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W05112

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138 pages

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 _____ Pages

Report Nbr: 34748

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05112	S07-001	B1LPF6	J7B050164-1	JNXR61AA	9JNXR610	7039569
		B1LPF4	J7B050164-2	JNXR71AA	9JNXR710	7039569
		B1LPF4	J7B050164-2	JNXR71AC	9JNXR710	7039567
		B1LPF4	J7B050164-2	JNXR71AD	9JNXR710	7039566
		B1LPF4	J7B050164-2	JNXR71AE	9JNXR710	7039564
		B1LPF4	J7B050164-2	JNXR71AF	9JNXR710	7039563
		B1LPF4	J7B050164-2	JNXR71AG	9JNXR710	7039561
		B1LPC4	J7B050164-3	JNXR81AA	9JNXR810	7039569
		B1LPC4	J7B050164-3	JNXR81AC	9JNXR810	7039563
	W07-002	B1M7M1	J7B050166-1	JNXTG1AA	9JNXTG10	7039559
		B1M7L8	J7B050166-2	JNXTM1AA	9JNXTM10	7039559
		B1M7M7	J7B050166-3	JNXTQ1AA	9JNXTQ10	7039559
		B1M929	J7B050185-1	JNX2Q1AA	9JNX2Q10	7039556
		B1M9L1	J7B050185-2	JNX2T1AA	9JNX2T10	7039556
	S07-002	B1M7K6	J7B050186-1	JNX2X1AA	9JNX2X10	7039564

Comments:

Report Nbr: 34748

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05112	S07-002	B1M7K6	J7B050186-1	JNX2X1AC	9JNX2X10	7039563
		B1M7K6	J7B050186-1	JNX2X1AD	9JNX2X10	7039561
		B1M7K9	J7B050186-2	JNX211AA	9JNX2110	7039563
	W07-002	B1M9J1	J7B050195-1	JNX591AA	9JNX5910	7039556
		B1M9J6	J7B050195-2	JNX6A1AA	9JNX6A10	7039556
		B1M9K1	J7B050195-3	JNX6C1AA	9JNX6C10	7039556
		B1M9K6	J7B050198-1	JNX6J1AA	9JNX6J10	7039556
		B1M9F1	J7B050198-2	JNX6K1AA	9JNX6JK0	7039556
		B1M9H6	J7B050198-3	JNX6L1AA	9JNX6LK0	7039556
	S07-002	B1M7J8	J7B050200-1	JNX6V1AA	9JNX6V10	7039563
		B1M7J5	J7B060113-1	JN0HR1AA	9JN0HR10	7039563
		B1M7F5	J7B070166-1	JN2WT1AA	9JN2WT10	7039558
		B1M7F0	J7B070170-1	JN2X31AA	9JN2X310	7039563
		B1M7F0	J7B070170-1	JN2X31AC	9JN2X310	7039557

Comments:

SEVERN TRENT STL

STL Richland
2800 George Washington Way
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www.stl-inc.com

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

March 22, 2007

Attention: Dot Stewart

SAF Number	:	W07-002, S07-001, S07-002
Date SDG Closed	:	February 6, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05112
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between February 1, 2007 and February 6, 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
B1LPF6	JNXR6	WATER	2/1/07
B1LPF4	JNXR7	WATER	2/1/07
B1LPC4	JNXR8	WATER	2/1/07
B1M7M1	JNXTG	WATER	2/2/07
B1M7L8	JNXTM	WATER	2/2/07
B1M7M7	JNXTQ	WATER	2/2/07
B1M929	JNX2Q	WATER	2/5/07
B1M9L1	JNX2T	WATER	2/5/07
B1M7K6	JNX2X	WATER	2/5/07
B1M7K9	JNX21	WATER	2/5/07
B1M9J1	JNX59	WATER	2/5/07
B1M9J6	JNX6A	WATER	2/5/07
B1M9K1	JNX6C	WATER	2/5/07

B1M9K6	JNX6J	WATER	2/5/07
B1M9F1	JNX6K	WATER	2/5/07
B1M9H6	JNX6L	WATER	2/5/07
B1M7J8	JNX6V	WATER	2/5/07
B1M7J5	JN0HR	WATER	2/5/07
B1M7F5	JN2WT	WATER	2/6/07
B1M7F0	JN2X3	WATER	2/6/07

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:

Alpha Spectroscopy
Plutonium-238, -239/240 by method RICH-RC-5010
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
Iodine-129 (LL) by method RICH-RC-5025
Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058
Chemical Analysis
Total Coliform by method 9223

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy

Plutonium-238, -239/240 by method RICH-RC-5010

The LCS, batch blank, samples and sample duplicate (B1M7F5) results are within contractual requirements.

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1LPF4) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1LPF4) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1M7K6) results are within contractual requirements.

Gamma Spectroscopy

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

The original analysis gave a low LCS recovery. It was recounted with good results. Except as noted, the LCS, batch blank, samples and sample duplicate (B1M7K6) results are within contractual requirements.

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

The LCS, batch blank, samples and sample duplicate (B1M7J8) results are within contractual requirements.

Liquid Scintillation Counting

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

The LCS, batch blank, samples, sample duplicate (B1M7F0), and sample matrix spike (B1M7F0) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1LPF6) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1M7L8), and sample matrix spike (B1M7M1) results are within contractual requirements.

Pacific Northwest National Laboratories
March 22, 2007

Chemical Analysis

Total Coliform by method 9223

The LCS, batch blank, sample, and sample duplicate (B1M929) 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:

Sherryl A. Adam
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**STL Richland's SOP number**
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = 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.

3/22/2007 11:02:45 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34748 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.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:
9JN0HR10	B1M7J5		MW6-SBB-A1	S07-002	W05112					02/05/2007 10:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039563	I-129L	15046-84-1	4.51E-02	pCi/L	1.7E-01	1.7E-01	U	3.27E-01	62.2	I129LL_SEP_LEPS	3.8945E+00	L	02/26/2007 14:23	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:
9JN2WT10	B1M7F5		MW6-SBB-A1	S07-002	W05112					02/06/2007 11:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039558	PU-238	13981-16-3	-5.99E-03	pCi/L	7.5E-02	7.5E-02	U	1.71E-01	79.5	PUISO_PLATE_AE	2.014E-01	L	02/21/2007 15:56	I
7039558	PU-239	PU-239/240	3.14E-02	pCi/L	7.5E-02	7.5E-02	U	1.71E-01	79.5	PUISO_PLATE_AE	2.014E-01	L	02/21/2007 15:56	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:
9JN2X310	B1M7F0		MW6-SBB-A1	S07-002	W05112					02/06/2007 10:10

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039563	I-129L	15046-84-1	3.25E+00	pCi/L	5.8E-01	5.8E-01		2.78E-01	95.9	I129LL_SEP_LEPS	3.9014E+00	L	02/26/2007 14:23	I
7039557	TC-99	14133-76-7	2.05E+03	pCi/L	2.5E+01	1.4E+02		9.80E+00	100.0	TC99_ETVDSK_LS	1.252E-01	L	02/20/2007 16:59	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JNX2110	B1M7K9		MW6-SBB-A1	S07-002	W05112					02/05/2007 10:05

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039563	I-129L	15046-84-1	1.08E+00	pCi/L	3.1E-01	3.1E-01		2.98E-01	98.6	I129LL_SEP_LEPS	3.909E+00	L	02/26/2007 12:39	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:
9JNX2X10	B1M7K6		MW6-SBB-A1	S07-002	W05112					02/05/2007 11:26

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039564	BE-7	13966-02-4	2.12E+00	pCi/L	2.2E+01	2.2E+01	U	3.97E+01		GAMMALL_GS	1.971E+00	L	02/23/2007 10:38	I
7039564	CO-60	10198-40-0	-2.19E-01	pCi/L	2.3E+00	2.3E+00	U	4.50E+00		GAMMALL_GS	1.971E+00	L	02/23/2007 10:38	I
7039564	CS-134	13967-70-9	-5.50E-01	pCi/L	2.2E+00	2.2E+00	U	4.03E+00		GAMMALL_GS	1.971E+00	L	02/23/2007 10:38	I
7039564	CS-137	10045-97-3	2.07E+00	pCi/L	2.3E+00	2.3E+00	U	4.74E+00		GAMMALL_GS	1.971E+00	L	02/23/2007 10:38	I
7039564	EU-152	14683-23-9	-2.95E+00	pCi/L	6.0E+00	6.0E+00	U	1.04E+01		GAMMALL_GS	1.971E+00	L	02/23/2007 10:38	I
7039564	EU-154	15585-10-1	-2.54E+00	pCi/L	6.9E+00	6.9E+00	U	1.24E+01		GAMMALL_GS	1.971E+00	L	02/23/2007 10:38	I
7039564	EU-155	14391-16-3	-2.01E+00	pCi/L	4.8E+00	4.8E+00	U	8.01E+00		GAMMALL_GS	1.971E+00	L	02/23/2007 10:38	I
7039564	K-40	13966-00-2	-9.15E+00	pCi/L	4.6E+01	4.6E+01	U	1.06E+02		GAMMALL_GS	1.971E+00	L	02/23/2007 10:38	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.

3/22/2007 11:02:45 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34748 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

7039564	RU-106	13967-48-1	9.82E+00	pCi/L	2.2E+01	2.2E+01	U	4.35E+01		GAMMALL_GS	1.971E+00	L	02/23/2007	10:38	I
7039564	SB-125	14234-35-6	-2.28E+00	pCi/L	5.9E+00	5.9E+00	U	1.02E+01		GAMMALL_GS	1.971E+00	L	02/23/2007	10:38	I
7039563	I-129L	15046-84-1	1.63E+00	pCi/L	3.7E-01	3.7E-01	U	6.58E-01	90.8	I129LL_SEP_LEPS	3.9527E+00	L	02/26/2007	10:51	I
7039561	SR-90	10098-97-2	7.53E-02	pCi/L	1.6E-01	1.7E-01	U	3.65E-01	85.5	SRISO_SEP_PRE	1.0069E+00	L	02/28/2007	06:51	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JNX6V10	B1M7J8		MW6-SBB-A1	S07-002	W05112					02/05/2007 09:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039563	I-129L	15046-84-1	4.23E-01	pCi/L	2.4E-01	2.4E-01	U	4.15E-01	88.4	I129LL_SEP_LEPS	3.9239E+00	L	02/26/2007 12:39	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:
9JNXR610	B1LPF6		MW6-SBB-A1	S07-001	W05112					02/01/2007 11:36

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039569	H-3	10028-17-8	-1.55E+01	pCi/L	1.6E+02	1.8E+02	U	3.82E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/22/2007 03:50	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JNXR710	B1LPF4		MW6-SBB-A1	S07-001	W05112					02/01/2007 09:51

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039569	H-3	10028-17-8	5.33E+04	pCi/L	8.6E+02	1.9E+03		3.84E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/22/2007 06:36	I
7039567	ALPHA	12587-46-1	1.95E+00	pCi/L	1.4E+00	1.5E+00	U	2.07E+00	100.0	9310_ALPHABETA	1.938E-01	L	02/27/2007 07:45	I
7039566	BETA	12587-47-2	1.70E+01	pCi/L	2.3E+00	3.9E+00		2.83E+00	100.0	9310_ALPHABETA	2.011E-01	L	02/26/2007 20:28	I
7039564	BE-7	13966-02-4	-8.87E+00	pCi/L	2.0E+01	2.0E+01	U	3.56E+01		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039564	CO-60	10198-40-0	-1.56E+00	pCi/L	2.5E+00	2.5E+00	U	4.11E+00		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039564	CS-134	13967-70-9	1.79E+00	pCi/L	2.7E+00	2.7E+00	U	5.45E+00		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039564	CS-137	10045-97-3	2.00E+00	pCi/L	2.2E+00	2.2E+00	U	4.63E+00		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039564	EU-152	14683-23-9	3.36E+00	pCi/L	5.7E+00	5.7E+00	U	1.10E+01		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039564	EU-154	15585-10-1	-5.77E-01	pCi/L	6.2E+00	6.2E+00	U	1.20E+01		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039564	EU-155	14391-16-3	-2.23E+00	pCi/L	4.2E+00	4.2E+00	U	7.29E+00		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039564	K-40	13966-00-2	-6.40E+01	pCi/L	5.4E+01	5.4E+01	U	1.17E+02		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039564	RU-106	13967-48-1	-1.02E+00	pCi/L	1.8E+01	1.8E+01	U	3.30E+01		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039564	SB-125	14234-35-6	-1.70E+00	pCi/L	5.3E+00	5.3E+00	U	9.16E+00		GAMMALL_GS	1.998E+00	L	02/23/2007 10:38	I
7039563	I-129L	15046-84-1	7.61E-01	pCi/L	2.7E-01	2.7E-01	U	4.68E-01	88.1	I129LL_SEP_LEPS	3.867E+00	L	02/26/2007 10:50	I
7039561	SR-90	10098-97-2	1.46E-01	pCi/L	2.0E-01	2.1E-01	U	4.41E-01	88.4	SRISO_SEP_PRE	1.004E+00	L	02/28/2007 06:51	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.

3/22/2007 11:02:45 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34748 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.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:
9JNXR810	B1LPC4		MW6-SBB-A1	S07-001	W05112					02/01/2007 13:01

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039569	H-3	10028-17-8	3.71E+04	pCi/L	7.2E+02	1.4E+03		3.83E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/22/2007 07:58	I
7039563	I-129L	15046-84-1	2.66E+00	pCi/L	5.4E-01	5.4E-01		3.38E-01	92.4	I129LL_SEP_LEPS	3.8825E+00	L	02/26/2007 10:51	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JNXTG10	B1M7M1		MW6-SBB-A1	W07-002	W05112					02/02/2007 10:58

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039559	Uranium	7440-61-1	1.70E-02	ug/L	2.0E-03	2.0E-03	U	8.32E-02		UTOT_KPA	2.52E-02	ML	02/28/2007 17:08	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:
9JNXTM10	B1M7L8		MW6-SBB-A1	W07-002	W05112					02/02/2007 11:49

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039559	Uranium	7440-61-1	3.65E+01	ug/L	4.4E+00	4.4E+00		8.09E-02		UTOT_KPA	2.59E-02	ML	02/28/2007 17:14	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:
9JNXTQ10	B1M7M7		MW6-SBB-A1	W07-002	W05112					02/02/2007 13:28

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7039559	Uranium	7440-61-1	1.15E+01	ug/L	1.4E+00	1.4E+00		8.48E-02		UTOT_KPA	2.47E-02	ML	02/28/2007 17:17	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.

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6H11AB	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/06/2007 11:27
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/06/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AP	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
7039558	PU-238	-4.15E-02	pCi/L	2.6E-01	U	6.91E-01	25.3		PUISO_PLATE	2.017E-01	02/21/2007				D
BLK	13981-16-3			2.6E-01						L	15:57				
7039558	PU-239	-3.11E-02	pCi/L	2.6E-01	U	6.46E-01	25.3		PUISO_PLATE	2.017E-01	02/21/2007				D
BLK	PU-239/240			2.6E-01						L	15:57				

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.

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6H21AB	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/02/2007 10:58
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/02/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AR	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
7039559	Uranium	2.12E-03	ug/L	5.5E-04	U	8.15E-02			UTOT_KPA	2.57E-02	02/28/2007				D
BLK	7440-61-1			5.5E-04						ML	17:00				

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.

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6H31AB	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/05/2007 11:26
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/05/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039561	SR-90	-4.13E-02	pCi/L	1.5E-01	U	3.47E-01	92.8		SRISO_SEP_P	1.003E+00	02/28/2007				D
BLK	10098-97-2			1.5E-01						L	06:51				

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.

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6H51AB	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/05/2007 09:30
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	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
7039563	I-129L	-1.57E-02	pCi/L	1.1E-01	U	1.95E-01	98.9		I129LL_SEP_L	3.9893E+00	02/26/2007				D
BLK	15046-84-1			1.1E-01						L	14:23				

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

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6H71AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: BLK

Collection Date: 02/05/2007 11:26
Sample On Date:
Received Date: 02/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	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
7039564	BE-7	5.18E+00	pCi/L	1.7E+01	U	3.37E+01			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	13966-02-4			1.7E+01						L	10:40				
7039564	CO-60	-1.14E+00	pCi/L	2.2E+00	U	3.92E+00			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	10198-40-0			2.2E+00						L	10:40				
7039564	CS-134	2.03E+00	pCi/L	2.4E+00	U	5.12E+00			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	13967-70-9			2.4E+00						L	10:40				
7039564	CS-137	8.61E-01	pCi/L	2.4E+00	U	4.61E+00			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	10045-97-3			2.4E+00						L	10:40				
7039564	EU-152	-1.20E+00	pCi/L	5.1E+00	U	9.12E+00			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	14683-23-9			5.1E+00						L	10:40				
7039564	EU-154	7.35E-01	pCi/L	6.5E+00	U	1.32E+01			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	15585-10-1			6.5E+00						L	10:40				
7039564	EU-155	-8.35E-01	pCi/L	3.8E+00	U	6.81E+00			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	14391-16-3			3.8E+00						L	10:40				
7039564	K-40	-5.04E-01	pCi/L	4.6E+01	U	9.86E+01			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	13966-00-2			4.6E+01						L	10:40				
7039564	RU-106	1.77E+00	pCi/L	2.1E+01	U	3.85E+01			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	13967-48-1			2.1E+01						L	10:40				
7039564	SB-125	5.32E-01	pCi/L	4.8E+00	U	9.01E+00			GAMMALL_GS	1.9955E+00	02/23/2007				D
BLK	14234-35-6			4.8E+00						L	10:40				

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

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6H91AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: BLK

Collection Date: 02/01/2007 09:51
Sample On Date:
Received Date: 02/01/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039566	BETA	1.03E+00	pCi/L	1.2E+00	U	2.50E+00	100.0		9310_ALPHAB	2.042E-01	02/26/2007				D
BLK	12587-47-2			1.2E+00						L	20:28				

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.

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6HW1AB	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/06/2007 10:10
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/06/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039557	TC-99	-4.00E-01	pCi/L	6.0E+00	U	9.83E+00	100.0		TC99_ETVDSK	1.254E-01	02/20/2007				D
BLK	14133-76-7			4.0E+00						L	16:59				

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

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6JC1AB	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/01/2007 09:51
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/01/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039567	ALPHA	4.22E-01	pCi/L	5.6E-01	U	1.09E+00	100.0		9310_ALPHAB	2.019E-01	02/26/2007				D
BLK	12587-46-1			5.6E-01						L	21:12				

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.

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6JE1AB	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/01/2007 11:36
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/01/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039569	H-3	8.57E+00	pCi/L	1.8E+02	U	3.84E+02	100.0		906.0_H3_LSC	5.00E-03	02/21/2007				D
BLK	10028-17-8			1.6E+02						L	22:19				

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

Thursday, March 22, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6JE1DX	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/01/2007 11:36
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/01/2007

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
7039569	H-3	3.61E+01	pCi/L	1.8E+02	U	3.88E+02	100.0		906.0_H3_LSC	5.00E-03	02/22/2007				D
BLK	10028-17-8			1.6E+02						L	01:04				

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

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6H11CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: BS

Collection Date: 02/06/2007 11:27
Sample On Date:
Received Date: 02/06/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AQ	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
7039558	PU-239	4.21E+00	pCi/L	1.2E+00		3.78E-01	58.4	4.55E+00	PUISO_PLATE	1.999E-01	02/21/2007			75	D
BS	PU-239/240			9.3E-01				92.5		L	15:57			125	

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.

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6H21CS	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/02/2007 10:58
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	02/02/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AS	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
7039559	Uranium	3.30E+01	ug/L	4.0E+00		8.25E-02		3.54E+01	UTOT_KPA	2.54E-02	02/28/2007			75	D
BS	7440-61-1			4.0E+00				93.1		ML	17:04			125	

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

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6H21DS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: BS

Collection Date: 02/02/2007 10:58
Sample On Date:
Received Date: 02/02/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AT	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
7039559	Uranium	3.64E+00	ug/L	3.7E-01		8.19E-02		3.55E+00	UTOT_KPA	2.56E-02	02/28/2007			75	D
BS	7440-61-1			3.7E-01				102.7		ML	17:06			125	

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

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6H31CS **Sdg/Rept Nbr:** W05112 34748 **Collection Date:** 02/05/2007 11:26

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 02/05/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039561	SR-90	1.51E+01	pCi/L	2.3E+00		3.61E-01	86.5	1.36E+01	SRISO_SEP_P	9.996E-01	02/28/2007			70	D
BS	10098-97-2			8.1E-01				111.1		L	06:51			130	

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.

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6H51CS **Sdg/Rept Nbr:** W05112 34748 **Collection Date:** 02/05/2007 09:30

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 02/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	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
7039563	I-129L	9.08E+00	pCi/L	1.2E+00		3.56E-01	95.8	9.65E+00	I129LL_SEP_L	4.0033E+00	02/26/2007			70	D
BS	15046-84-1			1.2E+00				94.1		L	16:30			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.

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6H72CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: BS

Collection Date: 02/05/2007 11:26
Sample On Date:
Received Date: 02/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	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
7039564	CO-60	3.47E+01	pCi/L	7.9E+00		2.63E+00		3.80E+01	GAMMALL_GS	2.0017E+00	02/23/2007			75	D
BS	10198-40-0			7.9E+00				91.4		L	14:04			125	
7039564	CS-137	2.64E+01	pCi/L	6.4E+00		4.28E+00		2.49E+01	GAMMALL_GS	2.0017E+00	02/23/2007			70	D
BS	10045-97-3			6.4E+00				106.0		L	14:04			130	
7039564	EU-152	6.99E+01	pCi/L	1.6E+01		1.12E+01		7.71E+01	GAMMALL_GS	2.0017E+00	02/23/2007			70	D
BS	14683-23-9			1.6E+01				90.7		L	14:04			130	

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.

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6H91CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: BS

Collection Date: 02/01/2007 09:51
Sample On Date:
Received Date: 02/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	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
7039566	BETA	1.84E+01	pCi/L	4.1E+00		2.36E+00	100.0	2.26E+01	9310_ALPHAB	2.006E-01	02/26/2007			70	D
BS	12587-47-2			2.1E+00				81.5		L	20:28			130	

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.

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6HW1CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: BS

Collection Date: 02/06/2007 10:10
Sample On Date:
Received Date: 02/06/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039557	TC-99	5.23E+02	pCi/L	4.1E+01		9.67E+00	100.0	5.36E+02	TC99_ETVDSK	1.271E-01	02/20/2007			70	D
BS	14133-76-7			1.3E+01				97.7		L	16:59			130	

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

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JN6JC1CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: BS

Collection Date: 02/01/2007 09:51
Sample On Date:
Received Date: 02/01/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039567	ALPHA	1.82E+01	pCi/L	4.9E+00		8.86E-01	100.0	2.26E+01	9310_ALPHAB	2.019E-01	02/26/2007			70	D
BS	12587-46-1			2.8E+00				80.4		L	21:12			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.

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6JE1CS	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/01/2007 11:36
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	02/01/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7039569	H-3	2.51E+03	pCi/L	2.7E+02		3.78E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	02/21/2007			75	D
BS	10028-17-8			2.4E+02				92.6		L	23:42			125	

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

Thursday, March 22, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN6JE1EM	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/01/2007 11:36
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	02/01/2007

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
7039569	H-3	2.51E+03	pCi/L	2.8E+02		3.88E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	02/22/2007			75	D
BS	10028-17-8			2.4E+02				92.3		L	02:27			125	

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.

Thursday, March 22, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN2WT1CR	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/06/2007 11:27
Client Id:	B1M7F5	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	02/06/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-002	MW6-SBB-A19981								AM	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
7039558	PU-238	5.70E-02	pCi/L	1.1E-01	U	2.30E-01	56.1		PUISO_PLATE	2.011E-01	02/21/2007	246.9	0.8		D
DUP	13981-16-3	-5.99E-03		1.1E-01						L	15:57	20.0	3		
7039558	PU-239	-1.37E-02	pCi/L	1.2E-01	U	2.84E-01	56.1		PUISO_PLATE	2.011E-01	02/21/2007	509.4	0.6		D
DUP	PU-239/240	3.14E-02		1.2E-01						L	15:57	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.

Thursday, March 22, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN2X31ER	**Sdg/Rept Nbr:**	W05112	34748	**Collection Date:** 02/06/2007 10:10
Client Id:	B1M7F0	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 02/06/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-002	MW6-SBB-A19981								AO	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
7039557	TC-99	2.02E+03	pCi/L	1.4E+02		9.76E+00	100.0		TC99_ETVDSK	1.258E-01	02/20/2007	1.5	0.3		D
DUP	14133-76-7	2.05E+03		2.5E+01						L	16:59	20.0	3		

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

Thursday, March 22, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JNX2X1ER	**Sdg/Rept Nbr:**	W05112	34748	**Collection Date:** 02/05/2007 11:26
Client Id:	B1M7K6	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 02/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-002	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
7039561	SR-90	3.40E-02	pCi/L	1.7E-01	U	3.81E-01	82.7		SRISO_SEP_P	1.0084E+00	02/28/2007	75.5	0.3		D
DUP	10098-97-2	7.53E-02		1.5E-01						L	06:51	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.

Thursday, March 22, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JNX2X1FR
Client Id: B1M7K6
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: DUP

Collection Date: 02/05/2007 11:26
Sample On Date:
Received Date: 02/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-002	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
7039564	BE-7	9.88E+00	pCi/L	2.1E+01	U	4.03E+01			GAMMALL_GS	1.9402E+00	02/23/2007	129.5	0.5		D
DUP	13966-02-4	2.12E+00		2.1E+01						L	10:40	20.0	3		
7039564	CO-60	1.13E+00	pCi/L	2.9E+00	U	5.89E+00			GAMMALL_GS	1.9402E+00	02/23/2007	296.2	0.7		D
DUP	10198-40-0	-2.19E-01		2.9E+00						L	10:40	20.0	3		
7039564	CS-134	1.19E+00	pCi/L	2.1E+00	U	4.43E+00			GAMMALL_GS	1.9402E+00	02/23/2007	541.3	1.2		D
DUP	13967-70-9	-5.50E-01		2.1E+00						L	10:40	20.0	3		
7039564	CS-137	1.83E-01	pCi/L	2.5E+00	U	4.68E+00			GAMMALL_GS	1.9402E+00	02/23/2007	167.4	1.		D
DUP	10045-97-3	2.07E+00		2.5E+00						L	10:40	20.0	3		
7039564	EU-152	-2.60E+00	pCi/L	5.8E+00	U	9.77E+00			GAMMALL_GS	1.9402E+00	02/23/2007	0.0	0.1		D
DUP	14683-23-9	-2.95E+00		5.8E+00						L	10:40	20.0	3		
7039564	EU-154	8.97E-01	pCi/L	6.6E+00	U	1.34E+01			GAMMALL_GS	1.9402E+00	02/23/2007	0.0	0.7		D
DUP	15585-10-1	-2.54E+00		6.6E+00						L	10:40	20.0	3		
7039564	EU-155	-1.36E+00	pCi/L	3.4E+00	U	5.89E+00			GAMMALL_GS	1.9402E+00	02/23/2007	0.0	0.3		D
DUP	14391-16-3	-2.01E+00		3.4E+00						L	10:40	20.0	3		
7039564	K-40	-5.39E+01	pCi/L	4.8E+01	U	1.02E+02			GAMMALL_GS	1.9402E+00	02/23/2007	0.0	1.3		D
DUP	13966-00-2	-9.15E+00		4.8E+01						L	10:40	20.0	3		
7039564	RU-106	-2.04E+01	pCi/L	2.4E+01	U	3.91E+01			GAMMALL_GS	1.9402E+00	02/23/2007	0.0	1.8		D
DUP	13967-48-1	9.82E+00		2.4E+01						L	10:40	20.0	3		
7039564	SB-125	-1.38E+00	pCi/L	6.0E+00	U	1.05E+01			GAMMALL_GS	1.9402E+00	02/23/2007	0.0	0.2		D
DUP	14234-35-6	-2.28E+00		6.0E+00						L	10:40	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.

Thursday, March 22, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JNX6V1CR	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/05/2007 09:30
Client Id:	B1M7J8	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	02/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-002	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
7039563	I-129L	2.22E-01	pCi/L	2.2E-01	U	4.10E-01	91.6		I129LL_SEP_L	3.9504E+00	02/26/2007	62.5	1.3		D
DUP	15046-84-1	4.23E-01		2.2E-01						L	12:40	20.0	3		

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.

Thursday, March 22, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JNXR61CR
Client Id: B1LPF6
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: DUP

Collection Date: 02/01/2007 11:36
Sample On Date:
Received Date: 02/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-001	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
7039569	H-3	-9.98E+01	pCi/L	1.8E+02	U	3.85E+02	100.0		906.0_H3_LSC	5.00E-03	02/22/2007	0.0	0.7		D
DUP	10028-17-8	-1.55E+01		1.5E+02						L	05:13	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.

Thursday, March 22, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JNXR71HR	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/01/2007 09:51
Client Id:	B1LPF4	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	02/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-001	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
7039566	BETA	1.86E+01	pCi/L	3.3E+00		2.84E+00	100.0		9310_ALPHAB	2.001E-01	02/26/2007	9.2	0.7		D
DUP	12587-47-2	1.70E+01		2.4E+00						L	20:28	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.

Thursday, March 22, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JNXR71JR	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/01/2007 09:51
Client Id:	B1LPF4	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	02/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-001	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
7039567	ALPHA	2.06E+00	pCi/L	1.5E+00		1.88E+00	100.0		9310_ALPHAB	1.919E-01	02/26/2007	5.3	0.1		D
DUP	12587-46-1	1.95E+00		1.4E+00						L	21:12	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.

Thursday, March 22, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JNXTM1CR
Client Id: B1M7L8
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: DUP

Collection Date: 02/02/2007 11:49
Sample On Date:
Received Date: 02/02/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-002	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
7039559	Uranium	3.66E+01	ug/L	4.4E+00		8.35E-02			UTOT_KPA	2.51E-02	02/28/2007	.5	0.1		D
DUP	7440-61-1	3.65E+01		4.4E+00						ML	17:16	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.

Thursday, March 22, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id:	JN2X31DW	**Sdg/Rept Nbr:**	W05112 34748	**Collection Date:**	02/06/2007 10:10
Client Id:	B1M7F0	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	MS	**Received Date:**	02/06/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-002	MW6-SBB-A19981								AN	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
7039557	TC-99	3.50E+03	pCi/L	4.1E+02		9.77E+00	100.0	3.65E+03	TC99_ETVDSK	1.256E-01	02/20/2007			60	D
MS	14133-76-7			4.0E+01				95.8		L	16:59			140	

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.

Thursday, March 22, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05112.Edd, h:\Reportdb\edd\FeadIV\Rad\34748.Edd

Lab Sample Id: JNXTG1CW
Client Id: B1M7M1
Moisture/Solids%*:

Sdg/Rept Nbr: W05112 34748
Matrix: WATER WATER
QC Type: MS

Collection Date: 02/02/2007 10:58
Sample On Date:
Received Date: 02/02/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-002	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
7039559	Uranium	3.24E+01	ug/L	3.9E+00		7.94E-02		3.42E+01	UTOT_KPA	2.64E-02	02/28/2007			60	D
MS	7440-61-1			3.9E+00				94.8		ML	17:12			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.

FormNI	FormS	Reco	FormatTy	Versio	SampleNbr	Contract	LabCode	LabC	Caseli	SAS	SDGNbr
W	AA	H	FEAD	05	B1M929	MW6-SBB-A19981	STLRL				W05112
W	AB	H	FEAD	05	B1M9L1	MW6-SBB-A19981	STLRL				W05112
W	AC	H	FEAD	05	B1M9J1	MW6-SBB-A19981	STLRL				W05112
W	AD	H	FEAD	05	B1M9J6	MW6-SBB-A19981	STLRL				W05112
W	AE	H	FEAD	05	B1M9K1	MW6-SBB-A19981	STLRL				W05112
W	AF	H	FEAD	05	B1M9K6	MW6-SBB-A19981	STLRL				W05112
W	AG	H	FEAD	05	B1M9F1	MW6-SBB-A19981	STLRL				W05112
W	AH	H	FEAD	05	B1M9H6	MW6-SBB-A19981	STLRL				W05112
W	AI	H	FEAD	05	NA	MW6-SBB-A19981	STLRL				W05112
W	AJ	H	FEAD	05	INTRA-LAB CH	MW6-SBB-A19981	STLRL				W05112
W	AK	H	FEAD	05	B1M929 DUP	MW6-SBB-A19981	STLRL				W05112

AnalyticalMatrix	LabReceivedDate	CollectedDate	PercentSo	Decante	LabSampleId	LabFileI	SafNbr
WATER	02/05/2007	02/05/2007			9JNX2Q10		
WATER	02/05/2007	02/05/2007			9JNX2T10		
WATER	02/05/2007	02/05/2007			9JNX5910		
WATER	02/05/2007	02/05/2007			9JNX6A10		
WATER	02/05/2007	02/05/2007			9JNX6C10		
WATER	02/05/2007	02/05/2007			9JNX6J10		
WATER	02/05/2007	02/05/2007			9JNX6JK0		
WATER	02/05/2007	02/05/2007			9JNX6LK0		
WATER	02/05/2007				JN6HR1AB		
WATER	02/05/2007				JN6HR1AC		
WATER	02/05/2007	02/05/2007			JNX2QER		

CollectedTime	PercentM	Filename	SpecificMa
08:00		h:\Reportdb\edd\FeadIV\Wet\W0511	
10:05		h:\Reportdb\edd\FeadIV\Wet\W0511	
11:35		h:\Reportdb\edd\FeadIV\Wet\W0511	
10:35		h:\Reportdb\edd\FeadIV\Wet\W0511	
09:30		h:\Reportdb\edd\FeadIV\Wet\W0511	
11:25		h:\Reportdb\edd\FeadIV\Wet\W0511	
10:30		h:\Reportdb\edd\FeadIV\Wet\W0511	
09:10		h:\Reportdb\edd\FeadIV\Wet\W0511	
		h:\Reportdb\edd\FeadIV\Wet\W0511	
		h:\Reportdb\edd\FeadIV\Wet\W0511	
08:00		h:\Reportdb\edd\FeadIV\Wet\W0511	

FormNbr	FormSuffix	RecordType	CASNbr	Isotope	Result
W	AA	D	COLIFORM	COLIFORM	+1.00E+00
W	AB	D	COLIFORM	COLIFORM	+1.00E+00
W	AC	D	COLIFORM	COLIFORM	+1.00E+00
W	AD	D	COLIFORM	COLIFORM	+1.00E+00
W	AE	D	COLIFORM	COLIFORM	+1.00E+00
W	AF	D	COLIFORM	COLIFORM	+1.00E+00
W	AG	D	COLIFORM	COLIFORM	+1.00E+00
W	AH	D	COLIFORM	COLIFORM	+1.00E+00
W	AI	D	COLIFORM	COLIFORM	+1.00E+00
W	AJ	D	COLIFORM	COLIFORM	+1.45E+01
W	AK	D	COLIFORM	COLIFORM	+1.00E+00

OrigResult	ConcentrationUr	ActionCode	AnalysisMethod	SampleAliquotS	SampleAliquotU
	Col/100ml	I	9223 COLIFO	+1.00E+02	ML
	Col/100ml	I	9223 COLIFO	+1.00E+02	ML
	Col/100ml	I	9223 COLIFO	+1.00E+02	ML
	Col/100ml	I	9223 COLIFO	+1.00E+02	ML
	Col/100ml	I	9223 COLIFO		I
	Col/100ml	I	9223 COLIFO	+1.00E+02	ML
	Col/100ml	I	9223 COLIFO	+1.00E+02	ML
	Col/100ml	I	9223 COLIFO	+1.00E+02	ML
	Col/100ml	I	9223 Coliform	+1.00E+02	ML
	Col/100ml	I	9223 Coliform	+1.00E+02	ML
	Col/100ml	I	9223 COLIFO	+1.00E+02	ML

LabQualifier	DilutionFactor	DateAnalyzed	TimeAnalyzed	BatchNbr	QcType
U	1	02/05/2007	15:15	7039556	
U	1	02/05/2007	15:25	7039556	
U	1	02/05/2007	15:23	7039556	
U	1	02/05/2007	15:23	7039556	
U	1	02/05/2007	15:24	7039556	
U	1	02/05/2007	15:24	7039556	
U	1	02/05/2007	15:20	7039556	
U	1	02/05/2007	15:20	7039556	
U	1	02/05/2007	15:30	7039556	BLK
	1	02/05/2007	15:30	7039556	MS
U	1	02/05/2007	15:15	7039556	DUP

SpikeConc	PercentRecover	Rpd	RpdMaximum	Rpd_UCL	LCSMS_LCL
		200.0			

LCS_UCL	TracerYield	DetectionLimit	RL	RLType	CommentCode
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	
		1.00E+00	1.00E+00	RDI	

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/22/2007 1:39:17 PM

Lot No., Due Date: J7B070166; 03/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039558; RPUISO Pulso by ALP

SDG, Matrix: W05112; 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** 2/22/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 70 39558
W0 5112

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

Comments on any "No" response:

Second Level Review: Sheryl A Adam Date: 2-23-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/27/2007 10:39:34 AM

Lot No., Due Date: J7B050164; 03/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039567; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05112; 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. No Positive Results OK	✓		
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. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Lisa Autonson **Date** 2/27/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7039567
W0511L

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: 2-28-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/27/2007 11:10:36 AM

Lot No., Due Date: J7B050164; 03/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039566; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05112; 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 => JNXR71AD BETA 1.7E+01 L:2.8E+00		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

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

First Level Review Kim Antonson **Date** 2/27/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7039564
W05112

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

Comments on any "No" response: _____

Second Level Review: Sheryl A. Adam Date: 2-28-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/28/2007 10:03:31 AM

Lot No., Due Date: J7B050186,J7B050164; 03/22/2007,03/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039561; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05112; 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 Matt Lardy **Date** February 28, 2007

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7039561
W05112

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: 2-28-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/23/2007 4:20:31 PM

Lot No., Due Date: J7B050186,J7B050164; 03/22/2007,03/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039564; RGAMMA Gamma by GER

SDG, Matrix: W05112; 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:
LCS recounted due to Low Eu-152. OK on Recount - NCM

First Level Review [signature] **Date** 2/23/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 703956 4
W0511Z

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

Comments on any "No" response: See NCM

Second Level Review: Sheryl A. Allen Date: 2-26-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-09482**
NCM Initiated By: Steven Wheland
Date Opened: 02/23/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Gamma by GER
Lot #'s (Sample #'s): J7B050164 (2), J7B050186 (1), J7B080000 (564),
QC Batches: 7039564

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

Problem Description / Root Cause

Name	Date	Description
Steven Wheland	02/23/2007	LCS recounted due to low Eu-152. The recount was acceptable.

Corrective Action

Name	Date	Corrective Action
Steven Wheland	02/23/2007	Report data with the recount

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

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/28/2007 11:15:59 AM

Lot No., Due Date: J7B060113,J7B070170,J7B050186,J7B050200,J7B050164; 03/22/2007,03/23/2007,03/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039563; RGAMLEPS Gamma by LEPS

SDG, Matrix: W05112; 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** 2/28/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7029563
W05112

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

Comments on any "No" response:

Second Level Review: Sheryl A Adam Date: 2-28-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/21/2007 2:24:14 PM

Lot No., Due Date: J7B070170; 03/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039557; RTC99 Tc-99 by LSC

SDG, Matrix: W05112; 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 => JN2X31AD 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!			✓

LMA 2/21/07 OK

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

First Level Review Lisa Anderson **Date** 9/21/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 709557
W05112

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

Comments on any "No" response:

Second Level Review: Sheryl A. Adam Date: 5-25-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/22/2007 1:26:19 PM

Lot No., Due Date: J7B050164; 03/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039569; RTRITIUM H-3 by LSC

SDG, Matrix: W05112; 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** 2/22/07

STL Richland

QAS_RADCALCv4.8.26

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7039569
W05112

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

Comments on any "No" response:

Second Level Review: Sheryl A Adam Date: 2-23-07

SEVERN TRENT **STL**

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/1/2007 8:22:38 AM

Lot No., Due Date: J7B050166; 03/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7039559; RUNAT UNat by KPA

SDG, Matrix: W05112; 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** 3/1/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7039559
W05112

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: Sherry R Adam Date: 3-1-07

SEVERN TRENT STL

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Work Order Number(s): **JNX2Q, JNX2T, JNX59, JNX6A, JNX6C, JNX6J, JNX6K, JNX6L, JN6HR**

Lab Sample Numbers or SDG: **W050112**

Method/Test/Parameter: **Coliform**

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

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

Comments on any "No" response

Analyst: [illegible] Date: 2/26/07

Second-Level Review: Sherryl A Adam Date: 3-2-07

PNNL J7B050164
W05112
Due 03-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-001-300**

Page 1 of 1

Collector: FLUOR HANFORD M.R. WEIL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-001	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, JANUARY 2007	HHF-M-506-4	Ice Chest No.: 8A 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
B1LPF6		W	2/1/7	11:36	1x20-mL P	Activity Scan	None
B1LPF6		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JNXR6	

Relinquished By	Date/Time	Received By	Date/Time
FLUOR HANFORD M.R. WEIL (Print) (Sign)	FEB 01 2007 1445	S. Smith (Print) (Sign)	FEB 01 2007 1445

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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PNNL J7B050164
W05112
Due 03/19/07

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-001-294

Page 1 of 1

Collector: M.R. WEIL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-001	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, JANUARY 2007	HHF-N-506-4	Ice Chest No.: 8A 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
B1LPF4		W	2/1/7	0951	1x20-mL P	Activity Scan	None
B1LPF4		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LPF4		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1LPF4		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1LPF4		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1LPF4		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JNXR7	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD M.R. WEIL		FEB 01 2007	1445	S. Smith	S. Sm. 774	FEB 01 2007	1445
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

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PNNL J7B050164
W05112
Due 03-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-001-262

Page 1 of 1

Collector FLUOR HANFORD M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. S07-001	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV, JANUARY 2007	HNF-N-506-4	Ice Chest No. 8A 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
B1LPC4		W	2/1/7	1301	1x20-mL P	Activity Scan	None
B1LPC4		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LPC4		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JNXR8	

Relinquished By FLUOR HANFORD M.R. WEIL Print Sign FEB 0 1 2007	Date/Time 14:45	Received By S. Smith Print S. Smith Sign FEB 0 1 2007	Date/Time 1445
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

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

SIL RICHLAND

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 02-01-071445

Client: PGW SDG #: W05112 NA [ ] SAF #: 507-001 NA [ ]

Work Order Number: J7B050164 Chain of Custody # 507-001-262, 294, 300

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
   _____ 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 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: L. Smith Date: 02-01-07 1445

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, 9/03, Rev. 5

PNNL J7B050166
W05112
Due 03-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-002-552

Page 1 of 1

Collector: Fluor Hanford F. M. HALL	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	HNF-N-506 3	Ice Chest No.: 12051 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
B1M7M1		W	2-2-07	1058	1x20-mL P	Activity Scan	None
B1M7M1		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

JNXTG

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford F. M. HALL			1408 FEB 0 2 2007		Eric Dorsey	Eric Dorsey	1408 FEB 0 2 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

STL RICHLAND

STL RICHLAND

PNNL: J7B050166
W05112
Due 03 19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-002-546

Page 1 of 1

Collector Fluor Hanford ~~F. M. HALL~~	**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	HNF-N-506 3	**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
B1M7L8		W	2-2-07	1149	1x20-mL P	Activity Scan	None
B1M7L8		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JNXTM	

Relinquished By Fluor Hanford F. M. HALL Print Sign FEB 0 2 2007 Date/Time 1408	Received By Print Sign Eric Dorsby Date/Time FEB 0 2 2007 1408	Matrix *
Relinquished By Date/Time	Received By Date/Time	S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air, DS = Drum Solid, DL = Drum Liqui, T = Tissue, WI = Wine, L = Liquid, V = Vegetation, X = Other
Relinquished By Date/Time	Received By Date/Time	
Relinquished By Date/Time	Received By Date/Time	

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

PNNL J7B050164
W05112
Due 03-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-564**

Page 1 of 1

Collector Fluor Hanford F. M. HALL	**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	HNF-N-506 3	**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
B1M7M7		W	2-2-07	1328	1x20-mL P	Activity Scan	None
B1M7M7		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JNXTQ	

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Fluor Hanford F. M. HALL	[signature]	1408 FEB 0 2 2007	[signature]	Eric Darby	1408 FEB 0 2 2007

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

SHE RICHLAND

02

STL

Sample Check-in List

Date/Time Received: 2/2/07 1410

Client: PNL SDG #: WO 5112 NA [ ] SAF #: W07-002 NA [ ]

Work Order Number: J7B050166 Chain of Custody # W07-002-546, 552

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
   _____ 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 [ ] pH>9 [ ]
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: E. Daly Date: 2/2/07

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, 9/03, Rev. 5

PNNL J7B050185
W05112
Due 03-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-718**

Page 1 of 1

Collector Fluor Hanford F. M. HALL	**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	HWF-N-506 3	**Ice Chest No.** R055 **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
B1M929		W	2-5-07	0800	1x20-mL P	Activity Scan	None
B1M929		W	↓	↓	1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool 4C
						JNX2Q	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford F. M. HALL			FEB 0 5 2007 1235	E Daly			FEB 0 5 2007 1235
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

SIT RICHLAND

84

PNNL J7B050185
W05112
Due 03-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-700**

Page 1 of 1

Collector Fluor Hanford F. M. HALL	**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	HNF-N-506 3	**Ice Chest No.** R055 **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
B1M9L1		W	2-5-07	1005	1x20-mL P	Activity Scan	None
B1M9L1		W	↓	↓	1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool 4C
						JNX2T	

Relinquished By	Received By
Print: Fluor Hanford F. M. HALL; Sign: [signature]; Date/Time: FEB 05 2007 1235	Print: ERT Dering; Sign: E. [signature]; Date/Time: FEB 05 2007 1235
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

85

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 2/5/07 1235

Client: PNL SDG #: W05112 NA [ ] SAF #: W07-002 NA [ ]

Work Order Number: J7B050185 Chain of Custody # W07-002; 718, 700

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 [✓] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 2/5/07 1235

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, 9/03, Rev. 5

PNNL J7B050186
W05112
Due 03.22.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-002-90**

Page 1 of 1

Collector Fluor Hanford ~~P. M. HALL~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, FEBRUARY 2007	HNF-N-506 3	**Ice Chest No.** 12055 **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
B1M7K6		W	2-5-07	1124	1x20-mL P	Activity Scan	None
B1M7K6		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1M7K6		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M7K6		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JNX2X	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford			FEB 0 5 2007 1235				FEB 0 5 2007 1235
~~P. M. HALL~~							

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

STL RICHLAND

PNNL J7B050186
W05112
Due 03-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-002-96

Page 1 of 1

Collector: Fluor Hanford E.M. HALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-002	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, FEBRUARY 2007	HNF-N-5063	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
B1M7K9		W	2-5-07	1005	1x20-mL P	Activity Scan	None
B1M7K9		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
						JNX21	

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Fluor Hanford E.M. HALL	[signature]	FEB 05 2007 1235	[signature]	Eric Dalby	FEB 05 2007 1235
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

STL

Sample Check-in List

Date/Time Received: 2/5/07 1235

Client: PNL SDG #: W05112 NA [ ] SAF #: S07-002 NA [ ]

Work Order Number: J7B050186 Chain of Custody # S07-002-90,96

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 [✓] pH>9 [ ]
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: [signature] Date: 2/5/07 1235

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, 9/03, Rev. 5

STL RICHLAND

PNNL J7B050195
W05112
due 03-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-626**

Page 1 of 1

Collector: D.P. CONNOLLY	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	HNFN 506-2	Ice Chest No.: SAWS 115 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
B1M9J1		W	2/5/07	1135	1x20-mL P	Activity Scan	None
B1M9J1		W	↓	↓	1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool 4C
						JNX59	

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
D.P. CONNOLLY	FEB 05 2007 1410	E. Darby / ERIC Darby	2-5-07 1910
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

90

PNNL J7B050195
W0512
Due 03.22.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-002-634

Page 1 of 1

Collector: D.P. CONNOLLY	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	HNFN 506-2	Ice Chest No.: SAWS115 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
B1M9J6		W	2/5/07	1035	1x20-mL P	Activity Scan	None
B1M9J6		W	↓	↓	1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool 4C
						JNX6A	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	D.P. CONNOLLY		FEB 05 2007 1410		Eric Durby	Eric Durby	1410 2-5-07
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

91

STL RICHLAND

PNNL J7B050195
W05112
Due 03.22.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-642**

Page 1 of 1

Collector D.P. CONNOLLY	**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	1YN1-N-506-2	**Ice Chest No.** 5A4W5-115 **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
B1M9K1		W	2/5/07	0930	1x20-mL P	Activity Scan	None
B1M9K1		W			1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool 4C
						JNX6C	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	D.P. CONNOLLY		FEB 05 2007 1410		Eric Darley		FEB 05 2007 1410
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

92

STL

Sample Check-in List

Date/Time Received: 2/5/07 1410

Client: PNL SDG #: W05112 NA ( ) SAF #: W07-002 NA ( )

Work Order Number: J7B050195 Chain of Custody # W07-002-570, 576, 582, 588, 606, 634, 642

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 AA 02.05.07
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 (✓) pH>9 ( )
11. Sample Location, Sample Collector Listed? * Yes (✓) No ( )
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ( ) No (✓)
13. Description of anomalies (include sample numbers): _____

Sample Custodian: Eve Darby Date: 2/5/07 1410

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, 9/03, Rev. 5

STL RICHLAND

PNNL J7B050198
W05112
Due 03-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-650**

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	HNF-N-5061	**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
B1M9K6		W	2-5-07	1125	1x20-mL P	Activity Scan	None
B1M9K6		W	↓	↓	1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool 4C

JNX6J

2-5-07

Relinquished By Fluor Hanford D. R. BREWINGTON	Print	Sign	Date/Time 1349 FEB 05 2007	Received By Eric Darby	Print Sign Date/Time 1349 FEB 05 2007
Relinquished By			Date/Time	Received By	Date/Time
Relinquished By			Date/Time	Received By	Date/Time
Relinquished By			Date/Time	Received By	Date/Time

Matrix *

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

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

PNNL J7B050198
W05112
Due 03-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-594**

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	HNF-N-5061	**Ice Chest No.** **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
B1M9F1		W	2-5-07	1030	1x20-mL P	Activity Scan	None
B1M9F1		W	↓	↓	1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool 4C

JNX6K

2-5-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. R. BREWINGTON	D. R. Brewington	D. R. Brewington	FEB 05 2007 1349	Eric Darby	Eric Darby	Eric Darby	FEB 05 2007 1349
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

SIL RICHLAND

95

PNNL J7B050198
W05112
due 03-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-618**

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	HNF-N-5061	**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
B1M9H6		W	2-5-07	0910	1x20-mL P	Activity Scan	None
B1M9H6		W	↓	↓	1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool 4C

JNX6L

2-5-07

Relinquished By	Received By
Print: Fluor Hanford D. R. BREWINGTON Sign: D.R. Brewington Date/Time: FEB 05 2007 1349	Print: Eric Dorsey Sign: Eric Dorsey Date/Time: FEB 05 2007 1349
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

Sample Check-in List

Date/Time Received: 2/5/07 1349

Client: PNL SDG #: W05112 NA [ ] SAF #: W07-002 NA [ ]

Work Order Number: JTB050198 Chain of Custody # ~~W07~~ W07-002, 650, 594, 618

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
   - ____ 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 [✓] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: Eric Daby Date: 2/5/07 1349

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, 9/03, Rev. 5

PNNL J7B050200
W05112
Due 03-22-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-002-76

Page 1 of 1

Collector: D. P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-002	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, FEBRUARY 2007	HNAN 50G-2	Ice Chest No.: SAWS-115 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
B1M7J8		W	2/5/07	0930	1x20-mL P	Activity Scan	None
B1M7J8		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

JNX6V

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	D. P. CONNOLLY		1410 FEB 05 2007	Eric Darby	Eric Darby		1410 FEB 05 2007
~~D. P. CONNOLLY~~							

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

68

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 2/5/07 1410

Client: PNL SDG #: W05112 NA ( ) SAF #: S07-002 NA ( )

Work Order Number: J7B050200 Chain of Custody # S07-002-76

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA ( ) Yes (✓) No ( )
2. Custody Seals dated and signed? NA ( ) Yes (✓) No ( )
3. Chain of Custody record present? Yes (✓) No ( )
4. Cooler temperature: _____ NA (✓) 5. Vermiculite/packing materials is NA (✓) Wet ( ) Dry ( )
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA (✓) Yes ( ) No ( )
8. Samples have:
   - ____ tape
   - ____ 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 (✓) pH>9 ( )
11. Sample Location, Sample Collector Listed? * Yes (✓) No ( )
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ( ) No (✓)
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 2/5/07 1410

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, 9/03, Rev. 5

PNNL J7B060113
W05112
Due 03.22.07
Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-002-70

Page 1 of 1

Collector: D. R. BREWINGTON	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-002	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, FEBRUARY 2007	HNF-N-306 1	Ice Chest No.: SAWS-109 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: SURV	Priority: 45 Days	Offsite Property No.

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1M7J5		W	2-5-07	1030	1x20-mL P	Activity Scan	None
B1M7J5		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

JNOHR

2-5-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. R. BREWINGTON	D.R. Brewington		FEB 05 2007 1349		Eric Darby	Eric Darby	FEB 05 2007 1349
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

SJT RICHLAND

100

STL

Sample Check-in List

Date/Time Received: 2/5/07 1349

Client: PNL SDG #: W05112 NA ( ) SAF #: S07-002 NA ( )

Work Order Number: J7B060113 Chain of Custody # S07-002-70

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 (✓) pH>9 ( )
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: [signature] Date: 2/5/07 1349

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, 9/03, Rev. 5

PNNL J7B070166
W05112
Due 03-23-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-002-38

Page 1 of 1

Collector: FLUOR HANFORD M.R. WEIL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-002	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, FEBRUARY 2007	HNF-N-506 3	Ice Chest No.: R055 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: SURV	Priority: 45 Days	Offsite Property No.

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1M7F5		W	2-6-07	1127	1x20-mL P	Activity Scan	None
B1M7F5		W	↓	↓	1x1000-mL G/P	PUISO_PLATE_AEA: Pu-238 + 239/240 (2)	HNO3 to pH <2
						JN2WT	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD	M.R. WEIL	[signature]	FEB 0 6 2007 1315	[signature]	ERIC DERBY	[signature]	FEB 0 6 2007 1315
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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STL

Sample Check-in List

Date/Time Received: 2/6/07 1315

Client: PNL SDG #: W05112 NA ( ) SAF #: S07-002 NA ( )

Work Order Number: J7B070166 Chain of Custody #: S07-002-38

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 ( ) pH>9 ( )

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: 2/6/07 1315

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, 9/03, Rev 5

STL RICHLAND

PNNL J7B070170
W05112
Due 03-23-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-002-28

Page 1 of 1

Collector: K.J. YOUNG	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-002	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, FEBRUARY 2007	Logbook: HNF-N-506-4	Ice Chest No.: SMX-562 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
B1M7F0		W	2/6/07	1010	1x20-mL P	Activity Scan	None
B1M7F0		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M7F0		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

JN2X3

R. Wade 2/6/07

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
K.J. YOUNG	FEB 06 2007 1155	Eric Darby	FEB 06 2007 1155

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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STL

Sample Check-in List

Date/Time Received: 2/6/07 1155

Client: PNL SDG #: W05112 NA [ ] SAF #: 507-002 NA [ ]

Work Order Number: PNL J7B070170 Chain of Custody # 507-002-28

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing 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 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 2/6/07 1155

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, 9/03, Rev. 5

2/19/2007 8:57:01 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

6D Pu PrpRC5016, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #:

AnalyDueDate: 03/23/2007 W05112

Batch: 7039558 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

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

STL RICHLAND

	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:
211	1 JN2WT-1-AA J7B070166-1-SAMP 02/06/2007 11:27		201.40g,in AmtRec: 20ML,LP	PUTC10499 01/23/07,pd 08/04/06,r #Containers: 2	200			Scr:	Alpha: 1.58E-05 uCi/Sa Beta: -6.39E-06 uCi/Sa
212	2 JN2WT-1-AC-X J7B070166-1-DUP 02/06/2007 11:27		201.10g,in AmtRec: 20ML,LP	PUTC10500 01/23/07,pd 08/04/06,r #Containers: 2				Scr:	Alpha: 1.58E-05 uCi/Sa Beta: -6.39E-06 uCi/Sa
213	3 JN6H1-1-AA-B J7B080000-558-BLK 02/06/2007 11:27		201.70g,in AmtRec:	PUTC10501 01/23/07,pd 08/04/06,r #Containers: 1				Scr:	Alpha: Beta:
214	4 JN6H1-1-AC-C J7B080000-558-LCS 02/06/2007 11:27		199.90g,in AmtRec:	PUSG0904 02/14/07,pd 08/04/06,r #Containers: 1				Scr:	Alpha: Beta:

Comments: PH <2.0 QB 2-19-07

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

JN2WT1AA-SAMP Constituent List:

PU-238	RDL:1	pCi/L	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/L	LCL:70	UCL:130	RPD:20
Pu-242	RDL:	pCi/L	LCL:20	UCL:105	RPD:20						
JN6H11AA-BLK:											
PU-238	RDL:1	pCi/L	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/L	LCL:	UCL:	RPD:
Pu-242	RDL:	pCi/L	LCL:20	UCL:105	RPD:20						
JN6H11AC-LCS:											
PU-239	RDL:1	pCi/L	LCL:70	UCL:130	RPD:20	Pu-242	RDL:	pCi/L	LCL:20	UCL:105	RPD:20

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STL RICHLAND

2/22/2007 11:53:13 AM

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 03/19/2007 W05112

Batch: 7039567 WATER pCi/L
SEQ Batch, Test: None

Sample Preparation/Analysis

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

PM, Quote: SA , 57671

Balance Id:1120482733
Pipet #: 244
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 JNXR7-1-AC J7B050164-2-SAMP 02/01/2007 09:51		193.80g,in AmtRec: 20ML,5XLP,3X4LP	#Containers: 9	1.5	44.2	.50	~~10E~~ 10A Scr:	2030 0801 Alpha: 5.06E-04 uCi/Sa	2/26/07 QK 2/27/07 Beta: 8.83E-05 uCi/Sa	
2 JNXR7-1-AJ-X J7B050164-2-DUP 02/01/2007 09:51		191.90g,in AmtRec: 20ML,5XLP,3X4LP	#Containers: 9		39.6		10C Scr:	2138 Alpha: 5.06E-04 uCi/Sa		Beta: 8.83E-05 uCi/Sa
3 JN6JC-1-AA-B J7B080000-567-BLK 02/01/2007 09:51		201.90g,in AmtRec:	#Containers: 1		0.6		10A Scr:	Alpha:		Beta:
4 JN6JC-1-AC-C J7B080000-567-LCS 02/01/2007 09:51		202.90g,in AmtRec:	asd4127 02/14/07,pd 02/09/06,r #Containers: 1		0.8		10B Scr:	Alpha:		Beta:

Comments: PH <2.0 JB 2-22-07

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

JNXR71AC-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JN6JC1AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JN6JC1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JNXR71AC-SAMP Calc Info:

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2/22/2007 11:53:15 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: 03/19/2007

Sep1 DT/Tm Tech:

Batch: 7039567 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:

```
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JN6JC1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JN6JC1AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

STL RICHLAND

2/22/2007 11:49:11 AM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #: 244

AnalyDueDate: 03/19/2007 W05112

Sep1 DT/Tm Tech:

Batch: 7039566 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

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 JNXR7-1-AD J7B050164-2-SAMP 02/01/2007 09:51		201.10g,in AmtRec: 20ML,5XLP,3X4LP #Containers: 9		1.5	65.8	100	31A	2117	2/26/07	
								Scr:	Alpha: 5.06E-04 uCi/Sa	Beta: 8.83E-05 uCi/Sa
2 JNXR7-1-AH-X J7B050164-2-DUP 02/01/2007 09:51		200.10g,in AmtRec: 20ML,5XLP,3X4LP #Containers: 9			70.1		31C			
								Scr:	Alpha: 5.06E-04 uCi/Sa	Beta: 8.83E-05 uCi/Sa
3 JN6H9-1-AA-B J7B080000-566-BLK 02/01/2007 09:51		204.20g,in AmtRec: #Containers: 1			0.5		31B			
								Scr:	Alpha:	Beta:
4 JN6H9-1-AC-C J7B080000-566-LCS 02/01/2007 09:51		200.60g,in AmtRec: #Containers: 1	BESB3008 01/23/07,pd 08/08/06,r		0.9		31D			
								Scr:	Alpha:	Beta:

Comments: pH <2 o JB 2-22-07

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

JNXR71AD-SAMP Constituent List:
BETA RDL:4 pCi/L LCL: UCL: RPD:
JN6H91AA-BLK:
BETA RDL:4 pCi/L LCL: UCL: RPD:
JN6H91AC-LCS:
Sr-90 RDL: pCi/L LCL:70 UCL:130 RPD:20
JNXR71AD-SAMP Calc Info:

109

STL RICHLAND

2/22/2007 11:49:13 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 03/19/2007

Sep1 DT/Tm Tech:

Batch: 7039566 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:

Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6H91AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6H91AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

T0

STL RICHLAND

2/26/2007 3:38:46 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733,e32905
Pipet #: _____

AnalyDueDate: 03/19/2007

Batch: 7039561 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep1 DT/Tm Tech: 02/19/2007 15:42,ManisD
Sep2 DT/Tm Tech: 02/26/2007 09:33,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 JNXR7-1-AG J7B050164-2-SAMP		1004.00g,in	srtb14505 02/12/07,pd 09/11/06,r	0.8877	1.0	25.3	100	1D 1D	0648 0736	2/27/07 2/28/07	
						~~02/19/2007 15:42;s1, 02/26/2007~~					
02/01/2007 09:51		AmtRec: 20ML,5XLP,3X4LP	#Containers: 9					Scr:	Alpha: 5.06E-04 uCi/Sa	Beta: 8.83E-05 uCi/Sa	
2 JNX2X-1-AD J7B050186-1-SAMP		1006.90g,in	srtb14506 02/12/07,pd 09/11/06,r	0.8549	1.0	26.2	100	2A 2A	0648 0736	2/27/07 2/28/07	
						~~02/19/2007 15:42;s1, 02/26/2007~~					
02/05/2007 11:26		AmtRec: 20ML,3XLP,3X4LP	#Containers: 7					Scr:	Alpha: -5.75E-04 uCi/Sa	Beta: -1.69E-03 uCi/Sa	
3 JNX2X-1-AE-X J7B050186-1-DUP		1008.40g,in	srtb14507 02/12/07,pd 09/11/06,r	0.8440	1.0	24.9	100	2B 2B	0648 0736	2/27/07 2/28/07	
						~~02/19/2007 15:42;s1, 02/26/2007~~					
02/05/2007 11:26		AmtRec: 20ML,3XLP,3X4LP	#Containers: 7					Scr:	Alpha: -5.75E-04 uCi/Sa	Beta: -1.69E-03 uCi/Sa	
4 JN6H3-1-AA-B J7B080000-561-BLK		1003.00g,in	srtb14508 02/12/07,pd 09/11/06,r	0.9278	1.0	25.5	100	2C 2C	0648 0736	2/27/07 2/28/07	
						~~02/19/2007 15:42;s1, 02/26/2007~~					
02/05/2007 11:26		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	

STL RICHLAND

2/26/2007 3:38:49 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: 03/19/2007

Sep1 DT/Tm Tech: 02/19/2007 15:42,ManisD

Batch: 7039561 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech: 02/26/2007 09:33,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:
5 JN6H3-1-AC-C		999.60g,in	srsg1318		1.0	25.8	100				
J7B080000-561-LCS			02/06/07,pd 09/11/06,r	0.852				2D	0643	2/27/07	
								2D	0734	2/28/07	

~~02/19/2007 15:42,s1, 02/26/2007~~

02/05/2007 11:26 AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments:

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

JNXR71AG-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
JN6H31AA-BLK:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
JN6H31AC-LCS:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

JNXR71AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6H31AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6H31AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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STL RICHLAND

2/16/2007 1:50:53 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: DRM

AnalyDueDate: 03/19/2007 W05112

Sep1 DT/Tm Tech: 2/19/07 3:42:40 PM

Batch: 7039561 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech: 2/26/07 9:33:23 AM

SEQ Batch, Test: None

Prep Tech: ,BockJ DRM

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 JNXR7-1-AG J7B050164-2-SAMP		1004.00g,in	srtb14505 02/12/07,pd 09/11/06,r	1.763 1.9860 0.8877			100	a:1	1913	2/19/07 PD	
YTA17006 Ex:1/3/2008											
02/01/2007 09:51		AmtRec: 20ML,5XLP,3X4LP	#Containers: 9					Scr:	Alpha: 5.06E-04 uCi/Sa	Beta: 8.83E-05 uCi/Sa	
2 JNX2X-1-AD J7B050186-1-SAMP		1006.90g,in	srtb14506 02/12/07,pd 09/11/06,r	1.701 1.9896 0.8579				3"	1913	2/19/07 PD	
YTA17007 Ex:1/3/2008											
02/05/2007 11:26		AmtRec: 20ML,3XLP,3X4LP	#Containers: 7					Scr:	Alpha: -5.75E-04 uCi/Sa	Beta: -1.69E-03 uCi/Sa	
3 JNX2X-1-AE-X J7B050186-1-DUP		1008.40g,in	srtb14507 02/12/07,pd 09/11/06,r	1.667 1.9751 0.8440				9"	1950	2/19/07 PD	
YTA17008 Ex:1/3/2008											
02/05/2007 11:26		AmtRec: 20ML,3XLP,3X4LP	#Containers: 7					Scr:	Alpha: -5.75E-04 uCi/Sa	Beta: -1.69E-03 uCi/Sa	
4 JN6H3-1-AA-B J7B080000-561-BLK		1003.00g,in	srtb14508 02/12/07,pd 09/11/06,r	1.856 2.0005 0.9278				3"	1957	2/19/07 PD	
YTA17009 Ex:1/3/2008											
02/05/2007 11:26		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: 4
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

2/16/2007 1:50:57 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
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,BockJ

AnalyDueDate: 03/19/2007

Batch: 7039561 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 JN6H3-1-AC-C J7B080000-561-LCS		999.60g,in	srsg1318 02/06/07,pd 09/11/06,r	1.751 2.0239 0.8652			100	911	2048	2/19/07	

YTA17010
Ex:1/5/2008

02/05/2007 11:26 AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: pH < 2.0 9B2-16-07

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

JNXR71AG-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
JN6H31AA-BLK:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
JN6H31AC-LCS:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

JNXR71AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6H31AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6H31AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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STL RICHLAND

2/20/2007 12:37:29 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733

Pipet #:

AnalyDueDate: 03/19/2007 W05112

Sep1 DT/Tm Tech:

Batch: 7039564 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ / ABA

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 JNXR7-1-AE J7B050164-2-SAMP 02/01/2007 09:51		1998.00g,in AmtRec: 20ML,5XLP,3X4LP	#Containers: 9		100 mL	100	64	1218	2/23/07 n Scr: Alpha: 5.06E-04 uCi/Sa	Beta: 8.83E-05 uCi/Sa
2 JNX2X-1-AA J7B050186-1-SAMP 02/05/2007 11:26		1971.00g,in AmtRec: 20ML,3XLP,3X4LP	#Containers: 7				65	1218	2/23/07 n Scr: Alpha: -5.75E-04 uCi/Sa	Beta: -1.69E-03 uCi/Sa
3 JNX2X-1-AF-X J7B050186-1-DUP 02/05/2007 11:26		1940.20g,in AmtRec: 20ML,3XLP,3X4LP	#Containers: 7				66	1220	2/23/07 n Scr: Alpha: -5.75E-04 uCi/Sa	Beta: -1.69E-03 uCi/Sa
4 JN6H7-1-AA-B J7B080000-564-BLK 02/05/2007 11:26		1995.50g,in AmtRec:	#Containers: 1				67	1220	2/23/07 n Scr: Alpha:	Beta:
5 JN6H7-1-AC-C J7B080000-564-LCS 02/05/2007 11:26		2001.70g,in AmtRec:	QCAG1337 01/23/07,pd 03/07/05,r #Containers: 1				68	1222	2/23/07 n Scr: Alpha:	Beta:

Comments: pH <2.0 9B 2-20-07

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

JNXR71AE-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:

STL RICHLAND

2/23/2007 10:20:29 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 03/19/2007 W0-5112

Batch: 7039563 **WATER** **pCi/L**
SEQ Batch, Test: None

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

PM, Quote: SA , 57671

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

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 JNXR7-1-AF J7B050164-2-SAMP 02/01/2007 09:51		3867.00g,in AmtRec: 20ML,5XLP,3X4LP	ITA6065 02/20/07 #Containers: 9		32.6	100	L2	1230 Scr: Alpha: 5.06E-04 uCi/Sa	2/26/07 Beta: 8.83E-05 uCi/Sa	
2 JNXR8-1-AC J7B050164-3-SAMP 02/01/2007 13:01		3882.50g,in AmtRec: 20ML,LP,2X4LP	ITA6066 02/20/07 #Containers: 4		34.2		L4	1231 Scr: Alpha: -1.01E-03 uCi/Sa	Beta: 1.22E-03 uCi/Sa	
3 JNX2X-1-AC J7B050186-1-SAMP 02/05/2007 11:26		3952.70g,in AmtRec: 20ML,3XLP,3X4LP	ITA6067 02/20/07 #Containers: 7		33.6		L5	1231 Scr: Alpha: -5.75E-04 uCi/Sa	Beta: -1.69E-03 uCi/Sa	
4 JNX21-1-AA J7B050186-2-SAMP 02/05/2007 10:05		3909.00g,in AmtRec: 20ML,2X4LP	ITA6068 02/20/07 #Containers: 3		36.5		L2	1419 Scr: Alpha: -6.86E-04 uCi/Sa	2/26/07 Beta: 1.74E-03 uCi/Sa	
5 JNX6V-1-AA J7B050200-1-SAMP 02/05/2007 09:30		3923.90g,in AmtRec: 20ML,2X4LP	ITA6069 02/20/07 #Containers: 3		32.7		L4	1419 Scr: Alpha: 6.42E-04 uCi/Sa	Beta: -3.35E-04 uCi/Sa	
6 JNX6V-1-AC-X J7B050200-1-DUP 02/05/2007 09:30		3950.40g,in AmtRec: 20ML,2X4LP	ITA6070 02/20/07 #Containers: 3		33.9		L5	1420 Scr: Alpha: 6.42E-04 uCi/Sa	Beta: -3.35E-04 uCi/Sa	
7 JN0HR-1-AA J7B060113-1-SAMP 02/05/2007 10:30		3894.50g,in AmtRec: 20ML,2X4LP	ITA6071 02/23/07 #Containers: 3		23.0		L2	1603 Scr: Alpha: 2.17E-05 uCi/Sa	2/26/07 Beta: 4.18E-04 uCi/Sa	

STL Richland
Richland Wa.

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

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7
Prep_SamplePrep v4.8.26

STL RICHLAND

2/23/2007 10:20:31 AM

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: 03/19/2007

Sep1 DT/Tm Tech:

Batch: 7039563 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 JN2X3-1-AA J7B070170-1-SAMP		3901.40g,in	ITA6072 02/23/07		35.5	100	L4	1603	2/26/07	
02/06/2007 10:10		AmtRec: 20ML,500ML,2X4LP	#Containers: 4				Scr:	Alpha: -1.83E-03 uCi/Sa		Beta: 2.45E-03 uCi/Sa
9 JN6H5-1-AA-B J7B080000-563-BLK		3989.30g,in	ITA6073 02/23/07		36.6		L5	1603		
02/05/2007 09:30		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:
10 JN6H5-1-AC-C J7B080000-563-LCS		4003.30g,in	ISD0731 12/20/06		38.7		L2	1810	2/26/07	
02/05/2007 09:30		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:

Comments: PH - neutral, YB 2-23-07

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

JNXR71AF-SAMP Constituent List:
  I-129        RDL:1.00E+00    pCi/L     LCL:        UCL:        RPD:
JN6H51AA-BLK:
  I-129        RDL:1.00E+00    pCi/L     LCL:        UCL:        RPD:
JN6H51AC-LCS:
  I-129        RDL:5           pCi/L     LCL:70      UCL:130     RPD:20
JNXR71AF-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JN6H51AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JN6H51AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

STL RICHLAND

2/19/2007 9:21:24 AM

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 03/23/2007 W05112

Batch: 7039557 WATER pCi/L
SEQ Batch, Test: None

Sample Preparation/Analysis

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

PM, Quote: SA , 57671

Balance Id:1120482733

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JN2X3-1-AC J7B070170-1-SAMP 02/06/2007 10:10			125.20g,in	125.20g		60				
	AmtRec: 20ML,500ML,2X4LP		#Containers: 4					Scr:	Alpha: -1.83E-03 uCi/Sa	Beta: 2.45E-03 uCi/Sa
2 JN2X3-1-AD-S J7B070170-1-MS 02/06/2007 10:10			125.60g,in	125.60g	TCSG1771 01/24/07,pd 01/10/06,r					
	AmtRec: 20ML,500ML,2X4LP		#Containers: 4					Scr:	Alpha: -1.83E-03 uCi/Sa	Beta: 2.45E-03 uCi/Sa
3 JN2X3-1-AE-X J7B070170-1-DUP 02/06/2007 10:10			125.80g,in	125.80g						
	AmtRec: 20ML,500ML,2X4LP		#Containers: 4					Scr:	Alpha: -1.83E-03 uCi/Sa	Beta: 2.45E-03 uCi/Sa
4 JN6HW-1-AA-B J7B080000-557-BLK 02/06/2007 10:10			125.40g,in	125.40g						
	AmtRec:		#Containers: 1					Scr:	Alpha:	Beta:
5 JN6HW-1-AC-C J7B080000-557-LCS 02/06/2007 10:10			127.10g,in	127.10g	TCSE2073 01/24/07,pd 01/10/06,r					
	AmtRec:		#Containers: 1					Scr:	Alpha:	Beta:
6 JN6HW-1-AD-BN J7B080000-557-IBLK 02/06/2007 10:10										
	AmtRec:		#Containers: 1					Scr:	Alpha:	Beta:

2/19/2007 9:21:32 AM

Sample Preparation/Analysis

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

AnalyDueDate: 03/23/2007

Batch: 7039557 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:

Comments: PH <2.0 JB 2-19-07

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

JN2X31AC-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JN2X31AD-MS Constituent List:

JN6HW1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JN6HW1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JN6HW1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JN2X31AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN2X31AD-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6HW1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6HW1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6HW1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

2/8/2007 4:20:43 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: 03/19/2007 WC5117

Batch: 7039569 WATER pCi/L PM, Quote: SA , 57671
SEQ Batch, Test: None

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: JJ1-02Dm
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 JNXR6-1-AA J7B050164-1-SAMP 02/01/2007 11:36		AmtRec: 20ML,LP	#Containers: 2			Scr:	Alpha:	Beta:
2 JNXR6-1-AC-X J7B050164-1-DUP 02/01/2007 11:36		AmtRec: 20ML,LP	#Containers: 2			Scr:	Alpha:	Beta:
3 JNXR7-1-AA J7B050164-2-SAMP 02/01/2007 09:51		AmtRec: 20ML,5XLP,3X4LP	#Containers: 9			Scr:	Alpha:	Beta:
4 JNXR8-1-AA J7B050164-3-SAMP 02/01/2007 13:01		AmtRec: 20ML,LP,2X4LP	#Containers: 4			Scr:	Alpha:	Beta:
5 JN6JE-1-AA-B J7B080000-569-BLK 02/01/2007 11:36		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 JN6JE-1-AC-C J7B080000-569-LCS 02/01/2007 11:36		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
7 JN6JE-1-AD-BX J7B080000-569-MBLK 02/01/2007 11:36		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

STL RICHLAND

120

STL RICHLAND

2/8/2007 4:20:49 PM

Sample Preparation/Analysis

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

AnalyDueDate: 03/19/2007

Batch: 7039569 pCi/L
SEQ Batch, Test: None

Balance Id: 13445
Pipet #:
Sep1 DT/Tm Tech: 2 21-02am
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 JN6JE-1-AE-CM J7B080000-569-MLCS 02/01/2007 11:36	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
9 JN6JE-1-AF-BN J7B080000-569-IBLK 02/01/2007 11:36	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments:

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

JNXR61AA-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JN6JE1AA-BLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JN6JE1AC-LCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JN6JE1AD-MBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JN6JE1AE-MLCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JN6JE1AF-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

JNXR61AA-SAMP Calc Info:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JN6JE1AA-BLK:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JN6JE1AC-LCS:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JN6JE1AD-MBLK:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

2/8/2007 4:20:52 PM

Sample Preparation/Analysis

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

AnalyDueDate: 03/19/2007

Batch: 7039569 pCi/L
SEQ Batch, Test: None

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

JN6JE1AE-MLCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6JE1AF-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

2/20/2007 10:49:05 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 03/19/2007 W05112

Sep1 DT/Tm Tech:

Batch: 7039559 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 JNXTG-1-AA J7B050166-1-SAMP 02/02/2007 10:58		25.20g,in AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha: -5.41E-05 uCi/Sa	Beta: -2.09E-05 uCi/Sa
2 JNXTG-1-AC-S J7B050166-1-MS 02/02/2007 10:58		26.40g,in AmtRec: 20ML,500MLP	UNSF3601 02/05/07,pd 01/23/07,r #Containers: 2			Scr:	Alpha: -5.41E-05 uCi/Sa	Beta: -2.09E-05 uCi/Sa
3 JNXTM-1-AA J7B050166-2-SAMP 02/02/2007 11:49		25.90g,in AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha: -4.78E-05 uCi/Sa	Beta: 1.44E-05 uCi/Sa
4 JNXTM-1-AC-X J7B050166-2-DUP 02/02/2007 11:49		25.10g,in AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha: -4.78E-05 uCi/Sa	Beta: 1.44E-05 uCi/Sa
5 JNXTQ-1-AA J7B050166-3-SAMP 02/02/2007 13:28		24.70g,in AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha: 6.46E-05 uCi/Sa	Beta: -1.50E-05 uCi/Sa
6 JN6H2-1-AA-B J7B080000-559-BLK 02/02/2007 10:58		25.70g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
7 JN6H2-1-AC-C J7B080000-559-LCS 02/02/2007 10:58		25.40g,in AmtRec:	UNSF3602 02/05/07,pd 01/23/07,r #Containers: 1			Scr:	Alpha:	Beta:

STL RICHLAND

2/20/2007 10:49:12 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 03/19/2007

Sep1 DT/Tm Tech:

Batch: 7039559 ug/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JN6H2-1-AD-C J7B080000-559-LCS 02/02/2007 10:58		25.60g,in AmtRec:	UNSC1494 01/23/07,pd 04/28/06,r #Containers: 1			Scr:	Alpha:	Beta:

Comments: PH <2.0 JB 2-20-07

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

JNXTG1AA-SAMP Constituent List:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JNXTG1AC-MS Constituent List:

JN6H21AA-BLK:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JN6H21AC-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20
JN6H21AD-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

JNXTG1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JNXTG1AC-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6H21AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6H21AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6H21AD-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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2/8/2007 4:11:21 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
IZ COLIFORM BY METHOD 9223
5I CLIENT: HANFORD

AnalyDueDate: 03/22/2007

Batch: 7039556 WATER
SEQ Batch, Test: None

PM, Quote: SA , 57671

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
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 JNX2Q-1-AA J7B050185-1-SAMP 02/05/2007 08:00	AmtRec: 20ML,500MLP	#Containers: 2				Scr:	Alpha:	Beta:
2 JNX2Q-1-AC-X J7B050185-1-DUP 02/05/2007 08:00	AmtRec: 20ML,500MLP	#Containers: 2				Scr:	Alpha:	Beta:
3 JNX2T-1-AA J7B050185-2-SAMP 02/05/2007 10:05	AmtRec: 20ML,500MLP	#Containers: 2				Scr:	Alpha:	Beta:
4 JNX59-1-AA J7B050195-1-SAMP 02/05/2007 11:35	AmtRec: 20ML,500MLP	#Containers: 2				Scr:	Alpha:	Beta:
5 JNX6A-1-AA J7B050195-2-SAMP 02/05/2007 10:35	AmtRec: 20ML,500MLP	#Containers: 2				Scr:	Alpha:	Beta:
6 JNX6C-1-AA J7B050195-3-SAMP 02/05/2007 09:30	AmtRec: 20ML,500MLP	#Containers: 2				Scr:	Alpha:	Beta:
7 JNX6J-1-AA J7B050198-1-SAMP 02/05/2007 11:25	AmtRec: 20ML,500MLP	#Containers: 2				Scr:	Alpha:	Beta:

STL RICHLAND
125

2/8/2007 4:11:23 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
IZ COLIFORM BY METHOD 9223
5I CLIENT: HANFORD

Balance Id:

Pipet #:

AnalyDueDate: 03/22/2007

Sep1 DT/Tm Tech:

Batch: 7039556 WATER

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JNX6K-1-AA J7B050198-2-SAMP 02/05/2007 10:30		AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha:	Beta:
9 JNX6L-1-AA J7B050198-3-SAMP 02/05/2007 09:10		AmtRec: 20ML,500MLP	#Containers: 2			Scr:	Alpha:	Beta:
10 JN6HR-1-AA-B J7B080000-556-BLK 02/05/2007 08:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
11 JN6HR-1-AC-C J7B080000-556-LCS 02/05/2007 08:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

JNX2Q1AA-SAMP Constituent List:

JN6HR1AA-BLK:

JN6HR1AC-LCS:

JNX2Q1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

2/8/2007 4:11:26 PM

Sample Preparation/Analysis

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
IZ COLIFORM BY METHOD 9223
5I CLIENT: HANFORD

AnalyDueDate: 03/22/2007

Batch: 7039556
SEQ Batch, Test: None

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

JN6HR1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JN6HR1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

2/22/2007 1:38:37 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/22/2006, 2/27/2007, Batch: '7039558', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7039558						
AC		**CalcC**	**BockJ**	2/19/2007 8:49:34		
SC			andersonp	IsBatched	2/8/2007 4:11:19 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/19/2007 8:49:34 AM	RICH-RC-5014 Revision 6
SC			BockJ	Prep1C	2/19/2007 8:57:37 AM	RICH-RC-5016 REVISION 6
SC			HarveyK	InSep1	2/19/2007 9:27:18 AM	RICH-RC-5010 REV4
SC			HarveyK	Sep1C	2/21/2007 9:30:39 AM	RICH-RC-5010 REV4
SC			FABREM	Sep2C	2/21/2007 1:41:23 PM	RICH-RC-5039 REV 5
SC			StringerR	InCnt1	2/21/2007 1:56:05 PM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	2/21/2007 7:26:20 PM	RICH-RD-0003 REVISION 4
AC			**BockJ**	2/19/2007 8:57:37		
AC			**HarveyK**	2/19/2007 9:27:18		
AC			**HarveyK**	2/21/2007 9:30:39		
AC			**FABREM**	2/21/2007 1:41:23 PM		
AC			**StringerR**	2/21/2007 1:56:05 PM		
AC			**DAWKINSO**	2/21/2007 7:26:20 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

2/27/2007 10:37:58 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/27/2006, 3/4/2007, Batch: '7039567', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
7039567							
AC			CalcC	BockJ	2/22/2007 11:49:33		
SC				andersonp	IsBatched	2/8/2007 4:20:37 PM	ICOC_RADCALC v4.8.26
SC				BockJ	InPrep	2/22/2007 11:49:33 AM	rich-rc-5017 rEVISION 5
SC				BockJ	Prep1C	2/22/2007 11:53:23 AM	RICH-RC-5014 REVISION 6
SC				AshworthA	InPrep2	2/26/2007 9:31:54 AM	RICH-RC-5014 REVISION 6
SC				AshworthA	Prep2C	2/26/2007 7:20:33 PM	RICH-RC-5014 REVISION 6
SC				BlackCL	CalcC	2/27/2007 8:27:49 AM	RICH-RD-0003 REVISION 4
AC				BockJ	2/22/2007 11:53:23		7039567
AC				BockJ	2/22/2007 11:54:49		
AC				AshworthA	2/26/2007 9:31:54		
AC				AshworthA	2/26/2007 7:20:33 PM		
AC				BlackCL	2/27/2007 8:27:49		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions v4.8.26

2/27/2007 11:09:23 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/27/2006, 3/4/2007, Batch: '7039566', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7039566						
AC		CalcC	BockJ	2/22/2007 11:45:25		
SC			andersonp	IsBatched	2/8/2007 4:16:09 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/22/2007 11:45:25 AM	rich-rc-5017 rEVISION 5
SC			BockJ	Prep1C	2/22/2007 11:49:18 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	2/26/2007 9:31:47 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	2/26/2007 7:20:41 PM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	CalcC	2/26/2007 10:36:54 PM	RICH-RD-0003 REVISION 4
AC			BockJ	2/22/2007 11:49:18		
AC			BockJ	2/22/2007 11:55:49		
AC			AshworthA	2/26/2007 9:31:47		
AC			AshworthA	2/26/2007 7:20:41 PM		
AC			DAWKINSO	2/26/2007 10:36:54		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

2/28/2007 10:02:47 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/28/2006, 3/5/2007, Batch: '7039561', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7039561						
AC		**CalcC**	**BockJ**	2/16/2007 1:36:30 PM		
SC			andersonp	IsBatched	2/8/2007 4:16:09 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/16/2007 1:36:30 PM	RICH-RC-5016 Revision 6
SC			BockJ	Prep1C	2/16/2007 1:51:05 PM	RICH-RC-5016 REVISION 6
SC			ManisD	InSep1	2/16/2007 1:57:07 PM	RICH-RC-5006 REV 6
SC			ManisD	Sep1C	2/19/2007 4:11:57 PM	RICH-RC-5006 REV 6
SC			DAWKINSO	InCnt1	2/19/2007 4:32:51 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	Cnt1C	2/19/2007 8:52:22 PM	RICH-RD-0007 REVISION 5
SC			ManisD	Sep2C	2/26/2007 3:42:23 PM	RICH-RC-5071 REV 4
SC			DAWKINSO	InCnt2	2/26/2007 4:47:36 PM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	2/28/2007 7:53:43 AM	RICH-RD-0003 REVISION 4
AC			**BockJ**	2/16/2007 1:51:05 PM		
AC			**ManisD**	2/16/2007 1:57:07 PM		
AC			**DAWKINSO**	2/19/2007 4:32:51 PM		
AC			**DAWKINSO**	2/19/2007 8:52:22 PM		
AC			**ManisD**	2/26/2007 3:42:23 PM		
AC			**DAWKINSO**	2/26/2007 4:47:36 PM		
AC			**BlackCL**	2/28/2007 7:53:43		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 8

ICOCFractions v4.8.26

2/23/2007 4:27:57 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/23/2006, 2/28/2007, Batch: '7039564', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting				Comments
7039564							
AC		**InCnt1**	**BockJ**	2/20/2007 11:51:56			
SC			andersonp	IsBatched	2/8/2007 4:16:09 PM		ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/20/2007 11:51:56 AM		RICH-RC-5016 Revision 6
SC			BockJ	Prep1C	2/20/2007 12:38:22 PM		RICH-RC-5017 REVISION 5
SC			AshworthA	InPrep2	2/22/2007 6:53:28 AM		RICH-RC-5017 REVISION 4
SC			AshworthA	Prep2C	2/23/2007 10:17:31 AM		RICH-RC-5017 REVISION 4
SC			StringerR	InCnt1	2/23/2007 10:34:43 AM		RICH-RD-0007 REVISION 5
SC			StringerR	CalcC	2/23/2007 12:25:12 PM		RICH-RD-0007 REVISION 5
SC			DAWKINSO	InCnt1	2/23/2007 3:53:16 PM		RICH-RD-0007 REVISION 5
AC			**BockJ**	2/20/2007 12:38:22			
AC			**AshworthA**	2/22/2007 6:53:28			
AC			**AshworthA**	2/23/2007 10:17:31			
AC			**StringerR**	2/23/2007 10:34:43			
AC			**StringerR**	2/23/2007 12:25:12			
AC			**DAWKINSO**	2/23/2007 3:53:16 PM			

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

2/22/2007 1:25:49 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/22/2006, 2/27/2007, Batch: '7039569', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7039569						
AC		**CalcC**	**McDowellD**	2/21/2007 8:18:47		
SC			andersonp	IsBatched	2/8/2007 4:20:37 PM	ICOC_RADCALC v4.8.26
SC			McDowellD	InSep1	2/21/2007 8:18:47 AM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	2/21/2007 2:34:06 PM	RICH-RC-5007 REVISION 6
SC			StringerR	InCnt1	2/21/2007 2:45:36 PM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	2/22/2007 10:04:38 AM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	2/21/2007 2:34:06 PM		
AC			**StringerR**	2/21/2007 2:45:36 PM		
AC			**StringerR**	2/22/2007 10:04:38		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.26

3/1/2007 8:21:13 AM

ICOC Fraction Transfer/Status Report

ByDate: 3/1/2006, 3/6/2007, Batch: '7039559', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7039559						
AC		**Cnt1C**	**BockJ**	2/20/2007 10:30:34		
SC			andersonp	IsBatched	2/8/2007 4:16:09 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/20/2007 10:30:34 AM	RICH-RC-5016 Revision 6
SC			BockJ	Prep1C	2/20/2007 10:49:13 AM	RICH-RC-5015 REVISION 4
SC			AshworthA	InPrep2	2/26/2007 10:19:20 AM	RICH-RC-5015 REVISION 4
SC			AshworthA	Prep2C	2/27/2007 1:41:03 PM	RICH-RC-5015 REVISION 4
SC			NelsonT	Cnt1C	2/28/2007 5:25:56 PM	RICH-RC-5058 REV 7
AC			**BockJ**	2/20/2007 10:49:13		
AC			**AshworthA**	2/26/2007 10:19:20		
AC			**AshworthA**	2/27/2007 1:41:03 PM		
AC			**NelsonT**	2/28/2007 5:25:56 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

2/28/2007 11:15:18 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/28/2006, 3/5/2007, Batch: '7039563', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7039563						
AC		CalcC	BockJ	2/23/2007 9:49:01		
SC			andersonp	IsBatched	2/8/2007 4:16:09 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/23/2007 9:49:01 AM	RICH-RC-5017 Revision 5
SC			BockJ	Prep1C	2/23/2007 10:20:33 AM	RICH-RC-5017 REVISION 5
SC			BostedD	InSep1	2/23/2007 10:55:14 AM	RICHRC5025 REV3
SC			BostedD	Sep1C	2/24/2007 8:05:17 PM	RICHRC5025 REV3
SC			StringerR	InCnt1	2/25/2007 8:17:35 AM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	2/26/2007 8:11:18 PM	RICH-RD-0007 REVISION 5
AC			BockJ	2/23/2007 10:20:33		
AC			BostedD	2/23/2007 10:55:14		
AC			BostedD	2/24/2007 8:05:17 PM		
AC			StringerR	2/25/2007 8:17:35		
AC			DAWKINSO	2/26/2007 8:11:18 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

2/21/2007 2:25:53 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/21/2006, 2/26/2007, Batch: '7039557', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7039557						
AC		**CalcC**	**BockJ**	2/19/2007 9:18:05		
SC			andersonp	IsBatched	2/8/2007 4:11:19 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/19/2007 9:18:05 AM	RICH-RC-5014 Revision 6
SC			BockJ	Prep1C	2/19/2007 9:21:56 AM	RICH-RC-5016 REVISION 6
SC			FABREM	Sep1C	2/19/2007 7:15:51 PM	RICH-RC-5065 REVISION 5
SC			DAWKINSO	InCnt1	2/19/2007 7:27:43 PM	RICH-RD-0001 REVISION 3
SC			DAWKINSO	CalcC	2/20/2007 10:18:44 PM	RICH-RD-0001 REVISION 3
AC			**BockJ**	2/19/2007 9:21:56		
AC			**FABREM**	2/19/2007 7:15:51 PM		
AC			**DAWKINSO**	2/19/2007 7:27:43 PM		
AC			**DAWKINSO**	2/20/2007 10:18:44		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

RQC050

Severn Trent Laboratories, Inc.
WET CHEM BATCHSHEET

Run Date: 2/08/07
Time: 17:06:53

STL Richland

PRODUCTION FIGURES - WET CHEM

TOTAL NUMBER	SAMPLE NUMBER	QC	RE-RUN MATRIX	RE-RUN OTHER	MISC NUMBER	TOTAL HOURS	EXPANDED DELIVERABLE

METHOD: IZ COLIFORM BY METHOD 9223
QC BATCH #: **7039556**
PREP DATE: 2/08/07
COMP DATE: 2/08/07
USER: KENITZEP

INITIALS:
PREP
ANAL

DATA ENTRY:
INITIALS
DATE

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID:
JNX2Q-1-AA	J-7B050185-001	XX I 88 IZ 5I	E	<1	B1M929
JNX2Q-1-AC	J-7B050185-001-X	XX I 88 IZ 5I	E	<1	B1M929 DUP
JNX2T-1-AA	J-7B050185-002	XX I 88 IZ 5I	E	<1	B1M9L1
JNX59-1-AA	J-7B050195-001	XX I 88 IZ 5I	E	<1	B1M9J1
JNX6A-1-AA	J-7B050195-002	XX I 88 IZ 5I	E	<1	B1M9J6
JNX6C-1-AA	J-7B050195-003	XX I 88 IZ 5I	E	<1	B1M9K1
JNX6J-1-AA	J-7B050198-001	XX I 88 IZ 5I	E	<1	B1M9K6
JNX6K-1-AA	J-7B050198-002	XX I 88 IZ 5I	E	<1	B1M9F1
JNX6L-1-AA	J-7B050198-003	XX I 88 IZ 5I	E	<1	B1M9H6
JN6HR-1-AA	J-7B080000-556-B	XX I 88 IZ 5I		<1	INTRA-LAB BLANK
JN6HR-1-AC	J-7B080000-556-C	XX I 88 IZ 5I		14.5	INTRA-LAB CHECK

Control Limits

(0-0)

SE 2/24/07