W05089

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135 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: 34519

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05089	S07-012	B1LD29	J7A040266-1	JME161AA	9JME1610	7011256
		B1LD30	J7A040266-2	JME2G1AA	9JME2G10	7011256
		B1LCW0	J7A040266-3	JME2H1AA	9JME2H10	7011256
		B1LD39	J7A040266-4	JME2M1AA	9JME2M10	7011256
		B1LCL5	J7A040266-5	JME2V1AA	9JME2V10	7011262
		B1LCL5	J7A040266-5	JME2V1AC	9JME2V10	7011256
		B1LC08	J7A050108-1	JMFP71AA	9JMFP710	7011260
		B1LC08	J7A050108-1	JMFP71AC	9JMFP710	7011248
		B1LBX9	J7A050108-2	JMFP81AA	9JMFP810	7011253
		B1LBX9	J7A050108-2	JMFP81AC	9JMFP810	7011252
		B1LDD2	J7A050108-3	JMFP91AA	9JMFP910	7011250
		B1LDD2	J7A050108-3	JMFP91AC	9JMFP910	7011251
	W07-012	B1LHM4	J7A050117-1	JMFRM1AA	9JMFRM10	7011251
	S07-012	B1LCK5	J7A080151-1	JMJDJ1AA	9JMJDJ10	7011256
		B1LCJ5	J7A080151-2	JMJDL1AA	9JMJDL10	7011256

Comments:

Report Nbr: 34519

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05089	S07-012	B1LCB4	J7A080151-3	JMJDM1AA	9JMJDM10	7011256
	W07-011	B1L733	J7A080152-1	JMJDT1AA	9JMJDT10	7011253
		B1L733	J7A080152-1	JMJDT1AC	9JMJDT10	7011250
		B1L733	J7A080152-1	JMJDT1AD	9JMJDT10	7011251
		B1L733	J7A080152-1	JMJDT1AE	9JMJDT10	7011257
		B1L733	J7A080152-1	JMJDT1AF	9JMJDT10	7011259
		B1L733	J7A080152-1	JMJDT1AG	9JMJDT10	7011248
		B1L733	J7A080152-1	JMJDT1AH	9JMJDT10	7011256
	W07-012	B1LJ63	J7A090131-1	JMJ631AA	9JMJ6310	7011248
		B1LJ58	J7A090131-2	JMJ641AA	9JMJ6410	7011248
		B1LJH8	J7A090131-3	JMJ651AA	9JMJ6510	7011248
	A07-012	B1LJT3	J7A090137-1	JMJ7T1AA	9JMJ7T10	7011248
		B1LJT3	J7A090137-1	JMJ7T1AC	9JMJ7T10	7011256
	S07-012	B1LC01	J7A090145-1	JMJ8W1AA	9JMJ8W10	7011253
		B1LC01	J7A090145-1	JMJ8W1AC	9JMJ8W10	7011252
	W07-001	B1LRH8	J7A090152-1	JMJ9L1AA	9JMJ9L10	7011250
		B1LRH8	J7A090152-1	JMJ9L1AC	9JMJ9L10	7011251
		B1LRH8	J7A090152-1	JMJ9L1AD	9JMJ9L10	7011252
		B1LRH8	J7A090152-1	JMJ9L1AE	9JMJ9L10	7011248
		B1LRH7	J7A090152-2	JMJ9M1AA	9JMJ9M10	7011250
		B1LRH7	J7A090152-2	JMJ9M1AC	9JMJ9M10	7011251
		B1LRH7	J7A090152-2	JMJ9M1AD	9JMJ9M10	7011252
		B1LRH7	J7A090152-2	JMJ9M1AE	9JMJ9M10	7011248

Comments:

SEVERN TRENT STL

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Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

February 21, 2007

Attention: Dot Stewart

SAF Number	:	W07-001, S07-012, A07-012, W07-011
Date SDG Closed	:	January 5, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05089
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between January 3, 2007 and January 5, 2007 twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	DATE OF RECEIPT	MATRIX
B1LCL5	JME2V	1/3/07	WATER
B1LD39	JME2M	1/3/07	WATER
B1LCW0	JME2H	1/3/07	WATER
B1LD30	JME2G	1/3/07	WATER
B1LD29	JME16	1/3/07	WATER
B1LC08	JMFP7	1/3/07	WATER
B1LBX9	JMFP8	1/3/07	WATER
B1LDD2	JMFP9	1/3/07	WATER
B1LHM4	JMFRM	1/3/07	WATER
B1LCK5	JMJDJ	1/4/07	WATER
B1LCJ5	JMJDL	1/4/07	WATER
B1LCB4	JMJDM	1/4/07	WATER
B1L733	JMJDT	1/4/07	WATER

B1LJ63	JMJ63	1/4/07	WATER
B1LJ58	JMJ64	1/4/07	WATER
B1LJH8	JMJ65	1/4/07	WATER
B1LJT3	JMJ7T	1/4/07	WATER
B1LC01	JMJ8W	1/4/07	WATER
B1LRH8	JMJ9L	1/5/09	WATER
B1LRH7	JMJ9M	1/5/07	WATER

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Alpha Spectroscopy
Uranium 234, 235 and 238 by method RICH-RC-5039
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

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

Uranium 234, 235 and 238 by method RICH-RC-5039

The LCS, batch blank, samples and sample duplicate (B1LCL5) results are within contractual requirements.

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:

The CRDL for sample B1L733 was not met due to high dissolved solids. The results >MDA>CRDL. Except as noted, the LCS, batch blank, samples and sample duplicate (B1LRH8) results are within contractual requirements.

Gross Beta by method RICH-RC-5014

The CRDL for sample B1L733 was not met due to high dissolved solids. The results >MDA>CRDL. Except as noted, the LCS, batch blank, samples and sample duplicate (B1LRH8) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1L733) results are within contractual requirements.

Gamma Spectroscopy

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

The LCS, batch blank, samples and sample duplicate (B1L733) results are within contractual requirements.

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

The samples were analyzed in two batches: 7011252 and 7011260. The LCSs, batch blanks, samples and sample duplicate (B1LC01 and B1LC08 respectively) results are within contractual requirements.

Liquid Scintillation Counting

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

The LCS, batch blank, samples, sample duplicate (B1LJ63), and sample matrix spike (B1LJ58) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1LC01) results are within contractual requirements.

Pacific Northwest National Laboratories
February 21, 2007

Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1LCK5), and sample matrix spike (B1LCJ5) 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.

2/21/2007 9:30:42 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34519 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.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:
9JME1610	B1LD29		MW6-SBB-A1	S07-012	W05089					01/03/2007 10:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011256	Uranium	7440-61-1	6.78E+00	ug/L	6.9E-01	6.9E-01		8.03E-02		UTOT_KPA	2.61E-02	ML	02/19/2007 11:06	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:
9JME2G10	B1LD30		MW6-SBB-A1	S07-012	W05089					01/03/2007 10:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011256	Uranium	7440-61-1	6.72E+00	ug/L	6.9E-01	6.9E-01		8.22E-02		UTOT_KPA	2.55E-02	ML	02/19/2007 11:09	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JME2H10	B1LCW0		MW6-SBB-A1	S07-012	W05089					01/03/2007 13:14

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011256	Uranium	7440-61-1	2.74E+01	ug/L	3.2E+00	3.2E+00		8.00E-02		UTOT_KPA	2.62E-02	ML	02/19/2007 11:11	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:
9JME2M10	B1LD39		MW6-SBB-A1	S07-012	W05089					01/03/2007 09:23

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011256	Uranium	7440-61-1	1.95E+01	ug/L	2.3E+00	2.3E+00		8.09E-02		UTOT_KPA	2.59E-02	ML	02/19/2007 11:13	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JME2V10	B1LCL5		MW6-SBB-A1	S07-012	W05089					01/03/2007 11:47

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011262	U-234	13966-29-5	6.63E+01	pCi/L	2.9E+00	1.1E+01		1.78E-01	97.4	UISO_PLATE_AEA	2.003E-01	L	01/25/2007 19:18	I
7011262	U-235	15117-96-1	2.92E+00	pCi/L	6.1E-01	7.8E-01		1.51E-01	97.4	UISO_PLATE_AEA	2.003E-01	L	01/25/2007 19:18	I
7011262	U-238	U-238	6.37E+01	pCi/L	2.8E+00	1.1E+01		1.51E-01	97.4	UISO_PLATE_AEA	2.003E-01	L	01/25/2007 19:18	I
7011256	Uranium	7440-61-1	1.70E+02	ug/L	2.0E+01	2.0E+01		8.12E-02		UTOT_KPA	2.58E-02	ML	02/19/2007 12:02	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:
9JMFP710	B1LC08		MW6-SBB-A1	S07-012	W05089					01/03/2007 12:22

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011260	I-129L	15046-84-1	-2.95E-02	pCi/L	9.4E-01	9.4E-01	U	1.74E+00	102.4	I129_SEP_LEPS_G	5.011E-01	L	01/31/2007 05:45	I
7011248	TC-99	14133-76-7	4.73E+01	pCi/L	5.4E+00	8.8E+00		9.64E+00	100.0	TC99_ETVDSK_LS	1.253E-01	L	01/24/2007 12:08	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.

2/21/2007 9:30:42 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34519 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.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:
9JMFP810	B1LBX9		MW6-SBB-A1	S07-012	W05089					01/03/2007 13:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011253	H-3	10028-17-8	5.12E+03	pCi/L	3.0E+02	3.6E+02		3.68E+02	100.0	906.0_H3_LSC	5.00E-03	L	01/23/2007 08:42	I
7011252	I-129L	15046-84-1	6.54E-01	pCi/L	2.7E-01	2.7E-01	U	4.59E-01	88.1	I129LL_SEP_LEPS	3.7654E+00	L	02/09/2007 16:19	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JMFP910	B1LDD2		MW6-SBB-A1	S07-012	W05089					01/03/2007 09:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011250	ALPHA	12587-46-1	1.23E+00	pCi/L	1.1E+00	1.2E+00	U	1.90E+00	100.0	9310_ALPHABETA	2.017E-01	L	02/01/2007 13:32	I
7011251	BETA	12587-47-2	8.54E+00	pCi/L	1.8E+00	2.4E+00		2.81E+00	100.0	9310_ALPHABETA	2.001E-01	L	02/01/2007 12:03	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:
9JMFRM10	B1LHM4		MW6-SBB-A1	W07-012	W05089					01/03/2007 13:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011251	BETA	12587-47-2	2.46E+01	pCi/L	2.7E+00	4.4E+00		2.86E+00	100.0	9310_ALPHABETA	1.929E-01	L	02/01/2007 12:03	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:
9JMJ6310	B1LJ63		MW6-SBB-A1	W07-012	W05089					01/04/2007 09:55

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011248	TC-99	14133-76-7	1.28E+02	pCi/L	7.3E+00	1.4E+01		9.56E+00	100.0	TC99_ETVDSK_LS	1.262E-01	L	01/24/2007 12:08	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:
9JMJ6410	B1LJ58		MW6-SBB-A1	W07-012	W05089					01/04/2007 11:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011248	TC-99	14133-76-7	3.96E+03	pCi/L	3.4E+01	2.7E+02		9.62E+00	100.0	TC99_ETVDSK_LS	1.251E-01	L	01/24/2007 12:08	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:
9JMJ6510	B1LJH8		MW6-SBB-A1	W07-012	W05089					01/04/2007 12:17

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011248	TC-99	14133-76-7	1.51E+02	pCi/L	7.7E+00	1.6E+01		9.48E+00	100.0	TC99_ETVDSK_LS	1.27E-01	L	01/24/2007 12:08	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:
9JMJ7T10	B1LJT3		MW6-SBB-A1	A07-012	W05089					01/04/2007 12:59

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.

2/21/2007 9:30:42 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34519 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011248	TC-99	14133-76-7	2.99E+02	pCi/L	1.0E+01	2.6E+01		9.51E+00	100.0	TC99_ETVDSK_LS	1.266E-01	L	01/24/2007 12:08	I
7011256	Uranium	7440-61-1	6.13E+00	ug/L	6.3E-01	6.3E-01		8.32E-02		UTOT_KPA	2.52E-02	ML	02/19/2007 12:33	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JMJ8W10	B1LC01		MW6-SBB-A1	S07-012	W05089					01/04/2007 12:59

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011253	H-3	10028-17-8	1.36E+04	pCi/L	4.5E+02	6.3E+02		3.63E+02	100.0	906.0_H3_LSC	5.00E-03	L	01/23/2007 11:27	I
7011252	I-129L	15046-84-1	2.85E+00	pCi/L	5.3E-01	5.3E-01		2.85E-01	100.3	I129LL_SEP_LEPS	3.9313E+00	L	02/09/2007 16:21	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JMJ9L10	B1LRH8		MW6-SBB-A1	W07-001	W05089					01/05/2007 10:51

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011250	ALPHA	12587-46-1	6.32E+00	pCi/L	2.6E+00	3.0E+00		2.45E+00	100.0	9310_ALPHABETA	1.721E-01	L	02/01/2007 13:32	I
7011251	BETA	12587-47-2	1.32E+01	pCi/L	2.1E+00	2.7E+00		2.89E+00	100.0	9310_ALPHABETA	2.022E-01	L	02/01/2007 12:03	I
7011252	I-129L	15046-84-1	9.08E-01	pCi/L	2.4E-01	2.4E-01	U	4.65E-01	101.6	I129LL_SEP_LEPS	3.9156E+00	L	02/09/2007 18:05	I
7011248	TC-99	14133-76-7	1.49E+01	pCi/L	4.5E+00	6.6E+00		9.57E+00	100.0	TC99_ETVDSK_LS	1.257E-01	L	01/24/2007 12:08	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:
9JMJ9M10	B1LRH7		MW6-SBB-A1	W07-001	W05089					01/05/2007 10:51

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011250	ALPHA	12587-46-1	3.93E+00	pCi/L	2.3E+00	2.4E+00		2.73E+00	100.0	9310_ALPHABETA	1.669E-01	L	02/01/2007 13:32	I
7011251	BETA	12587-47-2	1.30E+01	pCi/L	2.1E+00	3.2E+00		2.71E+00	100.0	9310_ALPHABETA	2.00E-01	L	02/01/2007 12:03	I
7011252	I-129L	15046-84-1	1.08E+00	pCi/L	2.9E-01	2.9E-01		2.58E-01	100.3	I129LL_SEP_LEPS	3.9409E+00	L	02/09/2007 18:06	I
7011248	TC-99	14133-76-7	1.93E+01	pCi/L	4.6E+00	6.8E+00		9.49E+00	100.0	TC99_ETVDSK_LS	1.275E-01	L	01/24/2007 12:08	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:
9JMJDJ10	B1LCK5		MW6-SBB-A1	S07-012	W05089					01/04/2007 10:06

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011256	Uranium	7440-61-1	1.66E+02	ug/L	2.0E+01	2.0E+01		8.09E-02		UTOT_KPA	2.59E-02	ML	02/19/2007 12:08	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:
9JMJDL10	B1LCJ5		MW6-SBB-A1	S07-012	W05089					01/04/2007 11:40

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.

2/21/2007 9:30:42 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34519 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011256	Uranium	7440-61-1	3.84E-02	ug/L	4.0E-03	4.0E-03	U	7.54E-02		UTOT_KPA	2.78E-02	ML	02/19/2007 12:18	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:
9JMJDM10	B1LCB4		MW6-SBB-A1	S07-012	W05089					01/04/2007 13:02

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011256	Uranium	7440-61-1	0.00E+00	ug/L	0.0E+00	0.0E+00	U	2.10E-01		UTOT_KPA	2.55E-02	ML	02/19/2007 12:22	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:
9JMJDT10	B1L733		MW6-SBB-A1	W07-011	W05089					01/04/2007 10:49

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7011253	H-3	10028-17-8	6.39E+03	pCi/L	3.3E+02	4.0E+02		3.68E+02	100.0	906.0_H3_LSC	5.00E-03	L	01/23/2007 10:04	I
7011250	ALPHA	12587-46-1	3.66E+02	pCi/L	2.1E+01	8.8E+01		3.80E+00	100.0	9310_ALPHABETA	7.21E-02	L	02/01/2007 12:03	I
7011251	BETA	12587-47-2	1.70E+03	pCi/L	2.1E+01	2.2E+02		4.70E+00	100.0	9310_ALPHABETA	8.23E-02	L	02/01/2007 12:54	I
7011257	BE-7	13966-02-4	-1.79E-01	pCi/L	2.3E+01	2.3E+01	U	4.33E+01		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011257	CO-60	10198-40-0	2.29E+01	pCi/L	6.8E+00	6.8E+00		4.57E+00		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011257	CS-134	13967-70-9	2.92E-02	pCi/L	3.2E+00	3.2E+00	U	5.77E+00		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011257	CS-137	10045-97-3	-3.12E-01	pCi/L	2.2E+00	2.2E+00	U	4.05E+00		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011257	EU-152	14683-23-9	-5.09E+00	pCi/L	6.8E+00	6.8E+00	U	9.24E+00		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011257	EU-154	15585-10-1	6.84E+00	pCi/L	6.2E+00	6.2E+00	U	1.48E+01		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011257	EU-155	14391-16-3	4.52E-01	pCi/L	4.9E+00	4.9E+00	U	8.97E+00		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011257	K-40	13966-00-2	-4.88E+01	pCi/L	5.4E+01	5.4E+01	U	1.19E+02		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011257	RU-106	13967-48-1	7.61E+00	pCi/L	2.1E+01	2.1E+01	U	4.02E+01		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011257	SB-125	14234-35-6	-9.71E+00	pCi/L	6.3E+00	6.3E+00	U	8.78E+00		GAMMALL_GS	1.9563E+00	L	01/31/2007 13:13	I
7011259	SR-90	10098-97-2	2.15E-01	pCi/L	3.3E-01	3.4E-01	U	7.09E-01	66.3	SRISO_SEP_PRE	8.337E-01	L	02/01/2007 05:59	I
7011248	TC-99	14133-76-7	5.83E+03	pCi/L	4.1E+01	4.0E+02		9.40E+00	100.0	TC99_ETVDSK_LS	1.281E-01	L	01/24/2007 12:08	I
7011256	Uranium	7440-61-1	7.58E+02	ug/L	9.0E+01	9.0E+01		7.91E-02		UTOT_KPA	2.65E-02	ML	02/19/2007 12:31	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.

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPE41AB	**Sdg/Rept Nbr:**	W05089	34519	**Collection Date:** 01/04/2007 12:59
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 01/04/2007

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
7011252	I-129L	3.38E-02	pCi/L	1.2E-01	U	2.39E-01	96.5		I129LL_SEP_L	3.8459E+00	02/09/2007				D
BLK	15046-84-1			1.2E-01						L	18:06				

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

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id: JMPE71AB **Sdg/Rept Nbr:** W05089 34519 **Collection Date:** 01/04/2007 12:59

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 01/04/2007

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
7011253	H-3	2.83E+01	pCi/L	1.6E+02	U	3.63E+02	100.0		906.0_H3_LSC	5.00E-03	01/23/2007				D
BLK	10028-17-8			1.5E+02						L	03:11				

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.

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPE71DX	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 12:59
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011253	H-3	4.77E+01	pCi/L	1.7E+02	U	3.72E+02	100.0		906.0_H3_LSC	5.00E-03	01/23/2007				D
BLK	10028-17-8			1.5E+02						L	05:56				

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

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPEJ1AB	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 09:55
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011248	TC-99	2.41E+00	pCi/L	3.7E+00	U	6.01E+00	100.0		TC99_ETVDSK	2.008E-01	01/24/2007				D
BLK	14133-76-7			2.6E+00						L	12:08				

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.

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPEP1AB	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/05/2007 10:51
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/05/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011250	ALPHA	6.31E-02	pCi/L	2.8E-01	U	6.78E-01	100.0		9310_ALPHAB	2.00E-01	02/01/2007				D
BLK	12587-46-1			2.8E-01						L	12:03				

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

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPEW1AB	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/05/2007 10:51
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/05/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011251	BETA	2.22E-01	pCi/L	8.9E-01	U	1.79E+00	100.0		9310_ALPHAB	2.003E-01	02/01/2007				D
BLK	12587-47-2			8.9E-01						L	12:54				

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.

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPF61AB	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 10:49
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011257	BE-7	7.02E+00	pCi/L	2.4E+01	U	4.52E+01			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	13966-02-4			2.4E+01						L	13:16				
7011257	CO-60	9.69E-01	pCi/L	2.6E+00	U	5.33E+00			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	10198-40-0			2.6E+00						L	13:16				
7011257	CS-134	-5.44E-01	pCi/L	2.6E+00	U	4.64E+00			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	13967-70-9			2.6E+00						L	13:16				
7011257	CS-137	-8.91E-01	pCi/L	2.6E+00	U	4.48E+00			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	10045-97-3			2.6E+00						L	13:16				
7011257	EU-152	-1.20E+00	pCi/L	5.3E+00	U	9.19E+00			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	14683-23-9			5.3E+00						L	13:16				
7011257	EU-154	-1.63E+00	pCi/L	7.6E+00	U	1.39E+01			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	15585-10-1			7.6E+00						L	13:16				
7011257	EU-155	-1.68E+00	pCi/L	3.3E+00	U	5.58E+00			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	14391-16-3			3.3E+00						L	13:16				
7011257	K-40	-5.27E+01	pCi/L	4.6E+01	U	9.62E+01			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	13966-00-2			4.6E+01						L	13:16				
7011257	RU-106	7.43E+00	pCi/L	1.9E+01	U	3.68E+01			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	13967-48-1			1.9E+01						L	13:16				
7011257	SB-125	3.08E+00	pCi/L	4.6E+00	U	9.17E+00			GAMMALL_GS	1.9998E+00	01/31/2007				D
BLK	14234-35-6			4.6E+00						L	13:16				

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

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id: JMPFQ1AB **Sdg/Rept Nbr:** W05089 34519 **Collection Date:** 01/04/2007 10:06

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011256	Uranium	4.19E-02	ug/L	4.4E-03	U	8.12E-02			UTOT_KPA	2.58E-02	02/19/2007				D
BLK	7440-61-1			4.4E-03						ML	11:00				

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.

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPGC1AB	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 10:49
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011259	SR-90	4.28E-01	pCi/L	2.5E-01	U	4.36E-01	77.8		SRISO_SEP_P	1.0014E+00	02/01/2007				D
BLK	10098-97-2			2.2E-01						L	06:04				

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.

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPGE1AB	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/03/2007 12:22
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/03/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011260	I-129L	-2.16E-01	pCi/L	8.9E-01	U	1.61E+00	100.0		I129_SEP_LEP	5.012E-01	01/31/2007				D
BLK	15046-84-1			8.9E-01						L	05:46				

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.

Wednesday, February 21, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id: JMPGH1AB **Sdg/Rept Nbr:** W05089 34519 **Collection Date:** 01/03/2007 11:47
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 01/03/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011262	U-234	5.05E-02	pCi/L	8.1E-02	U	1.35E-01	97.0		UISO_PLATE_	2.018E-01	01/25/2007				D
BLK	13966-29-5			8.0E-02						L	19:18				
7011262	U-238	-5.62E-03	pCi/L	5.7E-02	U	1.35E-01	97.0		UISO_PLATE_	2.018E-01	01/25/2007				D
BLK	U-238			5.7E-02						L	19:18				

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPE41CS	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 12:59
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/04/2007

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
7011252	I-129L	9.20E+00	pCi/L	1.2E+00		4.39E-01	82.0	9.84E+00	I129LL_SEP_L	3.9058E+00	02/09/2007			70	D
BS	15046-84-1			1.2E+00				93.4		L	19:49			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPE71CS	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 12:59
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/04/2007

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
7011253	H-3	2.62E+03	pCi/L	2.7E+02		3.66E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	01/23/2007			70	D
BS	10028-17-8			2.4E+02				96.7		L	04:33			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPE71EM	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 12:59
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	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
7011253	H-3	2.38E+03	pCi/L	2.6E+02		3.71E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	01/23/2007			70	D
BS	10028-17-8			2.3E+02				87.8		L	07:19			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPEJ1CS	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 09:55
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011248	TC-99	3.32E+02	pCi/L	2.6E+01		6.01E+00	100.0	3.38E+02	TC99_ETVDSK	2.001E-01	01/24/2007			70	D
BS	14133-76-7			8.2E+00				98.1		L	12:08			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPEP1CS	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/05/2007 10:51
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/05/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011250	ALPHA	2.28E+01	pCi/L	5.6E+00		7.31E-01	100.0	2.26E+01	9310_ALPHAB	2.006E-01	02/01/2007			70	D
BS	12587-46-1			2.2E+00				101.0		L	12:03			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPEW1CS	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/05/2007 10:51
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/05/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011251	BETA	2.11E+01	pCi/L	3.2E+00		1.64E+00	100.0	2.20E+01	9310_ALPHAB	2.047E-01	02/01/2007			70	D
BS	12587-47-2			1.6E+00				95.9		L	12:54			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPF61CS	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 10:49
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011257	CO-60	3.30E+01	pCi/L	7.9E+00		4.61E+00		3.84E+01	GAMMALL_GS	2.0002E+00	01/31/2007			70	D
BS	10198-40-0			7.9E+00				85.9		L	13:17			130	
7011257	CS-137	2.65E+01	pCi/L	5.7E+00		4.49E+00		2.47E+01	GAMMALL_GS	2.0002E+00	01/31/2007			70	D
BS	10045-97-3			5.7E+00				107.0		L	13:17			130	
7011257	EU-152	5.90E+01	pCi/L	1.8E+01		1.20E+01		7.67E+01	GAMMALL_GS	2.0002E+00	01/31/2007			70	D
BS	14683-23-9			1.8E+01				77.0		L	13:17			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPFQ1CS	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 10:06
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011256	Uranium	3.46E+01	ug/L	4.1E+00		8.25E-02		3.56E+01	UTOT_KPA	2.54E-02	02/19/2007			70	D
BS	7440-61-1			4.1E+00				97.2		ML	11:02			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPFQ1DS	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 10:06
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011256	Uranium	3.62E+00	ug/L	3.7E-01		8.28E-02		3.59E+00	UTOT_KPA	2.53E-02	02/19/2007			70	D
BS	7440-61-1			3.7E-01				100.9		ML	11:04			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPGC1CS	**Sdg/Rept Nbr:**	W05089	34519	**Collection Date:** 01/04/2007 10:49
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 01/04/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011259	SR-90	1.30E+01	pCi/L	2.1E+00		4.03E-01	80.2	1.35E+01	SRISO_SEP_P	1.0038E+00	02/01/2007			70	D
BS	10098-97-2			7.9E-01				96.3		L	06:04			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMPGE1CS	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/03/2007 12:22
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/03/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011260	I-129L	4.12E+01	pCi/L	6.0E+00		2.48E+00	97.5	4.46E+01	I129_SEP_LEP	5.051E-01	01/31/2007			70	D
BS	15046-84-1			6.0E+00				92.4		L	07:46			130	

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

Wednesday, February 21, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id: JMPGH1CS **Sdg/Rept Nbr:** W05089 34519 **Collection Date:** 01/03/2007 11:47

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 01/03/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011262	U-234	9.11E+00	pCi/L	1.8E+00		1.52E-01	95.4	8.46E+00	UISO_PLATE_	2.022E-01	01/25/2007			70	D
BS	13966-29-5			1.1E+00				107.6		L	19:18			130	
7011262	U-235	4.06E-01	pCi/L	2.4E-01		1.52E-01	95.4	3.86E-01	UISO_PLATE_	2.022E-01	01/25/2007			70	D
BS	15117-96-1			2.3E-01				105.3		L	19:18			130	
7011262	U-238	8.57E+00	pCi/L	1.8E+00		1.52E-01	95.4	8.86E+00	UISO_PLATE_	2.022E-01	01/25/2007			70	D
BS	U-238			1.0E+00				96.7		L	19:18			130	

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

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id: JME2V1DR **Sdg/Rept Nbr:** W05089 34519 **Collection Date:** 01/03/2007 11:47

Client Id: B1LCL5 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 01/03/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	MW6-SBB-A19981								AU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011262	U-234	6.71E+01	pCi/L	1.1E+01		1.96E-01	97.7		UISO_PLATE_	2.01E-01	01/25/2007	1.2	0.1		D
DUP	13966-29-5	6.63E+01		2.9E+00						L	19:18	20.0	3		
7011262	U-235	2.17E+00	pCi/L	6.3E-01		1.49E-01	97.7		UISO_PLATE_	2.01E-01	01/25/2007	29.6	1.7		D
DUP	15117-96-1	2.92E+00		5.2E-01						L	19:18	20.0	3		
7011262	U-238	5.73E+01	pCi/L	9.8E+00		1.75E-01	97.7		UISO_PLATE_	2.01E-01	01/25/2007	10.7	0.9		D
DUP	U-238	6.37E+01		2.7E+00						L	19:18	20.0	3		

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

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMFP71DR	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/03/2007 12:22
Client Id:	B1LC08	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/03/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	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
7011260	I-129L	5.78E-01	pCi/L	1.0E+00	U	1.89E+00	101.1		I129_SEP_LEP	5.018E-01	01/31/2007	221.5	0.8		D
DUP	15046-84-1	-2.95E-02		1.0E+00						L	05:46	20.0	3		

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

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMJ631CR	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 09:55
Client Id:	B1LJ63	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-012	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
7011248	TC-99	1.30E+02	pCi/L	1.4E+01		9.78E+00	100.0		TC99_ETVDSK	1.249E-01	01/24/2007	1.5	0.2		D
DUP	14133-76-7	1.28E+02		7.4E+00						L	12:08	20.0	3		

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

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id: JMJ8W1DR **Sdg/Rept Nbr:** W05089 34519 **Collection Date:** 01/04/2007 12:59

Client Id: B1LC01 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 01/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	MW6-SBB-A19981								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
7011252	I-129L	2.58E+00	pCi/L	4.4E-01		2.73E-01	97.0		I129LL_SEP_L	3.9487E+00	02/09/2007	9.8	0.9		D
DUP	15046-84-1	2.85E+00		4.4E-01						L	16:21	20.0	3		

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

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMJ8W1ER	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 12:59
Client Id:	B1LC01	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	MW6-SBB-A19981								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
7011253	H-3	1.33E+04	pCi/L	6.2E+02		3.66E+02	100.0		906.0_H3_LSC	5.00E-03	01/23/2007	2.4	0.7		D
DUP	10028-17-8	1.36E+04		4.5E+02						L	12:50	20.0	3		

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

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMJ9L1FR	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/05/2007 10:51
Client Id:	B1LRH8	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-001	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
7011250	ALPHA	3.80E+00	pCi/L	2.3E+00		2.65E+00	100.0		9310_ALPHAB	1.758E-01	02/01/2007	49.7	1.6		D
DUP	12587-46-1	6.32E+00		2.1E+00						L	13:32	20.0	3		

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.

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMJ9M1FR	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/05/2007 10:51
Client Id:	B1LRH7	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/05/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-001	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
7011251	BETA	1.28E+01	pCi/L	3.2E+00		2.63E+00	100.0		9310_ALPHAB	2.02E-01	02/01/2007	.8	0.		D
DUP	12587-47-2	1.30E+01		2.0E+00						L	12:04	20.0	3		

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.

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMJDJ1CR	**Sdg/Rept Nbr:**	W05089	34519	**Collection Date:** 01/04/2007 10:06
Client Id:	B1LCK5	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 01/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	MW6-SBB-A19981								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
7011256	Uranium	1.69E+02	ug/L	2.0E+01		8.32E-02			UTOT_KPA	2.52E-02	02/19/2007	1.8	0.2		D
DUP	7440-61-1	1.66E+02		2.0E+01						ML	12:16	20.0	3		

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.

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id: JMJDT1JR
Client Id: B1L733
Moisture/Solids%*:

Sdg/Rept Nbr: W05089 34519
Matrix: WATER WATER
QC Type: DUP

Collection Date: 01/04/2007 10:49
Sample On Date:
Received Date: 01/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-011	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
7011257	BE-7	2.01E+01	pCi/L	2.4E+01	U	4.76E+01			GAMMALL_GS	1.9867E+00	01/31/2007	203.6	1.2		D
DUP	13966-02-4	-1.79E-01		2.4E+01						L	13:15	20.0	3		
7011257	CO-60	2.01E+01	pCi/L	6.2E+00		3.63E+00			GAMMALL_GS	1.9867E+00	01/31/2007	13.0	0.6		D
DUP	10198-40-0	2.29E+01		6.2E+00						L	13:15	20.0	3		
7011257	CS-134	8.88E-01	pCi/L	3.1E+00	U	5.82E+00			GAMMALL_GS	1.9867E+00	01/31/2007	187.3	0.4		D
DUP	13967-70-9	2.92E-02		3.1E+00						L	13:15	20.0	3		
7011257	CS-137	1.65E+00	pCi/L	2.5E+00	U	5.00E+00			GAMMALL_GS	1.9867E+00	01/31/2007	293.3	1.1		D
DUP	10045-97-3	-3.12E-01		2.5E+00						L	13:15	20.0	3		
7011257	EU-152	5.63E-01	pCi/L	6.1E+00	U	1.12E+01			GAMMALL_GS	1.9867E+00	01/31/2007	0.0	1.3		D
DUP	14683-23-9	-5.09E+00		6.1E+00						L	13:15	20.0	3		
7011257	EU-154	-1.91E+00	pCi/L	8.3E+00	U	1.51E+01			GAMMALL_GS	1.9867E+00	01/31/2007	355.1	1.5		D
DUP	15585-10-1	6.84E+00		8.3E+00						L	13:15	20.0	3		
7011257	EU-155	-5.01E+00	pCi/L	5.5E+00	U	8.81E+00			GAMMALL_GS	1.9867E+00	01/31/2007	0.0	1.4		D
DUP	14391-16-3	4.52E-01		5.5E+00						L	13:15	20.0	3		
7011257	K-40	-1.18E+01	pCi/L	4.5E+01	U	9.97E+01			GAMMALL_GS	1.9867E+00	01/31/2007	0.0	1.2		D
DUP	13966-00-2	-4.88E+01		4.5E+01						L	13:15	20.0	3		
7011257	RU-106	6.20E+00	pCi/L	2.1E+01	U	4.07E+01			GAMMALL_GS	1.9867E+00	01/31/2007	20.3	0.1		D
DUP	13967-48-1	7.61E+00		2.1E+01						L	13:15	20.0	3		
7011257	SB-125	4.21E+00	pCi/L	5.5E+00	U	1.09E+01			GAMMALL_GS	1.9867E+00	01/31/2007	0.0	3.6		D
DUP	14234-35-6	-9.71E+00		5.5E+00						L	13:15	20.0	3		

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

Wednesday, February 21, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id:	JMJDT1KR	**Sdg/Rept Nbr:**	W05089 34519	**Collection Date:**	01/04/2007 10:49
Client Id:	B1L733	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-011	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
7011259	SR-90	3.57E-01	pCi/L	3.9E-01	U	7.86E-01	51.2		SRISO_SEP_P	8.336E-01	02/01/2007	49.9	0.5		D
DUP	10098-97-2	2.15E-01		3.9E-01						L	06:04	20.0	3		

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.

Wednesday, February 21, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id: JMJ641CW
Client Id: B1LJ58
Moisture/Solids%*:

Sdg/Rept Nbr: W05089 34519
Matrix: WATER WATER
QC Type: MS

Collection Date: 01/04/2007 11:30
Sample On Date:
Received Date: 01/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-012	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
7011248	TC-99	3.51E+03	pCi/L	5.8E+02		9.64E+00	100.0	3.61E+03	TC99_ETVDSK	1.253E-01	01/24/2007			60	D
MS	14133-76-7			4.7E+01				97.4		L	12:08			140	

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.

Wednesday, February 21, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05089.Edd, h:\Reportdb\edd\FeadIV\Rad\34519.Edd

Lab Sample Id: JMJDL1CW **Sdg/Rept Nbr:** W05089 34519 **Collection Date:** 01/04/2007 11:40

Client Id: B1LCJ5 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 01/04/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-012	MW6-SBB-A19981								BD	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7011256	Uranium	3.47E+01	ug/L	4.1E+00		8.15E-02		3.53E+01	UTOT_KPA	2.57E-02	02/19/2007			60	D
MS	7440-61-1			4.1E+00				98.1		ML	12:20			140	

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

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/29/2007 9:16:14 AM

Lot No., Due Date: J7A040266; 02/16/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7011262; RUISO Uiso by ALP

SDG, Matrix: W05089; 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. RPD > UCL : 20.0=> JME2V1AD U-235 30.0 (RPD) w/in 1CRDL		✓	
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 => JME2V1AA U-234 6.6E+01 L:1.8E-01 JME2V1AA U-235 2.9E+00 L:1.5E-01 JME2V1AA U-238 6.4E+01 L:1.5E-01		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => U-234 U-235 U-238 OK; No Callin Level Found => U-234 U-235 U-238	✓		

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

OK

8.25 Counting Spectrum are within FWHM Limits. Yes No N/A

FWHM > maxFWHM => JME2V1AA U-234 45>0
JME2V1AD U-234 39.028>0
JMPGH1AC U-234 26.092>0 Q:V1

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A

Library Not Specified => JME2V1AA I:[NUC_LIBR]AR_U. Q:
JME2V1AD I:[NUC_LIBR]AR_U. Q:
JMPGH1AA I:[NUC_LIBR]AR_U. Q:
JMPGH1AC I:[NUC_LIBR]AR_U. Q:

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

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

8.3 Comments:

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

OK

First Level Review Pam Anderson Date 1-29-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 701262
W05089

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: 1-29-07

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

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/2/2007 3:53:36 PM

Lot No., Due Date:	J7A050108,J7A090152,J7A080152; 02/16/2007,02/19/2007
Client, Site:	384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test:	7011250; RALPHA-A Alpha by GPC-Am
SDG, Matrix:	W05089; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JMJDT1AC 72.10<200.00 JMJ9L1AA 172.10<200.00 JMJ9M1AA 166.90<200.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> JMJ9L1AF ALPHA 50.0 (RPD)		✓	
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => JMJDT1AC ALPHA 3.8E+00>3.0E+00 Q:C1		✓	
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JMJDT1AC ALPHA 3.7E+02 L:3.8E+00 JMJ9L1AA ALPHA 6.3E+00 L:2.4E+00 JMJ9M1AA ALPHA 3.9E+00 L:2.7E+00		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => ALPHA OK; No Callin Level Found => ALPHA	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		

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

8.26 Instruments have Current Calibrations. Yes No N/A

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

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

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

8.3 Comments:

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

First Level Review Pam Anderson Date 2-2-01

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7011250
W05089

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 R Adam Date: 2-6-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09396
NCM Initiated By: Pam Anderson
Date Opened: 02/02/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am, Beta by GPC-Sr/Y
Lot #'s (Sample #'s): J7A080152 (1),
QC Batches: 7011250, 7011251

Nonconformance: MDA not met
Subcategory: Sample size reduced due to high residue mass

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	02/02/2007	The CRDL for sample JMJDT for alpha and beta in water was not met. The sample had high dissolved solids. Both alpha and beta results >MDA>CRDL.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	02/02/2007	NA

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 2/2/2007

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/2/2007 3:52:46 PM

Lot No., Due Date: J7A050108,J7A050117,J7A090152,J7A080152; 02/16/2007,02/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7011251; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05089; WATER

8.0 Correction Calculation Protocol Used. OK	Yes ✓	No	N/A
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	Yes ✓	No	N/A
8.02 Final Results Are in the Appropriate Activity Units OK	Yes ✓	No	N/A
8.03 Batch Contains the Required QC Appropriate for the Method OK	Yes ✓	No	N/A
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	Yes ✓	No	N/A
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes ✓	No	N/A
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JMJDT1AD 82.30<200.00 Q:VB	Yes	No ✓	N/A
8.07 The Correct Count Geometry was Used. OK	Yes ✓	No	N/A
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes ✓	No	N/A
8.09 Method Blank is within Control Limits. OK	Yes ✓	No	N/A
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!	Yes	No	N/A ✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes ✓	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes ✓	No	N/A
8.14 LCS within Control Limits. OK	Yes ✓	No	N/A
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A ✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A ✓
8.17 Tracer within Control Limits. OK	Yes ✓	No	N/A
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	Yes ✓	No	N/A
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => JMJDT1AD BETA 4.7E+00>4.0E+00 Q:C1	Yes	No ✓	N/A
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A ✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JMFP91AC BETA 8.5E+00 L:2.8E+00 JMFRM1AA BETA 2.5E+01 L:2.9E+00 JMJDT1AD BETA 1.7E+03 L:4.7E+00 JMJ9L1AC BETA 1.3E+01 L:2.9E+00 JMJ9M1AC BETA 1.3E+01 L:2.7E+00	Yes	No ✓	N/A
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	Yes ✓	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes ✓	No	N/A

NCM 10-09396

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

8.26 Instruments have Current Calibrations. Yes No N/A

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

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

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

8.3 Comments:

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

First Level Review Pam Anderson Date 2-2-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7011251
W05089

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: Sherryl A. Adam Date: 2-4-07

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

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-09396**
NCM Initiated By: Pam Anderson
Date Opened: 02/02/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am, Beta by GPC-Sr/Y
Lot #'s (Sample #'s): J7A080152 (1),
QC Batches: 7011250, 7011251

Nonconformance: MDA not met
Subcategory: Sample size reduced due to high residue mass

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	02/02/2007	The CRDL for sample JMJDT for alpha and beta in water was not met. The sample had high dissolved solids. Both alpha and beta results >MDA>CRDL.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	02/02/2007	NA

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 2/2/2007

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/20/2007 9:28:17 AM

Lot No., Due Date: J7A080152; 02/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7011259; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05089; 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 Lisa Antonson Lisa Michael **Date** 2/20/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7011259
W05089

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. Olson Date: 2-20-07

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/1/2007 10:32:19 AM

Lot No., Due Date: J7A080152; 02/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7011257; RGAMMA Gamma by GER

SDG. Matrix: W05089; 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 Pam Anderson Date 1-31-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7011257
W05089

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

Comments on any "No" response:

Second Level Review Sheryl A Adam Date: 5-3-07

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/12/2007 2:44:29 PM

Lot No., Due Date: J7A050108,J7A090145,J7A090152; 02/16/2007,02/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7011252; RGAMLEPS Gamma by LEPS

SDG, Matrix: W05089; WATER

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

8.01 The Appropriate Methods Were Used To Analyze the Samples — Yes No ✓ N/A
Method Differs => JMFP81AC LEP<>TB
JMJ8W1AD LEP<>TB
JMJ9L1AD LEP<>TB
JMJ9M1AD LEP<>TB
JMPE41AA LEP<>TB
JMPE41AC LEP<>TB
JMJ8W1AC LEP<>TB Q:V6

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

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

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

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

8.06 At Least the Minimum Sample Volume Was Used — Yes No ✓ N/A
Analysis Volume => JMFP81AC 3.765<4000.00
JMJ9L1AD 3.916<4000.00
JMJ9M1AD 3.941<4000.00
JMJ8W1AC 3.931<4000.00 Q:VB 6K-

8.07 The Correct Count Geometry was Used. — Yes No ✓ N/A
Count Geometry => JMFP81AC I_FA<>IFA
JMJ8W1AD I_FA<>IFA 6K-
JMJ9L1AD I_FA<>IFA
JMJ9M1AD I_FA<>IFA PA
JMPE41AA I_FA<>IFA 2-12-07
JMPE41AC I_FA<>IFA
JMJ8W1AC I_FA<>IFA Q:VC

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

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

8.1 Comments:

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

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

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

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

8.15 MLCS within Control Limits. — Yes No ✓ N/A
No Matrix Spikes (MLCS) found in Batch!

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

8.17 Tracer within Control Limits. — Yes ✓ No N/A
OK

8.18 Samples are above Minimum Tracer Yield (No Failed Samples) — Yes ✓ No N/A
OK

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

8.2 Comments:

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

No Limit Specified!

8.22 Result < Mdc, Activity Not Detected, U Flag. Yes No ✓ N/A

Batch Positive Result =>
JMFP81AC I-129L 6.5E-01 L:4.6E-01
JMJ9L1AD I-129L 9.1E-01 L:4.7E-01
JMJ9M1AD I-129L 1.1E+00 L:2.6E-01
JMJ8W1AC I-129L 2.9E+00 L:2.9E-01

8.23 Result <= Action Level, when Defined. Yes ✓ No N/A

OK: No Action Level Found => I-129L

OK: No Callin Level Found => I-129L

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

OK

8.25 Counting Spectrum are within FWHM Limits. Yes No ✓ N/A

FWHM > maxFWHM => JMJ8W1AD I-129L 18>0
JMJ9M1AD I-129L 16.00>0
JMPE41AC I-129L 15.00>0
JMJ8W1AC I-129L 19.00>0 Q:V1

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A

Library Not Specified => JMFP81AC I:[NUC_LIBR]LEPS.NLB Q:
JMJ8W1AD I:[NUC_LIBR]LEPS.NLB Q:
JMJ9L1AD I:[NUC_LIBR]LEPS.NLB Q:
JMJ9M1AD I:[NUC_LIBR]LEPS.NLB Q:
JMPE41AA I:[NUC_LIBR]LEPS.NLB Q:
JMPE41AC I:[NUC_LIBR]LEPS.NLB Q:
JMJ8W1AC I:[NUC_LIBR]LEPS.NLB Q:

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

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

8.3 Comments:

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

OK

First Level Review Pam Anderson Date 2-12-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 701125L
W05089

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: 2-12-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/31/2007 11:05:07 AM

Lot No., Due Date: J7A050108; 02/16/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7011260; RGAMLEPS Gamma by LEPS

SDG, Matrix: W05089; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples Method Differs => JMFP71AA LEP<>TB JMFP71AD LEP<>TB JMPGE1AA LEP<>TB JMPGE1AC LEP<>TB Q:V6		✓	
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 => JMPGE1AC ISB<>ISD 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 Analysis Volume => JMFP71AA 0.501<4000.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. Count Geometry => JMFP71AA I_FA<>IFA JMFP71AD I_FA<>IFA JMPGE1AA I_FA<>IFA JMPGE1AC I_FA<>IFA Q:VC		✓	
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> JMFP71AD I-129L 220.0 (RPD) Both counts acceptable at 1-31-07		✓	
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 => I-129L OK; No Callin Level Found => I-129L	✓		

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

8.25 Counting Spectrum are within FWHM Limits. Yes No N/A
FWHM > maxFWHM => JMPGE1AC I-129L 19>0 Q:V1

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A
Library Not Specified => JMFP71AA I:[NUC_LIBR]LEPS.NLB Q:
JMFP71AD I:[NUC_LIBR]LEPS.NLB Q:
JMPGE1AA I:[NUC_LIBR]LEPS.NLB Q:
JMPGE1AC I:[NUC_LIBR]LEPS.NLB Q:

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

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

8.3 Comments:

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

First Level Review _____ Date _____

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7011260
W02089

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: 2-1-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/30/2007 10:23:17 AM

Lot No., Due Date: J7A050108,J7A090131,J7A090137,J7A090152,J7A080152; 02/16/2007,02/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7011248; RTC99 Tc-99 by LSC

SDG, Matrix: W05089; 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 => JMJ641AC TCSG<>TCSE Q:V9		✓	
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK: No Action Level Found => TC-99 OK: No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

8.26 Instruments have Current Calibrations. Yes No N/A

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

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

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

8.3 Comments:

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

First Level Review Pam Anderson Date 1-30-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7011248
W052089

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: 1-30-07

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

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/24/2007 4:59:38 PM

Lot No., Due Date: J7A050108,J7A090145,J7A080152; 02/16/2007,02/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7011253; RTRITIUM H-3 by LSC

SDG, Matrix: W05089; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JMFP81AA 5.00<10.00 JMJDT1AA 5.00<10.00 JMJ8W1AA 5.00<10.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. Count Geometry => JMPE71AF SVP15/5<>SVP10/10 JMPE71AG SVP15/5<>SVP10/10 JMPE71AA SVP15/5<>SVP10/10 JMPE71AC SVP15/5<>SVP10/10 JMPE71AD SVP15/5<>SVP10/10 JMPE71AE SVP15/5<>SVP10/10 JMFP81AA SVP15/5<>SVP10/10 JMJDT1AA SVP15/5<>SVP10/10 JMJ8W1AA SVP15/5<>SVP10/10 JMJ8W1AE SVP15/5<>SVP10/10 Q:VC		✓	
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. OK	✓		
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. OK	✓		
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		

8.23 Result <= Action Level, when Defined. Yes No N/A

OK; No Action Level Found => H-3

OK; No Callin Level Found => H-3

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

OK

8.25 Counting Spectrum are within FWHM Limits. Yes No N/A

No FWHM found in Batch Data!

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A

No Count Library found in Batch Data!

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

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

8.3 Comments:

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

OK

First Level Review Pam Anderson Date 1-25-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 701253
W05089

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: 1-25-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/19/2007 3:33:54 PM

Lot No., Due Date: J7A040266,J7A090137,J7A080151,J7A080152; 02/16/2007,02/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7011256; RUNAT UNat by KPA

SDG, Matrix: W05089; 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 CC 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** 2/19/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7011256
W05089

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: 2-20-07

PNNL J7A040264
W05089
Due 02-16-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-332**

Page 1 of 1

Collector Fluor Hanford	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. D. P. CONNOLLY S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-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 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
B1LCL5		W	1-3-07	1147	1x20-mL P	Activity Scan	None
B1LCL5		W	↓	↓	1x1000-mL G/P	UISO_PLATE_AEA: List-1 (3)	HNO3 to pH <2
B1LCL5		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JMEZV	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			1430 JAN 03 2007	S. Smith		S. Smith	1430 JAN 03 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

77

PNNL J7A040266
W05089
Due 02-16-07

STL RICHLAND

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-012-452

Page 1 of 1

Collector: D. Cownolly	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2006	HNF-N-506 2	Ice Chest No.: SHWS 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
B1LD39		W	1-3-07	0923	1x20-mL P	Activity Scan	None
B1LD39		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

JMEZM

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D. Cownolly			1430 JAN 0 3 2007	S. Smith		S. Smith	1430 JAN 0 3 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

PNNL J7A040266
W05089
Due 02-16-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-348**

Page 1 of 1

Collector Fluor Hanford D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-506 2	**Ice Chest No.** STAWS 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
B1LCW0		W	1-3-07	1314	1x20-mL P	Activity Scan	None
B1LCW0		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JME2H	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford J. P. CONNOLLY			1430 JAN 03 2007	S. Smith		S. Smith	1430 JAN 03 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum Solid
SE	= Sediment	DL	= Drum Liqui
SO	= Solid	T	= Tissue
SL	= Sludge	WI	= 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 J7A040266
W05089
Due 02-16-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-012-445

Page 1 of 1

Collector: Fluor Hanford ~~D. P. CONNOLLY~~	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2006	HNF-N-506 2	Ice Chest No.: SAW 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
B1LD30		W	1-3-07	1027	1x20-mL P	Activity Scan	None
B1LD30		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JME26	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford ~~D. P. CONNOLLY~~			1430 JAN 03 2007	S. Smith		S. Smith	1430 JAN 03 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

STILL ATTACHED

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PNNL J7A040266
W05089
Due 02-16-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-444**

Page 1 of 1

Collector Fluor Hanford D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV. DECEMBER 2006	HNF-N-506 2	**Ice Chest No.** SDWS 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
B1LD29		W	1-3-07	1022	1x20-mL P	Activity Scan	None
B1LD29		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JMEIG	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			1430 JAN 03 2007		J. Smith	S. Smith	1430 JAN 03 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

STL RICHLAND

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STL

Sample Check-In List

Date/Time Received: 01-03-07 1430

Client: PGW SDG #: W05089 NA [ ] SAF #: S07-012

Work Order Number: J7A040266 Chain of Custody #: S07-012-444, 445, 348, 452, 332

Shipping Container ID: SAWS 115 Air Bill #: N/A

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: 5
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): N/A

Sample Custodian: S. Smith Date: 01-03-07 1430

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ By _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

L3-023, 9/03, Rev. 5

PNNL J7A050108
W05289
due 02-16-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-90**

Page 1 of 1

Collector L.D. Wall	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006	HNF-N-506	**Ice Chest No.** AFS-04-02C **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
B1LC08		W	1-3-07	1222	1x20-mL P	Activity Scan	None
B1LC08		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1LC08		W	↓	↓	2x4000-mL G/P	I129_SEP_LEPS_GS: I-129 (1)	None
						JMFP7	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. Wall		L.D. Wall	JAN 03 2007 1505	S. Smith		S. Smith	JAN 03 2007 1505
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

STL RICHLAND

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PNNL J7A056108
W05089
Due 02-16-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-108**

Page 1 of 1

Collector: L.D. WALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2006	HNF-N-506 3	Ice Chest No.: HPS-04-022 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
B1LBX9		W	1-3-07	1316	1x20-mL P	Activity Scan	None
B1LBX9		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LBX9		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JMFP8	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. WALL	L.D. Wall	L.D. Wall	JAN 03 2007 1505	J. Smith	J. Smith	J. Smith	JAN 03 2007 1505
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

STL RICHLAND

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STL RICHLAND

PNNL: J7A050108
W05089
Due 02-16-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-012-2

Page 1 of 1

Collector: Fluor Hanford F. M. HALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2006	HNF-N-506-4	Ice Chest No.: GWS-11 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
B1LDD2		W	1/3/7	0927	1x20-mL P	Activity Scan	None
B1LDD2		W	↓	↓	3x1000-mL P	TRITIUM_ELECT_LSC_LL: H-3 (1)	None
B1LDD2		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JMFP9	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford F. M. HALL			JAN 0 3 2007 1505		S. Smith	S. Smith	JAN 0 3 2007 1505
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

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SEVERN TRENT STL

Sample Check-In List

Date/Time Received: 01-03-07 1505

Client: PGW SDG #: W05089 NA [ ] SAF #: 507-012 NA [ ]

Work Order Number: J7A050108 Chain of Custody #: 307-012-90, 108, 2

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite packing materials is NA [✓] [illegible]
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: S. Smith Date: 01-03-07 1505

Client Sample ID	Analysis Requested	Condition	Comments/Actions

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev. 5

PNNL J7A050117
W05089
Due 02-16-07

STL RICHLAND

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-012-220**

Page 1 of 1

Collector WALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. W07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, DECEMBER 2006	HNF-N-576 3	Ice Chest No. AFS-04022 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
B1LHM4		W	1-3-07	1316	1x20-mL P	Activity Scan	None
B1LHM4		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2

JMFRM

Relinquished By	Date/Time	Received By	Date/Time
WALL Print L.D. Wall Sign	JAN 0 3 2007 1505	S. Smith Print S. Smith Sign	JAN 0 3 2007 1505
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

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

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 01-03-07 1505

Client: POW SDG # W05089 NA [ ] SAF # W07-012 NA [ ]

Work Order Number: JTA050117 Chain of Custody # W07-012-220

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 [✓] Yes [ ] No [ ]

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 headspace)

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: S. Smith Date 01-03-07 1505

Client Sample ID	Analysis Requested	Condition	Comments/Actions

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL J7A080151
W05089
Due 02.19.07

STL RICHLAND

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-012-316

Page 1 of 1

Collector: Fluor Hanford ~~D. P. CONNOLLY~~	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2006	HNF-N-5062	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
B1LCK5		W	1-4-07	1006	1x20-mL P	Activity Scan	None
B1LCK5		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JMJDJ	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
~~Fluor Hanford~~ ~~D. P. CONNOLLY~~			JAN 04 2007 1435				JAN 04 2007 1435
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

PNNL J7A080151
W05089
Due 02-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-012-300

Page 1 of 1

Collector: Fluor Hanford D. P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2006	HNF-N-506 2	Ice Chest No.: SAMS 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
B1LCJ5		W	1-4-07	1140	1x20-mL P	Activity Scan	None
B1LCJ5		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

JMJDL

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			1435 JAN 04 2007	S. Smith		S. Smith	1435 JAN 04 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

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

SITE RICHLAND

90

PNNL J7A080151
W05089
due 02.19.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-012-236

Page 1 of 1

Collector: Fluor Hanford ~~D. P. CONNOLLY~~	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2006	HNF-N-506 2	Ice Chest No.: SPWS 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
B1LCB4		W	1-4-07	1302	1x20-mL P	Activity Scan	None
B1LCB4		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JMJDM	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
~~Fluor~~ Hanford	D. P. CONNOLLY		JAN 04 2007 1435		S. Smith	S. Smith	JAN 04 2007 1435
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

STL RICHLAND

SEVERN TRENT STL

Sample Check-In List

Date/Time Received: 07.04.07 1435

Client: PGW SDG #: W05089 NA [ ] SAF #: 807-012 NA [ ]

Work Order Number: J7A080 151 Chain of Custody #: 807-012-316, 300, 236

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
[✓] sample labels intact

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: S. Smith Date: 07.04.07 1435

Client Sample ID	Analysis Requested	Container	Comments/Actions

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LP-023 9/03, Rev. 5

PNNL J7A080152
W05089
due 02-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-011-272**

Page 1 of 1

Collector Fluor Hanford D. R. BREWINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, NOVEMBER 2006	Logbook: HNF-N-506-3	**Ice Chest No.** SAWS-102 **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
B1L733		W	1/4/07	1049	1x20-mL P	Activity Scan	None
B1L733		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1L733		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1L733		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1L733		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1L733		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1L733		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2

JMJDT

R. Wall 1/4/07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. R. BREWINGTON	D. R. Brewington	D. R. Brewington	JAN 0 4 2007 1537	S. Smith	S. Smith	S. Smith	JAN 0 4 2007 1537
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

STL RICHLAND

93

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 01-04-07 1537

Client: PGW SDG #: W05089 NA [ ] SAF #: W07-011 NA [ ]

Work Order Number: J7A080152 Chain of Custody #: W07-011-273

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 [✓] Yes [ ] No [ ]

6. Number of samples in shipping container: 1

7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]

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

9. Samples are:
   1 in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring headspace)

10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] pH>9 [ ]

11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]

13. Description of anomalies (include sample numbers) _____

Sample Custodian: S. Smith Date: 01-04-07 1537

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 J7A090131 W05089

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-012-286**

Page 1 of 1

Collector ~~D. E. PARCHEN~~ Fluor Hanford R. T. SICKLE	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX	
SAF No. W07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code	
Project Title RCRA, DECEMBER 2006	HNF-N-506 4	Ice Chest No. GW0-06-11 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
B1LJ63		W	1/4/07	0955	1x20-mL P	Activity Scan	None
B1LJ63		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

JMJ63

1/4/07

Relinquished By	Date/Time	Received By	Date/Time
1/4/07 D. E. PARCHEN (Print) Fluor Hanford R. T. SICKLE (Sign)	JAN 0 4 2007 1537	S. Smith (Print) S. Smith (Sign)	JAN 0 4 2007 1537

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

95

PNNL J7A090131
W05089
Due 02-19-07

STL RICHLAND

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-012-278**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, DECEMBER 2006	1# NF-N-506 41	**Ice Chest No.** SWO-06-41 **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
B1LJ58		W	1/4/07	11 30	1x20-mL P	Activity Scan	None
B1LJ58		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JMJ64	
						1-4-07	

Relinquished By Fluor Hanford R. T. SICKLE Print Sign Date/Time 1537 JAN 04 2007	Received By Print Sign Date/Time 1537 JAN 04 2007	**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 Liquid; T = Tissue; WI = Wipe; 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 J7A090131
W05089
Due 02-19-07

STL RICHLAND

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-012-270**

Page 1 of 1

Collector Fluor Hanford ~~R. T. SICKLE~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, DECEMBER 2006	HNF-N-506	**Ice Chest No.** SML-562 **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
B1LJH8		W	1-4-07	1017	1x20-mL P	Activity Scan	None
B1LJH8		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

JMJ65

1-4-07

Relinquished By Print Fluor Hanford R. T. SICKLE Sign	Date/Time 1537 JAN 0 4 2007	Received By Print L. Smith Sign L. Smith	Date/Time 1537 JAN 0 4 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	= 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

97

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 01.04.07 1537

Client: PGW SDG #: W05089 NA [ ] SAF #: WC7-012 NA

Work Order Number: J7A090131 Chain of Custody #: WC7-012-286, 278, 27

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: A. Smith Date: 01.04.07 1537

Client Sample ID	Analysis Requested	Container	Comments

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev. 5

PNNL J7A090157
W05089
Due 02-19-07

STL RICHLAND

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **A07-012-18**

Page 1 of 1

Collector L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. A07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(1)-PA, DECEMBER 2006	HNF-N506 3	**Ice Chest No.** SAWS 102 **Temp.**
Shipped To (Lab) Severn Trent Incomorated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**Priority:** 45 Days	**Offsite Property No.**

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

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

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LJT3		W	1-4-07	1259	1x20-mL P	Activity Scan	None
B1LJT3		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1LJT3		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

JMJTT

L. Wall 1/4/07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	L. D. Wall	L. D. Wall	1537 JAN 0 4 2007		L. Smith	L. Smith	1537 JAN 0 4 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

Sample Check-in List

Date/Time Received: 01-04-07 15:37

Client: PGW SDG # W05089 NA [ ] SAP # A07-012 NA

Work Order Number: J7A090137 Chain of Custody # A07-012-18

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Yes [ ] No [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   1 appropriate samples label
9. Samples are:
   1 in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring headspace)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>5 [ ]
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: S. Smith Date: 01-04-07 1537

Client Sample ID	Analysis Requested	Condition	Comments

Client informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-022, 9/03, Rev. 5

PNNL J7A090145
W05089
Due 02-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-012-116**

Page 1 of 1

Collector: L.D. WALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, DECEMBER 2006	HNF-N-506	Ice Chest No.: SMWS-102 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
B1LC01		W	1-4-07	1259	1x20-mL P	Activity Scan	None
B1LC01		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LC01		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None

JMJ 8W

L. Wall 1/4/07

Relinquished By: L.D. WALL Print / L.D. Wall Sign	Date/Time 1537 JAN 0 4 2007	Received By: S. Smith Print / S. Smith Sign	Date/Time 1537 JAN 0 4 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

STL RICHLAND

101

STL

Sample Check-in List

Date/Time Received: 01.04.07 1537

Client: PGW SDG #: W05089 NA [ ] SAF #: S07-012 NA

Work Order Number: J7A090145 Chain of Custody #: S07-012-116

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 headspace)
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: S. Smith Date: 01.04.07 1537

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-021 9/03, Rev. 5

PNNL J7A090152
W05089
Due 02.19.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# **W07-001-10**

Page 1 of 1

Collector Fluor Hanford ~~F. M. HALL~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JANUARY 2007	HNF-N-506-3	**Ice Chest No** SAWS 102 **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
B1LRH8		W	1/5/07	1051	1x20-mL P	Activity Scan	None
B1LRH8		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1LRH8		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LRH8		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JMJ9L	

Relinquished By	Date/Time	Received By	Date/Time
Print: Fluor Hanford F.M. HALL Sign: [signature]	JAN 0 5 2007 1400	Print: S. Smith Sign: S. Smith	JAN 0 5 2007 1400

Matrix *

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

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

STL RICHLAND

103

PNNL J7A090152
W05089
Due 02-19-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-001-9**

Page 1 of 1

Collector Fluor Hanford ~~F.M. HALL~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JANUARY 2007	HNF-N-506-3	**Ice Chest No.** SAWS 102 **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
B1LRH7		W	1/5/07	1051	1x20-mL P	Activity Scan	None
B1LRH7		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1LRH7		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LRH7		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						GMU9M	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford ~~F.M. HALL~~			JAN 0 5 2007 1400		S. Smith	S. Smith	JAN 0 5 2007 1400
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

STL RICHLAND

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 01-05-07 1400

Client: PGW SDG #: W05089 NA [ ] SAF #: W07-001 NA

Work Order Number: J7A090152 Chain of Custody # W07-001-10, 9

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]

2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]

3. Chain of Custody record present? Yes [✓] No [ ]

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

6. Number of samples in shipping container: 2

7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]

8. Samples have:
   ____ tape
   ____ custody seals
   ____ hazard labels
   ✓ appropriate samples labels

9. Samples are:
   ✓ in good condition
   ____ broken
   ____ leaking
   ____ have air bubbles
   (Only for samples requiring head space)

10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] pH>9 [ ]

11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]

13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Smith Date: 01-05-07 1400

Client Sample ID	Analysis Requested	Condition	Comments

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev. 5

STL RICHLAND

1/22/2007 9:08:36 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

7Y Uiso PrpRC5016/5086, SepRC5067(5039)
SR Uranium-234,235,238 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #: _____

AnalyDueDate: 02/16/2007 W05089

Sep1 DT/Tm Tech:

Batch: 7011262 WATER pCi/L PM, Quote: SA , 57671
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JME2V-1-AA J7A040266-5-SAMP 01/03/2007 11:47		AmtRec: 20ML,500ML,LP	200.30g,in #Containers: 3	200.30g	UITC16941 01/10/07,pd 01/20/04,r	200		Scr:	Alpha: -1.08E-04 uCi/Sa	Beta: 5.81E-04 uCi/Sa
2 JME2V-1-AD-X J7A040266-5-DUP 01/03/2007 11:47		AmtRec: 20ML,500ML,LP	201.00g,in #Containers: 3	201.00g	UITC16942 01/10/07,pd 01/20/04,r			Scr:	Alpha: -1.08E-04 uCi/Sa	Beta: 5.81E-04 uCi/Sa
3 JMPGH-1-AA-B J7A110000-262-BLK 01/03/2007 11:47		AmtRec:	201.80g,in #Containers: 1	201.80g	UITC16943 01/10/07,pd 01/20/04,r			Scr:	Alpha:	Beta:
4 JMPGH-1-AC-C J7A110000-262-LCS 01/03/2007 11:47		AmtRec:	202.20g,in #Containers: 1	202.20g	UISG1392 11/22/06,pd 01/20/04,r			Scr:	Alpha:	Beta:

Comments: pH < 2.0 SB 1-22-07

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

JME2V1AA-SAMP Constituent List:

U-232	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	U-234	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
U-235	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:	U-238	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:

JMPGH1AA-BLK:

U-232	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	U-234	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
U-235	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:	U-238	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:

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1/24/2007 9:20:05 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #: 235

AnalyDueDate: 02/16/2007 W05089

Batch: 7011250 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

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

STL RICHLAND

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JMFP9-1-AA J7A050108-3-SAMP 01/03/2007 09:27	201.70g,in	AmtRec: 20ML,4XLP #Containers: 5		1.5	40.9	.50	10A	1358	2/1/07 R	Scr: Alpha: 1.57E-03 uCi/Sa Beta: -2.38E-04 uCi/Sa
2 JMJDT-1-AC J7A080152-1-SAMP 01/04/2007 10:49	72.10g,in	AmtRec: 20ML,2X500ML,5XLP,4LP #Containers: 9			48.1	100	10A	1254	2/1/07 R	Scr: Alpha: 6.60E-03 uCi/Sa 2.7E-01L Beta: 1.18E-03 uCi/Sa
3 JMJ9L-1-AA J7A090152-1-SAMP 01/05/2007 10:51	172.10g,in	AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5			47.3	.50	10B	1358	2/1/07 R	Scr: Alpha: -2.41E-04 uCi/Sa Beta: 1.35E-03 uCi/Sa
4 JMJ9L-1-AF-X J7A090152-1-DUP 01/05/2007 10:51	175.80g,in	AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5			50.7	.50	10C			Scr: Alpha: -2.41E-04 uCi/Sa Beta: 1.35E-03 uCi/Sa
5 JMJ9M-1-AA J7A090152-2-SAMP 01/05/2007 10:51	166.90g,in	AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5			54.2	.50	10d			Scr: Alpha: 6.34E-04 uCi/Sa Beta: 1.01E-03 uCi/Sa
6 JMPEP-1-AA-B J7A110000-250-BLK 01/05/2007 10:51	200.00g,in	AmtRec: #Containers: 1			∅	100	10B	1254	2/1/07 R	Scr: Alpha: Beta:
7 JMPEP-1-AC-C J7A110000-250-LCS 01/05/2007 10:51	200.60g,in	AmtRec: #Containers: 1	ASD4110 01/18/07,pd 02/09/06,r		0.5	100	10C			Scr: Alpha: Beta:

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

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1/24/2007 9:20:07 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 02/16/2007

Sep1 DT/Tm Tech:

Batch: 7011250 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

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

Comments: JMJDT-SAMP "Comments. Aliquot reduced due to weight screen activity. JB 01/24/07"
JMJ9L-SAMP "Comments Aliquot reduced due to weight screen activity. JB 01/24/07"
JMJ9M-SAMP "Comments Aliquot reduced due to weight screen activity. JB 01/24/07"

PH <2.0 JB 1-24-07

1% collection added to ea. samp ~~HB~~ APA ~~2/1/07~~ APA 2/1/07 APA

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

JMFP91AA-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JMPEP1AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JMPEP1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JMFP91AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPEP1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPEP1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

1/24/2007 9:11:19 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 #: 235

AnalyDueDate: 02/16/2007 WO5089

Sep1 DT/Tm Tech:

Batch: 7011251 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 7011248 FPS5, 7011250 AZS7, 7011251 BCS8, 7011252 BNTB, 7011253 ARS6, 7011260 BNTB, 7011261 ASU3,

Prep Tech: ,BockJ / 1-24-07

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 JMFP9-1-AC J7A050108-3-SAMP 01/03/2007 09:27	200.10g,in	AmtRec: 20ML,4XLP #Containers: 5		1.5	51.5	100	31A	1252	2/1/07 R	Scr: Alpha: 1.57E-03 uCi/Sa Beta: -2.38E-04 uCi/Sa
2 JMFRM-1-AA J7A050117-1-SAMP 01/03/2007 13:16	192.90g,in	AmtRec: 20ML,LP #Containers: 2			86.5	100	31B			Scr: Alpha: -4.62E-05 uCi/Sa Beta: 1.18E-04 uCi/Sa
3 JMJDT-1-AD J7A080152-1-SAMP 01/04/2007 10:49	82.30g,in	AmtRec: 20ML,2X500ML,5XLP,4LP #Containers: 9			91.3	200	27A	1432	2/1/07 R	Scr: Alpha: 6.60E-03 uCi/Sa 2.7E-01L Beta: 1.18E-03 uCi/Sa
4 JMJ9L-1-AC J7A090152-1-SAMP 01/05/2007 10:51	202.20g,in	AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5			82.3	100	31C	1252	2/1/07 R	Scr: Alpha: -2.41E-04 uCi/Sa Beta: 1.35E-03 uCi/Sa
5 JMJ9M-1-AC J7A090152-2-SAMP 01/05/2007 10:51	200.00g,in	AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5			85.9	100	31d			Scr: Alpha: 6.34E-04 uCi/Sa Beta: 1.01E-03 uCi/Sa
6 JMJ9M-1-AF-X J7A090152-2-DUP 01/05/2007 10:51	202.00g,in	AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5			80.00 ~~200~~ 100	SB 1-24-07	32A			Scr: Alpha: 6.34E-04 uCi/Sa Beta: 1.01E-03 uCi/Sa
7 JMPEW-1-AA-B J7A110000-251-BLK 01/05/2007 10:51	200.30g,in	AmtRec: #Containers: 1			0.3	200	27b	1432	2/1/07 R	Scr: Alpha: Beta:

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

STL RICHLAND

1/24/2007 9:11:21 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: 02/16/2007

Sep1 DT/Tm Tech:

Batch: 7011251 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JMPEW-1-AC-C J7A110000-251-LCS 01/05/2007 10:51		204.70g,in AmtRec:	BESB2993 12/21/06,pd 08/08/06,r #Containers: 1	1.5	0.5	200	27c	1432	2/1/07 R Scr: Alpha: Beta:	

Comments: JMJDT-SAMP "Comments. Aliquot reduced due to weight screen activity. JB 01/24/07"
pH < 2.0 JB 1-24-07

10% collection added to ea. samp. 2/1/07 APA

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

JMFP91AC-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
JMPEW1AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
JMPEW1AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JMFP91AC-SAMP Calc Info:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JMPEW1AA-BLK:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JMPEW1AC-LCS:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

1/22/2007 9:19:44 AM

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 #:

AnalyDueDate: 02/19/2007 W05C89

Sep1 DT/Tm Tech: 1-23-07 9:29 DRM
Sep2 DT/Tm Tech: 1-30-07 8:26 AM DRM

Batch: 7011259 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Prep Tech: ,BockJ

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 JMJDT-1-AF J7A080152-1-SAMP		833.70g,in	SRTB14429 01/18/07,pd 09/11/06,r	1.429 2.0035	1"	23.6	100	3" 4C 1D	0817 0753 0649	1/24/07 R 1/31/07 2/1/07	
		YTA16917 Ex:1/3/2008		0.4133							
01/04/2007 10:49		AmtRec: 20ML,2X500ML,5XLP,4LP	#Containers: 9					Scr: Alpha: 6.60E-03 uCi/Sa 2.7E-01L		Beta: 1.18E-03 uCi/Sa	
2 JMJDT-1-AK-X J7A080152-1-DUP		833.60g,in	SRTB14430 01/18/07,pd 09/11/06,r	1.095 1.9938		23.7		9" 4D 2A	0851 0753 0649	1/24/07 R 1/31/07 2/1/07	
		YTA16918 Ex:1/3/2008		0.5492							
01/04/2007 10:49		AmtRec: 20ML,2X500ML,5XLP,4LP	#Containers: 9					Scr: Alpha: 6.60E-03 uCi/Sa 2.7E-01L		Beta: 1.18E-03 uCi/Sa	
3 JMPGC-1-AA-B J7A110000-259-BLK		1001.40g,in	SRTB14431 01/18/07,pd 09/11/06,r	1.648 1.9938		23.9		3" 4A 2B	0852 0940 0649	1/24/07 R 1/31/07 2/1/07	
		YTA16919 Ex:1/3/2008		0.8266							
01/04/2007 10:49		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	
4 JMPGC-1-AC-C J7A110000-259-LCS		1003.80g,in	SRSG1305 12/20/06,pd 09/11/06,r	1.700 1.9868		23.8		3" 4B 2D	0924 0940 0649	1/24/07 R 1/31/07 2/1/07	
		YTA16920 Ex:1/3/2008		0.8556							
01/04/2007 10:49		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

STL RICHLAND

111

STL RICHLAND

1/22/2007 9:19:49 AM

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 #: _____

AnalyDueDate: 02/19/2007

Sep1 DT/Tm Tech:

Batch: 7011259 pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

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

Comments: Aliquots reduced due to Screening results. JB 1-22-07
pH <2.0 JB 1-22-07

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

JMJDT1AF-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

JMPGC1AA-BLK:

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

JMPGC1AC-LCS:

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

JMJDT1AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPGC1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPGC1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

1/22/2007 9:44:04 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #:

AnalyDueDate: 02/19/2007 W05089

Sep1 DT/Tm Tech:

Batch: 7011257 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ / AR A

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 JMJDT-1-AE J7A080152-1-SAMP		1956.30g,in			100 mL	100		G4	1453	1/31/07 R
01/04/2007 10:49		AmtRec: 20ML,2X500ML,5XLP,4LP	#Containers: 9					Scr: Alpha: 6.60E-03 uCi/Sa	2.7E-01L	Beta: 1.18E-03 uCi/Sa
2 JMJDT-1-AJ-X J7A080152-1-DUP		1986.70g,in						G5	1455	1/31/07 R
01/04/2007 10:49		AmtRec: 20ML,2X500ML,5XLP,4LP	#Containers: 9					Scr: Alpha: 6.60E-03 uCi/Sa	2.7E-01L	Beta: 1.18E-03 uCi/Sa
3 JMPF6-1-AA-B J7A110000-257-BLK		1999.80g,in						G6	1456	1/31/07 R
01/04/2007 10:49		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
4 JMPF6-1-AC-C J7A110000-257-LCS		2000.20g,in	QCAG1327 01/09/07,pd 03/07/05,r					G8	1457	1/31/07 R
01/04/2007 10:49		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments: pH < 2.0 1-22-07

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

JMJDT1AE-SAMP Constituent List:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

JMPF61AA-BLK:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

1/30/2007 2:21:07 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #:

AnalyDueDate: 02/16/2007 W05089

Sep1 DT/Tm Tech:

Batch: 7011252 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

STL RICHLAND

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JMFP8-1-AC J7A050108-2-SAMP 01/03/2007 13:16		3765.40g,in AmtRec: 20ML,500ML,2X4LP	ITA5988 01/17/07 #Containers: 4		32.6	100	L2	1759 Scr: Alpha: 1.05E-03 uCi/Sa	2/9/07 ND Beta: -6.43E-04 uCi/Sa	
2 JMJ8W-1-AC J7A090145-1-SAMP 01/04/2007 12:59		3931.30g,in AmtRec: 20ML,LP,2X4LP	ITA5989 01/17/07 #Containers: 4		37.1		L4	1900 Scr: Alpha: 9.86E-04 uCi/Sa	Beta: 8.51E-04 uCi/Sa	
3 JMJ8W-1-AD-X J7A090145-1-DUP 01/04/2007 12:59		3948.70g,in AmtRec: 20ML,LP,2X4LP	ITA5990 01/17/07 #Containers: 4		35.9		L5	1801 Scr: Alpha: 9.86E-04 uCi/Sa	Beta: 8.51E-04 uCi/Sa	
4 JMJ9L-1-AD J7A090152-1-SAMP 01/05/2007 10:51		3915.60g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA5991 01/17/07 #Containers: 5		37.6		L2	1945 Scr: Alpha: -2.41E-04 uCi/Sa	Beta: 1.35E-03 uCi/Sa	
5 JMJ9M-1-AD J7A090152-2-SAMP 01/05/2007 10:51		3940.90g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA5992 01/17/07 #Containers: 5		37.1		L4	1945 Scr: Alpha: 6.34E-04 uCi/Sa	Beta: 1.01E-03 uCi/Sa	
6 JMPE4-1-AA-B J7A110000-252-BLK 01/04/2007 12:59		3845.90g,in AmtRec:	ITA5993 01/17/07 #Containers: 1		35.7		L5	1946 Scr: Alpha:	Beta:	
7 JMPE4-1-AC-C J7A110000-252-LCS 01/04/2007 12:59		3905.80g,in AmtRec:	ISD0721 12/14/06,pd 11/17/04,r #Containers: 1		33.1		L2	2129 Scr: Alpha:	Beta:	

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

1/30/2007 2:21:12 PM

Sample Preparation/Analysis

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

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

AnalyDueDate: 02/16/2007

Batch: 7011252 pCi/L
SEQ Batch, Test: None

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

Comments: ~~JMJ9L-SAMP Comments~~
JMJ9M-SAMP ""
PH-neutral - JB 1-30-07

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

JMFP81AC-SAMP Constituent List:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:

JMPE41AA-BLK:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:

JMPE41AC-LCS:

I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

JMFP81AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPE41AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPE41AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

1/25/2007 1:40:10 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #:

AnalyDueDate: 02/16/2007 W05089

Sep1 DT/Tm Tech:

Batch: 7011260 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JMFP7-1-AA J7A050108-1-SAMP 01/03/2007 12:22		501.10g,in AmtRec: 20ML,500ML,2X4LP	ita5975 01/17/07 #Containers: 4		37.9	100	L2	0725 Scr: Alpha: 1.89E-03 uCi/Sa	1/31/07 Beta: -1.01E-04 uCi/Sa	
2 JMFP7-1-AD-X J7A050108-1-DUP 01/03/2007 12:22		501.80g,in AmtRec: 20ML,500ML,2X4LP	ita5976 01/17/07 #Containers: 4		37.4		L4	0724 Scr: Alpha: 1.89E-03 uCi/Sa	Beta: -1.01E-04 uCi/Sa	
3 JMPGE-1-AA-B J7A110000-260-BLK 01/03/2007 12:22		501.20g,in AmtRec:	ita5977 01/17/07 #Containers: 1		37.0		L5	0726 Scr: Alpha:	Beta:	
4 JMPGE-1-AC-C J7A110000-260-LCS 01/03/2007 12:22		505.10g,in AmtRec:	isb0230 12/14/06,pd 11/17/04,r #Containers: 1		39.0		L2	0926 Scr: Alpha:	1/31/07 K Beta:	

Comments: ~~PH L2.0~~ JB 1-25-07

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

JMFP71AA-SAMP Constituent List:

I-129	RDL:5.00E+00	pCi/L	LCL:70	UCL:130	RPD:20
JMPGE1AA-BLK:					
I-129	RDL:5.00E+00	pCi/L	LCL:	UCL:	RPD:
JMPGE1AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

JMFP71AA-SAMP Calc Info:

1/19/2007 12:44:09 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #:

AnalyDueDate: 02/16/2007

Sep1 DT/Tm Tech:

Batch: 7011248 WATER pCi/L PM, Quote: SA , 57671
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JMJ7T-1-AA J7A090137-1-SAMP 01/04/2007 12:59			126.60g,in	126.60g		60				
	AmtRec: 20ML,2X500MLP		#Containers: 3					Scr:	Alpha: 1.28E-04 uCi/Sa	Beta: 2.37E-05 uCi/Sa
9 JMJ9L-1-AE J7A090152-1-SAMP 01/05/2007 10:51			125.70g,in	125.70g						
	AmtRec: 20ML,500ML,LP,2X4LP		#Containers: 5					Scr:	Alpha: -2.41E-04 uCi/Sa	Beta: 1.35E-03 uCi/Sa
10 JMJ9M-1-AE J7A090152-2-SAMP 01/05/2007 10:51			127.50g,in	127.50g						
	AmtRec: 20ML,500ML,LP,2X4LP		#Containers: 5					Scr:	Alpha: 6.34E-04 uCi/Sa	Beta: 1.01E-03 uCi/Sa
11 JMPEJ-1-AA-B J7A110000-248-BLK 01/04/2007 09:55			200.80g,in	200.80g						
	AmtRec:		#Containers: 1					Scr:	Alpha:	Beta:
12 JMPEJ-1-AC-C J7A110000-248-LCS 01/04/2007 09:55			200.10g,in	200.10g	TCSE2058 12/20/06,pd 01/10/06,r					
	AmtRec:		#Containers: 1					Scr:	Alpha:	Beta:
13 JMPEJ-1-AD-BN J7A110000-248-IBLK 01/04/2007 09:55										
	AmtRec:		#Containers: 1					Scr:	Alpha:	Beta:
14 JMPEJ-1-AE-BN J7A110000-248-IBLK 01/04/2007 09:55										
	AmtRec:		#Containers: 1					Scr:	Alpha:	Beta:

STL RICHLAND

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1/19/2007 12:44:05 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #: _____

AnalyDueDate: 02/16/2007 W055089

Batch: 7011248 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

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

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JMFP7-1-AC J7A050108-1-SAMP 01/03/2007 12:22			125.30g,in	125.30g		.60				
	AmtRec: 20ML,500ML,2X4LP		#Containers: 4					Scr:	Alpha: 1.89E-03 uCi/Sa	Beta: -1.01E-04 uCi/Sa
2 JMJDT-1-AG J7A080152-1-SAMP 01/04/2007 10:49			128.10g,in	128.10g						
	AmtRec: 20ML,2X500ML,5XLP,4LP		#Containers: 9					Scr:	Alpha: 6.60E-03 uCi/Sa 2.7E-01L	Beta: 1.18E-03 uCi/Sa
3 JMJ63-1-AA J7A090131-1-SAMP 01/04/2007 09:55			126.20g,in	126.20g						
	AmtRec: 20ML,500MLP		#Containers: 2					Scr:	Alpha: 3.06E-05 uCi/Sa	Beta: -1.18E-05 uCi/Sa
4 JMJ63-1-AC-X J7A090131-1-DUP 01/04/2007 09:55			124.90g,in	124.90g						
	AmtRec: 20ML,500MLP		#Containers: 2					Scr:	Alpha: 3.06E-05 uCi/Sa	Beta: -1.18E-05 uCi/Sa
5 JMJ64-1-AA J7A090131-2-SAMP 01/04/2007 11:30			125.10g,in	125.10g						
	AmtRec: 20ML,500MLP		#Containers: 2					Scr:	Alpha: 1.18E-04 uCi/Sa	Beta: 5.91E-05 uCi/Sa
6 JMJ64-1-AC-S J7A090131-2-MS 01/04/2007 11:30			125.30g,in	125.30g	TCSG1758 01/03/07,pd 01/10/06,r					
	AmtRec: 20ML,500MLP		#Containers: 2					Scr:	Alpha: 1.18E-04 uCi/Sa	Beta: 5.91E-05 uCi/Sa
7 JMJ65-1-AA J7A090131-3-SAMP 01/04/2007 12:17			127.00g,in	127.00g						
	AmtRec: 20ML,500MLP		#Containers: 2					Scr:	Alpha: -1.53E-05 uCi/Sa	Beta: 5.91E-06 uCi/Sa

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

STL RICHLAND

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Sample Preparation/Analysis

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

AnalyDueDate: 02/16/2007

Batch: 7011248 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 ~~13~~ 1-19-07

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

JMFP71AC-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JMJ641AC-MS:

JMPEJ1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JMPEJ1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JMPEJ1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JMPEJ1AE-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

JMFP71AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMJ641AC-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPEJ1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPEJ1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPEJ1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPEJ1AE-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

1/11/2007 11:24:18 AM

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: 02/16/2007 W05089

Batch: 7011253 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None

Balance Id: 2445
Pipet #:
Sep1 DT/Tm Tech: 1-22 0 Wm
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 JMFP8-1-AA J7A050108-2-SAMP 01/03/2007 13:16	AmtRec: 20ML,500ML,2X4LP	#Containers: 4				Scr:	Alpha: 1.05E-03 uCi/Sa	Beta: -6.43E-04 uCi/Sa
2 JMJDT-1-AA J7A080152-1-SAMP 01/04/2007 10:49	AmtRec: 20ML,2X500ML,5XLP,4LP	#Containers: 9				Scr:	Alpha: 6.60E-03 uCi/Sa 2.7E-01L	Beta: 1.18E-03 uCi/Sa
3 JMJ8W-1-AA J7A090145-1-SAMP 01/04/2007 12:59	AmtRec: 20ML,LP,2X4LP	#Containers: 4				Scr:	Alpha:	Beta:
4 JMJ8W-1-AE-X J7A090145-1-DUP 01/04/2007 12:59	AmtRec: 20ML,LP,2X4LP	#Containers: 4				Scr:	Alpha:	Beta:
5 JMPE7-1-AA-B J7A110000-253-BLK 01/04/2007 12:59	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
6 JMPE7-1-AC-C J7A110000-253-LCS 01/04/2007 12:59	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
7 JMPE7-1-AD-BX J7A110000-253-MBLK 01/04/2007 12:59	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

STL RICHLAND

1/11/2007 11:24:19 AM

Sample Preparation/Analysis

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

AnalyDueDate: 02/16/2007

Batch: 7011253 pCi/L
SEQ Batch, Test: None

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 1-22-07
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JMPE7-1-AE-CM J7A110000-253-MLCS 01/04/2007 12:59	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
9 JMPE7-1-AF-BN J7A110000-253-IBLK 01/04/2007 12:59	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
10 JMPE7-1-AG-BN J7A110000-253-IBLK 01/04/2007 12:59	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments:

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

JMFP81AA-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JMPE71AA-BLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JMPE71AC-LCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JMPE71AD-MBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JMPE71AE-MLCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JMPE71AF-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JMPE71AG-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

STL RICHLAND

1/25/2007 8:20:05 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 02/16/2007 W05089

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 7011256 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 JME16-1-AA J7A040266-1-SAMP 01/03/2007 10:27		26.10g,in AmtRec: 20ML,500ML	#Containers: 2			Scr:	Alpha: -4.72E-05 uCi/Sa	Beta: 1.41E-04 uCi/Sa
2 JME2G-1-AA J7A040266-2-SAMP 01/03/2007 10:27		25.50g,in AmtRec: 20ML,500ML	#Containers: 2			Scr:	Alpha: -1.97E-05 uCi/Sa	Beta: 1.75E-05 uCi/Sa
3 JME2H-1-AA J7A040266-3-SAMP 01/03/2007 13:14		26.20g,in AmtRec: 20ML,500ML	#Containers: 2			Scr:	Alpha: 1.42E-05 uCi/Sa	Beta: 1.17E-05 uCi/Sa
4 JME2M-1-AA J7A040266-4-SAMP 01/03/2007 09:23		25.90g,in AmtRec: 20ML,500ML	#Containers: 2			Scr:	Alpha: 9.31E-05 uCi/Sa	Beta: 2.35E-05 uCi/Sa
5 JME2V-1-AC J7A040266-5-SAMP 01/03/2007 11:47		25.80g,in AmtRec: 20ML,500ML,LP	#Containers: 3			Scr:	Alpha: -1.08E-04 uCi/Sa	Beta: 5.81E-04 uCi/Sa
6 JMJDJ-1-AA J7A080151-1-SAMP 01/04/2007 10:06		25.90g,in AmtRec: 20ML,500ML	#Containers: 2			Scr:	Alpha: 4.52E-05 uCi/Sa	Beta: 7.64E-05 uCi/Sa
7 JMJDJ-1-AC-X J7A080151-1-DUP 01/04/2007 10:06		25.20g,in AmtRec: 20ML,500ML	#Containers: 2			Scr:	Alpha: 4.52E-05 uCi/Sa	Beta: 7.64E-05 uCi/Sa

STL RICHLAND

122

1/25/2007 8:20:07 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

Pipet #: _____

AnalyDueDate: 02/16/2007

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 7011256 WATER ug/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JMJDL-1-AA J7A080151-2-SAMP 01/04/2007 11:40		27.80g,in AmtRec: 20ML,500ML	#Containers: 2			Scr:	Alpha: -4.30E-05 uCi/Sa	Beta: 4.69E-05 uCi/Sa
9 JMJDL-1-AC-S J7A080151-2-MS 01/04/2007 11:40		25.70g,in AmtRec: 20ML,500ML	unsf3563 01/23/07,pd 03/22/05,r #Containers: 2			Scr:	Alpha: -4.30E-05 uCi/Sa	Beta: 4.69E-05 uCi/Sa
10 JMJDM-1-AA J7A080151-3-SAMP 01/04/2007 13:02		25.50g,in AmtRec: 20ML,500ML	#Containers: 2			Scr:	Alpha: 5.51E-05 uCi/Sa	Beta: -4.72E-05 uCi/Sa
11 JMJDT-1-AH J7A080152-1-SAMP 01/04/2007 10:49		26.50g,in AmtRec: 20ML,2X500ML,5XLP,4LP	#Containers: 9			Scr:	Alpha: 6.60E-03 uCi/Sa 2.7E-01L	Beta: 1.18E-03 uCi/Sa
12 JMJ7T-1-AC J7A090137-1-SAMP 01/04/2007 12:59		25.20g,in AmtRec: 20ML,2X500MLP	#Containers: 3			Scr:	Alpha: 1.28E-04 uCi/Sa	Beta: 2.37E-05 uCi/Sa
13 JMPFQ-1-AA-B J7A110000-256-BLK 01/04/2007 10:06		25.80g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
14 JMPFQ-1-AC-C J7A110000-256-LCS 01/04/2007 10:06		25.40g,in AmtRec:	unsf3564 01/23/07,pd 03/22/05,r #Containers: 1			Scr:	Alpha:	Beta:

STL RICHLAND

123

1/25/2007 8:20:08 AM

Sample Preparation/Analysis

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

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

AnalyDueDate: 02/16/2007

Batch: 7011256 ug/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 JMPFQ-1-AD-C J7A110000-256-LCS 01/04/2007 10:06		25.30g,in AmtRec:	unsc1473 12/18/06,pd 04/28/06,r #Containers: 1				Scr:	Alpha: Beta:

Comments: ~~JMJDT-SAMP "Comments."~~
PH < 2.0 SB 1-25-07

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

JME161AA-SAMP Constituent List:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JMJDL1AC-MS:

JMPFQ1AA-BLK:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JMPFQ1AC-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20
JMPFQ1AD-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

JME161AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMJDL1AC-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPFQ1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPFQ1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JMPFQ1AD-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

1/29/2007 9:15:34 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/29/2006, 2/3/2007, Batch: '7011262', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011262						
AC		CalcC	BockJ	1/19/2007 12:59:44		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	1/19/2007 12:59:44 PM	RICH-RC-5016 Revision 6
SC			BockJ	Prep1C	1/22/2007 9:08:39 AM	RICH-RC-5016 REVISION 6
SC			HarveyK	InPrep2	1/23/2007 8:42:22 AM	RICH-RC-5086 REV2
SC			HarveyK	Prep2C	1/23/2007 6:39:00 PM	RICH-RC-5086 REV2
SC			HarveyK	Sep1C	1/25/2007 12:54:33 PM	RICH-RC-5067 REV6
SC			FABREM	Sep2C	1/25/2007 5:19:55 PM	RICH-RC-5039 REV 5
SC			DAWKINSO	InCnt1	1/25/2007 5:24:47 PM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	1/25/2007 9:26:34 PM	RICH-RD-0008 REVISION 4
AC			BockJ	1/22/2007 9:08:39		
AC			HarveyK	1/23/2007 8:42:22		
AC			HarveyK	1/23/2007 6:39:00 PM		
AC			HarveyK	1/25/2007 12:54:33		
AC			FABREM	1/25/2007 5:19:55 PM		
AC			DAWKINSO	1/25/2007 5:24:47 PM		
AC			DAWKINSO	1/25/2007 9:26:34 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt:8

ICOCFractions v4.8.26

2/2/2007 3:25:20 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/2/2006, 2/7/2007, Batch: '7011250', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011250						
AC		CalcC	BockJ	1/24/2007 9:11:59		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	1/24/2007 9:11:59 AM	rich-rc-5014 rEVISION 6
SC			BockJ	Prep1C	1/24/2007 9:20:11 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	1/31/2007 1:06:24 PM	RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	2/1/2007 10:58:29 AM	RICH-RC-5014 REVISION 6
SC			StringerR	InCnt1	2/1/2007 11:00:37 AM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	2/1/2007 2:13:42 PM	RICH-RD-0003 REVISION 4
AC			BockJ	1/24/2007 9:20:11		
AC			AshworthA	1/31/2007 1:06:24 PM		
AC			AshworthA	2/1/2007 10:58:29		
AC			StringerR	2/1/2007 11:00:37		
AC			StringerR	2/1/2007 2:13:42 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt:6

ICOCFractions v4.8.26

2/2/2007 3:25:44 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/2/2006, 2/7/2007, Batch: '7011251', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011251						
AC		CalcC	BockJ	1/24/2007 9:04:31		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	1/24/2007 9:04:31 AM	rich-rc-5014 rEVISION 6
SC			BockJ	Prep1C	1/24/2007 9:11:38 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	1/31/2007 1:06:17 PM	RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	2/1/2007 10:58:23 AM	RICH-RC-5014 REVISION 6
SC			StringerR	InCnt1	2/1/2007 11:00:42 AM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	2/1/2007 7:22:23 PM	RICH-RD-0003 REVISION 4
AC			BockJ	1/24/2007 9:11:38		
AC			AshworthA	1/31/2007 1:06:17 PM		
AC			AshworthA	2/1/2007 10:58:23		
AC			StringerR	2/1/2007 11:00:42		
AC			DAWKINSO	2/1/2007 7:22:23 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

2/20/2007 9:28:59 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/20/2006, 2/25/2007, Batch: '7011259', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011259						
AC		**CalcC**	**BockJ**	1/22/2007 9:11:37		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	1/22/2007 9:11:37 AM	RICH-RC-5016 Revision 6
SC			BockJ	Prep1C	1/22/2007 9:20:22 AM	RICH-RC-5016 REVISION 6
SC			FABREM	Sep1C	1/23/2007 9:32:24 PM	RICH-RC-5006 REVISION 6
SC			DAWKINSO	InCnt1	1/23/2007 9:45:22 PM	RICH-RD-0007 REVISION 5
SC			StringerR	Cnt1C	1/24/2007 9:28:16 AM	RICH-RD-0007 REVISION 5
SC			ManisD	Sep2C	1/30/2007 1:12:50 PM	RICH-RC-5071 REV 4
SC			DAWKINSO	InCnt2	1/30/2007 1:25:57 PM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	2/1/2007 7:08:58 AM	RICH-RD-0003 REVISION 4
AC			**BockJ**	1/22/2007 9:20:22		
AC			**FABREM**	1/23/2007 9:32:24 PM		
AC			**DAWKINSO**	1/23/2007 9:45:22 PM		
AC			**StringerR**	1/24/2007 9:28:16		
AC			**DAWKINSO**	1/30/2007 1:25:57 PM		
AC			**BlackCL**	2/1/2007 7:08:58 AM		

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

2/1/2007 10:27:53 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/1/2006, 2/6/2007, Batch: '7011257', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011257						
AC		CalcC	BockJ	1/22/2007 9:39:06		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	1/22/2007 9:39:06 AM	RICH-RC-5016 Revision 6
SC			BockJ	Prep1C	1/22/2007 9:44:43 AM	RICH-RC-5017 REVISION 5
SC			AshworthA	InPrep2	1/30/2007 11:19:27 AM	RICH-RC-5017 REVISION 4
SC			AshworthA	Prep2C	1/31/2007 1:06:39 PM	RICH-RC-5017 REVISION 4
SC			StringerR	InCnt1	1/31/2007 1:10:36 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	1/31/2007 3:58:23 PM	RICH-RD-0007 REVISION 5
AC			BockJ	1/22/2007 9:44:43		
AC			AshworthA	1/30/2007 11:19:27		
AC			AshworthA	1/31/2007 1:06:39 PM		
AC			StringerR	1/31/2007 1:10:36 PM		
AC			DAWKINSO	1/31/2007 3:58:23 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

2/12/2007 2:34:48 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/12/2006, 2/17/2007, Batch: '7011252', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011252						
AC		CalcC	BockJ	1/30/2007 1:37:20 PM		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	1/30/2007 1:37:20 PM	RICH-RC-5014 Revision 6
SC			BostedD	InPrep2	2/9/2007 10:39:09 AM	RICHRC5025 REV3
SC			BostedD	Prep2C	2/9/2007 3:19:23 PM	RICHRC5025 REV3
SC			DAWKINSO	InCnt1	2/9/2007 4:14:26 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	2/9/2007 10:03:05 PM	RICH-RD-0007 REVISION 5
AC			BostedD	2/9/2007 10:39:09		
AC			BostedD	2/9/2007 3:19:23 PM		
AC			DAWKINSO	2/9/2007 4:14:26 PM		
AC			DAWKINSO	2/9/2007 10:03:05 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

1/31/2007 11:04:19 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/31/2006, 2/5/2007, Batch: '7011260', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011260						
AC		CalcC	BockJ	1/25/2007 1:35:00 PM		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	1/25/2007 1:35:00 PM	rich-rc-5015 rEVISION 4
SC			BockJ	Prep1C	1/25/2007 1:40:59 PM	RICH-RC-5017 REVISION 5
SC			BostedD	Prep2C	1/30/2007 4:09:21 PM	RICHRC5025 REV3
SC			DAWKINSO	InCnt1	1/30/2007 4:17:07 PM	RICH-RD-0007 REVISION 5
SC			StringerR	CalcC	1/31/2007 9:49:42 AM	RICH-RD-0007 REVISION 5
AC			BockJ	1/25/2007 1:40:59 PM		
AC			BostedD	1/30/2007 4:09:21 PM		
AC			DAWKINSO	1/30/2007 4:17:07 PM		
AC			StringerR	1/31/2007 9:49:42		

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt:5

ICOCFractions v4.8.26

1/30/2C07 10:09:45 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/30/2006, 2/4/2007, Batch: '7011248', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011248						
AC		CalcC	BockJ	1/19/2007 12:37:14		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	1/19/2007 12:37:14 PM	RICH-RC-5016 Revision 6
SC			HarveyK	InSep1	1/19/2007 1:27:35 PM	RICH-RC-5065 REV5
SC			FABREM	Sep1C	1/22/2007 6:17:17 PM	RICH-RC-5065 REVISION 5
SC			DAWKINSO	InCnt1	1/22/2007 6:21:14 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	1/25/2007 5:57:14 AM	RICH-RD-0001 REVISION 3
AC			HarveyK	1/19/2007 1:27:35 PM		
AC			FABREM	1/22/2007 6:17:17 PM		
AC			DAWKINSO	1/22/2007 6:21:14 PM		
AC			BlackCL	1/25/2007 5:57:14		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

1/24/2007 4:51:10 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/24/2006, 1/29/2007, Batch: '7011253', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011253						
AC		CalcC	McDowellD	1/22/2007 9:13:17		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			McDowellD	InSep1	1/22/2007 9:13:17 AM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	1/22/2007 2:22:25 PM	RICH-RC-5007 REVISION 6
SC			DAWKINSO	InCnt1	1/22/2007 5:09:48 PM	RICH-RD-0001 REVISION 3
SC			DAWKINSO	CalcC	1/23/2007 8:27:57 PM	RICH-RD-0001 REVISION 3
AC			McDowellD	1/22/2007 2:22:25 PM		
AC			DAWKINSO	1/22/2007 5:09:48 PM		
AC			DAWKINSO	1/23/2007 8:27:57 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt:4

ICOCFractions v4.8.26

2/19/2007 3:33:18 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/19/2006, 2/24/2007, Batch: '7011256', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7011256						
AC		Prep2C	BockJ	1/25/2007 8:05:43		
SC			wagarr	IsBatched	1/11/2007 11:25:28 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	1/25/2007 8:05:43 AM	rich-rc-5015 rEVISION 4
SC			BockJ	Prep1C	1/25/2007 8:20:10 AM	RICH-RC-5015 REVISION 4
SC			AntonsonL	InSep1	2/7/2007 3:33:28 PM	RICH-RC-5015 REVISION 4
SC			AntonsonL	Prep2C	2/13/2007 1:05:09 PM	RICH-RC-5015 REVISION 4
AC			BockJ	1/25/2007 8:20:10		
AC			AntonsonL	2/7/2007 3:33:28 PM		
AC			AntonsonL	2/13/2007 1:05:09 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.26