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 153 *Pages*

Report Nbr: 35313

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05147	W07-003	B1MJY2	J7C280209-1	JRWFV1AA	9JRWFV10	7092484
		B1MK29	J7C280209-2	JRWFX1AA	9JRWFX10	7092488
		B1MK29	J7C280209-2	JRWFX1AC	9JRWFX10	7092489
		B1MK29	J7C280209-2	JRWFX1AD	9JRWFX10	7092484
		B1MK61	J7C280209-3	JRWF71AA	9JRWF710	7092494
		B1MK61	J7C280209-3	JRWF71AC	9JRWF710	7092484
		B1MK61	J7C280209-3	JRWF71AD	9JRWF710	7092483
		B1MK78	J7C280209-4	JRWGG1AA	9JRWGG10	7092494
		B1MK78	J7C280209-4	JRWGG1AC	9JRWGG10	7092484
		B1MK78	J7C280209-4	JRWGG1AD	9JRWGG10	7092483
	A07-003	B1MCT1	J7C290127-1	JR0JV1AA	9JR0JV10	7092494
		B1MCT1	J7C290127-1	JR0JV1AD	9JR0JV10	7092484
		B1MCT1	J7C290127-1	JR0JV2AC	9JR0JV20	7129333
		B1MCT9	J7C290127-2	JR0J51AA	9JR0J510	7092494
		B1MCT9	J7C290127-2	JR0J51AD	9JR0J510	7092484

Rec 5/15/09

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PROJ. 52494
CAT. T3.1
WORKING COPY

Comments:

Report Nbr: 35313

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05147	A07-003	B1MCT9	J7C290127-2	JR0J52AC	9JR0J520	7129333
	G07-003	B1MD38	J7C290150-1	JR0PA1AA	9JR0PA10	7092492
		B1MD38	J7C290150-1	JR0PA1AC	9JR0PA10	7092487
	W07-002	B1M8N9	J7C290189-1	JR01R1AA	9JR01R10	7092494
		B1M8N9	J7C290189-1	JR01R1AC	9JR01R10	7092484
	I07-032	B1MDK8	J7C290370-1	JR2LA1AA	9JR2LA10	7092493
	S07-003	B1MF79	J7C290371-1	JR2LE2AA	9JR2LE20	7129333
	W07-003	B1MKF9	J7C290373-1	JR2LK1AA	9JR2LK10	7092489
		B1MKF9	J7C290373-1	JR2LK1AC	9JR2LK10	7092491
		B1MKF9	J7C290373-1	JR2LK1AD	9JR2LK10	7092484
		B1MKF9	J7C290373-1	JR2LK1AE	9JR2LK10	7092483
		B1MKH0	J7C290373-2	JR2LM1AA	9JR2LM10	7092489
		B1MKH0	J7C290373-2	JR2LM1AC	9JR2LM10	7092491
		B1MKH0	J7C290373-2	JR2LM1AD	9JR2LM10	7092484
		B1MKH0	J7C290373-2	JR2LM1AE	9JR2LM10	7092483
		B1MKF1	J7C290373-3	JR2LN1AA	9JR2LN10	7092489
		B1MKF1	J7C290373-3	JR2LN1AC	9JR2LN10	7092486
		B1MKF1	J7C290373-3	JR2LN1AD	9JR2LN10	7092483
		B1MK87	J7C290374-1	JR2LT1AA	9JR2LT10	7092494
		B1MK87	J7C290374-1	JR2LT1AC	9JR2LT10	7092488
		B1MK87	J7C290374-1	JR2LT1AD	9JR2LT10	7092489
		B1MK87	J7C290374-1	JR2LT1AE	9JR2LT10	7092484
		B1MK87	J7C290374-1	JR2LT1AF	9JR2LT10	7092483
		B1MK88	J7C290374-2		9JR2LX10	7092483
		B1MK88	J7C290374-2	JR2LX1AA	9JR2LX10	7092494
		B1MK88	J7C290374-2	JR2LX1AC	9JR2LX10	7092488

Comments:

Report Nbr: 35313

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05147	W07-003	B1MK88	J7C290374-2	JR2LX1AD	9JR2LX10	7092489
		B1MK88	J7C290374-2	JR2LX1AE	9JR2LX10	7092484
		B1MK88	J7C290374-2	JR2LX1AF	9JR2LX10	7092483
		B1MKD3	J7C290374-3	JR2L01AA	9JR2L010	7092484
		B1MKD4	J7C290374-4	JR2L21AA	9JR2L210	7092484
		B1MKH9	J7C300308-1	JR4KX1AA	9JR4KX10	7092489
		B1MKH9	J7C300308-1	JR4KX1AC	9JR4KX10	7092491
		B1MKH9	J7C300308-1	JR4KX1AD	9JR4KX10	7092484
		B1MKH9	J7C300308-1	JR4KX1AE	9JR4KX10	7092483
		B1MKC4	J7C300308-2	JR4LA1AA	9JR4LA10	7092484
		B1MKC7	J7C300308-3	JR4LF1AA	9JR4LF10	7092484

Comments:

SEVERN TRENT STL

STL Richland
2800 George Washington Way
Richland, WA 99354

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Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

May 14, 2007

Attention: Dot Stewart

SAF Number	:	W07-003, A07-003, G07-003, W07-002, I07-032, S07-003
Date SDG Closed	:	March 30, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05147
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between March 27, 2007 and March 30, 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#	MATRIX	DATE OF RECEIPT
B1MJY2	JRWFV	WATER	3/27/07
B1MK29	JRWFX	WATER	3/27/07
B1MK61	JRWF7	WATER	3/27/07
B1MK78	JRWGG	WATER	3/27/07
B1MCT1	JR0JV	WATER	3/28/07
B1MCT9	JR0J5	WATER	3/28/07
B1MD38	JR0PA	WATER	3/28/07
B1M8N9	JR01R	WATER	3/28/07
B1MDK8	JR2LA	WATER	3/29/07
B1MF79	JR2LE	WATER	3/29/07
B1MKF9	JR2LK	WATER	3/29/07
B1MKH0	JR2LM	WATER	3/29/07
B1MKF1	JR2LN	WATER	3/29/07

B1MK87	JR2LT	WATER	3/29/07
B1MK88	JR2LX	WATER	3/29/07
B1MKD3	JR2L0	WATER	3/29/07
B1MKD4	JR2L2	WATER	3/29/07
B1MKH9	JR4KX	WATER	3/30/07
B1MKC4	JR4LA	WATER	3/30/07
B1MKC7	JR4LF	WATER	3/30/07

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
Technetium-99 by method RICH-RC-5078
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:
Sample B1MK29 was analyzed with a reduced volume based on an elevated screen result. Except as noted, the LCS, batch blank, samples and sample duplicate (B1MK87) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
The LCS, batch blank, samples and sample duplicate (B1MK29) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006
The LCS, batch blank, samples and sample duplicate (B1MD38) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017:
The LCS, batch blank, samples and sample duplicate (B1MKH0) results are within contractual requirements.

Gamma Spec by method RICH-RC-5017:
The LCS, batch blank, samples and sample duplicate (B1MD38) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025:
Batch 7092493 had a high recovery for the LCS and the sample/sample duplicate (B1MDK8) was out of limits. Sample B1MDK8 had insufficient volume for a reanalysis. On May 9, 2007 STL Richland sent an IRF proposing to report the original result for sample B1MDK8. The proposed resolution was accepted May 11, 2007. Other results also included in the report from batch 7092493 are the batch blank (JR7LH1AB) and sample duplicate (B1MDK8 DUP).

All the samples were reanalyzed in batch 7129333. There was insufficient volume for a duplicate. Except as noted, the LCS, batch blank and samples results are within contractual requirements.

Technetium-99 by method RICH-RC-5078:
The LCS, batch blank, samples, sample duplicate (B1MKF1), and sample matrix spike (B1MKF1) results are within contractual requirements.

Tritium by method RICH-RC-5007:
The LCS, batch blank, samples and sample duplicate (B1M8N9) results are within contractual requirements.

Pacific Northwest National Laboratories
May 14, 2007

Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1MKH9), and sample matrix spike (B1MK87) 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 Logan

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.

5/14/2007 1:30:44 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35313 File Name: h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.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:
9JR01R10	B1M8N9		MW6-SBB-A1	W07-002	W05147					03/28/2007 08:53

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092494	H-3	10028-17-8	5.96E+03	pCi/L	2.8E+02	3.8E+02		3.04E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/06/2007 16:44	I
7092484	TC-99	14133-76-7	8.70E+01	pCi/L	6.5E+00	1.2E+01		9.97E+00	100.0	TC99_ETVDSK_LS	1.249E-01	L	04/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR0J510	B1MCT9		MW6-SBB-A1	A07-003	W05147					03/28/2007 11:50

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092494	H-3	10028-17-8	-1.99E+01	pCi/L	1.2E+02	1.4E+02	U	3.01E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/06/2007 15:22	I
7092484	TC-99	14133-76-7	3.34E+00	pCi/L	4.2E+00	6.1E+00	U	9.95E+00	100.0	TC99_ETVDSK_LS	1.251E-01	L	04/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR0J520	B1MCT9		MW6-SBB-A1	A07-003	W05147					03/28/2007 11:50

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129333	I-129L	15046-84-1	5.94E-02	pCi/L	1.3E-01	1.3E-01	U	2.54E-01	97.0	I129LL_SEP_LEPS	3.9284E+00	L	05/10/2007 17:54	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR0JV10	B1MCT1		MW6-SBB-A1	A07-003	W05147					03/28/2007 13:05

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092494	H-3	10028-17-8	2.35E+01	pCi/L	1.2E+02	1.4E+02	U	3.01E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/06/2007 14:00	I
7092484	TC-99	14133-76-7	1.67E+00	pCi/L	4.2E+00	6.0E+00	U	9.96E+00	100.0	TC99_ETVDSK_LS	1.254E-01	L	04/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR0JV20	B1MCT1		MW6-SBB-A1	A07-003	W05147					03/28/2007 13:05

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129333	I-129L	15046-84-1	9.82E-02	pCi/L	1.1E-01	1.1E-01	U	2.31E-01	97.3	I129LL_SEP_LEPS	3.8562E+00	L	05/10/2007 19:45	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:
9JR0PA10	B1MD38		MW6-SBB-A1	G07-003	W05147					03/28/2007 09:48

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092492	BE-7	13966-02-4	-9.46E+00	pCi/L	1.9E+01	1.9E+01	U	3.21E+01		GAMMA_GS	2.4987E+00	L	04/26/2007 16:20	I
7092492	CO-60	10198-40-0	7.29E-01	pCi/L	2.1E+00	2.1E+00	U	4.39E+00		GAMMA_GS	2.4987E+00	L	04/26/2007 16:20	I
7092492	CS-134	13967-70-9	1.20E+00	pCi/L	2.2E+00	2.2E+00	U	4.35E+00		GAMMA_GS	2.4987E+00	L	04/26/2007 16:20	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.

I

5/14/2007 1:30:44 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35313 File Name: h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

7092492	CS-137	10045-97-3	7.14E-01	pCi/L	1.7E+00	1.7E+00	U	3.37E+00		GAMMA_GS	2.4987E+00	L	04/26/2007	16:20	I
7092492	EU-152	14683-23-9	5.22E-02	pCi/L	4.4E+00	4.4E+00	U	7.99E+00		GAMMA_GS	2.4987E+00	L	04/26/2007	16:20	I
7092492	EU-154	15585-10-1	-8.51E-01	pCi/L	6.1E+00	6.1E+00	U	1.15E+01		GAMMA_GS	2.4987E+00	L	04/26/2007	16:20	I
7092492	EU-155	14391-16-3	-9.87E-03	pCi/L	4.4E+00	4.4E+00	U	8.04E+00		GAMMA_GS	2.4987E+00	L	04/26/2007	16:20	I
7092492	K-40	13966-00-2	-3.70E+01	pCi/L	4.4E+01	4.4E+01	U	9.68E+01		GAMMA_GS	2.4987E+00	L	04/26/2007	16:20	I
7092492	RU-106	13967-48-1	-4.71E+00	pCi/L	1.7E+01	1.7E+01	U	3.08E+01		GAMMA_GS	2.4987E+00	L	04/26/2007	16:20	I
7092492	SB-125	14234-35-6	-4.17E-01	pCi/L	4.2E+00	4.2E+00	U	7.45E+00		GAMMA_GS	2.4987E+00	L	04/26/2007	16:20	I
7092487	SR-90	10098-97-2	1.46E+03	pCi/L	9.5E+00	2.2E+02		5.50E-01	57.4	SRISO_SEP_PRE	9.97E-01	L	04/18/2007	07:00	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:
9JR2L010	B1MKD3		MW6-SBB-A1	W07-003	W05147					03/29/2007 13:22

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092484	TC-99	14133-76-7	3.79E+01	pCi/L	5.2E+00	8.3E+00		9.79E+00	100.0	TC99_ETVDSK_LS	1.272E-01	L	04/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR2L210	B1MKD4		MW6-SBB-A1	W07-003	W05147					03/29/2007 13:22

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092484	TC-99	14133-76-7	4.60E+01	pCi/L	5.5E+00	9.0E+00		9.97E+00	100.0	TC99_ETVDSK_LS	1.249E-01	L	04/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR2LA10	B1MDK8		MW6-SBB-A1	I07-032	W05147					03/29/2007 13:08

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092493	I-129L	15046-84-1	2.45E+00	pCi/L	4.9E-01	4.9E-01		3.41E-01	66.2	I129LL_SEP_LEPS	3.9072E+00	L	04/27/2007 05:21	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR2LE20	B1MF79		MW6-SBB-A1	S07-003	W05147					03/29/2007 11:52

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7129333	I-129L	15046-84-1	5.69E-01	pCi/L	2.1E-01	2.1E-01	U	4.33E-01	97.3	I129LL_SEP_LEPS	3.908E+00	L	05/10/2007 17:54	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR2LK10	B1MKF9		MW6-SBB-A1	W07-003	W05147					03/29/2007 08:44

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092489	BETA	12587-47-2	5.17E+01	pCi/L	3.5E+00	8.7E+00		2.77E+00	100.0	9310_ALPHABETA	2.004E-01	L	04/16/2007 20:06	I
7092491	BE-7	13966-02-4	4.89E+00	pCi/L	1.8E+01	1.8E+01	U	3.27E+01		GAMMALL_GS	1.9993E+00	L	04/17/2007 19:44	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.

5/14/2007 1:30:45 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35313 File Name: h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

7092491	CO-60	10198-40-0	5.97E-01	pCi/L	1.6E+00	1.6E+00	U	3.33E+00		GAMMALL_GS	1.9993E+00	L	04/17/2007	19:44	I
7092491	CS-134	13967-70-9	-9.01E-01	pCi/L	1.8E+00	1.8E+00	U	3.04E+00		GAMMALL_GS	1.9993E+00	L	04/17/2007	19:44	I
7092491	CS-137	10045-97-3	-8.21E-02	pCi/L	1.7E+00	1.7E+00	U	3.12E+00		GAMMALL_GS	1.9993E+00	L	04/17/2007	19:44	I
7092491	EU-152	14683-23-9	3.48E+00	pCi/L	4.8E+00	4.8E+00	U	8.93E+00		GAMMALL_GS	1.9993E+00	L	04/17/2007	19:44	I
7092491	EU-154	15585-10-1	-2.93E+00	pCi/L	4.3E+00	4.3E+00	U	7.30E+00		GAMMALL_GS	1.9993E+00	L	04/17/2007	19:44	I
7092491	EU-155	14391-16-3	1.57E-01	pCi/L	3.9E+00	3.9E+00	U	6.78E+00		GAMMALL_GS	1.9993E+00	L	04/17/2007	19:44	I
7092491	K-40	13966-00-2	8.33E-02	pCi/L	2.5E+01	2.5E+01	U	5.41E+01		GAMMALL_GS	1.9993E+00	L	04/17/2007	19:44	I
7092491	RU-106	13967-48-1	7.02E+00	pCi/L	1.6E+01	1.6E+01	U	3.10E+01		GAMMALL_GS	1.9993E+00	L	04/17/2007	19:44	I
7092491	SB-125	14234-35-6	-8.40E-01	pCi/L	4.2E+00	4.2E+00	U	7.46E+00		GAMMALL_GS	1.9993E+00	L	04/17/2007	19:44	I
7092484	TC-99	14133-76-7	1.93E+02	pCi/L	8.6E+00	1.9E+01		9.95E+00	100.0	TC99_ETVDSK_LS	1.254E-01	L	04/07/2007	11:10	I
7092483	Uranium	7440-61-1	3.17E+00	ug/L	3.3E-01	3.3E-01		8.32E-02		UTOT_KPA	2.52E-02	ML	05/07/2007	11:13	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:
9JR2LM10	B1MKH0		MW6-SBB-A1	W07-003	W05147					03/29/2007 08:44

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
7092489	BETA	12587-47-2	4.72E+01	pCi/L	3.4E+00	7.0E+00		2.68E+00	100.0	9310_ALPHABETA	1.996E-01	L	04/16/2007	20:06	I
7092491	BE-7	13966-02-4	-1.75E-01	pCi/L	1.5E+01	1.5E+01	U	2.75E+01		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092491	CO-60	10198-40-0	-8.45E-01	pCi/L	1.8E+00	1.8E+00	U	3.27E+00		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092491	CS-134	13967-70-9	1.08E+00	pCi/L	1.6E+00	1.6E+00	U	3.33E+00		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092491	CS-137	10045-97-3	-3.58E-01	pCi/L	1.6E+00	1.6E+00	U	2.79E+00		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092491	EU-152	14683-23-9	8.91E-01	pCi/L	3.8E+00	3.8E+00	U	7.16E+00		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092491	EU-154	15585-10-1	1.08E+00	pCi/L	5.1E+00	5.1E+00	U	1.01E+01		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092491	EU-155	14391-16-3	-7.50E-01	pCi/L	3.4E+00	3.4E+00	U	5.96E+00		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092491	K-40	13966-00-2	1.17E+01	pCi/L	4.5E+01	4.5E+01	U	2.68E+01		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092491	RU-106	13967-48-1	-6.19E-01	pCi/L	1.4E+01	1.4E+01	U	2.48E+01		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092491	SB-125	14234-35-6	2.72E+00	pCi/L	4.1E+00	4.1E+00	U	7.91E+00		GAMMALL_GS	1.9899E+00	L	04/17/2007	19:46	I
7092484	TC-99	14133-76-7	2.06E+02	pCi/L	8.8E+00	2.0E+01		1.00E+01	100.0	TC99_ETVDSK_LS	1.251E-01	L	04/07/2007	11:10	I
7092483	Uranium	7440-61-1	3.21E+00	ug/L	3.3E-01	3.3E-01		8.28E-02		UTOT_KPA	2.53E-02	ML	05/07/2007	11:15	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:
9JR2LN10	B1MKF1		MW6-SBB-A1	W07-003	W05147					03/29/2007 10:28

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
7092489	BETA	12587-47-2	8.45E+00	pCi/L	1.9E+00	2.4E+00		2.90E+00	100.0	9310_ALPHABETA	1.995E-01	L	04/16/2007	20:06	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.

7092486	TC-99	14133-76-7	7.57E+00	pCi/L	4.5E+00	6.6E+00	U	1.04E+01	100.0	TC99_SEP_LSC	1.279E-01	L	04/11/2007	03:05	I
7092483	Uranium	7440-61-1	2.51E+00	ug/L	2.6E-01	2.6E-01		8.35E-02		UTOT_KPA	2.51E-02	ML	05/07/2007	11:17	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:
9JR2LT10	B1MK87		MW6-SBB-A1	W07-003	W05147					03/29/2007 09:03

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092494	H-3	10028-17-8	1.06E+04	pCi/L	3.5E+02	5.6E+02		3.02E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/06/2007 19:27	I
7092488	ALPHA	12587-46-1	2.19E+00	pCi/L	1.3E+00	1.4E+00		1.53E+00	100.0	9310_ALPHABETA	1.985E-01	L	04/16/2007 19:41	I
7092489	BETA	12587-47-2	6.88E+02	pCi/L	1.2E+01	8.9E+01		3.00E+00	100.0	9310_ALPHABETA	1.99E-01	L	04/17/2007 06:57	I
7092484	TC-99	14133-76-7	2.88E+03	pCi/L	2.9E+01	2.0E+02		9.95E+00	100.0	TC99_ETVDSK_LS	1.252E-01	L	04/07/2007 11:10	I
7092483	Uranium	7440-61-1	3.51E+00	ug/L	3.6E-01	3.6E-01		7.20E-02		UTOT_KPA	2.91E-02	ML	05/07/2007 11:19	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:
9JR2LX10	B1MK88		MW6-SBB-A1	W07-003	W05147					03/29/2007 09:05

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092494	H-3	10028-17-8	4.85E+01	pCi/L	1.3E+02	1.4E+02	U	3.09E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/06/2007 20:49	I
7092488	ALPHA	12587-46-1	2.68E-01	pCi/L	4.2E-01	4.2E-01	U	8.45E-01	100.0	9310_ALPHABETA	1.997E-01	L	04/16/2007 19:41	I
7092489	BETA	12587-47-2	8.64E-01	pCi/L	1.2E+00	1.2E+00	U	2.62E+00	100.0	9310_ALPHABETA	1.993E-01	L	04/17/2007 06:57	I
7092484	TC-99	14133-76-7	-2.18E+00	pCi/L	4.0E+00	5.7E+00	U	9.96E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	04/07/2007 11:10	I
7092483	Uranium	7440-61-1	0.00E+00	ug/L	0.0E+00	0.0E+00	U	2.10E-01		UTOT_KPA	2.59E-02	ML	05/07/2007 11:28	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR4KX10	B1MKH9		MW6-SBB-A1	W07-003	W05147					03/30/2007 11:54

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092489	BETA	12587-47-2	4.94E+02	pCi/L	1.1E+01	6.3E+01		2.82E+00	100.0	9310_ALPHABETA	1.988E-01	L	04/17/2007 06:57	I
7092491	BE-7	13966-02-4	1.57E+01	pCi/L	2.1E+01	2.1E+01	U	4.09E+01		GAMMALL_GS	2.0021E+00	L	04/18/2007 05:29	I
7092491	CO-60	10198-40-0	-1.39E+00	pCi/L	2.0E+00	2.0E+00	U	3.31E+00		GAMMALL_GS	2.0021E+00	L	04/18/2007 05:29	I
7092491	CS-134	13967-70-9	-4.82E-02	pCi/L	2.6E+00	2.6E+00	U	4.88E+00		GAMMALL_GS	2.0021E+00	L	04/18/2007 05:29	I
7092491	CS-137	10045-97-3	5.17E-01	pCi/L	2.0E+00	2.0E+00	U	3.88E+00		GAMMALL_GS	2.0021E+00	L	04/18/2007 05:29	I
7092491	EU-152	14683-23-9	6.50E+00	pCi/L	5.6E+00	5.6E+00	U	1.11E+01		GAMMALL_GS	2.0021E+00	L	04/18/2007 05:29	I
7092491	EU-154	15585-10-1	-1.18E+00	pCi/L	7.6E+00	7.6E+00	U	1.41E+01		GAMMALL_GS	2.0021E+00	L	04/18/2007 05:29	I
7092491	EU-155	14391-16-3	-2.96E+00	pCi/L	3.6E+00	3.6E+00	U	5.89E+00		GAMMALL_GS	2.0021E+00	L	04/18/2007 05:29	I
7092491	K-40	13966-00-2	4.09E+01	pCi/L	5.4E+01	5.4E+01	U	1.21E+02		GAMMALL_GS	2.0021E+00	L	04/18/2007 05:29	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.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35313 File Name: h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

7092491	RU-106	13967-48-1	9.48E+00	pCi/L	2.2E+01	2.2E+01	U	4.24E+01		GAMMALL_GS	2.0021E+00	L	04/18/2007	05:29	I
7092491	SB-125	14234-35-6	-2.91E+00	pCi/L	5.3E+00	5.3E+00	U	8.91E+00		GAMMALL_GS	2.0021E+00	L	04/18/2007	05:29	I
7092484	TC-99	14133-76-7	2.14E+03	pCi/L	2.5E+01	1.5E+02		9.88E+00	100.0	TC99_ETVDSK_LS	1.262E-01	L	04/07/2007	11:10	I
7092483	Uranium	7440-61-1	2.47E+00	ug/L	2.5E-01	2.5E-01		7.54E-02		UTOT_KPA	2.78E-02	ML	05/07/2007	11:32	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR4LA10	B1MKC4		MW6-SBB-A1	W07-003	W05147					03/30/2007 09:49

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092484	TC-99	14133-76-7	1.53E+02	pCi/L	7.8E+00	1.6E+01		9.86E+00	100.0	TC99_ETVDSK_LS	1.264E-01	L	04/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JR4LF10	B1MKC7		MW6-SBB-A1	W07-003	W05147					03/30/2007 08:58

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092484	TC-99	14133-76-7	2.13E+01	pCi/L	4.8E+00	7.2E+00		9.83E+00	100.0	TC99_ETVDSK_LS	1.267E-01	L	04/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JRWF710	B1MK61		MW6-SBB-A1	W07-003	W05147					03/27/2007 13:04

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092494	H-3	10028-17-8	3.08E+02	pCi/L	1.4E+02	1.5E+02		3.01E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/06/2007 11:17	I
7092484	TC-99	14133-76-7	3.44E+00	pCi/L	4.2E+00	6.1E+00	U	9.93E+00	100.0	TC99_ETVDSK_LS	1.255E-01	L	04/07/2007 11:10	I
7092483	Uranium	7440-61-1	1.31E+00	ug/L	1.3E-01	1.3E-01		8.28E-02		UTOT_KPA	2.53E-02	ML	05/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JRWFV10	B1MJY2		MW6-SBB-A1	W07-003	W05147					03/27/2007 10:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092484	TC-99	14133-76-7	2.65E+01	pCi/L	5.0E+00	7.6E+00		9.92E+00	100.0	TC99_ETVDSK_LS	1.255E-01	L	04/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JRWFX10	B1MK29		MW6-SBB-A1	W07-003	W05147					03/27/2007 08:33

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092488	ALPHA	12587-46-1	1.61E+00	pCi/L	1.4E+00	1.5E+00	U	2.17E+00	100.0	9310_ALPHABETA	1.725E-01	L	04/16/2007 19:41	I
7092489	BETA	12587-47-2	1.26E+03	pCi/L	1.7E+01	1.6E+02		2.92E+00	100.0	9310_ALPHABETA	1.999E-01	L	04/16/2007 20:06	I
7092484	TC-99	14133-76-7	7.00E+03	pCi/L	4.5E+01	4.8E+02		9.94E+00	100.0	TC99_ETVDSK_LS	1.253E-01	L	04/07/2007 11:10	I

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5/14/2007 1:30:45 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35313 File Name: h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.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:
9JRWGG10	B1MK78		MW6-SBB-A1	W07-003	W05147					03/27/2007 12:14

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7092494	H-3	10028-17-8	6.67E+01	pCi/L	1.3E+02	1.4E+02	U	3.00E+02	100.0	906.0_H3_LSC	5.00E-03	L	04/06/2007 12:39	I
7092484	TC-99	14133-76-7	2.57E+01	pCi/L	4.9E+00	7.6E+00		9.96E+00	100.0	TC99_ETVDSK_LS	1.251E-01	L	04/07/2007 11:10	I
7092483	Uranium	7440-61-1	3.61E+00	ug/L	3.7E-01	3.7E-01		8.28E-02		UTOT_KPA	2.53E-02	ML	05/07/2007 11:12	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 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7K61AB **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 10:28

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 03/29/2007

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
7092486	TC-99	1.77E+00	pCi/L	6.5E+00	U	1.07E+01	100.0		TC99_SEP_LS	1.247E-01	04/11/2007				D
BLK	14133-76-7			4.5E+00						L	06:13				

STL Richland
rptFeadRadEdd v3.68

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.

1

Monday, May 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7K71AB **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 09:48

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 03/28/2007

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
7092487	SR-90	3.65E-01	pCi/L	4.1E-01	U	8.24E-01	39.7		SRISO_SEP_P	1.0009E+00	04/18/2007				D
BLK	10098-97-2			3.9E-01						L	07:00				

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 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7K81AB **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 09:03

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 03/29/2007

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
7092488	ALPHA	1.11E-01	pCi/L	3.6E-01	U	9.19E-01	100.0		9310_ALPHAB	2.012E-01	04/16/2007				D
BLK	12587-46-1			3.6E-01						L	19:41				

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 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7KV1AB **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/30/2007 09:49

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								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
7092484	TC-99	2.81E-02	pCi/L	5.9E+00	U	9.90E+00	100.0		TC99_ETVDSK	1.257E-01	04/07/2007				D
BLK	14133-76-7			4.1E+00						L	11:10				

STL Richland

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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 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LA1AB **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/27/2007 08:33

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 03/27/2007

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
7092489	BETA	6.30E-01	pCi/L	1.2E+00	U	2.46E+00	100.0		9310_ALPHAB	1.991E-01	04/17/2007				D
BLK	12587-47-2			1.2E+00						L	06:57				

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 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LD1AB **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 08:44
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 03/29/2007

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
7092491	BE-7	-6.60E+00	pCi/L	2.4E+01	U	4.13E+01			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	13966-02-4			2.4E+01						L	07:12				
7092491	CO-60	-6.64E-01	pCi/L	2.8E+00	U	5.14E+00			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	10198-40-0			2.8E+00						L	07:12				
7092491	CS-134	-7.88E-02	pCi/L	2.3E+00	U	4.44E+00			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	13967-70-9			2.3E+00						L	07:12				
7092491	CS-137	1.42E+00	pCi/L	2.7E+00	U	5.23E+00			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	10045-97-3			2.7E+00						L	07:12				
7092491	EU-152	1.04E+00	pCi/L	5.2E+00	U	9.45E+00			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	14683-23-9			5.2E+00						L	07:12				
7092491	EU-154	-5.03E+00	pCi/L	7.4E+00	U	1.24E+01			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	15585-10-1			7.4E+00						L	07:12				
7092491	EU-155	-4.38E-01	pCi/L	3.6E+00	U	6.50E+00			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	14391-16-3			3.6E+00						L	07:12				
7092491	K-40	-3.75E+01	pCi/L	4.9E+01	U	1.04E+02			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	13966-00-2			4.9E+01						L	07:12				
7092491	RU-106	-7.51E+00	pCi/L	2.0E+01	U	3.45E+01			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	13967-48-1			2.0E+01						L	07:12				
7092491	SB-125	-3.57E+00	pCi/L	6.0E+00	U	9.94E+00			GAMMALL_GS	1.9997E+00	04/18/2007				D
BLK	14234-35-6			6.0E+00						L	07:12				

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 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LF1AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05147 35313
Matrix: WATER WATER
QC Type: BLK

Collection Date: 03/28/2007 09:48
Sample On Date:
Received Date: 03/28/2007

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
7092492	BE-7	6.06E+00	pCi/L	1.4E+01	U	2.67E+01			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	13966-02-4			1.4E+01						L	16:21				
7092492	CO-60	-1.17E+00	pCi/L	1.5E+00	U	2.43E+00			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	10198-40-0			1.5E+00						L	16:21				
7092492	CS-134	3.56E-01	pCi/L	1.5E+00	U	2.84E+00			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	13967-70-9			1.5E+00						L	16:21				
7092492	CS-137	-5.39E-02	pCi/L	1.5E+00	U	2.69E+00			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	10045-97-3			1.5E+00						L	16:21				
7092492	EU-152	-9.32E-01	pCi/L	3.2E+00	U	5.74E+00			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	14683-23-9			3.2E+00						L	16:21				
7092492	EU-154	2.97E+00	pCi/L	4.2E+00	U	8.94E+00			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	15585-10-1			4.2E+00						L	16:21				
7092492	EU-155	1.21E+00	pCi/L	2.9E+00	U	5.33E+00			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	14391-16-3			2.9E+00						L	16:21				
7092492	K-40	1.33E+01	pCi/L	2.2E+01	U	4.84E+01			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	13966-00-2			2.2E+01						L	16:21				
7092492	RU-106	-7.94E+00	pCi/L	1.2E+01	U	1.97E+01			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	13967-48-1			1.2E+01						L	16:21				
7092492	SB-125	-2.48E+00	pCi/L	3.6E+00	U	5.92E+00			GAMMA_GS	2.4987E+00	04/26/2007				D
BLK	14234-35-6			3.6E+00						L	16:21				

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 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LH1AB **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 13:08

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 03/29/2007

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
7092493	I-129L	1.03E-02	pCi/L	1.2E-01	U	2.25E-01	105.9		I129LL_SEP_L	3.8652E+00	04/27/2007				D
BLK	15046-84-1			1.2E-01						L	08:16				

STL Richland

rptFeadRadEdd v3.68

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 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LK1AB **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 08:53

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 03/28/2007

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
7092494	H-3	-1.14E+02	pCi/L	1.3E+02	U	3.01E+02	100.0		906.0_H3_LSC	5.00E-03	04/06/2007				D
BLK	10028-17-8			1.2E+02						L	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.

Monday, May 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LK1DX
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05147 35313
Matrix: WATER WATER
QC Type: BLK

Collection Date: 03/28/2007 08:53
Sample On Date:
Received Date: 03/28/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7092494	H-3	2.13E+01	pCi/L	1.4E+02	U	3.07E+02	100.0		906.0_H3_LSC	5.00E-03	04/06/2007				D
BLK	10028-17-8			1.3E+02						L	23:33				

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.

Monday, May 14, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JWKD41AB **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 13:05

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 03/28/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								CE	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
7129333	I-129L	2.61E-03	pCi/L	1.4E-01	U	2.50E-01	97.0		I129LL_SEP_L	4.0007E+00	05/10/2007				D
BLK	15046-84-1			1.4E-01						L	19:44				

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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7K61CS **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 10:28

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 03/29/2007

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
7092486	TC-99	4.82E+02	pCi/L	3.4E+01		1.06E+01	100.0	5.32E+02	TC99_SEP_LS	1.259E-01	04/11/2007			70	D
BS	14133-76-7			1.3E+01				90.6		L	07:16			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7K71CS **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 09:48

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 03/28/2007

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
7092487	SR-90	1.38E+01	pCi/L	2.3E+00		8.76E-01	47.2	1.36E+01	SRISO_SEP_P	9.99E-01	04/18/2007			70	D
BS	10098-97-2			1.1E+00				101.5		L	07:00			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7K81CS **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 09:03

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 03/29/2007

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
7092488	ALPHA	2.09E+01	pCi/L	5.7E+00		9.00E-01	100.0	2.31E+01	9310_ALPHAB	1.989E-01	04/16/2007			70	D
BS	12587-46-1			3.0E+00				90.2		L	20:47			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7KP1CS **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/30/2007 11:54

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								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
7092483	Uranium	3.41E+01	ug/L	4.0E+00		8.12E-02		3.48E+01	UTOT_KPA	2.58E-02	05/07/2007			70	D
BS	7440-61-1			4.0E+00				98.0		ML	11:06			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7KP1DS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05147 35313
Matrix: WATER WATER
QC Type: BS

Collection Date: 03/30/2007 11:54
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
	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
7092483	Uranium	3.53E+00	ug/L	3.6E-01		8.22E-02		3.59E+00	UTOT_KPA	2.55E-02	05/07/2007			70	D
BS	7440-61-1			3.6E-01				98.3		ML	11:08			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7KV1CS **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/30/2007 09:49

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
7092484	TC-99	5.31E+02	pCi/L	4.2E+01		9.96E+00	100.0	5.33E+02	TC99_ETVDSK	1.254E-01	04/07/2007			70	D
BS	14133-76-7			1.3E+01				99.6		L	11:10			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LA1CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05147 35313
Matrix: WATER WATER
QC Type: BS

Collection Date: 03/27/2007 08:33
Sample On Date:
Received Date: 03/27/2007

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
7092489	BETA	2.40E+01	pCi/L	3.9E+00		2.52E+00	100.0	2.27E+01	9310_ALPHAB	1.998E-01	04/17/2007			70	D
BS	12587-47-2			2.4E+00				105.4		L	06:57			130	

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

Monday, May 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LD1CS **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 08:44

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 03/29/2007

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
7092491	CO-60	3.62E+01	pCi/L	7.6E+00		3.66E+00		3.79E+01	GAMMALL_GS	2.0001E+00	04/18/2007			70	D
BS	10198-40-0			7.6E+00				95.5		L	07:12			130	
7092491	CS-137	2.76E+01	pCi/L	6.1E+00		3.66E+00		2.48E+01	GAMMALL_GS	2.0001E+00	04/18/2007			70	D
BS	10045-97-3			6.1E+00				111.3		L	07:12			130	
7092491	EU-152	6.46E+01	pCi/L	1.6E+01	U	2.14E+01		7.68E+01	GAMMALL_GS	2.0001E+00	04/18/2007			70	D
BS	14683-23-9			1.6E+01				84.1		L	07:12			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LF1CS **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 09:48

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 03/28/2007

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
7092492	CO-60	2.70E+01	pCi/L	6.5E+00		3.63E+00		3.06E+01	GAMMA_GS	2.4994E+00	04/26/2007			70	D
BS	10198-40-0			6.5E+00				88.3		L	16:21			130	
7092492	CS-137	1.69E+01	pCi/L	4.5E+00		4.24E+00		2.00E+01	GAMMA_GS	2.4994E+00	04/26/2007			70	D
BS	10045-97-3			4.5E+00				84.8		L	16:21			130	
7092492	EU-152	5.04E+01	pCi/L	1.4E+01	U	1.97E+01		6.14E+01	GAMMA_GS	2.4994E+00	04/26/2007			70	D
BS	14683-23-9			1.4E+01				82.1		L	16:21			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LK1CS **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 08:53

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 03/28/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7092494	H-3	2.29E+03	pCi/L	2.3E+02		3.01E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	04/06/2007			70	D
BS	10028-17-8			2.0E+02				84.5		L	09:55			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR7LK1EM **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 08:53
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 03/28/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7092494	H-3	2.41E+03	pCi/L	2.4E+02		3.09E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	04/07/2007			70	D
BS	10028-17-8			2.0E+02				88.8		L	00:55			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 14, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JWKD41CS **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 13:05

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 03/28/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								CF	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
7129333	I-129L	9.86E+00	pCi/L	1.2E+00		3.23E-01	96.1	9.84E+00	I129LL_SEP_L	3.9044E+00	05/10/2007			70	D
BS	15046-84-1			1.2E+00				100.2		L	19:45			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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR01R1DR
Client Id: B1M8N9
Moisture/Solids%*:

Sdg/Rept Nbr: W05147 35313
Matrix: WATER WATER
QC Type: DUP

Collection Date: 03/28/2007 08:53
Sample On Date:
Received Date: 03/28/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-002	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
7092494	H-3	6.14E+03	pCi/L	3.9E+02		3.04E+02	100.0		906.0_H3_LSC	5.00E-03	04/06/2007	2.9	0.7		D
DUP	10028-17-8	5.96E+03		2.8E+02						L	18:06	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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR0PA1DR **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 09:48
Client Id: B1MD38 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 03/28/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G07-003	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
7092487	SR-90	1.28E+03	pCi/L	1.9E+02		6.42E-01	50.4		SRISO_SEP_P	9.995E-01	04/18/2007	13.3	1.4		D
DUP	10098-97-2	1.46E+03		9.6E+00						L	07:00	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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR0PA1ER **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/28/2007 09:48
Client Id: B1MD38 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 03/28/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G07-003	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
7092492	BE-7	7.00E-01	pCi/L	1.7E+01	U	3.22E+01			GAMMA_GS	2.4987E+00	04/26/2007	0.0	0.8		D
DUP	13966-02-4	-9.46E+00		1.7E+01						L	18:13	20.0	3		
7092492	CO-60	2.64E+00	pCi/L	1.9E+00	U	4.67E+00			GAMMA_GS	2.4987E+00	04/26/2007	113.5	1.4		D
DUP	10198-40-0	7.29E-01		1.9E+00						L	18:13	20.0	3		
7092492	CS-134	5.86E-01	pCi/L	2.0E+00	U	3.91E+00			GAMMA_GS	2.4987E+00	04/26/2007	68.9	0.4		D
DUP	13967-70-9	1.20E+00		2.0E+00						L	18:13	20.0	3		
7092492	CS-137	6.72E-01	pCi/L	2.0E+00	U	3.89E+00			GAMMA_GS	2.4987E+00	04/26/2007	6.1	0.		D
DUP	10045-97-3	7.14E-01		2.0E+00						L	18:13	20.0	3		
7092492	EU-152	3.31E-01	pCi/L	4.2E+00	U	7.62E+00			GAMMA_GS	2.4987E+00	04/26/2007	145.5	0.1		D
DUP	14683-23-9	5.22E-02		4.2E+00						L	18:13	20.0	3		
7092492	EU-154	-2.45E+00	pCi/L	5.4E+00	U	9.71E+00			GAMMA_GS	2.4987E+00	04/26/2007	0.0	0.4		D
DUP	15585-10-1	-8.51E-01		5.4E+00						L	18:13	20.0	3		
7092492	EU-155	3.22E-01	pCi/L	4.5E+00	U	8.07E+00			GAMMA_GS	2.4987E+00	04/26/2007	212.6	0.1		D
DUP	14391-16-3	-9.87E-03		4.5E+00						L	18:13	20.0	3		
7092492	K-40	2.23E+01	pCi/L	4.4E+01	U	3.32E+01			GAMMA_GS	2.4987E+00	04/26/2007	0.0	1.9		D
DUP	13966-00-2	-3.70E+01		4.4E+01						L	18:13	20.0	3		
7092492	RU-106	-1.40E+00	pCi/L	1.5E+01	U	2.86E+01			GAMMA_GS	2.4987E+00	04/26/2007	0.0	0.3		D
DUP	13967-48-1	-4.71E+00		1.5E+01						L	18:13	20.0	3		
7092492	SB-125	3.30E+00	pCi/L	4.0E+00	U	8.25E+00			GAMMA_GS	2.4987E+00	04/26/2007	257.8	1.3		D
DUP	14234-35-6	-4.17E-01		4.0E+00						L	18:13	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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR2LA1CR **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 13:08
Client Id: B1MDK8 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 03/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-032	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
7092493	I-129L	2.54E+00	pCi/L	4.9E-01		3.18E-01	95.1		I129LL_SEP_L	3.8789E+00	04/27/2007	3.6	0.3		D
DUP	15046-84-1	2.45E+00		4.9E-01						L	08:12	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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR2LM1FR
Client Id: B1MKH0
Moisture/Solids%*:

Sdg/Rept Nbr: W05147 35313
Matrix: WATER WATER
QC Type: DUP

Collection Date: 03/29/2007 08:44
Sample On Date:
Received Date: 03/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-003	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
7092491	BE-7	5.40E+00	pCi/L	2.2E+01	U	3.89E+01			GAMMALL_GS	1.9334E+00	04/17/2007	213.4	0.4		D
DUP	13966-02-4	-1.75E-01		2.2E+01						L	19:46	20.0	3		
7092491	CO-60	8.20E-01	pCi/L	2.3E+00	U	4.64E+00			GAMMALL_GS	1.9334E+00	04/17/2007	0.0	1.		D
DUP	10198-40-0	-8.45E-01		2.3E+00						L	19:46	20.0	3		
7092491	CS-134	1.18E+00	pCi/L	2.5E+00	U	4.76E+00			GAMMALL_GS	1.9334E+00	04/17/2007	8.9	0.1		D
DUP	13967-70-9	1.08E+00		2.5E+00						L	19:46	20.0	3		
7092491	CS-137	-1.74E+00	pCi/L	2.3E+00	U	3.76E+00			GAMMALL_GS	1.9334E+00	04/17/2007	0.0	0.8		D
DUP	10045-97-3	-3.58E-01		2.3E+00						L	19:46	20.0	3		
7092491	EU-152	-1.37E+00	pCi/L	6.1E+00	U	1.04E+01			GAMMALL_GS	1.9334E+00	04/17/2007	0.0	0.5		D
DUP	14683-23-9	8.91E-01		6.1E+00						L	19:46	20.0	3		
7092491	EU-154	2.65E+00	pCi/L	6.8E+00	U	1.36E+01			GAMMALL_GS	1.9334E+00	04/17/2007	84.3	0.3		D
DUP	15585-10-1	1.08E+00		6.8E+00						L	19:46	20.0	3		
7092491	EU-155	-1.87E-01	pCi/L	6.0E+00	U	1.05E+01			GAMMALL_GS	1.9334E+00	04/17/2007	0.0	0.1		D
DUP	14391-16-3	-7.50E-01		6.0E+00						L	19:46	20.0	3		
7092491	K-40	-6.42E+01	pCi/L	6.5E+01	U	1.42E+02			GAMMALL_GS	1.9334E+00	04/17/2007	0.0	1.6		D
DUP	13966-00-2	1.17E+01		6.5E+01						L	19:46	20.0	3		
7092491	RU-106	5.19E+00	pCi/L	2.1E+01	U	3.82E+01			GAMMALL_GS	1.9334E+00	04/17/2007	254.2	0.4		D
DUP	13967-48-1	-6.19E-01		2.1E+01						L	19:46	20.0	3		
7092491	SB-125	-1.39E+00	pCi/L	5.7E+00	U	9.86E+00			GAMMALL_GS	1.9334E+00	04/17/2007	620.2	1.		D
DUP	14234-35-6	2.72E+00		5.7E+00						L	19:46	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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR2LN1FR **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 10:28

Client Id: B1MKF1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 03/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-003	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
7092486	TC-99	8.29E+00	pCi/L	6.6E+00	U	1.03E+01	100.0		TC99_SEP_LS	1.294E-01	04/11/2007	9.1	0.2		D
DUP	14133-76-7	7.57E+00		4.5E+00						L	05:11	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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR2LT1HR **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 09:03
Client Id: B1MK87 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 03/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-003	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
7092488	ALPHA	1.87E+00	pCi/L	1.3E+00		1.63E+00	100.0		9310_ALPHAB	1.984E-01	04/16/2007	16.2	0.4		D
DUP	12587-46-1	2.19E+00		1.2E+00						L	19:41	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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR4KX1FR **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/30/2007 11:54
Client Id: B1MKH9 **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								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
7092483	Uranium	2.44E+00	ug/L	2.5E-01		7.59E-02			UTOT_KPA	2.76E-02	05/07/2007	1.4	0.2		D
DUP	7440-61-1	2.47E+00		2.5E-01						ML	11:34	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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id:	JR4LA1CR	**Sdg/Rept Nbr:**	W05147	35313	**Collection Date:** 03/30/2007 09:49
Client Id:	B1MKC4	**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								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
7092484	TC-99	1.50E+02	pCi/L	1.6E+01		9.92E+00	100.0		TC99_ETVDSK	1.258E-01	04/07/2007	1.7	0.2		D
DUP	14133-76-7	1.53E+02		7.8E+00						L	11:10	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 14, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id:	JRWFX1ER	**Sdg/Rept Nbr:**	W05147	35313	**Collection Date:**	03/27/2007 08:33
Client Id:	B1MK29	**Matrix:**	WATER	WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:**	03/27/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7092489	BETA	1.23E+03	pCi/L	2.4E+02		2.75E+00	100.0		9310_ALPHAB	2.008E-01	04/16/2007	2.3	0.2		D
DUP	12587-47-2	1.26E+03		1.6E+01						L	20:06	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 14, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR2LN1EW
Client Id: B1MKF1
Moisture/Solids%*:

Sdg/Rept Nbr: W05147 35313
Matrix: WATER WATER
QC Type: MS

Collection Date: 03/29/2007 10:28
Sample On Date:
Received Date: 03/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-003	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
7092486	TC-99	2.83E+03	pCi/L	1.7E+02		1.09E+01	100.0	3.54E+03	TC99_SEP_LS	1.257E-01	04/11/2007			60	D
MS	14133-76-7			3.0E+01				80.2		L	04:08			140	

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 14, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR2LT1GW **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/29/2007 09:03

Client Id: B1MK87 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 03/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-003	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
7092483	Uranium	3.13E+01	ug/L	4.1E+00		7.30E-02		3.13E+01	UTOT_KPA	2.87E-02	05/07/2007			60	D
MS	7440-61-1			4.1E+00				100.2		ML	11:26			140	

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 14, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05147.Edd, h:\Reportdb\edd\FeadIV\Rad\35313.Edd

Lab Sample Id: JR4LF1CW **Sdg/Rept Nbr:** W05147 35313 **Collection Date:** 03/30/2007 08:58
Client Id: B1MKC7 **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								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
7092484	TC-99	3.47E+03	pCi/L	2.4E+02		9.99E+00	100.0	3.57E+03	TC99_ETVDSK	1.25E-01	04/07/2007			60	D
MS	14133-76-7			3.2E+01				97.2		L	11:10			140	

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 STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/17/2007 4:35:57 PM

Lot No., Due Date: J7C290374,J7C280209; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7092488; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05147; 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 => JRWFX1AA 172.50<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. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. 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 => JR2LT1AC ALPHA 2.2E+00 L:1.5E+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. 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:

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

First Level Review Lisa Antonson Date 4/17/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 709288
W05147

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 Williams Date: 4-18-07

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

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/26/2007 11:47:57 AM

Lot No., Due Date: J7C290373,J7C290374,J7C300308,J7C280209; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7092489; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05147; WATER

		Yes	No	N/A
8.0	Correction Calculation Protocol Used. OK	✓		
8.01	The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02	Final Results Are in the Appropriate Activity Units OK	✓		
8.03	Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04	The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05	Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06	At Least the Minimum Sample Volume Was Used OK	✓		
8.07	The Correct Count Geometry was Used. OK	✓		
8.08	The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09	Method Blank is within Control Limits. OK	✓		
8.1	Comments:			
8.11	Matrix Blank is within Control Limits. No Matrix Blanks (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. OK (RPD)	✓		
8.14	LCS within Control Limits. OK	✓		
8.15	MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16	MS within Control Limits. 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 => JRWFX1AC BETA 1.3E+03 L:2.9E+00 JR2LK1AA BETA 5.2E+01 L:2.8E+00 JR2LM1AA BETA 4.7E+01 L:2.7E+00 JR2LN1AA BETA 8.5E+00 L:2.9E+00 JR2LT1AD BETA 6.9E+02 L:3.0E+00 JR4KX1AA BETA 4.9E+02 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 Antonson Date 4/26/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7092489
W05147

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: Cheryl A. Adkins Date: 4-27-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/18/2007 3:01:52 PM

Lot No., Due Date: J7C290150; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7092487; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05147; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
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			
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			
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			
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 [signature] **Date** 4/18/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7092487
W05147

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: 4-19-07

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

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/18/2007 3:17:33 PM

Lot No., Due Date: J7C290373,J7C300308; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7092491; RGAMMA Gamma by GER

SDG, Matrix: W05147; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes ✓	No	N/A
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes ✓	No	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes ✓	No	N/A
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes ✓	No	N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes ✓	No	N/A
4.0 Raw Data			
4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes	No	N/A ✓
4.4 Were spectra reviewed/meet contractual requirements?	Yes ✓	No	N/A
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A
5.0 Other			
5.1 Are all nonconformances included and noted?	Yes	No	N/A ✓
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes ✓	No	N/A
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:

First Level Review [signature] **Date** 4/18/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7092491
W05147

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. Williams Date: 4-19-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/28/2007 10:58:51 AM

Lot No., Due Date: J7C290150; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7092492; RGAMMA Gamma by GER

SDG, Matrix: W05147; 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 Austenson **Date** 4/28/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7092492
W05147

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. Adam Date: 4-30-07

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/14/2007 12:10:04 PM

Lot No., Due Date: J7C290127,J7C290370,J7C290371; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7129333; RGAMLEPS Gamma by LEPS
& 7092493

SDG, Matrix: W05147; WATER SKS 5/14/07

1.0 COC

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

2.0 QC Batch

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

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

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

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

3.0 QC & Samples

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

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

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

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

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

4.0 Raw Data

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

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

4.3 Were Yields entered correctly? Yes ✓ No N/A

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

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

5.0 Other

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

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

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

5.4 Was transcription checked? Yes ✓ No N/A

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

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

6.0 Comments on any No response:
NCM 10-09899

First Level Review Lisa Quitonson **Date** 5/14/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7129333 & 7092493 SKS 5/14/07

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: [signature] Date: 5/14/07

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

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09899
NCM Initiated By: Lisa Antonson
Date Opened: 05/14/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Gamma by LEPS
Lot #'s (Sample #'s): J7C290127 (1,2), J7C290370 (1), J7C290371 (1), J7E090000 (333),
QC Batches: 7129333

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

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	05/14/2007	This I-129 batch is a rerun of batch 7092493 due to dups being out of agreement and a 139% yield on the LCS. There was no additional sample to rerun JR2LA because the dup was run on it in the first batch. There is also no duplicate due to lack of additional sample. Data is accepted.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	05/14/2007	The samples were rerun with acceptable results.

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

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

SAF No.: I07-032
Date: May 9, 2007
SDG: W05147
Sample No.(s) B1MDK8
Submitted By: Sherryl Adam

Phone No. 509-375-3131 x164
Fax No. 509-375-5590

Submitted To: **Dot Stewart (PNNL)**

Phone No. **509-376-5056**
Fax No. 509-372-1704

ISSUE	**PROPOSED RESOLUTION**
The LCS had a high recovery. The sample (B1MDK8) and sample duplicate (B1MDK DUP) were not within limits. All samples are being reanalyzed except for B1MDK. There is insufficient volume for a reanalysis.	Report original results or report no results.

BHI/FH/PNNL COMMENTS -

Signature and date

Seger, Sandra

From: Adam, Sherryl
Sent: Friday, May 11, 2007 11:02 AM
To: Seger, Sandra
Subject: FW: IRF

He will have Heide fix this on Tues.

From: Trent, Stephen J [mailto:Stephen_J_Trent@RL.gov]
Sent: Friday, May 11, 2007 10:47 AM
To: Adam, Sherryl
Subject: RE: IRF

Sherryl,

Ok, here's my answer on the IRF.... Go ahead and report the initial result for sample B1MDK8 and note in case narrative the issue with the QC failures.

Heidi,

Can you follow up with what ever additional documentation needs to be put in place?

Steve

From: Adam, Sherryl [mailto:SAdam@stl-inc.com]
Sent: Friday, May 11, 2007 10:30 AM
To: Trent, Stephen J
Subject: RE: IRF

Will you give us an extension on the due date then since it's due on Monday? Thanks.

From: Trent, Stephen J [mailto:Stephen_J_Trent@RL.gov]
Sent: Friday, May 11, 2007 10:24 AM
To: Adam, Sherryl
Subject: RE: IRF

Sherryl,

Thanks for looking into the Pa-231.... We think its a strange request also, but this is Hanford... Probably not worth having STL set up to perform since we have less than 20 samples that will need the analysis. One of the other labs has set up to do this analysis for characterization, so we will probably exercise them with these samples.

Heidi or I will touch base w/ you regarding the IRF no later than Tuesday.

Steve

From: Adam, Sherryl [mailto:SAdam@stl-inc.com]
Sent: Friday, May 11, 2007 9:52 AM
To: Trent, Stephen J
Subject: FW: IRF

Steve,
Can you look into this please? This is due on the 14th.

Here is the response from our technical person:

I checked on the possibility of using gamma as a method for Pa-231. There are no usable lines for this nuclide. Therefore the only method would be alpha spectrometry. However we do not have a method for the separation, nor do we have a usable spike. Pa spikes "go bad" in a few months due to the very complicated chemistries involving polymerizations, redox issues etc. In order to take on this work we would need to order a spike and then do the development work to bring it on line. After receiving the spike I suspect a couple months would be needed.

As I earlier indicated there has been virtually no demand for this analysis over the last 25 years.

Thanks.

Sherryl

From: Adam, Sherryl
Sent: Wednesday, May 09, 2007 1:35 PM
To: Stewart, Dorothy L
Cc: Felmy, Diana; 'Hampt, Heidi'
Subject: IRF

Dot,
Here is an IRF. Thanks.

<<IRFW05147.DOC>>

Sherryl A. Adam
Project Manager
Severn Trent Laboratories Richland
(509) 375 - 3131 ext. 164

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SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/26/2007 11:54:36 AM

Lot No., Due Date: J7C290189,J7C290127,J7C290374,J7C290373,J7C300308,J7C280209; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7092484; RTC99 Tc-99 by LSC

SDG, Matrix: W05147; 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 => JR4LF1AC 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. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

8.26 Instruments have Current Calibrations. Yes No N/A

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

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

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

8.3 Comments:

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

First Level Review Lisa Antonson Date 4/26/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7092484
W05147

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

Comments on any "No" response:

Second Level Review: Sherryl A Adam Date: 4-27-07

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/26/2007 11:50:32 AM

Lot No., Due Date: J7C290373; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7092486; RTC99 Tc-99 by LSC

SDG, Matrix: W05147; 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 => JR2LN1AE 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. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

OK UMA 4/26/07

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 Autorson Date 4/26/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7092486
W051477

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: Cheryl A. Allen Date: 4-27-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/9/2007 2:51:22 PM

Lot No., Due Date: J7C290189,J7C290127,J7C290374,J7C280209; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7092494; RTRITIUM H-3 by LSC

SDG, Matrix: W05147; WATER

8.0 Correction Calculation Protocol Used. OK	Yes ✓	No	N/A
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	Yes ✓	No	N/A
8.02 Final Results Are in the Appropriate Activity Units OK	Yes ✓	No	N/A
8.03 Batch Contains the Required QC Appropriate for the Method OK	Yes ✓	No	N/A
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	Yes ✓	No	N/A
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes ✓	No	N/A
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JRWF71AA 5.00<10.00 JRWGG1AA 5.00<10.00 JR0JV1AA 5.00<10.00 JR0J51AA 5.00<10.00 JR01R1AA 5.00<10.00 JR2LT1AA 5.00<10.00 JR2LX1AA 5.00<10.00 Q:VB OK AL 4/9/07	Yes	No ✓	N/A
8.07 The Correct Count Geometry was Used. Count Geometry => JR7LK1AF SVP15/5<>SVP10/10 JR7LK1AG SVP15/5<>SVP10/10 JR7LK1AA SVP15/5<>SVP10/10 JR7LK1AC SVP15/5<>SVP10/10 JRWF71AA SVP15/5<>SVP10/10 JRWGG1AA SVP15/5<>SVP10/10 JR0JV1AA SVP15/5<>SVP10/10 JR0J51AA SVP15/5<>SVP10/10 JR01R1AA SVP15/5<>SVP10/10 JR01R1AD SVP15/5<>SVP10/10 JR2LT1AA SVP15/5<>SVP10/10 JR2LX1AA SVP15/5<>SVP10/10 JR7LK1AH SVP15/5<>SVP10/10 JR7LK1AD SVP15/5<>SVP10/10 JR7LK1AE SVP15/5<>SVP10/10 Q:VC OK AL 4/9/07	Yes	No ✓	N/A
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes ✓	No	N/A
8.09 Method Blank is within Control Limits. OK	Yes ✓	No	N/A
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. OK	Yes ✓	No	N/A
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes ✓	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes ✓	No	N/A
8.14 LCS within Control Limits. OK	Yes ✓	No	N/A
8.15 MLCS within Control Limits. OK	Yes ✓	No	N/A
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A ✓
8.17 Tracer within Control Limits. No Tracers found in Batch!	Yes	No	N/A ✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	Yes	No	N/A ✓

8.19 Sample Specific MDC <= CRDL. 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** 4/9/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7092494

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

Comments on any "No" response:

Second Level Review: Erika Jordan Date: 4/10/7

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

5/8/2007 2:49:25 PM

Lot No., Due Date: J7C290373,J7C290374,J7C300308,J7C280209; 05/14/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7092483; RUNAT UNat by KPA

SDG, Matrix: W05147; 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:

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
Incorrect Tracer/Vial => JR7KP1AD UNSC<>UNSF Q:V9 OK JV 5-8-7

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 ✓
No Count Analysis Size found in Batch Data!

8.07 The Correct Count Geometry was Used. — Yes No N/A ✓
No Count Geometry found in Batch Data!

8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. — Yes No N/A ✓
No Count Duration Field Found in Batch Data!

8.09 Method Blank is within Control Limits. — Yes No ✓ N/A
Result > UCL => JR7KP1AA1 Uranium 3.7E+00 L:1.4E-01 Q:B0 OK JV 5-8-7

8.1 Comments:

8.11 Matrix Blank is within Control Limits. — Yes No N/A ✓
No Matrix Blanks (MBlks) found in Batch!

8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). — Yes No ✓ N/A
Result > B Flag UCL => JR7KP1AA1 Uranium 3.7E+00 L:1.6E-01 Q:B3 OK JV 5-8-7

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 ✓
No Matrix Spikes (MLCS) found in Batch!

8.16 MS within Control Limits. — Yes ✓ No N/A
OK

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
Batch Positive Result =>
JR2LK1AE Uranium 3.2E+00 L:8.3E-02
JR2LM1AE Uranium 3.2E+00 L:8.3E-02
JR2LN1AD Uranium 2.5E+00 L:8.3E-02
JR2LT1AF Uranium 3.5E+00 L:7.2E-02
~~JR2LX1AF1 Uranium 3.7E+00 L:8.1E-02~~ JV 5-8-7
JR4KX1AE Uranium 2.5E+00 L:7.5E-02
JRWF71AD Uranium 1.3E+00 L:8.3E-02
JRWGG1AD Uranium 3.6E+00 L:8.3E-02

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

OK; No Callin Level Found => Uranium

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 John Norton Date 5-8-7

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 709243
W05147

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

Comments on any "No" response:

Second Level Review: Sherryl A. Adam Date: 5-8-07

PNNL J7C780209
W05147
Due 05-11-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-003-124**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**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	Logbook: HNF-N-506-6	**Ice Chest No.** SAWS119 **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
B1MJY2		W	3/27/07	1011	1x20-mL P	Activity Scan	None
B1MJY2		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JRWFV	

R Wells 3/27/07

Relinquished By	Received By
Print: Fluor Hanford R. T. SICKLE Sign: Date/Time: MAR 27 2007 1505	Print: Eric Darby Sign: Eric Darby Date/Time: MAR 27 2007 1505
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

SIT RICHLAND

84

PNNL JTC280209
W05147
Due 05.11.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-003-148**

Page 1 of 1

Collector ~~Fluor Hanford~~ R. T. SICKLE	**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	Logbook: HNF-N-506-6	**Ice Chest No.** SRW5-119 **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
B1MK29		W	3/27/07	0833	1x20-mL P	Activity Scan	None
B1MK29		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MK29		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JRWFX	
						L. Wall 3/27/07	

Relinquished By	Date/Time	Received By	Date/Time
~~Fluor Hanford~~ ~~Print~~ R. T. SICKLE ~~Sign~~	MAR 27 2007 1505	Print Eric Darby Sign Eric Darby	MAR 27 2007 1505
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 RICHLAND

STL RICHLAND

PNNL J7C280209
W05147
Due 05.11.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-003-330

Page 1 of 1

Collector: Fluor Hanford ~~R. T. SICKLE~~	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	Logbook: HNF-N-506-6	Ice Chest No. SAWS-119 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
B1MK61		W	3/27/07	1304	1x20-mL P	Activity Scan	None
B1MK61		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MK61		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MK61		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JRWF7	

LWall 3/27/07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			MAR 27 2007 1505	Eric Darby	Eric Darby		MAR 27 2007 1505
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

PNNL J7C280209 W051467 Due 05-11-07 Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-003-358

Page 1 of 1

Collector: R. T. SICKLE	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	Logbook: HNF-N-506-6	Ice Chest No.: SAWS-119 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
B1MK78		W	3/27/07	1214	1x20-mL P	Activity Scan	None
B1MK78		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MK78		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MK78		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None

JRWGG

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
Fluor Hanford R. T. SICKLE	MAR 27 2007 1505	Eric Darby	MAR 27 2007 1505

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

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 3/27/07

Client: PGW SDG #: W05147 NA [ ] SAF #: W07-003 NA [ ]

Work Order Number: J7C280209 Chain of Custody # W07-003-124,148,350,358

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____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: [signature] Date: 3/27/07 1505

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

STL RICHLAND

PNNL J7C290127 W05144-47 Due 05-11-07

RW 3/29/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A07-003-1

Page 1 of 1

Collector: Fluor Hanford D. R. BREWINGTON	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: A07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: LLWMA(3)-PA, 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: Other	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
B1MCT1		W	3-28-07	1305	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1MCT1		W			1x20-mL P	Activity Scan	None
B1MCT1		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1MCT1		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JRCJV	

3-28-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. R. BREWINGTON	D R Brewington		MAR 28 2007 1505	Eric Darby	Eric Darby		MAR 28 2007 1505
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

PNNL J7C290127 W05146 47 RW 3/29/07 Due 05-11-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A07-003-9

Page 1 of 1

Collector: Fluor Hanford D. R. BREWINGTON	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: A07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: LLWMA(3)-PA, 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: Other	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
B1MCT9		W	3-28-07	1150	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1MCT9		W			1x20-mL P	Activity Scan	None
B1MCT9		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1MCT9		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

JR 0J5

3-28-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. R. BREWINGTON	D.R. Brewington		MAR 28 2007 1505	Eric Darby	Eric Darby		MAR 28 2007 1505
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: 3/28/07 1505

Client: PGW SDG #: W05147 NA [ ] SAF #: A07-003 NA [ ]

Work Order Number: J7C290127 Chain of Custody # A07-003-1, 9

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ 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: [signature] Date: 3/28/07 1505

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

SHF RECEIVING

PNNL J7C290150 W05147 Due 05/11/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-003-70

Page 1 of 1

Collector: FLUOR HANFORD M.R. WEIL	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	Logbook: HNF-N-506-7	Ice Chest No.: ERC-02-403 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
B1MD38		W	3/28/07	0948	1x20-mL P	Activity Scan	None
B1MD38		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1MD38		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2

JTRPA

R. Weil 3/28/07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD M.R. WEIL			MAR 28 2007 1505	Eric Darby		Eric Darby	MAR 28 2007 1508
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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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 3/28/07 1505

Client: PGW SDG #: W05147 NA [ ] SAF #: G07-003 NA [ ]

Work Order Number: JTC290150 Chain of Custody # G07-003-70

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: E. Darby Date: 3/28/07 1505

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

STL RICHLAND

PNNL J7C290189
W05147
Due 05-11-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-238**

Page 1 of 1

Collector Fluor Hanford ~~D. R. BREWINGTON~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, FEBRUARY 2007	HNG-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 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
B1M8N9		W	3-28-07	0853	1x20-mL P	Activity Scan	None
B1M8N9		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1M8N9		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None

JR.01R

3-28-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford ~~J. R. BREWINGTON~~			MAR 28 2007 1505		Eric Danby		MAR 28 2007 1505
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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 3/28/07 1505

Client: PGW SDG #: W05147 NA [ ] SAF #: W07-002 NA [ ]

Work Order Number: JTC290189 Chain of Custody # ~~W007~~ 03/28/07 W07-002-238

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: Ev Darby Date: 3/28/07 1505

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 J7C290370
W05147
Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-032-18

Page 1 of 1

Collector Fluor Hanford K. B. HULSE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-032	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOI MARCH 2007	HNF-N-506 6	**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
B1MDK8		W	3-29-07	1308	1x20-mL P	Activity Scan	None
B1MDK8		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
						JR2LA	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford K. B. HULSE			MAR 29 2007 1505		Eric Darby		3/29/07 1505
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

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SEVERN TRENT **STL**

Sample Check-in List

Date/Time Received: 3/29/07 1505

Client: PGW SDG #: W05147 NA [ ] SAF #: I07-032 NA [ ]

Work Order Number: J7C290370 Chain of Custody # I07-032-18

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? 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: Eric Darby Date: 3/29/07 1505

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

STL RICHLAND

PNNL J7C290371
W05147
Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-003-213

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	Logbook: HNF-N-506-7	Ice Chest No.: ERC-02-403 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
B1MF79		W	3/29/07	1152	1x20-mL P	Activity Scan	None
B1MF79		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

JR2LE

L. Wall 3/29/07

Relinquished By	Date/Time	Received By	Date/Time
Fluor Hanford R. T. SICKLE (Print) (Sign)	MAR 29 2007 1505	Eric Darby (Print) (Sign)	MAR 29 2007 1505

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

SEVERN TRENT **STL**

Sample Check-in List

Date/Time Received: 3/29/07 1505

Client: PGW SDG #: W05147 NA [ ] SAF #: S07-003 NA [ ]

Work Order Number: J7C290371 Chain of Custody # S07-003-213

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 in purine head space)
10. Sample pH taken? NA [ ] pH<2 [ ] pH>2 [✓] adjust [ ]
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: Eric Darby Date: 3/29/07 1505

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 J7C290373
W05147
Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-003-164**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**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	Logbook: HNF-N-506-7	**Ice Chest No.** ERC-02-403 **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
B1MKF9		W	3/29/07	0844	1x20-mL P	Activity Scan	None
B1MKF9		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MKF9		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MKF9		W			1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1MKF9		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
						JR2LK	
						R. Wall 3/29/07	

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
Fluor Hanford R. T. SICKLE	MAR 29 2007 1505	Eric Darby	MAR 29 2007 1505

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

STL RICHLAND

100

PNNL J7C290373
W05147
Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-003-165

Page 1 of 1

Collector: Fluor Hanford R. T. SICKLE	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	Logbook: HNF-N-506-7	Ice Chest No.: ERC-02-403 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
B1MKH0		W	3/29/07	0844	1x20-mL P	Activity Scan	None
B1MKH0		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MKH0		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MKH0		W			1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1MKH0		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2

JR2LM

R. Wall 3/29/07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			MAR 29 2007 1505		Eric Darby	Eric Darby	MAR 29 2007 1505
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

101

PNNL J7C290373
W05147
Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-003-484**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**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	Logbook: HNF-N-506-7	**Ice Chest No.** SRC-02-403 **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
B1MKF1		W	3/29/07	1028	1x20-mL P	Activity Scan	None
B1MKF1		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MKF1		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1MKF1		W	↓	↓	3x1000-mL G/P	TC99_SEP_LSC: Tc-99 (1)	HCl to pH <2

JR2LN

R. Wells 3/29/07

Relinquished By	Date/Time	Received By	Date/Time
Print: Fluor Hanford R. T. SICKLE Sign:	MAR 29 2007 1505	Print: Eric Darby Sign:	MAR 29 2007 1505
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

102

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 3/29/07 1505

Client: P&W SDG #: W05147 NA [ ] SAF # W07-003 NA [ ]

Work Order Number: J7C290273 Chain of Custody # W07-003-164,165,484

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: 3
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   [✓] appropriate sample labels
9. Samples are:
   [✓] in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] adjusted per [ ]
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: 3/29/07 1505

Client Sample ID	Analysis Requested	Condition	Specific Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

STL RICHLAND

PNNL J7C290374 W05147 Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-003-374

Page 1 of 1

Collector Fluor Hanford F. M. HALL	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-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 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
B1MK87		W	3/29/7	0905	1x20-mL P	Activity Scan	None
B1MK87		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MK87		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MK87		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1MK87		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JR2LT	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford F. M. HALL			MAR 29 2007 1505	Erle Darby		Erle Darby	MAR 29 2007 1505
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

104

STL RICHLAND

PNNL J7C290374
W05147
Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-003-375

Page 1 of 1

Collector: Fluor Hanford	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: F. M. HALL W07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, MARCH 2007	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: 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
B1MK88		W	3/29/7	0905	1x20-mL P	Activity Scan	None
B1MK88		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MK88		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MK88		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1MK88		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JR2LX	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford F. M. HALL			MAR 29 2007 1505	Eric Darby	Eric Darby		MAR 29 2007 1505
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

105

STL RICHLAND

PNNL J7C 290374 W05147 Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-003-478

Page 1 of 1

Collector Fluor Hanford F. M. HALL	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-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 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
B1MKD3		W	3/29/7	1322	1x20-mL P	Activity Scan	None
B1MKD3		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JR2LO	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford F. M. HALL	[signature]		MAR 29 2007 1505	Eric Darby	Eric Darby		MAR 29 2007 1505
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

PNNL J7C290374
W05147
Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-003-479

Page 1 of 1

Collector: Fluor Hanford F. M. HALL	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-506-2	Ice Chest No.: Ross Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: 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
B1MKD4		W	3/29/7	1322	1x20-mL P	Activity Scan	None
B1MKD4		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

JR2L2

Relinquished By: Fluor Hanford F. M. HALL Print Sign MAR 29 2007	Date/Time 1505	Received By: Eric Darby Print Eric Darby Sign MAR 29 2007	Date/Time 1505
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

107

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 3/29/07 1505

Client: PGW SDG #: W05147 NA [ ] SAF # W07-003 NA [ ]

Work Order Number: J7C290374 Chain of Custody # W07-003-374, 375, 478, 479

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 4
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate sample 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? *
    *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 Darby Date: 3/29/07 1505

Client Sample ID	Analysis Requested	Condition	Corrective Action

Client Informed on _____ by _____ person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

STD RICHLAND

PNNL J7C 300308
W05147
Due 05-14-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# W07-003-172

Page 1 of 1

Collector MIKE WEIL	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 6	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
B1MKH9		W	3-30-07	1154	1x20-mL P	Activity Scan	None
B1MKH9		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1MKH9		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1MKH9		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1MKH9		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
						JR4KX	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
MIKE WEIL	[signature]		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 = 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

PNNL JTC 300308
WO 5147
Due 05.14.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-003-260**

Page 1 of 1

Collector MIKE WEIL	**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 6	**Ice Chest No.** SPL 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
B1MKC4		W	3-30-07	0949	1x20-mL P	Activity Scan	None
B1MKC4		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JR4LA	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	MIKE WEIL	[signature]	MAR 30 2007 1345		Eric Dowdy	[signature]	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

110

SIL RICHLAND

PNNL JTC 300308
W05147
Due 05 14 07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-003-324**

Page 1 of 1

Collector MIKE WEIL	**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 6	**Ice Chest No.** SWL 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
B1MKC7		W	3-30-07	0858	1x20-mL P	Activity Scan	None
B1MKC7		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JR4LF	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
MIKE WEIL	MIKE WEIL	[signature]	MAR 30 2007 1345	Eric Darby	Eric Darby	[signature]	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	=	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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SEVERN TRENT **STL**

Sample Check-in List

Date/Time Received: 3/30/07 1345

Client: PGW SDG #: W05147 NA [ ] SAF #: W07-003 NA [ ]

Work Order Number: JTC 300 308 Chain of Custody #: W07-003-172, 260, 324

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: 3
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____tape
   _____custody seals
   _____broken 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: Ed 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

STL RICHLAND

4/12/2007 10:28:23 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: 05/14/2007 W05147

Batch: 7092488 **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 JRWFX-1-AA J7C280209-2-SAMP 03/27/2007 08:33		172.50g,in AmtRec: 20ML,500ML,LP #Containers: 3		1.5	51.5	.50	10A Scr:	2007 Alpha: 3.11E-04 uCi/Sa	4/16/07 CR Beta: -1.31E-04 uCi/Sa	
2 JR2LT-1-AC J7C290374-1-SAMP 03/29/2007 09:03		198.50g,in AmtRec: 20ML,2X500ML,2XLP #Containers: 5			30.2		10B Scr:	Alpha: -1.78E-04 uCi/Sa	Beta: 3.74E-04 uCi/Sa	
3 JR2LT-1-AH-X J7C290374-1-DUP 03/29/2007 09:03		198.40g,in AmtRec: 20ML,2X500ML,2XLP #Containers: 5			30.0		10C Scr:	Alpha: -1.78E-04 uCi/Sa	Beta: 3.74E-04 uCi/Sa	
4 JR2LX-1-AC J7C290374-2-SAMP 03/29/2007 09:05		199.70g,in AmtRec: 20ML,2X500ML,2XLP #Containers: 5			0.5		10D Scr:	Alpha: -6.21E-05 uCi/Sa	Beta: 3.03E-04 uCi/Sa	
5 JR7K8-1-AA-B J7D020000-488-BLK 03/29/2007 09:03		201.20g,in AmtRec: #Containers: 1			0.4		10F Scr:	D Alpha:	Beta:	
6 JR7K8-1-AC-C J7D020000-488-LCS 03/29/2007 09:03		198.90g,in AmtRec: #Containers: 1	ASD4161 03/23/07,pd 06/01/01,r		0.7		10A Scr:	2112 Alpha:	D Beta:	

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: 6
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

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STL RICHLAND

4/12/2007 10:28:28 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: 05/14/2007

Sep1 DT/Tm Tech:

Batch: 7092488 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:

Comments: JRWFX-SAMP "Comments. Aliquot reduced due to weight screen activity. JB 04/12/07"

PH <2.0 JB 4-12-07

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

JRWFX1AA-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JR7K81AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JR7K81AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JRWFX1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7K81AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7K81AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

4/17/2007 4:35:30 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/17/2006, 4/22/2007, Batch: '7092488', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092488						
AC		CalcC	BockJ	4/12/2007 10:28:29		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			BockJ	Prep1C	4/12/2007 10:28:29 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	4/12/2007 1:31:08 PM	RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	4/16/2007 6:49:41 PM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	4/16/2007 7:19:56 PM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	4/16/2007 9:44:50 PM	RICH-RD-0003 REVISION 4
AC			AshworthA	4/12/2007 1:31:08 PM		
AC			AshworthA	4/16/2007 6:49:41 PM		
AC			DAWKINSO	4/16/2007 7:19:56 PM		
AC			DAWKINSO	4/16/2007 9:44:50 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

STL RICHLAND

4/12/2007 10:21:17 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: 05/14/2007 W05147

Sep1 DT/Tm Tech:

Batch: 7092489 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 JRWFX-1-AC J7C280209-2-SAMP 03/27/2007 08:33		199.90g,in AmtRec: 20ML,500ML,LP	#Containers: 3	1.5	78.6	100	31C Scr:	2056 Alpha: 3.11E-04 uCi/Sa	4/16/07 010 Beta: -1.31E-04 uCi/Sa	
2 JRWFX-1-AE-X J7C280209-2-DUP 03/27/2007 08:33		200.80g,in AmtRec: 20ML,500ML,LP	#Containers: 3		84.7		32A Scr:	Alpha: 3.11E-04 uCi/Sa	Beta: -1.31E-04 uCi/Sa	
3 JR2LK-1-AA J7C290373-1-SAMP 03/29/2007 08:44		200.40g,in AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5		61.5		32B Scr:	Alpha: -1.17E-03 uCi/Sa	Beta: 1.24E-03 uCi/Sa	
4 JR2LM-1-AA J7C290373-2-SAMP 03/29/2007 08:44		199.60g,in AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5		56.7		32C Scr:	Alpha: -2.90E-04 uCi/Sa	Beta: 5.36E-04 uCi/Sa	
5 JR2LN-1-AA J7C290373-3-SAMP 03/29/2007 10:28		199.50g,in AmtRec: 20ML,500ML,4XLP	#Containers: 6		66.3		32D Scr:	Alpha: 5.51E-04 uCi/Sa	Beta: 9.32E-04 uCi/Sa	
6 JR2LT-1-AD J7C290374-1-SAMP 03/29/2007 09:03		199.00g,in AmtRec: 20ML,2X500ML,2XLP	#Containers: 5		52.3		26A Scr:	0745 Alpha: -1.78E-04 uCi/Sa	4/17/07 Beta: 3.74E-04 uCi/Sa	
7 JR2LX-1-AD J7C290374-2-SAMP 03/29/2007 09:05		199.30g,in AmtRec: 20ML,2X500ML,2XLP	#Containers: 5		0.4		26B Scr:	Alpha: -6.21E-05 uCi/Sa	Beta: 3.03E-04 uCi/Sa	

STL RICHLAND

4/12/2007 10:21:19 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 05/14/2007

Sep1 DT/Tm Tech:

Batch: 7092489 **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:
8 JR4KX-1-AA J7C300308-1-SAMP 03/30/2007 11:54		198.80g,in AmtRec: 20ML,2X500ML,2XLP	#Containers: 5	1.5	73.8	100	JK	0745	4/17/07	Scr: Alpha: 5.94E-04 uCi/Sa Beta: 1.24E-03 uCi/Sa
9 JR7LA-1-AA-B J7D020000-489-BLK 03/27/2007 08:33		199.10g,in AmtRec:	#Containers: 1		0.1		JCD			Scr: Alpha: Beta:
10 JR7LA-1-AC-C J7D020000-489-LCS 03/27/2007 08:33		199.80g,in AmtRec:	BESB3044 03/23/07,pd 08/08/06,r #Containers: 1		0.5		JCD			Scr: Alpha: Beta:

Comments: pH <2.0 JB 4-12-07

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

JRWFX1AC-SAMP Constituent List:
  BETA        RDL:4          pCi/L     LCL:        UCL:        RPD:
JR7LA1AA-BLK:
  BETA        RDL:4          pCi/L     LCL:        UCL:        RPD:
JR7LA1AC-LCS:
  Sr-90       RDL:           pCi/L     LCL:70      UCL:130     RPD:20
JRWFX1AC-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JR7LA1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JR7LA1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

STL RICHLAND

4/12/2007 10:21:22 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 05/14/2007

Sep1 DT/Tm Tech:

Batch: 7092489 pCi/L

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	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Approved By _____ Date: _____

4/26/2007 11:47:05 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/26/2006, 5/1/2007, Batch: '7092489', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092489						
AC		CalcC	BockJ	4/12/2007 10:21:22		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			BockJ	Prep1C	4/12/2007 10:21:22 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	4/12/2007 1:31:18 PM	RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	4/16/2007 6:50:11 PM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	4/16/2007 7:20:09 PM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	4/17/2007 8:43:38 AM	RICH-RD-0003 REVISION 4
AC			AshworthA	4/12/2007 1:31:18 PM		
AC			AshworthA	4/16/2007 6:50:11 PM		
AC			DAWKINSO	4/16/2007 7:20:09 PM		
AC			BlackCL	4/17/2007 8:43:38		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

STL RICHLAND

4/16/2007 4:42:48 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 05/14/2007

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

Batch: 7092487 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Balance Id:1120482733,1120482733,1120
Pipet #:
Sep1 DT/Tm Tech: 04/09/2007 15:42,ManisD
Sep2 DT/Tm Tech: 04/16/2007 09:45,ManisD
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:
1 JR0PA-1-AC J7C290150-1-SAMP		997.00g,in	SRTB14608 03/22/07,pd 09/11/06,r	0.5742	1.0	25.7	100	JB YA	0840 0750	4/17/07 4/18/07	
						~~04/09/2007 15:42,s1, 04/16/2007~~					
03/28/2007 09:48		AmtRec: 20ML,6XLP	#Containers: 7					Scr:	Alpha: 1.41E-03 uCi/Sa	Beta: 4.56E-03 uCi/Sa	1.2E-01L
2 JR0PA-1-AD-X J7C290150-1-DUP		999.50g,in	SRTB14629 04/02/07,pd 09/11/06,r	0.5046 4/17/07	1.0	25.6	100	JC YB	0840 0750	4/17/07 JB 4/18/07	
						~~04/09/2007 15:42,s1, 04/16/2007~~					
03/28/2007 09:48		AmtRec: 20ML,6XLP	#Containers: 7					Scr:	Alpha: 1.41E-03 uCi/Sa	Beta: 4.56E-03 uCi/Sa	1.2E-01L
3 JR7K7-1-AA-B J7D020000-487-BLK		1000.90g,in	SRTB14630 04/02/07,pd 09/11/06,r	0.3573	1.0	25.8	100	JD YC	0840 0750	4/17/07 4/18/07	
						~~04/09/2007 15:42,s1, 04/16/2007~~					
03/28/2007 09:48		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	
4 JR7K7-1-AC-C J7D020000-487-LCS		999.00g,in	SRSG1327 02/28/07,pd 09/11/06,r	0.4889	1.0	24.5	100	JA YD	1028 0750	4/17/07 4/18/07	
						~~04/09/2007 15:42,s1, 04/16/2007~~					
03/28/2007 09:48		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	

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4/16/2007 4:42:53 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: 05/14/2007

Sep1 DT/Tm Tech: 04/09/2007 15:42,ManisD

Batch: 7092487 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech: 04/16/2007 09:45,ManisD

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:

Comments:

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

JR0PA1AC-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

JR7K71AA-BLK:

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

JR7K71AC-LCS:

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

JR0PA1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7K71AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7K71AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

4/18/2007 3:01:10 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/18/2006, 4/23/2007, Batch: '7092487', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092487						
AC		**CalcC**	**BockJ**	4/4/2007 11:02:22		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	4/4/2007 11:02:22 AM	RICH-RC-5014 Revision 6
SC			BockJ	Prep1C	4/4/2007 11:09:56 AM	RICH-RC-5016 REVISION 6
SC			ManisD	InSep1	4/4/2007 1:24:51 PM	RICH-RC-5006 REV 6
SC			DAWKINSO	InCnt1	4/9/2007 4:08:10 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	Cnt1C	4/9/2007 8:25:38 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	InCnt2	4/16/2007 5:04:33 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	4/18/2007 8:47:51 AM	RICH-RD-0003 REVISION 4
AC			**BockJ**	4/4/2007 11:09:56		Revision 6
AC			**BockJ**	4/4/2007 11:10:05		
AC			**ManisD**	4/4/2007 1:24:51 PM		
AC			**DAWKINSO**	4/9/2007 4:08:10 PM		
AC			**DAWKINSO**	4/9/2007 8:25:38 PM		
AC			**DAWKINSO**	4/16/2007 5:04:33 PM		
AC			**StringerR**	4/18/2007 8:47:51		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 8

ICOCFractions v4.8.26

STL RICHLAND

4/13/2007 9:38:58 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 05/14/2007 W05147

Sep1 DT/Tm Tech:

Batch: 7092491 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 7092483 DHSS, 7092484 FPS5, 7092486 AMS5, 7092489 BCS8, 7092491 AWTA,

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 JR2LK-1-AC J7C290373-1-SAMP 03/29/2007 08:44		1999.30g,in AmtRec: 20ML,2X500ML,LP,4LP #Containers: 5				100	G10	2124	4/17/07 OH	
							Scr:	Alpha: -1.17E-03 uCi/Sa	Beta: 1.24E-03 uCi/Sa	
2 JR2LM-1-AC J7C290373-2-SAMP 03/29/2007 08:44		1989.90g,in AmtRec: 20ML,2X500ML,LP,4LP #Containers: 5					G12	2126		
							Scr:	Alpha: -2.90E-04 uCi/Sa	Beta: 5.36E-04 uCi/Sa	
3 JR2LM-1-AF-X J7C290373-2-DUP 03/29/2007 08:44		1933.40g,in AmtRec: 20ML,2X500ML,LP,4LP #Containers: 5					G13	2124		
							Scr:	Alpha: -2.90E-04 uCi/Sa	Beta: 5.36E-04 uCi/Sa	
4 JR4KX-1-AC J7C300308-1-SAMP 03/30/2007 11:54		2002.10g,in AmtRec: 20ML,2X500ML,2XLP #Containers: 5					G6	0709	4/18/07	
							Scr:	Alpha: 5.94E-04 uCi/Sa	Beta: 1.24E-03 uCi/Sa	
5 JR7LD-1-AA-B J7D020000-491-BLK 03/29/2007 08:44		1999.70g,in AmtRec: #Containers: 1					G6	0852		
							Scr:	Alpha:	Beta:	
6 JR7LD-1-AC-C J7D020000-491-LCS 03/29/2007 08:44		2000.10g,in AmtRec: #Containers: 1	QCAG1352 03/23/07,pd 03/07/05,r				G10	0852		
							Scr:	Alpha:	Beta:	

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: 6
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

123

STL RICHLAND

4/13/2007 9:39:03 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 05/14/2007

Sep1 DT/Tm Tech:

Batch: 7092491 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:

Comments: PH<2.0 JB 4-13-07

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

JR2LK1AC-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:

JR7LD1AA-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:

JR7LD1AC-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						

JR2LK1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JR7LD1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JR7LD1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

4/18/2007 3:16:41 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/18/2006, 4/23/2007, Batch: '7092491', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092491						
AC		CalcC	BockJ	4/13/2007 9:24:08		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	4/13/2007 9:24:08 AM	RICH-RC-5017 Revision 5
SC			BockJ	Prep1C	4/13/2007 9:39:02 AM	RICH-RC-5017 REVISION 5
SC			AshworthA	InPrep2	4/16/2007 1:55:50 PM	RICH-RC-5017 REVISION 4
SC			AshworthA	Prep2C	4/17/2007 6:43:54 PM	RICH-RC-5017 REVISION 4
SC			DAWKINSO	InCnt1	4/17/2007 7:45:10 PM	RICH-RD-0007 REVISION 5
SC			StringerR	CalcC	4/18/2007 9:40:31 AM	RICH-RD-0007 REVISION 5
AC			BockJ	4/13/2007 9:39:02		
AC			AshworthA	4/16/2007 1:55:50 PM		
AC			AshworthA	4/16/2007 6:56:43 PM		
AC			AshworthA	4/17/2007 6:43:54 PM		
AC			DAWKINSO	4/17/2007 7:45:10 PM		
AC			StringerR	4/18/2007 9:40:31		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

STL RICHLAND

4/20/2007 10:25:59 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: ___

AnalyDueDate: 05/14/2007 WO5147

Sep1 DT/Tm Tech:

Batch: 7092492 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 JR0PA-1-AA J7C290150-1-SAMP 03/28/2007 09:48	AmtRec: 20ML,6XLP	2498.70g,in	#Containers: 7		100 mL	100	G4	1800	4/20/07 APA	Scr: Alpha: 1.41E-03 uCi/Sa Beta: 4.56E-03 uCi/Sa 1.2E-01L
2 JR0PA-1-AE-X J7C290150-1-DUP 03/28/2007 09:48	AmtRec: 20ML,6XLP		#Containers: 7		4/26/07 APA		G7	1953		Scr: Alpha: 1.41E-03 uCi/Sa Beta: 4.56E-03 uCi/Sa 1.2E-01L
3 JR7LF-1-AA-B J7D020000-492-BLK 03/28/2007 09:48	AmtRec:	2498.70g,in	#Containers: 1				G10	800		Scr: Alpha: Beta:
4 JR7LF-1-AC-C J7D020000-492-LCS 03/28/2007 09:48	AmtRec:	2499.40g,in	QCAG1357 03/23/07,pd 03/07/05,r #Containers: 1				G5	1801		Scr: Alpha: Beta:

Comments: JR0PA-SAMP "Comments. DUP. aliquot not poured due to insufficient sample. Please count on diff. detector. JB 04/20/07"

PH < 2.0 JB 4-20-07

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

JR0PA1AA-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:						

JR7LF1AA-BLK:

4/20/2007 10:26:04 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: 05/14/2007

Batch: 7092492 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:						
JR7LF1AC-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						

JR0PA1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JR7LF1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JR7LF1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

4/28/2007 10:58:20 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/28/2006, 5/3/2007, Batch: '7092492', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092492						
AC		InCnt1	BockJ	4/20/2007 10:18:17		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	4/20/2007 10:18:17 AM	RICH-RC-5017 Revision 5
SC			BockJ	Prep1C	4/20/2007 10:26:06 AM	RICH-RC-5017 REVISION 5
SC			AshworthA	InPrep2	4/25/2007 10:59:16 AM	RICH-RC-5017 REVISION 4
SC			BlackCL	InCnt1	4/26/2007 12:43:10 PM	RICH-RD-0007 REVISION 5
AC			BockJ	4/20/2007 10:26:06		
AC			AshworthA	4/25/2007 10:59:16		
AC			BlackCL	4/26/2007 12:43:10		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.26

STL RICHLAND

4/18/2007 2:13:26 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #:

AnalyDueDate: 05/14/2007 W05147

Sep1 DT/Tm Tech:

Batch: 7092493 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ, BostedD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JR0JV-1-AC J7C290127-1-SAMP 03/28/2007 13:05		3930.00g,in AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5	ITA6156 03/15/07		30.3	100	L4	0700 Scr: Alpha: -1.45E-04 uCi/Sa	4/27/07	Beta: -1.57E-04 uCi/Sa
2 JR0J5-1-AC J7C290127-2-SAMP 03/28/2007 11:50		3905.10g,in AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5	ITA6157 03/15/07		25.7		L5	0707 Scr: Alpha: -3.83E-04 uCi/Sa		Beta: 1.08E-03 uCi/Sa
3 JR2LA-1-AA J7C290370-1-SAMP 03/29/2007 13:08		3907.20g,in AmtRec: 20ML,2X4LP #Containers: 3	ITA6158 03/15/07		24.5		L2	0701 Scr: Alpha: 8.14E-04 uCi/Sa		Beta: 1.19E-03 uCi/Sa
4 JR2LA-1-AC-X J7C290370-1-DUP 03/29/2007 13:08		3878.90g,in AmtRec: 20ML,2X4LP #Containers: 3	ITA6159 03/15/07		35.2		L2	0952 Scr: Alpha: 8.14E-04 uCi/Sa	4/27/07 r	Beta: 1.19E-03 uCi/Sa
5 JR2LE-1-AA J7C290371-1-SAMP 03/29/2007 11:52		3906.30g,in AmtRec: 20ML,2X4LP #Containers: 3	ITA6160 03/15/07		24.9		L4	0955 Scr: Alpha: 1.27E-04 uCi/Sa	4/27/07 r	Beta: 1.38E-03 uCi/Sa
6 JR7LH-1-AA-B J7D020000-493-BLK 03/29/2007 13:08		3865.20g,in AmtRec: #Containers: 1	ITA6161 03/15/07		39.2		L5	0956 Scr: Alpha:	4/27/07 r	Beta:
7 JR7LH-1-AC-C J7D020000-493-LCS 03/29/2007 13:08		4000.20g,in AmtRec: #Containers: 1	ISD0741 12/20/06		31.2		L2	1143 Scr: Alpha:	4/27/07 r	Beta:

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

129

STL RICHLAND

4/18/2007 2:13:31 PM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #:

AnalyDueDate: 05/14/2007

Sep1 DT/Tm Tech:

Batch: 7092493 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:

Comments: ~~PH<2.0 JB 4-18-07~~ PH-neutral JB 4-18-07

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

JR0JV1AC-SAMP Constituent List:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JR7LH1AA-BLK:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JR7LH1AC-LCS:
I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20

JR0JV1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7LH1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7LH1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

5/14/2007 12:13:41 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/14/2006, 5/19/2007, Batch: '7092493', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092493						
AC		CalcC	BockJ	4/18/2007 2:15:47 PM		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			BockJ	Prep1C	4/18/2007 2:15:47 PM	RICH-RC-5017 REVISION 5
SC			BostedD	InPrep2	4/19/2007 9:04:06 AM	RICHRC5025 REV3
SC			BostedD	Prep2C	4/26/2007 12:43:29 PM	RICHRC5025 REV3
SC			BlackCL	InCnt1	4/26/2007 1:11:35 PM	RICH-RD-0007 REVISION 5
SC			StringerR	CalcC	4/27/2007 12:53:46 PM	RICH-RD-0007 REVISION 5
SC			StringerR	InCnt1	5/3/2007 7:17:26 AM	RICH-RD-0007 REVISION 5
SC			StringerR	CalcC	5/3/2007 9:56:00 AM	RICH-RD-0007 REVISION 5
AC			**BostedD**	4/19/2007 9:04:06		
AC			**BostedD**	4/26/2007 12:43:29		
AC			**BlackCL**	4/26/2007 1:11:35 PM		
AC			**StringerR**	4/27/2007 12:53:46		
AC			**StringerR**	5/3/2007 7:17:26 AM		
AC			**StringerR**	5/3/2007 9:56:00 AM		

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

SEVERN TRENT STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 5/14/07

CUSTOMER PGW

ANALYSIS I-129

MATRIX water

LOT NUMBER J7C290127

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 7092493

NEW BATCH NUMBER

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) All	Dups + LCS out.
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	
LAB QC ID	Assigned with new batch.

RC-048, 10/03, Rev 7

5/10/2007 5:19:44 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 05/14/2007

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

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: DRM / DB 5/10/07

Batch: 7129333 **WATER** **pCi/L** **PM, Quote: SA , 57671**
SEQ Batch, Test: None All Tests: 7092484 FPS5, 7092493 BNTB, 7092494 ARS6, 7129333 BNTB,

STL RICHLAND

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 JR0JV-1-AE-X J7C290127-1-DUP 03/28/2007 13:05	Please recount original sample			IFA	36	100	L4	1933	5/10/07 DD	
	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5					Scr:	Alpha: -1.45E-04 uCi/Sa		Beta: -1.57E-04 uCi/Sa
2 JR0JV-2-AC J7C290127-1-SAMP 03/28/2007 13:05	3856.20g,in	ITA6217 05/08/07		IFA	36	100	L5	2125		
	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5					Scr:	Alpha: -1.45E-04 uCi/Sa		Beta: -1.57E-04 uCi/Sa
3 JR0J5-2-AC J7C290127-2-SAMP 03/28/2007 11:50	3928.40g,in	ITA6218 05/08/07		IFA	35.9	100	L5	1934	5/10/07 DD	
	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5					Scr:	Alpha: -3.83E-04 uCi/Sa		Beta: 1.08E-03 uCi/Sa
4 JR2LA-3-AA J7C290370-1-SAMP 03/29/2007 13:08	No Sample									
	AmtRec: 20ML,2X4LP	#Containers: 3					Scr:	Alpha: 8.14E-04 uCi/Sa		Beta: 1.19E-03 uCi/Sa
5 JR2LE-2-AA J7C290371-1-SAMP 03/29/2007 11:52	3908.00g,in	ITA6219 05/08/07		IFA	36	100	L2	1934	5/10/07 DD	
	AmtRec: 20ML,2X4LP	#Containers: 3					Scr:	Alpha: 1.27E-04 uCi/Sa		Beta: 1.38E-03 uCi/Sa
6 JWKD4-1-AA-B J7E090000-333-BLK 03/28/2007 13:05	4000.70g,in	ITA6220 05/08/07		IFA	35.9	100	L2	2124		
	AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
7 JWKD4-1-AC-C J7E090000-333-LCS 03/28/2007 13:05	3904.40g,in	ISD0743 04/25/07,pd 04/11/07,r		IFA	36.4	100	L4	2125		
	AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

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

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5/10/2007 5:19:49 PM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #: _____

AnalyDueDate: 05/14/2007

Sep1 DT/Tm Tech:

Batch: 7129333 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:

Comments: JR0JV-DUP "Comments. No DUP poured up.Out of sample, please recount on diff. detector. JB 5/9/07"
JR2LA-SAMP "Comments. no aliquot poured due to no more sample. JB 5-9-07"

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

JR0JV1AE-DUP Constituent List:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JWKD41AA-BLK:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JWKD41AC-LCS:
I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20

JR0JV1AE-DUP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JWKD41AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JWKD41AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

5/14/2007 12:00:32 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/14/2006, 5/19/2007, Batch: '7129333', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7129333						
AC		CalcC	BockJ	5/9/2007 11:25:59		
SC			antonsonl	IsBatched	5/9/2007 10:54:53 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	5/9/2007 11:25:59 AM	rich-rc-5015 rEVISION 4
SC			BockJ	Prep1C	5/9/2007 11:44:24 AM	RICH-RC-5017 REVISION 5
SC			BostedD	InPrep2	5/10/2007 1:04:02 PM	RICHRC5025 REV3
SC			ManisD	InPrep2	5/10/2007 1:04:22 PM	RICHRC5025 REV3
SC			ManisD	Prep2C	5/10/2007 5:22:56 PM	RICH-RC-5025 REVISION 3
SC			DAWKINSO	InCnt1	5/10/2007 5:58:33 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	5/10/2007 9:52:38 PM	RICH-RD-0007 REVISION 5
AC			BockJ	5/9/2007 11:44:24		
AC			BostedD	5/10/2007 1:04:02 PM		
AC			ManisD	5/10/2007 1:04:22 PM		
AC			ManisD	5/10/2007 5:22:56 PM		
AC			DAWKINSO	5/10/2007 5:58:33 PM		
AC			DAWKINSO	5/10/2007 9:52:38 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

STL RICHLAND

4/5/2007 10:20:48 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #: _____

AnalyDueDate: 05/14/2007 WO5147

Batch: 7092484 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

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 JRWFV-1-AA J7C280209-1-SAMP 03/27/2007 10:11			125.50g,in	125.50g		60				
	AmtRec: 20ML,500ML		#Containers: 2				Scr:	Alpha: -3.25E-05 uCi/Sa		Beta: 2.12E-05 uCi/Sa
2 JRWFX-1-AD J7C280209-2-SAMP 03/27/2007 08:33			125.30g,in	125.30g						
	AmtRec: 20ML,500ML,LP		#Containers: 3				Scr:	Alpha: 3.11E-04 uCi/Sa		Beta: -1.31E-04 uCi/Sa
3 JRWF7-1-AC J7C280209-3-SAMP 03/27/2007 13:04			125.50g,in	125.50g						
	AmtRec: 20ML,2X500MLP,LP		#Containers: 4				Scr:	Alpha: 1.24E-04 uCi/Sa		Beta: 2.72E-04 uCi/Sa
4 JRWGG-1-AC J7C280209-4-SAMP 03/27/2007 12:14			125.10g,in	125.10g						
	AmtRec: 20ML,2X500MLP,LP		#Containers: 4				Scr:	Alpha: 9.40E-05 uCi/Sa		Beta: -7.99E-05 uCi/Sa
5 JR0JV-1-AD J7C290127-1-SAMP 03/28/2007 13:05			125.40g,in	125.40g						
	AmtRec: 20ML,500ML,LP,2X4LP		#Containers: 5				Scr:	Alpha: -1.45E-04 uCi/Sa		Beta: -1.57E-04 uCi/Sa
6 JR0J5-1-AD J7C290127-2-SAMP 03/28/2007 11:50			125.10g,in	125.10g						
	AmtRec: 20ML,500ML,LP,2X4LP		#Containers: 5				Scr:	Alpha: -3.83E-04 uCi/Sa		Beta: 1.08E-03 uCi/Sa
7 JR01R-1-AC J7C290189-1-SAMP 03/28/2007 08:53			124.90g,in	124.90g						
	AmtRec: 20ML,500ML,LP		#Containers: 3				Scr:	Alpha: -7.06E-05 uCi/Sa		Beta: -6.00E-05 uCi/Sa

STL RICHLAND

4/5/2007 10:20:51 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 05/14/2007

Sep1 DT/Tm Tech:

Batch: 7092484 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None

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:
8 JR2LK-1-AD J7C290373-1-SAMP 03/29/2007 08:44	AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5	125.40g,in	125.40g		.60		Scr:	Alpha: -1.17E-03 uCi/Sa	Beta: 1.24E-03 uCi/Sa
9 JR2LM-1-AD J7C290373-2-SAMP 03/29/2007 08:44	AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5	125.10g,in	125.10g				Scr:	Alpha: -2.90E-04 uCi/Sa	Beta: 5.36E-04 uCi/Sa
10 JR2LT-1-AE J7C290374-1-SAMP 03/29/2007 09:03	AmtRec: 20ML,2X500ML,2XLP	#Containers: 5	125.20g,in	125.20g				Scr:	Alpha: -1.78E-04 uCi/Sa	Beta: 3.74E-04 uCi/Sa
11 JR2LX-1-AE J7C290374-2-SAMP 03/29/2007 09:05	AmtRec: 20ML,2X500ML,2XLP	#Containers: 5	125.00g,in	125.00g				Scr:	Alpha: -6.21E-05 uCi/Sa	Beta: 3.03E-04 uCi/Sa
12 JR2L0-1-AA J7C290374-3-SAMP 03/29/2007 13:22	AmtRec: 20ML,500ML	#Containers: 2	127.20g,in	127.20g				Scr:	Alpha: -1.66E-05 uCi/Sa	Beta: 3.30E-05 uCi/Sa
13 JR2L2-1-AA J7C290374-4-SAMP 03/29/2007 13:22	AmtRec: 20ML,500ML	#Containers: 2	124.90g,in	124.90g				Scr:	Alpha: 4.02E-05 uCi/Sa	Beta: 2.71E-05 uCi/Sa
14 JR4KX-1-AD J7C300308-1-SAMP 03/30/2007 11:54	AmtRec: 20ML,2X500ML,2XLP	#Containers: 5	126.20g,in	126.20g				Scr:	Alpha: 5.94E-04 uCi/Sa	Beta: 1.24E-03 uCi/Sa

STL RICHLAND

4/5/2007 10:20:52 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 05/14/2007

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

Balance Id:1120482733

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Batch: 7092484 **WATER** **pCi/L** **PM, Quote: SA , 57671**
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:
15 JR4LA-1-AA J7C300308-2-SAMP 03/30/2007 09:49		AmtRec: 20ML,500ML	126.40g,in	126.40g #Containers: 2		60		Scr:	Alpha: -2.31E-05 uCi/Sa	Beta: 9.74E-05 uCi/Sa
16 JR4LA-1-AC-X J7C300308-2-DUP 03/30/2007 09:49		AmtRec: 20ML,500ML	125.80g,in	125.80g #Containers: 2				Scr:	Alpha: -2.31E-05 uCi/Sa	Beta: 9.74E-05 uCi/Sa
17 JR4LF-1-AA J7C300308-3-SAMP 03/30/2007 08:58		AmtRec: 20ML,500ML	126.70g,in	126.70g #Containers: 2				Scr:	Alpha: -1.67E-05 uCi/Sa	Beta: 1.33E-04 uCi/Sa
18 JR4LF-1-AC-S J7C300308-3-MS 03/30/2007 08:58		AmtRec: 20ML,500ML	125.00g,in	125.00g #Containers: 2	TCSG1788 02/28/07,pd 01/10/06,r			Scr:	Alpha: -1.67E-05 uCi/Sa	Beta: 1.33E-04 uCi/Sa
19 JR7KV-1-AA-B J7D020000-484-BLK 03/30/2007 09:49		AmtRec:	125.70g,in	125.70g #Containers: 1				Scr:	Alpha:	Beta:
20 JR7KV-1-AC-C J7D020000-484-LCS 03/30/2007 09:49		AmtRec:	125.40g,in	125.40g #Containers: 1	TCSE2094 02/28/07,pd 01/10/06,r			Scr:	Alpha:	Beta:
21 JR7KV-1-AD-BN J7D020000-484-IBLK 03/30/2007 09:49		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:

STL RICHLAND

4/5/2007 10:20:57 AM

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: 05/14/2007

Batch: 7092484 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:
22 JR7KV-1-AE-BN J7D020000-484-IBLK 03/30/2007 09:49	AmtRec:	#Containers: 1						Scr:	Alpha:	Beta:

Comments: RA < 2.0 SB 4-5-07

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

JRWFV1AA-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JR4LF1AC-MS:

JR7KV1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JR7KV1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JR7KV1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JR7KV1AE-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

JRWFV1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR4LF1AC-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7KV1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7KV1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7KV1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7KV1AE-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

4/5/2007 10:20:59 AM

Sample Preparation/Analysis

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

AnalyDueDate: 05/14/2007

Batch: 7092484 **pCi/L**
SEQ Batch, Test: None

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

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

Approved By _____ Date: _____

4/26/2007 11:53:56 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/26/2006, 5/1/2007, Batch: '7092484', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092484						
AC		**CalcC**	**BockJ**	4/5/2007 9:47:52 AM		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	4/5/2007 9:47:52 AM	rich-rc-5016 rEVISION 6
SC			BockJ	Prep1C	4/5/2007 10:21:31 AM	RICH-RC-5016 REVISION 6
SC			HarveyK	InSep1	4/5/2007 4:37:58 PM	RICH-RC-5065 REV5
SC			HarveyK	Sep1C	4/5/2007 6:06:12 PM	RICH-RC-5065 REV5
SC			DAWKINSO	InCnt1	4/5/2007 6:55:28 PM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	4/7/2007 1:58:51 PM	RICH-RD-0001 REVISION 3
AC			**BockJ**	4/5/2007 10:21:31		
AC			**HarveyK**	4/5/2007 4:37:58 PM		
AC			**HarveyK**	4/5/2007 6:06:12 PM		
AC			**DAWKINSO**	4/5/2007 6:55:28 PM		
AC			**StringerR**	4/7/2007 1:58:51 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

STL RICHLAND

4/5/2007 2:29:28 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 05/14/2007 W05147

Sep1 DT/Tm Tech:

Batch: 7092486 WATER pCi/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 JR2LN-1-AC J7C290373-3-SAMP 03/29/2007 10:28		127.90g,in AmtRec: 20ML,500ML,4XLP	#Containers: 6	60			Scr: Alpha: 5.51E-04 uCi/Sa	Beta: 9.32E-04 uCi/Sa
2 JR2LN-1-AE-S J7C290373-3-MS 03/29/2007 10:28		125.70g,in AmtRec: 20ML,500ML,4XLP	TCSG1790 02/28/07,pd 01/10/06,r #Containers: 6				Scr: Alpha: 5.51E-04 uCi/Sa	Beta: 9.32E-04 uCi/Sa
3 JR2LN-1-AF-X J7C290373-3-DUP 03/29/2007 10:28		129.40g,in AmtRec: 20ML,500ML,4XLP	#Containers: 6				Scr: Alpha: 5.51E-04 uCi/Sa	Beta: 9.32E-04 uCi/Sa
4 JR7K6-1-AA-B J7D020000-486-BLK 03/29/2007 10:28		124.70g,in AmtRec:	#Containers: 1				Scr: Alpha:	Beta:
5 JR7K6-1-AC-C J7D020000-486-LCS 03/29/2007 10:28		125.90g,in AmtRec:	TCSE2096 02/28/07,pd 01/10/06,r #Containers: 1				Scr: Alpha:	Beta:
6 JR7K6-1-AD-BN J7D020000-486-IBLK 03/29/2007 10:28		AmtRec:	#Containers: 1				Scr: Alpha:	Beta:

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: 6

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

142

STL RICHLAND

4/5/2007 2:29:36 PM

Sample Preparation/Analysis

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

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

AnalyDueDate: 05/14/2007

Batch: 7092486 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:

Comments: PH < 2.0 JB 4-5-07

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

JR2LN1AC-SAMP Constituent List:
Tc-99 RDL:1.50E+01 pCi/L LCL:70 UCL:130 RPD:20
JR2LN1AE-MS Constituent List:

JR7K61AA-BLK:
Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:
JR7K61AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JR7K61AD-IBLK:
Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

JR2LN1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR2LN1AE-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7K61AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7K61AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7K61AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

4/26/2007 11:50:01 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/26/2006, 5/1/2007, Batch: '7092486', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092486						
AC		CalcC	BockJ	4/5/2007 2:25:55 PM		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	4/5/2007 2:25:55 PM	rich-rc-5016 rEVISION 6
SC			BockJ	Prep1C	4/5/2007 2:29:55 PM	RICH-RC-5016 REVISION 6
SC			FABREM	Sep1C	4/10/2007 7:38:43 PM	RICH-RC-5078 REVISION 3
SC			DAWKINSO	InCnt1	4/10/2007 8:15:19 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	4/11/2007 10:26:51 AM	RICH-RD-0001 REVISION 3
AC			BockJ	4/5/2007 2:29:55 PM		
AC			FABREM	4/10/2007 7:38:43 PM		
AC			DAWKINSO	4/10/2007 8:15:19 PM		
AC			BlackCL	4/11/2007 10:26:51		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

STL RICHLAND

4/2/2007 4:07:20 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

AnalyDueDate: 05/14/2007 W05147

Batch: 7092494 **WATER** **pCi/L** **PM, Quote: SA , 57671**

SEQ Batch, Test: None

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 4-4-07 dm
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 JRWF7-1-AA J7C280209-3-SAMP 03/27/2007 13:04	AmtRec: 20ML,2X500MLP,LP	#Containers: 4				Scr:	Alpha:	Beta:
2 JRWGG-1-AA J7C280209-4-SAMP 03/27/2007 12:14	AmtRec: 20ML,2X500MLP,LP	#Containers: 4				Scr:	Alpha:	Beta:
3 JR0JV-1-AA J7C290127-1-SAMP 03/28/2007 13:05	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha:	Beta:
4 JR0J5-1-AA J7C290127-2-SAMP 03/28/2007 11:50	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha:	Beta:
5 JR01R-1-AA J7C290189-1-SAMP 03/28/2007 08:53	AmtRec: 20ML,500ML,LP	#Containers: 3				Scr:	Alpha:	Beta:
6 JR01R-1-AD-X J7C290189-1-DUP 03/28/2007 08:53	AmtRec: 20ML,500ML,LP	#Containers: 3				Scr:	Alpha:	Beta:
7 JR2LT-1-AA J7C290374-1-SAMP 03/29/2007 09:03	AmtRec: 20ML,2X500ML,2XLP	#Containers: 5				Scr:	Alpha:	Beta:

STL RICHLAND

4/2/2007 4:07:22 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

AnalyDueDate: 05/14/2007

Batch: 7092494 **WATER** **pCi/L** **PM, Quote: SA , 57671**
SEQ Batch, Test: None

Balance Id: 17415
Pipet #:
Sep1 DT/Tm Tech: 4-4-07
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:
8 JR2LX-1-AA J7C290374-2-SAMP 03/29/2007 09:05	AmtRec: 20ML,2X500ML,2XLP	#Containers: 5				Scr:	Alpha:	Beta:
9 JR7LK-1-AA-B J7D020000-494-BLK 03/28/2007 08:53	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
10 JR7LK-1-AC-C J7D020000-494-LCS 03/28/2007 08:53	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
11 JR7LK-1-AD-BX J7D020000-494-MBLK 03/28/2007 08:53	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
12 JR7LK-1-AE-CM J7D020000-494-MLCS 03/28/2007 08:53	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
13 JR7LK-1-AF-BN J7D020000-494-IBLK 03/28/2007 08:53	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
14 JR7LK-1-AG-BN J7D020000-494-IBLK 03/28/2007 08:53	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

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STL RICHLAND

4/2/2007 4:07:31 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: 4-4-07 [illegible]
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 05/14/2007

Batch: 7092494 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:
15 JR7LK-1-AH-BN J7D020000-494-IBLK 03/28/2007 08:53	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments:

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

```
JRWF71AA-SAMP Constituent List:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
JR7LK1AA-BLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JR7LK1AC-LCS:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
JR7LK1AD-MBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JR7LK1AE-MLCS:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
JR7LK1AF-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JR7LK1AG-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JR7LK1AH-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JRWF71AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JR7LK1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JR7LK1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JR7LK1AD-MBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JR7LK1AE-MLCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

4/2/2007 4:07:32 PM

Sample Preparation/Analysis

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

Balance Id: 17445
Pipet #:
Sep1 DT/Tm Tech: 4-4-07
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 05/14/2007

Batch: 7092494 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:

```
JR7LK1AF-IBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
JR7LK1AG-IBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
JR7LK1AH-IBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

Approved By _____ Date: _____

4/9/2007 2:50:52 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/9/2006, 4/14/2007, Batch: '7092494', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092494						
AC		**CalcC**	**McDowellD**	4/4/2007 1:51:07 PM		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			McDowellD	InSep1	4/4/2007 1:51:07 PM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	4/5/2007 10:03:26 AM	RICH-RC-5007 REVISION 6
SC			StringerR	InCnt1	4/5/2007 10:37:54 AM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	4/7/2007 11:05:33 AM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	4/5/2007 10:03:26		
AC			**StringerR**	4/5/2007 10:37:54		
AC			**StringerR**	4/7/2007 11:05:33		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.26

STL RICHLAND

4/12/2007 1:20:12 PM

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: 05/14/2007 WO5147

Sep1 DT/Tm Tech:

Batch: 7092483 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 JRWF7-1-AD J7C280209-3-SAMP 03/27/2007 13:04		25.30g,in AmtRec: 20ML,2X500MLP,LP	#Containers: 4			Scr:	Alpha: 1.24E-04 uCi/Sa	Beta: 2.72E-04 uCi/Sa
2 JRWGG-1-AD J7C280209-4-SAMP 03/27/2007 12:14		25.30g,in AmtRec: 20ML,2X500MLP,LP	#Containers: 4			Scr:	Alpha: 9.40E-05 uCi/Sa	Beta: -7.99E-05 uCi/Sa
3 JR2LK-1-AE J7C290373-1-SAMP 03/29/2007 08:44		25.20g,in AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5			Scr:	Alpha: -1.17E-03 uCi/Sa	Beta: 1.24E-03 uCi/Sa
4 JR2LM-1-AE J7C290373-2-SAMP 03/29/2007 08:44		25.30g,in AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5			Scr:	Alpha: -2.90E-04 uCi/Sa	Beta: 5.36E-04 uCi/Sa
5 JR2LN-1-AD J7C290373-3-SAMP 03/29/2007 10:28		25.10g,in AmtRec: 20ML,500ML,4XLP	#Containers: 6			Scr:	Alpha: 5.51E-04 uCi/Sa	Beta: 9.32E-04 uCi/Sa
6 JR2LT-1-AF J7C290374-1-SAMP 03/29/2007 09:03		29.10g,in AmtRec: 20ML,2X500ML,2XLP	#Containers: 5			Scr:	Alpha: -1.78E-04 uCi/Sa	Beta: 3.74E-04 uCi/Sa
7 JR2LT-1-AG-S J7C290374-1-MS 03/29/2007 09:03		28.70g,in UNSF3670 03/28/07,pd 01/23/07,r AmtRec: 20ML,2X500ML,2XLP	#Containers: 5			Scr:	Alpha: -1.78E-04 uCi/Sa	Beta: 3.74E-04 uCi/Sa

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

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STL RICHLAND

4/12/2007 1:20:16 PM

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: 05/14/2007

Sep1 DT/Tm Tech:

Batch: 7092483 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:
8 JR2LX-1-AF J7C290374-2-SAMP 03/29/2007 09:05		25.90g,in AmtRec: 20ML,2X500ML,2XLP	#Containers: 5			Scr:	Alpha: -6.21E-05 uCi/Sa	Beta: 3.03E-04 uCi/Sa
9 JR4KX-1-AE J7C300308-1-SAMP 03/30/2007 11:54		27.80g,in AmtRec: 20ML,2X500ML,2XLP	#Containers: 5			Scr:	Alpha: 5.94E-04 uCi/Sa	Beta: 1.24E-03 uCi/Sa
10 JR4KX-1-AF-X J7C300308-1-DUP 03/30/2007 11:54		27.60g,in AmtRec: 20ML,2X500ML,2XLP	#Containers: 5			Scr:	Alpha: 5.94E-04 uCi/Sa	Beta: 1.24E-03 uCi/Sa
11 JR7KP-1-AA-B J7D020000-483-BLK 03/30/2007 11:54		25.70g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
12 JR7KP-1-AC-C J7D020000-483-LCS 03/30/2007 11:54		25.80g,in AmtRec:	UNSF3671 03/28/07,pd 01/23/07,r #Containers: 1			Scr:	Alpha:	Beta:
13 JR7KP-1-AD-C J7D020000-483-LCS 03/30/2007 11:54		25.50g,in AmtRec:	UNSC1624 04/05/07,pd 04/28/06,r #Containers: 1			Scr:	Alpha:	Beta:

STL RICHLAND

4/12/2007 1:20:20 PM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 05/14/2007

Sep1 DT/Tm Tech:

Batch: 7092483 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:

Comments: PH < 2.0 JB 4-12-07

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

JRWF71AD-SAMP Constituent List:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JR2LT1AG-MS:

JR7KP1AA-BLK:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JR7KP1AC-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20
JR7KP1AD-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

JRWF71AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR2LT1AG-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7KP1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7KP1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JR7KP1AD-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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5/8/2007 2:47:56 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/8/2006, 5/13/2007, Batch: '7092483', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7092483						
AC		**Cnt1C**	**BockJ**	4/12/2007 1:10:39 PM		
SC			wagarr	IsBatched	4/2/2007 4:09:49 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	4/12/2007 1:10:39 PM	RICH-RC-5015 Revision 4
SC			BockJ	Prep1C	4/12/2007 1:20:21 PM	RICH-RC-5015 REVISION 4
SC			AshworthA	InPrep2	4/24/2007 2:03:29 PM	RICH-RC-5015 REVISION 4
SC			AshworthA	Prep2C	4/25/2007 5:09:56 PM	RICH-RC-5015 REVISION 4
SC			NelsonT	Cnt1C	5/7/2007 12:40:46 PM	RICH-RC-5058 REV 7
AC			**BockJ**	4/12/2007 1:20:21 PM		
AC			**AshworthA**	4/24/2007 2:03:29 PM		
AC			**AshworthA**	4/25/2007 5:09:56 PM		
AC			**NelsonT**	5/7/2007 12:40:46 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26