5/10/2007 8:47:15		
AC			BlackCL	5/11/2007 11:37:48		
AC			DAWKINSO	5/11/2007 4:19:51 PM		
AC			DAWKINSO	5/15/2007 3:23:56 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

STL RICHLAND

5/15/2007 4:53:59 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 05/21/2007

Sep1 DT/Tm Tech:

Batch: 7100397 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None All Tests: 7100396 FPS5, 7100397 BNTB,

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JR72D-1-AA J7D030114-1-SAMP 04/02/2007 12:21		3939.20g,in AmtRec: 20ML,500ML,2X4LP	ITA6176 04/05/07 #Containers: 4	IFA	25.3	100	L2 Scr:	1846 Alpha: 1.04E-04 uCi/Sa	5/15/07 CR Beta: 2.28E-03 uCi/Sa	
2 JTDP2-1-AA J7D050113-1-SAMP 04/04/2007 11:36		3922.20g,in AmtRec: 20ML,2X4LP	ITA6177 04/05/07 #Containers: 3	IFA	33.2	100	L4 Scr:	1848 Alpha: -8.28E-04 uCi/Sa	5/15/07 CR Beta: 1.80E-03 uCi/Sa	
3 JTDP2-1-AC-X J7D050113-1-DUP 04/04/2007 11:36		3939.00g,in AmtRec: 20ML,2X4LP	ITA6178 04/05/07 #Containers: 3	IFA	30.1	100	L5 Scr:	1849 Alpha: -8.28E-04 uCi/Sa	5/15/07 CR Beta: 1.80E-03 uCi/Sa	
4 JTDQC-1-AA J7D050113-2-SAMP 04/04/2007 13:29		3933.70g,in AmtRec: 20ML,2X4LP	ITA6179 04/05/07 #Containers: 3	IFA	35.6	100	L2 Scr:	2037 Alpha: 2.27E-04 uCi/Sa	5/15/07 CR Beta: 1.23E-03 uCi/Sa	
5 JTMQM-1-AA-B J7D100000-397-BLK 04/04/2007 11:36		3996.30g,in AmtRec:	ITA6180 04/05/07 #Containers: 1	IFA	36.8	100	L4 Scr:	2039 Alpha:	5/15/07 CR Beta:	
6 JTMQM-1-AC-C J7D100000-397-LCS 04/04/2007 11:36		4001.10g,in AmtRec:	ISD0742 12/20/06 #Containers: 1	IFA	33	100	L5 Scr:	2040 Alpha:	5/15/07 CR Beta:	

STL RICHLAND

5/15/2007 4:54:04 PM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,BockJ

AnalyDueDate: 05/21/2007

Batch: 7100397 pCi/L
SEQ Batch, Test: None

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

Comments:

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

JR72D1AA-SAMP Constituent List:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JTMQM1AA-BLK:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JTMQM1AC-LCS:
I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20

JR72D1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQM1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQM1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

125

5/17/2007 9:25:31 AM

ICOC Fraction Transfer/Status Report

ByDate: 5/17/2006, 5/22/2007, Batch: '7100397', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100397						
AC		**CalcC**	**BockJ**	4/26/2007 12:05:15		
SC			wagarr	IsBatched	4/10/2007 1:53:15 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	4/26/2007 12:05:15 PM	RICH-RC-5017 Revision 5
SC			BockJ	Prep1C	4/26/2007 12:25:17 PM	RICH-RC-5017 REVISION 5
SC			BostedD	InPrep2	4/26/2007 12:43:11 PM	RICHRC5025 REV3
SC			ManisD	InSep1	5/15/2007 11:17:17 AM	RICHRC5025 REV3
SC			ManisD	Sep1C	5/15/2007 3:18:02 PM	RICHRC5025 REV3
SC			DAWKINSO	InCnt1	5/15/2007 5:08:23 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	5/15/2007 9:36:30 PM	RICH-RD-0007 REVISION 5
AC			**BockJ**	4/26/2007 12:25:17		
AC			**BostedD**	4/26/2007 12:43:11		
AC			**ManisD**	5/15/2007 11:17:17		
AC			**ManisD**	5/15/2007 3:18:02 PM		
AC			**DAWKINSO**	5/15/2007 5:08:23 PM		
AC			**DAWKINSO**	5/15/2007 9:36:30 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

STL RICHLAND

4/16/2007 2:52:23 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 05/21/2007 W05148

Batch: 7100396 WATER pCi/L
SEQ Batch, Test: None

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

PM, Quote: SA , 57671

Balance Id:1120482733
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JR4L3-1-AF J7C300314-1-SAMP 03/30/2007 08:46			125.90g,in	125.90g		60				
	AmtRec: 20ML,2X500ML,2XLP,4LP		#Containers: 6					Scr: Alpha: 7.75E-03 uCi/Sa	1.6E-01L	Beta: 1.04E-03 uCi/Sa
2 JR4L3-1-AK-S J7C300314-1-MS 03/30/2007 08:46			126.30g,in	126.30g	TCSG1791 02/28/07,pd 01/10/06,r					
	AmtRec: 20ML,2X500ML,2XLP,4LP		#Containers: 6					Scr: Alpha: 7.75E-03 uCi/Sa	1.6E-01L	Beta: 1.04E-03 uCi/Sa
3 JR4MC-1-AF J7C300314-2-SAMP 03/30/2007 08:46			126.40g,in	126.40g						
	AmtRec: 20ML,2X500ML,2XLP,4LP		#Containers: 6					Scr: Alpha: 8.13E-03 uCi/Sa	1.6E-01L	Beta: 1.13E-03 uCi/Sa
4 JR72D-1-AC J7D030114-1-SAMP 04/02/2007 12:21			125.80g,in	125.80g						
	AmtRec: 20ML,500ML,2X4LP		#Containers: 4					Scr: Alpha: 1.04E-04 uCi/Sa		Beta: 2.28E-03 uCi/Sa
5 JR72D-1-AD-X J7D030114-1-DUP 04/02/2007 12:21			124.80g,in	124.80g						
	AmtRec: 20ML,500ML,2X4LP		#Containers: 4					Scr: Alpha: 1.04E-04 uCi/Sa		Beta: 2.28E-03 uCi/Sa
6 JTMQL-1-AA-B J7D100000-396-BLK 04/02/2007 12:21			124.90g,in	124.90g						
	AmtRec:		#Containers: 1					Scr: Alpha:		Beta:
7 JTMQL-1-AC-C J7D100000-396-LCS 04/02/2007 12:21			126.60g,in	126.60g	TCSE2097 02/28/07,pd 01/10/06,r					
	AmtRec:		#Containers: 1					Scr: Alpha:		Beta:

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STL RICHLAND

4/16/2007 2:52:29 PM

Sample Preparation/Analysis

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

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

AnalyDueDate: 05/21/2007

Batch: 7100396 pCi/L
SEQ Batch, Test: None

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:
8 JTMQL-1-AD-BN J7D100000-396-IBLK 04/02/2007 12:21	AmtRec:	#Containers: 1						Scr:	Alpha:	Beta:

Comments: ~~JR4L3 SAMP Comments~~.

pH <2.0 JB 4-16-07

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

JR4L31AF-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JR4L31AK-MS Constituent List:

JTMQL1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JTMQL1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JTMQL1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

JR4L31AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR4L31AK-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQL1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQL1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQL1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

5/3/2007 7:26:09 AM

ICOC Fraction Transfer/Status Report

ByDate: 5/3/2006, 5/8/2007, Batch: '7100396', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100396						
AC		CalcC	BockJ	4/16/2007 2:52:56 PM		
SC			wagarr	IsBatched	4/10/2007 1:53:15 PM	ICOC_RADCALC v4.8.26
SC			BockJ	Prep1C	4/16/2007 2:52:56 PM	RICH-RC-5016 REVISION 6
SC			FABREM	Sep1C	4/18/2007 6:39:04 PM	RICH-RC-5086 REVISION 2
SC			BlackCL	InCnt1	4/18/2007 6:40:38 PM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	4/20/2007 10:42:33 AM	RICH-RD-0001 REVISION 3
AC			BockJ	4/16/2007 3:15:49 PM		
AC			FABREM	4/18/2007 6:39:04 PM		
AC			BlackCL	4/18/2007 6:40:38 PM		
AC			StringerR	4/20/2007 10:42:33		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

STL RICHLAND

4/10/2007 1:49:11 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id: 17445
Pipet #:

AnalyDueDate: 05/21/2007 W05148

Sep1 DT/Tm Tech: 4-16-07 [illegible]

Batch: 7100403 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JR4L3-1-AH J7C300314-1-SAMP 03/30/2007 08:46	AmtRec: 20ML,2X500ML,2XLP,4LP	#Containers: 6					Scr: Alpha: 7.75E-03 uCi/Sa 1.6E-01L	Beta: 1.04E-03 uCi/Sa
2 JR4MC-1-AH J7C300314-2-SAMP 03/30/2007 08:46	AmtRec: 20ML,2X500ML,2XLP,4LP	#Containers: 6					Scr: Alpha: 8.13E-03 uCi/Sa 1.6E-01L	Beta: 1.13E-03 uCi/Sa
3 JR72J-1-AA J7D030115-1-SAMP 04/02/2007 11:00	AmtRec: 20ML,2XLP	#Containers: 3					Scr: Alpha: 3.11E-05 uCi/Sa	Beta: 3.47E-04 uCi/Sa
4 JR72J-1-AE-X J7D030115-1-DUP 04/02/2007 11:00	AmtRec: 20ML,2XLP	#Containers: 3					Scr: Alpha: 3.11E-05 uCi/Sa	Beta: 3.47E-04 uCi/Sa
5 JTDR2-1-AA J7D050119-1-SAMP 04/04/2007 09:36	AmtRec: 20ML,500ML,2XLP	#Containers: 4					Scr: Alpha:	Beta:
6 JTMQ5-1-AA-B J7D100000-403-BLK 04/02/2007 11:00	AmtRec:	#Containers: 1					Scr: Alpha:	Beta:
7 JTMQ5-1-AC-C J7D100000-403-LCS 04/02/2007 11:00	AmtRec:	#Containers: 1					Scr: Alpha:	Beta:

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STL RICHLAND

4/10/2007 1:49:15 PM

Sample Preparation/Analysis

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

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 4-16 07am
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 05/21/2007

Batch: 7100403 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JTMQ5-1-AD-BX J7D100000-403-MBLK 04/02/2007 11:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
9 JTMQ5-1-AE-CM J7D100000-403-MLCS 04/02/2007 11:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
10 JTMQ5-1-AF-BN J7D100000-403-IBLK 04/02/2007 11:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
11 JTMQ5-1-AG-BN J7D100000-403-IBLK 04/02/2007 11:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

JR4L31AH-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JTMQ51AA-BLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JTMQ51AC-LCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JTMQ51AD-MBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

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STL RICHLAND

4/10/2007 1:49:20 PM

Sample Preparation/Analysis

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

AnalyDueDate: 05/21/2007

Batch: 7100403
SEQ Batch, Test: None

pCi/L

Balance Id: 17445
Pipet #:
Sep1 DT/Tm Tech: 4-16 [illegible]
Sep2 DT/Tm Tech:
Prep Tech:

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

```
JTMQ51AE-MLCS:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
JTMQ51AF-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JTMQ51AG-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JR4L31AH-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTMQ51AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTMQ51AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTMQ51AD-MBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTMQ51AE-MLCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTMQ51AF-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTMQ51AG-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

4/20/2007 3:52:25 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/20/2006, 4/25/2007, Batch: '7100403', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100403						
AC		**CalcC**	**McDowellD**	4/16/2007 8:59:00		
SC			wagarr	IsBatched	4/10/2007 1:53:15 PM	ICOC_RADCALC v4.8.26
SC			McDowellD	InSep1	4/16/2007 8:59:00 AM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	4/18/2007 1:43:43 PM	RICH-RC-5007 REVISION 6
SC			StringerR	InCnt1	4/18/2007 1:47:34 PM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	4/20/2007 10:42:19 AM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	4/18/2007 1:43:43 PM		
AC			**StringerR**	4/18/2007 1:47:34 PM		
AC			**StringerR**	4/20/2007 10:42:19		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.26

STL RICH/AND

4/18/2007 9:36:54 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
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 05/21/2007 W05148

Sep1 DT/Tm Tech:

Batch: 7100395 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 JR4L3-1-AG J7C300314-1-SAMP 03/30/2007 08:46		26.20g,in AmtRec: 20ML,2X500ML,2XLP,4LP	#Containers: 6			Scr: Alpha: 7.75E-03 uCi/Sa	1.6E-01L	Beta: 1.04E-03 uCi/Sa
2 JR4L3-1-AJ-X J7C300314-1-DUP 03/30/2007 08:46		24.60g,in AmtRec: 20ML,2X500ML,2XLP,4LP	#Containers: 6			Scr: Alpha: 7.75E-03 uCi/Sa	1.6E-01L	Beta: 1.04E-03 uCi/Sa
3 JR4MC-1-AG J7C300314-2-SAMP 03/30/2007 08:46		26.70g,in AmtRec: 20ML,2X500ML,2XLP,4LP	#Containers: 6			Scr: Alpha: 8.13E-03 uCi/Sa	1.6E-01L	Beta: 1.13E-03 uCi/Sa
4 JR4MC-1-AJ-S J7C300314-2-MS 03/30/2007 08:46		26.30g,in AmtRec: 20ML,2X500ML,2XLP,4LP	UNSF3678 03/28/07,pd 01/23/07,r #Containers: 6			Scr: Alpha: 8.13E-03 uCi/Sa	1.6E-01L	Beta: 1.13E-03 uCi/Sa
5 JTDR2-1-AE J7D050119-1-SAMP 04/04/2007 09:36		25.40g,in AmtRec: 20ML,500ML,2XLP	#Containers: 4			Scr: Alpha: 2.73E-04 uCi/Sa		Beta: 1.48E-04 uCi/Sa
6 JTMQJ-1-AA-B J7D100000-395-BLK 03/30/2007 08:46		25.70g,in AmtRec:	#Containers: 1			Scr: Alpha:		Beta:
7 JTMQJ-1-AC-C J7D100000-395-LCS 03/30/2007 08:46		26.00g,in AmtRec:	UNSF3679 03/28/07,pd 01/23/07,r #Containers: 1			Scr: Alpha:		Beta:

STL RICHLAND

4/18/2007 9:37:00 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 05/21/2007

Sep1 DT/Tm Tech:

Batch: 7100395 ug/L
SEQ Batch, Test: None

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:
8 JTMQJ-1-AD-C J7D100000-395-LCS 03/30/2007 08:46		26.10g,in AmtRec:	UNSC1628 04/05/07,pd 04/28/06,r #Containers: 1					

Scr: Alpha: Beta:

Comments: ~~JR4L3-SAMP Comments~~.
PH<2.0 JB 4-17-07

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

JR4L31AG-SAMP Constituent List:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JR4MC1AJ-MS:

JTMQJ1AA-BLK:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JTMQJ1AC-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20
JTMQJ1AD-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

JR4L31AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR4MC1AJ-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQJ1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQJ1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTMQJ1AD-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

135

5/4/2007 8:12:56 AM

ICOC Fraction Transfer/Status Report

ByDate: 5/4/2006, 5/9/2007, Batch: '7100395', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
7100395							
AC			Cnt1C	BockJ	4/18/2007 9:28:38		
SC				wagarr	IsBatched	4/10/2007 1:53:15 PM	ICOC_RADCALC v4.8.26
SC				BockJ	InPrep	4/18/2007 9:28:38 AM	RICH-RC-5015 Revision 4
SC				BockJ	Prep1C	4/18/2007 9:36:59 AM	RICH-RC-5015 REVISION 4
SC				AshworthA	InPrep2	4/30/2007 12:12:41 PM	RICH-RC-5015 REVISION 4
SC				AshworthA	Prep2C	5/1/2007 12:40:23 PM	RICH-RC-5015 REVISION 4
SC				NortonJ	Cnt1C	5/2/2007 3:51:18 PM	RICH-RC-5058 REV 7
AC				BockJ	4/18/2007 9:36:59		
AC				AshworthA	4/30/2007 12:12:41		
AC				AshworthA	5/1/2007 12:40:23 PM		
AC				NortonJ	5/2/2007 3:51:18 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

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