Analytical Data Package Prepared For

Pacific Northwest National Lab

Radiochemical Analysis By

STL Richland STLRL

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

Data Package Contains _____ Pages

Report Nbr: 29532

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04675	W05-006	B1D7F7	J5F070383-1	HC4991AA	9HC49910	5161172
		B1D7F7	J5F070383-1	HC4993AC	9HC49930	5201305
		B1D1W6	J5F070383-2	HC5AA1AA	9HC5AA10	5161172
		B1D1W6	J5F070383-2	HC5AA1AD	9HC5AA10	5161173
		B1D1W6	J5F070383-2	HC5AA1AE	9HC5AA10	5161163
		B1D1W6	J5F070383-2	HC5AA2AC	9HC5AA20	5161174
		B1D1P4	J5F070383-3	HC5AC1AA	9HC5AC10	5161172
		B1D1P4	J5F070383-3	HC5AC1AC	9HC5AC10	5161174
		B1D1P4	J5F070383-3	HC5AC1AD	9HC5AC10	5161173
		B1D1P4	J5F070383-3	HC5AC1AE	9HC5AC10	5161163
	A05-007	B1D2M2	J5F070384-1	HC5AD1AA	9HC5AD10	5161166
		B1D2N3	J5F070384-2	HC5AE1AA	9HC5AE10	5161166
	W05-006	B1D1V9	J5F070385-1	HC5AF1AA	9HC5AF10	5161172
		B1D1V9	J5F070385-1	HC5AF1AC	9HC5AF10	5161174
		B1D1V9	J5F070385-1	HC5AF1AD	9HC5AF10	5161173

RECEIVED
SEP 17 2012
EDMC

Comments:

1216866

Report Nbr: 29532

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04675	W05-006	B1D1V9	J5F070385-1	HC5AF2AE	9HC5AF20	5201326
		B1D1L6	J5F070385-2	HC5AG1AA	9HC5AG10	5161172
		B1D1L6	J5F070385-2	HC5AG1AC	9HC5AG10	5161174
		B1D1L6	J5F070385-2	HC5AG1AD	9HC5AG10	5161173
		B1D1L6	J5F070385-2	HC5AG1AE	9HC5AG10	5161163
		B1D1T6	J5F070385-3	HC5AH1AA	9HC5AH10	5161172
		B1D1T6	J5F070385-3	HC5AH1AC	9HC5AH10	5161174
		B1D1T6	J5F070385-3	HC5AH1AD	9HC5AH10	5161173
		B1D1T6	J5F070385-3	HC5AH1AE	9HC5AH10	5161163
		B1D1T5	J5F070385-4	HC5AJ1AA	9HC5AJ10	5161172
		B1D1T5	J5F070385-4	HC5AJ1AC	9HC5AJ10	5161174
		B1D1T5	J5F070385-4	HC5AJ1AD	9HC5AJ10	5161173
		B1D1T5	J5F070385-4	HC5AJ1AE	9HC5AJ10	5161163
		B1D1N0	J5F070385-5	HC5AK1AA	9HC5AK10	5161172
		B1D1N0	J5F070385-5	HC5AK1AC	9HC5AK10	5161174
		B1D1N0	J5F070385-5	HC5AK1AD	9HC5AK10	5161173
		B1D1N0	J5F070385-5	HC5AK1AE	9HC5AK10	5161163
	A05-007	B1D2M7	J5F070386-1	HC5AL1AA	9HC5AL10	5161166
		B1D2M6	J5F070386-2	HC5AM1AA	9HC5AM10	5161166
		B1D2M4	J5F070386-3	HC5AP1AA	9HC5AP10	5161166
		B1D2N2	J5F070386-4	HC5AR1AA	9HC5AR10	5161166
		B1D2M8	J5F070386-5	HC5AT1AA	9HC5AT10	5161166
	W05-006	B1D2C4	J5F080413-1	HC74X1AA	9HC74X10	5161166
		B1D2C4	J5F080413-1	HC74X1AC	9HC74X10	5161163
		B1D2J7	J5F080413-2	HC7411AA	9HC74110	5161166
		B1D2J7	J5F080413-2	HC7411AC	9HC74110	5161163

Comments:

Report Nbr: 29532

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04675	S05-006	B1D6K1	J5F080416-1	HC7451AA	9HC74510	5161156
		B1D6K1	J5F080416-1	HC7451AC	9HC74510	5161172
		B1D6K1	J5F080416-1	HC7451AD	9HC74510	5161174
		B1D6K1	J5F080416-1	HC7451AE	9HC74510	5161173
		B1D6K1	J5F080416-1	HC7451AF	9HC74510	5161161
		B1D6K1	J5F080416-1	HC7451AG	9HC74510	5161158
		B1D6K1	J5F080416-1	HC7451AH	9HC74510	5161160
		B1D6K1	J5F080416-1	HC7451AJ	9HC74510	5161157
		B1D6K1	J5F080416-1	HC7451AK	9HC74510	5161163
	W05-006	B1D2C1	J5F080419-1	HC75R1AA	9HC75R10	5161172
		B1D2C1	J5F080419-1	HC75R1AC	9HC75R10	5161174
		B1D2C1	J5F080419-1	HC75R1AD	9HC75R10	5161173
		B1D2C1	J5F080419-1	HC75R1AE	9HC75R10	5161166
		B1D2C1	J5F080419-1	HC75R1AF	9HC75R10	5161163
	I05-040	B1D712	J5F080421-1	HC7521AA	9HC75210	5161172
		B1D712	J5F080421-1	HC7521AC	9HC75210	5161166
		B1D712	J5F080421-1	HC7521AD	9HC75210	5161163

Comments:

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

July 28, 2005

Attention: Dot Stewart

SAF Number	:	A05-007, S05-006, W05-006
Date SDG Closed	:	June 9, 2005
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W04675
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between June 7, 2005 and June 8, 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
B1D7F7	HC499	WATER	6/7/05
B1D1W6	HC5AA	WATER	6/7/05
B1D1P4	HC5AC	WATER	6/7/05
B1D2M2	HC5AD	WATER	6/7/05
B1D2N3	HC5AE	WATER	6/7/05
B1D1V9	HC5AF	WATER	6/7/05
B1D1L6	HC5AG	WATER	6/7/05
B1D1T6	HC5AH	WATER	6/7/05
B1D1T5	HC5AJ	WATER	6/7/05
B1D1N0	HC5AK	WATER	6/7/05
B1D2M7	HC5AL	WATER	6/7/05
B1D2M6	HC5AM	WATER	6/7/05
B1D2M4	HC5AP	WATER	6/7/05
B1D2N2	HC5AR	WATER	6/7/05
B1D2M8	HC5AT	WATER	6/7/05
B1D2C4	HC74X	WATER	6/8/05
B1D2J7	HC741	WATER	6/8/05

B1D6K1	HC745	WATER	6/8/05
B1D2C1	HC75R	WATER	6/8/05
B1D712	HC752	WATER	6/8/05

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:

Alpha Spectroscopy
Americium Isotopic by method RICH-RC-5072
Neptunium-237 by method RICH-RC-5064
Plutonium Isotopic by method RICH-RC-5010
Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014
Strontium by method RICH-RC-5006
Gamma Spectroscopy
Gamma (LL) by method RICH-RC-5017
Liquid Scintillation Counting
Tritium by method RICH-RC-5007
Technetium-99 by method RICH-RC-5065
Technetium-99 by method RICH-RC-5078
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058

IV. Quality Control

The analytical results for each analysis performed under SDG W04675 includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy
Americium Isotopic by method RICH-RC-5072:
The LCS, batch blank, samples and sample duplicate (B1D6K1) results are within contractual requirements.

Neptunium-237 by method RICH-RC-5064:
The LCS, batch blank, samples and sample duplicate (B1D6K1) results are within contractual requirements.

Plutonium Isotopic by method RICH-RC-5010:
The LCS, batch blank, samples and sample duplicate (B1D6K1) results are within contractual requirements.

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014:
The duplicate agreement was outside acceptance limits, therefore; the sample and sample duplicate were recounted. The recount data is acceptable. The achieved MDAs for samples B1D1P4 and B1D2C1 are greater than the CRDL due to sample matrix effects; reduced volumes were analyzed based on an elevated screen results. Except as noted, the LCS, batch blank, sample and sample duplicate (B1D1W6) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
The achieved MDAs for samples B1D1P4, B1D2C1, and B1D1P4 dup are greater than the CRDL due to sample matrix effects; reduced volumes were analyzed based on an elevated screen results. The detected activities exceed the achieved MDAs; the results are accepted for reporting. Except as noted, the LCS, batch blank, sample and sample duplicate (B1D1P4) results are within contractual requirements.

Strontium by method RICH-RC-5006:
The LCS, batch blank, samples and sample duplicate (B1D6K1) results are within contractual requirements.

Gamma Spectroscopy
Gamma (LL) by method RICH-RC-5017:
The LCS, batch blank, samples and sample duplicate (B1D6K1) results are within contractual requirements.

Liquid Scintillation Counting
Tritium by method RICH-RC-5007:
The LCS, batch blank, samples and sample duplicate (B1D2C1) results are within contractual requirements.

Technetium-99 by method RICH-RC-5065:
The achieved MDA for sample B1D2C1 is greater than the CRDL. The detected activity exceeds the achieved MDA; the results are accepted for reporting. Except as noted, the LCS, batch blank, samples, sample duplicate (B1D2M2) and matrix spike (B1D2M2) results are within contractual requirements.

Technetium-99 by method RICH-RC-5078:
The batch was reanalyzed due to QC parameters outside acceptance limits. The reanalysis data is acceptable. Except as noted, the LCS, batch blank, samples, sample duplicate (B1D7F7) and matrix spike (B1D7F7) results are within contractual requirements.

Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058:
The duplicate agreement was outside acceptance limits, therefore; the sample and sample duplicate were reanalyzed. The reanalysis data is acceptable. The achieved MDAs for samples B1D1V9, B1D1V9 duplicate, B1D1P4 and B1D2C1 are greater than the CRDL due to sample matrix effects. The detected activities exceed the achieved MDAs; the results are accepted for reporting. Except as noted, the LCS, batch blank, samples, sample duplicate (B1D1V9), and sample matrix spike (B1D1V9) results are within contractual requirements.

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

Reviewed and approved:

Hans Carman
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: 29532 File Name: h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.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:
9HC49910	B1D7F7		MW6-SBB-A1	W05-006	W04675					06/07/2005 11:12

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	6.72E+03	pCi/L	3.5E+02	4.6E+02		3.09E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/18/200 19:09	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HC49930	B1D7F7		MW6-SBB-A1	W05-006	W04675					06/07/2005 11:12

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5201305	TC-99	14133-76-7	9.42E+01	pCi/L	6.8E+00	1.1E+01		1.04E+01	100.0	TC99_SEP_LSC	1.251E-01	L	07/23/200 08:35	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HC5AA10	B1D1W6		MW6-SBB-A1	W05-006	W04675					06/07/2005 09:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	4.88E+03	pCi/L	3.1E+02	3.8E+02		3.06E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/18/200 19:51	I
5161173	BETA	12587-47-2	2.42E+01	pCi/L	3.1E+00	4.7E+00		3.92E+00	100.0	9310_ALPHABETA	1.585E-01	L	07/01/200 08:46	I
5161163	Uranium	7440-61-1	2.07E+01	ug/L	2.5E+00	2.5E+00		8.45E-02		UTOT_KPA	2.48E-02	ML	07/19/200 12:56	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HC5AA20	B1D1W6		MW6-SBB-A1	W05-006	W04675					06/07/2005 09:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161174	ALPHA	12587-46-1	5.73E+00	pCi/L	2.8E+00	3.0E+00		3.11E+00	100.0	9310_ALPHABETA	1.574E-01	L	07/20/200 17:01	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:
9HC5AC10	B1D1P4		MW6-SBB-A1	W05-006	W04675					06/07/2005 09:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	1.60E+04	pCi/L	5.3E+02	8.6E+02		3.09E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/18/200 20:33	I
5161174	ALPHA	12587-46-1	3.69E+01	pCi/L	1.5E+01	1.7E+01		1.30E+01	100.0	9310_ALPHABETA	1.87E-02	L	07/01/200 09:27	I
5161173	BETA	12587-47-2	3.06E+03	pCi/L	7.8E+01	4.8E+02		2.47E+01	100.0	9310_ALPHABETA	2.08E-02	L	07/01/200 08:46	I
5161163	Uranium	7440-61-1	9.68E+01	ug/L	1.2E+01	1.2E+01		2.16E-01		UTOT_KPA	9.70E-03	ML	07/19/200 12:58	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:
9HC5AD10	B1D2M2		MW6-SBB-A1	A05-007	W04675					06/07/2005 09:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161166	TC-99	14133-76-7	4.29E+01	pCi/L	5.8E+00	8.7E+00		1.11E+01	100.0	TC99_ETVDSK_LS	1.237E-01	L	07/22/200 03:48	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: 29532 File Name: h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.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:
9HC5AE10	B1D2N3		MW6-SBB-A1	A05-007	W04675					06/07/2005 09:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161166	TC-99	14133-76-7	7.86E+03	pCi/L	4.9E+01	4.7E+02		1.09E+01	100.0	TC99_ETVDSK_LS	1.241E-01	L	07/22/200 06:55	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:
9HC5AF10	B1D1V9		MW6-SBB-A1	W05-006	W04675					06/07/2005 11:44

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	2.16E+03	pCi/L	2.3E+02	2.5E+02		3.09E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/18/200 21:16	I
5161174	ALPHA	12587-46-1	4.99E+00	pCi/L	2.5E+00	2.8E+00		2.39E+00	100.0	9310_ALPHABETA	1.305E-01	L	07/01/200 09:27	I
5161173	BETA	12587-47-2	2.20E+01	pCi/L	2.5E+00	4.9E+00		2.70E+00	100.0	9310_ALPHABETA	1.997E-01	L	07/01/200 08:46	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:
9HC5AF20	B1D1V9		MW6-SBB-A1	W05-006	W04675					06/07/2005 11:44

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5201326	Uranium	7440-61-1	1.18E+01	ug/L	1.2E+00	1.2E+00		2.12E-01		UTOT_KPA	9.90E-03	ML	07/26/200 14:25	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:
9HC5AG10	B1D1L6		MW6-SBB-A1	W05-006	W04675					06/07/2005 09:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	1.42E+04	pCi/L	5.0E+02	7.8E+02		3.08E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/18/200 21:58	I
5161174	ALPHA	12587-46-1	4.38E+00	pCi/L	2.1E+00	2.3E+00		1.87E+00	100.0	9310_ALPHABETA	1.974E-01	L	07/01/200 10:33	I
5161173	BETA	12587-47-2	2.19E+01	pCi/L	2.4E+00	4.1E+00		2.63E+00	100.0	9310_ALPHABETA	1.968E-01	L	07/01/200 08:46	I
5161163	Uranium	7440-61-1	6.52E+00	ug/L	6.7E-01	6.7E-01		8.70E-02		UTOT_KPA	2.41E-02	ML	07/19/200 13:16	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:
9HC5AH10	B1D1T6		MW6-SBB-A1	W05-006	W04675					06/07/2005 10:12

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	6.85E+03	pCi/L	3.6E+02	4.7E+02		3.10E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/18/200 22:41	I
5161174	ALPHA	12587-46-1	7.59E+00	pCi/L	2.8E+00	3.2E+00		1.97E+00	100.0	9310_ALPHABETA	1.971E-01	L	07/01/200 10:33	I
5161173	BETA	12587-47-2	1.88E+01	pCi/L	2.3E+00	3.7E+00		2.74E+00	100.0	9310_ALPHABETA	2.022E-01	L	07/01/200 08:46	I
5161163	Uranium	7440-61-1	1.95E+01	ug/L	2.0E+00	2.0E+00		8.70E-02		UTOT_KPA	2.41E-02	ML	07/19/200 13:21	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: 29532 File Name: h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.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:
9HC5AJ10	B1D1T5		MW6-SBB-A1	W05-006	W04675					06/07/2005 10:12

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	6.85E+03	pCi/L	3.6E+02	4.7E+02		3.07E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/18/200 23:23	I
5161174	ALPHA	12587-46-1	7.32E+00	pCi/L	2.9E+00	3.2E+00		2.31E+00	100.0	9310_ALPHABETA	1.844E-01	L	07/01/200 10:33	I
5161173	BETA	12587-47-2	2.20E+01	pCi/L	2.4E+00	4.1E+00		2.67E+00	100.0	9310_ALPHABETA	2.024E-01	L	07/01/200 08:46	I
5161163	Uranium	7440-61-1	2.00E+01	ug/L	2.4E+00	2.4E+00		8.42E-02		UTOT_KPA	2.49E-02	ML	07/19/200 13:29	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:
9HC5AK10	B1D1N0		MW6-SBB-A1	W05-006	W04675					06/07/2005 12:50

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	1.20E+04	pCi/L	4.6E+02	6.9E+02		3.07E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/19/200 00:06	I
5161174	ALPHA	12587-46-1	4.26E+00	pCi/L	2.2E+00	2.5E+00		2.17E+00	100.0	9310_ALPHABETA	1.615E-01	L	07/01/200 10:33	I
5161173	BETA	12587-47-2	1.87E+01	pCi/L	2.3E+00	3.5E+00		2.53E+00	100.0	9310_ALPHABETA	1.981E-01	L	07/01/200 08:46	I
5161163	Uranium	7440-61-1	6.88E+00	ug/L	7.1E-01	7.1E-01		7.33E-02		UTOT_KPA	2.86E-02	ML	07/19/200 13:31	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:
9HC5AL10	B1D2M7		MW6-SBB-A1	A05-007	W04675					06/07/2005 10:12

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161166	TC-99	14133-76-7	4.52E+01	pCi/L	5.8E+00	8.8E+00		1.10E+01	100.0	TC99_ETVDSK_LS	1.243E-01	L	07/22/200 07:57	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:
9HC5AM10	B1D2M6		MW6-SBB-A1	A05-007	W04675					06/07/2005 10:12

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161166	TC-99	14133-76-7	4.97E+01	pCi/L	5.9E+00	9.0E+00		1.09E+01	100.0	TC99_ETVDSK_LS	1.263E-01	L	07/22/200 09:00	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:
9HC5AP10	B1D2M4		MW6-SBB-A1	A05-007	W04675					06/07/2005 11:44

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161166	TC-99	14133-76-7	4.26E+01	pCi/L	5.7E+00	8.6E+00		1.06E+01	100.0	TC99_ETVDSK_LS	1.264E-01	L	07/22/200 10:02	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HC5AR10	B1D2N2		MW6-SBB-A1	A05-007	W04675					06/07/2005 12:50

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: 29532 File Name: h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161166	TC-99	14133-76-7	5.03E+01	pCi/L	5.8E+00	8.9E+00		1.07E+01	100.0	TC99_ETVDSK_LS	1.297E-01	L	07/22/200 11:05	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:
9HC5AT10	B1D2M8		MW6-SBB-A1	A05-007	W04675					06/07/2005 09:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161166	TC-99	14133-76-7	4.43E+01	pCi/L	5.7E+00	8.7E+00		1.07E+01	100.0	TC99_ETVDSK_LS	1.253E-01	L	07/22/200 12:07	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:
9HC74110	B1D2J7		MW6-SBB-A1	W05-006	W04675					06/08/2005 10:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161166	TC-99	14133-76-7	4.66E+00	pCi/L	4.6E+00	6.4E+00	U	1.09E+01	100.0	TC99_ETVDSK_LS	1.259E-01	L	07/22/200 14:12	I
5161163	Uranium	7440-61-1	4.48E+00	ug/L	4.6E-01	4.6E-01		7.35E-02		UTOT_KPA	2.85E-02	ML	07/19/200 13:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HC74510	B1D6K1		MW6-SBB-A1	S05-006	W04675					06/08/2005 13:21

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	1.42E+04	pCi/L	5.0E+02	7.8E+02		3.08E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/19/200 00:48	I
5161174	ALPHA	12587-46-1	1.02E+01	pCi/L	3.2E+00	3.9E+00		2.00E+00	100.0	9310_ALPHABETA	1.972E-01	L	07/01/200 11:40	I
5161173	BETA	12587-47-2	1.38E+02	pCi/L	5.5E+00	2.1E+01		2.64E+00	100.0	9310_ALPHABETA	1.955E-01	L	07/01/200 08:46	I
5161161	AM-241	14596-10-2	0.00E+00	pCi/L	9.4E-02	9.4E-02	U	1.04E-01	105.0	AMCMISO_EIE_PL	2.063E-01	L	07/07/200 08:12	I
5161158	CO-60	10198-40-0	8.51E-01	pCi/L	2.3E+00	2.3E+00	U	4.94E+00		GAMMALL_GS	2.0013E+00	L	06/24/200 19:50	I
5161158	CS-134	13967-70-9	2.21E-01	pCi/L	2.6E+00	2.6E+00	U	4.88E+00		GAMMALL_GS	2.0013E+00	L	06/24/200 19:50	I
5161158	CS-137	10045-97-3	7.26E+01	pCi/L	1.2E+01	1.2E+01		4.10E+00		GAMMALL_GS	2.0013E+00	L	06/24/200 19:50	I
5161158	EU-152	14683-23-9	-4.33E+00	pCi/L	6.1E+00	6.1E+00	U	1.00E+01		GAMMALL_GS	2.0013E+00	L	06/24/200 19:50	I
5161158	EU-154	15585-10-1	-3.17E+00	pCi/L	8.0E+00	8.0E+00	U	1.42E+01		GAMMALL_GS	2.0013E+00	L	06/24/200 19:50	I
5161158	EU-155	14391-16-3	1.75E+00	pCi/L	4.1E+00	4.1E+00	U	7.56E+00		GAMMALL_GS	2.0013E+00	L	06/24/200 19:50	I
5161158	K-40	13966-00-2	6.25E+00	pCi/L	5.8E+01	5.8E+01	U	4.26E+01		GAMMALL_GS	2.0013E+00	L	06/24/200 19:50	I
5161158	SB-125	14234-35-6	-6.85E+00	pCi/L	6.8E+00	6.8E+00	U	1.09E+01		GAMMALL_GS	2.0013E+00	L	06/24/200 19:50	I
5161156	NP-237	13994-20-2	0.00E+00	pCi/L	1.0E-01	1.0E-01	U	1.16E-01	91.3	NP237_LLE_PLAT	2.034E-01	L	07/13/200 11:44	I
5161160	PU-238	13981-16-3	3.21E-02	pCi/L	8.2E-02	8.2E-02	U	1.92E-01	81.8	PUISO_PLATE_AE	2.002E-01	L	06/24/200 16:12	I
5161160	PU-239	PU-239/240	1.45E+00	pCi/L	4.8E-01	5.3E-01		1.09E-01	81.8	PUISO_PLATE_AE	2.002E-01	L	06/24/200 16:12	I
5161157	SR-90	10098-97-2	3.42E+01	pCi/L	1.2E+00	5.3E+00		6.37E-01	66.8	SRISO_SEP_PRE	1.0001E+00	L	07/23/200 11:14	I
5161163	Uranium	7440-61-1	1.88E+01	ug/L	2.2E+00	2.2E+00		7.01E-02		UTOT_KPA	2.99E-02	ML	07/19/200 13:46	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: 29532 File Name: h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.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:
9HC74X10	B1D2C4		MW6-SBB-A1	W05-006	W04675					06/08/2005 11:53

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161166	TC-99	14133-76-7	8.62E+01	pCi/L	6.8E+00	1.1E+01		1.08E+01	100.0	TC99_ETVDSK_LS	1.251E-01	L	07/22/200 13:10	I
5161163	Uranium	7440-61-1	6.80E+00	ug/L	7.0E-01	7.0E-01		7.25E-02		UTOT_KPA	2.89E-02	ML	07/19/200 13:35	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HC75210	B1D712		MW6-SBB-A1	I05-040	W04675					06/08/2005 09:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	4.43E+04	pCi/L	8.6E+02	2.0E+03		3.07E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/19/200 04:21	I
5161166	TC-99	14133-76-7	8.40E+01	pCi/L	6.6E+00	1.1E+01		1.05E+01	100.0	TC99_ETVDSK_LS	1.297E-01	L	07/22/200 17:19	I
5161163	Uranium	7440-61-1	1.18E+01	ug/L	1.2E+00	1.2E+00		7.82E-02		UTOT_KPA	2.68E-02	ML	07/19/200 13:52	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:
9HC75R10	B1D2C1		MW6-SBB-A1	W05-006	W04675					06/08/2005 09:18

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5161172	H-3	10028-17-8	2.47E+04	pCi/L	6.5E+02	1.2E+03		3.09E+02	100.0	906.0_H3_LSC	1.00E-02	L	07/19/200 02:56	I
5161174	ALPHA	12587-46-1	1.26E+00	pCi/L	4.5E+00	4.5E+00	U	1.19E+01	100.0	9310_ALPHABETA	1.34E-02	L	07/01/200 11:40	I
5161173	BETA	12587-47-2	6.05E+03	pCi/L	1.5E+02	1.2E+03		4.60E+01	100.0	9310_ALPHABETA	1.01E-02	L	07/01/200 08:46	I
5161166	TC-99	14133-76-7	1.86E+04	pCi/L	1.2E+02	1.1E+03		2.72E+01	100.0	TC99_ETVDSK_LS	5.00E-02	L	07/22/200 16:17	I
5161163	Uranium	7440-61-1	4.95E+00	ug/L	5.1E-01	5.1E-01		1.98E-01		UTOT_KPA	1.06E-02	ML	07/19/200 13:48	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, July 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM01AB **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 06/08/2005

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
5161157	SR-90	1.19E-01	pCi/L	2.5E-01	U	5.21E-01	76.1		SRISO_SEP_P	1.0006E+00	07/23/2005				D
BLK	10098-97-2			2.2E-01						L	11:14				

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.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM11AB **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 06/08/2005

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
5161158	CO-60	1.38E+00	pCi/L	1.9E+00	U	4.46E+00			GAMMALL_GS	2.0142E+00	06/25/2005				D
BLK	10198-40-0			1.9E+00						L	07:50				
5161158	CS-134	3.98E-01	pCi/L	2.5E+00	U	4.77E+00			GAMMALL_GS	2.0142E+00	06/25/2005				D
BLK	13967-70-9			2.5E+00						L	07:50				
5161158	CS-137	-1.06E+00	pCi/L	2.1E+00	U	3.52E+00			GAMMALL_GS	2.0142E+00	06/25/2005				D
BLK	10045-97-3			2.1E+00						L	07:50				
5161158	EU-152	2.16E+00	pCi/L	5.2E+00	U	9.83E+00			GAMMALL_GS	2.0142E+00	06/25/2005				D
BLK	14683-23-9			5.2E+00						L	07:50				
5161158	EU-154	-7.17E-01	pCi/L	7.4E+00	U	1.39E+01			GAMMALL_GS	2.0142E+00	06/25/2005				D
BLK	15585-10-1			7.4E+00						L	07:50				
5161158	EU-155	1.51E+00	pCi/L	3.8E+00	U	6.93E+00			GAMMALL_GS	2.0142E+00	06/25/2005				D
BLK	14391-16-3			3.8E+00						L	07:50				
5161158	K-40	2.17E+01	pCi/L	5.3E+01	U	7.71E+00			GAMMALL_GS	2.0142E+00	06/25/2005				D
BLK	13966-00-2			5.3E+01						L	07:50				
5161158	SB-125	1.17E-01	pCi/L	4.7E+00	U	8.84E+00			GAMMALL_GS	2.0142E+00	06/25/2005				D
BLK	14234-35-6			4.7E+00						L	07:50				

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, July 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM41AB **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 06/08/2005

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
5161160	PU-238	0.00E+00	pCi/L	9.5E-02	U	1.05E-01	84.7		PUISO_PLATE	2.025E-01	06/24/2005				D
BLK	13981-16-3			9.5E-02						L	16:12				
5161160	PU-239	0.00E+00	pCi/L	9.5E-02	U	1.05E-01	84.7		PUISO_PLATE	2.025E-01	06/24/2005				D
BLK	PU-239/240			9.5E-02						L	16:12				

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

Thursday, July 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id:	HDCM51AB	**Sdg/Rept Nbr:**	W04675	29532	**Collection Date:** 06/08/2005 13:21
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 06/08/2005

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
5161161	AM-241	4.45E-02	pCi/L	8.9E-02	U	1.20E-01	98.0		AMCMISO_EIE	1.985E-01	07/07/2005				D
BLK	14596-10-2			8.9E-02						L	08:13				

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, July 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM61AB **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:44

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 06/07/2005

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
5161163	Uranium	1.67E-02	ug/L	2.0E-03	U	7.70E-02			UTOT_KPA	2.72E-02	07/19/2005				D
BLK	7440-61-1			2.0E-03						ML	11:45				

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\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCMW1AB **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 06/08/2005

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
5161156	NP-237	-1.82E-02	pCi/L	3.6E-02	U	4.35E-01	43.7		NP237_LLE_P	2.074E-01	07/13/2005				D
BLK	13994-20-2			3.6E-02						L	11:48				

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

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id:	HDCNA1AB	**Sdg/Rept Nbr:**	W04675	29532	**Collection Date:** 06/07/2005 09:57
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 06/07/2005

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
5161166	TC-99	-7.28E+00	pCi/L	5.3E+00	U	1.02E+01	100.0		TC99_ETVDSK	1.353E-01	07/22/2005				D
BLK	14133-76-7			3.9E+00						L	18:21				

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

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id:	HDCNN1AB	**Sdg/Rept Nbr:**	W04675	29532	**Collection Date:** 06/08/2005 09:18
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 06/08/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5161172	H-3	-3.55E+00	pCi/L	1.3E+02	U	3.07E+02	100.0		906.0_H3_LSC	1.00E-02	07/18/2005				D
BLK	10028-17-8			1.2E+02						L	17:44				

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

Thursday, July 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id:	HDCNR1AB	**Sdg/Rept Nbr:**	W04675	29532	**Collection Date:** 06/07/2005 09:15
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 06/07/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5161173	BETA	2.57E-01	pCi/L	1.2E+00	U	2.54E+00	100.0		9310_ALPHAB	2.041E-01	07/01/2005				D
BLK	12587-47-2			1.2E+00						L	08:46				

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, July 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCNT1AB **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 09:57

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 06/07/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5161174	ALPHA	-7.13E-02	pCi/L	2.1E-01	U	8.29E-01	100.0		9310_ALPHAB	1.984E-01	07/01/2005				D
BLK	12587-46-1			2.0E-01						L	11:40				

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

Thursday, July 28, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id:	HFV4E1AB	**Sdg/Rept Nbr:**	W04675	29532	**Collection Date:** 06/07/2005 11:44
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								CG	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
5201326	Uranium	2.77E-02	ug/L	3.2E-03	U	6.78E-02			UTOT_KPA	3.09E-02	07/26/2005				D
BLK	7440-61-1			3.2E-03						ML	13:55				

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\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HFVX91AB **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:12

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								CJ	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
5201305	TC-99	3.17E+00	pCi/L	6.1E+00	U	1.02E+01	100.0		TC99_SEP_LS	1.256E-01	07/23/2005				D
BLK	14133-76-7			4.3E+00						L	11:42				

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\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM01CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/08/2005

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
5161157	SR-90	1.55E+01	pCi/L	2.4E+00		5.57E-01	72.8	1.37E+01	SRISO_SEP_P	1.00E+00	07/23/2005			70	D
BS	10098-97-2			8.0E-01				112.9		L	11:14			130	

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

Thursday, July 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM11CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/08/2005

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
5161158	CO-60	4.05E+01	pCi/L	7.8E+00		3.91E+00		3.80E+01	GAMMALL_GS	2.0037E+00	06/25/2005			70	D
BS	10198-40-0			7.8E+00				106.7		L	07:49			130	
5161158	CS-137	2.94E+01	pCi/L	5.7E+00		3.56E+00		2.50E+01	GAMMALL_GS	2.0037E+00	06/25/2005			70	D
BS	10045-97-3			5.7E+00				117.8		L	07:49			130	
5161158	EU-152	9.73E+01	pCi/L	1.9E+01		9.56E+00		7.65E+01	GAMMALL_GS	2.0037E+00	06/25/2005			70	D
BS	14683-23-9			1.9E+01				127.1		L	07:49			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM41CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/08/2005

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
5161160	PU-239	4.65E+00	pCi/L	1.2E+00		1.26E-01	73.9	4.60E+00	PUISO_PLATE	1.98E-01	06/24/2005			70	D
BS	PU-239/240			9.3E-01				101.0		L	16:12			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM51CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/08/2005

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
5161161	AM-241	2.03E+01	pCi/L	4.4E+00		1.87E-01	58.0	2.16E+01	AMCMISO_EIE	2.12E-01	07/07/2005			70	D
BS	14596-10-2			2.4E+00				94.2		L	08:13			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\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM61CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:44

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/07/2005

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
5161163	Uranium	3.66E+01	ug/L	4.4E+00		8.52E-02		3.70E+01	UTOT_KPA	2.46E-02	07/19/2005			70	D
BS	7440-61-1			4.4E+00				99.0		ML	11:52			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\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCM61DS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:44

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/07/2005

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
5161163	Uranium	3.66E+01	ug/L	3.8E+00		8.52E-02		3.70E+01	UTOT_KPA	2.46E-02	07/19/2005			70	D
BS	7440-61-1			3.8E+00				99.0		ML	12:47			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCMW1CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/08/2005

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
5161156	NP-237	5.81E+00	pCi/L	1.9E+00		7.23E-01	36.9	8.15E+00	NP237_LLE_P	2.226E-01	07/13/2005			70	D
BS	13994-20-2			1.6E+00				71.3		L	11:49			130	

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

Thursday, July 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id:	HDCNA1CS	**Sdg/Rept Nbr:**	W04675 29532	**Collection Date:**	06/07/2005 09:57
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	06/07/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5161166	TC-99	4.54E+02	pCi/L	3.3E+01		1.05E+01	100.0	5.34E+02	TC99_ETVDSK	1.282E-01	07/22/2005			70	D
BS	14133-76-7			1.2E+01				85.1		L	19:24			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\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCNN1CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 09:18

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/08/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5161172	H-3	2.69E+03	pCi/L	2.8E+02		3.07E+02	100.0	2.73E+03	906.0_H3_LSC	1.00E-02	07/18/2005			70	D
BS	10028-17-8			2.4E+02				98.4		L	18:26			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\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCNN1EM **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 09:18

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/08/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5161172	H-3	2.60E+03	pCi/L	2.8E+02		3.10E+02	100.0	2.73E+03	906.0_H3_LSC	1.00E-02	07/19/2005			70	D
BS	10028-17-8			2.4E+02				95.2		L	02:13			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\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HDCNR1CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 09:15

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/07/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5161173	BETA	2.19E+01	pCi/L	3.9E+00		2.44E+00	100.0	2.26E+01	9310_ALPHAB	2.003E-01	07/01/2005			70	D
BS	12587-47-2			2.3E+00				96.9		L	08:46			130	

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

Thursday, July 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id:	HDCNT1CS	**Sdg/Rept Nbr:**	W04675	29532	**Collection Date:** 06/07/2005 09:57
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 06/07/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5161174	ALPHA	1.89E+01	pCi/L	5.4E+00		8.14E-01	100.0	2.29E+01	9310_ALPHAB	1.993E-01	07/01/2005			70	D
BS	12587-46-1			2.8E+00				82.6		L	11:40			130	

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

Thursday, July 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HFV4E1CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:44

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								CH	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
5201326	Uranium	3.41E+01	ug/L	4.0E+00		7.85E-02		3.48E+01	UTOT_KPA	2.67E-02	07/26/2005			70	D
BS	7440-61-1			4.0E+00				97.9		ML	14:14			130	

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

Thursday, July 28, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HFV4E1DS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:44

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								CI	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
5201326	Uranium	3.35E+01	ug/L	3.5E+00		7.85E-02		3.48E+01	UTOT_KPA	2.67E-02	07/26/2005			70	D
BS	7440-61-1			3.5E+00				96.3		ML	14:21			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\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HFVX91CS **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:12

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								CK	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
5201305	TC-99	5.07E+02	pCi/L	3.6E+01		1.04E+01	100.0	5.43E+02	TC99_SEP_LS	1.256E-01	07/23/2005			70	D
BS	14133-76-7			1.3E+01				93.4		L	12:45			130	

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

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC4993ER **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:12

Client Id: B1D7F7 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W05-006	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
5201305	TC-99	1.09E+02	pCi/L	1.2E+01		1.01E+01	100.0		TC99_SEP_LS	1.295E-01	07/23/2005	14.6	1.8		D
DUP	14133-76-7	9.42E+01		7.0E+00						L	10:40	20.0	3		

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

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC5AA2FR **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 09:57

Client Id: B1D1W6 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W05-006	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
5161174	ALPHA	8.25E+00	pCi/L	3.8E+00		3.68E+00	100.0		9310_ALPHAB	1.568E-01	07/20/2005	36.0	0.9		D
DUP	12587-46-1	5.73E+00		3.4E+00						L	17:01	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, July 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id:	HC5AC1FR	**Sdg/Rept Nbr:**	W04675	29532	**Collection Date:** 06/07/2005 09:15
Client Id:	B1D1P4	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W05-006	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
5161173	BETA	2.93E+03	pCi/L	4.9E+02		2.46E+01	100.0		9310_ALPHAB	2.14E-02	07/01/2005	4.1	0.4		D
DUP	12587-47-2	3.06E+03		7.5E+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.

Thursday, July 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id:	HC5AD1DR	**Sdg/Rept Nbr:**	W04675	29532	**Collection Date:** 06/07/2005 09:57
Client Id:	B1D2M2	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
A05-007	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
5161166	TC-99	4.56E+01	pCi/L	8.5E+00		1.03E+01	100.0		TC99_ETVDSK	1.307E-01	07/22/2005	6.2	0.5		D
DUP	14133-76-7	4.29E+01		5.6E+00						L	05:53	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, July 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC5AF2GR **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:44

Client Id: B1D1V9 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W05-006	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
5201326	Uranium	1.08E+01	ug/L	1.1E+00		2.12E-01			UTOT_KPA	9.90E-03	07/26/2005	8.4	1.2		D
DUP	7440-61-1	1.18E+01		1.1E+00						ML	14:27	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, July 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC7451LR **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

Client Id: B1D6K1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/08/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S05-006	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
5161156	NP-237	0.00E+00	pCi/L	9.7E-02	U	1.07E-01	102.8		NP237_LLE_P	2.011E-01	07/13/2005	0.0	0.		D
DUP	13994-20-2	0.00E+00		9.7E-02						L	11:47	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, July 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC7451MR **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

Client Id: B1D6K1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/08/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S05-006	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
5161157	SR-90	3.40E+01	pCi/L	5.2E+00		6.82E-01	62.9		SRISO_SEP_P	1.00E+00	07/23/2005	.7	0.1		D
DUP	10098-97-2	3.42E+01		1.3E+00						L	11:14	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, July 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC7451NR **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

Client Id: B1D6K1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/08/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S05-006	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
5161158	CO-60	9.31E-01	pCi/L	1.6E+00	U	3.53E+00			GAMMALL_GS	2.0013E+00	06/25/2005	9.1	0.1		D
DUP	10198-40-0	8.51E-01		1.6E+00						L	07:48	20.0	3		
5161158	CS-134	1.05E+00	pCi/L	1.5E+00	U	3.05E+00			GAMMALL_GS	2.0013E+00	06/25/2005	130.2	0.8		D
DUP	13967-70-9	2.21E-01		1.5E+00						L	07:48	20.0	3		
5161158	CS-137	6.78E+01	pCi/L	1.0E+01		2.91E+00			GAMMALL_GS	2.0013E+00	06/25/2005	6.9	0.7		D
DUP	10045-97-3	7.26E+01		1.0E+01						L	07:48	20.0	3		
5161158	EU-152	1.15E+00	pCi/L	4.0E+00	U	7.54E+00			GAMMALL_GS	2.0013E+00	06/25/2005	0.0	1.9		D
DUP	14683-23-9	-4.33E+00		4.0E+00						L	07:48	20.0	3		
5161158	EU-154	3.02E+00	pCi/L	3.8E+00	U	8.79E+00			GAMMALL_GS	2.0013E+00	06/25/2005	0.0	2.3		D
DUP	15585-10-1	-3.17E+00		3.8E+00						L	07:48	20.0	3		
5161158	EU-155	-3.31E-01	pCi/L	3.7E+00	U	6.67E+00			GAMMALL_GS	2.0013E+00	06/25/2005	292.9	0.8		D
DUP	14391-16-3	1.75E+00		3.7E+00						L	07:48	20.0	3		
5161158	K-40	5.12E+00	pCi/L	3.5E+01	U	2.23E+01			GAMMALL_GS	2.0013E+00	06/25/2005	19.9	0.		D
DUP	13966-00-2	6.25E+00		3.5E+01						L	07:48	20.0	3		
5161158	SB-125	1.17E+00	pCi/L	4.4E+00	U	7.94E+00			GAMMALL_GS	2.0013E+00	06/25/2005	0.0	2.6		D
DUP	14234-35-6	-6.85E+00		4.4E+00						L	07:48	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, July 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC7451PR **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

Client Id: B1D6K1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/08/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S05-006	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
5161160	PU-238	4.13E-02	pCi/L	8.3E-02	U	1.12E-01	79.8		PUISO_PLATE	1.975E-01	06/24/2005	25.1	0.2		D
DUP	13981-16-3	3.21E-02		8.3E-02						L	16:12	20.0	3		
5161160	PU-239	1.78E+00	pCi/L	6.1E-01		1.12E-01	79.8		PUISO_PLATE	1.975E-01	06/24/2005	20.6	0.8		D
DUP	PU-239/240	1.45E+00		5.4E-01						L	16:12	20.0	3		

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

Thursday, July 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC7451QR **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 13:21

Client Id: B1D6K1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/08/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S05-006	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
5161161	AM-241	3.25E-02	pCi/L	8.3E-02	U	1.94E-01	105.5		AMCMISO_EIE	2.026E-01	07/07/2005	200.0	0.6		D
DUP	14596-10-2	0.00E+00		8.3E-02						L	08:13	20.0	3		

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

Thursday, July 28, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC75R1HR **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/08/2005 09:18

Client Id: B1D2C1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/08/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W05-006	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
5161172	H-3	2.53E+04	pCi/L	1.2E+03		3.08E+02	100.0		906.0_H3_LSC	1.00E-02	07/19/2005	2.5	0.7		D
DUP	10028-17-8	2.47E+04		6.6E+02						L	03:38	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, July 28, 2005

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC4993DW **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 11:12

Client Id: B1D7F7 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W05-006	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
5201305	TC-99	2.79E+03	pCi/L	1.8E+02		1.01E+01	100.0	3.50E+03	TC99_SEP_LS	1.29E-01	07/23/2005			60	D
MS	14133-76-7			2.9E+01				79.8		L	09:38			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.

Thursday, July 28, 2005

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04675.Edd, h:\Reportdb\edd\FeadIV\Rad\29532.Edd

Lab Sample Id: HC5AD1CW **Sdg/Rept Nbr:** W04675 29532 **Collection Date:** 06/07/2005 09:57

Client Id: B1D2M2 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 06/07/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
A05-007	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
5161166	TC-99	3.18E+03	pCi/L	2.0E+02		1.08E+01	100.0	3.56E+03	TC99_ETVDSK	1.276E-01	07/22/2005			60	D
MS	14133-76-7			3.1E+01				89.5		L	04:50			140	

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

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/11/2005 3:11:02 PM

Lot No., Due Date: J5F080416; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161161; RAMISO Amlso by ALP

SDG, Matrix: W04675; 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** 7-11-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5161161

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: 7-11-05

[signature] 7/13/05

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

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/14/2005 9:50:16 AM

Lot No., Due Date: J5F080416; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161156; RNP237 Np-237 w/tracer

SDG, Matrix: W04675; WATER

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

6.0 Comments on any No response:

First Level Review [signature] **Date** 7/14/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5761156

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 [signature] Date: 7/20/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

6/26/2005 6:47:18 PM

Lot No., Due Date: J5F080416; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161160; RPUISO Pulso by ALP

SDG, Matrix: W04675; 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 Sanderson **Date** 6-27-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5161160

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: 7/20/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/6/2005 4:42:03 PM

Lot No., Due Date: J5F080416; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161158; RGAMMA Gamma by GER

SDG, Matrix: W04675; 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 Steven E. Nichols **Date** 7/6/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5761158

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: 7/21/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/27/2005 4:39:37 PM

Lot No., Due Date: J5F070383,J5F070385,J5F080416,J5F080419; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161174; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W04675; 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:

Sample HC5AC1AC has results >MDA>CRDL. Sample HC75R1AC does not meet CRDL due to high screening activity. Duplicates out but

First Level Review [signature] **Date** 7/27/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5161174

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: BID2C1 & BID1P4 MDAs not met due to reduced sample size based on screening

Second Level Review: Jodie [illegible] Date: 7/28/05

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-06130**
NCM Initiated By: Pam Anderson
Date Opened: 07/05/2005
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J5F070383 (3), J5F080419 (1),
QC Batches: 5161174

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	07/05/2005	Samples HC5AC1AC and HC75R1AC no not meet CRDL. High screening activity required a smaller aliquot to prevent possisble contamination. Sample HC5AC1AC has results >MDA>CRDL.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	07/05/2005	NA

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-06263
NCM Initiated By: Steven Wheland
Date Opened: 07/27/2005
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J5F070383 (2,3), J5F070385 (1,2,3,4,5), J5F080416 (1), J5F080419 (1), J5F100000 (174),
QC Batches: 5161174

Nonconformance: Dups not within acceptance limits
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Steven Wheland	07/27/2005	duplicates originaly did not match, however they were OK with a recount

Corrective Action

Name	Date	Corrective Action
Steven Wheland	07/27/2005	report data

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

7/5/2005 8:11:52 AM

Lot No., Due Date: J5F070383,J5F070385,J5F080416,J5F080419; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161173; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W04675; 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:

Samples HC75R1AD. HC5AC1AD and the duplicate 1AF do not meet CRDL but their results>MDA>CRDL. 10-06133

First Level Review Pam Anderson **Date** 7-5-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5761173

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: B1D1P4, B1D2C1, B1D1P4 dup activity > MDA > CRDL

Second Level Review: Jodie C. Date: 7/20/05

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

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-06133**
NCM Initiated By: Pam Anderson
Date Opened: 07/05/2005
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Beta by GPC-Sr/Y
Lot #'s (Sample #'s): J5F070383 (3), J5F080419 (1),
QC Batches: 5161173

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	07/05/2005	Samples GC75R1AD, HC5AC1AD and it's duplicate -1AF do not meet CRDL but their results>MDA>CRDL.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	07/05/2005	NA

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/25/2005 1:33:58 PM

Lot No., Due Date: J5F080416; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161157; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W04675; WATER

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

6.0 Comments on any No response:

First Level Review [signature] **Date** 7/25/5

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5161157

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: 7/26/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/26/2005 8:03:46 AM

Lot No., Due Date: J5F070384,J5F070386,J5F080413,J5F080421,J5F080419; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161166; RTC99 Tc-99 by LSC

SDG, Matrix: W04675; 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:

Samples HC5AE does not meet CRDL. The result is > MDA>CRDL. 10-06241

First Level Review Pam Anderson **Date** 7-26-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5161166

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: BID2C1 activity > MDA > CRDL

Second Level Review: [signature] Date: 7/27/05

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-06247**
NCM Initiated By: Pam Anderson
Date Opened: 07/26/2005
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J5F070384 (2),
QC Batches: 5161166

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	07/26/2005	The sample HC5AE does not meet CRDL. A small aliquot was taken due to rad screening. The result of the sample >MDA>CRDL. Data is accepted.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	07/26/2005	None at this time.

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

7/25/2005 11:42:06 AM

Lot No., Due Date: J5F070383; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5201305; RTC99 Tc-99 by LSC

SDG, Matrix: W04675; 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:

NCM 10-06234. The sample was analyzed two times to get all the QC acceptable.

First Level Review Pam Anderson **Date** 7-25-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5201305

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: 7/26/05

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-06234**
NCM Initiated By: Pam Anderson
Date Opened: 07/25/2005
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J5F070383 (1),
QC Batches: 5201305

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

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	07/25/2005	On the first analysis the dup was out. The reanalysis dups were good and agreed with one of the first analysis, but the matrix spike was out on this batch. The sample was run a third time with full QC and all are in good condition.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	07/25/2005	The sample was rerun two times to get all the QC in order.

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

7/20/2005 9:59:28 AM

Lot No., Due Date: J5F070383,J5F070385,J5F080416,J5F080421,J5F080419; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161172; RTRITIUM H-3 by LSC

SDG, Matrix: W04675; WATER,,,,,

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

6.0 Comments on any No response:

First Level Review [signature] **Date** 7/20/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5761172

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: 7/20/05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/27/2005 10:24:04 AM

Lot No., Due Date: J5F070383,J5F070385,J5F080413,J5F080416,J5F080421,J5F080419; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5161163; RUNAT UNat by KPA

SDG, Matrix: W04675; 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:

Matrix spike is OK
however
the sample used to subtract from it was rerun with the dup.
If the dup had been subtracted instead of the sample the recovery would have been better at 102% recovery.

N.C 56 PA 7.25.05 5267

First Level Review Pam Chadwick **Date** 7.27.05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5761163

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: B1D1P4, B1D2C1 activity > MDA > CRDL

Second Level Review: [signature] Date: 7/28/05

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-06257**
NCM Initiated By: Pam Anderson
Date Opened: 07/27/2005
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: UNat by KPA
Lot #'s (Sample #'s): J5F070385 (1),
QC Batches: 5161163

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

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	07/27/2005	The dups in the batch were out and were rerun with good results. NCM 10-6256. The matrix spike is acceptable. The matrix spike was run on the sample that also had the duplicate. If the duplicate had been subtracted from the matrix spiike instead of the sample the result would have been 102% instead of 76%.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	07/27/2005	For information only.

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

7/27/2005 10:22:05 AM

Lot No., Due Date: J5F070385; 07/22/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5201326; RUNAT UNat by KPA

SDG, Matrix: W04675;

	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:

The sample and dup were rerun when they were out on the first batch . The rerun agrees well and agrees with one of the original

12.06256

First Level Review Pam Anderson **Date** 7-27-05

SEVERN TRENT **STL**

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5201326

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: B1DIV9 & B1DIV9 dup activity > MDA > CRDL

Second Level Review: [signature] Date: 7/28/05

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-06256**
NCM Initiated By: Pam Anderson
Date Opened: 07/27/2005
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: UNat by KPA
Lot #'s (Sample #'s): J5F070385 (1),
QC Batches: 5201326

Nonconformance: Dups not within acceptance limits
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	07/27/2005	The sample and up were rerun when they did not agree within the requirements. The rerun is good and agrees with the dup on the original batch.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	07/27/2005	Sample and dup were rerun.

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. # W05-006-248

Page 1 of 1

Collector DURATEK E. M. HALL	Contact/Requester DL STEWARET	Telephone No. 509-376-5056 MSIN FAX
SAF No. W05-006	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title RCRA GW SAMPLING, JUNE 2005	SAWS-H86	Ice Chest No. SAL 595 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04675
JSF070383
Due 07 2205

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
B1D7F7		W	6-7-05	1112	1x1000-mL P	906.0_H3_LSC: Tritium (1) HC499	None
B1D7F7		W	✓	✓	1x20-mL P	Activity Scan	None
B1D7F7		W	✓	✓	3x1000-mL G/P	TC99_SEP_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK E. M. HALL			JUN 07 2005 14:30	DAVID HARBINSON			JUN 07 2005 4:30
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

<100 CPM

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W05-006-105
		Page 1 of 1

Collector DURATEK F. M. HALL	Contact/Requester DL STEWARET	Telephone No. 509-376-5056 MSIN FAX
SAF No. W05-006	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title RCRA GW SAMPLING, JUNE 2005	SAWS-H86	Ice Chest No. SMI 595 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** W04675

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
B1D1W6		W	6-7-05	0957	1x1000-mL P	906.0_H3_LSC: Tritium (1) HC5AA	None
B1D1W6		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1D1W6		W	↓	↓	1x20-mL P	Activity Scan	None
B1D1W6		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 F. M. HALL			JUN 0 7 2005 14:30		DAVID HARBINS		JUN 0 7 2005 14:30
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

<100 CPM

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W05-006-145

Page 1 of 1

Collector DURATEK F. M. HALL	Contact/Requester DL STEWARET	Telephone No. 509-376-5056 MSIN FAX
SAF No. W05-006	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title RCRA GW SAMPLING, JUNE 2005	SAWS 86	Ice Chest No. SML 545 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04675

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
B1D1P4		W	6-7-05	0915	1x1000-mL P	906.0_H3_LSC: Tritium (1) HCSAC	None
B1D1P4		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1D1P4		W			1x20-mL P	Activity Scan	None
B1D1P4		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 F. M. HALL			JUN 07 2005 14:30	DAVID HARBINSON			JUN 07 2005 14:30
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

<100 CPM

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 6/7/05 14:30

Client: PNNL SDG #: W09675 NA [ ] SAF #: ~~S05-006~~ A05-007 W05-006 NA [ ]

Work Order Number: J5F070383 Chain of Custody # S05-006-4 W05-006-248 W05-006-105, A05-007-7 W05-006-145, A05-007-27

Shipping Container ID: SML 595 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: 24
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? yes NA [ ] pH<2 [✓] pH>2 [✓] H3 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: 6/7/05

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. # A05-007-7
		Page 1 of 1

Collector DURATEK E.M. HALL	Contact/Requester DL STEWART	Telephone No. 509-376-5056 MSIN FAX
SAF No. A05-007	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title Performance Assessment Monitoring, JUNE 2005	SHLW5-H 86	Ice Chest No. SMLS95 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
** **

W04675 JF060705
W04675
JSF070384
Due 072205

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
B1D2M2		W	6-7-05	0957	1x20-mL P	Activity Scan HC SAD	None
B1D2M2		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			JUN 0 7 2005 14:30	DAVID HARBINSON			JUN 0 7 2005 14:30
DURATEK E.M. HALL			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

<100 CPM

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A05-007-27
		Page 1 of 1

Collector DURATEK E. M. HALL	Contact/Requester DL STEWART	Telephone No. 509-376-5056 MSIN FAX
SAF No. A05-007	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title Performance Assessment Monitoring, JUNE 2005	SAWS-486	Ice Chest No SAL 595 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
** **

W09675

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
B1D2N3		W	6-7-05	0915	1x20-mL P	Activity Scan	None
B1D2N3		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) HC 5AE	HCl to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK E. M. HALL			JUN 07 2005 14:30	DAVID HABBINSON			JUN 07 2005 14:30
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

<100 CPM

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 6/7/05 14:30

Client: PNNL SDG #: W09675 NA [ ] SAF #: ~~S05-006~~ W05-006 A05-007 NA [ ]

Work Order Number: J5F070389 Chain of Custody # S05-006-4 W05-006-248 W05-006-105, A05-007-7 W05-006-145, A05-007-27

Shipping Container ID: SML 595 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: 24
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? yes NA [ ] pH<2 [✓] pH>2 [✓] H3 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: 6/7/05

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

57671

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W05-006-113

Page 1 of 1

Collector: D.R. BREWINGTON	Contact/Requester: DL STEWARET	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: W05-006	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: RCRA GW SAMPLING, JUNE 2005	Logbook: DTS-SAWS-1495	Ice Chest No.: SAWS-213 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04675
J5F070385
Due 072205

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
B1D1V9		W	6/7/05	1144	1x1000-mL P	906.0_H3_LSC: Tritium (1) HC5AF	None
B1D1V9		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1D1V9		W	↓	↓	1x20-mL P	Activity Scan	None
B1D1V9		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
D.R. BREWINGTON			JUN 07 2005 1450	DAVID HARBINSON			JUN 07 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

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

<100 CPM

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W05-006-125

Page 1 of 1

Collector: D.R. BREWINGTON	Contact/Requester: DL STEWARET	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: W05-006	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: RCRA GW SAMPLING, JUNE 2005	Logbook: DTS- SAWS-1195	Ice Chest No.: SAWS-213 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04675

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
B1D1L6		W	6/7/05	0900	1x1000-mL P	906.0_H3_LSC: Tritium (1) HC5A01	None
B1D1L6		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1D1L6		W			1x20-mL P	Activity Scan	None
B1D1L6		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
D.R. BREWINGTON	D.R. Brewington		JUN 07 2005 1450	DAVID HARBINSON			JUN 07 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

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

<100 CPM

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W05-006-122
		Page 1 of 1

Collector: D.R. BREWINGTON	Contact/Requester: DL STEWARET	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: W05-006	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: RCRA GW SAMPLING, JUNE 2005	Logbook: DTS - SAWS - 1495	Ice Chest No. SAWS-213 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** W09675

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
B1D1T6		W	6/7/05	1012	1x1000-mL P	906.0_H3_LSC: Tritium (1) HCSAH	None
B1D1T6		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1D1T6		W	↓	↓	1x20-mL P	Activity Scan	None
B1D1T6		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
D.R. BREWINGTON			JUN 07 2005 1450	DAVID HARBINSON			JUN 07 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

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

<100 CPM

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W05-006-121

Page 1 of 1

Collector D.R. BREWINGTON	Contact/Requester DL STEWARET	Telephone No. 509-376-5056 MSIN FAX
SAF No. W05-006	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title RCRA GW SAMPLING, JUNE 2005	Logbook: DTS-SAWS-H9S	Ice Chest No. SAWS-213 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04675

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
B1D1T5		W	6/9/05	1012	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1D1T5		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) HCSAJ	HNO3 to pH <2
B1D1T5		W			1x20-mL P	Activity Scan	None
B1D1T5		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
~~B1D275~~		~~W~~			~~1x1000-mL P~~	~~906.0_H3_LSC: Tritium (1)~~ 5-16-05 DF	None
~~B1D275~~		~~W~~			~~1x1000-mL P~~	~~9310_ALPHABETA_GPC: Gross Beta (1)~~	HNO3 to pH <2
~~B1D275~~		~~W~~			~~1x20-mL P~~	~~Activity Scan~~	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	D.R. BREWINGTON	D.R. Brewington	JUN 07 2005 1450		DAVID HARBINSON		JUN 07 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

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

<100 CPM

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W05-006-141

Page 1 of 1

Collector D.R. BREWINGTON	Contact/Requester DL STEWARET	Telephone No. 509-376-5056 MSIN FAX
SAF No. W05-006	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title RCRA GW SAMPLING, JUNE 2005	Logbook: DTS-SAWS-H9S	Ice Chest No. SAWS-213 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04675

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
B1D1N0		W	6/7/05	1250	1x1000-mL P	906.0_H3_LSC: Tritium (1) HCSAK	None
B1D1N0		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1D1N0		W			1x20-mL P	Activity Scan	None
B1D1N0		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
D.R. BREWINGTON		D.R. Brewington	JUN 07 2005 1450	DAVID HABBINSON			JUN 07 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

Matrix *

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

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

<100 CPM

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 6/7/05 14:50

Client: PNNL SDG #: W04675 NA [ ] SAF #: A05-007 W05-006 NA [ ]

Work Order Number: J5F070385 Chain of Custody # W05-006-113, A05-007-15, W05-006-125, W05-006-122, A05-007-16, W05-006-121, A05-007-11, A05-007-25, A05-007-17, W05-006-141

Shipping Container ID: SAMS 213 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: 30
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 [ ] H3 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: 6/7/05

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. # A05-007-16

Page 1 of 1

Collector: D.R. BREWINGTON	Contact/Requester: DL STEWART	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: A05-007	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: Performance Assessment Monitoring, JUNE 2005	Logbook: OTS-SAWS-495	Ice Chest No.: SAWS-213 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
** **

i-09675
JSF070386
Due 07 22 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
B1D2M7		W	6/7/05	1012	1x20-mL P	Activity Scan HCSAL	None
B1D2M7		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
D.R. BREWINGTON	D.R. Brewington		JUN 07 2005 1450	DAVID HARBINSON			JUN 07 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

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

<100 CPM

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A05-007-15

Page 1 of 1

Collector D.R. BREWINGTON	**Contact/Requester** DL STEWART	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. A05-007	**Sampling Origin** HANFORD SITE	**Purchase Order/Charge Code**
Project Title Performance Assessment Monitoring, JUNE 2005	Logbook: DTS - SAWS - H95	**Ice Chest No.** SAWS-213 **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
** **

W04675

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
B1D2M6		W	6/9/05	1012	1x20-mL P	Activity Scan HC5AM	None
B1D2M6		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
D.R. BREWINGTON	D.R. Brewington		JUN 07 2005 1450	DAVID HARRISON			JUN 07 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

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

<100 CPM

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A05-007-11
		Page 1 of 1

Collector D.R. BREWINGTON	Contact/Requester DL STEWART	Telephone No. 509-376-5056 MSIN FAX
SAF No. A05-007	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title Performance Assessment Monitoring, JUNE 2005	Logbook: DTS-SAWS-1495	Ice Chest No. SAWS-213 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
** **
W04675

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
B1D2M4		W	6/7/05	1144	1x20-mL P	Activity Scan HC SAP	None
B1D2M4		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Date/Time	Received By	Date/Time
D.R. BREWINGTON (Print) D.R. Brewington (Sign)	JUN 07 2005 1450	DAVID HARBINSON (Print) (Sign)	JUN 07 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

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

<100 CPM

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A05-007-25

Page 1 of 1

Collector: D.R. BREWINGTON	Contact/Requester: DL STEWART	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: A05-007	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: Performance Assessment Monitoring, JUNE 2005	Logbook: DTS-SAWS-495	Ice Chest No.: SAWS-213 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
** **

W04675

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
B1D2N2		W	6/7/05	1250	1x20-mL P	Activity Scan HCSAR	None
B1D2N2		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
D.R. BREWINGTON	JUN 07 2005 1450	DAVID HARBINSON	JUN 07 2005 1450

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

<100 CPM

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A05-007-17

Page 1 of 1

Collector: D.R. BREWINGTON	Contact/Requester: DL STEWART	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: A05-007	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: Performance Assessment Monitoring, JUNE 2005	Logbook: DTS-SAWS-195	Ice Chest No: SAWS-213 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
** ** W04675

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
B1D2M8		W	6/7/05	0900	1x20-mL P	Activity Scan	None
B1D2M8		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) HC5AT	HCl to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D.R. BREWINGTON	D.R. Brewington		JUN 07 2005 1400	DAVID HARBINGER			JUN 07 2005 1400
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

<100 CPM

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 6/7/05 14:50

Client: PNNL SDG #: W04675 NA [ ] SAF #: A05-007 W05-006 NA [ ]

Work Order Number: JSF070386 Chain of Custody # W05-006-113, A05-007-15 W05-006-125, W05-006-122 A05-007-16, W05-006-121 A05-007-11 A05-007-25 A05-007-17 W05-006-141

Shipping Container ID: Sams 213 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: 30
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 [ ] H3
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: 6/7/05

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. # W05-006-157

Page 1 of 1

Collector BURATEK F. M. HALL	Contact/Requester DL STEWARET	Telephone No. 509-376-5056 MSIN FAX
SAF No. W05-006	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title RCRA GW SAMPLING, JUNE 2005	DTS- SAWS- H86	Ice Chest No. SMCL-595 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04675
J5F080413
Due 07 22 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
B1D2C4		W	6/8/5	1153	1x20-mL P	Activity Scan HC74X	None
B1D2C4		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1D2C4		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By BURATEK F. M. HALL Print Sign JUN 0 8 2005 Date/Time 1420	Received By Print Jeff Jensen Sign JUN 0 8 2005 Date/Time 1420	Matrix *	
Relinquished By Date/Time	Received By Date/Time	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air	DS = Drum Solid DL = Drum Liqui T = Tissue WI = Wine L = Liquid V = Vegetation X = Other
Relinquished By Date/Time	Received By Date/Time		
Relinquished By Date/Time	Received By Date/Time		

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

<100 CPM

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W05-006-215
		Page 1 of 1

Collector DURATEK F. M. HALL	Contact/Requester DL STEWARET	Telephone No. 509-376-5056 MSIN FAX
SAF No. W05-006	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title RCRA GW SAMPLING, JUNE 2005	DTS - SAWS - H86	Ice Chest No. SML-595 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04675

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
B1D2J7		W	6/8/5	1011	1x20-mL P	Activity Scan HC741	None
B1D2J7		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1D2J7		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 F. M. HALL			JUN 0 8 2005 1420		Jeff Jensen		JUN 0 8 2005 1420
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

<100 CPM

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 06 08 05 1420

Client: Pgw SDG #: W04675 NA [ ] SAF #: W05-006 NA [ ]

Work Order Number: J5F080413 Chain of Custody # W05-006 - 157, 2/5

Shipping Container ID: SMC 595 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: 6
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: 06 08 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. # W05-006-165

Page 1 of 1

Collector D. P. CONNOLLY	Contact/Requester DL STEWARET	Telephone No. 509-376-5056 MSIN FAX
SAF No. W05-006	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title RCRA GW SAMPLING, JUNE 2005	DTS - SAWS H91	Ice Chest No. CWS106 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment GOVT. VEHICLE	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W09675
JSF080419
DW 07 2205

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
B1D2C1		W	6-8-05	0918	1x1000-mL P	906.0_H3_LSC: Tritium (1) HC75R	None
B1D2C1		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1D2C1		W			1x20-mL P	Activity Scan	None
B1D2C1		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1D2C1		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
D. P. CONNOLLY			JUN 08 2005 1505			Jeff Jensen	JUN 08 2005 1505
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

<100 CPM

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 060805 1505

Client: Plaw SDG #: W04675 NA [ ] SAF #: W05-006 S05-006 NA [ ]

Work Order Number: J5F080417 Chain of Custody # S05-006-10 W05-006-165

Shipping Container ID: 6L3-106 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: 16
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: 06 08 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. # I05-040-4

Page 1 of 1

Collector: D.R. BREWINGTON	Contact/Requester: DL STEWART	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I05-040	Sampling Origin: HANFORD SITE	Purchase Order/Charge Code
Project Title: 2UP1-C LTMC, JUNE 2005	Logbook: DTS-SAWS-H95	Ice Chest No.: SAWS-213 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
** **

W04675
JSF080421
Dw 072205

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
B1D712		W	6/8/05	0957	1x1000-mL P	906.0_H3_LSC: Tritium (1) 4C752	None
B1D712		W	↓	↓	1x20-mL P	Activity Scan	None
B1D712		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1D712		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
D.R. BREWINGTON	D.R. Brewington		JUN 08 2005 1500	Jeff Jensen			JUN 08 2005 1500
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

<100 CPM

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 06 08 05 1507

Client: PGW SDG #: W04675 NA [ ] SAF #: W05-006 I05-040 NA [ ]

Work Order Number: J5F080421 Chain of Custody # W05-006-169 I05-040-4

Shipping Container ID: SAWS 213 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: 7
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: 06 08 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. # S05-006-10

Page 1 of 1

Collector D. P. CONNOLLY	Contact/Requester DL STEWART	Telephone No. 509-376-5056 MSIN FAX
SAF No. S05-006	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title SURV/LTMC JUNE 2005	DTS - SAWS H 91	Ice Chest No. GWS106 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
** **

W04675
J5F080416
Due 072205

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
B1D6K1		W	6-8-05	1321	1x1000-mL P	906.0_H3_LSC: Tritium (1) H6745	None
B1D6K1		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1D6K1		W			1x20-mL P	Activity Scan	None
B1D6K1		W			1x1000-mL G/P	AMCMISO_EIE_PLT_AEA: Am-241 (1)	HNO3 to pH <2
B1D6K1		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1D6K1		W			1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1)	HNO3 to pH <2
B1D6K1		W			1x1000-mL G/P	PUISO_PLATE_AEA: Pu-238 + 239/240 (2)	HNO3 to pH <2
B1D6K1		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1D6K1		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Received By
Print D. P. CONNOLLY Sign Date/Time 1505 JUN 08 2005	Print Sign Jeff Jensen Date/Time 1505 JUN 08 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 *

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

<100 CPM

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 060805 1505

Client: PLW SDG #: W04675 NA [ ] SAF #: W05-006 S05-006 NA [ ]

Work Order Number: J5F080416 Chain of Custody # S05-006-10 W05-006-165

Shipping Container ID: GLS-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: 16
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: 06 08 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

6/22/2005 8:18:15 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

8I Am PrpRC5016/5086, SepRC5072(5003)
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: NA

Report Due: 07/22/2005 W04675

Sep1 DT/Tm Tech:

Batch: 5161161 **WATER** **pCi/L** **PM, Quote: SS , 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:
1 HC745-1-AF J5F080416-1-SAMP 06/08/2005 13:21	AmtRec: VIAL20,500P,8XLP,4LP #Containers: 11	206.30g,in	AMTC2344 04/27/05,pd 04/12/05,r	200		Scr Rst:	Alpha: 2.31E+02 pCi/L	Beta: 1.16E+02 pCi/L
2 HC745-1-AQ-X J5F080416-1-DUP 06/08/2005 13:21	AmtRec: VIAL20,500P,8XLP,4LP #Containers: 11	202.60g,in	AMTC2345 04/27/05,pd 04/12/05,r			Scr Rst:	Alpha: 2.31E+02 pCi/L	Beta: 1.16E+02 pCi/L
3 HDCM5-1-AA-B J5F100000-161-BLK 06/08/2005 13:21	AmtRec: #Containers: 1	198.50g,in	AMTC2346 04/27/05,pd 04/12/05,r			Scr Rst:	Alpha:	Beta:
4 HDCM5-1-AC-C J5F100000-161-LCS 06/08/2005 13:21	AmtRec: #Containers: 1	212.00g,in	AMSK0249 01/31/05,pd 01/05/05,r			Scr Rst:	Alpha:	Beta:

Comments: verified pH ≤ 2 @ prep By

possibly one Sa in batch w/ discarded ppt in cloudy supernate - unknown loss during last rinse w/ NH_4OH H_2O. By
+ (Sa unknown) By

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

HC7451AF-SAMP Constituent List:

Am-241	RDL:1.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	AM-243	RDL:	pCi/L	LCL:20	UCL:105	RPD:20

HDCM51AA-BLK:

Am-241	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:	AM-243	RDL:	pCi/L	LCL:20	UCL:105	RPD:20

HDCM51AC-LCS:

Am-241	RDL:1	pCi/L	LCL:70	UCL:130	RPD:20	AM-243	RDL:	pCi/L	LCL:20	UCL:105	RPD:20

6/22/2005 8:18:16 AM

Sample Preparation/Analysis

Balance Id:1120482733

8I Am PrpRC5016/5086, SepRC5072(5003)
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161161 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	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

HC7451AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCM51AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCM51AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/11/2005 2:38:28 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/11/2004, 7/16/2005, Batch: '5161161', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161161						
AC		**CalcC**	**GiroirB**	6/16/2005 11:03:40		
SC			heidelbergt	IsBatched	6/10/2005 7:40:01 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	6/16/2005 11:03:40 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	InPrep	6/16/2005 11:04:53 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	Prep1C	6/23/2005 12:41:28 PM	RICH-RC-5086 REVISION 2
SC			FinchA	InSep1	6/28/2005 10:29:21 AM	RICH-RC-5072 REVISION 5
SC			FinchA	Sep1C	6/30/2005 7:56:24 AM	RICH-RC-5072 REVISION 5
SC			BarbosaH	InSep2	7/6/2005 7:17:48 AM	RICHRC5003 REV5
SC			BarbosaH	Sep2C	7/6/2005 1:38:53 PM	RICHRC5003 REV5
SC			DAWKINSO	InCnt1	7/6/2005 1:54:02 PM	RICH-RD-0008 REVISION 4
SC			BlackCL	CalcC	7/7/2005 1:53:15 PM	RICH-RD-0008 REVISION 4
AC			**GiroirB**	6/16/2005 11:04:53		
AC			**GiroirB**	6/23/2005 12:41:28		
AC			**FinchA**	6/28/2005 10:29:21		
AC			**FinchA**	6/30/2005 7:56:24		
AC			**BarbosaH**	7/6/2005 7:17:48 AM		
AC			**BarbosaH**	7/6/2005 1:38:53 PM		
AC			**DAWKINSO**	7/6/2005 1:54:02 PM		
AC			**BlackCL**	7/7/2005 1:53:15 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 9

ICOCFractions v4.8.09

6/22/2005 7:50:30 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

KO Np-237 PrpRC5086, SepRC5064(5003)
XW Neptunium-237 with tracer by alpha spec
5I CLIENT: HANFORD

Pipet #: NA

Report Due: 07/22/2005 W04675

Sep1 DT/Tm Tech: 7-12-05 11:25 JN

Batch: 5161156 WATER pCi/L

PM, Quote: SS , 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:
37 1 HC745-1-AA J5F080416-1-SAMP 06/08/2005 13:21		203.40g,in AmtRec: VIAL20,500P,8XLP,4LP	NPTA5866 04/15/05,pd 11/29/04,r #Containers: 11			JN		Scr Rst:	Alpha: 2.31E+02 pCi/L	Beta: 1.16E+02 pCi/L
39 2 HC745-1-AL-X J5F080416-1-DUP 06/08/2005 13:21		201.10g,in AmtRec: VIAL20,500P,8XLP,4LP	NPTA5867 04/15/05,pd 11/29/04,r #Containers: 11					Scr Rst:	Alpha: 2.31E+02 pCi/L	Beta: 1.16E+02 pCi/L
40 3 HDCMW-1-AA-B J5F100000-156-BLK 06/08/2005 13:21		207.40g,in AmtRec:	NPTA5868 04/15/05,pd 11/29/04,r #Containers: 1					Scr Rst:	Alpha:	Beta:
41 4 HDCMW-1-AC-C J5F100000-156-LCS 06/08/2005 13:21		222.60g,in AmtRec:	NPSE0318 04/29/05,pd 12/27/04,r #Containers: 1					Scr Rst:	Alpha:	Beta:

Comments:
pH verified @ 2 - preps. JG

possible unknown loss in one Sam batch (Sample unknown) when discarded as cloudy ppt in last sense w/ Amm. Ammon. 420
JG 6-23-05

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

HC7451AA-SAMP Constituent List:

Np-237	RDL:0.6	pCi/L	LCL:	UCL:	RPD:

HDCMW1AA-BLK:

Np-237	RDL:0.6	pCi/L	LCL:	UCL:	RPD:

HDCMW1AC-LCS:

6/22/2005 7:52:05 AM

Sample Preparation/Analysis

Balance Id:1120482733

KO Np-237 PrpRC5086, SepRC5064(5003)
XW Neptunium-237 with tracer by alpha spec
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161156 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:

HC7451AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCMW1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCMW1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/14/2005 9:49:48 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/14/2004, 7/19/2005, Batch: '5161156', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161156						
AC		CalcC	GiroirB	6/16/2005 11:03:23		
SC			heidelbergt	IsBatched	6/10/2005 7:38:17 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	6/16/2005 11:03:23 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	InPrep	6/16/2005 11:04:39 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	Prep1C	6/23/2005 12:41:50 PM	RICH-RC-5086 REVISION 2
SC			NortonJ	InSep1	7/12/2005 9:06:15 AM	RICHRC5064 REV4
SC			NortonJ	Sep1C	7/12/2005 1:40:55 PM	RICHRC5064 REV4
SC			BarbosaH	InSep2	7/13/2005 6:18:44 AM	RICHRC5003 REV5
SC			BarbosaH	Sep2C	7/13/2005 7:32:31 AM	RICHRC5003 REV5
SC			BlackCL	InCnt1	7/13/2005 8:00:14 AM	RICH-RD-0008 REVISION 4
SC			BlackCL	CalcC	7/13/2005 1:54:59 PM	RICH-RD-0008 REVISION 4
AC			GiroirB	6/16/2005 11:04:39		
AC			GiroirB	6/23/2005 12:41:50		
AC			NortonJ	7/12/2005 9:06:15		
AC			NortonJ	7/12/2005 1:40:55 PM		
AC			BarbosaH	7/13/2005 6:18:44		
AC			BarbosaH	7/13/2005 7:32:31		
AC			BlackCL	7/13/2005 8:00:14		
AC			BlackCL	7/13/2005 1:54:59 PM		

AC: Accepting Entry; SC: Status Change

6/22/2005 8:03:14 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: NA

Report Due: 07/22/2005 W04675

Sep1 DT/Tm Tech:

Batch: 5161160 WATER pCi/L

PM, Quote: SS , 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:
37 1 HC745-1-AH J5F080416-1-SAMP 06/08/2005 13:21	AmtRec: VIAL20,500P,8XLP,4LP #Containers: 11	200.20g,in	PUTC9473 04/25/05,pd 04/05/05,r			Scr Rst:	Alpha: 2.31E+02 pCi/L	Beta: 1.16E+02 pCi/L
39 2 HC745-1-AP-X J5F080416-1-DUP 06/08/2005 13:21	AmtRec: VIAL20,500P,8XLP,4LP #Containers: 11	197.50g,in	PUTC9474 04/25/05,pd 04/05/05,r			Scr Rst:	Alpha: 2.31E+02 pCi/L	Beta: 1.16E+02 pCi/L
40 3 HDCM4-1-AA-B J5F100000-160-BLK 06/08/2005 13:21	AmtRec: #Containers: 1	202.50g,in	PUTC9475 04/25/05,pd 04/05/05,r			Scr Rst:	Alpha:	Beta:
41 4 HDCM4-1-AC-C J5F100000-160-LCS 06/08/2005 13:21	AmtRec: #Containers: 1	198.00g,in	PUSG0746 06/20/05,pd 03/29/05,r			Scr Rst:	Alpha:	Beta:

Comments:

pH verified @ ≤2 in prep. [illegible]

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

HC7451AH-SAMP Constituent List:

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

HDCM41AA-BLK:

PU-238	RDL:1	pCi/L	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/L	LCL:	UCL:	RPD:
Pu-242	RDL:	pCi/L	LCL:20	UCL:105	RPD:20						

HDCM41AC-LCS:

PU-239	RDL:1	pCi/L	LCL:70	UCL:130	RPD:20	Pu-242	RDL:	pCi/L	LCL:20	UCL:105	RPD:20

6/22/2005 8:03:16 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: N/A

Report Due: 07/22/2005

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Batch: 5161160 pCi/L
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:

HC7451AH-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCM41AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCM41AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

6/26/2005 6:30:52 PM

ICOC Fraction Transfer/Status Report

ByDate: 6/26/2004, 7/1/2005, Batch: '5161160', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161160						
AC		**CalcC**	**GiroirB**	6/16/2005 11:03:45		
SC			heidelbergt	IsBatched	6/10/2005 7:40:01 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	6/16/2005 11:03:45 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	InPrep	6/16/2005 11:05:01 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	Prep1C	6/22/2005 12:45:35 PM	RICH-RC-5016 REVISION 5
SC			FinchA	InSep1	6/23/2005 10:15:08 AM	RICH-RC-5010 REVISION 4
SC			FinchA	Sep1C	6/24/2005 10:16:28 AM	RICH-RC-5010 REVISION 4
SC			DAWKINSO	InCnt1	6/24/2005 5:43:20 PM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	6/24/2005 7:04:52 PM	RICH-RD-0008 REVISION 4
AC			**GiroirB**	6/16/2005 11:05:01		
AC			**GiroirB**	6/22/2005 12:45:35		
AC			**FinchA**	6/23/2005 10:15:08		
AC			**FinchA**	6/24/2005 10:16:28		
AC			**DAWKINSO**	6/24/2005 5:43:20 PM		
AC			**DAWKINSO**	6/24/2005 7:04:52 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.09

6/23/2005 6:29:25 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

Report Due: 07/22/2005

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

Balance Id:1120482733
Pipet #: NA
Sep1 DT/Tm Tech: NA
Sep2 DT/Tm Tech: NA
Prep Tech: GiroirB

Batch: 5161158 **WATER** **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None All Tests: 5161156 KOXW, 5161157 CLTL, 5161158 AWTA, 5161160 6DSO, 5161161 8ISX, 5161163 DHSS, 5161172 ARS6, 5161173 BCS8, 5161174 AZS7,

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 HC745-1-AG J5F080416-1-SAMP 06/08/2005 13:21		2001.30g,in AmtRec: VIAL20,500P,8XLP,4LP #Containers: 11			100	100	G6	2130	6/24/05 RP Scr Rst: Alpha: 2.31E+02 pCi/L Beta: 1.16E+02 pCi/L	
2 HC745-1-AN-X J5F080416-1-DUP 06/08/2005 13:21		2001.30g,in AmtRec: VIAL20,500P,8XLP,4LP #Containers: 11					~~G10~~ RS 6/25/05 ~~G10~~ RS 6/25/05	G11 0928	6/25/05 K Scr Rst: Alpha: 2.31E+02 pCi/L Beta: 1.16E+02 pCi/L	
3 HDCM1-1-AA-B J5F100000-158-BLK 06/08/2005 13:21		2014.20g,in AmtRec: #Containers: 1						G10 0929	6/25/05 K Scr Rst: Alpha: Beta:	
4 HDCM1-1-AC-C J5F100000-158-LCS 06/08/2005 13:21		2003.70g,in AmtRec: #Containers: 1	QCAG1090 06/09/05,pd 08/09/04,r					G6 0930	6/25/05 K Scr Rst: Alpha: Beta:	

Comments: HC745-SAMP "Comments: Gamma-Recount dup on different detector. Bg"

pH adj in prep to ≤2 Bg

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

HC7451AG-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:

HDCM11AA-BLK:

6/23/2005 6:29:27 AM

Sample Preparation/Analysis

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

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

Report Due: 07/22/2005

Batch: 5161158 pCi/L
SEQ Batch, Test: None

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

Co-60	RDL: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:

HDCM11AC-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						

HC7451AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HDCM11AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HDCM11AC-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 7/22/05

CUSTOMER PNA

ANALYSIS γ

MATRIX Water.

LOT NUMBER J5F080416.

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 5161158

	LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)	~~HC745-1AG~~ PAL	29.05
2)	~~HC745-1ANX~~	LCS / BLK switch.
3)	HDCM1-1AA-B	
4)	HDCM1-1AC-C	
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

6/29/2005 9:02:23 AM

Sample Preparation/Analysis

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

Report Due: 07/22/2005

Batch: 5161158 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	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HDCM1-2-AC-C J5F100000-158-LCS 06/08/2005 13:21	PA 6-29-05	AmtRec:	#Containers: 1					Scr Rst:	Alpha:	Beta:
9 HDCM1-3-AA-B J5F100000-158-BLK 06/08/2005 13:21	2014.2g	AmtRec:	#Containers: 1			100min	611	1054 Scr Rst:	6/29/05 D Alpha:	Beta:
10 HDCM1-3-AC-C J5F100000-158-LCS 06/08/2005 13:21	2003.7g	AmtRec:	#Containers: 1	QCAG-1066				Scr Rst:	Alpha:	Beta:

Comments: HC745-SAMP "Comments: Gamma-Recount dup on different detector. Bg"

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

HC7451AG-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:

HDCM11AA-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:

HDCM11AC-LCS:

6/29/2005 9:02:23 AM

Sample Preparation/Analysis

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

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Report Due: 07/22/2005

Batch: 5161158 **pCi/L**

SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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							
HDCM12AA-BLK:										
Co-60 RDL:25 pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:6 pCi/L	LCL:	UCL:	RPD:		
Cs-137 RDL:15 pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:15 pCi/L	LCL:	UCL:	RPD:		
Eu-154 RDL:50 pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:50 pCi/L	LCL:	UCL:	RPD:		
K-40 RDL:6 pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:6 pCi/L	LCL:	UCL:	RPD:		
HDCM12AC-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							
HDCM13AA-BLK:										
Co-60 RDL:25 pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:6 pCi/L	LCL:	UCL:	RPD:		
Cs-137 RDL:15 pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:15 pCi/L	LCL:	UCL:	RPD:		
Eu-154 RDL:50 pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:50 pCi/L	LCL:	UCL:	RPD:		
K-40 RDL:6 pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:6 pCi/L	LCL:	UCL:	RPD:		
HDCM13AC-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							

HC7451AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HDCM11AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HDCM11AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HDCM12AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HDCM12AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HDCM13AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HDCM13AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/21/2005 10:08:03 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/21/2004, 7/26/2005, Batch: '5161158', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161158						
AC		**CalcC**	**GiroirB**	6/16/2005 11:05:12		
SC			heidelbergt	IsBatched	6/10/2005 7:40:01 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	6/16/2005 11:05:12 AM	RICH-RC-5017 REVISION 4
SC			GiroirB	Prep1C	6/24/2005 7:14:23 AM	RICH-RC-5017 REVISION 4
SC			StringerR	InCnt1	6/24/2005 9:23:46 AM	RICH-RD-0007 REVISION 5
SC			StringerR	CalcC	6/25/2005 9:57:39 AM	RICH-RD-0007 REVISION 5
SC			BlackCL	InCnt1	6/29/2005 9:14:37 AM	RICH-RD-0007 REVISION 5
SC			BlackCL	CalcC	6/29/2005 11:12:04 AM	RICH-RD-0007 REVISION 5
AC			**GiroirB**	6/24/2005 7:14:23		
AC			**StringerR**	6/24/2005 9:23:46		5173158
AC			**StringerR**	6/25/2005 9:57:39		
AC			**BlackCL**	6/29/2005 9:14:37		
AC			**BlackCL**	6/29/2005 11:12:04		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.09

6/28/2005 5:52:01 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: 07/22/2005

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Batch: 5161174 WATER pCi/L PM, Quote: SS , 57671

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 HC5AA-1-AC J5F070383-2-SAMP 06/07/2005 09:57		157.40g,in AmtRec: VIAL20,500P,2XLP #Containers: 4		1.5	46.2	50 ~~200~~ m	12a	0953	7/1/05	Scr Rst: Alpha: 1.77E+02 pCi/L Beta: 6.85E+01 pCi/L
2 HC5AA-1-AF-X J5F070383-2-DUP 06/07/2005 09:57		156.80g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			46.4		12b			Scr Rst: Alpha: 1.77E+02 pCi/L Beta: 6.85E+01 pCi/L
3 HC5AC-1-AC * J5F070383-3-SAMP 06/07/2005 09:15		18.70g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			13.1		12c			Scr Rst: Alpha: 8.79E+03 pCi/L Beta: 4.69E+03 pCi/L
4 HC5AF-1-AC J5F070385-1-SAMP 06/07/2005 11:44		130.50g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			32.5		12d			Scr Rst: Alpha: 9.20E+01 pCi/L Beta: 3.75E+01 pCi/L
5 HC5AG-1-AC J5F070385-2-SAMP 06/07/2005 09:00		197.40g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			50.7		12a	1059	7/1/05	Scr Rst: Alpha: 1.61E+02 pCi/L Beta: 4.84E+01 pCi/L
6 HC5AH-1-AC J5F070385-3-SAMP 06/07/2005 10:12		197.10g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			54.3		12b			Scr Rst: Alpha: 1.73E+02 pCi/L Beta: 7.89E+01 pCi/L
7 HC5AJ-1-AC J5F070385-4-SAMP 06/07/2005 10:12		184.40g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			52.1		12c			Scr Rst: Alpha: 2.06E+02 pCi/L Beta: 8.02E+01 pCi/L

6/28/2005 5:52:02 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: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161174 pCi/L PM, Quote: SS , 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:
8 HC5AK-1-AC J5F070385-5-SAMP 06/07/2005 12:50		161.50g,in AmtRec: VIAL20,500P,2XLP #Containers: 4		1.5	42.3	50		12d	1059	7/1/05 K Scr Rst: Alpha: 1.80E+02 pCi/L Beta: 6.85E+01 pCi/L
9 HC745-1-AD J5F080416-1-SAMP 06/08/2005 13:21		197.20g,in AmtRec: VIAL20,500P,8XLP,4LP #Containers: 1			56.5			12a	1206	7/1/05 K Scr Rst: Alpha: 2.31E+02 pCi/L Beta: 1.16E+02 pCi/L
10 HC75R-1-AC * J5F080419-1-SAMP 06/08/2005 09:18		13.40g,in AmtRec: VIAL20,2X500P,2XLP #Containers: 5			3.2			12b		Scr Rst: Alpha: 1.43E+04 pCi/L Beta: 8.66E+03 pCi/L
11 HDCNT-1-AA-B J5F100000-174-BLK 06/07/2005 09:57		198.40g,in AmtRec: #Containers: 1			0.1			12c		Scr Rst: Alpha: Beta:
12 HDCNT-1-AC-C J5F100000-174-LCS 06/07/2005 09:57		199.30g,in ASD3529 06/20/05,pd 03/25/05,r AmtRec: #Containers: 1		✓	0.7	✓		12d		Scr Rst: Alpha: Beta:

Comments:
HC5AA-SAMP "Comments: Alpha and beta volume reduced due to weight screening. Bg"
HC5AC-SAMP "Comments: unat alpha and beta reduced vol as determined by sample screen activity. Bg"
HC5AJ-SAMP "Comments: Alpha volume reduced due to weight screening. Bg"
HC5AK-SAMP "Comments: Alpha volume reduced due to weight screening. Bg"

* Reduced Aliquots

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

7/5/2005 7:39:20 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/5/2004, 7/10/2005, Batch: '5161174', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161174						
AC		**CalcC**	**GiroirB**	6/16/2005 11:06:04		
SC			heidelbergt	IsBatched	6/10/2005 7:40:49 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	6/16/2005 11:06:04 AM	RICH-RC-5014 REVISION 6
SC			GiroirB	Prep1C	6/28/2005 6:12:27 AM	RICH-RC-5014 REVISION 6
SC			ScottM	InPrep	6/29/2005 1:32:09 PM	RICH-RC-5014 REVISION 6
SC			ScottM	Prep1C	7/1/2005 7:39:12 AM	RICH-RC-5014 REVISION 6
SC			StringerR	InCnt1	7/1/2005 7:41:49 AM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	7/1/2005 12:14:22 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	7/1/2005 12:14:35 PM	RICH-RD-0003 REVISION 4
AC			**GiroirB**	6/28/2005 6:12:27		
AC			**ScottM**	6/29/2005 1:32:09 PM		
AC			**ScottM**	7/1/2005 7:39:12 AM		
AC			**StringerR**	7/1/2005 7:41:49 AM		
AC			**StringerR**	7/1/2005 12:14:22 PM		revision 4
AC			**StringerR**	7/1/2005 12:14:35 PM		

AC: Accepting Entry; SC: Status Change

SEVERN TRENT STL

*** RE-COUNT REQUEST ***

DUE DATE 7-22-05

CUSTOMER PGW

ANALYSIS alpha

MATRIX water

LOT NUMBER J5F070383

SAMPLE DELIVERY GROUP 40 4675

OLD BATCH NUMBER 5161174

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) HC5AA1AC	dup out
2) HC5AA1AF X	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	

7/20/2005 4:12:10 PM

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: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161174 WATER pCi/L PM, Quote: SS , 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 HC5AA-1-AC J5F070383-2-SAMP 06/07/2005 09:57		157.40g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst:	Alpha: 1.77E+02 pCi/L	Beta: 6.85E+01 pCi/L
2 HC5AA-1-AF-X J5F070383-2-DUP 06/07/2005 09:57		156.80g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst:	Alpha: 1.77E+02 pCi/L	Beta: 6.85E+01 pCi/L
3 HC5AA-2-AC J5F070383-2-SAMP 06/07/2005 09:57		157.4g AmtRec: VIAL20,500P,2XLP	#Containers: 4		46.2mg	50min	11A	Scr Rst:	1727 Alpha: 1.77E+02 pCi/L	7/20/05 K Beta: 6.85E+01 pCi/L
4 HC5AA-2-AF-X J5F070383-2-DUP 06/07/2005 09:57		156.8g AmtRec: VIAL20,500P,2XLP	#Containers: 4		46.4mg	✓	11b	Scr Rst:	1727 Alpha: 1.77E+02 pCi/L	7/20/05 K Beta: 6.85E+01 pCi/L
5 HC5AC-1-AC J5F070383-3-SAMP 06/07/2005 09:15		18.70g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst:	Alpha: 8.79E+03 pCi/L	Beta: 4.69E+03 pCi/L
6 HC5AF-1-AC J5F070385-1-SAMP 06/07/2005 11:44		130.50g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst:	Alpha: 9.20E+01 pCi/L	Beta: 3.75E+01 pCi/L
7 HC5AG-1-AC J5F070385-2-SAMP 06/07/2005 09:00		197.40g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst:	Alpha: 1.61E+02 pCi/L	Beta: 4.84E+01 pCi/L

7/20/2005 4:12:11 PM

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: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161174 pCi/L **PM, Quote: SS , 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:
8 HC5AH-1-AC J5F070385-3-SAMP 06/07/2005 10:12		197.10g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst:	Alpha: 1.73E+02 pCi/L	Beta: 7.89E+01 pCi/L
9 HC5AJ-1-AC J5F070385-4-SAMP 06/07/2005 10:12		184.40g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst:	Alpha: 2.06E+02 pCi/L	Beta: 8.02E+01 pCi/L
10 HC5AK-1-AC J5F070385-5-SAMP 06/07/2005 12:50		161.50g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst:	Alpha: 1.80E+02 pCi/L	Beta: 6.85E+01 pCi/L
11 HC745-1-AD J5F080416-1-SAMP 06/08/2005 13:21		197.20g,in AmtRec: VIAL20,500P,8XLP,4LP	#Containers: 11					Scr Rst:	Alpha: 2.31E+02 pCi/L	Beta: 1.16E+02 pCi/L
12 HC75R-1-AC J5F080419-1-SAMP 06/08/2005 09:18		13.40g,in AmtRec: VIAL20,2X500P,2XLP	#Containers: 5					Scr Rst:	Alpha: 1.43E+04 pCi/L	Beta: 8.66E+03 pCi/L
13 HDCNT-1-AA-B J5F100000-174-BLK 06/07/2005 09:57		198.40g,in AmtRec:	#Containers: 1					Scr Rst:	Alpha:	Beta:
14 HDCNT-1-AC-C J5F100000-174-LCS 06/07/2005 09:57		199.30g,in AmtRec:	ASD3529 06/20/05,pd 03/25/05,r #Containers: 1					Scr Rst:	Alpha:	Beta:

7/20/2005 4:12:12 PM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

Report Due: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161174 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:

Comments:
HC5AA-SAMP "Comments: Alpha and beta volume reduced due to weight screening. Bg"
HC5AC-SAMP "Comments: unat alpha and beta reduced vol as determined by sample screen activity. Bg"
HC5AF-SAMP "Comments: Unat vol reduced on reanal due to sample activity. Bg"
HC5AJ-SAMP "Comments: Alpha volume reduced due to weight screening. Bg"
HC5AK-SAMP "Comments: Alpha volume reduced due to weight screening. Bg"
HC745-SAMP ""
HC75R-SAMP "Comments: unat , alpha and beta reduced vol as determined by sample screen activity. Bg"

All Clients fo. Batch:
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, SS , 57671

HC5AA1AC-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
HDCNT1AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
HDCNT1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

HC5AA1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCNT1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCNT1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/27/2005 4:27:37 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/27/2004, 8/1/2005, Batch: '5161174', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161174						
AC		**CalcC**	**GiroirB**	6/16/2005 11:06:04		
SC			heidelbergt	IsBatched	6/10/2005 7:40:49 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	6/16/2005 11:06:04 AM	RICH-RC-5014 REVISION 6
SC			GiroirB	Prep1C	6/28/2005 6:12:27 AM	RICH-RC-5014 REVISION 6
SC			ScottM	InPrep	6/29/2005 1:32:09 PM	RICH-RC-5014 REVISION 6
SC			ScottM	Prep1C	7/1/2005 7:39:12 AM	RICH-RC-5014 REVISION 6
SC			StringerR	InCnt1	7/1/2005 7:41:49 AM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	7/1/2005 12:14:22 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	7/1/2005 12:14:35 PM	RICH-RD-0003 REVISION 4
SC			AndersonP	Rev1C	7/5/2005 8:37:48 AM	RICH-RC-0002 REVISION 6
SC			StringerR	InCnt1	7/20/2005 4:25:08 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	7/20/2005 5:51:33 PM	RICH-RD-0003 REVISION 4
AC			**GiroirB**	6/28/2005 6:12:27		
AC			**ScottM**	6/29/2005 1:32:09 PM		
AC			**ScottM**	7/1/2005 7:39:12 AM		
AC			**StringerR**	7/1/2005 7:41:49 AM		
AC			**StringerR**	7/1/2005 12:14:22 PM		revision 4
AC			**StringerR**	7/1/2005 12:14:35 PM		
AC			**AndersonP**	7/5/2005 8:37:48 AM		
AC			**StringerR**	7/20/2005 4:25:08 PM		
AC			**StringerR**	7/20/2005 5:51:33 PM		

AC: Accepting Entry; SC: Status Change

6/28/2005 5:51:57 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 #: _____

Report Due: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161173 **WATER** **pCi/L** **PM, Quote: SS , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 5161163 DHSS, 5161169 AMS5, 5161172 ARS6, 5161173 BCS8, 5161174 AZS7,

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 HC5AA-1-AD J5F070383-2-SAMP 06/07/2005 09:57		158.50g,in AmtRec: VIAL20,500P,2XLP #Containers: 4		1.5	97.5	100	26a	0935	7/1/05 R	Scr Rst: Alpha: 1.77E+02 pCi/L Beta: 6.85E+01 pCi/L
2 HC5AC-1-AD * J5F070383-3-SAMP 06/07/2005 09:15		20.80g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			30.1		26b			Scr Rst: Alpha: 8.79E+03 pCi/L Beta: 4.69E+03 pCi/L
3 HC5AC-1-AF-X * J5F070383-3-DUP 06/07/2005 09:15		21.40g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			30.5		26c			Scr Rst: Alpha: 8.79E+03 pCi/L Beta: 4.69E+03 pCi/L
4 HC5AF-1-AD J5F070385-1-SAMP 06/07/2005 11:44		199.70g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			79.7		26d			Scr Rst: Alpha: 9.20E+01 pCi/L Beta: 3.75E+01 pCi/L
5 HC5AG-1-AD J5F070385-2-SAMP 06/07/2005 09:00		196.80g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			84.3		27a			Scr Rst: Alpha: 1.61E+02 pCi/L Beta: 4.84E+01 pCi/L
6 HC5AH-1-AD J5F070385-3-SAMP 06/07/2005 10:12		202.20g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			102.4		27b			Scr Rst: Alpha: 1.73E+02 pCi/L Beta: 7.89E+01 pCi/L
7 HC5AJ-1-AD J5F070385-4-SAMP 06/07/2005 10:12		202.40g,in AmtRec: VIAL20,500P,2XLP #Containers: 4			93.0		27c			Scr Rst: Alpha: 2.06E+02 pCi/L Beta: 8.02E+01 pCi/L

6/28/2005 5:51:59 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 #: _____

Report Due: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161173 **pCi/L** **PM, Quote: SS , 57671**
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:
8 HC5AK-1-AD J5F070385-5-SAMP 06/07/2005 12:50		198.10g,in AmtRec: VIAL20,500P,2XLP #Containers: 4		1.5	76.4	100		27a	0935	7/1/05 Scr Rst: Alpha: 1.80E+02 pCi/L Beta: 6.85E+01 pCi/L
9 HC745-1-AE J5F080416-1-SAMP 06/08/2005 13:21		195.50g,in AmtRec: VIAL20,500P,8XLP,4LP #Containers: 11			94.7			28a		Scr Rst: Alpha: 2.31E+02 pCi/L Beta: 1.16E+02 pCi/L
10 HC75R-1-AD * J5F080419-1-SAMP 06/08/2005 09:18		10.10g,in AmtRec: VIAL20,2X500P,2XLP #Containers: 5			3.7			28b		Scr Rst: Alpha: 1.43E+04 pCi/L Beta: 8.66E+03 pCi/L
11 HDCNR-1-AA-B J5F100000-173-BLK 06/07/2005 09:15		204.10g,in AmtRec: #Containers: 1			0.1			28c		Scr Rst: Alpha: Beta:
12 HDCNR-1-AC-C J5F100000-173-LCS 06/07/2005 09:15		200.30g,in AmtRec: #Containers: 1	BESB2438 04/25/05,pd 09/21/04,r		0.5			28d		Scr Rst: Alpha: Beta:

Comments:
HC5AA-SAMP "Comments: Alpha and beta volume reduced due to weight screening. Bg"
HC5AC-SAMP "Comments: unat alpha and beta reduced vol as determined by sample screen activity. Bg"
HC5AJ-SAMP "Comments: Alpha volume reduced due to weight screening. Bg"
HC5AK-SAMP "Comments: Alpha volume reduced due to weight screening. Bg"

* Reduced Aliquots

Pd/s2

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

7/5/2005 8:02:22 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/5/2004, 7/10/2005, Batch: '5161173', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161173						
AC		**CalcC**	**GiroirB**	6/16/2005 11:05:57		
SC			heidelbergt	IsBatched	6/10/2005 7:40:49 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	6/16/2005 11:05:57 AM	RICH-RC-5014 REVISION 6
SC			GiroirB	Prep1C	6/28/2005 6:12:36 AM	RICH-RC-5014 REVISION 6
SC			ScottM	Prep1C	7/1/2005 7:39:01 AM	RICH-RC-5014 REVISION 6
SC			StringerR	InCnt1	7/1/2005 7:42:09 AM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	7/1/2005 10:39:21 AM	RICH-RD-0003 REVISION 4
AC			**GiroirB**	6/28/2005 6:12:36		
AC			**ScottM**	7/1/2005 7:39:01 AM		
AC			**StringerR**	7/1/2005 7:42:09 AM		
AC			**StringerR**	7/1/2005 10:39:21		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.09

6/13/2005 9:40:18 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:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Report Due: 07/22/2005

Batch: 5161157 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:

Comments:

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

HC7451AJ-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

HDCM01AA-BLK:
Sr-85 RDL: pCi/L LCL:20 UCL:105 RPD:20 Sr-90 RDL:2 pCi/L LCL: UCL: RPD:

HDCM01AC-LCS:
Sr-85 RDL: pCi/L LCL:20 UCL:105 RPD:20 Sr-90 RDL:2 pCi/L LCL:70 UCL:130 RPD:20

HC7451AJ-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCM01AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCM01AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/25/2005 1:33:24 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/25/2004, 7/30/2005, Batch: '5161157', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161157						
AC		CalcC	FABREM	6/13/2005 3:27:19 PM		
SC			heidelbergt	IsBatched	6/10/2005 7:38:17 AM	ICOC_RADCALC v4.8.08
SC			FABREM	InSep1	6/13/2005 3:27:19 PM	RICH-RC-5006 REVISION 5
SC			FABREM	InPrep	7/13/2005 4:22:47 PM	RICH-RC-5006 Revision 5
SC			FABREM	Sep1C	7/15/2005 3:45:29 PM	RICH-RC-5006 REVISION 5
SC			DAWKINSO	InCnt1	7/15/2005 7:07:54 PM	RICH-RD-0007 REVISION 5
SC			StringerR	Cnt1C	7/16/2005 10:04:51 AM	RICH-RD-0007 REVISION 5
SC			FABREM	InSep2	7/19/2005 9:05:04 AM	RICH-RC-5071 REVISION 3
SC			FABREM	Sep2C	7/21/2005 5:55:27 PM	RICH-RC-5071 REVISION 3
SC			StringerR	InCnt2	7/21/2005 6:41:41 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	7/23/2005 1:17:40 PM	RICH-RD-0003 REVISION 4
AC			FABREM	7/13/2005 4:22:47 PM		
AC			FABREM	7/15/2005 3:45:29 PM		
AC			DAWKINSO	7/15/2005 7:07:54 PM		
AC			StringerR	7/16/2005 10:04:51		
AC			FABREM	7/19/2005 9:05:04		
AC			FABREM	7/21/2005 5:55:27 PM		
AC			StringerR	7/21/2005 6:41:41 PM		
AC			StringerR	7/23/2005 1:17:40 PM		

AC: Accepting Entry; SC: Status Change

7/21/2005 8:59:05 AM

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: 07/22/2005 IN04675

Sep1 DT/Tm Tech:

Batch: 5161166 WATER pCi/L PM, Quote: SS , 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 HC5AD-1-AA J5F070384-1-SAMP 06/07/2005 09:57		AmtRec: VIAL20,500P	123.70g,in	123.70g #Containers: 2				Scr Rst:	Alpha: 1.03E+02 pCi/L	Beta: 1.39E+01 pCi/L
2 HC5AD-1-AC-S J5F070384-1-MS 06/07/2005 09:57		AmtRec: VIAL20,500P	127.60g,in	127.60g #Containers: 2	TCSG1169 07/11/05,pd 02/15/05,r			Scr Rst:	Alpha: 1.03E+02 pCi/L	Beta: 1.39E+01 pCi/L
3 HC5AD-1-AD-X J5F070384-1-DUP 06/07/2005 09:57		AmtRec: VIAL20,500P	130.70g,in	130.70g #Containers: 2				Scr Rst:	Alpha: 1.03E+02 pCi/L	Beta: 1.39E+01 pCi/L
4 HC5AE-1-AA J5F070384-2-SAMP 06/07/2005 09:15		AmtRec: VIAL20,500P	124.10g,in	124.10g #Containers: 2				Scr Rst:	Alpha: 8.75E+03 pCi/L	Beta: 4.51E+03 pCi/L
5 HC5AL-1-AA J5F070386-1-SAMP 06/07/2005 10:12		AmtRec: VIAL20,500P	124.30g,in	124.30g #Containers: 2				Scr Rst:	Alpha: 2.07E+02 pCi/L	Beta: 7.57E+01 pCi/L
6 HC5AM-1-AA J5F070386-2-SAMP 06/07/2005 10:12		AmtRec: VIAL20,500P	126.30g,in	126.30g #Containers: 2				Scr Rst:	Alpha: 1.59E+02 pCi/L	Beta: 6.60E+01 pCi/L
7 HC5AP-1-AA J5F070386-3-SAMP 06/07/2005 11:44		AmtRec: VIAL20,500P	126.40g,in	126.40g #Containers: 2				Scr Rst:	Alpha: 1.77E+02 pCi/L	Beta: 7.51E+01 pCi/L

7/21/2005 8:59:07 AM

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: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161166 **WATER** **pCi/L** **PM, Quote: SS , 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:
8 HC5AR-1-AA J5F070386-4-SAMP 06/07/2005 12:50			129.70g,in	129.70g						
AmtRec: VIAL20,500P	#Containers: 2							Scr Rst:	Alpha: 2.11E+02 pCi/L	Beta: 1.13E+02 pCi/L
9 HC5AT-1-AA J5F070386-5-SAMP 06/07/2005 09:00			125.30g,in	125.30g						
AmtRec: VIAL20,500P	#Containers: 2							Scr Rst:	Alpha: 1.39E+02 pCi/L	Beta: 5.60E+01 pCi/L
10 HC74X-1-AA J5F080413-1-SAMP 06/08/2005 11:53			125.10g,in	125.10g						
AmtRec: VIAL20,2X500P	#Containers: 3							Scr Rst:	Alpha: 1.43E+02 pCi/L	Beta: 6.04E+01 pCi/L
11 HC741-1-AA J5F080413-2-SAMP 06/08/2005 10:11			125.90g,in	125.90g						
AmtRec: VIAL20,2X500P	#Containers: 3							Scr Rst:	Alpha: 6.75E+00 pCi/L	Beta: 9.61E+00 pCi/L
12 HC75R-1-AE J5F080419-1-SAMP 06/08/2005 09:18			50.00g,in	50.00g						
AmtRec: VIAL20,2X500P,2XLP	#Containers: 5							Scr Rst:	Alpha: 1.43E+04 pCi/L	Beta: 8.66E+03 pCi/L
13 HC752-1-AC J5F080421-1-SAMP 06/08/2005 09:57			129.70g,in	129.70g						
AmtRec: VIAL20,2X500P,LP	#Containers: 4							Scr Rst:	Alpha: 5.68E+01 pCi/L	Beta: 3.47E+01 pCi/L
14 HDCNA-1-AA-B J5F100000-166-BLK 06/07/2005 09:57			135.30g,in	135.30g						
AmtRec:	#Containers: 1							Scr Rst:	Alpha:	Beta:

7/21/2005 8:59:08 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

Report Due: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5161166 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:
15HDCNA-1-AC-C J5F100000-166-LCS 06/07/2005 09:57			128.20g,in	128.20g	TCSE1716 04/19/05,pd 03/10/05,r					
16HDCNA-1-AD-BN J5F100000-166-IBLK 06/07/2005 09:57										
17HDCNA-1-AE-BN J5F100000-166-IBLK 06/07/2005 09:57										

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

Comments: HC75R-SAMP "Comments: Tc-99, unat , alpha and beta reduced vol as determined by sample screen activity. Bg"

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

HC5AD1AA-SAMP Constituent List:

Tc-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20

HC5AD1AC-MS Constituent List:

HDCNA1AA-BLK:

Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:

HDCNA1AC-LCS:

Tc-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20

HDCNA1AD-IBLK:

Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:

HDCNA1AE-IBLK:

Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:

HC5AD1AA-SAMP Calc Info:

7/25/2005 5:18:49 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/25/2004, 7/30/2005, Batch: '5161166', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161166						
AC		**CalcC**	**GiroirB**	7/20/2005 11:12:08		
SC			heidelbergt	IsBatched	6/10/2005 7:40:49 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	7/20/2005 11:12:08 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	Prep1C	7/21/2005 9:05:51 AM	RICH-RC-5016 REVISION 5
SC			FinchA	Sep1C	7/21/2005 9:13:08 AM	RICH-RC-5065 REVISION 5
SC			StringerR	InCnt1	7/21/2005 8:58:52 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	7/25/2005 8:32:34 AM	RICH-RD-0001 REVISION 3
AC			**GiroirB**	7/21/2005 9:05:51		
AC			**FinchA**	7/21/2005 9:13:08		
AC			**StringerR**	7/21/2005 8:58:52 PM		
AC			**BlackCL**	7/25/2005 8:32:34		

AC: Accepting Entry; SC: Status Change

SEVERN TRENT STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 7.22.05

CUSTOMER PG-W

ANALYSIS Tc

MATRIX water

LOT NUMBER JSF070383

SAMPLE DELIVERY GROUP W04675

OLD BATCH NUMBER 5161165, 5189158

NEW BATCH NUMBER 5201305

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) HC4992AC	matrix spike 56%
2) 2AE X	
3) 2AD S	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	
LAB QC ID	Assigned with new batch.

7/22/2005 11:29:19 AM

Sample Preparation/Analysis

Balance Id:n/a

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: _____

Report Due: 07/22/2005

Sep1 DT/Tm Tech:

Batch: 5201305 **WATER** **pCi/L** **PM, Quote: SS , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 5161163 DHSS, 5161169 AMS5, 5161172 ARS6, 5161173 BCS8, 5161174 AZS7, 5189158 AMS5, 5201305 AMS5,

Prep Tech: ,FinchA

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 HC499-3-AC J5F070383-1-SAMP 06/07/2005 11:12		125.10g,in AmtRec: VIAL20,4XLP	#Containers: 5			Scr Rst:	Alpha: 1.64E+02 pCi/L	Beta: 7.57E+01 pCi/L
2 HC499-3-AD-S J5F070383-1-MS 06/07/2005 11:12		129.00g,in AmtRec: VIAL20,4XLP	TCSG1170 07/11/05,pd 02/15/05,r #Containers: 5			Scr Rst:	Alpha: 1.64E+02 pCi/L	Beta: 7.57E+01 pCi/L
3 HC499-3-AE-X J5F070383-1-DUP 06/07/2005 11:12		129.50g,in AmtRec: VIAL20,4XLP	#Containers: 5			Scr Rst:	Alpha: 1.64E+02 pCi/L	Beta: 7.57E+01 pCi/L
4 HFVX9-1-AA-B J5G200000-305-BLK 06/07/2005 11:12		125.60g,in AmtRec:	#Containers: 1			Scr Rst:	Alpha:	Beta:
5 HFVX9-1-AC-C J5G200000-305-LCS 06/07/2005 11:12		125.60g,in AmtRec:	TCSE1723 04/19/05,pd 03/10/05,r #Containers: 1			Scr Rst:	Alpha:	Beta:
6 HFVX9-1-AD-BN J5G200000-305-IBLK 06/07/2005 11:12		AmtRec:	#Containers: 1			Scr Rst:	Alpha:	Beta:

7/22/2005 11:29:21 AM

Sample Preparation/Analysis

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

Report Due: 07/22/2005

Batch: 5201305 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, SS , 57671

HC4993AC-SAMP Constituent List:
Tc-99 RDL:1.50E+01 pCi/L LCL:70 UCL:130 RPD:20
HC4993AD-MS Constituent List:

HFVX91AA-BLK:
Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:
HFVX91AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
HFVX91AD-IBLK:
Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

HC4993AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HC4993AD-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HFVX91AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HFVX91AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HFVX91AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/25/2005 11:40:27 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/25/2004, 7/30/2005, Batch: '5201305', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5201305						
AC		**CalcC**	**FinchA**	7/22/2005 11:27:39		
SC			andersonp	IsBatched	7/20/2005 10:09:49 AM	ICOC_RADCALC v4.8.08
SC			FinchA	InPrep	7/22/2005 11:27:39 AM	RICH-RC-5078 Revision 2
SC			FinchA	Sep1C	7/22/2005 4:06:56 PM	RICH-RC-5078 REVISION 3
SC			BlackCL	InCnt1	7/22/2005 4:35:59 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	7/25/2005 8:32:50 AM	RICH-RD-0001 REVISION 3
AC			**FinchA**	7/22/2005 4:06:56 PM		
AC			**BlackCL**	7/22/2005 4:35:59 PM		
AC			**BlackCL**	7/25/2005 8:32:50		

AC: Accepting Entry; SC: Status Change

6/13/2005 9:41:26 AM

Sample Preparation/Analysis

Balance Id: PJ4000 12413

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #:

Report Due: 07/22/2005 WO 41675

Sep1 DT/Tm Tech: 7-18-05 DM

Batch: 5161172 WATER pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HC499-1-AA J5F070383-1-SAMP 06/07/2005 11:12	AmtRec: VIAL20,4XLP	#Containers: 5					Scr Rst: Alpha: 1.64E+02 pCi/L	Beta: 7.57E+01 pCi/L
2 HC5AA-1-AA J5F070383-2-SAMP 06/07/2005 09:57	AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst: Alpha: 1.77E+02 pCi/L	Beta: 6.85E+01 pCi/L
3 HC5AC-1-AA J5F070383-3-SAMP 06/07/2005 09:15	AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst: Alpha: 8.79E+03 pCi/L	Beta: 4.69E+03 pCi/L
4 HC5AF-1-AA J5F070385-1-SAMP 06/07/2005 11:44	AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst: Alpha: 9.20E+01 pCi/L	Beta: 3.75E+01 pCi/L
5 HC5AG-1-AA J5F070385-2-SAMP 06/07/2005 09:00	AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst: Alpha: 1.61E+02 pCi/L	Beta: 4.84E+01 pCi/L
6 HC5AH-1-AA J5F070385-3-SAMP 06/07/2005 10:12	AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst: Alpha: 1.73E+02 pCi/L	Beta: 7.89E+01 pCi/L
7 HC5AJ-1-AA J5F070385-4-SAMP 06/07/2005 10:12	AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst: Alpha: 2.06E+02 pCi/L	Beta: 8.02E+01 pCi/L

6/13/2005 9:41:27 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

Report Due: 07/22/2005

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

Batch: 5161172 **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None

Balance Id: PJ4000 W413
Pipet #:
Sep1 DT/Tm Tech: 7-18-05 DW
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HC5AK-1-AA J5F070385-5-SAMP 06/07/2005 12:50	AmtRec: VIAL20,500P,2XLP	#Containers: 4					Scr Rst:	Alpha: 1.80E+02 pCi/L Beta: 6.85E+01 pCi/L
9 HC745-1-AC J5F080416-1-SAMP 06/08/2005 13:21	AmtRec: VIAL20,500P,8XLP,4LP	#Containers: 11					Scr Rst:	Alpha: 2.31E+02 pCi/L Beta: 1.16E+02 pCi/L
10 HC75R-1-AA J5F080419-1-SAMP 06/08/2005 09:18	AmtRec: VIAL20,2X500P,2XLP	#Containers: 5					Scr Rst:	Alpha: 1.43E+04 pCi/L Beta: 8.66E+03 pCi/L
11 HC75R-1-AG-S J5F080419-1-MS 06/08/2005 09:18	AmtRec: VIAL20,2X500P,2XLP	#Containers: 5					Scr Rst:	Alpha: 1.43E+04 pCi/L Beta: 8.66E+03 pCi/L
12 HC75R-1-AH-X J5F080419-1-DUP 06/08/2005 09:18	AmtRec: VIAL20,2X500P,2XLP	#Containers: 5					Scr Rst:	Alpha: 1.43E+04 pCi/L Beta: 8.66E+03 pCi/L
13 HC752-1-AA J5F080421-1-SAMP 06/08/2005 09:57	AmtRec: VIAL20,2X500P,LP	#Containers: 4					Scr Rst:	Alpha: 5.68E+01 pCi/L Beta: 3.47E+01 pCi/L
14 HDCNN-1-AA-B J5F100000-172-BLK 06/08/2005 09:18	AmtRec:	#Containers: 1					Scr Rst:	Alpha: Beta:

Not Needed WWR 6/13/05

6/13/2005 9:41:28 AM

Sample Preparation/Analysis

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

Balance Id: PS4000 12413
Pipet #:
Sep1 DT/Tm Tech: 7/8·05
Sep2 DT/Tm Tech:
Prep Tech:

Report Due: 07/22/2005

Batch: 5161172 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:
15HDCNN-1-AC-C J5F100000-172-LCS 06/08/2005 09:18	AmtRec:	#Containers: 1				Scr Rst:	Alpha:	Beta:
16HDCNN-1-AD-BN J5F100000-172-IBLK 06/08/2005 09:18	AmtRec:	#Containers: 1				Scr Rst:	Alpha:	Beta:
17HDCNN-1-AE-CM J5F100000-172-MLCS 06/08/2005 09:18	AmtRec:	#Containers: 1				Scr Rst:	Alpha:	Beta:
18HDCNN-1-AF-BN J5F100000-172-IBLK 06/08/2005 09:18	AmtRec:	#Containers: 1				Scr Rst:	Alpha:	Beta:

Comments:

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

HC4991AA-SAMP Constituent List:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
HC75R1AG-MS:

HDCNN1AA-BLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
HDCNN1AC-LCS:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20

6/13/2005 9:41:30 AM

Sample Preparation/Analysis

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

Balance Id: PJ4000 12413
Pipet #:
Sep1 DT/Tm Tech: 7-18-05
Sep2 DT/Tm Tech:
Prep Tech:

Report Due: 07/22/2005

Batch: 5161172 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:

```
HDCNN1AD-IBLK:
  H-3          RDL:400          pCi/L      LCL:        UCL:        RPD:
HDCNN1AE-MLCS:
  H-3          RDL:400          pCi/L      LCL:70      UCL:130     RPD:20
HDCNN1AF-IBLK:
  H-3          RDL:400          pCi/L      LCL:        UCL:        RPD:
HC4991AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HC75R1AG-MS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HDCNN1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HDCNN1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HDCNN1AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HDCNN1AE-MLCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HDCNN1AF-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

7/20/2005 9:58:00 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/20/2004, 7/25/2005, Batch: '5161172', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161172						
AC		**CalcC**	**McDowellD**	7/15/2005 10:03:48		
SC			heidelbergt	IsBatched	6/10/2005 7:40:49 AM	ICOC_RADCALC v4.8.08
SC			McDowellD	InSep1	7/15/2005 10:03:48 AM	RICHRC5007 REVISION 3
SC			McDowellD	Sep1C	7/18/2005 11:32:53 AM	RICHRC5007 REVISION 3
SC			BlackCL	InCnt1	7/18/2005 11:34:12 AM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	7/19/2005 9:26:58 AM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	7/18/2005 11:32:53		
AC			**BlackCL**	7/18/2005 11:34:12		
AC			**BlackCL**	7/19/2005 9:26:58		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.09

6/22/2005 9:36:08 AM

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 #: 229

Report Due: 07/22/2005

Sep1 DT/Tm Tech: NA

Batch: 5161163 WATER ug/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech: NA

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:
1 HC5AA-1-AE J5F070383-2-SAMP 06/07/2005 09:57		24.80g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4				Scr Rst: Alpha: 1.77E+02 pCi/L	Beta: 6.85E+01 pCi/L 10.0
2 HC5AC-1-AE J5F070383-3-SAMP 06/07/2005 09:15		9.70g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4				Scr Rst: Alpha: 8.79E+03 pCi/L	Beta: 4.69E+03 pCi/L
3 HC5AF-1-AE J5F070385-1-SAMP 06/07/2005 11:44		27.40g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4				Scr Rst: Alpha: 9.20E+01 pCi/L	Beta: 3.75E+01 pCi/L
4 HC5AF-1-AF-S J5F070385-1-MS 06/07/2005 11:44		26.80g,in AmtRec: VIAL20,500P,2XLP	UNSF2464 05/31/05,pd 09/16/04,r #Containers: 4				Scr Rst: Alpha: 9.20E+01 pCi/L	Beta: 3.75E+01 pCi/L
5 HC5AF-1-AG-X J5F070385-1-DUP 06/07/2005 11:44		27.80g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4				Scr Rst: Alpha: 9.20E+01 pCi/L	Beta: 3.75E+01 pCi/L
6 HC5AG-1-AE J5F070385-2-SAMP 06/07/2005 09:00		24.10g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4				Scr Rst: Alpha: 1.61E+02 pCi/L	Beta: 4.84E+01 pCi/L
7 HC5AH-1-AE J5F070385-3-SAMP 06/07/2005 10:12		24.10g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4				Scr Rst: Alpha: 1.73E+02 pCi/L	Beta: 7.89E+01 pCi/L

6/22/2005 9:36:10 AM

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 #: 229

Report Due: 07/22/2005

Sep1 DT/Tm Tech: NA

Batch: 5161163 ug/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech: NA

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 HC5AJ-1-AE J5F070385-4-SAMP 06/07/2005 10:12		24.90g,in AmtRec: VIAL20,500P,2XLP #Containers: 4					Scr Rst: Alpha: 2.06E+02 pCi/L	Beta: 8.02E+01 pCi/L 10.0
9 HC5AK-1-AE J5F070385-5-SAMP 06/07/2005 12:50		28.60g,in AmtRec: VIAL20,500P,2XLP #Containers: 4					Scr Rst: Alpha: 1.80E+02 pCi/L	Beta: 6.85E+01 pCi/L
10 HC74X-1-AC J5F080413-1-SAMP 06/08/2005 11:53		28.90g,in AmtRec: VIAL20,2X500P #Containers: 3					Scr Rst: Alpha: 1.43E+02 pCi/L	Beta: 6.04E+01 pCi/L
11 HC741-1-AC J5F080413-2-SAMP 06/08/2005 10:11		28.50g,in AmtRec: VIAL20,2X500P #Containers: 3					Scr Rst: Alpha: 6.75E+00 pCi/L	Beta: 9.61E+00 pCi/L
12 HC745-1-AK J5F080416-1-SAMP 06/08/2005 13:21		29.90g,in AmtRec: VIAL20,500P,8XLP,4LP #Containers: 11					Scr Rst: Alpha: 2.31E+02 pCi/L	Beta: 1.16E+02 pCi/L
13 HC75R-1-AF J5F080419-1-SAMP 06/08/2005 09:18		10.60g,in AmtRec: VIAL20,2X500P,2XLP #Containers: 5					Scr Rst: Alpha: 1.43E+04 pCi/L	Beta: 8.66E+03 pCi/L
14 HC752-1-AD J5F080421-1-SAMP 06/08/2005 09:57		26.80g,in AmtRec: VIAL20,2X500P,LP #Containers: 4					Scr Rst: Alpha: 5.68E+01 pCi/L	Beta: 3.47E+01 pCi/L

6/22/2005 9:36:10 AM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #: 229
Sep1 DT/Tm Tech: NA
Sep2 DT/Tm Tech: NA
Prep Tech: ,GiroirB

Report Due: 07/22/2005

Batch: 5161163 ug/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15HDCM6-1-AA-B J5F100000-163-BLK 06/07/2005 11:44		27.20g,in AmtRec:	#Containers: 1				Scr Rst:	Alpha: Beta:
16HDCM6-1-AC-C J5F100000-163-LCS 06/07/2005 11:44		24.60g,in AmtRec:	UNSF2465 05/31/05,pd 09/16/04,r #Containers: 1				Scr Rst:	Alpha: Beta:
17HDCM6-1-AD-C J5F100000-163-LCS 06/07/2005 11:44		AmtRec:	#Containers: 1				Scr Rst:	Alpha: Beta:

Comments: HC5AC-SAMP "Comments: unat reduced vol as determined by sample screen activity. Bg"
HC75R-SAMP "Comments: unat reduced vol as determined by sample screen activity. Bg"

pH verified in Sa Prep @ ≤2. Bg

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

HC5AA1AE-SAMP Constituent List:

Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:
HC5AF1AF-MS:					
HDCM61AA-BLK:					
Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:
HDCM61AC-LCS:					
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20
HDCM61AD-LCS:					
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20

HC5AA1AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

6/22/2005 9:36:11 AM

Sample Preparation/Analysis

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

Report Due: 07/22/2005

Balance Id:
Pipet #: 229
Sep1 DT/Tm Tech: NA
Sep2 DT/Tm Tech: NA
Prep Tech:

Batch: 5161163 ug/L
SEQ Batch, Test: None

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

HC5AF1AF-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCM61AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCM61AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HDCM61AD-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/27/2005 8:54:07 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/27/2004, 8/1/2005, Batch: '5161163', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5161163						
AC		**Cnt1C**	**GiroirB**	6/16/2005 11:05:25		
SC			heidelbergt	IsBatched	6/10/2005 7:40:01 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	6/16/2005 11:05:25 AM	RICH-RC-5015 REVISION 4
SC			GiroirB	Prep1C	6/24/2005 6:39:52 AM	RICH-RC-5015 REVISION 4
SC			ManisD	InCnt1	6/29/2005 7:05:30 AM	RICH-RC-5058 REVISION 6
SC			BarbosaH	InCnt1	7/19/2005 11:43:23 AM	RICH-RC-5058 REVISION 6
SC			BarbosaH	Cnt1C	7/19/2005 2:12:46 PM	RICH-RC-5058 REVISION 6
AC			**GiroirB**	6/24/2005 6:39:52		
AC			**ManisD**	6/29/2005 7:05:30		
AC			**BarbosaH**	7/19/2005 11:43:23		
AC			**BarbosaH**	7/19/2005 2:12:46 PM		

AC: Accepting Entry; SC: Status Change

SEVERN TRENT STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 9-22-05

CUSTOMER PGW

ANALYSIS Uranat

MATRIX water

LOT NUMBER JSF070385

SAMPLE DELIVERY GROUP 60

OLD BATCH NUMBER 516163

NEW BATCH NUMBER 520136

LAB SAMPLE ID		REASON FOR REQUEST & ANALYSIS COMMENTS
1) HC5AF1AE		dup sent use 10ml aliquot
2) HC5AF1A6	X	
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID		Assigned with new batch.

7/20/2005 11:48:20 AM

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 #: _____

Report Due: 07/22/2005 W04675

Sep1 DT/Tm Tech:

Batch: 5201326 ug/L

PM, Quote: SS , 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:
1 HC5AF-2-AE J5F070385-1-SAMP 06/07/2005 11:44		9.90g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4				Scr Rst: Alpha: 9.20E+01 pCi/L	Beta: 3.75E+01 pCi/L
2 HC5AF-2-AG-X J5F070385-1-DUP 06/07/2005 11:44		9.90g,in AmtRec: VIAL20,500P,2XLP	#Containers: 4				Scr Rst: Alpha: 9.20E+01 pCi/L	Beta: 3.75E+01 pCi/L
3 HFV4E-1-AA-B J5G200000-326-BLK 06/07/2005 11:44		30.90g,in AmtRec:	#Containers: 1				Scr Rst: Alpha:	Beta:
4 HFV4E-1-AC-C J5G200000-326-LCS 06/07/2005 11:44		26.70g,in AmtRec:	UNSF-2494 #Containers: 1				Scr Rst: Alpha:	Beta:
5 HFV4E-1-AD-C J5G200000-326-LCS 06/07/2005 11:44		AmtRec:	#Containers: 1				Scr Rst: Alpha:	Beta:

Comments: HC5AF-SAMP "Comments: Unat vol reduced on reanal due to sample activity. Bg"

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

HC5AF2AE-SAMP Constituent List:

7/20/2005 11:48:22 AM

Sample Preparation/Analysis

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

Report Due: 07/22/2005

Batch: 5201326 ug/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:

```
 Uranium      RDL:1.44E-01    ug/L      LCL:       UCL:       RPD:
HFV4E1AA-BLK:
 Uranium      RDL:1.44E-01    ug/L      LCL:       UCL:       RPD:
HFV4E1AC-LCS:
 Uranium      RDL:0.144343    ug/L      LCL:70     UCL:130    RPD:20
HFV4E1AD-LCS:
 Uranium      RDL:0.144343    ug/L      LCL:70     UCL:130    RPD:20

HC5AF2AE-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HFV4E1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HFV4E1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HFV4E1AD-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

7/27/2005 8:51:13 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/27/2004, 8/1/2005, Batch: '5201326', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5201326						
AC		**Cnt1C**	**GiroirB**	7/20/2005 11:37:50		
SC			andersonp	IsBatched	7/20/2005 11:17:05 AM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	7/20/2005 11:37:50 AM	RICH-RC-5015 REVISION 4
SC			GiroirB	Prep1C	7/20/2005 11:52:39 AM	RICH-RC-5015 REVISION 4
SC			ScottM	Prep1C	7/23/2005 11:46:37 AM	RICH-RC-5015 REVISION 4
SC			ManisD	InCnt1	7/26/2005 8:26:14 AM	RICH-RC-5058 REVISION 6
SC			ManisD	Cnt1C	7/26/2005 4:27:48 PM	RICH-RC-5058 REVISION 6
AC			**GiroirB**	7/20/2005 11:52:39		
AC			**ScottM**	7/23/2005 11:46:37		
AC			**ManisD**	7/26/2005 8:26:14		
AC			**ManisD**	7/26/2005 4:27:48 PM		

AC: Accepting Entry; SC: Status Change