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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: 32824

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04934	W06-005	B1J7R4	J6E240385-1	H54252AA	9H542520	6193188
		B1J481	J6E250403-1	H57921AA	9H579210	6156436
		B1J477	J6E250403-2	H57961AA	9H579610	6156436
		B1J473	J6E250403-3	H57971AA	9H579710	6156436
		B1J3Y1	J6E250403-4	H57991AA	9H579910	6156436
		B1J469	J6E250403-5	H58AC1AA	9H58AC10	6156436
	I06-037	B1J587	J6E250405-1	H58A11AA	9H58A110	6156448
		B1J587	J6E250405-1	H58A11AC	9H58A110	6156451
		B1J587	J6E250405-1	H58A11AD	9H58A110	6156436
		B1J587	J6E250405-1	H58A11AE	9H58A110	6156445
		B1J590	J6E250407-1	H58CA1AA	9H58CA10	6156448
		B1J590	J6E250407-1	H58CA1AC	9H58CA10	6156451
		B1J590	J6E250407-1	H58CA1AD	9H58CA10	6156436
		B1J590	J6E250407-1	H58CA1AE	9H58CA10	6156445
	W06-005	B1J493	J6E250408-1	H58CQ1AA	9H58CQ10	6156436

Comments:

1217011

Report Nbr: 32824

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04934	W06-005	B1J489	J6E250408-2	H58CR1AA	9H58CR10	6156436
		B1J485	J6E250408-3	H58CT1AA	9H58CT10	6156436
	I06-037	B1J581	J6E300120-1	H6DXN1AA	9H6DXN10	6156448
		B1J581	J6E300120-1	H6DXN1AC	9H6DXN10	6156451
		B1J581	J6E300120-1	H6DXN1AD	9H6DXN10	6156436
		B1J581	J6E300120-1	H6DXN1AE	9H6DXN10	6156445
		B1J575	J6E300120-2	H6DX41AA	9H6DX410	6156448
		B1J575	J6E300120-2	H6DX41AC	9H6DX410	6156451
		B1J575	J6E300120-2	H6DX41AD	9H6DX410	6156436
		B1J575	J6E300120-2	H6DX41AE	9H6DX410	6156445
		B1J578	J6E300120-3	H6D0C1AA	9H6D0C10	6156451
		B1J578	J6E300120-3	H6D0C1AC	9H6D0C10	6156436
		B1J578	J6E300120-3	H6D0C1AD	9H6D0C10	6156445
	S06-004	B1HW89	J6E300128-1	H6D011AA	9H6D0110	6156448
		B1HW92	J6E300128-2	H6D031AA	9H6D0310	6156453
		B1HW92	J6E300128-2	H6D031AC	9H6D0310	6156459
	I06-037	B1J584	J6E300129-1	H6D1G1AA	9H6D1G10	6156448
		B1J584	J6E300129-1	H6D1G1AC	9H6D1G10	6156451
	I06-038	B1J5K3	J6E310320-1	H6GP61AA	9H6GP610	6156448
		B1J5K3	J6E310320-1	H6GP61AC	9H6GP610	6156436
		B1J5K3	J6E310320-1	H6GP61AD	9H6GP610	6156445
		B1J5J1	J6E310320-2	H6GQA1AA	9H6GQA10	6156448
		B1J5J1	J6E310320-2	H6GQA1AC	9H6GQA10	6156451
		B1J5J1	J6E310320-2	H6GQA1AD	9H6GQA10	6156455
		B1J5J1	J6E310320-2	H6GQA1AE	9H6GQA10	6156436
		B1J5F5	J6E310320-3	H6GQF1AA	9H6GQF10	6156448

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04934	I06-038	B1J5F5	J6E310320-3	H6GQF1AC	9H6GQF10	6156451
		B1J5F5	J6E310320-3	H6GQF1AD	9H6GQF10	6156455
		B1J5F5	J6E310320-3	H6GQF1AE	9H6GQF10	6156436

Comments:

SEVERN TRENT STL

STL Richland
2800 George Washington Way
Richland, WA 99354

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

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

July 27, 2005

Attention: Dot Stewart

SAF Number	:	W06-005, I06-037, S06-004, I06-038
Date SDG Closed	:	May 30, 2006
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W04934
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between May 24, 2006 and May 30, 2006, twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	MATRIX	DATE OF RECEIPT
B1J7R4	H5425	WATER	5/24/06
B1J481	H5792	WATER	5/24/06
B1J477	H5796	WATER	5/24/06
B1J473	H5797	WATER	5/25/06
B1J3Y1	H5799	WATER	5/25/06
B1J469	H58AC	WATER	5/25/06
B1J587	H58A1	WATER	5/25/06
B1J590	H58CA	WATER	5/25/06
B1J493	H58CQ	WATER	5/25/06
B1J489	H58CR	WATER	5/25/06
B1J485	H58CT	WATER	5/25/06
B1J581	H6DXN	WATER	5/26/06
B1J575	H6DX4	WATER	5/26/06

B1J578	H6D0C	WATER	5/26/06
B1HW89	H6D01	WATER	5/26/06
B1HW92	H6D03	WATER	5/26/06
B1J584	H6D1G	WATER	5/26/06
B1J5K3	H6GP6	WATER	5/26/06
B1J5J1	H6GQA	WATER	5/30/06
B1J5F5	H6GQF	WATER	5/30/06

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Gas Proportional Counting
Gross Beta by method RICH-RC-5014
Strontium-90 by method RICH-RC-5006
Gamma Spectroscopy
Iodine-129 (LL) by method RICH-RC-5025
Liquid Scintillation Counting
Enriched Tritium by method RICH-RC-5024
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Nickel 63 by method RICH-RC-5069
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Beta by method RICH-RC-5014:
Reduced volumes were analyzed for sample B1HW92 based on an elevated screen results. The LCS, batch blank, samples and sample duplicate (B1HW92) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006
The LCS, batch blank, samples and sample duplicate (B1J5J1) results are within contractual requirements.

Gamma Spectroscopy

Iodine-129 (LL) by method RICH-RC-5025:
The LCS, batch blank, samples and sample duplicate (B1J584) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:
The LCS, batch blank, samples, sample duplicate (B1J493), and sample matrix spike (B1J489) results are within contractual requirements.

Tritium by method RICH-RC-5007:
The LCS, batch blank, samples and sample duplicate (B1J581) results are within contractual requirements.

Enriched Tritium by method RICH-RC-5024
The LCS, batch blank, samples and sample duplicate (B1HW92) results are within contractual requirements.

Nickel 63 by method RICH-RC- 5069:
Due to low yields on the first analysis the samples had to be reanalyzed. There was insufficient volume for a duplicate. The LCS, batch blank and samples results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:
The matrix spike has a 30% recovery. It is overwhelmed by the amount of uranium in the sample.
The LCS, batch blank, samples, sample duplicate (B1J587), and sample matrix spike (B1J590) results are within contractual requirements.

Pacific Northwest National Laboratories
July 27, 2006

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

Reviewed and approved:

Sandra Segu

Sherryl A. Adam
for Project Manager

Drinking Water Method Cross References

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

Uncertainty Estimation

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

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

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

Report Definitions

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

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 32824 File Name: h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.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:
9H542520	B1J7R4		MW6-SBB-A1	W06-005	W04934					05/24/2006 09:26

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6193188	NI-63	13981-37-8	5.71E+01	pCi/L	4.3E+00	8.9E+00		7.41E+00	93.7	NI63_LSC	1.93E-01	L	07/19/200 01:18	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H579210	B1J481		MW6-SBB-A1	W06-005	W04934					05/25/2006 12:26

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156436	TC-99	14133-76-7	7.44E+02	pCi/L	1.5E+01	5.0E+01		9.99E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	07/08/200 05:56	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:
9H579610	B1J477		MW6-SBB-A1	W06-005	W04934					05/25/2006 11:39

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156436	TC-99	14133-76-7	3.93E+01	pCi/L	5.3E+00	7.9E+00		9.93E+00	100.0	TC99_ETVDSK_LS	1.254E-01	L	07/08/200 06:59	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H579710	B1J473		MW6-SBB-A1	W06-005	W04934					05/25/2006 10:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156436	TC-99	14133-76-7	2.83E+02	pCi/L	9.9E+00	2.3E+01		9.91E+00	100.0	TC99_ETVDSK_LS	1.257E-01	L	07/08/200 08:01	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:
9H579910	B1J3Y1		MW6-SBB-A1	W06-005	W04934					05/25/2006 11:50

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156436	TC-99	14133-76-7	2.43E+01	pCi/L	4.9E+00	7.0E+00		9.92E+00	100.0	TC99_ETVDSK_LS	1.255E-01	L	07/08/200 09:04	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:
9H58A110	B1J587		MW6-SBB-A1	I06-037	W04934					05/25/2006 09:21

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156448	H-3	10028-17-8	4.54E+02	pCi/L	1.4E+02	1.5E+02		2.96E+02	100.0	906.0_H3_LSC	5.00E-03	L	07/11/200 23:55	I
6156451	I-129L	15046-84-1	8.59E-01	pCi/L	2.9E-01	2.9E-01	U	4.87E-01	95.4	I129LL_SEP_LEPS	3.917E+00	L	07/07/200 15:07	I
6156436	TC-99	14133-76-7	7.59E+02	pCi/L	1.5E+01	5.1E+01		1.00E+01	100.0	TC99_ETVDSK_LS	1.242E-01	L	07/08/200 11:09	I
6156445	Uranium	7440-61-1	1.43E+02	ug/L	1.7E+01	1.7E+01		8.09E-02		UTOT_KPA	2.59E-02	ML	07/13/200 14:29	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:

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.

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H58AC10	B1J469		MW6-SBB-A1	W06-005	W04934					05/25/2006 09:06

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156436	TC-99	14133-76-7	2.50E+01	pCi/L	5.0E+00	7.1E+00		1.01E+01	100.0	TC99_ETVDSK_LS	1.243E-01	L	07/08/200 10:07	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:
9H58CA10	B1J590		MW6-SBB-A1	I06-037	W04934					05/25/2006 08:36

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156448	H-3	10028-17-8	1.93E+02	pCi/L	1.3E+02	1.4E+02	U	2.96E+02	100.0	906.0_H3_LSC	5.00E-03	L	07/12/200 01:16	I
6156451	I-129L	15046-84-1	1.20E+00	pCi/L	2.8E-01	2.8E-01		2.44E-01	98.1	I129LL_SEP_LEPS	3.9092E+00	L	07/07/200 15:08	I
6156436	TC-99	14133-76-7	2.65E+02	pCi/L	9.7E+00	2.1E+01		9.86E+00	100.0	TC99_ETVDSK_LS	1.263E-01	L	07/08/200 12:12	I
6156445	Uranium	7440-61-1	2.38E+02	ug/L	2.8E+01	2.8E+01		8.45E-02		UTOT_KPA	2.48E-02	ML	07/13/200 14:35	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:
9H58CQ10	B1J493		MW6-SBB-A1	W06-005	W04934					05/25/2006 10:47

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156436	TC-99	14133-76-7	1.31E+03	pCi/L	2.0E+01	8.5E+01		9.88E+00	100.0	TC99_ETVDSK_LS	1.261E-01	L	07/08/200 13:15	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:
9H58CR10	B1J489		MW6-SBB-A1	W06-005	W04934					05/25/2006 10:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156436	TC-99	14133-76-7	1.27E+03	pCi/L	2.0E+01	8.2E+01		9.83E+00	100.0	TC99_ETVDSK_LS	1.267E-01	L	07/08/200 15:20	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H58CT10	B1J485		MW6-SBB-A1	W06-005	W04934					05/25/2006 09:14

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156436	TC-99	14133-76-7	2.41E+02	pCi/L	9.3E+00	2.0E+01		9.93E+00	100.0	TC99_ETVDSK_LS	1.254E-01	L	07/08/200 18:27	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H6D0110	B1HW89		MW6-SBB-A1	S06-004	W04934					05/26/2006 10:01

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156448	H-3	10028-17-8	5.90E+01	pCi/L	1.2E+02	1.4E+02	U	2.96E+02	100.0	906.0_H3_LSC	5.00E-03	L	07/12/200 06:44	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H6D0310	B1HW92		MW6-SBB-A1	S06-004	W04934					05/26/2006 10:01

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: 32824 File Name: h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156453	BETA	12587-47-2	5.17E+00	pCi/L	1.8E+00	1.9E+00		3.13E+00	100.0	9310_ALPHABETA	1.911E-01	L	07/10/200 16:59	I
6156459	H-3	10028-17-8	7.58E+00	pCi/L	4.8E+00	7.1E+00		7.12E+00	100.0	TRITIUM_ELECT_L	1.50E-01	L	07/22/200 12:47	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:
9H6D0C10	B1J578		MW6-SBB-A1	I06-037	W04934					05/26/2006 09:44

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156451	I-129L	15046-84-1	1.13E-02	pCi/L	1.4E-01	1.4E-01	U	2.58E-01	97.3	I129LL_SEP_LEPS	3.9393E+00	L	07/07/200 17:27	I
6156436	TC-99	14133-76-7	7.83E+01	pCi/L	6.3E+00	1.0E+01		1.01E+01	100.0	TC99_ETVDSK_LS	1.241E-01	L	07/08/200 21:35	I
6156445	Uranium	7440-61-1	8.95E-01	ug/L	9.3E-02	9.3E-02		8.22E-02		UTOT_KPA	2.55E-02	ML	07/13/200 14:44	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H6D1G10	B1J584		MW6-SBB-A1	I06-037	W04934					05/26/2006 12:41

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156448	H-3	10028-17-8	1.52E+04	pCi/L	4.1E+02	7.7E+02		2.96E+02	100.0	906.0_H3_LSC	5.00E-03	L	07/12/200 08:05	I
6156451	I-129L	15046-84-1	2.33E-01	pCi/L	1.5E-01	1.5E-01	U	3.19E-01	97.8	I129LL_SEP_LEPS	3.9383E+00	L	07/07/200 17:27	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H6DX410	B1J575		MW6-SBB-A1	I06-037	W04934					05/26/2006 10:23

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156448	H-3	10028-17-8	1.02E+04	pCi/L	3.4E+02	5.6E+02		2.96E+02	100.0	906.0_H3_LSC	5.00E-03	L	07/12/200 05:22	I
6156451	I-129L	15046-84-1	3.04E+00	pCi/L	5.3E-01	5.3E-01		3.71E-01	98.1	I129LL_SEP_LEPS	3.9524E+00	L	07/07/200 17:26	I
6156436	TC-99	14133-76-7	3.27E+02	pCi/L	1.1E+01	2.5E+01		9.90E+00	100.0	TC99_ETVDSK_LS	1.261E-01	L	07/08/200 20:32	I
6156445	Uranium	7440-61-1	4.51E+00	ug/L	4.6E-01	4.6E-01		8.55E-02		UTOT_KPA	2.45E-02	ML	07/13/200 14:42	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:
9H6DXN10	B1J581		MW6-SBB-A1	I06-037	W04934					05/26/2006 12:42

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156448	H-3	10028-17-8	8.77E+03	pCi/L	3.2E+02	5.1E+02		2.96E+02	100.0	906.0_H3_LSC	5.00E-03	L	07/12/200 02:38	I
6156451	I-129L	15046-84-1	8.12E-01	pCi/L	2.7E-01	2.7E-01	U	4.64E-01	96.2	I129LL_SEP_LEPS	3.9428E+00	L	07/07/200 15:09	I
6156436	TC-99	14133-76-7	9.77E+02	pCi/L	1.7E+01	6.4E+01		1.00E+01	100.0	TC99_ETVDSK_LS	1.243E-01	L	07/08/200 19:30	I
6156445	Uranium	7440-61-1	2.65E+00	ug/L	2.7E-01	2.7E-01		8.09E-02		UTOT_KPA	2.59E-02	ML	07/13/200 14:40	I

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

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

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9H6GP610	B1J5K3		MW6-SBB-A1	I06-038	W04934					05/30/2006 11:03

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156448	H-3	10028-17-8	1.82E+03	pCi/L	1.8E+02	2.1E+02		2.95E+02	100.0	906.0_H3_LSC	5.00E-03	L	07/12/200 09:27	I
6156436	TC-99	14133-76-7	1.93E+00	pCi/L	4.2E+00	5.7E+00	U	9.99E+00	100.0	TC99_ETVDSK_LS	1.252E-01	L	07/08/200 22:37	I
6156445	Uranium	7440-61-1	8.51E+00	ug/L	8.7E-01	8.7E-01		8.38E-02		UTOT_KPA	2.50E-02	ML	07/13/200 14:46	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:
9H6GQA10	B1J5J1		MW6-SBB-A1	I06-038	W04934					05/30/2006 10:18

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156448	H-3	10028-17-8	-4.54E+00	pCi/L	1.2E+02	1.3E+02	U	2.97E+02	100.0	906.0_H3_LSC	5.00E-03	L	07/12/200 14:54	I
6156451	I-129L	15046-84-1	7.75E-02	pCi/L	1.4E-01	1.4E-01	U	2.31E-01	97.3	I129LL_SEP_LEPS	3.9483E+00	L	07/07/200 19:26	I
6156455	SR-90	10098-97-2	3.07E-01	pCi/L	2.2E-01	2.3E-01	U	4.21E-01	76.2	SRISO_SEP_PRE	1.0002E+00	L	07/09/200 09:45	I
6156436	TC-99	14133-76-7	7.91E+01	pCi/L	6.4E+00	1.0E+01		1.01E+01	100.0	TC99_ETVDSK_LS	1.239E-01	L	07/08/200 23:40	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:
9H6GQF10	B1J5F5		MW6-SBB-A1	I06-038	W04934					05/30/2006 09:08

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6156448	H-3	10028-17-8	5.53E+02	pCi/L	1.4E+02	1.6E+02		2.96E+02	100.0	906.0_H3_LSC	5.00E-03	L	07/12/200 16:16	I
6156451	I-129L	15046-84-1	-1.24E-01	pCi/L	1.0E-01	1.0E-01	U	1.53E-01	97.3	I129LL_SEP_LEPS	3.8995E+00	L	07/07/200 19:27	I
6156455	SR-90	10098-97-2	6.41E-02	pCi/L	1.9E-01	1.9E-01	U	4.04E-01	77.0	SRISO_SEP_PRE	1.0002E+00	L	07/09/200 09:45	I
6156436	TC-99	14133-76-7	4.53E+01	pCi/L	5.5E+00	8.3E+00		1.00E+01	100.0	TC99_ETVDSK_LS	1.247E-01	L	07/09/200 00:42	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 27, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6P901AB	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/26/2006 10:01
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 05/26/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156453	BETA	-1.16E-01	pCi/L	1.3E+00	U	2.99E+00	100.0		9310_ALPHAB	1.991E-01	07/10/2006				D
BLK	12587-47-2			1.3E+00						L	16:59				

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

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6P921AB	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/30/2006 10:18
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 05/30/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156455	SR-90	8.55E-02	pCi/L	2.3E-01	U	4.89E-01	66.6		SRISO_SEP_P	1.0018E+00	07/09/2006				D
BLK	10098-97-2			2.3E-01						L	09:45				

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.

Thursday, July 27, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6P971AB **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/26/2006 10:01

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 05/26/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156459	H-3	4.25E+00	pCi/L	7.1E+00	U	7.05E+00	100.0		TRITIUM_ELE	1.50E-01	07/22/2006				D
BLK	10028-17-8			4.9E+00						L	10:12				

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 27, 2006

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6P9G1AB	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/25/2006 10:47
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 05/25/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156436	TC-99	-2.80E+00	pCi/L	5.4E+00	U	9.85E+00	100.0		TC99_ETVDSK	1.264E-01	07/09/2006				D
BLK	14133-76-7			4.0E+00						L	01:45				

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\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6P9L1AB	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/25/2006 09:21
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 05/25/2006

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
6156445	Uranium	8.00E-03	ug/L	2.2E-03	U	8.22E-02			UTOT_KPA	2.55E-02	07/13/2006				D
BLK	7440-61-1			2.2E-03						ML	14:18				

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

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6P9P1AB	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/26/2006 12:42
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 05/26/2006

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
6156448	H-3	1.25E+00	pCi/L	1.3E+02	U	2.91E+02	100.0		906.0_H3_LSC	5.00E-03	07/11/2006				D
BLK	10028-17-8			1.2E+02						L	21:11				

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\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6P9P1DX	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/26/2006 12:42
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 05/26/2006

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
6156448	H-3	-2.33E+01	pCi/L	1.3E+02	U	2.96E+02	100.0		906.0_H3_LSC	5.00E-03	07/12/2006				D
BLK	10028-17-8			1.2E+02						L	12:11				

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\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6P9V1AB	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/26/2006 12:41
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 05/26/2006

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
6156451	I-129L	-1.25E-02	pCi/L	1.3E-01	U	2.43E-01	95.1		I129LL_SEP_L	4.0114E+00	07/07/2006				D
BLK	15046-84-1			1.3E-01						L	21:22				

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\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H82G11AB	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/24/2006 09:26
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 05/24/2006

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
6193188	NI-63	2.50E+00	pCi/L	2.8E+00	U	3.67E+00	91.2		NI63_LSC	4.011E-01	07/19/2006				D
BLK	13981-37-8			1.6E+00						L	03:00				

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

Thursday, July 27, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6P901CS **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/26/2006 10:01

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/26/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156453	BETA	2.31E+01	pCi/L	3.8E+00		2.60E+00	100.0	2.27E+01	9310_ALPHAB	2.00E-01	07/10/2006			70	D
BS	12587-47-2			2.5E+00				101.7		L	16:59			130	

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

Thursday, July 27, 2006

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6P921CS	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/30/2006 10:18
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 05/30/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156455	SR-90	1.64E+01	pCi/L	2.6E+00		4.37E-01	71.4	1.42E+01	SRISO_SEP_P	1.0006E+00	07/09/2006			70	D
BS	10098-97-2			9.1E-01				115.5		L	09:45			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 Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6P971CS **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/26/2006 10:01

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/26/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156459	H-3	4.99E+02	pCi/L	9.3E+01		7.35E+00	100.0	4.66E+02	TRITIUM_ELE	1.50E-01	07/22/2006			70	D
BS	10028-17-8			1.9E+01				107.2		L	11:30			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6P9G1CS **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/25/2006 10:47

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/25/2006

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
6156436	TC-99	5.15E+02	pCi/L	3.7E+01		9.91E+00	100.0	5.45E+02	TC99_ETVDSK	1.258E-01	07/09/2006			70	D
BS	14133-76-7			1.3E+01				94.5		L	02:47			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\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6P9L1CS **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/25/2006 09:21

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/25/2006

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
6156445	Uranium	3.42E+00	ug/L	3.5E-01		8.42E-02		3.69E+00	UTOT_KPA	2.49E-02	07/13/2006			70	D
BS	7440-61-1			3.5E-01				92.8		ML	14:23			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6P9L1DS	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/25/2006 09:21
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 05/25/2006

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
6156445	Uranium	3.41E+01	ug/L	4.0E+00		8.00E-02		3.44E+01	UTOT_KPA	2.62E-02	07/13/2006			70	D
BS	7440-61-1			4.0E+00				99.3		ML	14:25			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\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6P9P1CS **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/26/2006 12:42

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/26/2006

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
6156448	H-3	2.63E+03	pCi/L	2.5E+02		2.90E+02	100.0	2.73E+03	906.0_H3_LSC	5.00E-03	07/11/2006			70	D
BS	10028-17-8			2.0E+02				96.2		L	22:33			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6P9P1EM **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/26/2006 12:42

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/26/2006

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
6156448	H-3	2.55E+03	pCi/L	2.5E+02		2.96E+02	100.0	2.73E+03	906.0_H3_LSC	5.00E-03	07/12/2006			70	D
BS	10028-17-8			2.0E+02				93.5		L	13:33			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6P9V1CS **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/26/2006 12:41

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/26/2006

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
6156451	I-129L	8.19E+00	pCi/L	1.1E+00		3.16E-01	90.7	9.71E+00	I129LL_SEP_L	4.0037E+00	07/07/2006			70	D
BS	15046-84-1			1.1E+00				84.3		L	21:23			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H82G11CS **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/24/2006 09:26

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/24/2006

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
6193188	NI-63	4.15E+02	pCi/L	3.2E+01		4.71E+00	71.3	3.80E+02	NI63_LSC	3.993E-01	07/19/2006			70	D
BS	13981-37-8			6.8E+00				109.0		L	04:42			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\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H58A11FR	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/25/2006 09:21
Client Id:	B1J587	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 05/25/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-037	MW6-SBB-A19981								AU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156445	Uranium	1.29E+02	ug/L	1.5E+01		8.22E-02			UTOT_KPA	2.55E-02	07/13/2006	9.8	1.2		D
DUP	7440-61-1	1.43E+02		1.5E+01						ML	14:33	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 27, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H58CQ1CR	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/25/2006 10:47
Client Id:	B1J493	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 05/25/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-005	MW6-SBB-A19981								AW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156436	TC-99	1.33E+03	pCi/L	8.6E+01		9.95E+00	100.0		TC99_ETVDSK	1.251E-01	07/08/2006	1.1	0.2		D
DUP	14133-76-7	1.31E+03		2.0E+01						L	14:17	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 27, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6D031DR **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/26/2006 10:01

Client Id: B1HW92 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 05/26/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S06-004	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
6156453	BETA	5.35E+00	pCi/L	1.9E+00		2.91E+00	100.0		9310_ALPHAB	1.909E-01	07/10/2006	3.3	0.1		D
DUP	12587-47-2	5.17E+00		1.7E+00						L	16:59	20.0	3		

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

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H6D031ER **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/26/2006 10:01

Client Id: B1HW92 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 05/26/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S06-004	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
6156459	H-3	2.79E+00	pCi/L	7.1E+00	U	7.09E+00	100.0		TRITIUM_ELE	1.50E-01	07/22/2006	92.4	1.		D
DUP	10028-17-8	7.58E+00		5.1E+00						L	14:05	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\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6D1G1DR	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/26/2006 12:41
Client Id:	B1J584	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 05/26/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-037	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
6156451	I-129L	1.90E-01	pCi/L	1.5E-01	U	3.11E-01	97.3		I129LL_SEP_L	3.8554E+00	07/07/2006	20.2	0.4		D
DUP	15046-84-1	2.33E-01		1.5E-01						L	19:25	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\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6DXN1FR	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/26/2006 12:42
Client Id:	B1J581	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 05/26/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-037	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
6156448	H-3	8.61E+03	pCi/L	5.0E+02		2.96E+02	100.0		906.0_H3_LSC	5.00E-03	07/12/2006	1.9	0.5		D
DUP	10028-17-8	8.77E+03		3.2E+02						L	04:00	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 27, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id:	H6GQA1FR	**Sdg/Rept Nbr:**	W04934	32824	**Collection Date:** 05/30/2006 10:18
Client Id:	B1J5J1	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 05/30/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-038	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
6156455	SR-90	2.45E-01	pCi/L	2.0E-01	U	3.78E-01	77.4		SRISO_SEP_P	1.0012E+00	07/09/2006	22.5	0.4		D
DUP	10098-97-2	3.07E-01		2.0E-01						L	09:45	20.0	3		

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

Thursday, July 27, 2006

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H58CA1FW **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/25/2006 08:36

Client Id: B1J590 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 05/25/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I06-037	MW6-SBB-A19981								AV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6156445	Uranium	1.05E+01	ug/L	4.1E+01	U	8.35E-02		3.59E+01	UTOT_KPA	2.51E-02	07/13/2006			60	D
MS	7440-61-1			4.1E+01				29.2		ML	14:37			140	

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

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04934.Edd, h:\Reportdb\edd\FeadIV\Rad\32824.Edd

Lab Sample Id: H58CR1CW **Sdg/Rept Nbr:** W04934 32824 **Collection Date:** 05/25/2006 10:11

Client Id: B1J489 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 05/25/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W06-005	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
6156436	TC-99	4.57E+03	pCi/L	2.8E+02		9.96E+00	100.0	3.63E+03	TC99_ETVDSK	1.25E-01	07/08/2006			60	D
MS	14133-76-7			3.7E+01				125.8		L	16:22			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

7/10/2006 2:56:50 PM

Lot No., Due Date: J6E250405,J6E250407,J6E300120,J6E300129,J6E310320; 07/14/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6156451; RGAMLEPS Gamma by LEPS

SDG, Matrix: W04934; 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** 7/10/06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6156451
W04934

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

Comments on any "No" response: _____

Second Level Review: Sherryl A Adam Date: 7-11-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/11/2006 3:46:01 PM

Lot No., Due Date: J6E300128; 07/14/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6156453; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W04934; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. OK	✓		
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => H6D031AA BETA 5.2E+00 L:3.1E+00		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

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

8.3 Comments:

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

First Level Review Pam Anderson **Date** 7-11-04

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 615645 3
W04934

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

Comments on any "No" response: _____

Second Level Review Sheryl A Adam Date: 7-15-04

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/10/2006 3:21:02 PM

Lot No., Due Date: J6E310320; 07/14/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6156455; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W04934; WATER

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level Review _____ **Date** 7/10/06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6156455
W04937

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

Comments on any "No" response:

Second Level Review: Sheryl R Adam Date: 7-11-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/21/2006 9:49:47 AM

Lot No., Due Date: J6E240385; 07/14/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6193188; RNI63 Ni-63 by LSC

SDG, Matrix: W04934; 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:
insufficent sample for duplicate.

First Level Review [signature] **Date** 7/21/06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6195188
W04934

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

Comments on any "No" response: See NCM

Second Level Review: Sheryl A. Albers Date: 7-21-06

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-08366**
NCM Initiated By: Steven Wheland
Date Opened: 07/21/2006
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Ni-63 by LSC
Lot #'s (Sample #'s): J6E240385 (1), J6G120000 (188),
QC Batches: 6193188

Nonconformance: Dups not within acceptance limits
Subcategory: Insufficient Volume for sample analysis

Problem Description / Root Cause

Name	Date	Description
Steven Wheland	07/21/2006	Insufficent sample for duplicate since this is a reanalysis and thus the amount of sample is limited. Sample being re-run due to low carrier yields the first time. Yield are acceptable with the reanalyses.

Corrective Action

Name	Date	Corrective Action
Steven Wheland	07/21/2006	Report this 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

7/10/2006 2:58:49 PM

Lot No., Due Date: J6E250403,J6E250405,J6E250407,J6E250408,J6E300120,J6E310320; 07/14/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6156436; RTC99 Tc-99 by LSC

SDG, Matrix: W04934; 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** 7/10/06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6156436
W04934

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

Comments on any "No" response:

Second Level Review: Sherryl A Adam Date: 7-11-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/13/2006 1:59:06 PM

Lot No., Due Date: J6E250405,J6E250407,J6E300128,J6E300129,J6E300120,J6E310320; 07/14/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6156448; RTRITIUM H-3 by LSC

SDG, Matrix: W04934; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => H58A11AA 5.00<10.00 H58CA1AA 5.00<10.00 H6DXN1AA 5.00<10.00 H6DX41AA 5.00<10.00 H6D011AA 5.00<10.00 H6D1G1AA 5.00<10.00 H6GP61AA 5.00<10.00 H6GQA1AA 5.00<10.00 H6GQF1AA 5.00<10.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. Count Geometry => H6P9P1AF SVP15/5<>SVP10/10 H6P9P1AG SVP15/5<>SVP10/10 H6P9P1AA SVP15/5<>SVP10/10 H6P9P1AC SVP15/5<>SVP10/10 H58A11AA SVP15/5<>SVP10/10 H58CA1AA SVP15/5<>SVP10/10 H6DXN1AA SVP15/5<>SVP10/10 H6DXN1AF SVP15/5<>SVP10/10 H6DX41AA SVP15/5<>SVP10/10 H6D011AA SVP15/5<>SVP10/10 H6D1G1AA SVP15/5<>SVP10/10 H6GP61AA SVP15/5<>SVP10/10 H6P9P1AH SVP15/5<>SVP10/10 H6P9P1AD SVP15/5<>SVP10/10 H6P9P1AE SVP15/5<>SVP10/10 H6GQA1AA SVP15/5<>SVP10/10 H6GQF1AA SVP15/5<>SVP10/10 Q:VC		✓	
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. OK	✓		
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. OK	✓		
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓

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

First Level Review Pam Anderson **Date** 7-13-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6156448

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

Comments on any "No" response:

Second Level Review: Sheryl A Adam Date: 7-13-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/24/2006 1:22:51 PM

Lot No., Due Date: J6E300128; 07/14/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6156459; RH3EE H3EE by LSC

SDG, Matrix: W04934; WATER

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 7-24-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: U156459
WO 4994

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

Comments on any "No" response:

Second Level Review: Sherryl A Adam Date: 7-24-06

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/14/2006 2:06:37 PM

Lot No., Due Date: J6E250405,J6E250407,J6E300120,J6E310320; 07/14/2006

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6156445; RUNAT UNat by KPA

SDG, Matrix: W04934; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => H6P9L1AC UNSC<>UNSF Q:V9		✓	
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used No Count Analysis Size found in Batch Data!			✓
8.07 The Correct Count Geometry was Used. No Count Geometry found in Batch Data!			✓
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. No Count Duration Field Found in Batch Data!			✓
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. MS Exceeds Control Limit => => H58CA1AF Uranium 29 L:60|140 Q:S1		✓	
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => H58A11AE Uranium 1.4E+02 L:8.1E-02 H58CA1AE Uranium 2.4E+02 L:8.5E-02 H6D0C1AD Uranium 8.9E-01 L:8.2E-02 H6DX41AE Uranium 4.5E+00 L:8.6E-02 H6DXN1AE Uranium 2.7E+00 L:8.1E-02 H6GP61AD Uranium 8.5E+00 L:8.4E-02		✓	
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => Uranium OK; No Callin Level Found => Uranium	✓		

D-08392

8.24 Result + 3s >=0, Not Too Negative. OK	Yes ✓	No	N/A
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson **Date** 7-14-06

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 61564445
W04934

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

Comments on any "No" response: See NCM

Second Level Review: Sheryl A Adam Date: 7-17-06

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-08342**
NCM Initiated By: Pam Anderson
Date Opened: 07/14/2006
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: UNat by KPA
Lot #'s (Sample #'s): J6E250407 (1),
QC Batches: 6156445

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

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	07/14/2006	The matrix spike has a 30% recovery. It is overwhelmed by the amount of uranium in the sample. Data accepted.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	07/14/2006	Note in case narrative.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

PNNL JGE240385 W04933 due 7-7-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W06-005-494

Page 1 of 1

Collector DURATEK D. E. PARCHEN	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MAY 2006	Logbook: DTS-SAWS-H105	**Ice Chest No.** GRP-03-021 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J7R4		W	5/24/06	0926	1x20-mL P	Activity Scan H5425	None
B1J7R4		W	↓	↓	1x1000-mL G/P	NI63_LSC: Nickel-63 (1)	HNO3 to pH <2

D. Wall 5/24/06

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D. E. PARCHEN			MAY 24 2006 1435	S. Welch		S. Welch	MAY 24 2006 1435
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5.24.06 14:35

Client: PGW SDG #: W04934 NA [ ] SAF #: W06-005 NA [ ]

Work Order Number: J6E240385 Chain of Custody # W06-005-494

Shipping Container ID: GRP-03-021 Air Bill # N/A

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

Sample Custodian: S. Welch Date: 5.24.06 14:35

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL JGE250403
W04934
Due 7-10-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-005-412**

Page 1 of 1

Collector L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MAY 2006	DTS Status 14/05	**Ice Chest No.** GRP 03-021 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J481		W	5-25-06	1224	1x20-mL P	Activity Scan H5792	None
B1J481		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
L. D. WALL	L. D. Wall		MAY 25 2006 1450	S. Welch	S. Welch		MAY 25 2006 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

PNNL J6E250403 W04934

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-005-406**

Page 1 of 1

Collector L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MAY 2006	DTS - SAW-S H 105	**Ice Chest No.** GRP 03-021 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J477		W	5-25-06	1139	1x20-mL P	Activity Scan H5796	None
B1J477		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
L. D. WALL	L. D. Wall		MAY 25 2006 1450	S. Welch	S. Welch		MAY 25 2006 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

PNNL JGE250403 W04934

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W06-005-400

Page 1 of 1

Collector L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MAY 2006	DTF SAMP H 105	**Ice Chest No.** GRP 03-021 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J473		W	5-25-05	1027	1x20-mL P	Activity Scan H5797	None
B1J473		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
L. D. WALL	L.D. Wall		MAY 25 2006 1450	S. Welch	S. Welch		MAY 25 2006 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

PNNL J6E250403
W04934

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W06-005-388

Page 1 of 1

Collector: DIGRATEK D. E. PARCHEN	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: W06-005	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, MAY 2006	SAWS-402	Ice Chest No.: GWS-106 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J3Y1		W	5-25-06	1150	1x20-mL P	Activity Scan H5799	None
B1J3Y1		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
DIGRATEK D. E. PARCHEN			MAY 25 2006 1450	S. Welch	S. Welch		MAY 25 2006 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

PNNL JGE250403 W04934

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-005-394**

Page 1 of 1

Collector DURATEK D. E. PARCHEN	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MAY 2006	SHWS-H 102	**Ice Chest No.** GWS 106 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J469		W	5 25 06	0466	1x20-mL P	Activity Scan H58AC	None
B1J469		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 E. PARCHEN			MAY 25 2006 1450	S. Welch			MAY 25 2006 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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5-25-06 1450

Client: PGW SDG #: W04934 NA [ ] SAF #: W06-005 NA [ ]

Work Order Number: JGE250403 Chain of Custody # W06-005-412, 406, 408, 388, 394

Shipping Container ID: GRP-03-021 Air Bill # N/A

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

Sample Custodian: S. Welch Date: 5-25-06 14:50

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J6E250405 W04934 Due 7.10.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I06-037-2

Collector L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-037	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOI, MAY 2006	DTS- SALS H 105	**Ice Chest No.** GRP 03-021 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J587		W	5-25-06	0921	1x1000-mL P	906.0_H3_LSC: Tritium (1) H58A1	None
B1J587		W	↓	↓	1x20-mL P	Activity Scan	None
B1J587		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1J587		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1J587		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
L. D. WALL	L. D. Wall		MAY 25 2006 1450	S. Welch	S. Welch		MAY 25 2006 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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5.25.06 14:50

Client: PGW SDG #: W04934 NA [ ] SAF #: I06-037 NA [ ]

Work Order Number: J6E250405 Chain of Custody # I06-037-2

Shipping Container ID: GRP-03-021 Air Bill # N/A

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

Sample Custodian: S. Welch Date: 5.25.06 14:50

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL JGE250407 W04934 Due 7-10-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I06-037-5

Page 1 of 1

Collector: GUHAREK D. R. BRENNINGTON	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I06-037	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2UP1-LOI, MAY 2006	DTS-SAWS-H104	Ice Chest No.: SMXL-442 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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J590		W	5/25/6	0836	1x1000-mL P	906.0_H3_LSC: Tritium (1) H58CA	None
B1J590		W	↓	↓	1x20-mL P	Activity Scan	None
B1J590		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1J590		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1J590		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Received By
GUHAREK D. R. BRENNINGTON Print / Sign / Date/Time 1800 MAY 25 2006	S. Welch Print / S. Welch Sign / Date/Time 1800 MAY 25 2006
Relinquished By / Date/Time	Received By / Date/Time
Relinquished By / Date/Time	Received By / Date/Time
Relinquished By / Date/Time	Received By / Date/Time

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5-25-06 15:00

Client: PGW SDG #: W04934 NA [ ] SAF #: I06-037 NA [ ]

Work Order Number: J6E250407 Chain of Custody # I06-037-5

Shipping Container ID: 5mL-442 Air Bill # N/A

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

Sample Custodian: S. Welch Date: 5-25-06 15:00

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

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PNNL J6E250408 W04934 Due 7-10-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-005-430**

Page 1 of 1

Collector D. R. BROWNGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MAY 2006	DTS-SAWS-H104	**Ice Chest No.** SML-442 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J493		W	5/25/06	1647	1x20-mL P	Activity Scan H58CQ	None
B1J493		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By D. R. BROWNGTON Print Sign MAY 25 2006 Date/Time 1800	Received By S. Welch Print S. Welch Sign MAY 25 2006 Date/Time 1800	Matrix *	
Relinquished By Date/Time	Received By Date/Time	S = Soil; SE = Sediment; SO = Solid; SL = Sludge; W = Water; O = Oil; A = Air	DS = Drum Solid; DL = Drum Liqui; T = Tissue; WI = Wine; L = Liquid; V = Vegetation; X = Other
Relinquished By Date/Time	Received By Date/Time		
Relinquished By Date/Time	Received By Date/Time		

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

PNNL J6E250408
W04934
due 7.10.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-005-424**

Page 1 of 1

Collector DURATEK D. R. BRIMINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MAY 2006	DTS-SAWS-H104	**Ice Chest No.** SML-442 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J489		W	5/25/6	1011	1x20-mL P	Activity Scan H58CR	None
B1J489		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D. R. BRIMINGTON	D.R. Brimington		MAY 25 2006 1500	S. Welch	S. Welch		MAY 25 2006 1500
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL JGE250408 W04934 Due 7-10-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W06-005-418**

Collector DURATEK D. R. BRIGHINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W06-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MAY 2006	DTS SAWS- H104	**Ice Chest No.** SMC-442 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J485		W	5/25/6	0914	1x20-mL P	Activity Scan H58CT	None
B1J485		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Date/Time	Received By	Date/Time
DURATEK D. R. BRIGHINGTON Print D.R. Brighington Sign MAY 25 2006	1500	S. Welch Print S. Welch Sign MAY 25 2006	1800
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5-25-06 15:00

Client: PGW SDG #: W04934 NA [ ] SAF #: W06-005 NA [ ]

Work Order Number: J6E250408 Chain of Custody # W06-005-430, 424, 418

Shipping Container ID: SMR-442 Air Bill # N/A

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

Sample Custodian: S. Welch Date: 5-25-06 15:00

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J6E300120 W04934

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-037-35**

Page 1 of 1

Collector L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-037	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOI, MAY 2006	DTS-SAWS H 105	**Ice Chest No.** CRP03-021 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J581		W	5-26-06	1242	1x1000-mL P	906.0_H3_LSC: Tritium (1) HG DXN	None
B1J581		W			1x20-mL P	Activity Scan	None
B1J581		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1J581		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1J581		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
L. D. WALL		L. D. Wall	MAY 26 2006 1410	DAVID HARBINSON			MAY 26 2006 1410
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL JLE300120 W04934

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I06-037-23

Page 1 of 1

Collector L. D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-037	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOL MAY 2006	DTS - SAWS H105	**Ice Chest No.** GRP03-021 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J575		W	5-26-06	1023	1x1000-mL P	906.0_H3_LSC: Tritium (1) H6DX4	None
B1J575		W			1x20-mL P	Activity Scan	None
B1J575		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1J575		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1J575		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
L. D. WALL	L. D. Wall		MAY 26 2006 1410	David HARBINSON			MAY 26 2006 1410
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL J6E300120
W04934
Due 7-10-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I06-037-29

Page 1 of 1

Collector L. D. WALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. I06-037	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2UP1-LOL MAY 2006	DTS - SAWS H105	Ice Chest No. GRP 03-021 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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J578		W	5-26-06	0944	1x20-mL P	Activity Scan HGDOC	None
B1J578		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1J578		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1J578		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
L. D. WALL			MAY 26 2006 1410		DAVID HARRISON		MAY 26 2006 1410
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5/26/06 14:10

Client: PGW SDG #: W04934 NA [ ] SAF #: I06-037 NA [ ]

Work Order Number: JLE300120 Chain of Custody # I06-037-29, I06-037-2 I06-037-3

Shipping Container ID: GRP03-021 Air Bill # N/A

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 17
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 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: [signature] Date: 5/26/06

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL JLE300128
W04934
due 7-10-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S06-004-192**

Collector DURATEK D. R. BRIMMINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S06-004	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV. APRIL 2006	DTS-SAWS-H104	**Ice Chest No.** SML-442 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1HW89		W	5/26/6	1001	1x1000-mL P	906.0_H3_LSC: Tritium (1) HGD01	None
B1HW89		W	↓	↓	1x20-mL P	Activity Scan	None

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
DURATEK D. R. BRIMMINGTON	D R Brimmington MAY 26 2006	1405	David H. Harbison	MAY 26 2006	1405
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

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

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

PNNL J6E300128 W04934 Due 7-10-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S06-004-198**

Page 1 of 1

Collected SGRATEK D.R. BRENNINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S06-004	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, APRIL 2006	DTS-SAWS-H104	**Ice Chest No.** SML-442 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1HW92		W	5/26/6	1200	1x20-mL P	Activity Scan H6D03	None
B1HW92		W	↓	↓	3x1000-mL P	TRITIUM_ELECT_LSC_LL: H-3 (1)	None
B1HW92		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2

Relinquished By	Date/Time	Received By	Date/Time
SGRATEK D.R. BRENNINGTON Print D.R. Brennington Sign MAY 26 2006	1405	DAVID HARRISON Print Sign MAY 26 2006	1405
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5/26/06 14:05

SW 5/30/06 Client: ~~DURATEK~~ PGW SDG #: W04934 NA [ ] SAF #: 506-004 NA [ ]

Work Order Number: J6E300128 506-004-192,198 SAA 6-1-06

Chain of Custody # ~~506-004-192~~, ~~I-06-03~~ SAA 6-1-06

Shipping Container ID: SML-442 Air Bill # N/A ~~506-004-198~~ 6-1-06

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: 14 SW 5-30-06
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 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: [signature] Date: 5/26/06

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J6E300129 W04934 Due 7-10-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-037-41**

Page 1 of 1

Collector DURATEK D R BRUMMINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-037	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOI, MAY 2006	DTS-SAWS-H104	**Ice Chest No.** SML-442 **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
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J584		W	5/26/6	1241	1x1000-mL P	906.0_H3_LSC: Tritium (1) HGDIG	None
B1J584		W	↓	↓	1x20-mL P	Activity Scan	None
B1J584		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

Relinquished By DURATEK D R BRUMMINGTON Print D.R. Brummington Sign MAY 26 2006 Date/Time 1405	Received By Print DAVID HARBISON Sign MAY 26 2006 Date/Time 1405	Matrix *	
Relinquished By Date/Time	Received By Date/Time	S = Soil	DS = Drum Solid
		SE = Sediment	DL = Drum Liqui
		SO = Solid	T = Tissue
		SL = Sludge	WI = Wine
		W = Water	L = Liquid
Relinquished By Date/Time	Received By Date/Time	O = Oil	V = Vegetation
		A = Air	X = Other
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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5/26/06 14:05

5-30-06 DGW

SW Client: ~~DUNCTCK~~ SDG #: L004934 NA [ ] SAF #: I06-037 NA [ ]

Work Order Number: J6E300129 Chain of Custody # ~~S06-004-192~~ SMA 6-1-06, I06-037-4

Shipping Container ID: SML-442 Air Bill # N/A ~~S06-004-195~~ SMA 6-1-06

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: ~~11~~ 2 SW 5-30-06
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 [✓] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: [signature] Date: 5/26/06

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

PNNL J6E310320
W04934
due 7-14-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I06-038-84**

Collector DURATEK D.P.CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-038	**Sampling Origin** Hanford site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, MAY 2006	DTS-SAWS-H106	**Ice Chest No.** SAWS-119 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J5K3		W	5-30-06	1103	1x20-mL P	Activity Scan H6GP6	None
B1J5K3		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1J5K3		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1J5K3		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
					5-30-06		

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D.P.CONNOLLY			MAY 30 2006	S. Welch	S. Welch		MAY 30 2006 15:00
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL JGE310320
W04934
Due 7.14.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I06-038-62

Collector DURATEK D.P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-038	**Sampling Origin** Hanford site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, MAY 2006	DTS-SAWS-H106	**Ice Chest No.** SAWS-119 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J5J1		W	5-30-06	1018	1x20-mL P	Activity Scan H6GQA	None
B1J5J1		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1J5J1		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1J5J1		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1J5J1		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
					5-30-06		

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D.P. CONNOLLY			MAY 30 2006	S. Welch		S. Welch	MAY 30 2006 1500
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL JGE310320
W04934
Due 7.14.06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I06-038-38

Collector DURATEK D.P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I06-038	**Sampling Origin** Hanford site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI MAY 2006	DTS. SAWS-H106	**Ice Chest No.** SAWS-119 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J5F5		W	5-30-06	0830	1x20-mL P	Activity Scan H6GQF	None
B1J5F5		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1J5F5		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1J5F5		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1J5F5		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
					5-30-06		

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK D.P. CONNOLLY			MAY 30 2006	S. Welch	S. Welch		MAY 30 2006 1500
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5·30·06 15:00

Client: PGW SDG #: W04934 NA [ ] SAF #: I06-038 NA [ ]

Work Order Number: J6E310320 Chain of Custody # ~~N/A~~ I06-038-84, 62, 58

Shipping Container ID: JAWS-119 Air Bill # N/A

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

Sample Custodian: S. Welch Date: 5·30·06 15:00

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

6/30/2006 10:23:46 AM

Sample Preparation/Analysis

Balance Id:2113224201

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 07/10/2006 W04934

Sep1 DT/Tm Tech:

Batch: 6156451 WATER pCi/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 6156436 FPS5, 6156445 DHSS, 6156448 ARS6, 6156451 BNTB,

Prep Tech: ,NortonJ

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 H58A1-1-AC J6E250405-1-SAMP 05/25/2006 09:21		3917.00g,in AmtRec: 20ML,2X500ML,LP,2X4LP	ITA5459 06/20/06 #Containers: 6	IFA	35.3	100	L2	1647 Scr: Alpha: 1.70E-03 uCi/Sa	7/7/06 GOR Beta: 8.69E-04 uCi/Sa	
2 H58CA-1-AC J6E250407-1-SAMP 05/25/2006 08:36		3909.20g,in AmtRec: 20ML,2X500ML,LP,2X4LP	ITA5460 06/20/06 #Containers: 6		36.3	100	L4	1648 Scr: Alpha: 3.77E-03 uCi/Sa	Beta: -9.14E-04 uCi/Sa	
3 H6DXN-1-AC J6E300120-1-SAMP 05/26/2006 12:42		3942.80g,in AmtRec: 20ML,2X500ML,LP,2X4LP	ITA5461 06/20/06 #Containers: 6		35.6	100	L5	1649 Scr: Alpha: -1.63E-04 uCi/Sa	Beta: 1.69E-03 uCi/Sa	
4 H6DX4-1-AC J6E300120-2-SAMP 05/26/2006 10:23		3952.40g,in AmtRec: 20ML,2X500ML,LP,2X4LP	ITA5462 06/20/06 #Containers: 6		36.3	100	L2	1906 Scr: Alpha: 1.89E-03 uCi/Sa	Beta: 6.30E-04 uCi/Sa	
5 H6D0C-1-AA J6E300120-3-SAMP 05/26/2006 09:44		3939.30g,in AmtRec: 20ML,2X500ML,2X4LP	ITA5463 06/20/06 #Containers: 5		36.0	100	L4	1907 Scr: Alpha: 1.71E-03 uCi/Sa	Beta: 3.55E-05 uCi/Sa	
6 H6D1G-1-AC J6E300129-1-SAMP 05/26/2006 12:41		3938.30g,in AmtRec: 20ML,LP,2X4LP	ITA5464 06/20/06 #Containers: 4		36.2	100	L5	Scr: Alpha: 6.48E-04 uCi/Sa	Beta: 1.21E-03 uCi/Sa	
7 H6D1G-1-AD-X J6E300129-1-DUP 05/26/2006 12:41		3855.40g,in AmtRec: 20ML,LP,2X4LP	ITA5465 06/20/06 #Containers: 4		36.0	100	L2	2105 Scr: Alpha: 6.48E-04 uCi/Sa	Beta: 1.21E-03 uCi/Sa	

6/30/2006 10:23:47 AM

Sample Preparation/Analysis

Balance Id:2113224201

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 07/10/2006

Sep1 DT/Tm Tech:

Batch: 6156451 WATER pCi/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,NortonJ

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 H6GQA-1-AC J6E310320-2-SAMP		3948.30g,in	ITA5466 06/20/06	IFA	36.0	100	L4	2106	7/7/06	
05/30/2006 10:18		AmtRec: 20ML,500ML,4XLP,2X4LP	#Containers: 8				Scr:	Alpha: -9.50E-05 uCi/Sa		Beta: 7.14E-04 uCi/Sa
9 H6GQF-1-AC J6E310320-3-SAMP		3899.50g,in	ITA5467 06/20/06		36.0	100	L5	2107		
05/30/2006 09:08		AmtRec: 20ML,500ML,4XLP,2X4LP	#Containers: 8				Scr:	Alpha: -1.10E-03 uCi/Sa		Beta: 1.60E-03 uCi/Sa
10 H6P9V-1-AA-B J6F050000-451-BLK		4011.40g,in	ITA5468 06/20/06		35.2	100	L2	2302		
05/26/2006 12:41		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:
11 H6P9V-1-AC-C J6F050000-451-LCS		4003.70g,in	ISD0662 05/10/06		36.2	100	L4	2303		
05/26/2006 12:41		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:

Comments: Ph APPX 7 jw 6-30-6

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

H58A11AC-SAMP Constituent List:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
H6P9V1AA-BLK:					
I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
H6P9V1AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

H58A11AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

6/30/2006 10:23:48 AM

Sample Preparation/Analysis

Balance Id:2113224201

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

Pipet #: _____

AnalyDueDate: 07/10/2006

Sep1 DT/Tm Tech:

Batch: 6156451 pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,NortonJ

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:

H6P9V1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

H6P9V1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/10/2006 2:56:19 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/10/2005, 7/15/2006, Batch: '6156451', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6156451						
AC		**CalcC**	**NortonJ**	6/30/2006 8:31:37		
SC			wagarr	IsBatched	6/5/2006 3:16:46 PM	ICOC_RADCALC v4.8.24
SC			NortonJ	InPrep	6/30/2006 8:31:37 AM	RICHRC5025 REV3
SC			NortonJ	InSep1	6/30/2006 10:21:44 AM	richrc5025 rev3
SC			NortonJ	Prep1C	7/7/2006 2:52:38 PM	RICHRC5025 REV3
SC			DAWKINSO	InCnt1	7/7/2006 3:07:26 PM	RICH-RD-0007 REVISION 5
SC			BlackCL	CalcC	7/8/2006 11:03:05 AM	RICH-RD-0007 REVISION 5
AC			**NortonJ**	6/30/2006 10:21:44		
AC			**NortonJ**	7/7/2006 2:52:38 PM		
AC			**DAWKINSO**	7/7/2006 3:07:26 PM		
AC			**BlackCL**	7/8/2006 11:03:05		

AC: Accepting Entry; SC: Status Change

7/7/2006 11:28:03 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: 229

AnalyDueDate: 07/10/2006 WO 4934

Sep1 DT/Tm Tech:

Batch: 6156453 **WATER** **pCi/L** **PM, Quote: HC , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: RutherfordJ

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 H6D03-1-AA J6E300128-2-SAMP 05/26/2006 10:01		191.10g,in AmtRec: 20ML,4XLP,	#Containers: 5	1.5	88.0100		32A	1749	7/10/06	Scr: Alpha: 6.42E-04 uCi/Sa Beta: 9.17E-04 uCi/Sa
2 H6D03-1-AD-X J6E300128-2-DUP 05/26/2006 10:01		190.90g,in AmtRec: 20ML,4XLP,	#Containers: 5		88.3		32C			Scr: Alpha: 6.42E-04 uCi/Sa Beta: 9.17E-04 uCi/Sa
3 H6P90-1-AA-B J6F050000-453-BLK 05/26/2006 10:01		199.10g,in AmtRec:	#Containers: 1		0.1		32D			Scr: Alpha: Beta:
4 H6P90-1-AC-C J6F050000-453-LCS 05/26/2006 10:01		200.00g,in AmtRec:	besb2849 06/26/06,pd 12/28/05,r #Containers: 1		0.3		32B			Scr: Alpha: Beta:

Comments: H6D03-SAMP "Comments: Reduced aliquots on sample H6D03 due to weight screen activity. jhr 07/07/06"
H6P90-BLK "Comments: " pH C 2.0 JHR 7/7/06

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

H6D031AA-SAMP Constituent List:

BETA	RDL:4.00E+00	pCi/L	LCL:	UCL:	RPD:
H6P901AA-BLK:					
BETA	RDL:4.00E+00	pCi/L	LCL:	UCL:	RPD:
H6P901AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

7/7/2006 11:28:05 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 07/10/2006

Sep1 DT/Tm Tech:

Batch: 6156453 pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: RutherfordJ

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:

```
H6D031AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P901AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P901AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

7/11/2006 3:16:24 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/11/2005, 7/16/2006, Batch: '6156453', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6156453						
AC		**CalcC**	**RutherfordJ**	7/7/2006 11:02:00		
SC			wagarr	IsBatched	6/5/2006 3:16:46 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	7/7/2006 11:02:00 AM	RICH-RC-5014 REVISION 6
SC			ScottM	InPrep2	7/10/2006 8:23:57 AM	RICH-RC-5014 REVISION 6
SC			ScottM	Prep2C	7/10/2006 2:27:38 PM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	7/10/2006 3:34:32 PM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	7/10/2006 7:53:38 PM	RICH-RD-0003 REVISION 4
AC			**ScottM**	7/10/2006 8:23:57		
AC			**ScottM**	7/10/2006 2:27:38 PM		
AC			**DAWKINSO**	7/10/2006 3:34:32 PM		
AC			**DAWKINSO**	7/10/2006 7:53:38 PM		

AC: Accepting Entry; SC: Status Change

6/27/2006 2:48:04 PM

Sample Preparation/Analysis

Balance Id:1120482733 101

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: NA

AnalyDueDate: 07/14/2006 WO 4934

Sep1 DT/Tm Tech: 6-29-06 8:53 PM

Sep2 DT/Tm Tech: 7-7-06 10:38 AM

Batch: 6156455 WATER pCi/L PM, Quote: HC , 57671

SEQ Batch, Test: None

Prep Tech: ,RutherfordJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H6GQA-1-AD J6E310320-2-SAMP		1000.20g,in	srtb13754 06/05/06,pd 03/28/06,r	1.735 2.0628			100	9"	1549	6/30/06 OD	
			YTA15900 Ex:3/28/2007	.8411		23.0		2A 2A	1434 1036	7/8/06 7/9/06 OD	
05/30/2006 10:18		AmtRec: 20ML,500ML,4XLP,2X4LP	#Containers: 8					Scr:	Alpha: -9.50E-05 uCi/Sa		Beta: 7.14E-04 uCi/Sa
2 H6GQA-1-AF-X J6E310320-2-DUP		1001.20g,in	srtb13755 06/05/06,pd 03/28/06,r	1.788 2.0723			100	3"	1549	6/30/06 OD	
			YTA15901 Ex:3/28/2007	.8628		22.8		2B 2B	1434 1036	7/8/06 7/9/06 OD	
05/30/2006 10:18		AmtRec: 20ML,500ML,4XLP,2X4LP	#Containers: 8					Scr:	Alpha: -9.50E-05 uCi/Sa		Beta: 7.14E-04 uCi/Sa
3 H6GQF-1-AD J6E310320-3-SAMP		1000.20g,in	srtb13756 06/05/06,pd 03/28/06,r	1.737 2.0691			100	9"	1629	6/30/06 OD	
			YTA15902 Ex:3/28/2007	.8395		23.3		2C 2C	1434 1036	7/8/06 7/9/06 OD	
05/30/2006 09:08		AmtRec: 20ML,500ML,4XLP,2X4LP	#Containers: 8					Scr:	Alpha: -1.10E-03 uCi/Sa		Beta: 1.60E-03 uCi/Sa
4 H6P92-1-AA-B J6F050000-455-BLK		1001.80g,in	srtb13757 06/19/06,pd 11/09/05,r	1.499 2.0468			100	3"	1629	6/30/06 OD	
			YTA15903 Ex:3/28/2007	.7324		23.1		2D 2D	1434 1036	7/8/06 7/9/06 OD	
05/30/2006 10:18		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

6/27/2006 2:48:06 PM

Sample Preparation/Analysis

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

Balance Id:1120482733 , 01
Pipet #: NA
Sep1 DT/Tm Tech: 6-29-06 8:53 PS
Sep2 DT/Tm Tech: 7-7-06 10:38 AA
Prep Tech: ,RutherfordJ

AnalyDueDate: 07/14/2006

Batch: 6156455 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 H6P92-1-AC-C J6F050000-455-LCS		1000.60g,in	srsg1229 06/05/06,pd 03/28/06,r	1.671 2.0814			100	7	1708	6/30/06	
			YTA15904	.8027				3A	1434	7/8	
			Ex:3/28/2007			22.6		3A	1036	7/9/06	

05/30/2006 10:18 AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: pH < 2.0
JHR
6/27/06

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

H6GQA1AD-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

H6P921AA-BLK:

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

H6P921AC-LCS:

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

H6GQA1AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H6P921AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H6P921AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/10/2006 3:20:30 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/10/2005, 7/15/2006, Batch: '6156455', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6156455						
AC		**InCalc**	**RutherfordJ**	6/27/2006 2:33:25 PM		
SC			wagarr	IsBatched	6/5/2006 3:16:46 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	6/27/2006 2:33:25 PM	RICH-RC-5016 REVISION 6
SC			FABREM	InSep1	6/28/2006 4:56:04 PM	RICH-RC-5006 REVISION 6
SC			FABREM	Sep1C	6/30/2006 3:11:27 PM	RICH-RC-5006 REVISION 6
SC			DAWKINSO	InCnt1	6/30/2006 3:16:32 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	Cnt1C	6/30/2006 7:09:22 PM	RICH-RD-0007 REVISION 5
SC			FABREM	InSep2	7/6/2006 11:45:25 AM	RICH-RC-5071 REVISION 4
SC			FABREM	Sep2C	7/7/2006 9:13:32 PM	RICH-RC-5071 REVISION 4
SC			DAWKINSO	Cnt1C	7/7/2006 9:19:55 PM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	InCalc	7/9/2006 3:09:51 PM	RICH-RD-0003 REVISION 4
AC			**FABREM**	6/28/2006 4:56:04 PM		
AC			**FABREM**	6/30/2006 3:11:27 PM		
AC			**DAWKINSO**	6/30/2006 3:16:32 PM		
AC			**DAWKINSO**	6/30/2006 7:09:22 PM		
AC			**FABREM**	7/6/2006 11:45:25		
AC			**FABREM**	7/7/2006 9:13:32 PM		
AC			**DAWKINSO**	7/7/2006 9:19:55 PM		
AC			**DAWKINSO**	7/9/2006 3:09:51 PM		

AC: Accepting Entry; SC: Status Change

7/18/2006 2:13:02 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AA Ni-63 PrpRC5016, SepRC5069
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 07/07/2006

Sep1 DT/Tm Tech:

Batch: 6193188 WATER pCi/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: RutherfordJ

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 H5425-2-AA J6E240385-1-SAMP 05/24/2006 09:26			193.00g,in	193.00g	NITA2255 07/03/06					
			AmtRec: 20ML,LP	#Containers: 2			Scr:	Alpha: 1.44E-04 uCi/Sa		Beta: 1.07E-04 uCi/Sa
2 H5425-2-AC-X J6E240385-1-DUP 05/24/2006 09:26										
			AmtRec: 20ML,LP	#Containers: 2			Scr:	Alpha: 1.44E-04 uCi/Sa		Beta: 1.07E-04 uCi/Sa
3 H82G1-1-AA-B J6G120000-188-BLK 05/24/2006 09:26			401.10g,in	401.10g	NITA2256 07/03/06					
			AmtRec:	#Containers: 1			Scr:	Alpha:		Beta:
4 H82G1-1-AC-C J6G120000-188-LCS 05/24/2006 09:26			399.30g,in	399.30g	NISA0700 07/03/06,pd 11/27/01,r					
			AmtRec:	#Containers: 1			Scr:	Alpha:		Beta:
5 H82G1-1-AD-BN J6G120000-188-IBLK 05/24/2006 09:26										
			AmtRec:	#Containers: 1			Scr:	Alpha:		Beta:

Comments: H5425-SAMP "Comments: Reduced aliquots and no dup. on sample H5425 due to not enough sample. jhr 07/12/06"

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

H54252AA-SAMP Constituent List:

7/18/2006 2:13:03 PM

Sample Preparation/Analysis

AA Ni-63 PrpRC5016, SepRC5069
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 07/07/2006

Batch: 6193188 **pCi/L**
SEQ Batch, Test: None

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

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

```
 Ni-63        RDL:15          pCi/L     LCL:70       UCL:130      RPD:20
H82G11AA-BLK:
 Ni-63        RDL:15          pCi/L     LCL:         UCL:         RPD:
H82G11AC-LCS:
 Ni-63        RDL:15          pCi/L     LCL:70       UCL:130      RPD:20
H82G11AD-IBLK:
 Ni-63        RDL:15          pCi/L     LCL:         UCL:         RPD:

H54252AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H82G11AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H82G11AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H82G11AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

7/21/2006 9:48:34 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/21/2005, 7/26/2006, Batch: '6193188', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6193188						
AC		**CalcC**	**RutherfordJ**	7/12/2006 4:50:03 PM		
SC			andersonp	IsBatched	7/12/2006 8:31:35 AM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	7/12/2006 4:50:03 PM	RICH-RC-5016 REVISION 6
SC			DAWKINSO	InCnt1	7/18/2006 7:36:47 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	7/20/2006 1:10:03 PM	RICH-RD-0001 REVISION 3
AC			**DAWKINSO**	7/18/2006 7:36:47 PM		
AC			**BlackCL**	7/20/2006 1:10:03 PM		

AC: Accepting Entry; SC: Status Change

7/3/2006 5:10:19 PM

Sample Preparation/Analysis

Balance Id:2113224201,1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 07/10/2006 WO 4934

Sep1 DT/Tm Tech:

Batch: 6156436 WATER pCi/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,RutherfordJ

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 H5792-1-AA J6E250403-1-SAMP 05/25/2006 12:26			125.00g,in	125.00g		60				
		AmtRec: 20ML,500MLP		#Containers: 2			Scr:	Alpha: 6.03E-05 uCi/Sa		Beta: 3.76E-05 uCi/Sa
2 H5796-1-AA J6E250403-2-SAMP 05/25/2006 11:39			125.40g,in	125.40g		60				
		AmtRec: 20ML,500MLP		#Containers: 2			Scr:	Alpha: 1.49E-04 uCi/Sa		Beta: -9.92E-05 uCi/Sa
3 H5797-1-AA J6E250403-3-SAMP 05/25/2006 10:27			125.70g,in	125.70g		60				
		AmtRec: 20ML,500MLP		#Containers: 2			Scr:	Alpha: 1.99E-04 uCi/Sa		Beta: -1.17E-04 uCi/Sa
4 H5799-1-AA J6E250403-4-SAMP 05/25/2006 11:50			125.50g,in	125.50g		60				
		AmtRec: 20ML,500MLP		#Containers: 2			Scr:	Alpha: 1.33E-04 uCi/Sa		Beta: -1.53E-04 uCi/Sa
5 H58AC-1-AA J6E250403-5-SAMP 05/25/2006 09:06			124.30g,in	124.30g		60				
		AmtRec: 20ML,500MLP		#Containers: 2			Scr:	Alpha: 2.40E-05 uCi/Sa		Beta: 1.98E-06 uCi/Sa
6 H58A1-1-AD J6E250405-1-SAMP 05/25/2006 09:21			124.20g,in	124.20g		60				
		AmtRec: 20ML,2X500ML,LP,2X4LP		#Containers: 6			Scr:	Alpha: 1.70E-03 uCi/Sa		Beta: 8.69E-04 uCi/Sa
7 H58CA-1-AD J6E250407-1-SAMP 05/25/2006 08:36			126.30g,in	126.30g		60				
		AmtRec: 20ML,2X500ML,LP,2X4LP		#Containers: 6			Scr:	Alpha: 3.77E-03 uCi/Sa		Beta: -9.14E-04 uCi/Sa

7/3/2006 5:10:20 PM

Sample Preparation/Analysis

Balance Id:2113224201,2113224201,1120

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 07/10/2006

Sep1 DT/Tm Tech:

Batch: 6156436 WATER pCi/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,RutherfordJ

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 H58CQ-1-AA J6E250408-1-SAMP 05/25/2006 10:47			126.10g,in	126.10g		60				
		AmtRec: 20ML,500ML		#Containers: 2			Scr:	Alpha: 1.62E-04 uCi/Sa		Beta: -5.13E-05 uCi/Sa
9 H58CQ-1-AC-X J6E250408-1-DUP 05/25/2006 10:47			125.10g,in	125.10g		60				
		AmtRec: 20ML,500ML		#Containers: 2			Scr:	Alpha: 1.62E-04 uCi/Sa		Beta: -5.13E-05 uCi/Sa
10 H58CR-1-AA J6E250408-2-SAMP 05/25/2006 10:11			126.70g,in	126.70g		60				
		AmtRec: 20ML,500ML		#Containers: 2			Scr:	Alpha: 4.59E-05 uCi/Sa		Beta: -9.97E-06 uCi/Sa
11 H58CR-1-AC-S J6E250408-2-MS 05/25/2006 10:11			125.00g,in	125.00g	TCSG1655 06/30/06,pd 01/10/06,r	60				
		AmtRec: 20ML,500ML		#Containers: 2			Scr:	Alpha: 4.59E-05 uCi/Sa		Beta: -9.97E-06 uCi/Sa
12 H58CT-1-AA J6E250408-3-SAMP 05/25/2006 09:14			125.40g,in	125.40g		60				
		AmtRec: 20ML,500ML		#Containers: 2			Scr:	Alpha: 4.18E-06 uCi/Sa		Beta: 5.53E-05 uCi/Sa
13 H6DXN-1-AD J6E300120-1-SAMP 05/26/2006 12:42			124.30g,in	124.30g		60				
		AmtRec: 20ML,2X500ML,LP,2X4LP		#Containers: 6			Scr:	Alpha: -1.63E-04 uCi/Sa		Beta: 1.69E-03 uCi/Sa
14 H6DX4-1-AD J6E300120-2-SAMP 05/26/2006 10:23			126.10g,in	126.10g		60				
		AmtRec: 20ML,2X500ML,LP,2X4LP		#Containers: 6			Scr:	Alpha: 1.89E-03 uCi/Sa		Beta: 6.30E-04 uCi/Sa

7/3/2006 5:10:21 PM

Sample Preparation/Analysis

Balance Id:2113224201,2113224201,1120

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 07/10/2006

Sep1 DT/Tm Tech:

Batch: 6156436 WATER pCi/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,RutherfordJ

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:
15 H6D0C-1-AC J6E300120-3-SAMP 05/26/2006 09:44			124.10g,in	124.10g		60				
AmtRec: 20ML,2X500ML,2X4LP #Containers: 5								Scr:	Alpha: 1.71E-03 uCi/Sa	Beta: 3.55E-05 uCi/Sa
16 H6GP6-1-AC J6E310320-1-SAMP 05/30/2006 11:03			125.20g,in	125.20g		60				
AmtRec: 20ML,2X500ML,LP #Containers: 4								Scr:	Alpha: -4.68E-04 uCi/Sa	Beta: 3.03E-04 uCi/Sa
17 H6GQA-1-AE J6E310320-2-SAMP 05/30/2006 10:18			123.90g,in	123.90g		60				
AmtRec: 20ML,500ML,4XLP,2X4LP #Containers: 8								Scr:	Alpha: -9.50E-05 uCi/Sa	Beta: 7.14E-04 uCi/Sa
18 H6GQF-1-AE J6E310320-3-SAMP 05/30/2006 09:08			124.70g,in	124.70g		60				
AmtRec: 20ML,500ML,4XLP,2X4LP #Containers: 8								Scr:	Alpha: -1.10E-03 uCi/Sa	Beta: 1.60E-03 uCi/Sa
19 H6P9G-1-AA-B J6F050000-436-BLK 05/25/2006 10:47			126.40g,in	126.40g		60				
AmtRec: #Containers: 1								Scr:	Alpha:	Beta:
20 H6P9G-1-AC-C J6F050000-436-LCS 05/25/2006 10:47			125.80g,in	125.80g	TCSE1975 06/30/06,pd 01/10/06,r	60				
AmtRec: #Containers: 1								Scr:	Alpha:	Beta:
21 H6P9G-1-AD-BN J6F050000-436-IBLK 05/25/2006 10:47						60				
AmtRec: #Containers: 1								Scr:	Alpha:	Beta:

7/3/2006 5:10:22 PM

Sample Preparation/Analysis

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

Balance Id:

Pipet #: _____

AnalyDueDate: 07/10/2006

Sep1 DT/Tm Tech:

Batch: 6156436 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
22H6P9G-1-AE-BN J6F050000-436-IBLK 05/25/2006 10:47	AmtRec:	#Containers: 1				60			Scr:	Alpha: Beta:

Comments: pH <2.0 JNR 7/3/06

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

H57921AA-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
H58CR1AC-MS:

H6P9G1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
H6P9G1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
H6P9G1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
H6P9G1AE-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

H57921AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H58CR1AC-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H6P9G1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H6P9G1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H6P9G1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
H6P9G1AE-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Sample Preparation/Analysis

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

Balance Id:

Pipet #: _____

AnalyDueDate: 07/10/2006

Sep1 DT/Tm Tech:

Batch: 6156436 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

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

Approved By _____ **Date:** _____

7/10/2006 2:58:18 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/10/2005, 7/15/2006, Batch: '6156436', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6156436						
AC		**CalcC**	**RutherfordJ**	7/3/2006 4:23:31 PM		
SC			wagarr	IsBatched	6/5/2006 3:16:46 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	7/3/2006 4:23:31 PM	RICH-RC-5016 REVISION 6
SC			AndersonE	Sep1C	7/7/2006 6:13:02 PM	RICH-RC-5065 REV6
SC			DAWKINSO	InCnt1	7/7/2006 6:28:14 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	7/10/2006 9:02:20 AM	RICH-RD-0001 REVISION 3
AC			**AndersonE**	7/7/2006 6:13:02 PM		
AC			**DAWKINSO**	7/7/2006 6:28:14 PM		
AC			**BlackCL**	7/10/2006 9:02:20		

AC: Accepting Entry; SC: Status Change

6/5/2006 3:07:22 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

AnalyDueDate: 07/10/2006 W04934

Batch: 6156448 **WATER** **pCi/L** **PM, Quote: HC , 57671**
SEQ Batch, Test: None

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 7-10-06 sm
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H58A1-1-AA J6E250405-1-SAMP 05/25/2006 09:21	AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6				Scr:	Alpha: 1.70E-03 uCi/Sa	Beta: 8.69E-04 uCi/Sa
2 H58CA-1-AA J6E250407-1-SAMP 05/25/2006 08:36	AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6				Scr:	Alpha: 3.77E-03 uCi/Sa	Beta: -9.14E-04 uCi/Sa
3 H6DXN-1-AA J6E300120-1-SAMP 05/26/2006 12:42	AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6				Scr:	Alpha: -1.63E-04 uCi/Sa	Beta: 1.69E-03 uCi/Sa
4 H6DXN-1-AF-X J6E300120-1-DUP 05/26/2006 12:42	AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6				Scr:	Alpha: -1.63E-04 uCi/Sa	Beta: 1.69E-03 uCi/Sa
5 H6DX4-1-AA J6E300120-2-SAMP 05/26/2006 10:23	AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6				Scr:	Alpha: 1.89E-03 uCi/Sa	Beta: 6.30E-04 uCi/Sa
6 H6D01-1-AA J6E300128-1-SAMP 05/26/2006 10:01	AmtRec: 20ML,LP	#Containers: 2				Scr:	Alpha: 8.34E-05 uCi/Sa	Beta: 3.96E-06 uCi/Sa
7 H6D1G-1-AA J6E300129-1-SAMP 05/26/2006 12:41	AmtRec: 20ML,LP,2X4LP	#Containers: 4				Scr:	Alpha: 6.48E-04 uCi/Sa	Beta: 1.21E-03 uCi/Sa

6/5/2006 3:07:23 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

AnalyDueDate: 07/10/2006

Batch: 6156448 **WATER** **pCi/L** **PM, Quote: HC , 57671**
SEQ Batch, Test: None

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 7-10-06 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 H6GP6-1-AA J6E310320-1-SAMP 05/30/2006 11:03	AmtRec: 20ML,2X500ML,LP	#Containers: 4				Scr:	Alpha:	Beta:
9 H6GQA-1-AA J6E310320-2-SAMP 05/30/2006 10:18	AmtRec: 20ML,500ML,4XLP,2X4LP	#Containers: 8				Scr:	Alpha:	Beta:
10 H6GQF-1-AA J6E310320-3-SAMP 05/30/2006 09:08	AmtRec: 20ML,500ML,4XLP,2X4LP	#Containers: 8				Scr:	Alpha:	Beta:
11 H6P9P-1-AA-B J6F050000-448-BLK 05/26/2006 12:42	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
12 H6P9P-1-AC-C J6F050000-448-LCS 05/26/2006 12:42	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
13 H6P9P-1-AD-BX J6F050000-448-MBLK 05/26/2006 12:42	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
14 H6P9P-1-AE-CM J6F050000-448-MLCS 05/26/2006 12:42	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

6/5/2006 3:07:24 PM

Sample Preparation/Analysis

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

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 7-10-06
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 07/10/2006

Batch: 6156448 **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:
15H6P9P-1-AF-BN J6F050000-448-IBLK 05/26/2006 12:42	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
16H6P9P-1-AG-BN J6F050000-448-IBLK 05/26/2006 12:42	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
17H6P9P-1-AH-B J6F050000-448-BLK 05/26/2006 12:42	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments:

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

H58A11AA-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
H6P9P1AA-BLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
H6P9P1AC-LCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
H6P9P1AD-MBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
H6P9P1AE-MLCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
H6P9P1AF-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
H6P9P1AG-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

6/5/2006 3:07:25 PM

Sample Preparation/Analysis

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

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 7-10-06 [illegible]
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 07/10/2006

Batch: 6156448 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:

```
H6P9P1AH-BLK:
 H-3          RDL:400          pCi/L     LCL:          UCL:          RPD:
H58A11AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9P1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9P1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9P1AD-MBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9P1AE-MLCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9P1AF-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9P1AG-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9P1AH-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

7/13/2006 12:06:31 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/13/2005, 7/18/2006, Batch: '6156448', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6156448						
AC		**CalcC**	**McDowellD**	7/10/2006 11:22:39		
SC			wagarr	IsBatched	6/5/2006 3:16:46 PM	ICOC_RADCALC v4.8.24
SC			McDowellD	InSep1	7/10/2006 11:22:39 AM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	7/11/2006 11:28:17 AM	RICH-RC-5007 REVISION 6
SC			BlackCL	InCnt1	7/11/2006 11:31:43 AM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	7/13/2006 6:34:07 AM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	7/11/2006 11:28:17		
AC			**BlackCL**	7/11/2006 11:31:43		
AC			**BlackCL**	7/13/2006 6:34:07		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.18

6/5/2006 3:07:28 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AS H-3 Prp/SepRC5024
U3 Enriched Tritium by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 07/10/2006 WO4934

Batch: 6156459 **WATER** **pCi/L**
SEQ Batch, Test: None

PM, Quote: HC , 57671

Balance Id: 12424
Pipet #:
Sep1 DT/Tm Tech: 6-29-06 DM
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 H6D03-1-AC J6E300128-2-SAMP 05/26/2006 10:01	AmtRec: 20ML,4XLP,	#Containers: 5				Scr:	Alpha: 6.42E-04 uCi/Sa	Beta: 9.17E-04 uCi/Sa
2 H6D03-1-AE-X J6E300128-2-DUP 05/26/2006 10:01	AmtRec: 20ML,4XLP,	#Containers: 5				Scr:	Alpha: 6.42E-04 uCi/Sa	Beta: 9.17E-04 uCi/Sa
3 H6P97-1-AA-B J6F050000-459-BLK 05/26/2006 10:01	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
4 H6P97-1-AC-C J6F050000-459-LCS 05/26/2006 10:01	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
5 H6P97-1-AD-BN J6F050000-459-IBLK 05/26/2006 10:01	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments:

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

H6D031AC-SAMP Constituent List:
H-3 RDL:1.00E+01 pCi/L LCL:70 UCL:130 RPD:20

6/5/2006 3:07:30 PM

Sample Preparation/Analysis

AS H-3 Prp/SepRC5024
U3 Enriched Tritium by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 07/10/2006

Batch: 6156459 **pCi/L**
SEQ Batch, Test: None

Balance Id: 12424
Pipet #:
Sep1 DT/Tm Tech: 6-29-06 am
Sep2 DT/Tm Tech:
Prep Tech:

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

```
H6P971AA-BLK:
  H-3          RDL:1.00E+01    pCi/L    LCL:        UCL:        RPD:
H6P971AC-LCS:
  H-3          RDL:10          pCi/L    LCL:70      UCL:130     RPD:20
H6P971AD-IBLK:
  H-3          RDL:1.00E+01    pCi/L    LCL:        UCL:        RPD:
H6D031AC-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P971AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P971AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P971AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

7/24/2006 1:14:16 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/24/2005, 7/29/2006, Batch: '6156459', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6156459						
AC		**CalcC**	**McDowellD**	6/29/2006 9:36:51		
SC			wagarr	IsBatched	6/5/2006 3:16:46 PM	ICOC_RADCALC v4.8.24
SC			McDowellD	InSep1	6/29/2006 9:36:51 AM	RICH-RC-5024 REVISION 2
SC			McDowellD	Sep1C	7/21/2006 1:35:50 PM	RICH-RC-5024 REVISION 2
SC			BlackCL	InCnt1	7/21/2006 1:40:16 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	7/23/2006 7:16:47 AM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	7/21/2006 1:35:50 PM		
AC			**BlackCL**	7/21/2006 1:40:16 PM		
AC			**BlackCL**	7/23/2006 7:16:47		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.18

7/6/2006 3:31:54 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: 242

AnalyDueDate: 07/10/2006 W04934

Sep1 DT/Tm Tech:

Batch: 6156445 WATER ug/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,RutherfordJ

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 H58A1-1-AE J6E250405-1-SAMP 05/25/2006 09:21	Final Vol 10.0ml	25.90g,in AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6					Scr: Alpha: 1.70E-03 uCi/Sa	Beta: 8.69E-04 uCi/Sa
2 H58A1-1-AF-X J6E250405-1-DUP 05/25/2006 09:21		25.50g,in AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6					Scr: Alpha: 1.70E-03 uCi/Sa	Beta: 8.69E-04 uCi/Sa
3 H58CA-1-AE J6E250407-1-SAMP 05/25/2006 08:36		24.80g,in AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6					Scr: Alpha: 3.77E-03 uCi/Sa	Beta: -9.14E-04 uCi/Sa
4 H58CA-1-AF-S J6E250407-1-MS 05/25/2006 08:36		25.10g,in AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6	UNSF3214 06/27/06,pd 03/22/05,r				Scr: Alpha: 3.77E-03 uCi/Sa	Beta: -9.14E-04 uCi/Sa
5 H6DXN-1-AE J6E300120-1-SAMP 05/26/2006 12:42		25.90g,in AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6					Scr: Alpha: -1.63E-04 uCi/Sa	Beta: 1.69E-03 uCi/Sa
6 H6DX4-1-AE J6E300120-2-SAMP 05/26/2006 10:23		24.50g,in AmtRec: 20ML,2X500ML,LP,2X4LP #Containers: 6					Scr: Alpha: 1.89E-03 uCi/Sa	Beta: 6.30E-04 uCi/Sa
7 H6D0C-1-AD J6E300120-3-SAMP 05/26/2006 09:44		25.50g,in AmtRec: 20ML,2X500ML,2X4LP #Containers: 5					Scr: Alpha: 1.71E-03 uCi/Sa	Beta: 3.55E-05 uCi/Sa

7/6/2006 3:31:55 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #: 242

AnalyDueDate: 07/10/2006

Sep1 DT/Tm Tech:

Batch: 6156445 WATER ug/L PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,RutherfordJ

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 H6GP6-1-AD J6E310320-1-SAMP 05/30/2006 11:03	Final Vol 10.0 ml	25.00g,in AmtRec: 20ML,2X500ML,LP	#Containers: 4			Scr:	Alpha: -4.68E-04 uCi/Sa	Beta: 3.03E-04 uCi/Sa
9 H6P9L-1-AA-B J6F050000-445-BLK 05/25/2006 09:21		25.50g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
10 H6P9L-1-AC-C J6F050000-445-LCS 05/25/2006 09:21		24.90g,in AmtRec:	UNSC1204 05/16/06,pd 04/28/06,r #Containers: 1			Scr:	Alpha:	Beta:
11 H6P9L-1-AD-C J6F050000-445-LCS 05/25/2006 09:21		26.20g,in AmtRec:	UNSF3215 06/27/06,pd 03/22/05,r #Containers: 1			Scr:	Alpha:	Beta:

Comments: pH < 2.0 JAR 7/6/06

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

H58A11AE-SAMP Constituent List:

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

H58CA1AF-MS:

H6P9L1AA-BLK:

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

H6P9L1AC-LCS:

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

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 07/10/2006

Sep1 DT/Tm Tech:

Batch: 6156445 ug/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,RutherfordJ

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:

```
H6P9L1AD-LCS:
 Uranium      RDL:0.144343    ug/L      LCL:70      UCL:130     RPD:20
H58A11AE-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H58CA1AF-MS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9L1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9L1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
H6P9L1AD-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

7/14/2006 2:06:14 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/14/2005, 7/19/2006, Batch: '6156445', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
6156445						
AC		**Cnt1C**	**RutherfordJ**	7/6/2006 3:20:17 PM		
SC			wagarr	IsBatched	6/5/2006 3:16:46 PM	ICOC_RADCALC v4.8.24
SC			RutherfordJ	InPrep	7/6/2006 3:20:17 PM	RICH-RC-5015 REVISION 4
SC			RutherfordJ	Prep1C	7/6/2006 3:33:42 PM	RICH-RC-5015 REVISION 4
SC			ScottM	InPrep2	7/10/2006 8:24:23 AM	RICH-RC-5015 REVISION 4
SC			BarbosaH	Cnt1C	7/13/2006 3:00:55 PM	RICH-RC-5058 REVISION 7
AC			**RutherfordJ**	7/6/2006 3:33:42 PM		
AC			**ScottM**	7/10/2006 8:24:23		
AC			**BarbosaH**	7/13/2006 3:00:55 PM		

AC: Accepting Entry; SC: Status Change