

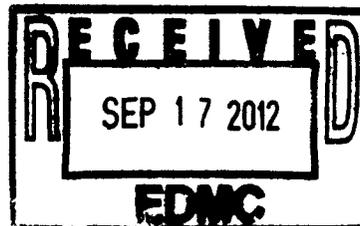
Analytical Data Package Prepared For
Pacific Northwest National Lab

Radiochemical Analysis By
STL Richland STLRL
2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.
Data Package Contains _____ Pages

Report Nbr: 33713

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04884 A	W06-003	BIHNW5	J6J260311-1	JHCR91AA	9JHCR910	6300246

Pages
2/23/12



Comments:

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

November 13, 2006

Attention: Dot Stewart

SAF Number	:	W06-003
Date SDG Closed	:	October 26, 2206
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	W04884
Data Deliverable	:	15-Day / Summary

CASE NARRATIVE

I. Introduction

One October 26, 2006, a request for additional analysis of one water sample was received at STL Richland (STLR). Upon receipt, the sample was assigned the following laboratory ID number to correspond with the Pacific Northwest National Laboratories (PGW) specific ID:

<u>PGW ID#</u>	<u>STLR ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
B1HNW5	JHCR9 (H08QD)	WATER	3/14/06

II. Sample Receipt

The sample was 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 analysis was:

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

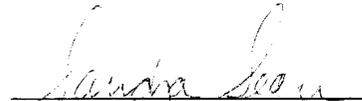
Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1HNW5) and sample matrix spike (B1HNW5) results are within contractual requirements.

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

Reviewed and approved:



for Sherryl Adam
Project Manager

Drinking Water Method Cross References

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

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, $R = \text{constants} * f(x,y,z,\dots)$. 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/\sqrt{n}), 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) <i>u_c - Combined Uncertainty.</i>	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, <i>u_c the combined uncertainty</i> . 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.

11/13/2006 9:25:08 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 33713 File Name: h:\Reportdb\edd\Fead\IVRad\W04884.Edd, h:\Reportdb\edd\Fead\IVRad\33713.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:		
9JHCR910	B1HNW5		MW6-SBB-A1	W06-003	W04884					03/14/2006 11:28		
Batch 6300246	Analyte Uranium	CAS# 7440-61-1	Result 2.58E+00	Unit ug/L	CntU 2S 2.6E-01	TotU 2S 2.6E-01	MDA 8.25E-02	TrcYield UTOT_KPA	Method	Unit ML	Analy Date/Time 11/09/2006 15:56	Act I

STL Richland

rptFeadRadSummaryEdd v3.48

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

Monday, November 13, 2006

STL Richland QC Blank Report

Lab Code: STLR

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W04884.Edd, h:\Reportdb\edd\Fead\VRad\33713.Edd

Lab Sample Id: JHDXN1AB **Sdg/Rept Nbr:** W04884 **33713** **Collection Date:** 03/14/2006 11:28
Client Id: NA **Matrix:** WATER **WATER**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 10/26/2006

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6300246 BLK	Uranium 7440-61-1	1.61E-02	ug/L	2.2E-03 2.2E-03	U	8.03E-02			UTOT_KPA	2.61E-02 ML	11/09/2006 15:41				D

Monday, November 13, 2006

STL Richland QC Control Sample Report

Lab Code: STLR

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Feed\VRad\W04884.Edd, h:\Reportdb\edd\Feed\VRad\33713.Edd

Lab Sample Id: JHDXN1DS **Sdg/Rept Nbr:** W04884 **Collection Date:** 03/14/2006 11:28
Client Id: NA **Matrix:** WATER **Decant:** 33713 **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 10/26/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AF	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
6300246	Uranium	3.59E+00	ug/L	3.7E-01	3.7E-01	8.35E-02	8.35E-02		3.59E+00	UTOT_KPA	2.51E-02	11/09/2006			75	D
BS	7440-61-1			3.7E-01					100.1		ML	15:53			125	

Monday, November 13, 2006

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Report\b\edd\Fead\W04884.Edd, h:\Report\b\edd\Fead\W04884.Edd

Lab Sample Id: JHCR91DR **Sdg/Rept Nbr:** W04884 **33713** **Collection Date:** 03/14/2006 11:28
Client Id: B1HNW5 **Matrix:** WATER **WATER** **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 10/26/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType
W06-003	MW6-SBB-A19981								AC	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6300246	Uranium	2.58E+00	ug/L	2.6E-01		8.28E-02			UTOT_KPA	2.53E-02	11/09/2006	.0	0.		D
DUP	7440-61-1	2.58E+00		2.6E-01						ML	16:01	20.0	3		

STL Richland

rptFeadRadEdd v3.68

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

Monday, November 13, 2006

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\VRad\W04884.Edd, h:\Reportdb\edd\Fead\VRad\33713.Edd

Lab Sample Id: JHCR91CW **Sdg/Rept Nbr:** W04884 **33713** **Collection Date:** 03/14/2006 11:28
Client Id: B1HNW5 **Matrix:** WATER **WATER** **Sample On Date:**
Moisture/Solids%*: **QC Type:** MS **MS** **Received Date:** 10/26/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
W06-003	MW6-SBB-A19981								AB	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6300246	Uranium	3.58E+01	ug/L	4.5E+00 4.5E+00	8.15E-02			3.48E+01 102.7	UTOT_KPA	2.57E-02 ML	11/09/2006 15:58			60 140	D
MS	7440-61-1														

Lot No., Due Date: J6J260311; 11/10/2006
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 6300246; RUNAT UNat by KPA
 SDG, Matrix: W04884; WATER

8.0	Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01	The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02	Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03	Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04	The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => JHDXN1AD UNSC<->UNSF Q:V9	Yes	No	N/A
8.05	Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06	At Least the Minimum Sample Volume Was Used No Count Analysis Size found in Batch Data!	Yes	No	N/A
8.07	The Correct Count Geometry was Used. No Count Geometry found in Batch Data!	Yes	No	N/A
8.08	The Sample was Counted for the Minimum Count Time or CRDL was Achieved. No Count Duration Field Found in Batch Data!	Yes	No	N/A
8.09	Method Blank is within Control Limits. OK	Yes	No	N/A
8.1	Comments:			
8.11	Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	Yes	No	N/A
8.12	Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13	QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14	LCS within Control Limits. OK	Yes	No	N/A
8.15	MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16	MS within Control Limits. OK	Yes	No	N/A
8.17	Tracer within Control Limits. No Tracers found in Batch!	Yes	No	N/A
8.18	Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	Yes	No	N/A
8.19	Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2	Comments:			
8.21	Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22	Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JHCR91AA Uranium 2.6E+00 L:8.3E-02	Yes	No	N/A
8.23	Result <= Action Level, when Defined. OK; No Action Level Found => Uranium OK; No Callin Level Found => Uranium	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. Yes No N/A
No Count Library found in Batch Data!
- 8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions) Yes No N/A
- 8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions) Yes No N/A
- 8.3 Comments:
- 8.31 Results Blank Subtracted as Appropriate. Yes No N/A
OK

First Level Review Pam Anderson Date 11-10-09



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6 300246
W04884

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. Adams Date: 11-10-06

Seger, Sandra

From: Adam, Sherryl
Sent: Thursday, October 26, 2006 8:10 AM
To: Seger, Sandra
Subject: FW: Additional Analyses Requests on March Samples 2006

From: Stewart, Dorothy L [mailto:dot.stewart@pnl.gov]
Sent: Wednesday, October 25, 2006 4:35 PM
To: Adam, Sherryl
Subject: RE: Additional Analyses Requests on March Samples 2006

Sherryl,
Let's do 15/45 TAT. Dot

From: Adam, Sherryl [mailto:SAdam@stl-inc.com]
Sent: Wednesday, October 25, 2006 3:59 PM
To: Stewart, Dorothy L
Cc: Felmy, Diana; Waters-Husted, Karen S; Narbutovskih, Susan M
Subject: RE: Additional Analyses Requests on March Samples 2006

Dot,
We have lots of sample left. What TAT would like on the sample and we will get it going. Thanks.

Sherryl

From: Stewart, Dorothy L [mailto:dot.stewart@pnl.gov]
Sent: Friday, October 20, 2006 11:29 AM
To: Adam, Sherryl
Cc: Felmy, Diana; Waters-Husted, Karen S; Narbutovskih, Susan M
Subject: Additional Analyses Requests on March Samples 2006
Importance: High

Sherryl,
We would like to add Total Uranium to the sample set. We propose to use the gamma sample bottle for the analyses. Please let us know if you still have these samples left. Please proceed with the analyses and include as part of the original SDG for this sample set.

Thanks,
Dot

Dot Stewart
Senior Project Manager

10/26/2006

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J6C260311

W04884 Asst 11/21/06

UNAT

Rec'd 10/26/06

Due 11/10/06

ISDAY DAT

SAF_NUM	COC_NUM	LAB_CODE	SAMP_NUM	SERVICE_LIST_NAME	FILTERED_FLAG
W06-003	W06-003-103	STLRL B1HNV6	9310_ALPHABETA_GPC: Gross Beta (1)	Activity Scan	N
W06-003	W06-003-103	STLRL B1HNV6	GAMMALL_GS: List-1 (9)	TC99_ETVDSK_LSC: Tc-99 (1)	N
W06-003	W06-003-103	STLRL B1HNV6	9310_ALPHABETA_GPC: Gross Beta (1)	Activity Scan	N
W06-003	W06-003-109	STLRL B1HNV0	GAMMALL_GS: List-1 (9)	TC99_ETVDSK_LSC: Tc-99 (1)	N
W06-003	W06-003-115	STLRL B1HNV5	9310_ALPHABETA_GPC: Gross Beta (1)	Activity Scan	N
W06-003	W06-003-115	STLRL B1HNV5	GAMMALL_GS: List-1 (9)		N
W06-003	W06-003-121	STLRL B1HNV7	9310_ALPHABETA_GPC: Gross Beta (1)	Activity Scan	N
W06-003	W06-003-121	STLRL B1HNV7	GAMMALL_GS: List-1 (9)	TC99_ETVDSK_LSC: Tc-99 (1)	N
W06-003	W06-003-127	STLRL B1HMP9	9310_ALPHABETA_GPC: Gross Beta (1)	Activity Scan	N
W06-003	W06-003-127	STLRL B1HMP9	GAMMALL_GS: List-1 (9)	TC99_ETVDSK_LSC: Tc-99 (1)	N
W06-003	W06-003-133	STLRL B1HMR3	9310_ALPHABETA_GPC: Gross Beta (1)	Activity Scan	N
W06-003	W06-003-133	STLRL B1HMR3	GAMMALL_GS: List-1 (9)	TC99_ETVDSK_LSC: Tc-99 (1)	N
W06-003	W06-003-139	STLRL B1HMR7	9310_ALPHABETA_GPC: Gross Beta (1)	Activity Scan	N
W06-003	W06-003-139	STLRL B1HMR7	GAMMALL_GS: List-1 (9)	TC99_ETVDSK_LSC: Tc-99 (1)	N
W06-003	W06-003-145	STLRL B1HMT1	9310_ALPHABETA_GPC: Gross Beta (1)	Activity Scan	N
W06-003	W06-003-145	STLRL B1HMT1	GAMMALL_GS: List-1 (9)	TC99_ETVDSK_LSC: Tc-99 (1)	N
W06-003	W06-003-151	STLRL B1HMT5	9310_ALPHABETA_GPC: Gross Beta (1)	Activity Scan	N
W06-003	W06-003-151	STLRL B1HMT5	GAMMALL_GS: List-1 (9)	TC99_ETVDSK_LSC: Tc-99 (1)	N

H2ENA

W04892

J6C310339

H15JX

W04891

J6C280318

H08QD

W04884

J6C140327

JHCR9

H2EM3

W04892

J6C310339

H01PK

W04882

J6C090392

H01PH

W04882

J6C090392

H1PR5

W04888

J6C210310

H1N6M

W04888

J6C210310

H01PC

W04882

J6C090392

Sample Check-in List

Date/Time Received: 3-14-06 14:30
 Client: P226/P6W SDG #: W04884 NA SAF #: W06-003 NA
 Work Order Number: J6C140327 Chain of Custody # B06-013-001 W06-003-115
 Shipping Container ID: N/A Air Bill # N/A S06-003-101
S06-003-231
W06-003-116

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: 19
7. Sample holding times exceeded? NA Yes No
8. Samples have:
 tape hazard labels
 custody seals appropriate samples labels
9. Samples are:
 in good condition leaking
 broken 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): _____

Sample Custodian: [Signature] Date: 3/14/06

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

11/3/2006 12:49:47 PM

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

Sample Preparation/Analysis

Balance Id:206113

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA
SI CLIENT: HANFORD

Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:

AnalytDueDate: 11/10/2006 **W004884A**

Batch: 6300246 WATER ug/L PM, Quote: SA, 57671

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample Date Time	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 JHCR9-1-AA J6J260311-1-SAMP 03/14/2006 11:28		25.40g.in						
AmitRec: 4LP #Containers: 1 Scr: Alpha: Beta:								
2 JHCR9-1-AC-S J6J260311-1-MS 03/14/2006 11:28		25.70g.in	unsf3385 11/02/06,pd 03/22/05,I					
AmitRec: 4LP #Containers: 1 Scr: Alpha: Beta:								
3 JHCR9-1-AD-X J6J260311-1-DUP 03/14/2006 11:28		25.30g.in						
AmitRec: 4LP #Containers: 1 Scr: Alpha: Beta:								
4 JHDXN-1-AA-B J6J270000-246-BLK 03/14/2006 11:28		26.10g.in						
AmitRec: 4LP #Containers: 1 Scr: Alpha: Beta:								
5 JHDXN-1-AC-C J6J270000-246-LCS 03/14/2006 11:28		25.70g.in	unsf3386 11/02/06,pd 03/22/05,I					
AmitRec: 4LP #Containers: 1 Scr: Alpha: Beta:								
6 JHDXN-1-AD-C J6J270000-246-LCS 03/14/2006 11:28		25.10g.in	unsci356 10/23/06,pd 04/28/06,I					
AmitRec: 4LP #Containers: 1 Scr: Alpha: Beta:								

ICOC Fraction Transfer/Status Report

ByDate: 11/10/2005, 11/15/2006, Batch: '6300246', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
6300246				
AC	Cnt1C	BockJ	11/3/2006 12:42:19	
SC		wagarr	IsBatched	10/27/2006 9:05:41 AM
SC		BockJ	InPrep	11/3/2006 12:42:19 PM
SC		BockJ	Prep1C	11/3/2006 12:49:54 PM
SC		AntonsonL	InSep1	11/6/2006 2:23:05 PM
SC		AntonsonL	Sep1C	11/8/2006 4:14:54 PM
SC		AndersonE	Cnt1C	11/9/2006 4:21:48 PM
SC		AndersonE	Cnt1C	11/9/2006 4:21:48 PM
AC		BockJ	11/3/2006 12:49:54	
AC		AntonsonL	11/6/2006 2:23:05 PM	
AC		AntonsonL	11/8/2006 4:14:54 PM	
AC		AndersonE	11/9/2006 4:21:48 PM	
				ICOC_RADCALC v4.8.24
				RICH-RC-5014 Revision 6
				RICH-RC-5015 REVISION 4
				RICH-RC-5015 REVISION 5
				RICH-RC-5015 REVISION 4
				RICH-RC-5058 REVISION 7
				RICH-RC-5058 REVISION 7

AC: Accepting Entry; SC: Status Change