W05039

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TOTAL # OF PAGES IN THIS DOCUMENT 121

Rec 3/19/07

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: 33920

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05039	S07-010	B1KPW6	J6J170119-1	JGK2J1AA	9JGK2J10	6298344
		B1KPM2	J6J170294-1	JGMD01AA	9JGMD010	6298348
		B1KPM2	J6J170294-1	JGMD01AC	9JGMD010	6298351
		B1KPM2	J6J170294-1	JGMD01AD	9JGMD010	6298353
		B1KPM2	J6J170294-1	JGMD01AE	9JGMD010	6298346
		B1KPH8	J6J170294-2	JGMEE1AA	9JGMEE10	6298348
		B1KPH8	J6J170294-2	JGMEE1AC	9JGMEE10	6298351
		B1KPH8	J6J170294-2	JGMEE1AD	9JGMEE10	6298353
		B1KPH8	J6J170294-2	JGMEE1AE	9JGMEE10	6298355
		B1KPH8	J6J170294-2	JGMEE1AF	9JGMEE10	6298346
		B1KPH1	J6J170294-3	JGMEL1AA	9JGMEL10	6298348
		B1KPH1	J6J170294-3	JGMEL1AC	9JGMEL10	6298351
		B1KPH1	J6J170294-3	JGMEL1AD	9JGMEL10	6298353
		B1KPH1	J6J170294-3	JGMEL1AE	9JGMEL10	6298346
		B1KPL8	J6J170294-4	JGMER1AA	9JGMER10	6298348

Comments:

Report Nbr: 33920

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05039	S07-010	B1KPL8	J6J170294-4	JGMER1AC	9JGMER10	6298351
		B1KPL8	J6J170294-4	JGMER1AD	9JGMER10	6298353
		B1KPL8	J6J170294-4	JGMER1AE	9JGMER10	6298346
		B1KPJ2	J6J170294-5	JGMEW1AA	9JGMEW10	6298348
		B1KPJ2	J6J170294-5	JGMEW1AC	9JGMEW10	6298351
		B1KPJ2	J6J170294-5	JGMEW1AD	9JGMEW10	6298353
	G07-010	B1KL69	J6J170298-1	JGMFM1AA	9JGMFM10	6298353
		B1KL65	J6J170298-2	JGMFT1AA	9JGMFT10	6298353
		B1KL63	J6J170298-3	JGMFX1AA	9JGMFX10	6298353
		B1KL67	J6J170298-4	JGMF11AA	9JGMF110	6298353
	I07-002	B1KM26	J6J180402-1	JGQDW2AA	9JGQDW20	6298354
		B1KLH6	J6J180402-2	JGQDX1AA	9JGQDX10	6298354
		B1KLH6	J6J180402-2	JGQDX1AC	9JGQDX10	6298355
	S07-010	B1KPY1	J6J180406-1	JGQEW1AA	9JGQEW10	6298355
	I07-002	B1KLM5	J6J190304-1	JGTX21AA	9JGTX210	6293366
		B1KM30	J6J190304-2	JGT261AA	9JGT2610	6298354
		B1KLN1	J6J190304-3	JGT3N1AA	9JGT3N10	6298354
		B1KLN1	J6J190304-3	JGT3N1AC	9JGT3N10	6298355
		B1KM22	J6J190304-4	JGT3X1AA	9JGT3X10	6298354
		B1KM18	J6J190304-5	JGT361AA	9JGT3610	6298354
		B1KM18	J6J190304-5	JGT361AC	9JGT3610	6298355
		B1KLY4	J6J190304-6	JGT4A1AA	9JGT4A10	6298354
		B1KLY8	J6J190304-7	JGT4T1AA	9JGT4T10	6298354

Comments:

SEVERN TRENT STL

STL Richland
2800 George Washington Way
Richland, WA 99354

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

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

December 11, 2006

Attention: Dot Stewart

SAF Number	:	S07-010, G07-010, I07-002,
Date SDG Closed	:	October 19, 2006
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05039
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between October 16, 2006 and October19, 2006 twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	MATRIX	DATE OF RECEIPT
B1KPW6	JGK2J	WATER	10/16/06
B1KPL8	JGMER	WATER	10/17/06
B1KPH1	JGMEL	WATER	10/17/06
B1KPH8	JGMEE	WATER	10/17/06
B1KPM2	JGMD0	WATER	10/17/06
B1KPJ2	JGMEW	WATER	10/17/06
B1KL67	JGMF1	WATER	10/17/06
B1KL63	JGMFX	WATER	10/17/06
B1KL65	JGMFT	WATER	10/17/06
B1KL69	JGMFM	WATER	10/17/06
B1KLH6	JGQDX	WATER	10/18/06
B1KM26	JGQDW	WATER	10/18/06
B1KPY1	JGQEW	WATER	10/18/06

B1KLY8	JGT4T	WATER	10/19/06
B1KLY4	JGT4A	WATER	10/19/06
B1KM18	JGT36	WATER	10/19/06
B1KM22	JGT3X	WATER	10/19/06
B1KLN1	JGT3N	WATER	10/19/06
B1KLM5	JGTX2	WATER	10/19/06
B1KM30	JGT26	WATER	10/19/06

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014
Strontium-90 by method RICH-RC-5006
Gamma Spectroscopy
Gamma Spec by method RICH-RC-5017
Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058
Chemical Analysis
Hexavalent Chromium by EPA method 7196A

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:

Reduced volumes were analyzed based on elevated screen results for samples B1KPM2, B1KPH8, B1KPH1, B1KPL8, B1KPJ2 and B1KPL8 DUP. Except as noted, the LCS, batch blank, samples and sample duplicate (B1KPL8) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

Reduced volumes were analyzed based on an elevated screen results for samples B1KPM2, B1KPH8, B1KPH1, B1KPL8, B1KPJ2, B1KL67, B1KL69, B1KL65, B1KL63 and B1KPJ2 DUP. Samples B1KPM2, B1KPH8, B1KL67, B1KL69, B1KL65 and B1KL63 do not meet CRDL; however the results are greater than MDA which is greater than the CRDL. Except as noted, the LCS, batch blank, samples and sample duplicate (B1KPJ2) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1KPY1) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec by method RICH-RC-5017:

There was insufficient volume for a duplicate so sample B1KM26 was recounted on a different detector for a duplicate; however K 40 appeared in the duplicate (B1KM26 DUP) but not in the sample (B1KM26).

Sample B1KM26 was counted again and then recounted again on a different detector for the duplicate (B1KM26 DUP). There was no K 40 on the second counts. Except as noted, the LCS, batch blank, samples and sample duplicate (B1KM26) results are within contractual requirements.

Liquid Scintillation Counting

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

The LCS, batch blank, samples, sample duplicate (B1KPW6), and sample matrix spike (B1KPW6) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1KPH1) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1KPM2), and sample matrix spike (B1KPH8) results are within contractual requirements.

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

The LCS, batch blank, samples, sample duplicate (B1KLM5), sample matrix spike (B1KLM5), and matrix spike duplicate results (B1KLM5) are within contractual requirements.

Pacific Northwest National Laboratories
December 11, 2006

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
for Project Manager

Drinking Water Method Cross References

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

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/vn), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty.*** The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

12/11/2006 11:15:19 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33920 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.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:
9JGK2J10	B1KPW6		MW6-SBB-A1	S07-010	W05039					10/16/2006 09:51

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298344	TC-99	14133-76-7	3.09E+00	pCi/L	4.3E+00	6.1E+00	U	1.01E+01	100.0	TC99_ETVDSK_LS	1.254E-01	L	11/24/2006 23:53	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:
9JGMD010	B1KPM2		MW6-SBB-A1	S07-010	W05039					10/17/2006 13:31

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298348	H-3	10028-17-8	5.12E+02	pCi/L	1.4E+02	1.6E+02		3.04E+02	100.0	906.0_H3_LSC	5.00E-03	L	11/01/2006 15:51	I
6298351	ALPHA	12587-46-1	5.81E+00	pCi/L	2.0E+00	2.3E+00		1.75E+00	100.0	9310_ALPHABETA	1.384E-01	L	11/23/2006 07:59	I
6298353	BETA	12587-47-2	1.49E+01	pCi/L	2.9E+00	3.5E+00		4.42E+00	100.0	9310_ALPHABETA	1.383E-01	L	11/23/2006 07:44	I
6298346	Uranium	7440-61-1	1.33E+01	ug/L	1.6E+00	1.6E+00		8.19E-02		UTOT_KPA	2.56E-02	ML	12/08/2006 15:11	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:
9JGMEE10	B1KPH8		MW6-SBB-A1	S07-010	W05039					10/17/2006 10:47

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298348	H-3	10028-17-8	1.11E+03	pCi/L	1.6E+02	1.9E+02		3.01E+02	100.0	906.0_H3_LSC	5.00E-03	L	11/01/2006 17:12	I
6298351	ALPHA	12587-46-1	5.43E+00	pCi/L	2.1E+00	2.3E+00		2.00E+00	100.0	9310_ALPHABETA	1.225E-01	L	11/23/2006 07:59	I
6298353	BETA	12587-47-2	8.59E+00	pCi/L	2.6E+00	2.8E+00		4.47E+00	100.0	9310_ALPHABETA	1.295E-01	L	11/23/2006 07:44	I
6298355	SR-90	10098-97-2	1.16E-01	pCi/L	1.8E-01	1.9E-01	U	4.04E-01	68.7	SRISO_SEP_PRE	1.00E+00	L	11/30/2006 06:10	I
6298346	Uranium	7440-61-1	9.77E+00	ug/L	1.2E+00	1.2E+00		8.19E-02		UTOT_KPA	2.56E-02	ML	12/08/2006 15:26	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:
9JGMEL10	B1KPH1		MW6-SBB-A1	S07-010	W05039					10/17/2006 11:55

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298348	H-3	10028-17-8	3.88E+03	pCi/L	2.3E+02	3.0E+02		3.01E+02	100.0	906.0_H3_LSC	5.00E-03	L	11/01/2006 18:34	I
6298351	ALPHA	12587-46-1	5.52E+00	pCi/L	2.0E+00	2.3E+00		1.80E+00	100.0	9310_ALPHABETA	1.511E-01	L	11/23/2006 07:59	I
6298353	BETA	12587-47-2	1.15E+01	pCi/L	2.5E+00	2.9E+00		3.78E+00	100.0	9310_ALPHABETA	1.516E-01	L	11/23/2006 07:44	I
6298346	Uranium	7440-61-1	8.65E+00	ug/L	1.0E+00	1.0E+00		7.62E-02		UTOT_KPA	2.75E-02	ML	12/08/2006 15:30	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:
9JGMER10	B1KPL8		MW6-SBB-A1	S07-010	W05039					10/17/2006 10:40

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298348	H-3	10028-17-8	9.93E+03	pCi/L	3.4E+02	5.3E+02		3.03E+02	100.0	906.0_H3_LSC	5.00E-03	L	11/01/2006 21:18	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.

12/11/2006 11:15:19 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33920 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

6298351	ALPHA	12587-46-1	3.22E+00	pCi/L	1.7E+00	1.8E+00		1.92E+00	100.0	9310_ALPHABETA	1.063E-01	L	11/23/2006	07:59	I
6298353	BETA	12587-47-2	1.42E+01	pCi/L	2.7E+00	4.0E+00		4.06E+00	100.0	9310_ALPHABETA	9.33E-02	L	11/23/2006	08:35	I
6298346	Uranium	7440-61-1	9.02E+00	ug/L	1.1E+00	1.1E+00		8.38E-02		UTOT_KPA	2.50E-02	ML	12/08/2006	15:32	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JGMEW10	B1KPJ2		MW6-SBB-A1	S07-010	W05039					10/17/2006 13:02

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298348	H-3	10028-17-8	3.48E+03	pCi/L	2.3E+02	2.8E+02		3.02E+02	100.0	906.0_H3_LSC	5.00E-03	L	11/01/2006 22:39	I
6298351	ALPHA	12587-46-1	3.97E+00	pCi/L	1.8E+00	2.0E+00		2.01E+00	100.0	9310_ALPHABETA	1.343E-01	L	11/24/2006 11:02	I
6298353	BETA	12587-47-2	9.86E+00	pCi/L	2.5E+00	2.8E+00		3.90E+00	100.0	9310_ALPHABETA	1.427E-01	L	11/23/2006 07:44	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JGMF110	B1KL67		MW6-SBB-A1	G07-010	W05039					10/17/2006 12:04

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298353	BETA	12587-47-2	3.87E+02	pCi/L	1.2E+01	5.1E+01		4.78E+00	100.0	9310_ALPHABETA	1.158E-01	L	11/23/2006 07:44	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JGMFM10	B1KL69		MW6-SBB-A1	G07-010	W05039					10/17/2006 13:03

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298353	BETA	12587-47-2	2.07E+03	pCi/L	2.5E+01	2.7E+02		4.21E+00	100.0	9310_ALPHABETA	1.303E-01	L	11/23/2006 07:44	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JGMFT10	B1KL65		MW6-SBB-A1	G07-010	W05039					10/17/2006 08:40

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298353	BETA	12587-47-2	1.69E+04	pCi/L	1.2E+02	2.3E+03		1.44E+01	100.0	9310_ALPHABETA	2.61E-02	L	11/23/2006 08:35	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:
9JGMFX10	B1KL63		MW6-SBB-A1	G07-010	W05039					10/17/2006 11:03

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298353	BETA	12587-47-2	1.27E+04	pCi/L	6.5E+01	2.0E+03		6.36E+00	100.0	9310_ALPHABETA	6.26E-02	L	11/23/2006 08:35	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:
9JGQDW20	B1KM26		MW6-SBB-A1	I07-002	W05039					10/18/2006 13:07

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

12/11/2006 11:15:19 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33920 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298354	BE-7	13966-02-4	9.22E-01	pCi/L	2.0E+01	2.0E+01	U	3.75E+01		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	I
6298354	CO-60	10198-40-0	-1.48E-01	pCi/L	2.0E+00	2.0E+00	U	3.87E+00		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	I
6298354	CS-134	13967-70-9	2.39E+00	pCi/L	2.0E+00	2.0E+00	U	4.25E+00		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	I
6298354	CS-137	10045-97-3	7.73E-01	pCi/L	2.0E+00	2.0E+00	U	3.83E+00		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	I
6298354	EU-152	14683-23-9	-1.50E+00	pCi/L	4.1E+00	4.1E+00	U	7.06E+00		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	I
6298354	EU-154	15585-10-1	1.76E+00	pCi/L	5.5E+00	5.5E+00	U	1.13E+01		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	I
6298354	EU-155	14391-16-3	3.12E+00	pCi/L	3.0E+00	3.0E+00	U	5.94E+00		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	I
6298354	K-40	13966-00-2	-6.41E+01	pCi/L	4.1E+01	4.1E+01	U	8.39E+01		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	I
6298354	RU-106	13967-48-1	8.58E-01	pCi/L	1.6E+01	1.6E+01	U	2.93E+01		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	I
6298354	SB-125	14234-35-6	1.67E+00	pCi/L	4.2E+00	4.2E+00	U	7.96E+00		GAMMA_GS	2.4996E+00	L	11/22/2006 09:02	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:
9JGQDX10	B1KLH6		MW6-SBB-A1	I07-002	W05039					10/18/2006 11:10

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298354	BE-7	13966-02-4	2.16E+00	pCi/L	2.2E+01	2.2E+01	U	3.94E+01		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298354	CO-60	10198-40-0	7.21E-01	pCi/L	1.7E+00	1.7E+00	U	3.72E+00		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298354	CS-134	13967-70-9	8.07E-02	pCi/L	1.9E+00	1.9E+00	U	3.65E+00		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298354	CS-137	10045-97-3	5.09E-01	pCi/L	1.7E+00	1.7E+00	U	3.30E+00		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298354	EU-152	14683-23-9	-5.47E+00	pCi/L	4.6E+00	4.6E+00	U	7.15E+00		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298354	EU-154	15585-10-1	1.79E+00	pCi/L	4.7E+00	4.7E+00	U	1.01E+01		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298354	EU-155	14391-16-3	2.29E+00	pCi/L	4.1E+00	4.1E+00	U	7.37E+00		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298354	K-40	13966-00-2	4.05E+01	pCi/L	4.4E+01	4.4E+01	U	3.55E+01		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298354	RU-106	13967-48-1	-1.08E+01	pCi/L	1.6E+01	1.6E+01	U	2.68E+01		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298354	SB-125	14234-35-6	-7.32E-01	pCi/L	4.9E+00	4.9E+00	U	8.65E+00		GAMMA_GS	2.5067E+00	L	11/17/2006 11:37	I
6298355	SR-90	10098-97-2	5.60E+00	pCi/L	5.0E-01	9.5E-01		3.56E-01	79.1	SRISO_SEP_PRE	9.981E-01	L	11/30/2006 06:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JGQEW10	B1KPY1		MW6-SBB-A1	S07-010	W05039					10/18/2006 13:07

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298355	SR-90	10098-97-2	3.10E+01	pCi/L	1.1E+00	4.7E+00		3.46E-01	85.2	SRISO_SEP_PRE	1.0028E+00	L	11/30/2006 06:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:

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.

12/11/2006 11:15:20 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33920 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

9JGT2610 B1KM30 MW6-SBB-A1 I07-002 W05039 10/19/2006 12:07

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298354	BE-7	13966-02-4	7.42E+00	pCi/L	1.8E+01	1.8E+01	U	3.43E+01		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	I
6298354	CO-60	10198-40-0	1.60E+00	pCi/L	2.1E+00	2.1E+00	U	4.49E+00		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	I
6298354	CS-134	13967-70-9	-8.96E-01	pCi/L	2.1E+00	2.1E+00	U	3.62E+00		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	I
6298354	CS-137	10045-97-3	-9.44E-01	pCi/L	1.9E+00	1.9E+00	U	3.30E+00		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	I
6298354	EU-152	14683-23-9	-6.14E-01	pCi/L	4.8E+00	4.8E+00	U	8.36E+00		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	I
6298354	EU-154	15585-10-1	1.35E+00	pCi/L	6.5E+00	6.5E+00	U	1.27E+01		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	I
6298354	EU-155	14391-16-3	-8.97E-02	pCi/L	3.2E+00	3.2E+00	U	5.63E+00		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	I
6298354	K-40	13966-00-2	-6.11E+01	pCi/L	4.1E+01	4.1E+01	U	8.60E+01		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	I
6298354	RU-106	13967-48-1	-1.47E+01	pCi/L	1.6E+01	1.6E+01	U	2.59E+01		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	I
6298354	SB-125	14234-35-6	2.83E+00	pCi/L	4.4E+00	4.4E+00	U	8.57E+00		GAMMA_GS	2.4996E+00	L	11/17/2006 11:37	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:
9JGT3610	B1KM18		MW6-SBB-A1	I07-002	W05039					10/19/2006 11:29

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298354	BE-7	13966-02-4	1.21E+01	pCi/L	1.4E+01	1.4E+01	U	2.76E+01		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298354	CO-60	10198-40-0	-7.13E-01	pCi/L	1.4E+00	1.4E+00	U	2.38E+00		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298354	CS-134	13967-70-9	-5.14E-01	pCi/L	1.4E+00	1.4E+00	U	2.43E+00		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298354	CS-137	10045-97-3	1.94E-01	pCi/L	1.3E+00	1.3E+00	U	2.41E+00		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298354	EU-152	14683-23-9	-2.05E+00	pCi/L	3.6E+00	3.6E+00	U	6.15E+00		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298354	EU-154	15585-10-1	-1.09E+00	pCi/L	3.7E+00	3.7E+00	U	6.74E+00		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298354	EU-155	14391-16-3	-1.93E+00	pCi/L	2.8E+00	2.8E+00	U	4.75E+00		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298354	K-40	13966-00-2	-2.48E+01	pCi/L	1.9E+01	1.9E+01	U	3.68E+01		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298354	RU-106	13967-48-1	4.06E+00	pCi/L	1.2E+01	1.2E+01	U	2.32E+01		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298354	SB-125	14234-35-6	-1.64E+00	pCi/L	3.5E+00	3.5E+00	U	5.91E+00		GAMMA_GS	2.50E+00	L	11/17/2006 11:37	I
6298355	SR-90	10098-97-2	-2.03E-02	pCi/L	1.6E-01	1.8E-01	U	4.14E-01	77.4	SRISO_SEP_PRE	1.0031E+00	L	11/30/2006 06:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JGT3N10	B1KLN1		MW6-SBB-A1	I07-002	W05039					10/19/2006 11:21

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6298354	BE-7	13966-02-4	1.96E+00	pCi/L	1.8E+01	1.8E+01	U	3.32E+01		GAMMA_GS	2.5049E+00	L	11/17/2006 11:37	I
6298354	CO-60	10198-40-0	8.52E-01	pCi/L	2.4E+00	2.4E+00	U	4.86E+00		GAMMA_GS	2.5049E+00	L	11/17/2006 11:37	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.

6298354	CS-134	13967-70-9	-7.80E-01	pCi/L	2.3E+00	2.3E+00	U	4.06E+00		GAMMA_GS	2.5049E+00	L	11/17/2006	11:37	I
6298354	CS-137	10045-97-3	-8.11E-01	pCi/L	2.0E+00	2.0E+00	U	3.38E+00		GAMMA_GS	2.5049E+00	L	11/17/2006	11:37	I
6298354	EU-152	14683-23-9	-3.76E-01	pCi/L	4.7E+00	4.7E+00	U	8.52E+00		GAMMA_GS	2.5049E+00	L	11/17/2006	11:37	I
6298354	EU-154	15585-10-1	-1.93E+00	pCi/L	5.1E+00	5.1E+00	U	9.47E+00		GAMMA_GS	2.5049E+00	L	11/17/2006	11:37	I
6298354	EU-155	14391-16-3	-7.48E-01	pCi/L	3.6E+00	3.6E+00	U	6.44E+00		GAMMA_GS	2.5049E+00	L	11/17/2006	11:37	I
6298354	K-40	13966-00-2	2.13E+01	pCi/L	4.1E+01	4.1E+01	U	4.20E+01		GAMMA_GS	2.5049E+00	L	11/17/2006	11:37	I
6298354	RU-106	13967-48-1	-4.00E+00	pCi/L	1.3E+01	1.3E+01	U	2.26E+01		GAMMA_GS	2.5049E+00	L	11/17/2006	11:37	I
6298354	SB-125	14234-35-6	-1.82E+00	pCi/L	4.6E+00	4.6E+00	U	7.94E+00		GAMMA_GS	2.5049E+00	L	11/17/2006	11:37	I
6298355	SR-90	10098-97-2	5.37E-02	pCi/L	2.2E-01	2.2E-01	U	4.90E-01	66.0	SRISO_SEP_PRE	1.0041E+00	L	11/30/2006	06:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JGT3X10	B1KM22		MW6-SBB-A1	I07-002	W05039					10/19/2006 10:13

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
6298354	BE-7	13966-02-4	-4.61E+00	pCi/L	1.5E+01	1.5E+01	U	2.63E+01		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	I
6298354	CO-60	10198-40-0	-6.37E-01	pCi/L	1.1E+00	1.1E+00	U	2.03E+00		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	I
6298354	CS-134	13967-70-9	9.07E-02	pCi/L	1.6E+00	1.6E+00	U	3.09E+00		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	I
6298354	CS-137	10045-97-3	-7.52E-01	pCi/L	1.4E+00	1.4E+00	U	2.44E+00		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	I
6298354	EU-152	14683-23-9	1.35E+00	pCi/L	4.0E+00	4.0E+00	U	7.50E+00		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	I
6298354	EU-154	15585-10-1	-4.70E-01	pCi/L	4.2E+00	4.2E+00	U	8.33E+00		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	I
6298354	EU-155	14391-16-3	-2.91E+00	pCi/L	2.9E+00	2.9E+00	U	4.67E+00		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	I
6298354	K-40	13966-00-2	1.10E+01	pCi/L	2.8E+01	2.8E+01	U	6.11E+01		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	I
6298354	RU-106	13967-48-1	-1.33E+00	pCi/L	1.4E+01	1.4E+01	U	2.64E+01		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	I
6298354	SB-125	14234-35-6	-1.15E-01	pCi/L	3.9E+00	3.9E+00	U	6.98E+00		GAMMA_GS	2.50E+00	L	11/17/2006	11:37	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:
9JGT4A10	B1KLY4		MW6-SBB-A1	I07-002	W05039					10/19/2006 09:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
6298354	BE-7	13966-02-4	-1.75E+01	pCi/L	1.3E+01	1.3E+01	U	1.88E+01		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	I
6298354	CO-60	10198-40-0	-2.33E-01	pCi/L	1.5E+00	1.5E+00	U	2.83E+00		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	I
6298354	CS-134	13967-70-9	6.64E-01	pCi/L	1.2E+00	1.2E+00	U	2.44E+00		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	I
6298354	CS-137	10045-97-3	-7.77E-03	pCi/L	1.3E+00	1.3E+00	U	2.38E+00		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	I
6298354	EU-152	14683-23-9	-7.54E-01	pCi/L	2.9E+00	2.9E+00	U	5.02E+00		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	I
6298354	EU-154	15585-10-1	1.93E+00	pCi/L	3.7E+00	3.7E+00	U	7.86E+00		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	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.

12/11/2006 11:15:20 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33920 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

6298354	EU-155	14391-16-3	-1.10E+00	pCi/L	2.5E+00	2.5E+00	U	4.32E+00		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	I
6298354	K-40	13966-00-2	-3.57E+00	pCi/L	2.5E+01	2.5E+01	U	5.51E+01		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	I
6298354	RU-106	13967-48-1	1.68E+00	pCi/L	1.1E+01	1.1E+01	U	2.02E+01		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	I
6298354	SB-125	14234-35-6	-9.52E-02	pCi/L	2.6E+00	2.6E+00	U	4.71E+00		GAMMA_GS	2.5014E+00	L	11/17/2006	11:38	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:
9JGT4T10	B1KLY8		MW6-SBB-A1	I07-002	W05039					10/19/2006 10:24

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
6298354	BE-7	13966-02-4	-9.21E+00	pCi/L	1.8E+01	1.8E+01	U	3.11E+01		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I
6298354	CO-60	10198-40-0	-6.49E-01	pCi/L	2.1E+00	2.1E+00	U	3.72E+00		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I
6298354	CS-134	13967-70-9	1.29E-01	pCi/L	1.9E+00	1.9E+00	U	3.51E+00		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I
6298354	CS-137	10045-97-3	5.38E-01	pCi/L	1.5E+00	1.5E+00	U	2.93E+00		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I
6298354	EU-152	14683-23-9	-2.96E+00	pCi/L	4.4E+00	4.4E+00	U	7.31E+00		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I
6298354	EU-154	15585-10-1	-1.44E+00	pCi/L	5.6E+00	5.6E+00	U	1.01E+01		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I
6298354	EU-155	14391-16-3	1.94E-01	pCi/L	5.1E+00	5.1E+00	U	8.69E+00		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I
6298354	K-40	13966-00-2	-6.90E+01	pCi/L	5.2E+01	5.2E+01	U	1.09E+02		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I
6298354	RU-106	13967-48-1	-2.85E+00	pCi/L	1.4E+01	1.4E+01	U	2.52E+01		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I
6298354	SB-125	14234-35-6	-5.27E+00	pCi/L	4.1E+00	4.1E+00	U	6.32E+00		GAMMA_GS	2.5001E+00	L	11/17/2006	11:38	I

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

Monday, December 11, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JG7J51AB	**Sdg/Rept Nbr:**	W05039 33920	**Collection Date:**	10/16/2006 09:51
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	10/16/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298344	TC-99	-1.59E+00	pCi/L	5.9E+00	U	1.01E+01	100.0		TC99_ETVDSK	1.249E-01	11/25/2006				D
BLK	14133-76-7			4.1E+00						L	03:00				

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

Monday, December 11, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7J91AB **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 13:31

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298346	Uranium	1.41E-02	ug/L	2.2E-03	U	8.15E-02			UTOT_KPA	2.57E-02	12/08/2006				D
BLK	7440-61-1			2.2E-03						ML	15:01				

STL Richland

rptFeadRadEdd v3.68

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

Monday, December 11, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7KC1AB **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 11:55

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298348	H-3	-3.15E+01	pCi/L	1.4E+02	U	3.02E+02	100.0		906.0_H3_LSC	5.00E-03	11/01/2006				D
BLK	10028-17-8			1.2E+02						L	10:23				

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

Monday, December 11, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7KC1DX
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05039 33920
Matrix: WATER WATER
QC Type: BLK

Collection Date: 10/17/2006 11:55
Sample On Date:
Received Date: 10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298348	H-3	6.88E+01	pCi/L	1.4E+02	U	3.05E+02	100.0		906.0_H3_LSC	5.00E-03	11/01/2006				D
BLK	10028-17-8			1.3E+02						L	13:07				

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

Monday, December 11, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JG7KH1AB	**Sdg/Rept Nbr:**	W05039	33920	**Collection Date:** 10/17/2006 10:40
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298351	ALPHA	-4.62E-02	pCi/L	2.6E-01	U	7.44E-01	100.0		9310_ALPHAB	2.012E-01	11/24/2006				D
BLK	12587-46-1			2.6E-01						L	11:02				

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

Monday, December 11, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7KL1AB **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 13:02

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298353	BETA	9.52E-01	pCi/L	9.8E-01	U	1.87E+00	100.0		9310_ALPHAB	2.014E-01	11/23/2006				D
BLK	12587-47-2			9.7E-01						L	08:35				

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

Monday, December 11, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JG7KQ1AB	**Sdg/Rept Nbr:**	W05039	33920	**Collection Date:** 10/18/2006 13:07
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 10/18/2006

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
6298354	BE-7	5.00E+00	pCi/L	1.9E+01	U	3.47E+01			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	13966-02-4			1.9E+01						L	13:21				
6298354	CO-60	8.83E-01	pCi/L	1.7E+00	U	3.69E+00			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	10198-40-0			1.7E+00						L	13:21				
6298354	CS-134	1.77E+00	pCi/L	1.9E+00	U	4.07E+00			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	13967-70-9			1.9E+00						L	13:21				
6298354	CS-137	5.11E-01	pCi/L	1.7E+00	U	3.26E+00			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	10045-97-3			1.7E+00						L	13:21				
6298354	EU-152	9.80E-01	pCi/L	4.9E+00	U	8.80E+00			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	14683-23-9			4.9E+00						L	13:21				
6298354	EU-154	-1.95E+00	pCi/L	6.1E+00	U	1.10E+01			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	15585-10-1			6.1E+00						L	13:21				
6298354	EU-155	1.75E+00	pCi/L	3.4E+00	U	6.33E+00			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	14391-16-3			3.4E+00						L	13:21				
6298354	K-40	-3.91E+01	pCi/L	4.1E+01	U	9.03E+01			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	13966-00-2			4.1E+01						L	13:21				
6298354	RU-106	5.07E+00	pCi/L	1.8E+01	U	3.44E+01			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	13967-48-1			1.8E+01						L	13:21				
6298354	SB-125	-2.65E-01	pCi/L	4.3E+00	U	7.75E+00			GAMMA_GS	2.505E+00	11/17/2006				D
BLK	14234-35-6			4.3E+00						L	13:21				

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

Monday, December 11, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7KX1AB **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/18/2006 13:07

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 10/18/2006

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
6298355	SR-90	-1.39E-01	pCi/L	3.0E-01	U	6.71E-01	58.8		SRISO_SEP_P	1.0034E+00	11/30/2006				D
BLK	10098-97-2			2.8E-01						L	07:56				

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.

Monday, December 11, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JG7J51CS	**Sdg/Rept Nbr:**	W05039	33920	**Collection Date:** 10/16/2006 09:51
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 10/16/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298344	TC-99	5.12E+02	pCi/L	3.7E+01		1.01E+01	100.0	5.41E+02	TC99_ETVDSK	1.254E-01	11/25/2006			75	D
BS	14133-76-7			1.3E+01				94.8		L	04:03			125	

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

Monday, December 11, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7J91CS **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 13:31

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298346	Uranium	3.38E+01	ug/L	4.0E+00		8.09E-02		3.50E+01	UTOT_KPA	2.59E-02	12/08/2006			75	D
BS	7440-61-1			4.0E+00				96.8		ML	15:06			125	

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

Monday, December 11, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7J91DS **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 13:31

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298346	Uranium	3.37E+00	ug/L	3.5E-01		8.06E-02		3.52E+00	UTOT_KPA	2.60E-02	12/08/2006			75	D
BS	7440-61-1			3.5E-01				95.8		ML	15:08			125	

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

Monday, December 11, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JG7KC1CS	**Sdg/Rept Nbr:**	W05039 33920	**Collection Date:**	10/17/2006 11:55
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298348	H-3	2.58E+03	pCi/L	2.5E+02		3.02E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	11/01/2006			75	D
BS	10028-17-8			2.0E+02				95.1		L	11:45			125	

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

Monday, December 11, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7KC1EM **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 11:55

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298348	H-3	2.64E+03	pCi/L	2.5E+02		3.05E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	11/01/2006			75	D
BS	10028-17-8			2.1E+02				97.3		L	14:29			125	

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

Monday, December 11, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JG7KH1CS	**Sdg/Rept Nbr:**	W05039 33920	**Collection Date:**	10/17/2006 10:40
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298351	ALPHA	2.33E+01	pCi/L	5.2E+00		7.28E-01	100.0	2.26E+01	9310_ALPHAB	2.057E-01	11/24/2006			70	D
BS	12587-46-1			2.3E+00				102.8		L	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.

Monday, December 11, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7KL1CS **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 13:02

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/17/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298353	BETA	1.99E+01	pCi/L	4.0E+00		1.65E+00	100.0	2.28E+01	9310_ALPHAB	2.002E-01	11/23/2006			70	D
BS	12587-47-2			1.6E+00				87.3		L	08:37			130	

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

Monday, December 11, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7KQ1CS **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/18/2006 13:07

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/18/2006

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
6298354	CO-60	2.56E+01	pCi/L	6.8E+00		3.91E+00		3.07E+01	GAMMA_GS	2.4998E+00	11/17/2006			75	D
BS	10198-40-0			6.8E+00				83.2		L	13:21			125	
6298354	CS-137	1.84E+01	pCi/L	4.8E+00		2.72E+00		2.01E+01	GAMMA_GS	2.4998E+00	11/17/2006			70	D
BS	10045-97-3			4.8E+00				91.6		L	13:21			130	
6298354	EU-152	5.20E+01	pCi/L	1.5E+01		1.03E+01		6.18E+01	GAMMA_GS	2.4998E+00	11/17/2006			70	D
BS	14683-23-9			1.5E+01				84.2		L	13:21			130	

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

Monday, December 11, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JG7KX1CS **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/18/2006 13:07

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/18/2006

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
6298355	SR-90	1.39E+01	pCi/L	2.2E+00		6.36E-01	63.4	1.37E+01	SRISO_SEP_P	1.0009E+00	11/30/2006			70	D
BS	10098-97-2			8.8E-01				101.4		L	07:56			130	

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

Monday, December 11, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JGK2J1DR
Client Id: B1KPW6
Moisture/Solids%*:

Sdg/Rept Nbr: W05039 33920
Matrix: WATER WATER
QC Type: DUP

Collection Date: 10/16/2006 09:51
Sample On Date:
Received Date: 10/16/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-010	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
6298344	TC-99	6.69E+00	pCi/L	6.3E+00	U	1.00E+01	100.0		TC99_ETVDSK	1.266E-01	11/25/2006	73.7	0.8		D
DUP	14133-76-7	3.09E+00		4.3E+00						L	01:58	20.0	3		

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

Monday, December 11, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JGMD01FR	**Sdg/Rept Nbr:**	W05039 33920	**Collection Date:**	10/17/2006 13:31
Client Id:	B1KPM2	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	10/17/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-010	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
6298346	Uranium	1.31E+01	ug/L	1.6E+00		8.00E-02			UTOT_KPA	2.62E-02	12/08/2006	1.7	0.2		D
DUP	7440-61-1	1.33E+01		1.6E+00						ML	15:24	20.0	3		

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

Monday, December 11, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JGMEL1FR **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 11:55

Client Id: B1KPH1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/17/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-010	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
6298348	H-3	3.61E+03	pCi/L	2.9E+02		3.02E+02	100.0		906.0_H3_LSC	5.00E-03	11/01/2006	7.3	1.3		D
DUP	10028-17-8	3.88E+03		2.3E+02						L	19:56	20.0	3		

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

Monday, December 11, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JGMER1FR	**Sdg/Rept Nbr:**	W05039	33920	**Collection Date:** 10/17/2006 10:40
Client Id:	B1KPL8	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 10/17/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-010	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
6298351	ALPHA	2.45E+00	pCi/L	1.8E+00		2.28E+00	100.0		9310_ALPHAB	1.07E-01	11/23/2006	27.0	0.6		D
DUP	12587-46-1	3.22E+00		1.7E+00						L	07:59	20.0	3		

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

Monday, December 11, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JGMEW1ER **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 13:02

Client Id: B1KPJ2 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/17/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-010	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
6298353	BETA	8.82E+00	pCi/L	2.6E+00		3.82E+00	100.0		9310_ALPHAB	1.424E-01	11/23/2006	11.1	0.6		D
DUP	12587-47-2	9.86E+00		2.4E+00						L	07:44	20.0	3		

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

Monday, December 11, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JGQDW2CR **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/18/2006 13:07
Client Id: B1KM26 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/18/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-002	MW6-SBB-A19981								BR	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6298354	BE-7	6.34E+00	pCi/L	1.8E+01	U	3.47E+01			GAMMA_GS	2.4996E+00	11/22/2006	149.2	0.4		D
DUP	13966-02-4	9.22E-01		1.8E+01						L	10:45	20.0	3		
6298354	CO-60	3.86E-01	pCi/L	1.5E+00	U	3.23E+00			GAMMA_GS	2.4996E+00	11/22/2006	449.7	0.5		D
DUP	10198-40-0	-1.48E-01		1.5E+00						L	10:45	20.0	3		
6298354	CS-134	-1.69E-01	pCi/L	1.6E+00	U	3.04E+00			GAMMA_GS	2.4996E+00	11/22/2006	230.4	2.3		D
DUP	13967-70-9	2.39E+00		1.6E+00						L	10:45	20.0	3		
6298354	CS-137	1.47E-01	pCi/L	1.5E+00	U	2.85E+00			GAMMA_GS	2.4996E+00	11/22/2006	136.2	0.6		D
DUP	10045-97-3	7.73E-01		1.5E+00						L	10:45	20.0	3		
6298354	EU-152	-1.15E-01	pCi/L	4.0E+00	U	7.14E+00			GAMMA_GS	2.4996E+00	11/22/2006	0.0	0.5		D
DUP	14683-23-9	-1.50E+00		4.0E+00						L	10:45	20.0	3		
6298354	EU-154	-1.09E+00	pCi/L	3.3E+00	U	6.36E+00			GAMMA_GS	2.4996E+00	11/22/2006	845.1	1.2		D
DUP	15585-10-1	1.76E+00		3.3E+00						L	10:45	20.0	3		
6298354	EU-155	7.84E-01	pCi/L	3.0E+00	U	5.39E+00			GAMMA_GS	2.4996E+00	11/22/2006	119.6	1.1		D
DUP	14391-16-3	3.12E+00		3.0E+00						L	10:45	20.0	3		
6298354	K-40	1.09E+01	pCi/L	2.4E+01	U	5.29E+01			GAMMA_GS	2.4996E+00	11/22/2006	0.0	4.4		D
DUP	13966-00-2	-6.41E+01		2.4E+01						L	10:45	20.0	3		
6298354	RU-106	-2.99E+00	pCi/L	1.5E+01	U	2.64E+01			GAMMA_GS	2.4996E+00	11/22/2006	0.0	0.4		D
DUP	13967-48-1	8.58E-01		1.5E+01						L	10:45	20.0	3		
6298354	SB-125	3.36E+00	pCi/L	4.0E+00	U	7.92E+00			GAMMA_GS	2.4996E+00	11/22/2006	67.4	0.6		D
DUP	14234-35-6	1.67E+00		4.0E+00						L	10:45	20.0	3		

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

Monday, December 11, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JGQEW1CR	**Sdg/Rept Nbr:**	W05039 33920	**Collection Date:**	10/18/2006 13:07
Client Id:	B1KPY1	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	10/18/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-010	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
6298355	SR-90	3.13E+01	pCi/L	4.7E+00		3.90E-01	80.5		SRISO_SEP_P	9.986E-01	11/30/2006	1.1	0.1		D
DUP	10098-97-2	3.10E+01		1.1E+00						L	06:10	20.0	3		

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

Monday, December 11, 2006

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id:	JGK2J1CW	**Sdg/Rept Nbr:**	W05039 33920	**Collection Date:**	10/16/2006 09:51
Client Id:	B1KPW6	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	MS	**Received Date:**	10/16/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-010	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
6298344	TC-99	3.37E+03	pCi/L	2.1E+02		1.00E+01	100.0	3.59E+03	TC99_ETVDSK	1.256E-01	11/25/2006			60	D
MS	14133-76-7			3.2E+01				94.1		L	00:55			140	

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

Monday, December 11, 2006

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05039.Edd, h:\Reportdb\edd\FeadIV\Rad\33920.Edd

Lab Sample Id: JGMEE1GW **Sdg/Rept Nbr:** W05039 33920 **Collection Date:** 10/17/2006 10:47

Client Id: B1KPH8 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 10/17/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-010	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
6298346	Uranium	3.60E+01	ug/L	5.6E+00		8.12E-02		3.52E+01	UTOT_KPA	2.58E-02	12/08/2006			60	D
MS	7440-61-1			5.6E+00				102.3		ML	15:28			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

STL Richland
Hexavalent Chromium - Water

Analyst:	S. Wheland	Calibration Curve Information				SOP Information		BATCH #	6293366
Start Date:	10/20/2006		Amount	Conc.(mg/L)	ABS.	RICH-WC-5003		SDG #	W05039
Start Time:	9:00	Blank	0.000	0.000	0.000	Revision 7		Matrix	Water
End Date:	10/20/2006	Std. 1	0.100	0.050	0.086				
End Time	10:00	Std. 2	0.500	0.250	0.468			Instrument Information	
		Std. 3	0.750	0.375	0.702	MDL (mg/L)	0.002	Instrument:	Hach DR2010
Analyst Signature:		Std. 4	1.500	0.750	1.387			Wavelength:	540
		Std 5	2.000	1.000	1.816			R Squared	0.99973
Date:	10/20	Standard Volume (mL):			100.000			Slope:	1.82561
		Date of Curve:			10/20/2006			Intercept:	0.00531

	Calibration Information:	ICV Information:		LCS Information:		Matrix Spike Information:	
Dilution ID #	Cr-06-00358	Cr-06-00359		Cr-06-00358		Cr-06-00358	
Prep Date:	10/20/06	10/20/06		10/20/06		10/20/06	
Concentration (mg/L)	50	50		50		50	
Expiration Date:	10/21/06	10/21/06		10/21/06		10/21/06	
Pipettor(s)	70,190	190		190		190	
Volume Used (Expected Value		1.000	0.50000	1.00	0.50000	0.50	0.26316

Expected values are only amounts added in mg and not final concentrations

Sample ID	Client ID	Type	Sample Volume (mL)	Sample ABS.	Blank ABS.	Corrected ABS.	Dilution Factor	Curve Conc. (mg/L)	Final Conc. (mg/L)	% Rec.
n/a	n/a	ICV	100.000	0.924	0.000	0.924	1	0.5032	0.503	100.64%
n/a	n/a	ICB	100.000	0.000	0.000	0.000	1	<MDL	<MDL	
JGW0R-1AA-B	n/a	Prep Blank	100.000	-0.012		-0.012	1	<MDL	<MDL	
JGW0R-1AC-C	n/a	LCS	100.000	0.935		0.935	1	0.5092	0.509	101.85%
JGTX2-1AA	B1KLM5	Sample	100.000	0.092		0.092	1	0.0475	0.047	
JGTX2-1AC-S	B1KLM5-MS	MS	100.000	0.594		0.594	1	0.3225	~~0.322~~ 0.275	104.49%
JGTX2-1AD-D	B1KLM5-MSD	MSD	100.000	0.592		0.592	1	0.3214	~~0.321~~ 0.274	104.07%
JGTX2-1AE-X	B1KLM5-DUP	Duplicate	100.000	0.093		0.093	1	0.0480	0.048	
			100.000				1			
			100.000				1			
			100.000				1			
n/a	n/a	CCV	100.000	0.925		0.925	1	0.5038	0.504	100.75%
n/a	n/a	CCB	100.000	0.000		0.000	1	<MDL	<MDL	
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			

SXS 11/30/06

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

11/27/2006 8:00:11 AM

Lot No., Due Date: J6J180402,J6J190304; 12/04/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6298354; RGAMMA Gamma by GER

SDG, Matrix: W05039; 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:

See NCM. 10-09035

First Level Review Paul Anderson **Date** 11-27-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 629354
W05039

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: 11-27-06

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09035
NCM Initiated By: Pam Anderson
Date Opened: 11/27/2006
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Gamma by GER
Lot #'s (Sample #'s): J6J180402 (1,2), J6J190304 (2,3,4,5,6,7), J6J250000 (354),
QC Batches: 6298354

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

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	11/27/2006	On the first count of this gamma in water batch the sample and duplicate did not agree. K 40 appeared in the duplicate but not in the sample. There was insufficient sample for a regular duplicate so the sample had been counted on two different detectors to have a replicate. The sample was recounted again as the sample, then as the duplicate. This time there was no K 40 in the spectras.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	11/27/2006	The sample and "duplicate" were recounted.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

11/27/2006 10:46:57 AM

Lot No., Due Date: J6J170294; 12/04/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6298351; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05039; 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 => JGMD01AC 138.40<200.00 JGMEE1AC 122.50<200.00 JGMEL1AC 151.10<200.00 JGMER1AC 106.30<200.00 JGMEW1AC 134.30<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=> JGMER1AF ALPHA 27.0 (RPD)		✓	
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JGMD01AC ALPHA 5.8E+00 L:1.7E+00 JGMEE1AC ALPHA 5.4E+00 L:2.0E+00 JGMEL1AC ALPHA 5.5E+00 L:1.8E+00 JGMER1AC ALPHA 3.2E+00 L:1.9E+00 JGMEW1AC ALPHA 4.0E+00 L:2.0E+00		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => ALPHA	✓		

OK; No Calfin Level Found => ALPHA

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

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

8.26 Instruments have Current Calibrations. Yes No N/A

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

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

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

8.3 Comments:

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

First Level Review Pam Anderson **Date** 11-27-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6298351
W05059

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

Comments on any "No" response: _____

Second Level Review: Sherryl A Adam Date: 11-29-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

11/27/2006 10:47:25 AM

Lot No., Due Date: J6J170294,J6J170298; 12/04/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6298353; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05039; WATER

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

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

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

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

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

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

8.06 At Least the Minimum Sample Volume Was Used — Yes No ✓ N/A
Analysis Volume => JGMD01AD 138.30<200.00
JGMEE1AD 129.50<200.00
JGMEL1AD 151.60<200.00
JGMER1AD 93.30<200.00
JGMEW1AD 142.70<200.00
JGMFM1AA 130.30<200.00
JGMFT1AA 26.10<200.00
JGMFX1AA 62.60<200.00
JGMF11AA 115.80<200.00 Q:VB

8.07 The Correct Count Geometry was Used. — Yes ✓ No N/A
OK

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
MDC/MDA > CRDL => JGMD01AD BETA 4.4E+00>4.0E+00
JGMEE1AD BETA 4.5E+00>4.0E+00
JGMER1AD BETA 4.1E+00>4.0E+00
JGMFM1AA BETA 4.2E+00>4.0E+00
JGMFT1AA BETA 1.4E+01>4.0E+00
JGMFX1AA BETA 6.4E+00>4.0E+00
JGMF11AA BETA 4.8E+00>4.0E+00 Q:C1

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 =>
JGMD01AD BETA 1.5E+01 L:4.4E+00
JGMEE1AD BETA 8.6E+00 L:4.5E+00
JGMEL1AD BETA 1.2E+01 L:3.8E+00
JGMER1AD BETA 1.4E+01 L:4.1E+00
JGMEW1AD BETA 9.9E+00 L:3.9E+00
JGMFM1AA BETA 2.1E+03 L:4.2E+00
JGMFT1AA BETA 1.7E+04 L:1.4E+01
JGMFX1AA BETA 1.3E+04 L:6.4E+00
JGMF11AA BETA 3.9E+02 L:4.8E+00

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

OK; No Action Level Found => BETA

OK; No Callin Level Found => BETA

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

OK

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

No FWHM found in Batch Data!

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A

No Count Library found in Batch Data!

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

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

8.3 Comments:

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

OK

First Level Review Pam Anderson **Date** 11-27-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6298353
W05059

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 Adams Date: 11-28-06

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-09037**
NCM Initiated By: Pam Anderson
Date Opened: 11/27/2006
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Beta by GPC-Sr/Y
Lot #'s (Sample #'s): J6J170294 (1,2), J6J170298 (1,2,3,4),
QC Batches: 6298353

Nonconformance: MDA not met
Subcategory: Matrix effect

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	11/27/2006	The beta samples listed below do not meet CRDL. The rad screen indicated a warm sample so a smaller aliquot was taken. The resluts of these samples show they were warm. Results >MDA>CRDL. JGMDD01AD JGMEE1AD JGMFM1AA JGMFT1AA JGMFX1AA JGMF11AA.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	11/27/2006	Note in case narrative.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

11/30/2006 10:33:56 AM

Lot No., Due Date: J6J170294,J6J180402,J6J180406,J6J190304; 12/04/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6298355; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05039; WATER

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

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

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

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

8.04 The Correct Tracer and QC Vials Where Used in the Samples — Yes No ✓ N/A
Incorrect Tracer/Vial => JGMEE1AE SRTA<>SRTB
JGQDX1AC SRTA<>SRTB
JGQEW1AA SRTA<>SRTB
JGQEW1AC SRTA<>SRTB
JGT3N1AC SRTA<>SRTB
JGT361AC SRTA<>SRTB
JG7KX1AA SRTA<>SRTB
JG7KX1AC STSC<>SRSG Q:V9

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
OK

8.07 The Correct Count Geometry was Used. — Yes ✓ No N/A
OK

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 =>
JGQDX1AC SR-90 5.4E+00 L:4.9E-01
JGQDX1AC SR-90 5.8E+00 L:5.1E-01
JGQDX1AC SR-90 5.6E+00 L:3.6E-01
JGQEW1AA SR-90 3.0E+01 L:4.4E-01
JGQEW1AA SR-90 3.2E+01 L:5.3E-01

JGQEW1AA SR-90 3.1E+01 L:3.5E-01

8.23 Result <= Action Level, when Defined. Yes No N/A
OK; No Action Level Found => SR-90 ✓

OK; No Callin Level Found => SR-90

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 version.) Yes No N/A

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

8.3 Comments:

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

First Level Review Pam Anderson **Date** 11-30-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6298355
W05039

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 Wilson Date: 11-30-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

11/27/2006 10:47:50 AM

Lot No., Due Date: J6J170119; 12/04/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6298344; RTC99 Tc-99 by LSC

SDG, Matrix: W05039; 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 => JGK2J1AC TCSG<>TCSE Q:V9		✓	
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> JGK2J1AD TC-99 510.0 (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. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

8.26 Instruments have Current Calibrations. Yes No N/A

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

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

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

8.3 Comments:

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

First Level Review Pam Anderson **Date** 11-27-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 629344
W05039

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: 11-28-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

11/2/2006 4:43:47 PM

Lot No., Due Date: J6J170294; 12/04/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6298348; RTRITIUM H-3 by LSC

SDG, Matrix: W05039; WATER

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

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

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

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

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

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

8.06 At Least the Minimum Sample Volume Was Used — Yes No ✓ N/A
Analysis Volume => JGMD01AA 5.00<10.00
JGMEE1AA 5.00<10.00
JGMEL1AA 5.00<10.00
JGMER1AA 5.00<10.00
JGMEW1AA 5.00<10.00 Q:VB

8.07 The Correct Count Geometry was Used. — Yes ✓ No ✓ N/A
PA 11-3-06
Count Geometry => JG7KC1AF SVP15/5<>SVP10/10
JG7KC1AG SVP15/5<>SVP10/10
JG7KC1AA SVP15/5<>SVP10/10
JG7KC1AC SVP15/5<>SVP10/10
JG7KC1AD SVP15/5<>SVP10/10
JG7KC1AE SVP15/5<>SVP10/10
JGMD01AA SVP15/5<>SVP10/10
JGMEE1AA SVP15/5<>SVP10/10
JGMEL1AA SVP15/5<>SVP10/10
JGMEL1AF SVP15/5<>SVP10/10
JGMER1AA SVP15/5<>SVP10/10
JGMEW1AA SVP15/5<>SVP10/10 Q:VC

ok
PA
11-3-06

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

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

8.1 Comments:

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

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

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

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

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

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

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

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

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

8.2 Comments:

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

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

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

OK; No Callin Level Found => H-3

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

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

8.26 Instruments have Current Calibrations. Yes No N/A

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

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

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

8.3 Comments:

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

First Level Review Pam Anderson **Date** 11-3-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 629848
W05039

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

Comments on any "No" response:

Second Level Review: Sherryl A Adams Date: 11-6-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/8/2006 4:53:57 PM

Lot No., Due Date: J6J170294; 12/04/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6298346; RUNAT UNat by KPA

SDG, Matrix: W05039; 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 => JG7J91AD UNSC<>UNSF 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 No Count Analysis Size found in Batch Data!			✓
8.07 The Correct Count Geometry was Used. No Count Geometry found in Batch Data!			✓
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. No Count Duration Field Found in Batch Data!			✓
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. Batch Positive Result => JGMD01AE Uranium 1.3E+01 L:8.2E-02 JGMEE1AF Uranium 9.8E+00 L:8.2E-02 JGMEL1AE Uranium 8.7E+00 L:7.6E-02 JGMER1AE Uranium 9.0E+00 L:8.4E-02		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => Uranium OK; No Callin Level Found => Uranium	✓		
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 _____ **Date** _____

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 629846
W05059

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

Comments on any "No" response:

Second Level Review: Cheryl A Adam Date: 12-11-06

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

SEVERN TRENT STL

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Work Order Number(s): **JGW0R, JGTX2**	J65190304
Lab Sample Numbers or SDG:	W0 5039
Method/Test/Parameter: **Cr+6 in Water / RICH-WC-5003**	6293366

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

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

Comments on any "No" response:

Analyst: [signature] Date: 10/26/06

Second-Level Review: [signature] Date: 11/30/06

PNNL J6J170119 W05039

Fluor Hanford due 11.30.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-010-83

Page 1 of 1

Collector: P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-010	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, OCTOBER 2006	HNF-N-506 2	Ice Chest No.: SAMS 300 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 GW samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.

Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KPW6		W	10-16-06	0951	1x20-mL P	Activity Scan	None
B1KPW6		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JGK2J	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford P. CONNOLLY			OCT 16 2006 1500		S. Smith	S. Smith	OCT 16 2006 1500
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

99

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10/16/06 1500

Client: PGW SDG #: W05039 NA [ ] SAF #: 507-010 NA [ ]

Work Order Number: J6d170119 Chain of Custody # 507-070-83

Shipping Container ID: SAWS-300 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? NA [ ] Yes [✓] No [ ]

4. Cooler temperature: _____ NA [✓] Yes [✓] No [ ]

5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]

6. Number of samples in shipping container: 1

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

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

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

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

11. Sample Location, Sample Collector Listed? *
    *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): N/A

Sample Custodian: S. Smith Date: 10/16/06 1500

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL JGW170294
WO 5039
Due 12-01-06
Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-010-41**

Page 1 of 1

Collector R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056	**MSIN** **FAX**
SAF No. S07-010	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**	
Project Title SURV, OCTOBER 2006	Logbook: HNF-N-506-3	**Ice Chest No.** AFS-04-22	**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 GW samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KPL8		W	10/17/06	1040	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1KPL8		W	↓	↓	1x20-mL P	Activity Scan	None
B1KPL8		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1KPL8		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JGMER	

F. Wall 10/17/06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			OCT 17 2006/1435		S. Smith	S. Smith	OCT 17 2006/1435
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

68

STL RICHLAND

PNNL J6J170294
WO 5039
Due 12-07-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-010-21**

Page 1 of 1

Collector DURATEK F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-010	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, OCTOBER 2006	HNF-N-506-1	**Ice Chest No.** SMC-595 **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 GW samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KPH1		W	10/17/6	1155	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1KPH1		W	↓	↓	1x20-mL P	Activity Scan	None
B1KPH1		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1KPH1		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JGMEL	

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
DURATEK F. M. HALL	OCT 17 2006 / 1435	L. Smith L. Smith	OCT 17 2006 / 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 J6U170294
W05039
Due 12-01-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-010-15

Page 1 of 1

Collector DURATEK F. M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. S07-010	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV, OCTOBER 2006	HNF-N-506-1	Ice Chest No. SML-595 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 GW samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KPH8		W	10/17/6	1047	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1KPH8		W			1x20-mL P	Activity Scan	None
B1KPH8		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1KPH8		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1KPH8		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JGMEE	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK F. M. HALL			OCT 17 2006 / 1435				OCT 17 2006 / 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 = 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

STI RICHLAND

70

PNNL JGJ170294
W05039
DURATEK due 12-07-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-010-35

Page 1 of 1

Collector F. M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. S07-010	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV, OCTOBER 2006	HNF-N-506-1	Ice Chest No. SML-595 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 GW samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KPM2		W	10/17/6	1331	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1KPM2		W	↓	↓	1x20-mL P	Activity Scan	None
B1KPM2		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1KPM2		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1) JGMDO	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK F. M. HALL		OCT 17 2006	1435		S. Smith	S. Smith OCT 17 2006	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

SIT RECEIVED

71

PNNL UGJ170294
WO5039
due 12-01-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-010-9

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-010	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, OCTOBER 2006	Logbook: HNF-N-506-3	**Ice Chest No.** AFS-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 GW samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KPJ2		W	10/17/06	1302	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1KPJ2		W	↓	↓	1x20-mL P	Activity Scan	None
B1KPJ2		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2

JG MEW

R. Wolle 10/17/06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			OCT 17 2006/1435				OCT 17 2006/1435
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	= 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: 10·17·06 14:35

Client: PGW SDG #: WQ5039 NA [ ] SAF #: 507-010 NA [ ]

Work Order Number: JGT170294 Chain of Custody # 507-010-41,21, 15,35,9

Shipping Container ID: AFS-04-02 SML595 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? NA [ ] Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] Yes [✓] No [ ]
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 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed. Yes [✓] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: S. Smith Date: 10·17·06 14:35

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J6J 170298 WDS039

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G07-010-14**

Page 1 of 1

Collector: Fluor Hanford D. P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: G07-010	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 1NR2-RB, OCTOBER 2006	HNF-N 506 2	Ice Chest No.: SAW5300 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 ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KL67		W	10-17-06	1204	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1KL67		W	↓	↓	1x20-mL P	Activity Scan	None
						J6MFI	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			OCT 17 2006 1442		S. Smith	S. Smith	OCT 17 2006 1442
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

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PNNL J6J170298
WØ5039

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-010-10

Page 1 of 1

Collector: Fluor Hanford D. P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: G07-010	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 1NR2-RB, OCTOBER 2006	HNF N-506 2	Ice Chest No.: SAWS 300 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 ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KL63		W	10-17-06	1103	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1KL63		W	↓	↓	1x20-mL P	Activity Scan	None
						JG-MFX	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			OCT 17 2006 1442		J. Smith	S. Smith	OCT 17 2006 1442
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

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PNNL JGJ 170298
WO 5039

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **G07-010-12**

Page 1 of 1

Collector Fluor Hanford D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G07-010	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, OCTOBER 2006	HNF. N 506 2	**Ice Chest No.** SALOS-300 **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 ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KL65		W	10-17-06	0840	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1KL65		W	↓	↓	1x20-mL P	Activity Scan	None
						JGMFT	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			OCT 17 2006 1442	A. Smith	S. Smith		OCT 17 2006 1442
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

SIL RICHLAND

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PNNL JGW170298
W05039
Fluor Hanford due 12-01-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-010-16

Page 1 of 1

Collector: D. P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: G07-010	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 1NR2-RB, OCTOBER 2006	HNE-N-506 2/9	Ice Chest No.: JAW5-300 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 ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KL69		W	10-17-06	1303	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1KL69		W	↓	↓	1x20-mL P	Activity Scan	None
						JGMFM	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford	D. P. CONNOLLY		OCT 17 2006 1442		S. Smith	S. Smith	OCT 17 2006 1442
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10·17·06 14:42

Client: PGW

SDG #: W05039 NA [ ] SAF #: 607-010 NA [ ]

Work Order Number: U6J170298

Chain of Custody # 607-010-16, 12, ~~10, 14~~ 10, 14 SKS 10/18/06

Shipping Container ID: SAWS300

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

Sample Custodian: S. Smith Date: 10·17·06 14:42

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J6J180402
W05039
Due 12/07/06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-002-134**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 54w2-300
Project Title 100KR4IAM(1/2)-LOI OCTOBER 2006	Logbook: HNF-N-506-3	**Ice Chest No.** ~~AFS 04 022~~ **Temp.** 10-8-06
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KLH6		W	10/18/06	1110	1x20-mL P	Activity Scan	None
B1KLH6		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
B1KLH6		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JGQDX	

D. Wall 10/18/06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			OCT 18 2006 1447			D. Smith	OCT 18 2006 1447
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	

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

PNNL J6J180402
W05039
due 12/01/06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-002-142**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** SAW3-322
Project Title 100KR4IAM(1/2)-LOI OCTOBER 2006	Logbook: HNF-N-506-3	**Ice Chest No.** ~~AFS-04-022~~ **Temp.** 10-18-06
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KM26		W	10/18/06	1307	1x20-mL P	Activity Scan	None
B1KM26		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
						JGQDW	

D. Wall 10/18/06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			OCT 18 2006 1447		S. Smith	S. Smith	OCT 18 2006 1447
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

SPL RICHLAND

08

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10/18/06 1447

Client: PGW SDG #: W05239 NA [ ] SAF #: I07-002 NA [ ]

Work Order Number: J6U180402 Chain of Custody # I07-002-134, 142

Shipping Container ID: SAWS-300 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? NA [ ] Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ] Yes [✓] No [ ]
6. Number of samples in shipping container: 2
7. Sample holding times exceeded?
8. Samples have: NA [✓] Yes [ ] No [ ]
   _____ tape
   _____ custody seals
   _____ hazard labels
   _____ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Smith Date: 10-18-06 14:47

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J6J180406
W05039
Due 12-07-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S07-010-99**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-010	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 504023 504
Project Title SURV, OCTOBER 2006	Logbook: HNF-N-506-3	**Ice Chest No.** ~~AFS 04-082~~ **Temp.** 10-18-06
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 GW samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KPY1		W	10/18/06	1307	1x20-mL P	Activity Scan	None
B1KPY1		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

JGQEW

S. Wells 10/18/06

Relinquished By	Received By
Print: Fluor Hanford R. T. SICKLE Sign: Date/Time: OCT 18 2006 1447	Print: Sign: S. Smith Date/Time: OCT 18 2006 1447
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10/18/06 1447

Client: PGW SDG #: W05039 NA [ ] SAF #: 507-010 NA [ ]

Work Order Number: J6J180406 Chain of Custody # 507-010-99

Shipping Container ID: SAWS-300 Air Bill # N/A

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

Sample Custodian: L. Smith Date: 10-18-06 14:47

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

PNNL J6J190304
W05039
Due 12-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-002-202

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 100KR4IAM(1/2)-LOL OCTOBER 2006	Logbook: HNF-N-506-3	**Ice Chest No.** AFS-04-022 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KLY8		W	10/19/06	1024	1x20-mL P	Activity Scan	None
B1KLY8		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10) JGT4T	HNO3 to pH <2

L. Wells 10/19/06

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Fluor Hanford R. T. SICKLE		OCT 19 2006 1425	S. Smith	S. Smith	OCT 19 2006 1425
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 J6J190304
W05039
Due 12-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-002-210**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 100KR4IAM(1/2)-LOI, OCTOBER 2006	Logbook; HNF-N-506-3	**Ice Chest No.** AFS-01-022 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KLY4		W	10/19/06	0930	1x20-mL P	Activity Scan	None
B1KLY4		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
						JG T4A	

L. Wall 10/19/06

Relinquished By Print Fluor Hanford R. T. SICKLE Sign	Date/Time 1425 OCT 19 2006	Received By Print Sign S. Smith	Date/Time 1425 OCT 19 2006
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

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

SIT PRIORITY

85

PNNL JGJ190304
WOS039 Due 12-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-002-172**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 100KR4IAM(1/2)-LOI, OCTOBER 2006	Logbook: HNF-N-506-3	**Ice Chest No.** AFS-04-022 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "T", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KM18		W	10/19/06	1129	1x20-mL P	Activity Scan	None
B1KM18		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
B1KM18		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1) JGT36	HNO3 to pH <2

D. Wall 10/19/06

Relinquished By	Date/Time	Received By	Date/Time
Print: Fluor Hanford R. T. SICKLE Sign:	OCT 19 2006 1425	Print: Sign: L. Smith S. Smith	OCT 19 2006 1425
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 RECORD

98

PNNL U6J190304
WO5039
due 12-4-06

Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-002-160**

Page 1 of 1

Collector D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 100KR4IAM(1/2)-LOI, OCTOBER 2006	HNF-N-566 2	**Ice Chest No.** SAWS-300 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KM22		W	10-19-06	1013	1x20-mL P	Activity Scan	None
B1KM22		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10) JGT3X	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			1420 OCT 19 2006		S. Smith	S. Smith	1420 OCT 19 2006
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

87

Y

PNNL J6U190304
WO 5039
Due 12-4-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-002-118**

Page 1 of 1

Fluor Hanford Collector: D.P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-002	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 100KR4IAM(1/2)-LOI OCTOBER 2006	HNF-506-N 2	Ice Chest No.: SAWS 300 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: CERCLA	Priority: 45 Days	Offsite Property No.

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KLN1		W	10-19-06	1121	1x20-mL P	Activity Scan	None
B1KLN1		W	↓	✓	3x1000-mL G/P	GAMMA_GS: List-1 (10) JGT3N	HNO3 to pH <2
B1KLN1		W	↓	✓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D.P. CONNOLLY			OCT 19 2006 1425			S. Smith	OCT 19 2006 1425
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 J6J190304
W05239
Due 12-04-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-002-126**

Page 1 of 1

Collector Fluor Hanford D. P. CONNOLLY	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. I07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 100KR4IAM(1/2)-LOI OCTOBER 2006	HNF-506-N 2	Ice Chest No. SAWS 500 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol CERCLA	Priority: 45 Days	Offsite Property No.

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1KLM5 (F)		W	10-19-06	1207	1x500-mL aG	7196_CR6: Hexavalent Chromium (1) JG TX2	Cool 4C
B1KM30		W	↓	↓	1x20-mL P	Activity Scan	None
B1KM30		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10) JGT26	HNO3 to pH <2

Relinquished By Fluor Hanford D. P. CONNOLLY Print Sign Date/Time 1425 OCT 19 2006	Received By Print Sign Date/Time 1425 OCT 19 2006	Matrix *	
Relinquished By Date/Time	Received By Date/Time	S = Soil	DS = Drum Solid
Relinquished By Date/Time	Received By Date/Time	SE = Sediment	DL = Drum Liquid
Relinquished By Date/Time	Received By Date/Time	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: 10/19/06 14:25

Client: PGW SDG #: W05039 NA [ ] SAF #: I07-002 NA [ ]

Work Order Number: J6U190304

Shipping Container ID: AFS-04-022 Chain of Custody # I07-002-126 202, 210, 172, 160, 118

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? NA [ ] Yes [✓] No [ ]

4. Cooler temperature: _____ NA [✓] Yes [✓] No [ ]

5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]

6. Number of samples in shipping container: ~~6~~ 7 SS

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

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

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

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

11. Sample Location, Sample Collector Listed? *
    *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): N/A

Sample Custodian: S. Smith Date: 10/19/06 14:25

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

STL RICHLAND

11/15/2006 1:28:09 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #:

AnalyDueDate: 12/01/2006 W05039

Sep1 DT/Tm Tech:

Batch: 6298354 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: BockJ / APA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JGQDW-1-AA J6J180402-1-SAMP 10/18/2006 13:07		2499.60g,in AmtRec: 20ML,3XLP	#Containers: 4		1:0 mL	100	04	1316	11/17/06	Scr: Alpha: -6.41E-05 uCi/Sa Beta: 2.04E-04 uCi/Sa
2 JGQDW-1-AC-X J6J180402-1-DUP 10/18/2006 13:07		AmtRec: 20ML,3XLP	#Containers: 4				05	1500		Scr: Alpha: -6.41E-05 uCi/Sa Beta: 2.04E-04 uCi/Sa
3 JGQDX-1-AA J6J180402-2-SAMP 10/18/2006 11:10		2506.70g,in AmtRec: 20ML,6XLP	#Containers: 7				05	1317	11/17/06	Scr: Alpha: -8.99E-04 uCi/Sa Beta: 1.47E-03 uCi/Sa
4 JGT26-1-AA J6J190304-2-SAMP 10/19/2006 12:07		2499.60g,in AmtRec: 20ML,3XLP	#Containers: 4				06	1317		Scr: Alpha: 1.45E-04 uCi/Sa Beta: -1.52E-04 uCi/Sa
5 JGT3N-1-AA J6J190304-3-SAMP 10/19/2006 11:21		2504.90g,in AmtRec: 20ML,6XLP	#Containers: 7				07	1317		Scr: Alpha: 4.66E-04 uCi/Sa Beta: 1.93E-04 uCi/Sa
6 JGT3X-1-AA J6J190304-4-SAMP 10/19/2006 10:13		2500.00g,in AmtRec: 20ML,3XLP	#Containers: 4				08	1317		Scr: Alpha: -7.33E-05 uCi/Sa Beta: -1.02E-05 uCi/Sa
7 JGT36-1-AA J6J190304-5-SAMP 10/19/2006 11:29		2500.00g,in AmtRec: 20ML,6XLP	#Containers: 7				010	1317		Scr: Alpha: 3.28E-04 uCi/Sa Beta: -8.01E-04 uCi/Sa

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STL RICHLAND

11/15/2006 1:28:11 PM

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 12/01/2006

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Batch: 6298354 WATER pCi/L **PM, Quote: SA , 57671**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JGT4A-1-AA J6J190304-6-SAMP 10/19/2006 09:30		2501.40g,in AmtRec: 20ML,3XLP	#Containers: 4		100mL	100	612	1318	11/17/06	Scr: Alpha: -3.66E-04 uCi/Sa Beta: 4.51E-04 uCi/Sa
9 JGT4T-1-AA J6J190304-7-SAMP 10/19/2006 10:24		2500.10g,in AmtRec: 20ML,3XLP	#Containers: 4				613	1318		Scr: Alpha: 3.04E-04 uCi/Sa Beta: 9.62E-05 uCi/Sa
10 JG7KQ-1-AA-B J6J250000-354-BLK 10/18/2006 13:07		2505.00g,in AmtRec:	#Containers: 1				66	1501	11/17/06	Scr: Alpha: Beta:
11 JG7KQ-1-AC-C J6J250000-354-LCS 10/18/2006 13:07		2499.80g,in AmtRec:	QCAG1295 11/07/06,pd 06/14/05,r #Containers: 1				67	1501		Scr: Alpha: Beta:

Comments: JGQDW-SAMP "Comments Not enough sample to pour Dup. Recount on diff. detector. JB 11/15/06"

pH <2.0 JB 11-15-06

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

JGQDW1AA-SAMP Constituent List:

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

JG7KQ1AA-BLK:

92

11/15/2006 1:28:12 PM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 12/01/2006

Sep1 DT/Tm Tech:

Batch: 6298354
SEQ Batch, Test: None

pCi/L

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:
Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						
JG7KQ1AC-LCS:											
Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						

JGQDW1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JG7KQ1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JG7KQ1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

SEVERN TRENT STL

*** RE-COUNT REQUEST ***

DUE DATE 12-1-06
really want today

CUSTOMER PGW

ANALYSIS gamma

MATRIX water

LOT NUMBER JGJ180402

SAMPLE DELIVERY GROUP W05039

OLD BATCH NUMBER 6298354

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) JGQDW1AA	our sample does not show K-40
2) JGQDW1AC X	the dup does.
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	

11/22/2006 8:44:11 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #:

AnalyDueDate: 12/01/2006

Sep1 DT/Tm Tech:

Batch: 6298354 WATER pCi/L PM, Quote: SA , 57671
SEQ Batch, Test: None All Tests: 6298354 AWTA, 6298355 CLTL,

Sep2 DT/Tm Tech:

Prep Tech: BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JGQDW-1-AA J6J180402-1-SAMP 10/18/2006 13:07		2499.60g,in AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: -6.41E-05 uCi/Sa	Beta: 2.04E-04 uCi/Sa
2 JGQDW-1-AC-X J6J180402-1-DUP 10/18/2006 13:07		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: -6.41E-05 uCi/Sa	Beta: 2.04E-04 uCi/Sa
3 JGQDW-2-AA J6J180402-1-SAMP 10/18/2006 13:07		2499.6 g AmtRec: 20ML,3XLP	#Containers: 4		100ml	100min	66	Scr:	Alpha: -6.41E-05 uCi/Sa	Beta: 2.04E-04 uCi/Sa
4 JGQDW-2-AC-X J6J180402-1-DUP 10/18/2006 13:07		2499.6 AmtRec: 20ML,3XLP	#Containers: 4		"	"	68	Scr:	Alpha: -6.41E-05 uCi/Sa	Beta: 2.04E-04 uCi/Sa
5 JGQDX-1-AA J6J180402-2-SAMP 10/18/2006 11:10		2506.70g,in AmtRec: 20ML,6XLP	#Containers: 7					Scr:	Alpha: -8.99E-04 uCi/Sa	Beta: 1.47E-03 uCi/Sa
6 JGT26-1-AA J6J190304-2-SAMP 10/19/2006 12:07		2499.60g,in AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 1.45E-04 uCi/Sa	Beta: -1.52E-04 uCi/Sa
7 JGT3N-1-AA J6J190304-3-SAMP 10/19/2006 11:21		2504.90g,in AmtRec: 20ML,6XLP	#Containers: 7					Scr:	Alpha: 4.66E-04 uCi/Sa	Beta: 1.93E-04 uCi/Sa

STL RICHLAND

11/22/2006 8:44:13 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 12/01/2006

Sep1 DT/Tm Tech:

Batch: 6298354 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JGT3X-1-AA J6J190304-4-SAMP 10/19/2006 10:13		2500.00g,in AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: -7.33E-05 uCi/Sa	Beta: -1.02E-05 uCi/Sa
9 JGT36-1-AA J6J190304-5-SAMP 10/19/2006 11:29		2500.00g,in AmtRec: 20ML,6XLP	#Containers: 7					Scr:	Alpha: 3.28E-04 uCi/Sa	Beta: -8.01E-04 uCi/Sa
10 JGT4A-1-AA J6J190304-6-SAMP 10/19/2006 09:30		2501.40g,in AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: -3.66E-04 uCi/Sa	Beta: 4.51E-04 uCi/Sa
11 JGT4T-1-AA J6J190304-7-SAMP 10/19/2006 10:24		2500.10g,in AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 3.04E-04 uCi/Sa	Beta: 9.62E-05 uCi/Sa
12 JG7KQ-1-AA-B J6J250000-354-BLK 10/18/2006 13:07		2505.00g,in AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
13 JG7KQ-1-AC-C J6J250000-354-LCS 10/18/2006 13:07		2499.80g,in AmtRec:	QCAG1295 11/07/06,pd 06/14/05,r #Containers: 1					Scr:	Alpha:	Beta:

STL RICHLAND

11/22/2006 8:44:14 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 12/01/2006

Sep1 DT/Tm Tech:

Batch: 6298354 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: JGQDW-SAMP "Comments Not enough sample to pour Dup. Recount on diff. detector. JB 11/15/06"

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

JGQDW1AA-SAMP Constituent List:

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

JG7KQ1AA-BLK:

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

JG7KQ1AC-LCS:

Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						

JGQDW1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JG7KQ1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JG7KQ1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

11/24/2006 1:17:00 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/24/2005, 11/29/2006, Batch: '6298354', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6298354						
AC		**CalcC**	**BockJ**	11/15/2006 1:28:20		
SC			wagarr	IsBatched	10/25/2006 11:43:41 AM	ICOC_RADCALC v4.8.24
SC			BockJ	Prep1C	11/15/2006 1:28:20 PM	RICH-RC-5017 REVISION 5
SC			BlackCL	InCnt1	11/17/2006 11:33:46 AM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	11/17/2006 8:38:30 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	11/22/2006 6:16:47 PM	RICH-RD-0007 REVISION 5
AC			**BlackCL**	11/17/2006 11:33:46		
AC			**DAWKINSO**	11/17/2006 8:38:30		
AC			**DAWKINSO**	11/22/2006 6:16:47		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.18

STL RICHLAND

11/15/2006 10:09:58 AM

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 12/01/2006 W05039

Batch: 6298351 WATER pCi/L
SEQ Batch, Test: None

Sample Preparation/Analysis

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

PM, Quote: SA , 57671

Balance Id:1120482733
Pipet #: 235
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,BockJ / APA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JGMD0-1-AC J6J170294-1-SAMP 10/17/2006 13:31		138.40g,in AmtRec: 20ML,500ML,2XLP #Containers: 4		1.5	48.0	100	1A	0849	11/03/06	Scr: Alpha: 1.10E-05 uCi/Sa Beta: 5.06E-05 uCi/Sa
2 JGMEE-1-AC J6J170294-2-SAMP 10/17/2006 10:47		122.50g,in AmtRec: 20ML,500ML,5XLP #Containers: 7			49.2		1A			Scr: Alpha: -6.40E-05 uCi/Sa Beta: 3.05E-04 uCi/Sa
3 JGMEL-1-AC J6J170294-3-SAMP 10/17/2006 11:55		151.10g,in AmtRec: 20ML,500ML,2XLP #Containers: 4			52.8		1C			Scr: Alpha: 3.10E-04 uCi/Sa Beta: -2.16E-04 uCi/Sa
4 JGMER-1-AC J6J170294-4-SAMP 10/17/2006 10:40		106.30g,in AmtRec: 20ML,500ML,2XLP #Containers: 4			50.6		1D			Scr: Alpha: 3.95E-03 uCi/Sa 1.1E-01L Beta: 1.32E-03 uCi/Sa 1.7E-01L
5 JGMER-1-AF-X J6J170294-4-DUP 10/17/2006 10:40		107.00g,in AmtRec: 20ML,500ML,2XLP #Containers: 4			56.2		1E			Scr: Alpha: 3.95E-03 uCi/Sa 1.1E-01L Beta: 1.32E-03 uCi/Sa 1.7E-01L
6 JGMEW-1-AC J6J170294-5-SAMP 10/17/2006 13:02		134.30g,in AmtRec: 20ML,2XLP #Containers: 3			56.2		1B	1152	11/24/06	Scr: Alpha: 5.86E-05 uCi/Sa Beta: 2.54E-04 uCi/Sa
7 JG7KH-1-AA-B J6J250000-351-BLK 10/17/2006 10:40		201.20g,in AmtRec: #Containers: 1			0.5	100-88	1C			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 v4.8.24

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STL RICHLAND

11/15/2006 10:10:00 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: 12/01/2006

Batch: 6298351
SEQ Batch, Test: None

pCi/L

Sep1 DT/Tm Tech:
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 JG7KH-1-AC-C J6J250000-351-LCS 10/17/2006 10:40		205.70g,in	ASD4044 11/09/06,pd 02/09/06,r	1.5	0.9	100	10A	1152	11/24/06 ave	

AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: PH < 2.0 JB 11-15-06
Aliquots reduced due to weight screen activity JB 11-15-06

1% collodion added to ec. samp. 11/22/06 APA

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

JGMD01AC-SAMP Constituent List:
ALPHA RDL:3 pCi/L LCL: UCL: RPD:
JG7KH1AA-BLK:
ALPHA RDL:3 pCi/L LCL: UCL: RPD:
JG7KH1AC-LCS:
Am-241 RDL: pCi/L LCL:70 UCL:130 RPD:20

JGMD01AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7KH1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7KH1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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11/27/2006 10:41:03 AM

ICOC Fraction Transfer/Status Report

ByDate: 11/27/2005, 12/2/2006, Batch: '6298351', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6298351						
AC		**CalcC**	**BockJ**	11/15/2006 10:10:06		
SC			wagarr	IsBatched	10/25/2006 11:43:41 AM	ICOC_RADCALC v4.8.24
SC			BockJ	Prep1C	11/15/2006 10:10:06 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	Sep2C	11/22/2006 5:45:38 PM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	11/22/2006 7:53:53 PM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	11/24/2006 1:11:25 PM	RICH-RD-0003 REVISION 4
AC			**AshworthA**	11/22/2006 5:45:38		
AC			**DAWKINSO**	11/22/2006 7:53:53		
AC			**DAWKINSO**	11/24/2006 1:11:25		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 4

ICOCFractions v4.8.18

STL RICHLAND

11/15/2006 10:19:42 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: 12/01/2006 W05039

Sep1 DT/Tm Tech:

Batch: 6298353 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: BockJ /AGA

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 JGMD0-1-AD J6J170294-1-SAMP 10/17/2006 13:31		138.30g,in AmtRec: 20ML,500ML,2XLP	#Containers: 4	1.5	92.5	100	26A	0833	11/23/aes	Scr: Alpha: 1.10E-05 uCi/Sa Beta: 5.06E-05 uCi/Sa
2 JGMEE-1-AD J6J170294-2-SAMP 10/17/2006 10:47		129.50g,in AmtRec: 20ML,500ML,5XLP	#Containers: 7		82.1	100	26B			Scr: Alpha: -6.40E-05 uCi/Sa Beta: 3.05E-04 uCi/Sa
3 JGMEL-1-AD J6J170294-3-SAMP 10/17/2006 11:55		151.60g,in AmtRec: 20ML,500ML,2XLP	#Containers: 4		103.8	100	26C			Scr: Alpha: 3.10E-04 uCi/Sa Beta: -2.16E-04 uCi/Sa
4 JGMER-1-AD J6J170294-4-SAMP 110 mls 10/17/2006 10:40		93.30g,in AmtRec: 20ML,500ML,2XLP	#Containers: 4		82.2	200	08A	1013		Scr: Alpha: 3.95E-03 uCi/Sa 1.1E-01L Beta: 1.32E-03 uCi/Sa 1.7E-01L
5 JGMEW-1-AD J6J170294-5-SAMP 10/17/2006 13:02		142.70g,in AmtRec: 20ML,2XLP	#Containers: 3		105.3	100	26D	0833		Scr: Alpha: 5.36E-05 uCi/Sa Beta: 2.54E-04 uCi/Sa
6 JGMEW-1-AE-X J6J170294-5-DUP 10/17/2006 13:02		142.40g,in AmtRec: 20ML,2XLP	#Containers: 3		94.4	100	27A			Scr: Alpha: 5.36E-05 uCi/Sa Beta: 2.54E-04 uCi/Sa
7 JGMFM-1-AA J6J170298-1-SAMP 130 mls. 10/17/2006 13:03		130.30g,in AmtRec: 20ML,LP	#Containers: 2		26.5	100	27C ~~27.3~~ 11/23/aes			Scr: Alpha: 2.60E-05 uCi/Sa Beta: 6.85E-04 uCi/Sa 1.3E-01L

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STL RICHLAND

11/15/2006 10:19:43 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: 12/01/2006

Sep1 DT/Tm Tech:

Batch: 6298353 WATER pCi/L PM, Quote: SA , 57671
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JGMFT-1-AA J6J170298-2-SAMP 10/17/2006 08:40	25 mLs	26.10g,in AmtRec: 20ML,LP	#Containers: 2	1.5	15.8	200	28B	1013 ~~0833~~ 11/23/06	11/23/06	Scr: Alpha: 1.70E-03 uCi/Sa 1.1E-01L Beta: 3.62E-03 uCi/Sa 2.5E-02L
9 JGMFX-1-AA J6J170298-3-SAMP 10/17/2006 11:03	62 mLs	62.60g,in AmtRec: 20ML,LP	#Containers: 2		34.5	200	28C			Scr: Alpha: 1.75E-03 uCi/Sa 1.0E-01L Beta: 1.44E-03 uCi/Sa 6.2E-02L
10 JGMF1-1-AA J6J170298-4-SAMP 10/17/2006 12:04		115.80g,in AmtRec: 20ML,LP	#Containers: 2		98.8	100	~~27D~~ 27C 11/23/06	0833		Scr: Alpha: -7.62E-05 uCi/Sa Beta: 3.22E-05 uCi/Sa
11 JG7KL-1-AA-B J6J250000-353-BLK 10/17/2006 13:02		201.40g,in AmtRec:	#Containers: 1		0.5	200	28D	1013		Scr: Alpha: Beta:
12 JG7KL-1-AC-C J6J250000-353-LCS 10/17/2006 13:02		200.20g,in AmtRec:	BESB2946 10/13/06,pd 08/08/06,r #Containers: 1		0.6	200	37A	1016		Scr: Alpha: Beta:

Comments: ~~JGMD0 SAMP~~ "Comments:Aliquots reduced due to weight screen activity. JB 11/15/06"

pH < 2.0 JB 11-15-06

10% colloidion added to ec. Samp. 11/22/06 APA

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

JGMD01AD-SAMP Constituent List:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 12
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.24

103

11/27/2006 10:41:27 AM

ICOC Fraction Transfer/Status Report

ByDate: 11/27/2005, 12/2/2006, Batch: '6298353', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6298353						
AC		CalcC	BockJ	11/15/2006 10:19:49		
SC			wagarr	IsBatched	10/25/2006 11:43:41 AM	ICOC_RADCALC v4.8.24
SC			BockJ	Prep1C	11/15/2006 10:19:49 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	Sep2C	11/22/2006 5:45:29 PM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	11/22/2006 7:53:46 PM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	11/24/2006 1:11:01 PM	RICH-RD-0003 REVISION 4
AC			BockJ	11/15/2006 10:27:43		
AC			AshworthA	11/22/2006 5:45:29		
AC			DAWKINSO	11/22/2006 7:53:46		
AC			DAWKINSO	11/24/2006 1:11:01		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.18

STL RICHLAND

11/16/2006 12:53:58 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #: 1720 5
Sep1 DT/Tm Tech: 20 NOV 06 1730 DRM
Sep2 DT/Tm Tech: 28 NOV 06 0945 DRM
Prep Tech: ,BockJ

AnalyDueDate: 12/01/2006 WD5039

Batch: 6298355 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

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 JGMEE-1-AE J6J170294-2-SAMP		1000.00g,in	SRTA16266 11/08/06,pd 09/11/06,r	79.7	1"	21.9	100	3A 3C	1120 0654	11/29/06 11/30/06	
10/17/2006 10:47		AmtRec: 20ML,500ML,5XLP	#Containers: 7					Scr:	Alpha: -6.40E-05 uCi/Sa	Beta: 3.05E-04 uCi/Sa	
2 JGQDX-1-AC J6J180402-2-SAMP		998.10g,in	SRTA16267 11/08/06,pd 09/11/06,r	89.7		22.4		3B 3D	1120 0654	11/29/06 11/30/06	
10/18/2006 11:10		AmtRec: 20ML,6XLP	#Containers: 7					Scr:	Alpha: -8.99E-04 uCi/Sa	Beta: 1.47E-03 uCi/Sa	
3 JGQEW-1-AA J6J180406-1-SAMP		1002.80g,in	SRTA16268 11/08/06,pd 09/11/06,r	92.9		23.3		3C 4A	1120 0654	11/29/06 11/30/06	
10/18/2006 13:07		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 2.02E-04 uCi/Sa	Beta: -2.24E-04 uCi/Sa	
4 JGQEW-1-AC-X J6J180406-1-DUP		998.60g,in	SRTA16269 11/08/06,pd 09/11/06,r	90.1		22.7		3D 4B	1120 0654	11/29/06 11/30/06	
10/18/2006 13:07		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: 2.02E-04 uCi/Sa	Beta: -2.24E-04 uCi/Sa	

STL RICHLAND

11/16/2006 12:53:59 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #:

AnalyDueDate: 12/01/2006

Sep1 DT/Tm Tech:

Batch: 6298355 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	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 JGT3N-1-AC J6J190304-3-SAMP		1004.10g,in	SRTA16270 11/08/06,pd 09/11/06,r	78.3	21.4		100	4A 4C	1120 0654	11/30/06 11/30/06	
			YTA16560 Ex:7/23/2007								
10/19/2006 11:21		AmtRec: 20ML,6XLP	#Containers: 7					Scr:	Alpha: 4.66E-04 uCi/Sa		Beta: 1.93E-04 uCi/Sa
6 JGT36-1-AC J6J190304-5-SAMP		1003.10g,in	SRTA16271 11/08/06,pd 09/11/06,r	89.0	22.1			4B 4D	1120 0654	11/30/06 11/30/06	
			YTA16561 Ex:7/23/2007								
10/19/2006 11:29		AmtRec: 20ML,6XLP	#Containers: 7					Scr:	Alpha: 3.28E-04 uCi/Sa		Beta: -8.01E-04 uCi/Sa
7 JG7KX-1-AA-B J6J250000-355-BLK		1003.40g,in	SRTA16272 11/08/06,pd 09/11/06,r	69.8	21.4			4C 7A	1120 0841	11/30/06 11/30/06	
			YTA16562 Ex:7/23/2007								
10/18/2006 13:07		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
8 JG7KX-1-AC-C J6J250000-355-LCS		1000.90g,in	STSC1766 09/27/06,pd 06/21/06,r	72.9	22.1			4D 7B	1120 0841	11/30/06 11/30/06	
			YTA16563 Ex:7/23/2007								
10/18/2006 13:07		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

STL RICHLAND

11/16/2006 12:54:00 PM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 12/01/2006

Sep1 DT/Tm Tech:

Batch: 6298355 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	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: PH L 2.0 JB 11-16-06

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

JGMEE1AE-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

JG7KX1AA-BLK:

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

JG7KX1AC-LCS:

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

JGMEE1AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7KX1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7KX1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

11/30/2006 10:31:47 AM

ICOC Fraction Transfer/Status Report

ByDate: 11/30/2005, 12/5/2006, Batch: '6298355', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6298355						
AC		CalcC	BockJ	11/16/2006 12:54:13		
SC			wagarr	IsBatched	10/25/2006 11:43:41 AM	ICOC_RADCALC v4.8.24
SC			BockJ	Prep1C	11/16/2006 12:54:13 PM	RICH-RC-5016 REVISION 6
SC			ManisD	Sep1C	11/20/2006 5:27:17 PM	RICH-RC-5006 REVISION 6
SC			ManisD	Sep2C	11/28/2006 5:25:38 PM	RICH-RC-5071 REVISION 4
SC			DAWKINSO	InCnt2	11/28/2006 5:48:59 PM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	11/30/2006 9:12:19 AM	RICH-RD-0003 REVISION 4
AC			BockJ	11/16/2006 1:24:17		
AC			ManisD	11/20/2006 5:27:17		
AC			ManisD	11/28/2006 5:25:38		
AC			DAWKINSO	11/28/2006 5:48:59		
AC			BlackCL	11/30/2006 9:12:19		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt:6

ICOCFractions v4.8.18

STL RICHLAND

11/20/2006 8:41:49 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #: _____

AnalyDueDate: 11/30/2006 W05039

Batch: 6298344 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 JGK2J-1-AA J6J170119-1-SAMP 10/16/2006 09:51		AmtRec: 20ML,500MLP	125.40g,in	125.40g #Containers: 2		60		Scr:	Alpha: -3.90E-05 uCi/Sa	Beta: 2.70E-05 uCi/Sa
2 JGK2J-1-AC-S J6J170119-1-MS 10/16/2006 09:51		AmtRec: 20ML,500MLP	125.60g,in	125.60g #Containers: 2	tcsg1704 09/20/06,pd 01/10/06,r			Scr:	Alpha: -3.90E-05 uCi/Sa	Beta: 2.70E-05 uCi/Sa
3 JGK2J-1-AD-X J6J170119-1-DUP 10/16/2006 09:51		AmtRec: 20ML,500MLP	126.60g,in	126.60g #Containers: 2				Scr:	Alpha: -3.90E-05 uCi/Sa	Beta: 2.70E-05 uCi/Sa
4 JG7J5-1-AA-B J6J250000-344-BLK 10/16/2006 09:51		AmtRec:	124.90g,in	124.90g #Containers: 1				Scr:	Alpha:	Beta:
5 JG7J5-1-AC-C J6J250000-344-LCS 10/16/2006 09:51		AmtRec:	125.40g,in	125.40g #Containers: 1	tcse2021 09/20/06,pd 01/10/06,r			Scr:	Alpha:	Beta:
6 JG7J5-1-AD-BN J6J250000-344-IBLK 10/16/2006 09:51		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:

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STL RICHLAND

11/20/2006 8:41:51 AM

Sample Preparation/Analysis

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

AnalyDueDate: 11/30/2006

Batch: 6298344
SEQ Batch, Test: None

pCi/L

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: DH L2.0 9B 11-20-06

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

JGK2J1AA-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JGK2J1AC-MS Constituent List:

JG7J51AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JG7J51AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JG7J51AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

JGK2J1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JGK2J1AC-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7J51AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7J51AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7J51AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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11/27/2006 10:41:57 AM

ICOC Fraction Transfer/Status Report

ByDate: 11/27/2005, 12/2/2006, Batch: '6298344', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6298344						
AC		**CalcC**	**BockJ**	11/20/2006 8:29:40		
SC			wagarr	IsBatched	10/25/2006 11:43:41 AM	ICOC_RADCALC v4.8.24
SC			BockJ	InPrep	11/20/2006 8:29:40 AM	RICH-RC-5014 Revision 6
SC			BockJ	Prep1C	11/20/2006 8:41:57 AM	RICH-RC-5016 REVISION 6
SC			FABREM	Sep1C	11/22/2006 5:37:46 PM	RICH-RC-5065 REVISION 5
SC			DAWKINSO	InCnt1	11/22/2006 5:43:42 PM	RICH-RD-0001 REVISION 3
SC			DAWKINSO	CalcC	11/25/2006 2:33:23 PM	RICH-RD-0001 REVISION 3
AC			**BockJ**	11/20/2006 8:41:57		
AC			**FABREM**	11/22/2006 5:37:46		
AC			**DAWKINSO**	11/22/2006 5:43:42		
AC			**DAWKINSO**	11/25/2006 2:33:23		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt:5

ICOCFractions v4.8.18

STL RICHLAND

10/25/2006 11:42:22 AM

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 12/01/2006 W05039

Batch: 6298348 WATER pCi/L
SEQ Batch, Test: None

Sample Preparation/Analysis

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

PM, Quote: SA , 57671

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 10-30 550 am
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 JGMD0-1-AA J6J170294-1-SAMP 10/17/2006 13:31	AmtRec: 20ML,500ML,2XLP	#Containers: 4				Scr:	Alpha:	Beta:
2 JGMEE-1-AA J6J170294-2-SAMP 10/17/2006 10:47	AmtRec: 20ML,500ML,5XLP	#Containers: 7				Scr:	Alpha:	Beta:
3 JGMEL-1-AA J6J170294-3-SAMP 10/17/2006 11:55	AmtRec: 20ML,500ML,2XLP	#Containers: 4				Scr:	Alpha:	Beta:
4 JGMEL-1-AF-X J6J170294-3-DUP 10/17/2006 11:55	AmtRec: 20ML,500ML,2XLP	#Containers: 4				Scr:	Alpha:	Beta:
5 JGMER-1-AA J6J170294-4-SAMP 10/17/2006 10:40	AmtRec: 20ML,500ML,2XLP	#Containers: 4				Scr:	Alpha:	Beta:
6 JGMEW-1-AA J6J170294-5-SAMP 10/17/2006 13:02	AmtRec: 20ML,2XLP	#Containers: 3				Scr:	Alpha:	Beta:
7 JG7KC-1-AA-B J6J250000-348-BLK 10/17/2006 11:55	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

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STL RICHLAND

10/25/2006 11:42:23 AM

Sample Preparation/Analysis

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

Balance Id: 12443
Pipet #:
Sep1 DT/Tm Tech: 10-30-06 bm
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 12/01/2006

Batch: 6298348 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JG7KC-1-AC-C J6J250000-348-LCS 10/17/2006 11:55		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
9 JG7KC-1-AD-BX J6J250000-348-MBLK 10/17/2006 11:55		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
10 JG7KC-1-AE-CM J6J250000-348-MLCS 10/17/2006 11:55		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
11 JG7KC-1-AF-BN J6J250000-348-IBLK 10/17/2006 11:55		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
12 JG7KC-1-AG-BN J6J250000-348-IBLK 10/17/2006 11:55		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

JGMD01AA-SAMP Constituent List:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20

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STL RICHLAND

10/25/2006 11:42:24 AM

Sample Preparation/Analysis

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

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 10-30-06 [illegible]
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 12/01/2006

Batch: 6298348 pCi/L
SEQ Batch, Test: None

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

```
JG7KC1AA-BLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JG7KC1AC-LCS:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
JG7KC1AD-MBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JG7KC1AE-MLCS:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
JG7KC1AF-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JG7KC1AG-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JGMD01AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JG7KC1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JG7KC1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JG7KC1AD-MBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JG7KC1AE-MLCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JG7KC1AF-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JG7KC1AG-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

11/2/2006 4:06:36 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/2/2005, 11/7/2006, Batch: '6298348', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6298348						
AC		**CalcC**	**McDowellD**	10/30/2006 11:01:51		
SC			wagarr	IsBatched	10/25/2006 11:43:41 AM	ICOC_RADCALC v4.8.24
SC			McDowellD	InSep1	10/30/2006 11:01:51 AM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	10/30/2006 3:51:53 PM	RICH-RC-5007 REVISION 6
SC			DAWKINSO	InCnt1	10/30/2006 5:02:57 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	11/2/2006 5:52:35 AM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	10/30/2006 3:51:53		
AC			**DAWKINSO**	10/30/2006 5:02:57		
AC			**BlackCL**	11/2/2006 5:52:35		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.18

STL RICHLAND

11/13/2006 12:08:50 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 12/01/2006 W05039

Sep1 DT/Tm Tech:

Batch: 6298346 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 JGMD0-1-AE J6J170294-1-SAMP 10/17/2006 13:31		25.60g,in AmtRec: 20ML,500ML,2XLP	#Containers: 4			Scr:	Alpha: 1.10E-05 uCi/Sa	Beta: 5.06E-05 uCi/Sa
2 JGMD0-1-AF-X J6J170294-1-DUP 10/17/2006 13:31		26.20g,in AmtRec: 20ML,500ML,2XLP	#Containers: 4			Scr:	Alpha: 1.10E-05 uCi/Sa	Beta: 5.06E-05 uCi/Sa
3 JGMEE-1-AF J6J170294-2-SAMP 10/17/2006 10:47		25.60g,in AmtRec: 20ML,500ML,5XLP	#Containers: 7			Scr:	Alpha: -6.40E-05 uCi/Sa	Beta: 3.05E-04 uCi/Sa
4 JGMEE-1-AG-S J6J170294-2-MS 10/17/2006 10:47		25.80g,in AmtRec: 20ML,500ML,5XLP	UNSF3376 10/23/06,pd 03/22/05,r #Containers: 7			Scr:	Alpha: -6.40E-05 uCi/Sa	Beta: 3.05E-04 uCi/Sa
5 JGMEL-1-AE J6J170294-3-SAMP 10/17/2006 11:55		27.50g,in AmtRec: 20ML,500ML,2XLP	#Containers: 4			Scr:	Alpha: 3.10E-04 uCi/Sa	Beta: -2.16E-04 uCi/Sa
6 JGMER-1-AE J6J170294-4-SAMP 10/17/2006 10:40		25.00g,in AmtRec: 20ML,500ML,2XLP	#Containers: 4			Scr:	Alpha: 3.95E-03 uCi/Sa 1.1E-01L	Beta: 1.32E-03 uCi/Sa 1.7E-01L
7 JG7J9-1-AA-B J6J250000-346-BLK 10/17/2006 13:31		25.70g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.24

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STL RICHLAND

11/13/2006 12:08:53 PM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 12/01/2006

Sep1 DT/Tm Tech:

Batch: 6298346 ug/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JG7J9-1-AC-C J6J250000-346-LCS 10/17/2006 13:31		25.90g,in AmtRec:	UNSF3375 10/23/06,pd 03/22/05,r #Containers: 1			Scr:	Alpha:	Beta:
9 JG7J9-1-AD-C J6J250000-346-LCS 10/17/2006 13:31		26.00g,in AmtRec:	UNSC1365 10/23/06,pd 04/28/06,r #Containers: 1			Scr:	Alpha:	Beta:

Comments: pH < 2.0 JB 11-13-06

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

JGMD01AE-SAMP Constituent List:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JGMEE1AG-MS:

JG7J91AA-BLK:
Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:
JG7J91AC-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20
JG7J91AD-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

JGMD01AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JGMEE1AG-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7J91AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7J91AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JG7J91AD-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

STL RICHLAND

11/13/2006 12:08:53 PM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 12/01/2006

Sep1 DT/Tm Tech:

Batch: 6298346 ug/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

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

Approved By _____ Date: _____

12/8/2006 4:53:37 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/8/2005, 12/13/2006, Batch: '6298346', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6298346						
AC		Cnt1C	**BockJ**	11/13/2006 11:57:53		
SC			wagarr	IsBatched	10/25/2006 11:43:41 AM	ICOC_RADCALC v4.8.24
SC			BockJ	InPrep	11/13/2006 11:57:53 AM	RICH-RC-5016 Revision 6
SC			AntonsonL	Sep1C	11/16/2006 11:15:11 AM	RICH-RC-5015 REVISION 4
SC			AndersonE	Cnt1C	12/8/2006 3:41:40 PM	RICH-RC-5058 REV 7
AC			**AntonsonL**	11/16/2006 11:15:11		
AC			**AndersonE**	12/8/2006 3:41:40 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt:3

ICOCFractions v4.8.26

STL RICHLAND

10/20/2006 12:53:25 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)

AnalyDueDate: 12/04/2006

5I CLIENT: HANFORD

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Batch: 6293366 **WATER** **mg/L** **PM, Quote: SA , 57671**

SEQ Batch, Test: None All Tests: 88EA, AWTA, CLTL, 6293366 88EA,

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 JGTX2-1-AA J6J190304-1-SAMP 10/19/2006 12:07		AmtRec: 500MLP	#Containers: 1			Scr:	Alpha:	Beta:
2 JGTX2-1-AC-S J6J190304-1-MS 10/19/2006 12:07		AmtRec: 500MLP	#Containers: 1			Scr:	Alpha:	Beta:
3 JGTX2-1-AD-D J6J190304-1-MSD 10/19/2006 12:07		AmtRec: 500MLP	#Containers: 1			Scr:	Alpha:	Beta:
4 JGTX2-1-AE-X J6J190304-1-DUP 10/19/2006 12:07		AmtRec: 500MLP	#Containers: 1			Scr:	Alpha:	Beta:
5 JGW0R-1-AA-B J6J200000-366-BLK 10/19/2006 12:07		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 JGW0R-1-AC-C J6J200000-366-LCS 10/19/2006 12:07		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

STL RICHLAND

10/20/2006 12:53:27 PM

Sample Preparation/Analysis

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

Balance Id:

Pipet #:

AnalyDueDate: 12/04/2006

Sep1 DT/Tm Tech:

Batch: 6293366 mg/L
SEQ Batch, Test: None

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:

Comments:

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

JGTX21AA-SAMP Constituent List:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20
JGTX21AC-MS Constituent List:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20
JGTX21AD-MSD:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20
JGW0R1AA-BLK:
HEXCHROME RDL:0.002 mg/L LCL: UCL: RPD:
JGW0R1AC-LCS:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20

JGTX21AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JGTX21AC-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JGTX21AD-MSD:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JGW0R1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JGW0R1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____