Analytical Data Package Prepared For

Pacific Northwest National Lab

RECEIVED
SEP 21 2012
EDMC

Radiochemical Analysis By

STL Richland STLRL

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

Data Package Contains _____ Pages

Report Nbr: 30859

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04801	I05-049	B1DLC5	J5J220220-1	HNE6M1AA	9HNE6M10	5318565
		B1DLC5	J5J220220-1	HNE6M1AC	9HNE6M10	5318567
		B1DLC5	J5J220220-1	HNE6M1AD	9HNE6M10	5318561
		B1DLC5	J5J220220-1	HNE6M1AE	9HNE6M10	5318560
	I05-048	B1DKY6	J5J250150-1	HNH2T1AA	9HNH2T10	5318565
		B1DKY6	J5J250150-1	HNH2T1AC	9HNH2T10	5318567
	I05-049	B1DLD4	J5J250155-1	HNH281AA	9HNH2810	5318565
		B1DL59	J5J250155-2	HNH3E1AA	9HNH3E10	5318561
	I05-048	B1DKW8	J5J260305-1	HNMVT1AA	9HNMVT10	5318565
		B1DKW8	J5J260305-1	HNMVT1AC	9HNMVT10	5318567
	I05-047	B1DH76	J5J260309-1	HNMV21AA	9HNMV210	5318564
	I05-049	B1DL44	J5J260310-1	HNMV41AA	9HNMV410	5318565
		B1DL44	J5J260310-1	HNMV41AC	9HNMV410	5318567
	I05-048	B1DKM6	J5J260311-1	HNMWA1A	9HNMWA10	5318560
	W05-009	B1DTF7	J5J270432-1	HNTGC1AA	9HNTGC10	5318561

Comments:

1217002

Report Nbr: 30859

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04801	I05-054	B1DTX7	J5J270433-1	HNTGF1AA	9HNTGF10	5318565
		B1DTX7	J5J270433-1	HNTGF1AC	9HNTGF10	5318567
		B1DTX7	J5J270433-1	HNTGF1AD	9HNTGF10	5318586
		B1DTX7	J5J270433-1	HNTGF1AE	9HNTGF10	5318560
	W05-009	B1DTB1	J5J290244-1	HN0R71AA	9HN0R710	5318565
		B1DTB1	J5J290244-1	HN0R71AC	9HN0R710	5318561
		B1DTB1	J5J290244-1	HN0R71AD	9HN0R710	5318560
	A05-012	B1DK45	J5J290245-1	HN0R81AA	9HN0R810	5318565
		B1DK45	J5J290245-1	HN0R81AD	9HN0R810	5318583
		B1DK45	J5J290245-1	HN0R81AE	9HN0R810	5318567
		B1DK45	J5J290245-1	HN0R82AC	9HN0R820	5318569
	I05-049	B1DL58	J5J290247-1	HN0R91AA	9HN0R910	5318561
	S05-007	B1DF85	J5J290249-1	HN0TE1AA	9HN0TE10	5318565
		B1DF85	J5J290249-1	HN0TE1AD	9HN0TE10	5318583
		B1DF85	J5J290249-1	HN0TE2AC	9HN0TE20	5318569
	I05-048	B1DKW9	J5J290250-1	HN0TG1AA	9HN0TG10	5318565
		B1DKW9	J5J290250-1	HN0TG1AC	9HN0TG10	5318567
		B1DKX7	J5J290250-2	HN0TH1AA	9HN0TH10	5318560
	S05-009	B1DPV1	J5J310212-1	HN2CA1AA	9HN2CA10	5318565
	I05-049	B1DLC7	J5J310217-1	HN2C91AA	9HN2C910	5318567
	I05-053	B1DP53	J5J310218-1	HN2DE1AA	9HN2DE10	5318565
		B1DP53	J5J310218-1	HN2DE1AC	9HN2DE10	5318569
		B1DP53	J5J310218-1	HN2DE1AD	9HN2DE10	5318562
	G05-011	B1DTT7	J5K030226-1	HN94C1AA	9HN94C10	5318565
		B1DTT7	J5K030226-1	HN94C1AC	9HN94C10	5318569
		B1DTT7	J5K030226-1	HN94C1AD	9HN94C10	5318583

Comments:

Report Nbr: 30859

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04801	G05-011	B1DTT7	J5K030226-1	HN94C1AE	9HN94C10	5318562
		B1DTT7	J5K030226-1	HN94C1AF	9HN94C10	5318586

Comments:

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

December 21, 2005

Attention: Dot Stewart

SAF Number	:	A05-012, G05-011, I05-047, I05-048, I05-049, I05-053, I05-054, S05-007, S05-009, W05-009
Date SDG Closed	:	November 3, 2005
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W04801
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between October 21, 2005 and November 2, 2005, 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
B1DLC5	HNE6M	WATER	10/21/05
B1DKY6	HNH2T	WATER	10/24/05
B1DLD4	HNH28	WATER	10/24/05
B1DL59	HNH3E	WATER	10/24/05
B1DKW8	HNMVT	WATER	10/25/05
B1DL44	HNMV4	WATER	10/25/05
B1DH76	HNMV2	WATER	10/25/05
B1DKM6	HNMWA	WATER	10/25/05
B1DTF7	HNTGC	WATER	10/27/05
B1DTX7	HNTGF	WATER	10/27/05
B1DTB1	HN0R7	WATER	10/28/05
B1DL58	HN0R9	WATER	10/28/05
B1DK45	HN0R8	WATER	10/28/05

B1DF85	HN0TE	WATER	10/28/05
B1DKW9	HN0TG	WATER	10/28/05
B1DKX7	HN0TH	WATER	10/28/05
B1DPV1	HN2CA	WATER	10/31/05
B1DLC7	HN2C9	WATER	10/31/05
B1DP53	HN2DE	WATER	10/31/05
B1DTT7	HN94C	WATER	11/2/05

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014
Strontium-90 by method RICH-RC-5006
Gamma Spectroscopy
Gamma Spec (LL) by method RICH-RC-5017
Iodine-129 (LL) by method RICH-RC-5025
Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058
Chemical Analysis
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:

Samples B1DK45 and B1DF85 were recounted with a longer count time to achieve MDA. The LCS, batch blank, samples and sample duplicate (B1DK45) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1DF85) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1DTX7) results are within contractual requirements

Gamma Spectroscopy

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

The LCS, batch blank, samples and sample duplicate (B1DP53) results are within contractual requirements.

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

The LCS, batch blank, samples and sample duplicate (B1DL44) results are within contractual requirements

Liquid Scintillation Counting

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

The LCS, batch blank, samples, sample duplicate (B1DL58), and sample matrix spike (B1DTF7) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1DLD4) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1DKM6), and sample matrix spike (B1DLC5) results are within contractual requirements.

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

The ICV is also used as the LCS for this batch. The LCS, batch blank, samples, sample duplicate (B1DH76), sample matrix spike (B1DH76) and matrix spike duplicate (B1DH76) results are within contractual requirements.

Pacific Northwest National Laboratories
December 21, 2005

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

Reviewed and approved:

Sandra Segu

Hans Carman
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.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30859 File Name: h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.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:
9HN0R710	B1DTB1		MW6-SBB-A1	W05-009	W04801					10/28/2005 11:12

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	2.89E+04	pCi/L	5.9E+02	1.3E+03		3.34E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 14:28	I
5318561	TC-99	14133-76-7	1.02E+03	pCi/L	1.8E+01	6.6E+01		9.62E+00	100.0	TC99_ETVDSK_LS	1.254E-01	L	12/15/200 11:13	I
5318560	Uranium	7440-61-1	1.48E+00	ug/L	1.5E-01	1.5E-01		8.32E-02		UTOT_KPA	2.52E-02	ML	12/15/200 15:46	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:
9HN0R810	B1DK45		MW6-SBB-A1	A05-012	W04801					10/28/2005 09:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	6.58E+02	pCi/L	1.6E+02	1.8E+02		3.38E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 19:56	I
5318583	BETA	12587-47-2	1.68E+01	pCi/L	2.3E+00	3.2E+00		2.93E+00	100.0	9310_ALPHABETA	1.899E-01	L	12/14/200 07:23	I
5318567	I-129L	15046-84-1	1.62E-01	pCi/L	1.8E-01	1.8E-01	U	3.50E-01	96.2	I129LL_SEP_LEPS	3.9267E+00	L	12/13/200 10:32	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:
9HN0R820	B1DK45		MW6-SBB-A1	A05-012	W04801					10/28/2005 09:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318569	ALPHA	12587-46-1	4.34E-01	pCi/L	5.4E-01	5.5E-01	U	1.05E+00	100.0	9310_ALPHABETA	1.884E-01	L	12/15/200 10:59	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HN0R910	B1DL58		MW6-SBB-A1	I05-049	W04801					10/28/2005 09:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318561	TC-99	14133-76-7	5.23E+01	pCi/L	5.6E+00	8.6E+00		9.68E+00	100.0	TC99_ETVDSK_LS	1.249E-01	L	12/15/200 11:13	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HN0TE10	B1DF85		MW6-SBB-A1	S05-007	W04801					10/28/2005 11:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	1.12E+01	pCi/L	1.4E+02	1.5E+02	U	3.30E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 21:18	I
5318583	BETA	12587-47-2	5.99E+00	pCi/L	1.7E+00	1.9E+00		2.73E+00	100.0	9310_ALPHABETA	1.876E-01	L	12/14/200 07:23	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HN0TE20	B1DF85		MW6-SBB-A1	S05-007	W04801					10/28/2005 11:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318569	ALPHA	12587-46-1	5.69E-01	pCi/L	7.3E-01	7.4E-01	U	1.39E+00	100.0	9310_ALPHABETA	1.522E-01	L	12/15/200 10:59	I

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

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30859 File Name: h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.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:
9HN0TG10	B1DKW9		MW6-SBB-A1	I05-048	W04801					10/28/2005 09:35

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	7.87E+04	pCi/L	9.5E+02	3.4E+03		3.34E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 21:59	I
5318567	I-129L	15046-84-1	2.75E-03	pCi/L	1.2E-01	1.2E-01	U	2.21E-01	95.7	I129LL_SEP_LEPS	3.85E+00	L	12/13/200 10:33	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HN0TH10	B1DKX7		MW6-SBB-A1	I05-048	W04801					10/28/2005 10:53

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318560	Uranium	7440-61-1	1.56E+01	ug/L	1.8E+00	1.8E+00		7.70E-02		UTOT_KPA	2.72E-02	ML	12/15/200 15:58	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:
9HN2C910	B1DLC7		MW6-SBB-A1	I05-049	W04801					10/31/2005 13:42

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318567	I-129L	15046-84-1	4.01E-02	pCi/L	1.5E-01	1.5E-01	U	2.85E-01	95.4	I129LL_SEP_LEPS	3.91E+00	L	12/13/200 12:17	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HN2CA10	B1DPV1		MW6-SBB-A1	S05-009	W04801					10/31/2005 09:28

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	-8.76E+01	pCi/L	1.3E+02	1.5E+02	U	3.32E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 21:59	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HN2DE10	B1DP53		MW6-SBB-A1	I05-053	W04801					10/31/2005 11:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	2.03E+04	pCi/L	5.1E+02	1.0E+03		3.52E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 21:59	I
5318569	ALPHA	12587-46-1	6.81E-01	pCi/L	8.8E-01	8.9E-01	U	1.66E+00	100.0	9310_ALPHABETA	1.952E-01	L	12/14/200 11:20	I
5318562	BE-7	13966-02-4	-1.20E+00	pCi/L	1.9E+01	1.9E+01	U	3.49E+01		GAMMALL_GS	1.9893E+00	L	12/02/200 11:36	I
5318562	CO-60	10198-40-0	1.23E+00	pCi/L	2.6E+00	2.6E+00	U	5.37E+00		GAMMALL_GS	1.9893E+00	L	12/02/200 11:36	I
5318562	CS-134	13967-70-9	1.84E-01	pCi/L	1.7E+00	1.7E+00	U	3.38E+00		GAMMALL_GS	1.9893E+00	L	12/02/200 11:36	I
5318562	CS-137	10045-97-3	1.96E+00	pCi/L	1.8E+00	1.8E+00	U	3.88E+00		GAMMALL_GS	1.9893E+00	L	12/02/200 11:36	I
5318562	EU-152	14683-23-9	4.20E+00	pCi/L	4.7E+00	4.7E+00	U	9.49E+00		GAMMALL_GS	1.9893E+00	L	12/02/200 11:36	I
5318562	EU-154	15585-10-1	1.90E-01	pCi/L	4.8E+00	4.8E+00	U	1.01E+01		GAMMALL_GS	1.9893E+00	L	12/02/200 11:36	I
5318562	EU-155	14391-16-3	3.42E+00	pCi/L	3.6E+00	3.6E+00	U	6.83E+00		GAMMALL_GS	1.9893E+00	L	12/02/200 11:36	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.

5318562	K-40	13966-00-2	6.89E+00	pCi/L	3.0E+01	3.0E+01	U	6.74E+01		GAMMALL_GS	1.9893E+00	L	12/02/200	11:36	I
5318562	RU-106	13967-48-1	-1.64E+01	pCi/L	1.9E+01	1.9E+01	U	3.07E+01		GAMMALL_GS	1.9893E+00	L	12/02/200	11:36	I
5318562	SB-125	14234-35-6	-2.82E-01	pCi/L	4.7E+00	4.7E+00	U	8.48E+00		GAMMALL_GS	1.9893E+00	L	12/02/200	11:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HN94C10	B1DTT7		MW6-SBB-A1	G05-011	W04801					11/01/2005 14:10

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	1.04E+02	pCi/L	1.4E+02	1.6E+02	U	3.37E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 21:59	I
5318569	ALPHA	12587-46-1	8.09E-02	pCi/L	5.9E-01	5.9E-01	U	1.55E+00	100.0	9310_ALPHABETA	1.976E-01	L	12/14/200 11:20	I
5318583	BETA	12587-47-2	7.40E+00	pCi/L	1.8E+00	2.0E+00		2.73E+00	100.0	9310_ALPHABETA	2.009E-01	L	12/14/200 07:23	I
5318562	BE-7	13966-02-4	1.88E+01	pCi/L	1.7E+01	1.7E+01	U	3.43E+01		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318562	CO-60	10198-40-0	-8.38E-01	pCi/L	1.7E+00	1.7E+00	U	3.07E+00		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318562	CS-134	13967-70-9	-6.95E-02	pCi/L	1.3E+00	1.3E+00	U	2.51E+00		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318562	CS-137	10045-97-3	-4.96E-01	pCi/L	2.5E+00	2.5E+00	U	4.79E+00		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318562	EU-152	14683-23-9	4.24E-01	pCi/L	3.5E+00	3.5E+00	U	6.59E+00		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318562	EU-154	15585-10-1	-1.83E+00	pCi/L	4.9E+00	4.9E+00	U	8.85E+00		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318562	EU-155	14391-16-3	2.46E-01	pCi/L	3.1E+00	3.1E+00	U	5.78E+00		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318562	K-40	13966-00-2	-1.32E+01	pCi/L	3.3E+01	3.3E+01	U	6.96E+01		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318562	RU-106	13967-48-1	-8.54E+00	pCi/L	1.5E+01	1.5E+01	U	2.50E+01		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318562	SB-125	14234-35-6	-2.45E+00	pCi/L	3.5E+00	3.5E+00	U	5.77E+00		GAMMALL_GS	2.0063E+00	L	12/02/200 11:37	I
5318586	SR-90	10098-97-2	1.23E+00	pCi/L	2.9E-01	3.6E-01		4.61E-01	76.2	SRISO_SEP_PRE	1.0067E+00	L	12/02/200 07:30	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:
9HNE6M10	B1DLC5		MW6-SBB-A1	I05-049	W04801					10/21/2005 13:01

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	5.16E+02	pCi/L	1.6E+02	1.8E+02		3.36E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 04:57	I
5318567	I-129L	15046-84-1	1.09E-01	pCi/L	1.5E-01	1.5E-01	U	2.99E-01	98.1	I129LL_SEP_LEPS	3.9094E+00	L	12/12/200 19:20	I
5318561	TC-99	14133-76-7	1.24E+02	pCi/L	7.2E+00	1.3E+01		9.59E+00	100.0	TC99_ETVDSK_LS	1.253E-01	L	12/15/200 11:13	I
5318560	Uranium	7440-61-1	2.03E+00	ug/L	2.1E-01	2.1E-01		8.73E-02		UTOT_KPA	2.40E-02	ML	12/15/200 15:27	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:
9HNH2810	B1DLD4		MW6-SBB-A1	I05-049	W04801					10/24/2005 12:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	5.99E+04	pCi/L	8.2E+02	2.6E+03		3.25E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 07:40	I

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

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30859 File Name: h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.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:
9HNH2T10	B1DKY6		MW6-SBB-A1	I05-048	W04801					10/24/2005 10:24

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	3.48E+04	pCi/L	6.4E+02	1.6E+03		3.37E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 06:18	I
5318567	I-129L	15046-84-1	2.58E-01	pCi/L	1.6E-01	1.6E-01	U	3.38E-01	98.1	I129LL_SEP_LEPS	3.9304E+00	L	12/12/200 19:20	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HNH3E10	B1DL59		MW6-SBB-A1	I05-049	W04801					10/24/2005 13:04

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318561	TC-99	14133-76-7	3.58E+01	pCi/L	5.1E+00	7.6E+00		9.64E+00	100.0	TC99_ETVDSK_LS	1.247E-01	L	12/15/200 11:13	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HNMV410	B1DL44		MW6-SBB-A1	I05-049	W04801					10/25/2005 11:45

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	8.12E+03	pCi/L	3.3E+02	5.0E+02		3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 11:45	I
5318567	I-129L	15046-84-1	1.02E+00	pCi/L	2.6E-01	2.6E-01	U	5.06E-01	95.4	I129LL_SEP_LEPS	4.00E+00	L	12/13/200 07:00	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HNMVT10	B1DKW8		MW6-SBB-A1	I05-048	W04801					10/25/2005 11:41

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318565	H-3	10028-17-8	9.12E+03	pCi/L	3.4E+02	5.4E+02		3.27E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200 10:23	I
5318567	I-129L	15046-84-1	-7.12E-02	pCi/L	1.4E-01	1.4E-01	U	2.47E-01	96.8	I129LL_SEP_LEPS	3.9224E+00	L	12/13/200 07:00	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HNMWA10	B1DKM6		MW6-SBB-A1	I05-048	W04801					10/25/2005 10:04

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318560	Uranium	7440-61-1	8.28E-01	ug/L	8.5E-02	8.5E-02		8.48E-02		UTOT_KPA	2.47E-02	ML	12/15/200 15:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HNTGC10	B1DTF7		MW6-SBB-A1	W05-009	W04801					10/27/2005 12:35

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5318561	TC-99	14133-76-7	1.32E+03	pCi/L	2.0E+01	8.3E+01		9.80E+00	100.0	TC99_ETVDSK_LS	1.234E-01	L	12/15/200 11:13	I

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

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30859 File Name: h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.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:
9HNTGF10	B1DTX7		MW6-SBB-A1	I05-054	W04801					10/27/2005 12:35

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
5318565	H-3	10028-17-8	1.82E+04	pCi/L	4.8E+02	9.2E+02		3.52E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/15/200	13:07	I
5318567	I-129L	15046-84-1	-3.92E-02	pCi/L	1.1E-01	1.1E-01	U	1.98E-01	98.1	I129LL_SEP_LEPS	3.8202E+00	L	12/13/200	08:46	I
5318586	SR-90	10098-97-2	1.80E-02	pCi/L	9.7E-02	2.2E-01	U	5.07E-01	74.8	SRISO_SEP_PRE	1.0007E+00	L	12/02/200	07:30	I
5318560	Uranium	7440-61-1	4.10E+00	ug/L	4.2E-01	4.2E-01		7.88E-02		UTOT_KPA	2.66E-02	ML	12/15/200	15:43	I

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

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id:	HP5711AB	**Sdg/Rept Nbr:**	W04801 30859	**Collection Date:**	10/24/2005 12:27
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	10/24/2005

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
5318565	H-3	-1.06E+02	pCi/L	1.5E+02	U	3.43E+02	100.0		906.0_H3_LSC	5.00E-03	12/15/2005				D
BLK	10028-17-8			1.4E+02						L	02:13				

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

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id:	HP5711DX	**Sdg/Rept Nbr:**	W04801 30859	**Collection Date:**	10/24/2005 12:27
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	10/24/2005

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
5318565	H-3	-2.17E+01	pCi/L	1.5E+02	U	3.33E+02	100.0		906.0_H3_LSC	5.00E-03	12/15/2005				D
BLK	10028-17-8			1.4E+02						L	17:13				

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

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id:	HP5751AB	**Sdg/Rept Nbr:**	W04801 30859	**Collection Date:**	10/25/2005 11:45
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	10/25/2005

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
5318567	I-129L	-8.97E-02	pCi/L	1.4E-01	U	2.32E-01	95.7		I129LL_SEP_L	3.7495E+00	12/13/2005				D
BLK	15046-84-1			1.4E-01						L	12:17				

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

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id:	HP5781AB	**Sdg/Rept Nbr:**	W04801 30859	**Collection Date:**	10/28/2005 09:57
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	10/28/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318569	ALPHA	1.40E-01	pCi/L	5.0E-01	U	1.30E+00	100.0		9310_ALPHAB	2.069E-01	12/14/2005				D
BLK	12587-46-1			5.0E-01						L	11:20				

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

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id:	HP57V1AB	**Sdg/Rept Nbr:**	W04801 30859	**Collection Date:**	10/25/2005 10:04
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	10/25/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318560	Uranium	1.65E-04	ug/L	2.3E-05	U	9.27E-02			UTOT_KPA	2.26E-02	12/15/2005				D
BLK	7440-61-1			2.3E-05						ML	15:14				

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

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id:	HP57W1AB	**Sdg/Rept Nbr:**	W04801 30859	**Collection Date:**	10/28/2005 09:57
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	10/28/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318561	TC-99	1.69E+00	pCi/L	5.5E+00	U	9.41E+00	100.0		TC99_ETVDSK	1.28E-01	12/15/2005				D
BLK	14133-76-7			3.9E+00						L	11:13				

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

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP57X1AB **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/31/2005 11:11

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 10/31/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318562	BE-7	4.88E+00	pCi/L	2.0E+01	U	3.73E+01			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	13966-02-4			2.0E+01						L	11:38				
5318562	CO-60	-8.25E-01	pCi/L	2.4E+00	U	4.33E+00			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	10198-40-0			2.4E+00						L	11:38				
5318562	CS-134	5.70E-01	pCi/L	2.4E+00	U	4.62E+00			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	13967-70-9			2.4E+00						L	11:38				
5318562	CS-137	-7.41E-02	pCi/L	2.4E+00	U	4.32E+00			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	10045-97-3			2.4E+00						L	11:38				
5318562	EU-152	3.96E+00	pCi/L	5.5E+00	U	1.06E+01			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	14683-23-9			5.5E+00						L	11:38				
5318562	EU-154	3.77E+00	pCi/L	6.7E+00	U	1.43E+01			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	15585-10-1			6.7E+00						L	11:38				
5318562	EU-155	2.35E+00	pCi/L	5.4E+00	U	1.00E+01			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	14391-16-3			5.4E+00						L	11:38				
5318562	K-40	-3.38E+01	pCi/L	3.6E+01	U	7.22E+01			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	13966-00-2			3.6E+01						L	11:38				
5318562	RU-106	1.15E+01	pCi/L	1.9E+01	U	3.84E+01			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	13967-48-1			1.9E+01						L	11:38				
5318562	SB-125	5.36E+00	pCi/L	5.0E+00	U	1.02E+01			GAMMALL_GS	1.9498E+00	12/02/2005				D
BLK	14234-35-6			5.0E+00						L	11:38				

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

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP58G1AB **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/28/2005 11:30

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 10/28/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318583	BETA	4.97E-01	pCi/L	1.3E+00	U	2.86E+00	100.0		9310_ALPHAB	1.936E-01	12/14/2005				D
BLK	12587-47-2			1.3E+00						L	07:23				

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

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id:	HP58H1AB	**Sdg/Rept Nbr:**	W04801 30859	**Collection Date:**	10/27/2005 12:35
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	10/27/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318586	SR-90	-1.52E-01	pCi/L	2.0E-01	U	4.77E-01	77.4		SRISO_SEP_P	9.892E-01	12/02/2005				D
BLK	10098-97-2			1.7E-01						L	07:30				

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP5711CS **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/24/2005 12:27
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/24/2005

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
5318565	H-3	3.23E+03	pCi/L	2.9E+02		3.30E+02	100.0	2.81E+03	906.0_H3_LSC	5.00E-03	12/15/2005			70	D
BS	10028-17-8			2.3E+02				114.9		L	03:35			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP5711EM **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/24/2005 12:27

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/24/2005

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
5318565	H-3	2.78E+03	pCi/L	2.7E+02		3.29E+02	100.0	2.81E+03	906.0_H3_LSC	5.00E-03	12/15/2005			70	D
BS	10028-17-8			2.2E+02				99.0		L	18:35			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP5751CS **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/25/2005 11:45

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/25/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318567	I-129L	9.40E+00	pCi/L	1.1E+00		3.40E-01	100.3	9.80E+00	I129LL_SEP_L	3.907E+00	12/13/2005			70	D
BS	15046-84-1			1.1E+00				95.9		L	14:15			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP5781CS **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/28/2005 09:57

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/28/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318569	ALPHA	1.65E+01	pCi/L	5.3E+00		1.42E+00	100.0	2.31E+01	9310_ALPHAB	1.982E-01	12/14/2005			70	D
BS	12587-46-1			3.1E+00				71.4		L	11:20			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP57V1CS **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/25/2005 10:04

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/25/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318560	Uranium	4.46E+01	ug/L	5.3E+00		8.62E-02		3.74E+01	UTOT_KPA	2.43E-02	12/15/2005			70	D
BS	7440-61-1			5.3E+00				119.4		ML	15:21			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP57V1DS **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/25/2005 10:04

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/25/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318560	Uranium	4.68E+00	ug/L	4.8E-01		9.07E-02		3.93E+00	UTOT_KPA	2.31E-02	12/15/2005			70	D
BS	7440-61-1			4.8E-01				119.0		ML	15:24			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP57W1CS **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/28/2005 09:57

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/28/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318561	TC-99	4.72E+02	pCi/L	3.3E+01		9.36E+00	100.0	5.21E+02	TC99_ETVDSK	1.294E-01	12/15/2005			70	D
BS	14133-76-7			1.2E+01				90.7		L	11:13			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP57X1CS **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/31/2005 11:11

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/31/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318562	CO-60	4.17E+01	pCi/L	8.2E+00		4.74E+00		3.70E+01	GAMMALL_GS	1.9943E+00	12/02/2005			70	D
BS	10198-40-0			8.2E+00				112.8		L	12:06			130	
5318562	CS-137	2.35E+01	pCi/L	6.5E+00		4.69E+00		2.55E+01	GAMMALL_GS	1.9943E+00	12/02/2005			70	D
BS	10045-97-3			6.5E+00				92.2		L	12:06			130	
5318562	EU-152	7.34E+01	pCi/L	3.5E+01	U	2.27E+01		7.61E+01	GAMMALL_GS	1.9943E+00	12/02/2005			70	D
BS	14683-23-9			3.5E+01				96.5		L	12:06			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP58G1CS **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/28/2005 11:30

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/28/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318583	BETA	1.74E+01	pCi/L	3.1E+00		2.70E+00	100.0	2.29E+01	9310_ALPHAB	2.006E-01	12/14/2005			70	D
BS	12587-47-2			2.2E+00				76.3		L	07:23			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HP58H1CS **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/27/2005 12:35

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/27/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318586	SR-90	1.50E+01	pCi/L	2.5E+00		6.77E-01	73.3	1.40E+01	SRISO_SEP_P	9.789E-01	12/02/2005			70	D
BS	10098-97-2			9.8E-01				107.4		L	07:10			130	

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

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HN0R81GR **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/28/2005 09:57
Client Id: B1DK45 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/28/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
A05-012	MW6-SBB-A19981								AV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5318569	ALPHA	4.82E-01	pCi/L	1.0E+00	U	2.27E+00	100.0		9310_ALPHAB	1.84E-01	12/14/2005	10.5	0.1		D
DUP	12587-46-1	4.34E-01		1.0E+00						L	11:20	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.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HN0R91CR **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/28/2005 09:57
Client Id: B1DL58 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/28/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I05-049	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
5318561	TC-99	5.25E+01	pCi/L	8.5E+00		9.21E+00	100.0		TC99_ETVDSK	1.259E-01	12/15/2005	.4	0.		D
DUP	14133-76-7	5.23E+01		5.4E+00						L	11:13	20.0	3		

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

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HN0TE1ER **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/28/2005 11:30

Client Id: B1DF85 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/28/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S05-007	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
5318583	BETA	5.35E+00	pCi/L	1.9E+00		3.00E+00	100.0		9310_ALPHAB	1.86E-01	12/14/2005	11.2	0.5		D
DUP	12587-47-2	5.99E+00		1.7E+00						L	07:23	20.0	3		

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

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HN2DE1ER **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/31/2005 11:11

Client Id: B1DP53 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/31/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I05-053	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
5318562	BE-7	-1.08E+01	pCi/L	2.1E+01	U	3.58E+01			GAMMALL_GS	1.9892E+00	12/02/2005	0.0	0.6		D
DUP	13966-02-4	-1.20E+00		2.1E+01						L	13:35	20.0	3		
5318562	CO-60	5.71E-01	pCi/L	3.1E+00	U	6.02E+00			GAMMALL_GS	1.9892E+00	12/02/2005	73.0	0.3		D
DUP	10198-40-0	1.23E+00		3.1E+00						L	13:35	20.0	3		
5318562	CS-134	8.22E-02	pCi/L	1.9E+00	U	3.72E+00			GAMMALL_GS	1.9892E+00	12/02/2005	76.4	0.1		D
DUP	13967-70-9	1.84E-01		1.9E+00						L	13:35	20.0	3		
5318562	CS-137	1.14E+00	pCi/L	2.1E+00	U	4.20E+00			GAMMALL_GS	1.9892E+00	12/02/2005	52.6	0.5		D
DUP	10045-97-3	1.96E+00		2.1E+00						L	13:35	20.0	3		
5318562	EU-152	1.13E+00	pCi/L	5.3E+00	U	9.90E+00			GAMMALL_GS	1.9892E+00	12/02/2005	115.0	0.8		D
DUP	14683-23-9	4.20E+00		5.3E+00						L	13:35	20.0	3		
5318562	EU-154	2.77E+00	pCi/L	6.4E+00	U	1.34E+01			GAMMALL_GS	1.9892E+00	12/02/2005	174.3	0.6		D
DUP	15585-10-1	1.90E-01		6.4E+00						L	13:35	20.0	3		
5318562	EU-155	-5.07E+00	pCi/L	5.6E+00	U	8.88E+00			GAMMALL_GS	1.9892E+00	12/02/2005	0.0	2.1		D
DUP	14391-16-3	3.42E+00		5.6E+00						L	13:35	20.0	3		
5318562	K-40	-1.68E+01	pCi/L	3.9E+01	U	7.90E+01			GAMMALL_GS	1.9892E+00	12/02/2005	0.0	0.9		D
DUP	13966-00-2	6.89E+00		3.9E+01						L	13:35	20.0	3		
5318562	RU-106	-5.80E+00	pCi/L	2.1E+01	U	3.67E+01			GAMMALL_GS	1.9892E+00	12/02/2005	0.0	0.7		D
DUP	13967-48-1	-1.64E+01		2.1E+01						L	13:35	20.0	3		
5318562	SB-125	1.54E+00	pCi/L	4.7E+00	U	8.86E+00			GAMMALL_GS	1.9892E+00	12/02/2005	289.6	0.6		D
DUP	14234-35-6	-2.82E-01		4.7E+00						L	13:35	20.0	3		

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

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id:	HNH281CR	**Sdg/Rept Nbr:**	W04801	30859	**Collection Date:** 10/24/2005 12:27
Client Id:	B1DLD4	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I05-049	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
5318565	H-3	6.12E+04	pCi/L	2.7E+03		3.43E+02	100.0		906.0_H3_LSC	5.00E-03	12/15/2005	2.1	0.7		D
DUP	10028-17-8	5.99E+04		8.5E+02						L	09:02	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.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id:	HNMV41DR	**Sdg/Rept Nbr:**	W04801 30859	**Collection Date:**	10/25/2005 11:45
Client Id:	B1DL44	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	10/25/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I05-049	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
5318567	I-129L	8.81E-01	pCi/L	3.3E-01	U	5.60E-01	92.7		I129LL_SEP_L	3.6058E+00	12/13/2005	14.7	0.6		D
DUP	15046-84-1	1.02E+00		3.3E-01						L	08:46	20.0	3		

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

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HNMWA1CR **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/25/2005 10:04

Client Id: B1DKM6 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/25/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I05-048	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
5318560	Uranium	8.40E-01	ug/L	8.6E-02		8.32E-02			UTOT_KPA	2.52E-02	12/15/2005	1.4	0.2		D
DUP	7440-61-1	8.28E-01		8.6E-02						ML	15:39	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.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HNTGF1FR **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/27/2005 12:35

Client Id: B1DTX7 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/27/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I05-054	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
5318586	SR-90	-1.06E-01	pCi/L	1.8E-01	U	4.20E-01	83.4		SRISO_SEP_P	1.0154E+00	12/02/2005	0.0	1.		D
DUP	10098-97-2	1.80E-02		1.5E-01						L	07:30	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.

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HNE6M1FW **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/21/2005 13:01

Client Id: B1DLC5 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 10/21/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I05-049	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
5318560	Uranium	4.53E+01	ug/L	5.3E+00		8.32E-02		3.60E+01	UTOT_KPA	2.52E-02	12/15/2005			60	D
MS	7440-61-1			5.3E+00				125.7		ML	15:31			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.

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04801.Edd, h:\Reportdb\edd\FeadIV\Rad\30859.Edd

Lab Sample Id: HNTGC1CW **Sdg/Rept Nbr:** W04801 30859 **Collection Date:** 10/27/2005 12:35

Client Id: B1DTF7 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 10/27/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W05-009	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
5318561	TC-99	3.34E+03	pCi/L	2.9E+02		9.58E+00	100.0	3.57E+03	TC99_ETVDSK	1.26E-01	12/15/2005			60	D
MS	14133-76-7			3.7E+01				93.4		L	11:13			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.

HexaValent Chromium (Water)

Conc. (mg/L)	Absorption
0	0.000
0.05	0.095
0.2	0.386
0.5	0.954
1	1.842
1.5	2.612

SDG	QC Batch	Analysis Date	Matrix	MDL
W04801	5318564	10/26/2005	Water	0.002

	Slope	Intercept
Coefficents	0.56001	0
Errors	0.008236	#N/A
R^2	0.997852	0.02766612
F	2323.26	5

Sample Data

Sample ID	Client ID	Absorption	Concentration (mg/L)	IDL	Aliquot (L)	Matrix Spike adjusted result (mg/L)	Expected (mg/L)	Recovery
HP570-1AAB	Prep Blank	0.000	<MDL	0.002	0.1	0	0	
HP570-1ACC	LCS	0.960	0.537609257	0.002	0.1	0	0.5	107.52%
			<MDL	0.002	0.1	0	0	
			<MDL	0.002	0.1	0	0	
			<MDL	0.002	0.1	0	0	
			<MDL	0.002	0.1	0	0	
			<MDL	0.002	0.1	0	0	
			<MDL	0.002	0.1	0	0	
			<MDL	0.002	0.1	0	0	
HNMV2-1AA	B1DH76	0.043	0.024080415	0.002	0.1	0	0	
HNMV2-1AAE-X	B1DH76 DUP	0.042	0.023520405	0.002	0.1	0	0	
HNMV2-1AAC-S	B1DH76 MS	1.034	0.57904997	0.002	0.1	0.5549696	0.526	105.51%
HNMV2-1AAD-D	B1DH76 MSD	1.032	0.577929951	0.002	0.1	0.5538495	0.526	105.29%

Comments:

ICV/B used as Prep Blank and LCS

Analyst: [illegible]

Date: 12/12/05

CCV and ICV Calculation

Sa ID	Absorbance	Results (mg/L)	Expected (mg/L)	Yield (%)
ICV	0.960	0.537609	0.5	107.522%
CCV	0.960	0.537609	0.5	107.522%
ICB	0.000	0		n/a
CCB	0.000	0		n/a

	R^2	OK
	ICV	OK
	ICB	OK
	CCV	OK
	CCB	OK
	Prep Blank	OK
	MS	OK
	MSD	OK
RPD	MS/MSD	OK
RPD	LCS	OK
RPD	Samp/Dup	OK

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/15/2005 2:40:27 PM

Lot No., Due Date: J5J290245,J5J290250,J5J310217,J5J220220,J5J250150,J5J260310,J5J260305,J5J270433;

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5318567; RGAMLEPS Gamma by LEPS

SDG, Matrix: W04801; WATER

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

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 12-15-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5318567

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: [signature] Date: 12/21/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/15/2005 2:31:31 PM

Lot No., Due Date: J5J310218,J5K030226; 12/16/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5318562; RGAMMA Gamma by GER

SDG, Matrix: W04801; WATER

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 12-15-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 53185762

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: [signature] Date: 12/21/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/16/2005 9:23:06 AM

Lot No., Due Date: J5J290245,J5J290249,J5J310218,J5K030226; 12/16/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5318569; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W04801; 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.

10-07174

First Level Review Pam Anderson **Date** 12/16/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5318569

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: Jodie C[illegible] Date: 12/21/05

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-07174**
NCM Initiated By: Pam Anderson
Date Opened: 12/16/2005
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J5J290245 (1), J5J290249 (1),
QC Batches: 5318569

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

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	12/16/2005	Samples HN0R81AC and HN0TE1AC were recounted for a longer time to meet CRDI. Data accepted.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	12/16/2005	The samples were recounted longer.

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

12/15/2005 2:39:48 PM

Lot No., Due Date: J5J290245,J5J290249,J5K030226; 12/16/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5318583; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W04801; WATER

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

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 12-15-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5318583

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: [signature] Date: 12/21/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/5/2005 10:53:51 AM

Lot No., Due Date: J5K030226,J5J270433; 12/16/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5318586; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W04801; WATER

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 12-5-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5318586

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: [signature] Date: 12/21/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/19/2005 6:32:30 AM

Lot No., Due Date: J5J290244,J5J290247,J5J220220,J5J250155,J5J270432; 12/16/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5318561; RTC99 Tc-99 by LSC

SDG, Matrix: W04801,; WATER

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

6.0 Comments on any No response:
See NCM.

First Level Review Pam Anderson **Date** 12-19-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5318561

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: Jodie C Date: 12/21/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/16/2005 9:19:28 AM

Lot No., Due Date: J5J290244,J5J290245,J5J290249,J5J290250,J5J310212,J5J310218,J5K030226,J5J220220,J5J

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5318565; RTRITIUM H-3 by LSC

SDG, Matrix: W04801; 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 => HNE6M1AA 5.00<10.00
HNH2T1AA 5.00<10.00
HNH281AA 5.00<10.00
HNMVT1AA 5.00<10.00
HNMV41AA 5.00<10.00
HNTGF1AA 5.00<10.00
HN0R71AA 5.00<10.00
HN0R81AA 5.00<10.00
HN0TE1AA 5.00<10.00
HN0TG1AA 5.00<10.00
HN2CA1AA 5.00<10.00
HN2DE1AA 5.00<10.00
HN94C1AA 5.00<10.00 Q:VB

8.07 The Correct Count Geometry was Used. Yes No ✓ N/A
Count Geometry => HP5711AF SVP15/5<>SVP10/10
HP5711AG SVP15/5<>SVP10/10
HP5711AA SVP15/5<>SVP10/10
HP5711AC SVP15/5<>SVP10/10
HNE6M1AA SVP15/5<>SVP10/10
HNH2T1AA SVP15/5<>SVP10/10
HNH281AA SVP15/5<>SVP10/10
HNH281AC SVP15/5<>SVP10/10
HNMVT1AA SVP15/5<>SVP10/10
HNMV41AA SVP15/5<>SVP10/10
HNTGF1AA SVP15/5<>SVP10/10
HN0R71AA SVP15/5<>SVP10/10
HP5711AH SVP15/5<>SVP10/10
HP5711AD SVP15/5<>SVP10/10
HP5711AE SVP15/5<>SVP10/10
HN0R81AA SVP15/5<>SVP10/10
HN0TE1AA SVP15/5<>SVP10/10
HN0TG1AA SVP15/5<>SVP10/10
HN2CA1AA SVP15/5<>SVP10/10
HN2DE1AA SVP15/5<>SVP10/10
HN94C1AA SVP15/5<>SVP10/10 Q:VC OK PA 12-17-05 PA

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. OK	Yes ✓	No	N/A
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A ✓
8.17 Tracer within Control Limits. No Tracers found in Batch!	Yes	No	N/A ✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	Yes	No	N/A ✓
8.19 Sample Specific MDC <= CRDL. OK	Yes ✓	No	N/A
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A ✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	Yes ✓	No	N/A
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => H-3 OK; No Callin Level Found => H-3	Yes ✓	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes ✓	No	N/A
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Quackenbush **Date** 12-7-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5318565

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: Jodie G Date: 12/21/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/16/2005 9:24:21 AM

Lot No., Due Date: J5J290244,J5J290245,J5J290250,J5J220220,J5J260311,J5J270433; 12/16/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5318560; RUNAT UNat by KPA

SDG, Matrix: W04801; WATER

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 12-16-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5318560

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: Jodie C Date: 12/21/05

SEVERN TRENT STL

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Work Order Number(s): **HNMV2**

Lab Sample Numbers or SDG: **W04801**

Method/Test/Parameter: **Cr+6 in Water / RICH-WC-5003, Rev 7**

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:

the ICV prep was used as the LCS

Analyst: [signature] Date: 12/12/05

Second-Level Review: [signature] Date: 12/21/05

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-07131**
NCM Initiated By: Steven Wheland
Date Opened: 12/12/2005
Date Closed:

Classification: **Deficiency**
Status: **GLREVIEW**
Production Area: Classical Chemistry
Tests: 7196A
Lot #'s (Sample #'s): J5J260309 (1), J5K140000 (564),
QC Batches: 5318564

Nonconformance: Technician Error
Subcategory: Laboratory error: analyst error

Problem Description / Root Cause

Name	Date	Description
Steven Wheland	12/12/2005	ICV/B was used as prep blank and LCS

Corrective Action

Name	Date	Corrective Action
Steven Wheland	12/12/2005	Issue has since been corrected

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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I05-049-131

Page 1 of 1

Collector: D.P. CONNOLLY	Contact/Requester: DL STEWART	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I05-049	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: LTMC 2ZP1 MONITORING, AUGUST 2005	DTS-SAWS-H98	Ice Chest No.: SMXL-550 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
** **

WO 4801
J5J220 220
Due 12 05 05

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DLC5		W	10/21/5	1301	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNE 6M	None
B1DLC5		W	↓	↓	1x20-mL P	Activity Scan	None
B1DLC5		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DLC5		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DLC5		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Date/Time	Received By	Date/Time
D.P. CONNOLLY Print / Sign OCT 21 2005	1350 / 1450	DAVID HARBINSON Print / Sign OCT 21 2005	1350 / 1450
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

<100 CPM

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 21 05 1350

I06-001
S06-010
U06-001

Client: PLW SDG #: W09801 NA [ ] SAF #: I05-099 NA [ ]

Work Order Number: J5J220220 Chain of Custody # I06-001-172 U06-001-50 S06-010-74, 210 I05-099-131

Shipping Container ID: SML550 Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 22
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ____ tape
   - X custody seals
   - ____ hazard labels
   - ✓ appropriate samples labels
9. Samples are:
   - X in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 10 21 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I05-048-91
		Page 1 of 1

Collector DURATEK R.R. FOX	**Contact/Requester** DL STEWART	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I05-048	**Sampling Origin** HANFORD SITE	**Purchase Order/Charge Code**
Project Title LTMC 2UP1 MONITORING, AUGUST 2005	SAWS-H95	**Ice Chest No.** SAWS-102 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** GOVT. VEHICLE	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W04801
J55250150
Due 12 08 05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DKY6		W	10-24-05	1024	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNH2T	None
B1DKY6		W			1x20-mL P	Activity Scan	None
B1DKY6		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
					10-24-05		

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK R.R. FOX			OCT 24 2005 1445		Jeff Jensen		OCT 24 2005
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 *
<100 CPM

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 24 05 1445

Client: PAW SDG #: W04801 NA [ ] SAF #: I05-048 (I05-047) NA [ ]

Work Order Number: JSJ250150 Chain of Custody # I05-049-57, 143, I05-048-91

Shipping Container ID: STWS 102 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 24 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I05-049-143
		Page 1 of 1

Collector DURATEK R.R. FOX	**Contact/Requester** DL STEWART	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I05-049	**Sampling Origin** HANFORD SITE	**Purchase Order/Charge Code**
Project Title LTMC 2ZP1 MONITORING, AUGUST 2005	SAWS-H95	**Ice Chest No.** SAWS-102 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** GOVT. VEHICLE	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04801
JSJ250155
Due 12 08 05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DLD4		W	10-24-05	1227	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNH28	None
B1DLD4		W	↓	↓	1x20-mL P	Activity Scan	None

10-24-05

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK R.R. FOX			OCT 2 4 2005 1445		Jeff Jensen		OCT 2 4 2005 1445
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I05-049-57

Page 1 of 1

Collector DURATEK R. R. FOX	Contact/Requester DL STEWART	Telephone No. 509-376-5056 MSIN FAX
SAF No. I05-049	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title LTMC 2ZP1 MONITORING, AUGUST 2005	DTS-SAWS-495	Ice Chest No. SAWS-102 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** W04801

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DL59		W	10-24-05	1304	1x20-mL P	Activity Scan HNH3E	None
B1DL59		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

10-24-05

Relinquished By DURATEK R. R. FOX Print Sign Date/Time 1445 OCT 24 2005	Received By Print Jeff Jensen Sign Date/Time 1445 OCT 24 2005	<100 CRM 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 Liqui
Relinquished By Date/Time	Received By Date/Time	SO = Solid	T = Tissue
		SL = Sludge	WI = Wine
		W = Water	L = Liquid
		O = Oil	V = Vegetation
		A = Air	X = Other

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 24 05 1445

Client: PLW SDG #: W04801 NA [ ] SAF #: I05-048 I05-049 NA [ ]

Work Order Number: JSJ250155 Chain of Custody # I05-049-57, 143, I05-048-91

Shipping Container ID: STWS 102 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 24 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I05-048-63

Page 1 of 1

Collector: DURATEK D. R. BREWINGTON	Contact/Requester: DL STEWART	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I05-048	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: LTMC 2UP1 MONITORING, AUGUST 2005	Logbook DTS-SAWS-H93	Ice Chest No.: GWS 106 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
** **
W04861
J5J260305
Due 12 09 05

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DKW8		W	102505	1141	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNMVT	None
B1DKW8		W	↓	↓	1x20-mL P	Activity Scan	None
B1DKW8		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D. R. BREWINGTON	D. R. Brewington		OCT 25 2005 1502	DAVID HARBINSON			OCT 25 2005 1502
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 25 05 1501

Client: PAW SDG #: W09801 NA [ ] SAF #: I05-048 NA [ ]

Work Order Number: J5J260305 Chain of Custody # I05-048-63

Shipping Container ID: AWS 106 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 25 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I05-049-31

Page 1 of 1

Collector DURATEK R. R. FOX	Contact/Requester DL STEWART	Telephone No. 509-376-5056 MSIN FAX
SAF No. I05-049	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title LTMC 2ZP1 MONITORING, AUGUST 2005	SAWS-H95	Ice Chest No. SAWS-102 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W04801
J5J260310
Dm 12 09 05

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DL44		W	10-25-05	1145	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNMV4	None
B1DL44		W	↓	↓	1x20-mL P	Activity Scan	None
B1DL44		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK R. R. FOX			1516 10-25-05	DAVID HARRISON			1516
Relinquished By			OCT 25 2005	Received By			OCT 25 2005
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 25 05 1510

Client: PLW SDG #: W04801 NA [ ] SAF #: I05-047 NA [ ]

I05-048
I05-049

Work Order Number: JSJ260310 Chain of Custody # I05-048-1 I05-049-31 I05-047-32

Shipping Container ID: SML 124, SMUS 102 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 25 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I05-047-32

Page 1 of 1

Collector D.P. CONNOLLY	**Contact/Requester** DL STEWART	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I05-047	**Sampling Origin** HANFORD SITE	**Purchase Order/Charge Code**
Project Title CERCLA ISRM AUGUST, S005	DTS-SAWS-H990	**Ice Chest No.** SML-124 **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
** **
W0480/
J5J260309
Due 120905

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DH76 (F)		W	10/25/5	1156	1x500-mL G/P	7196_CR6: Hexavalent Chromium (1) HNMV2	Cool 4C
B1DH77		W	↓	↓	1x20-mL P	Activity Scan	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D.P. CONNOLLY			OCT 25 2005 / 15:10	DAVID HABBISON			OCT 25 2005 / 15:10
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 25 05 1510

Client: PLW SDG #: W09801 NA [ ] SAF #: I05-047 I05-048 I05-049 NA [ ]

Work Order Number: JSJ260309 Chain of Custody # I05-048-1 I05-049-31 I05-047-32

Shipping Container ID: SML 124, SAWS 102 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 25 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I05-048-1

Page 1 of 1

Collector DURATEK R.R. FOX	**Contact/Requester** DL STEWART	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I05-048	**Sampling Origin** HANFORD SITE	**Purchase Order/Charge Code**
Project Title LTMC 2UP1 MONITORING, AUGUST 2005	SAWS-H95	**Ice Chest No.** SAWS-102 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** GOVT. VEHICLE	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

WO 4801
J5J260311
Due 12 09 05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DKM6		W	10-25-05	1004	1x20-mL P	Activity Scan HNMWA	None
B1DKM6		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
					10-25-05		

Relinquished By DURATEK R.R. FOX Print Sign Date/Time 15:10 OCT 25 2005	Received By Print David HARBINSON Sign Date/Time 15:10 OCT 25 2005	<100 CPM 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 Liqui
Relinquished By Date/Time	Received By Date/Time	SO = Solid	T = Tissue
		SL = Sludge	WI = Wine
		W = Water	L = Liquid
		O = Oil	V = Vegetation
		A = Air	X = Other

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 25 05 1510

I05-048
I05-049

Client: PLW SDG #: W04801 NA [ ] SAF #: I05-047 NA [ ]

Work Order Number: JJJ260311 Chain of Custody # I05-048-1 I05-049-31 I05-047-32

Shipping Container ID: SML 124, SMUS 102. Air Bill # _____

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

Sample Custodian: [signature] Date: 10 25 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W05-009-166

Page 1 of 1

Collector: K. B. HULSE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: W05-009	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA September 2005	Logbook: DTS-SAWS-HGS	Ice Chest No.: SAWS-102 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt Truck	Bill of Lading/Air Bill No.: N/A
Protocol: RCRA	Priority: 45 Days	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W09809
J5J270432
Due 12 12 05

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTF7		W	10/27/05	1235	1x20-mL P	Activity Scan HNTGC	None
B1DTF7		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K. B. HULSE			OCT 27 2005 1526		Jeff Jensen		OCT 27 2005 1526
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Meter <100 CPM

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

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

SEVERN TRENT STL

Sample Check-in List

I06-001
A06-010
W06-010
W05-009

Date/Time Received: 10 27 05 1506

Client: PLW SDG #: W04001 NA [ ] SAF #: I05-054 NA [ ]

Work Order Number: JJJ270432 Chain of Custody # I06-001-178, A06-010-10, W06-010-138, W05-009-166

Shipping Container ID: GWS 106, SAWS 102 Air Bill # I05-054-8

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 25
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ____ tape
   - ✓ custody seals
   - ____ hazard labels
   - ✓ appropriate samples labels
9. Samples are:
   - ✓ in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 10 27 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I05-054-8

Page 1 of 1

Collector K. B. HULSE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I05-054	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LTMC & 2UP1-C, SEPTEMBER 2005	Logbook: DTS-SAWS-H9S	**Ice Chest No.** SAWS-102 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Truck	**Bill of Lading/Air Bill No.** N/A
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.** N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W04801
J55270433
Due 12 12 05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTX7		W	10/27/05	1235	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNTGF	None
B1DTX7		W	↓	↓	1x20-mL P	Activity Scan	None
B1DTX7		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DTX7		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1DTX7		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Received By
Print: K. B. HULSE Sign: K B Hulse Date/Time: OCT 27 2005 1500	Print: Jeff Jensen Sign: JJ Date/Time: OCT 27 2005 1800
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

<100 CPM

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

I06-001
A06-010
W06-010
W05-009

Date/Time Received: 10 27 05 1506

Client: PLW SDG #: W04801 NA [ ] SAF #: I05-054 NA [ ]

Work Order Number: JJJ270433 Chain of Custody # I06-001-178, A06-010-10, W06-010-136, W05-009-166

Shipping Container ID: ~~SAWS~~ GWS 106 102 Air Bill # I05-054-8

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 25
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ____ tape
   - ✓ custody seals
   - ____ hazard labels
   - ✓ appropriate samples labels
9. Samples are:
   - ✓ in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 10 27 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W05-009-200
		Page 1 of 1

Collector DURATEK D. R. BREWINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W05-009	**Sampling Origin**	**Purchase Order/Charge Code**
Project Title RCRA September 2005	Logbook DTS-SAWS-H93	**Ice Chest No.** SAW05-102 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt Truck	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
WO 4801
JSJ290244
Done 121205

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTB1		W	10-24-05	1112	1x20-mL P	Activity Scan HNOR7	None
B1DTB1		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1DTB1		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1DTB1		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D. R. BREWINGTON	D.R. Brewington for		OCT 28 2005 1355	DAVID HARBINSON			OCT 28 2005 1355
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 28 05 1355

Client: PGW SDG #: W09801 NA [ ] SAF #: W05-009 NA [ ]

I05-049
A05-012

Work Order Number: JSJ290244

Chain of Custody # I05-049-53 A05-012-1 W05-009-200

Shipping Container ID: SAWS 102

Air Bill # _____

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

Sample Custodian: [signature] Date: 10 28 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I05-049-53
		Page 1 of 1

Collector DURATEK ~~D. R. BREWINGTON~~	**Contact/Requester** DL STEWART	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I05-049	**Sampling Origin** HANFORD SITE	**Purchase Order/Charge Code**
Project Title LTMC 2ZP1 MONITORING, AUGUST 2005	Logbook DTS-SAWS-H93	**Ice Chest No.** SALES-102 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** GOVT. VEHICLE	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W04801
JSJ290247 JT 102905
Due 12 12 05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DL58		W	10-28-05	0957	1x20-mL P	Activity Scan HNO3	None
B1DL58		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Received By
Print DURATEK ~~D.R. BREWINGTON~~ Sign D.R. Brewington Date/Time 1355 OCT 28 2005	Print DAVID HARBINSON Sign Date/Time 1355 OCT 28 2005
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 * <100 CPM

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 28 05 1355

Client: PGW SDG #: W04801 NA [ ] SAF #: I05-049 A05-012 W05-009 NA [ ]

Work Order Number: JSJ290247 Chain of Custody # I05-049-53 A05-012-1 W05-009-200

Shipping Container ID: SAWS 102 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 28 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A05-012-1

Page 1 of 1

Collector DURATEK D.R. BREWINGTON	**Contact/Requester** DL STEWART	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. A05-012	**Sampling Origin** HANFORD SITE	**Purchase Order/Charge Code**
Project Title Performance Assessment Monitoring, August 2005	logbook DTS-SAWS-H93	**Ice Chest No.** SAWS-102 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** GOVT. VEHICLE	**Bill of Lading/Air Bill No.**
Protocol Other	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

WO 48U1
JSJ290245
Due 12 12 05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DK45		W	10-26-05	0957	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNO28	None
B1DK45		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DK45		W			1x20-mL P	Activity Scan	None
B1DK45		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DK45		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D.R. BREWINGTON	D.R. Brewington		OCT 28 2005 1355	DAVID HARBINSON			OCT 28 2005 1355
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 *
<100 CPM

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 28 05 1355

Client: PGW SDG #: W04801 NA [ ] SAF #: I05-049 A05-012 W05-009 NA [ ]

Work Order Number: JSJ290245 Chain of Custody # I05-049-53 A05-012-1 W05-009-200

Shipping Container ID: SAWS 102 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 28 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S05-007-172
		Page 1 of 1

Collector DURATEK K. J. YOUNG	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S05-007	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV/LTMC July 2005	Logbook: DTS-SAWS-1496	**Ice Chest No.** SAWS-209 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt Truck	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W04801
JSJ290249
Due 12/12/05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DF85		W	10/28/05	1130	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNOTE	None
B1DF85		W	↓	↓	1x20-mL P	Activity Scan	None
B1DF85		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK K. J. YOUNG			1355 OCT 28 2005		DAVID HARDINSON		1355 OCT 28 2005
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 28 05 1355

Client: PGW SDG #: W09801 NA [ ] SAF #: X05-054 NA [ ]

J05-098
S05-007

Work Order Number: J5J290249 Chain of Custody # J05-098-67, 74 S05-007-1,2
X05-054-72

Shipping Container ID: SMLS50, SMLS209 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 28 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I05-048-67

Page 1 of 1

Collector: DURATEX J.M. MYERS	Contact/Requester: DL STEWART	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I05-048	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: LTMC 2UP1 MONITORING, AUGUST 2005	SAWS-498	Ice Chest No.: SML-550 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
** **

W04801
J5J290250
Due 12 12 05

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DKW9		W	10-28-05	0935	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNO3	None
B1DKW9		W	↓	↓	1x20-mL G/P 10-28-05	Activity Scan	None
B1DKW9		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
					10-28-05		

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEX J.M. MYERS			1355 OCT 28 2005	David HARBinson			1355 OCT 28 2005
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CFM

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	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I05-048-79
		Page 1 of 1

Collector DURATEX J.M. MYERS	**Contact/Requester** DL STEWART	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I05-048	**Sampling Origin** HANFORD SITE	**Purchase Order/Charge Code**
Project Title LTMC 2UP1 MONITORING, AUGUST 2005	54WS-H98	**Ice Chest No.** 54WS-550 **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
** **
W04801

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DKX7		W	10-28-05	1053	1x20-mL G/P	Activity Scan HNOTH	None
B1DKX7		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
					10-28-05		

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEX J.M. MYERS			1355 OCT 28 2005	DAVID HARBINSON			1355 OCT 28 2005
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

Matrix*

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 28 05 1355

Client: PAW SDG #: W04801 NA [ ] SAF #: X05-054 NA [ ]

I05-098
S05-007

Work Order Number: J5J290250 Chain of Custody # I05-098-67, 79 S05-007-172 X05-054-72

Shipping Container ID: SML550, SMS209 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 28 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S05-009-52
		Page 1 of 1

Collector DURATEK D. R. BREWINGTON	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. S05-009	Sampling Origin	Purchase Order/Charge Code
Project Title LTMC & SURV, SEPTEMBER 2005	DTS – SALVS H93	Ice Chest No. SMC 550 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Truck	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
WO 9801
JSJ 310212
Dm 12 15 05

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DPV1		W	10-31-05	0928	1x20-mL P	Activity Scan HN2CA	None
B1DPV1		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D. R. BREWINGTON	D. R. Brewington		OCT 3 1 2005 1432		Jeff Jensen		OCT 3 1 2005 1432
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 31 05 1432

Client: PLW SDG #: W04801 NA [ ] SAF #: S06-010 S05-009 NA [ ]

Work Order Number: J5J310212 Chain of Custody # S06-010-204, 196, 190 S05-009-52

Shipping Container ID: SMC 550 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 31 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I05-049-135
		Page 1 of 1

Collector J. Myers	**Contact/Requester** DL STEWART	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I05-049	**Sampling Origin** HANFORD SITE	**Purchase Order/Charge Code**
Project Title LTMC 2ZP1 MONITORING, AUGUST 2005	Logbook: OTS-SAWS-H96	**Ice Chest No.** SAWS-209 **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
** **

W04801
J5J310217
Due 12 15 05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
A, G, I, S, and W SAFS may be grouped into one SDG to facilitate analytical batching, 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
B1DLC7		W	10/31/05	1342	1x20-mL P	Activity Scan HN2C9	None
B1DLC7		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
J. Myers	J. Myers		OCT 31 2005 1450		Jeff Jensen		OCT 31 2005 1450
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 31 05 1450

Client: PLW SDG #: W09801 NA [ ] SAF #: I05-049 I05-053 S06-010 NA [ ]

Work Order Number: J5J310217 Chain of Custody # I05-053-33, S06-010-5 I05-049-135

Shipping Container ID: SAWS 209 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 31 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I05-053-33

Collector DURATEK D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I05-053	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title CERCLA 100NR2 September 2005	Logbook: DTS-SAWS-#96	**Ice Chest No.** SAWS-209 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt Truck	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04801
JSJ 310218
Dec 12 1505

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DP53		W	10/31/05	1111	1x1000-mL P	906.0_H3_LSC: Tritium (1) HN2DE	None
B1DP53		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Gross Alpha (1)	HNO3 to pH <2
B1DP53		W	↓	↓	1x20-mL P	Activity Scan	None
B1DP53		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None

Relinquished By DURATEK D. P. CONNOLLY Print Sign OCT 3 1 2005 Date/Time 1450	Received By Jeff Jensen Print Sign OCT 3 1 2005 Date/Time 1450	<100 CPM
Relinquished By Date/Time	Received By Date/Time	
Relinquished By Date/Time	Received By Date/Time	
Relinquished By Date/Time	Received By Date/Time	

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 10 31 05 1450

Client: PLW SDG #: W04801 NA [ ] SAF #: I05-049 I05-053 S06-010 NA [ ]

Work Order Number: J5J310218 Chain of Custody # I05-053-33, S06-010-5 I05-049-135

Shipping Container ID: SAWS 209 Air Bill # _____

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

Sample Custodian: [signature] Date: 10 31 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G05-011-64

Page 1 of 1

Collector Radford / Deters	Contact/Requester	Telephone No. MSIN FAX
SAF No. G05-011	Sampling Origin	Purchase Order/Charge Code
Project Title LTMC/1NR2 REBOUND, SEPTEMBER 2005		Ice Chest No. Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

WO 9901
J5K030226
Due 12 16 05

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DTT7		W	11/1/05	14:10	1x1000-mL P	906.0_H3_LSC: Tritium (1) HN94C	None
B1DTT7		W	11/1/05	14:10	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DTT7		W	11/1/05	14:10	1x20-mL P	Activity Scan	None
B1DTT7		W	11/1/05	14:10	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1DTT7		W	11/1/05	14:10	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
Katherine Ambeters Katherine Ambeters	11/4/05 15:30	~~Storage~~ LKD 11/4/05 Sigma 5 Locked Storage	11/1/05 15:30
Sigma 5 Locked Storage	11/2/05 10:00	Katherine Ambeters Katherine Ambeters	11/2/05 10:00
Katherine Ambeters Katherine Ambeters	11/2/05 11:00	Jeff Jensen	11 02 05 1115

<100 CPM

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 11 02 05 1115

Client: PLW SDG #: W09801 NA [ ] SAF #: G05-011 G06-011 NA [ ]

Work Order Number: 75K030226 Chain of Custody # G05-011-64, 65 66

Shipping Container ID: _____ Air Bill # G06-011-18, 20, 16, 22, 26, 24, 30, 28

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 37
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ____ tape
   - X custody seals
   - ____ hazard labels
   - X appropriate samples labels
9. Samples are:
   - X in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 11 02 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

12/13/2005 5:06:41 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: _____

Report Due: 12/16/2005 WO 4801

Sep1 DT/Tm Tech:

Batch: 5318567 **WATER** **pCi/L** **PM, Quote: HC , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 5318560 DHSS, 5318561 FPS5, 5318565 ARS6, 5318567 BNTB,

Prep Tech: ,GiroirB

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 HNE6M-1-AC J5J220220-1-SAMP 10/21/2005 13:01		3909.40g,in AmtRec: 20ML,2X500P,LP,2X4LP #Containers: 6	ITA4848 11/25/05		363	100	L4	2100	12/12/05 CB for OD Scr: Alpha: 3.17E-06 uCi/Sa	Beta: -5.46E-10 uCi/Sa
2 HNH2T-1-AC J5J250150-1-SAMP 10/24/2005 10:24		3930.40g,in AmtRec: 20ML,LP,2X4LP #Containers: 4	ITA4849 11/29/05		363		L5		Scr: Alpha: 1.68E-07 uCi/Sa	Beta: 3.01E-06 uCi/Sa
3 HNMVT-1-AC J5J260305-1-SAMP 10/25/2005 11:41		3922.40g,in AmtRec: 20ML,LP,2X4LP #Containers: 4	ITA4850 11/29/05		35.8		L4	0840	12/13/05 CB Scr: Alpha: -8.17E-07 uCi/Sa	Beta: 2.00E-03 uCi/Sa
4 HNMV4-1-AC J5J260310-1-SAMP 10/25/2005 11:45		4000.00g,in AmtRec: 20ML,LP,2X4LP #Containers: 4	ITA4851 11/29/05		35.3		L5		Scr: Alpha: -1.34E-03 uCi/Sa	Beta: 1.57E-03 uCi/Sa
5 HNMV4-1-AD-X J5J260310-1-DUP 10/25/2005 11:45		3605.80g,in AmtRec: 20ML,LP,2X4LP #Containers: 4	ITA4852 11/29/05		34.3		L4	1026	12/13/05 Scr: Alpha: -1.34E-03 uCi/Sa	Beta: 1.57E-03 uCi/Sa
6 HNTGF-1-AC J5J270433-1-SAMP 10/27/2005 12:35		3820.20g,in AmtRec: 20ML,500P,4XLP,2X4LP #Containers: 8	ITA4853 11/29/05		36.3		L5	1026	Scr: Alpha: 3.18E-04 uCi/Sa	Beta: 1.44E-03 uCi/Sa
7 HN0R8-1-AE J5J290245-1-SAMP 10/28/2005 09:57		3926.70g,in AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6	ITA4854 11/29/05		35.6		L4	1213	12/13/05 Scr: Alpha: 1.35E-03 uCi/Sa	Beta: 7.92E-04 uCi/Sa

11/30/2005 7:52:49 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #:

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318567 **WATER** **pCi/L** **PM, Quote: HC , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Rpt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HN0TG-1-AC J5J290250-1-SAMP 10/28/2005 09:35	AmtRec: 20ML,LP,2X4LP	3850.00g,in	ITA4855 11/29/05	IFA	35.4	100	L5	1213	12/13/05	#Containers: 4 Scr: Alpha: 1.14E-03 uCi/Sa Beta: 2.51E-04 uCi/Sa
9 HN2C9-1-AA J5J310217-1-SAMP 10/31/2005 13:42	AmtRec: 20ML,2X4LP	3910.00g,in	ITA4856 11/29/05		35.3		L4	1357		#Containers: 3 Scr: Alpha: 6.94E-04 uCi/Sa Beta: 6.83E-04 uCi/Sa
10 HP575-1-AA-B J5K140000-567-BLK 10/25/2005 11:45	AmtRec:	3749.50g,in	ITA4857 11/29/05		35.4		L5	1357		#Containers: 1 Scr: Alpha: Beta:
11 HP575-1-AC-C J5K140000-567-LCS 10/25/2005 11:45	AmtRec:	3907.00g,in	ISD0585 09/24/05,pd		40.0		L4	1555	12/13/05	#Containers: 1 Scr: Alpha: Beta:

Comments: HNMV4-SAMP "Comments: Solids in sample"

pH neutral

All Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

HNE6M1AC-SAMP Constituent List:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
HP5751AA-BLK:					
I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
HP5751AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

HNE6M1AC-SAMP Calc Info:

11/30/2005 7:52:50 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318567 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

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

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

HP5751AA-BLK:

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

HP5751AC-LCS:

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

Approved By _____ Date: _____

12/15/2005 1:35:05 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/15/2004, 12/20/2005, Batch: '5318567', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5318567						
AC		**CalcC**	**GiroirB**	11/22/2005 7:37:34		
SC			wagarr	IsBatched	11/14/2005 4:27:55 PM	ICOC_RADCALC v4.8.15
SC			GiroirB	InPrep	11/22/2005 7:37:34 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	Prep1C	11/30/2005 8:14:17 AM	RICH-RC-5016 REVISION 5
SC			NortonJ	InSep1	12/1/2005 1:40:07 PM	RICHRC5025 REV3
SC			NortonJ	Sep1C	12/12/2005 3:26:24 PM	RICH-RC-5025 REVISION3
SC			DAWKINSO	InCnt1	12/12/2005 3:32:09 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	12/13/2005 10:02:43 PM	RICH-RD-0007 REVISION 5
AC			**GiroirB**	11/30/2005 8:14:17		
AC			**NortonJ**	12/1/2005 1:40:07 PM		
AC			**NortonJ**	12/12/2005 3:26:24		
AC			**DAWKINSO**	12/12/2005 3:32:09		
AC			**DAWKINSO**	12/13/2005 10:02:43		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.15

11/30/2005 10:21:36 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab W04801

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

Pipet #: _____

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318562 **WATER** **pCi/L** **PM, Quote: HC , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GiroirB

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 HN2DE-1-AD J5J310218-1-SAMP 10/31/2005 11:11		1989.30g,in AmtRec: 20ML,2XLP,4LP	#Containers: 4		100	100		G8	1316	12/2/05 R Scr: Alpha: 1.55E-03 uCi/Sa Beta: 2.30E-03 uCi/Sa
2 HN2DE-1-AE-X J5J310218-1-DUP 10/31/2005 11:11		1989.20g,in AmtRec: 20ML,2XLP,4LP	#Containers: 4					G10	1515	12/2/05 Scr: Alpha: 1.55E-03 uCi/Sa Beta: 2.30E-03 uCi/Sa
3 HN94C-1-AE J5K030226-1-SAMP 11/01/2005 14:10		2006.30g,in AmtRec: 20ML,5XLP,4LP	#Containers: 7					G11	1317	12/2/05 R Scr: Alpha: -2.37E-04 uCi/Sa Beta: 5.38E-04 uCi/Sa
4 HP57X-1-AA-B J5K140000-562-BLK 10/31/2005 11:11		1949.80g,in AmtRec:	#Containers: 1					G10	1318	12/2/05 R Scr: Alpha: Beta:
5 HP57X-1-AC-C J5K140000-562-LCS 10/31/2005 11:11		1994.30g,in AmtRec:	QCAG1150 08/22/05,pd #Containers: 1					G13	1346	12/2/05 R Scr: Alpha: Beta:

Comments: HMN4Q-SAMP "Comments: gamma count dup on dif det. Bg"
HN2DE-SAMP "Comments: count dup on dif det. Bg"

pHadj

All Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

11/30/2005 10:21:37 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318562 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

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:

HN2DE1AD-SAMP Constituent List:

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

HP57X1AA-BLK:

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

HP57X1AC-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						

HN2DE1AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HP57X1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HP57X1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

12/15/2005 12:08:11 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/15/2004, 12/20/2005, Batch: '5318562', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5318562						
AC		**CalcC**	**GiroirB**	11/22/2005 7:36:12		
SC			wagarr	IsBatched	11/14/2005 4:27:55 PM	ICOC_RADCALC v4.8.15
SC			GiroirB	InPrep	11/22/2005 7:36:12 AM	RICH-RC-5017 REVISION 4
SC			GiroirB	Prep1C	11/30/2005 10:20:58 AM	RICH-RC-5017 REVISION 4
SC			ScottM	Prep2C	12/2/2005 8:05:45 AM	RICH-RC-5017 REVISION 4
SC			BlackCL	InCnt1	12/2/2005 8:27:32 AM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	12/2/2005 4:30:20 PM	RICH-RD-0007 REVISION 5
AC			**GiroirB**	11/30/2005 10:20:58		
AC			**ScottM**	12/2/2005 8:05:45		
AC			**BlackCL**	12/2/2005 8:27:32		
AC			**DAWKINSO**	12/2/2005 4:30:20 PM		

AC: Accepting Entry; SC: Status Change

12/1/2005 6:51:20 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: 229

Report Due: 12/16/2005 W04801

Sep1 DT/Tm Tech:

Batch: 5318569 **WATER** **pCi/L**

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GiroirB Scott

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 HN0R8-1-AC J5J290245-1-SAMP 10/28/2005 09:57		188.40g,in AmtRec: 20ML,500P,2XLP,2X4LP	#Containers: 6	1.5	263	50	11A	1146	12/14/05	Scr: Alpha: 1.35E-03 uCi/Sa Beta: 7.92E-04 uCi/Sa
2 HN0R8-1-AG-X J5J290245-1-DUP 10/28/2005 09:57		184.00g,in AmtRec: 20ML,500P,2XLP,2X4LP	#Containers: 6		27.6		11B			Scr: Alpha: 1.35E-03 uCi/Sa Beta: 7.92E-04 uCi/Sa
3 HN0TE-1-AC J5J290249-1-SAMP 10/28/2005 11:30		152.20g,in AmtRec: 20ML,2XLP	#Containers: 3		43.1		11C			Scr: Alpha: -1.95E-04 uCi/Sa Beta: 1.51E-04 uCi/Sa
4 HN2DE-1-AC J5J310218-1-SAMP 10/31/2005 11:11		195.20g,in AmtRec: 20ML,2XLP,4LP	#Containers: 4		34.8		11D			Scr: Alpha: 1.55E-03 uCi/Sa Beta: 2.30E-03 uCi/Sa
5 HN94C-1-AC J5K030226-1-SAMP 11/01/2005 14:10		197.60g,in AmtRec: 20ML,5XLP,4LP	#Containers: 7		10.9		10A			Scr: Alpha: -2.37E-04 uCi/Sa Beta: 5.38E-04 uCi/Sa
6 HP578-1-AA-B J5K140000-569-BLK 10/28/2005 09:57		206.90g,in AmtRec:	#Containers: 1		0.1		10B			Scr: Alpha: Beta:
7 HP578-1-AC-C J5K140000-569-LCS 10/28/2005 09:57		198.20g,in AmtRec:	ASD3715 11/08/05,pd #Containers: 1		0.5		10C			Scr: Alpha: Beta:

12/1/2005 6:51:21 AM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #: 229

Report Due: 12/16/2005

Batch: 5318569 **pCi/L**
SEQ Batch, Test: None

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

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: HN0R8-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HN0TE-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HN2DE-SAMP "Comments: Gamma count dup on dif det. Bg"

Ppt Verified

All Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

HN0R81AC-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
HP5781AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
HP5781AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

HN0R81AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5781AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5781AC-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 12-16-05

CUSTOMER PGW

ANALYSIS alpha

MATRIX water

LOT NUMBER J5J290245, 249

SAMPLE DELIVERY GROUP W04801

OLD BATCH NUMBER 5318569

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) HNORSLAC	100 min. ct.
2) HNOTEIAC	to meet CRDL
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	

12/15/2005 9:42:40 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: _____

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318569 **WATER** **pCi/L** **PM, Quote: HC , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 5318560 DHSS, 5318565 ARS6, 5318567 BNTB, 5318569 AZS7, 5318583 BCS8,

Prep Tech: GiroirB

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 HN0R8-1-AC J5J290245-1-SAMP 10/28/2005 09:57		188.40g,in								
AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6								Scr:	Alpha: 1.35E-03 uCi/Sa	Beta: 7.92E-04 uCi/Sa
2 HN0R8-1-AG-X J5J290245-1-DUP 10/28/2005 09:57		184.00g,in								
AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6								Scr:	Alpha: 1.35E-03 uCi/Sa	Beta: 7.92E-04 uCi/Sa
3 HN0R8-2-AC J5J290245-1-SAMP 10/28/2005 09:57		188.4			26.3mg	100 min		10A	1150	12/15/05
AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6								Scr:	Alpha: 1.35E-03 uCi/Sa	Beta: 7.92E-04 uCi/Sa
4 HN0TE-1-AC J5J290249-1-SAMP 10/28/2005 11:30		152.20g,in								
AmtRec: 20ML,2XLP #Containers: 3								Scr:	Alpha: -1.95E-04 uCi/Sa	Beta: 1.51E-04 uCi/Sa
5 HN0TE-2-AC J5J290249-1-SAMP 10/28/2005 11:30		152.2			43.1mg	100		10B	1150	12/15/05
AmtRec: 20ML,2XLP #Containers: 3								Scr:	Alpha: -1.95E-04 uCi/Sa	Beta: 1.51E-04 uCi/Sa
6 HN2DE-1-AC J5J310218-1-SAMP 10/31/2005 11:11		195.20g,in								
AmtRec: 20ML,2XLP,4LP #Containers: 4								Scr:	Alpha: 1.55E-03 uCi/Sa	Beta: 2.30E-03 uCi/Sa
7 HN94C-1-AC J5K030226-1-SAMP 11/01/2005 14:10		197.60g,in								
AmtRec: 20ML,5XLP,4LP #Containers: 7								Scr:	Alpha: -2.37E-04 uCi/Sa	Beta: 5.38E-04 uCi/Sa

12/15/2005 9:42:41 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #:

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318569 pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

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 HP578-1-AA-B J5K140000-569-BLK 10/28/2005 09:57		206.90g,in AmtRec:	#Containers: 1						Scr:	Alpha: Beta:
9 HP578-1-AC-C J5K140000-569-LCS 10/28/2005 09:57		198.20g,in AmtRec:	ASD3715 11/08/05,pd 03/25/05,r #Containers: 1						Scr:	Alpha: Beta:

Comments: HN0R8-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HN0TE-SAMP "Comments: Alph5318569",RICH-RC-5014,"Revision 6",DONE,"a and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HN2DE-SAMP "Comments: Gamma count dup on dif det. Bg"

All Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

HN0R81AC-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
HP5781AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
HP5781AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

HN0R81AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5781AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5781AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

12/16/2005 9:05:43 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/16/2004, 12/21/2005, Batch: '5318569', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5318569						
AC		**CalcC**	**GiroirB**	11/22/2005 7:35:48		
SC			wagarr	IsBatched	11/14/2005 4:27:55 PM	ICOC_RADCALC v4.8.15
SC			GiroirB	InPrep	11/22/2005 7:35:48 AM	RICH-RC-5014 REVISION 6
SC			GiroirB	Prep1C	12/1/2005 6:54:33 AM	RICH-RC-5014 REVISION 6
SC			ScottM	Prep2C	12/13/2005 3:11:31 PM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	12/13/2005 8:27:02 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	12/14/2005 1:00:05 PM	RICH-RD-0003 REVISION 4
SC			BlackCL	InCnt1	12/15/2005 9:57:00 AM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	12/15/2005 12:10:12 PM	RICH-RD-0003 REVISION 4
AC			**GiroirB**	12/1/2005 6:54:33		
AC			**ScottM**	12/13/2005 3:11:31		
AC			**DAWKINSO**	12/13/2005 8:27:02		
AC			**StringerR**	12/14/2005 1:00:05		
AC			**BlackCL**	12/15/2005 9:57:00		
AC			**BlackCL**	12/15/2005 12:10:12		

AC: Accepting Entry; SC: Status Change

12/1/2005 6:51:22 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: 229

Report Due: 12/16/2005 604801

Sep1 DT/Tm Tech:

Batch: 5318583 **WATER** **pCi/L**

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GiroirB Scott

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 HN0R8-1-AD J5J290245-1-SAMP 10/28/2005 09:57	189.90g,in	AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6		1.5	60.7	100	31A	0811	12/14/05	Scr: Alpha: 1.35E-03 uCi/Sa Beta: 7.92E-04 uCi/Sa
2 HN0TE-1-AD J5J290249-1-SAMP 10/28/2005 11:30	187.60g,in	AmtRec: 20ML,2XLP #Containers: 3			49.9		31B			Scr: Alpha: -1.95E-04 uCi/Sa Beta: 1.51E-04 uCi/Sa
3 HN0TE-1-AE-X J5J290249-1-DUP 10/28/2005 11:30	186.00g,in	AmtRec: 20ML,2XLP #Containers: 3			50.9		31C			Scr: Alpha: -1.95E-04 uCi/Sa Beta: 1.51E-04 uCi/Sa
4 HN94C-1-AD J5K030226-1-SAMP 11/01/2005 14:10	200.90g,in	AmtRec: 20ML,5XLP,4LP #Containers: 7			64.1		31D			Scr: Alpha: -2.37E-04 uCi/Sa Beta: 5.38E-04 uCi/Sa
5 HP58G-1-AA-B J5K140000-583-BLK 10/28/2005 11:30	193.60g,in	AmtRec: #Containers: 1			0.1		32A			Scr: Alpha: Beta:
6 HP58G-1-AC-C J5K140000-583-LCS 10/28/2005 11:30	200.60g,in	AmtRec: #Containers: 1	BESB2615 11/10/05,pd		0.7		32D			Scr: Alpha: Beta:

12/1/2005 6:51:23 AM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #: 229

Report Due: 12/16/2005

Batch: 5318583 **pCi/L**
SEQ Batch, Test: None

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

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: HN0R8-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HN0TE-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HN2DE-SAMP "Comments: Gamma count dup on dif det. Bg"

pH verified

All Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

HN0R81AD-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
HP58G1AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
HP58G1AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

HN0R81AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP58G1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP58G1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

12/15/2005 1:32:00 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/15/2004, 12/20/2005, Batch: '5318583', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5318583						
AC		**CalcC**	**GiroirB**	11/22/2005 7:35:53		
SC			wagarr	IsBatched	11/14/2005 4:27:55 PM	ICOC_RADCALC v4.8.15
SC			GiroirB	InPrep	11/22/2005 7:35:53 AM	RICH-RC-5014 REVISION 6
SC			GiroirB	Prep1C	12/1/2005 6:54:40 AM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	12/13/2005 8:29:05 PM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	12/14/2005 9:16:38 AM	RICH-RD-0003 REVISION 4
AC			**GiroirB**	12/1/2005 6:54:40		
AC			**DAWKINSO**	12/13/2005 8:29:05		
AC			**BlackCL**	12/14/2005 9:16:38		

AC: Accepting Entry; SC: Status Change

11/17/2005 8:46:14 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

Report Due: 12/16/2005 1100480\

Batch: 5318586 **WATER** **pCi/L**
SEQ Batch, Test: None

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

PM, Quote: HC , 57671

Balance Id:11,01
Pipet #: NA
Sep1 DT/Tm Tech: 11-23-05 5:38 PM
Sep2 DT/Tm Tech: 11-30-05 11:43 AM
Prep Tech: ,GiroirB

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 HNTGF-1-AD		1000.70g,in	SRTB12887	1.649							
J5J270433-1-SAMP			11/11/05,pd	2.0472			30	9	0459	11/30/05	
			YTA14803	.8153		23.3	100	12	0852	10/1/05	
			Ex:11/13/2006					32	0800	10/2/05	
10/27/2005 12:35		AmtRec: 20ML,500P,4XLP,2X4LP	#Containers: 8					Scr:	Alpha: 3.18E-04 uCi/Sa		Beta: 1.44E-03 uCi/Sa
2 HNTGF-1-AF-X		1015.40g,in	SRTB12888	1.768							
J5J270433-1-DUP			11/11/05,pd	1.9699				31	0459	11/30/05	
			YTA14804	.8975				73	0852	10/1/05	
			Ex:11/13/2006			23.6		33	0800	10/2/05	
10/27/2005 12:35		AmtRec: 20ML,500P,4XLP,2X4LP	#Containers: 8					Scr:	Alpha: 3.18E-04 uCi/Sa		Beta: 1.44E-03 uCi/Sa
3 HN94C-1-AF		1006.70g,in	SRTB12889	1.617							
J5K030226-1-SAMP			11/11/05,pd	2.0385				91	0532	11/30/05	
			YTA14805	.7932				7C	0852	10/1/05	
			Ex:11/13/2006			24.4		3C	0800	10/2/05	
11/01/2005 14:10		AmtRec: 20ML,5XLP,4LP	#Containers: 7					Scr:	Alpha: -2.37E-04 uCi/Sa		Beta: 5.38E-04 uCi/Sa
4 HP58H-1-AA-B		989.20g,in	SRTB12890	1.655							
J5K140000-586-BLK			11/11/05,pd	1.9784				31	0532	11/30/05	
			YTA14806	.8365				1C	0852	10/1/05	
			Ex:11/28/2006			23.5		3D	0800	10/2/05	
10/27/2005 12:35		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

11/17/2005 8:46:15 AM

Sample Preparation/Analysis

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

Balance Id:11
Pipet #: NA
Sep1 DT/Tm Tech: 11-23-05 5:38 PM
Sep2 DT/Tm Tech: 11-30-05 11:43 AM
Prep Tech: ,GiroirB

Report Due: 12/16/2005

Batch: 5318586 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 HP58H-1-AC-C		978.90g,in	SRSG1146	1.430							
J5K140000-586-LCS			10/25/05,pd	2.0404			30	9	0600	11/29/05	
			YTA14807	.7988				10	0802	10/1/05	
			Ex:11/28/2006			233	100	4	~~0820~~ 0937	12/1/05	

10/27/2005 12:35 AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: pHverified

All Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

INTGF1AD-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

HP58H1AA-BLK:
Sr-85 RDL: pCi/L LCL:20 UCL:105 RPD:20 Sr-90 RDL:2 pCi/L LCL: UCL: RPD:

HP58H1AC-LCS:
Sr-85 RDL: pCi/L LCL:20 UCL:105 RPD:20 Sr-90 RDL:2 pCi/L LCL:70 UCL:130 RPD:20

INTGF1AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP58H1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP58H1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

12/5/2005 10:05:30 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/5/2004, 12/10/2005, Batch: '5318586', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5318586						
AC		**CalcC**	**GiroirB**	11/17/2005 8:54:27		
SC			wagarr	IsBatched	11/14/2005 4:27:55 PM	ICOC_RADCALC v4.8.15
SC			GiroirB	Prep1C	11/17/2005 8:54:27 AM	RICH-RC-5016 REVISION 5
SC			FABREM	InSep1	11/17/2005 9:05:14 AM	RICH-RC-5006 REVISION 6
SC			FABREM	Sep1C	11/23/2005 9:04:13 PM	RICH-RC-5006 REVISION 6
SC			DAWKINSO	InCnt1	11/23/2005 9:20:56 PM	RICH-RD-0007 REVISION 5
SC			BlackCL	Cnt1C	11/24/2005 8:18:46 AM	RICH-RD-0007 REVISION 5
SC			FABREM	InSep2	11/27/2005 9:42:31 AM	RICH-RC-5071 REVISION 4
SC			FABREM	Sep2C	11/30/2005 5:10:58 PM	RICH-RC-5071 REVISION 4
SC			StringerR	InCnt1	11/30/2005 5:16:15 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	12/2/2005 10:15:56 AM	RICH-RD-0003 REVISION 4
AC			**FABREM**	11/17/2005 9:05:14		
AC			**FABREM**	11/23/2005 9:04:13		
AC			**DAWKINSO**	11/23/2005 9:20:56		
AC			**BlackCL**	11/24/2005 8:18:46		
AC			**FABREM**	11/27/2005 9:42:31		
AC			**FABREM**	11/30/2005 5:10:58		
AC			**StringerR**	11/30/2005 5:16:15		
AC			**StringerR**	12/2/2005 10:15:56		

AC: Accepting Entry; SC: Status Change

11/30/2005 1:26:43 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: _____

Report Due: 12/16/2005 (W0480)

Sep1 DT/Tm Tech:

Batch: 5318561 WATER pCi/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

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 HNE6M-1-AD J5J220220-1-SAMP 10/21/2005 13:01			125.30g,in	125.30g						
	AmtRec: 20ML,2X500P,LP,2X4LP		#Containers: 6					Scr:	Alpha: 3.17E-06 uCi/Sa	Beta: -5.46E-10 uCi/Sa
2 HNH3E-1-AA J5J250155-2-SAMP 10/24/2005 13:04			124.70g,in	124.70g						
	AmtRec: 20ML,500P		#Containers: 2					Scr:	Alpha: 1.37E-07 uCi/Sa	Beta: 1.19E-07 uCi/Sa
3 HNTGC-1-AA J5J270432-1-SAMP 10/27/2005 12:35			123.40g,in	123.40g						
	AmtRec: 20ML,500P		#Containers: 2					Scr:	Alpha: -6.91E-05 uCi/Sa	Beta: 9.93E-05 uCi/Sa
4 HNTGC-1-AC-S X J5J270432-1-MS 10/27/2005 12:35			126.00g,in	126.00g	TCSG1361 09/30/05,pd					
	AmtRec: 20ML,500P		#Containers: 2					Scr:	Alpha: -6.91E-05 uCi/Sa	Beta: 9.93E-05 uCi/Sa
5 HN0R7-1-AC J5J290244-1-SAMP 10/28/2005 11:12			125.40g,in	125.40g						
	AmtRec: 20ML,2X500P,LP		#Containers: 4					Scr:	Alpha: 4.71E-04 uCi/Sa	Beta: 6.54E-04 uCi/Sa
6 HN0R9-1-AA J5J290247-1-SAMP 10/28/2005 09:57			124.90g,in	124.90g						
	AmtRec: 20ML,500P		#Containers: 2					Scr:	Alpha: -7.22E-05 uCi/Sa	Beta: 1.86E-04 uCi/Sa
7 HN0R9-1-AC-X J5J290247-1-DUP 10/28/2005 09:57			125.90g,in	125.90g						
	AmtRec: 20ML,500P		#Containers: 2					Scr:	Alpha: -7.22E-05 uCi/Sa	Beta: 1.86E-04 uCi/Sa

11/30/2005 1:26:45 PM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318561 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HP57W-1-AA-B J5K140000-561-BLK			128.00g,in	128.00g						
10/28/2005 09:57		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:
9 HP57W-1-AC-C J5K140000-561-LCS			129.40g,in	129.40g	TCSE1791 07/18/05,pd					
10/28/2005 09:57		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:
10 HP57W-1-AD-BN J5K140000-561-IBLK										
10/28/2005 09:57		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:

Comments:

pt - Prepped

* reporned MS up as Tech madvert added LCS to orig pour up. B

All Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

HNE6M1AD-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
HNTGC1AC-MS:

HP57W1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
HP57W1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
HP57W1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

HNE6M1AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HNTGC1AC-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Sample Preparation/Analysis

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

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

Report Due: 12/16/2005

Batch: 5318561 pCi/L
SEQ Batch, Test: None

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

```
IP57W1AA-BLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
IP57W1AC-LCS:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
IP57W1AD-IBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

Approved By _____ Date: _____

12/16/2005 3:34:04 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/16/2004, 12/21/2005, Batch: '5318561', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5318561						
AC		**CalcC**	**GiroirB**	11/22/2005 7:36:08		
SC			wagarr	IsBatched	11/14/2005 4:27:55 PM	ICOC_RADCALC v4.8.15
SC			GiroirB	InPrep	11/22/2005 7:36:08 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	Prep1C	11/30/2005 1:32:10 PM	RICH-RC-5016 REVISION 5
SC			StringerR	InCnt1	12/14/2005 6:57:15 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	12/16/2005 9:40:01 AM	RICH-RD-0001 REVISION 3
AC			**GiroirB**	11/30/2005 1:32:10		
AC			**StringerR**	12/14/2005 6:57:15		
AC			**BlackCL**	12/16/2005 9:40:01		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.15

1/14/2005 4:26:05 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

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

Report Due: 12/16/2005 W04801

Batch: 5318565 **WATER** **pCi/L** **PM, Quote: HC , 57671**

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:
1 HNE6M-1-AA 5J220220-1-SAMP 10/21/2005 13:01	AmtRec: 20ML,2X500P,LP,2X4LP	#Containers: 6				Scr:	Alpha: 3.17E-06 uCi/Sa	Beta: -5.46E-10 uCi/Sa
2 HNH2T-1-AA 5J250150-1-SAMP 10/24/2005 10:24	AmtRec: 20ML,LP,2X4LP	#Containers: 4				Scr:	Alpha: 1.68E-07 uCi/Sa	Beta: 3.01E-06 uCi/Sa
3 HNH28-1-AA 5J250155-1-SAMP 10/24/2005 12:27	AmtRec: 20ML,LP	#Containers: 2				Scr:	Alpha: -5.01E-08 uCi/Sa	Beta: 4.55E-07 uCi/Sa
4 HNH28-1-AC-X 5J250155-1-DUP 10/24/2005 12:27	AmtRec: 20ML,LP	#Containers: 2				Scr:	Alpha: -5.01E-08 uCi/Sa	Beta: 4.55E-07 uCi/Sa
5 HNMVT-1-AA 5J260305-1-SAMP 10/25/2005 11:41	AmtRec: 20ML,LP,2X4LP	#Containers: 4				Scr:	Alpha: -8.17E-07 uCi/Sa	Beta: 2.00E-03 uCi/Sa
6 HNMV4-1-AA 5J260310-1-SAMP 10/25/2005 11:45	AmtRec: 20ML,LP,2X4LP	#Containers: 4				Scr:	Alpha: -1.34E-03 uCi/Sa	Beta: 1.57E-03 uCi/Sa
7 HNTGF-1-AA 5J270433-1-SAMP 10/27/2005 12:35	AmtRec: 20ML,500P,4XLP,2X4LP	#Containers: 8				Scr:	Alpha: 3.18E-04 uCi/Sa	Beta: 1.44E-03 uCi/Sa

11/14/2005 4:26:06 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Report Due: 12/16/2005

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

Batch: 5318565 **WATER** **pCi/L** **PM, Quote: HC , 57671**
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 HN0R7-1-AA J5J290244-1-SAMP 10/28/2005 11:12	AmtRec: 20ML,2X500P,LP	#Containers: 4				Scr:	Alpha: 4.71E-04 uCi/Sa	Beta: 6.54E-04 uCi/Sa
9 HN0R8-1-AA J5J290245-1-SAMP 10/28/2005 09:57	AmtRec: 20ML,500P,2XLP,2X4LP	#Containers: 6				Scr:	Alpha: 1.35E-03 uCi/Sa	Beta: 7.92E-04 uCi/Sa
10 HN0TE-1-AA J5J290249-1-SAMP 10/28/2005 11:30	AmtRec: 20ML,2XLP	#Containers: 3				Scr:	Alpha: -1.95E-04 uCi/Sa	Beta: 1.51E-04 uCi/Sa
11 HN0TG-1-AA J5J290250-1-SAMP 10/28/2005 09:35	AmtRec: 20ML,LP,2X4LP	#Containers: 4				Scr:	Alpha: 1.14E-03 uCi/Sa	Beta: 2.51E-04 uCi/Sa
12 HN2CA-1-AA J5J310212-1-SAMP 10/31/2005 09:28	AmtRec: 20ML,LP	#Containers: 2				Scr:	Alpha: 1.83E-04 uCi/Sa	Beta: 4.78E-04 uCi/Sa
13 HN2DE-1-AA J5J310218-1-SAMP 10/31/2005 11:11	AmtRec: 20ML,2XLP,4LP	#Containers: 4				Scr:	Alpha: 1.55E-03 uCi/Sa	Beta: 2.30E-03 uCi/Sa
14 HN94C-1-AA J5K030226-1-SAMP 11/01/2005 14:10	AmtRec: 20ML,5XLP,4LP	#Containers: 7				Scr:	Alpha: -2.37E-04 uCi/Sa	Beta: 5.38E-04 uCi/Sa

11/14/2005 4:26:06 PM

Sample Preparation/Analysis

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

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Report Due: 12/16/2005

Batch: 5318565 **pCi/L**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 HP571-1-AA-B J5K140000-565-BLK 10/24/2005 12:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
16 HP571-1-AC-C J5K140000-565-LCS 10/24/2005 12:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
17 HP571-1-AD-BX J5K140000-565-MBLK 10/24/2005 12:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
18 HP571-1-AE-CM J5K140000-565-MLCS 10/24/2005 12:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
19 HP571-1-AF-BN J5K140000-565-IBLK 10/24/2005 12:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
20 HP571-1-AG-BN J5K140000-565-IBLK 10/24/2005 12:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
21 HP571-1-AH-BN J5K140000-565-IBLK 10/24/2005 12:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

11/14/2005 4:26:08 PM

Sample Preparation/Analysis

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

Report Due: 12/16/2005

Batch: 5318565 pCi/L
SEQ Batch, Test: None

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

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

Comments:

All Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

HNE6M1AA-SAMP Constituent List:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
HP5711AA-BLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
HP5711AC-LCS:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
HP5711AD-MBLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
HP5711AE-MLCS:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
HP5711AF-IBLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
HP5711AG-IBLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
HP5711AH-IBLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:

HNE6M1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5711AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5711AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5711AD-MBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5711AE-MLCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5711AF-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5711AG-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HP5711AH-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

11/14/2005 4:26:08 PM

Sample Preparation/Analysis

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

Report Due: 12/16/2005

Batch: 5318565 **pCi/L**
SEQ Batch, Test: None

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

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

Approved By _____ **Date:** _____

12/16/2005 8:50:47 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/16/2004, 12/21/2005, Batch: '5318565', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5318565						
AC		**CalcC**	**LEGLERM**	12/14/2005 3:36:57		
SC			wagarr	IsBatched	11/14/2005 4:27:55 PM	ICOC_RADCALC v4.8.15
SC			LEGLERM	Sep1C	12/14/2005 3:36:57 PM	RICH-RC-5007 REVISION 6
SC			StringerR	InCnt1	12/14/2005 4:29:03 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	12/16/2005 7:36:22 AM	RICH-RD-0001 REVISION 3
AC			**StringerR**	12/14/2005 4:29:03		
AC			**BlackCL**	12/16/2005 7:36:22		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 3

ICOCFractions v4.8.15

11/30/2005 12:21:28 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: 240

Report Due: 12/16/2005 UD4801

Sep1 DT/Tm Tech:

Batch: 5318560 WATER ug/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB Scott

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 HNE6M-1-AE 5J220220-1-SAMP 10/21/2005 13:01	Final Vol 10.0 ml	24.00g,in AmtRec: 20ML,2X500P,LP,2X4LP #Containers: 6				Scr:	Alpha: 3.17E-06 uCi/Sa	Beta: -5.46E-10 uCi/Sa
2 HNE6M-1-AF-S 5J220220-1-MS 10/21/2005 13:01		25.20g,in AmtRec: 20ML,2X500P,LP,2X4LP #Containers: 6	UNSF2785 11/29/05,pd			Scr:	Alpha: 3.17E-06 uCi/Sa	Beta: -5.46E-10 uCi/Sa
3 HNMWA-1-AA 5J260311-1-SAMP 10/25/2005 10:04		24.70g,in AmtRec: 20ML,500P #Containers: 2				Scr:	Alpha: 9.10E-06 uCi/Sa	Beta: 1.41E-04 uCi/Sa
4 HNMWA-1-AC-X 5J260311-1-DUP 10/25/2005 10:04		25.20g,in AmtRec: 20ML,500P #Containers: 2				Scr:	Alpha: 9.10E-06 uCi/Sa	Beta: 1.41E-04 uCi/Sa
5 HNTGF-1-AE 5J270433-1-SAMP 10/27/2005 12:35		26.60g,in AmtRec: 20ML,500P,4XLP,2X4LP #Containers: 8				Scr:	Alpha: 3.18E-04 uCi/Sa	Beta: 1.44E-03 uCi/Sa
6 HN0R7-1-AD 5J290244-1-SAMP 10/28/2005 11:12		25.20g,in AmtRec: 20ML,2X500P,LP #Containers: 4				Scr:	Alpha: 4.71E-04 uCi/Sa	Beta: 6.54E-04 uCi/Sa
7 HN0R8-1-AF 5J290245-1-SAMP 10/28/2005 09:57		26.30g,in AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6				Scr:	Alpha: 1.35E-03 uCi/Sa	Beta: 7.92E-04 uCi/Sa

11/30/2005 12:21:30 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: 240

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318560 WATER ug/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

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 HN0TH-1-AA J5J290250-2-SAMP 10/28/2005 10:53	Final Vol 10.0 ml	27.20g,in AmtRec: 20ML,500P	#Containers: 2			Scr:	Alpha: -8.02E-05 uCi/Sa	Beta: 1.81E-04 uCi/Sa
9 HP57V-1-AA-B J5K140000-560-BLK 10/25/2005 10:04		22.60g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
10 HP57V-1-AC-C J5K140000-560-LCS 10/25/2005 10:04		24.30g,in AmtRec:	UNSF2786 11/29/05,pd #Containers: 1			Scr:	Alpha:	Beta:
11 HP57V-1-AD-C J5K140000-560-LCS 10/25/2005 10:04		23.10g,in AmtRec:	UNSC0937 11/29/05,pd #Containers: 1			Scr:	Alpha:	Beta:

Comments:

pH verified

All Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

INE6M1AE-SAMP Constituent List:

Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:

INE6M1AF-MS Constituent List:

IP57V1AA-BLK:

Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:

IP57V1AC-LCS:

Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20

11/30/2005 12:21:31 PM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318560 ug/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

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:

HP57V1AD-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

HNE6M1AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNE6M1AF-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HP57V1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HP57V1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HP57V1AD-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

12/16/2005 9:15:54 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/16/2004, 12/21/2005, Batch: '5318560', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5318560						
AC		**Cnt1C**	**GiroirB**	11/22/2005 7:35:57		
SC			wagarr	IsBatched	11/14/2005 4:27:55 PM	ICOC_RADCALC v4.8.15
SC			GiroirB	InPrep	11/22/2005 7:35:57 AM	RICH-RC-5015 REVISION 4
SC			GiroirB	Prep1C	11/30/2005 12:25:43 PM	RICH-RC-5015 REVISION 4
SC			ScottM	InPrep2	12/12/2005 5:21:07 PM	RICH-RC-5015 REVISION 4
SC			ScottM	Prep2C	12/15/2005 2:23:12 PM	RICH-RC-5015 REVISION 4
SC			BarbosaH	Cnt1C	12/15/2005 4:40:43 PM	RICH-RC-5058 REVISION 6
AC			**GiroirB**	11/30/2005 12:25:43		
AC			**ScottM**	12/12/2005 5:21:07		Revision 4
AC			**ScottM**	12/15/2005 2:23:12		
AC			**BarbosaH**	12/15/2005 4:40:43		

AC: Accepting Entry; SC: Status Change

11/14/2005 4:26:04 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Report Due: 12/16/2005 W04801

Batch: 5318564 WATER mg/L
SEQ Batch, Test: None

PM, Quote: HC , 57671

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

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HNMV2-1-AA								
I5J260309-1-SAMP								
10/25/2005 11:56		AmtRec: 500P	#Containers: 1			Scr:	Alpha:	Beta:
2 HNMV2-1-AC-S								
I5J260309-1-MS								
10/25/2005 11:56		AmtRec: 500P	#Containers: 1			Scr:	Alpha:	Beta:
3 HNMV2-1-AD-D								
I5J260309-1-MSD								
10/25/2005 11:56		AmtRec: 500P	#Containers: 1			Scr:	Alpha:	Beta:
4 HNMV2-1-AE-X								
I5J260309-1-DUP								
10/25/2005 11:56		AmtRec: 500P	#Containers: 1			Scr:	Alpha:	Beta:
5 HP570-1-AA-B								
I5K140000-564-BLK								
10/25/2005 11:56		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 HP570-1-AC-C								
I5K140000-564-LCS								
10/25/2005 11:56		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

1/14/2005 4:26:05 PM

Sample Preparation/Analysis

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

Balance Id:

Pipet #:

Report Due: 12/16/2005

Sep1 DT/Tm Tech:

Batch: 5318564 mg/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

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

Comments:

11 Clients for Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671

NMV21AA-SAMP Constituent List:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20
NMV21AC-MS Constituent List:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20
NMV21AD-MSD:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20
P5701AA-BLK:
HEXCHROME RDL:0.002 mg/L LCL: UCL: RPD:
P5701AC-LCS:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20

NMV21AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
NMV21AC-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
NMV21AD-MSD:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
P5701AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
P5701AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____