

Analytical Data Package Prepared For

CH2M Hill Plateau Remediation

Radiochemical Analysis By

TestAmerica TARL

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

Data Package Contains 144 Pages

Report Nbr: 54248

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06505	S13-012	B2N1F1	J2L070436-1	MXH981AA	9MXH9810	2353050
		B2N1H0	J2L070436-2	MXJAK1AA	9MXJAK10	2353051
		B2N1H0	J2L070436-2	MXJAK1AC	9MXJAK10	2353050
	I13-002	B2MT32	J2L110430-1	MXJ021AA	9MXJ0210	2346077
		B2MT32	J2L110430-1	MXJ021AC	9MXJ0210	2353057
		B2MT32	J2L110430-1	MXJ021AE	9MXJ0210	2353055
		B2MT32	J2L110430-1	MXJ021AF	9MXJ0210	2353060
		B2MT32	J2L110430-1	MXJ021AG	9MXJ0210	2353054
		B2MRP9	J2L110430-2	MXJ031AA	9MXJ0310	2346077
		B2MRP9	J2L110430-2	MXJ031AC	9MXJ0310	2353057
		B2MRP9	J2L110430-2	MXJ031AD	9MXJ0310	2353058
		B2MRP9	J2L110430-2	MXJ031AG	9MXJ0310	2353055
		B2MRP9	J2L110430-2	MXJ031AH	9MXJ0310	2353060
		B2MRP9	J2L110430-2	MXJ031AJ	9MXJ0310	2353054
		B2MRP9	J2L110430-2	MXJ032AE	9MXJ0320	2353059

Comments:

Report Nbr: 54248

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06505	S13-012	B2N060	J2L130450-1	MXK2X1AA	9MXK2X10	2353050
		B2N064	J2L130450-2	MXK201AA	9MXK2010	2353050
		B2N065	J2L130450-3	MXK211AA	9MXK2110	2353050
		B2N075	J2L130450-4	MXK221AA	9MXK2210	2353050
		B2N083	J2L130450-5	MXK241AA	9MXK2410	2353050
		B2N098	J2L130450-6	MXK251AA	9MXK2510	2353052
		B2N098	J2L130450-6	MXK251AC	9MXK2510	2353053
	I13-009	B2MXX8	J2L170414-1	MXL3A1AA	9MXL3A10	2353050
		B2MXX9	J2L170414-2	MXL3G1AA	9MXL3G10	2353050
	S13-012	B2N079	J2L170417-1	MXL4H1AA	9MXL4H10	2353050
		B2N087	J2L170417-2	MXL4J1AA	9MXL4J10	2353050
		B2N088	J2L170417-3	MXL4K1AA	9MXL4K10	2353050
		B2N094	J2L170417-4	MXL4M1AA	9MXL4M10	2353050
		B2N0B4	J2L170417-5	MXL4Q1AA	9MXL4Q10	2353052
		B2N0B7	J2L170417-6	MXL4V1AA	9MXL4V10	2353052
		B2N0B7	J2L170417-6	MXL4V1AC	9MXL4V10	2353053
		B2N0B8	J2L170417-7	MXL461AA	9MXL4610	2353052
		B2N0B8	J2L170417-7	MXL461AC	9MXL4610	2353053
		B2N1H5	J2L170417-8	MXL5D1AA	9MXL5D10	2353052

Comments:

JANUARY 15, 2013

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

CH2M Hill Plateau Remediation Company
P.O. Box 1600
Mail Stop – R3-60
Richland, WA 99352

TestAmerica Laboratories, Inc.

January 15, 2013

Attention: Scot Fitzgerald

SAF Number : S13-012, I13-002, I13-009,
Date SDG Closed : December 14, 2012
Number of Samples : Twenty (20)
Sample Type : Water
SDG Number : W06505
Data Deliverable : 30-Day / Summary

CASE NARRATIVE

I. Introduction

Between December 7, 2012 and December 14, 2012, twenty water samples were received at TestAmerica (TARL). Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the CH2M specific IDs:

<u>CH2M ID#</u>	<u>TARL ID#</u>	<u>DATE OF RECEIPT</u>	<u>MATRIX</u>
B2N1F1	MXH98	12/7/12	WATER
B2N1H0	MXJAK	12/7/12	WATER
B2MRP9	MXJ03	12/11/12	WATER
B2MT32	MXJ02	12/11/12	WATER
B2N060	MXK2X	12/13/12	WATER
B2N064	MXK20	12/13/12	WATER
B2N065	MXK21	12/13/12	WATER
B2N075	MXK22	12/13/12	WATER
B2N083	MXK24	12/13/12	WATER
B2N098	MXK25	12/13/12	WATER
B2MXX8	MXL3A	12/14/12	WATER
B2MXX9	MXL3G	12/14/12	WATER
B2N079	MXL4H	12/14/12	WATER
B2N087	MXL4J	12/14/12	WATER

January 15, 2013

B2N088	MXL4K	12/14/12	WATER
B2N094	MXL4M	12/14/12	WATER
B2N0B4	MXL4Q	12/14/12	WATER
B2N0B7	MXL4V	12/14/12	WATER
B2N0B8	MXL46	12/14/12	WATER
B2N1H5	MXL5D	12/14/12	WATER

II. Sample Receipt

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

During the bi-weekly phone call on September 5, 2012 TARI was notified that all groundwater samples received between October 1, 2012 – December 31, 2012 will have a 30 day turnaround time regardless if the chain of custodies have a turn around time that is greater than 30 days.

III. Analytical Results/Methodology

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

The requested analyses were:

Gas Proportional Counting

Gross Alpha by method RL-GPC-001
 Gross Beta by method RL-GPC-001
 Strontium-90 by method RL-GPC-003

Gamma Spectroscopy

Gamma Spec (LL) by method RL-GAM-001
 Gamma Spec by method RL-GAM-001
 Iodine-129 (LL) by method RL-GAM-002

Liquid Scintillation Counting

Carbon-14 by method RL-LSC-008
 Technetium-99 by TEVA method RL-LSC-014
 Technetium-99 by method RL-LSC-013
 Tritium by method RL-LSC-005
 Mid Level Tritium by method RL-LSC-005

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

IV. Quality Control

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

QC and sample results are reported in the same units.

January 15, 2013

V. Comments

Gas Proportional Counting

Gross Alpha by method RL-GPC-001:

The LCS, batch blank, sample and sample duplicate (B2MRP9) results are within contractual requirements.

Gross Beta by method RL-GPC-001:

Sample B2MRP9 and B2MRP9 DUP were analyzed with reduced aliquots based on weight screen results. Sample B2MRP9 and the sample duplicate (B2MRP9 DUP) agreement was not within the acceptance limits. They were recounted for acceptable results. Except as noted, the LCS, batch blank, sample and sample duplicate (B2MRP9) results are within contractual requirements.

Strontium-90 by method RL-GPC-003:

The achieved MDA for samples B2MT32 and the sample duplicate (B2MRP9 DUP) exceeded the CRDL due to the reduced sample aliquots based on the activity screening results. Except as noted; the LCS, batch blank, samples and sample duplicate (B2MRP) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec (LL) by method RL-GAM-001:

The LCS, batch blank, samples and sample duplicate (B2N0B4) results are within contractual requirements.

Gamma Spec by method RL-GAM-001:

There was insufficient volume for a duplicate. Sample B2MT32 was recounted on a different detector for the duplicate (B2MT32 DUP). There was an apparent batch blank/LCS sample switch, the activity expected for the LCS was found in the batch blank. The sample ID numbers were re-assigned in data review and the data was re-calculated for acceptable results. Except as noted, the LCS, batch blank, samples and sample duplicate (B2MT32) results are within contractual requirements.

Iodine-129 (LL) by method RL-GAM-002:

The LCS, batch blank, samples and sample duplicate (B2MXX8) results are within contractual requirements.

Liquid Scintillation Counting

Carbon-14 by method RL-LSC-008:

TARL was given permission to send the C14 fractions to TestAmerica St. Louis. For more details refer to the SIR (CHPRC Tracking Number: SDR13-067) that is included in this report.

Technetium-99 by TEVA method RL-LSC-014:

The LCS, batch blank, samples, sample duplicate (B2MT32) and sample matrix spike (B2MRP9) results are within contractual requirements.

Technetium-99 by method RL-LSC-013:

The LCS, batch blank, samples, sample duplicate (B2N098) and sample matrix spike (B2N0B8) results are within contractual requirements.

January 15, 2013

Tritium by method RL-LSC-005:

The batch blank result was above the acceptance limits on the original count. The batch blank was re-counted in batch 3002029 for an acceptable result. Except as noted; the LCS, batch blank, samples and sample duplicate (B2MRP9) results are within contractual requirements.

Mid Level Tritium by method RL-LSC-005:

The LCS, batch blank, sample and sample duplicate (B2N1H0) results are within contractual requirements.

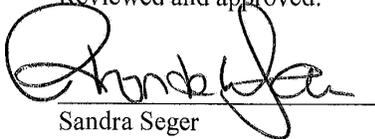
Chemical Analysis

Hexavalent Chromium by EPA method 7196A

The LCS, batch blank, samples, sample duplicate (B2MT32) sample matrix spike (B2MT32) and matrix spike duplicate (B2MT32) 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:



Sandra Seger
Project Manager

Gar

SAMPLE ISSUE RESOLUTION

SIR NUM SDR13-067
REV NUM 0
DATE INITIATED 12/18/2012

SAMPLE EVENT INFORMATION

SAF NUM(S) I13-002
OPERABLE UNIT(S) 100-KR-4
PROJECT(S) CERC13
SAMPLE EVENT TITLE(S) CERC13
LABORATORY TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES 2
SAMPLE NUMBERS B2MRP9, B2MT32
SAMPLE MATRIX WATER
COLLECTION DATE 12/11/2012 - 12/11/2012
SDG NUM W06505

ISSUE BACKGROUND

CLASS Laboratory Issue
TYPE Sample Diversion Initiated by Laboratory
DESCRIPTION TARL is currently investigating the C14_LSC: C-14 (1) method due to the low results reported for the CY2011 blind samples. TARL would like permission to send the C14 fractions to TASL. TASL will analyze the C14 samples and submit the final reports & EDDs for the SDGs included on this SIR.

DISPOSITION

DESCRIPTION PROPOSED DISPOSITION: TARL will initiate SIR and ship the samples to TASL. TASL will report the samples discussed above as W06505I and include comments in the case narrative.

JUSTIFICATION ACCEPTED DISPOSITION: Accept the proposed resolution.
SUBMITTED BY: Rhonda Wager/TARL DATE: 12/18/18
ACCEPTED BY: Susan Puckett/CHPRC DATE: 12/18/12

Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	TestAmerica Richland's SOP No.
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica 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, $R = \text{constants} * f(x,y,z,...)$. 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 TestAmerica.
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 TestAmerica "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%. $Lc = (1.645 * \sqrt{2 * (BkgndCnt / BkgndCntMin) / SCntMin}) * (ConvFct / (Eff * Yld * Abn * Vol)) * IngrFct$. 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%. $MDC = (4.65 * \sqrt{((BkgndCnt / BkgndCntMin) / SCntMin) + 2.71 / SCntMin}) * (ConvFct / (Eff * Yld * Abn * Vol)) * IngrFct$. 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 TestAmerica 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.

TestAmerica Report

Lab Code: TARL

1/15/2013 9:31:04 AM

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 54248 File Name: h:\Reportdb\edd\Fead\Rad\W06505.Edd, h:\Reportdb\edd\Fead\Rad\54248.Ed

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume:	Sample On Date:	Collection Date:				
9MXH9810	B2N1F1		MW6-SBB-A1	S13-012	W06505					12/06/2012 12:25				
Batch	Client Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353050	I-129	15046-84-1	3.46E-03	pCi/L	1.3E-01	1.3E-01	U	2.32E-01	90.3	I129LL_SEP_LEPS	3.8529E+00	L	12/28/2012 07:37	I

Lab Sample Id:	Client Id:	Test User:	Contract Nbr:	SAF Nbr:	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume:	Sample On Date:	Collection Date:				
9MXJ0210	B2MT32		MW6-SBB-A1	I13-002	W06505					12/11/2012 08:58				
Batch	Client Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353057	H-3	10028-17-8	2.26E+02	pCi/L	1.4E+02	1.6E+02	U	3.24E+02	100.0	906.0_H3_LSC	5.015E-03	L	12/19/2012 18:43	I
2353055	BE-7	13966-02-4	-2.07E+00	pCi/L	1.1E+01	1.1E+01	U	1.89E+01		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353055	CO-60	10198-40-0	2.71E-01	pCi/L	1.3E+00	1.3E+00	U	2.42E+00		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353055	CS-134	13967-70-9	-4.93E-01	pCi/L	1.5E+00	1.5E+00	U	2.57E+00		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353055	CS-137	10045-97-3	2.00E+00	pCi/L	1.4E+00	1.4E+00	U	2.76E+00		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353055	EU-152	14683-23-9	-1.15E+00	pCi/L	3.6E+00	3.6E+00	U	6.08E+00		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353055	EU-154	15585-10-1	3.76E+00	pCi/L	4.4E+00	4.4E+00	U	8.60E+00		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353055	EU-155	14391-16-3	2.68E-01	pCi/L	3.2E+00	3.2E+00	U	5.41E+00		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353055	K-40	13966-00-2	-5.54E+01	pCi/L	4.6E+01	4.6E+01	U	9.47E+01		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353055	RU-106	13967-48-1	3.58E+00	pCi/L	1.1E+01	1.1E+01	U	2.00E+01		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353055	SB-125	14234-35-6	-7.75E-01	pCi/L	3.0E+00	3.0E+00	U	5.27E+00		GAMMA_GS	1.9591E+00	L	12/24/2012 16:22	I
2353060	SR-90	10098-97-2	-9.86E-01	pCi/L	1.3E+00	1.3E+00	U	2.87E+00	74.9	SRISO_SEP_PRE	2.803E-01	L	01/11/2013 07:41	I
2353054	TC-99	14133-76-7	5.26E+00	pCi/L	4.4E+00	6.2E+00	U	1.04E+01	100.0	TC99_ETVDSK_LS	1.254E-01	L	12/28/2012 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:				
9MXJ0310	B2MRP9		MW6-SBB-A1	I13-002	W06505					12/11/2012 12:05				
Batch	Client Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353057	H-3	10028-17-8	1.22E+04	pCi/L	3.9E+02	5.0E+02	U	3.26E+02	100.0	906.0_H3_LSC	5.014E-03	L	12/19/2012 20:06	I
2353058	ALPHA	12587-46-1	5.28E-01	pCi/L	9.1E-01	9.1E-01	U	1.60E+00	100.0	9310_ALPHABETA	1.997E-01	L	12/28/2012 08:41	I
2353055	BE-7	13966-02-4	-4.59E+00	pCi/L	1.3E+01	1.3E+01	U	2.28E+01		GAMMA_GS	1.5814E+00	L	12/24/2012 16:23	I
2353055	CO-60	10198-40-0	3.35E-01	pCi/L	1.7E+00	1.7E+00	U	3.20E+00		GAMMA_GS	1.5814E+00	L	12/24/2012 16:23	I
2353055	CS-134	13967-70-9	2.73E-01	pCi/L	1.7E+00	1.7E+00	U	3.12E+00		GAMMA_GS	1.5814E+00	L	12/24/2012 16:23	I
2353055	CS-137	10045-97-3	5.50E-02	pCi/L	1.6E+00	1.6E+00	U	2.84E+00		GAMMA_GS	1.5814E+00	L	12/24/2012 16:23	I
2353055	EU-152	14683-23-9	1.85E+00	pCi/L	3.8E+00	3.8E+00	U	7.04E+00		GAMMA_GS	1.5814E+00	L	12/24/2012 16:23	I
2353055	EU-154	15585-10-1	-3.00E+00	pCi/L	4.9E+00	4.9E+00	U	8.25E+00		GAMMA_GS	1.5814E+00	L	12/24/2012 16:23	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.

TestAmerica
 rpt\FeadRadSummaryEdd v3.48

1/15/2013 9:31:04 AM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 54248 File Name: h:\Reportable\Fead\VRad\W06505.Edd, h:\Reportable\Fead\VRad\54248.Ed

2353055	EU-155	14391-16-3	-2.57E-01	pCi/L	2.5E+00	2.5E+00	U	4.41E+00	GAMMA_GS	1.5814E+00	L	12/24/2012	16:23	I
2353055	K-40	13966-00-2	-8.71E+00	pCi/L	4.1E+01	4.1E+01	U	8.61E+01	GAMMA_GS	1.5814E+00	L	12/24/2012	16:23	I
2353055	RU-106	13967-48-1	-7.08E-01	pCi/L	1.4E+01	1.4E+01	U	2.50E+01	GAMMA_GS	1.5814E+00	L	12/24/2012	16:23	I
2353055	SB-125	14234-35-6	-1.03E+00	pCi/L	3.8E+00	3.8E+00	U	6.56E+00	GAMMA_GS	1.5814E+00	L	12/24/2012	16:23	I
2353060	SR-90	10098-97-2	-4.63E-01	pCi/L	8.9E-01	9.1E-01	U	1.97E+00	SRISO_SEP_PRE	3.608E-01	L	01/11/2013	07:41	I
2353054	TC-99	14133-76-7	1.15E+01	pCi/L	4.6E+00	6.5E+00	U	1.03E+01	TC99_ETVDSK_LS	1.253E-01	L	12/29/2012	01:48	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:			
9MXJ0320	B2MRP9		MW6-SBB-A1	I13-002	W06505					12/11/2012 12:05			
Batch Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353059	BETA	12587-47-2	7.38E+00	pCi/L	1.6E+00	1.8E+00	2.39E+00	100.0	9310_ALPHABETA	1.793E-01	L	12/28/2012 19:05	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:			
9MXJAK10	B2N1H0		MW6-SBB-A1	S13-012	W06505					12/06/2012 14:07			
Batch Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353051	H-3	10028-17-8	-1.56E+01	pCi/L	1.1E+01	2.4E+01	2.56E+01	100.0	906.0ML_H3_LSC	1.0032E-02	L	12/21/2012 06:07	I
2353050	I-129	15046-84-1	4.42E-02	pCi/L	9.8E-02	9.8E-02	1.38E-01	90.8	I129LL_SEP_LEPS	3.8185E+00	L	12/28/2012 07:38	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:			
9MXK2010	B2N064		MW6-SBB-A1	S13-012	W06505					12/12/2012 10:42			
Batch Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353050	I-129	15046-84-1	6.73E+00	pCi/L	8.5E-01	8.5E-01	2.27E-01	91.9	I129LL_SEP_LEPS	3.8554E+00	L	12/28/2012 11:07	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:			
9MXK2110	B2N065		MW6-SBB-A1	S13-012	W06505					12/12/2012 10:42			
Batch Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353050	I-129	15046-84-1	3.71E+00	pCi/L	5.9E-01	5.9E-01	2.71E-01	90.5	I129LL_SEP_LEPS	3.8509E+00	L	12/28/2012 14:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:			
9MXK2210	B2N075		MW6-SBB-A1	S13-012	W06505					12/12/2012 09:37			
Batch Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353050	I-129	15046-84-1	6.49E+00	pCi/L	8.1E-01	8.1E-01	2.09E-01	90.5	I129LL_SEP_LEPS	3.8692E+00	L	12/28/2012 14:37	I

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

TestAmerica

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.

TestAmerica Report

Lab Code: TARL

1/15/2013 9:31:04 AM

FormNbr:	R	FormatType:	FEAD	Version:	05	Rpt Nbr:	54248	File Name:	h:\Reportdb\ledd\Fead\W06505.Edd, h:\Reportdb\ledd\Fead\W06505.Edd													
MWXK2410	B2N083	MW6-SBB-A1	S13-012	W06505					12/12/2012 10:06													
Batch	15046-84-1	Contract Nbr	5.19E+00	Unit	pCi/L	Sdg Nbr	6.8E-01	QC Type	6.8E-01	TotU 2S	6.8E-01	Qual	2.62E-01	MDA	94.1	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
2353050	I-129	MW6-SBB-A1	5.19E+00	pCi/L	6.8E-01	W06505	6.8E-01	6.8E-01	6.8E-01	6.8E-01	6.8E-01	U	2.62E-01	I129LL_SEP_LEPS	3.8654E+00	L	12/28/2012	21:45	L	12/28/2012	21:45	I
Lab Sample Id:	Client Id:	Contract Nbr	Result	Unit	SAF Nbr	Sdg Nbr	TotU 2S	QC Type	TotU 2S	Qual	Moisture/Solids%*	Distilled Volume	Method	Alq Size	Unit	Analy Date/Time	Act	Sample On Date:	Collection Date:			
9MXK2510	B2N098	MW6-SBB-A1	-5.50E+00	pCi/L	S13-012	W06505	1.1E+01	1.1E+01	1.1E+01	U	1.90E+01	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I	12/12/2012	12:34			
Batch	13966-02-4	Contract Nbr	-7.65E-01	pCi/L	1.7E+00	1.5E+00	1.4E+00	1.4E+00	1.4E+00	U	2.75E+00	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I					
2353052	BE-7	MW6-SBB-A1	-7.65E-01	pCi/L	1.7E+00	1.5E+00	1.4E+00	1.4E+00	1.4E+00	U	2.75E+00	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I					
2353052	CO-60	MW6-SBB-A1	1.01E+00	pCi/L	1.5E+00	1.4E+00	1.4E+00	1.4E+00	1.4E+00	U	2.53E+00	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I					
2353052	CS-134	MW6-SBB-A1	8.73E-01	pCi/L	1.4E+00	1.4E+00	1.4E+00	1.4E+00	1.4E+00	U	5.81E+00	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I					
2353052	CS-137	MW6-SBB-A1	1.82E+00	pCi/L	3.3E+00	3.3E+00	3.3E+00	3.3E+00	3.3E+00	U	7.32E+00	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I					
2353052	EU-152	MW6-SBB-A1	-1.31E+00	pCi/L	4.2E+00	2.8E+00	2.8E+00	2.8E+00	2.8E+00	U	4.89E+00	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I					
2353052	EU-154	MW6-SBB-A1	-1.89E-01	pCi/L	2.8E+00	2.8E+00	2.8E+00	2.8E+00	2.8E+00	U	9.62E+01	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I					
2353052	EU-155	MW6-SBB-A1	-3.10E+01	pCi/L	4.6E+01	4.6E+01	4.6E+01	4.6E+01	4.6E+01	U	1.94E+01	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I					
2353052	K-40	MW6-SBB-A1	-3.70E+00	pCi/L	1.1E+01	1.1E+01	1.1E+01	1.1E+01	1.1E+01	U	4.90E+00	GAMMALL_GS	2.0015E+00	L	12/26/2012	07:47	I					
2353052	RU-106	MW6-SBB-A1	-1.60E+00	pCi/L	2.9E+00	2.9E+00	2.9E+00	2.9E+00	2.9E+00	U	9.85E+00	TC99_SEP_LSC	1.249E-01	L	12/26/2012	22:45	I					
2353052	SB-125	MW6-SBB-A1	3.62E+03	pCi/L	3.3E+01	2.0E+02	2.0E+02	2.0E+02	2.0E+02	U				L								
2353053	TC-99	MW6-SBB-A1	3.62E+03	pCi/L	3.3E+01	2.0E+02	2.0E+02	2.0E+02	2.0E+02	U				L								
Lab Sample Id:	Client Id:	Contract Nbr	Result	Unit	SAF Nbr	Sdg Nbr	TotU 2S	QC Type	TotU 2S	Qual	Moisture/Solids%*	Distilled Volume	Method	Alq Size	Unit	Analy Date/Time	Act	Sample On Date:	Collection Date:			
9MXK2X10	B2N060	MW6-SBB-A1	4.93E+00	pCi/L	6.9E-01	6.9E-01	6.9E-01	6.9E-01	6.9E-01	U	2.95E-01	I129LL_SEP_LEPS	3.8798E+00	L	12/28/2012	11:07	I	12/12/2012	11:41			
Batch	15046-84-1	Contract Nbr	4.93E+00	pCi/L	6.9E-01	6.9E-01	6.9E-01	6.9E-01	6.9E-01	U	2.95E-01	81.1	I129LL_SEP_LEPS	3.8798E+00	L	12/28/2012	11:07	I				
2353050	I-129	MW6-SBB-A1	4.93E+00	pCi/L	6.9E-01	6.9E-01	6.9E-01	6.9E-01	6.9E-01	U	2.95E-01	81.1	I129LL_SEP_LEPS	3.8798E+00	L	12/28/2012	11:07	I				
Lab Sample Id:	Client Id:	Contract Nbr	Result	Unit	SAF Nbr	Sdg Nbr	TotU 2S	QC Type	TotU 2S	Qual	Moisture/Solids%*	Distilled Volume	Method	Alq Size	Unit	Analy Date/Time	Act	Sample On Date:	Collection Date:			
9MXL3A10	B2MXX8	MW6-SBB-A1	2.20E+00	pCi/L	3.8E-01	3.8E-01	3.8E-01	3.8E-01	3.8E-01	U	1.86E-01	89.5	I129LL_SEP_LEPS	3.8681E+00	L	12/28/2012	21:46	I	12/13/2012	13:30		
Batch	15046-84-1	Contract Nbr	2.20E+00	pCi/L	3.8E-01	3.8E-01	3.8E-01	3.8E-01	3.8E-01	U	1.86E-01	89.5	I129LL_SEP_LEPS	3.8681E+00	L	12/28/2012	21:46	I				
2353050	I-129	MW6-SBB-A1	2.20E+00	pCi/L	3.8E-01	3.8E-01	3.8E-01	3.8E-01	3.8E-01	U	1.86E-01	89.5	I129LL_SEP_LEPS	3.8681E+00	L	12/28/2012	21:46	I				
Lab Sample Id:	Client Id:	Contract Nbr	Result	Unit	SAF Nbr	Sdg Nbr	TotU 2S	QC Type	TotU 2S	Qual	Moisture/Solids%*	Distilled Volume	Method	Alq Size	Unit	Analy Date/Time	Act	Sample On Date:	Collection Date:			
9MXL3G10	B2MXX9	MW6-SBB-A1	2.35E+00	pCi/L	3.8E-01	3.8E-01	3.8E-01	3.8E-01	3.8E-01	U	1.81E-01	90.0	I129LL_SEP_LEPS	3.8649E+00	L	12/31/2012	07:14	I	12/13/2012	13:30		
Batch	15046-84-1	Contract Nbr	2.35E+00	pCi/L	3.8E-01	3.8E-01	3.8E-01	3.8E-01	3.8E-01	U	1.81E-01	90.0	I129LL_SEP_LEPS	3.8649E+00	L	12/31/2012	07:14	I				
2353050	I-129	MW6-SBB-A1	2.35E+00	pCi/L	3.8E-01	3.8E-01	3.8E-01	3.8E-01	3.8E-01	U	1.81E-01	90.0	I129LL_SEP_LEPS	3.8649E+00	L	12/31/2012	07:14	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.

TestAmerica
 rptFeadRadSummaryEdd v3.48

1/15/2013 9:31:04 AM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 54248 File Name: h:\Reportdb\leddl\Fead\IVRad\W06505.Edd, h:\Reportdb\leddl\Fead\IVRad\54248.Ed

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:			
9MXL4610 B2N0B8			MW6-SBB-A1	S13-012	W06505					12/13/2012 09:45			
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353052	BE-7	13966-02-4	2.20E+00	pCi/L	1.1E+01	1.1E+01	U	1.91E+01	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353052	CO-60	10198-40-0	-7.62E-01	pCi/L	1.7E+00	1.7E+00	U	2.85E+00	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353052	CS-134	13967-70-9	-6.80E-02	pCi/L	1.6E+00	1.6E+00	U	2.85E+00	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353052	CS-137	10045-97-3	6.00E-01	pCi/L	1.5E+00	1.5E+00	U	2.64E+00	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353052	EU-152	14683-23-9	-3.62E-01	pCi/L	3.6E+00	3.6E+00	U	6.11E+00	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353052	EU-154	15585-10-1	-2.92E+00	pCi/L	5.0E+00	5.0E+00	U	8.30E+00	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353052	EU-155	14391-16-3	-1.13E-01	pCi/L	2.9E+00	2.9E+00	U	5.01E+00	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353052	K-40	13966-00-2	-6.70E+01	pCi/L	4.5E+01	4.5E+01	U	9.13E+01	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353052	RU-106	13967-48-1	-6.58E+00	pCi/L	1.2E+01	1.2E+01	U	1.98E+01	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353052	SB-125	14234-35-6	4.64E-01	pCi/L	3.2E+00	3.2E+00	U	5.57E+00	GAMMALL_GS	2.0005E+00	L	12/26/2012 11:23	I
2353053	TC-99	14133-76-7	2.37E+01	pCi/L	4.8E+00	6.7E+00	U	9.81E+00	TC99_SEP_LSC	1.251E-01	L	12/27/2012 01:55	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:			
9MXL4H10 B2N079			MW6-SBB-A1	S13-012	W06505					12/13/2012 10:56			
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353050	I-129	15046-84-1	4.87E+00	pCi/L	7.0E-01	7.0E-01	U	2.81E-01	I129LL_SEP_LEPS	3.8751E+00	L	12/31/2012 10:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:			
9MXL4J10 B2N087			MW6-SBB-A1	S13-012	W06505					12/14/2012 08:33			
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353050	I-129	15046-84-1	7.02E+00	pCi/L	8.9E-01	8.9E-01	U	2.41E-01	I129LL_SEP_LEPS	3.8696E+00	L	12/31/2012 10:40	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:			
9MXL4K10 B2N088			MW6-SBB-A1	S13-012	W06505					12/14/2012 08:33			
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353050	I-129	15046-84-1	6.40E+00	pCi/L	7.8E-01	7.8E-01	U	3.27E-01	I129LL_SEP_LEPS	3.8683E+00	L	12/31/2012 14:05	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:			
9MXL4M10 B2N094			MW6-SBB-A1	S13-012	W06505					12/14/2012 09:21			
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353050	I-129	15046-84-1	6.52E+00	pCi/L	9.1E-01	9.1E-01	U	4.37E-01	I129LL_SEP_LEPS	3.8859E+00	L	12/31/2012 14:06	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.

rptFeadRadSummaryEdd v3.48

1/15/2013 9:31:04 AM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 54248 File Name: h:\Reportdb\edd\Fead\RadW06505.Edd, h:\Reportdb\edd\Fead\RadI54248.Ed

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:				
9MXL4Q10	B2N0B4		MW6-SBB-A1	S13-012	W06505					12/13/2012 11:08				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353052	BE-7	13966-02-4	5.38E+00	pCi/L	8.6E+00	8.6E+00	U	1.61E+01	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	I
2353052	CO-60	10198-40-0	-6.70E-01	pCi/L	1.2E+00	1.2E+00	U	2.01E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	I
2353052	CS-134	13967-70-9	-2.78E-01	pCi/L	1.2E+00	1.2E+00	U	2.06E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	I
2353052	CS-137	10045-97-3	-3.02E-01	pCi/L	1.1E+00	1.1E+00	U	1.81E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	I
2353052	EU-152	14683-23-9	-8.18E-01	pCi/L	2.5E+00	2.5E+00	U	4.35E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	I
2353052	EU-154	15585-10-1	-4.11E-01	pCi/L	3.8E+00	3.8E+00	U	6.85E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	I
2353052	EU-155	14391-16-3	-6.37E-02	pCi/L	1.8E+00	1.8E+00	U	3.05E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	I
2353052	K-40	13966-00-2	-2.78E+01	pCi/L	3.2E+01	3.2E+01	U	6.69E+01	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	I
2353052	RU-106	13967-48-1	2.33E+00	pCi/L	9.0E+00	9.0E+00	U	1.65E+01	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	I
2353052	SB-125	14234-35-6	2.09E+00	pCi/L	2.5E+00	2.5E+00	U	4.57E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:21	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:				
9MXL4V10	B2N0B7		MW6-SBB-A1	S13-012	W06505					12/13/2012 07:30				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353052	BE-7	13966-02-4	1.33E+01	pCi/L	1.5E+01	1.5E+01	U	2.81E+01	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353052	CO-60	10198-40-0	-1.79E-01	pCi/L	1.6E+00	1.6E+00	U	2.90E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353052	CS-134	13967-70-9	-9.95E-01	pCi/L	1.7E+00	1.7E+00	U	2.80E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353052	CS-137	10045-97-3	-1.14E+00	pCi/L	1.5E+00	1.5E+00	U	2.55E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353052	EU-152	14683-23-9	-4.70E-01	pCi/L	4.1E+00	4.1E+00	U	7.05E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353052	EU-154	15585-10-1	4.25E+00	pCi/L	5.2E+00	5.2E+00	U	1.05E+01	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353052	EU-155	14391-16-3	-4.51E-01	pCi/L	3.0E+00	3.0E+00	U	5.21E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353052	K-40	13966-00-2	-1.02E+01	pCi/L	4.2E+01	4.2E+01	U	8.61E+01	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353052	RU-106	13967-48-1	2.48E-01	pCi/L	1.3E+01	1.3E+01	U	2.35E+01	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353052	SB-125	14234-35-6	-6.91E-01	pCi/L	3.7E+00	3.7E+00	U	6.52E+00	GAMMALL_GS	GAMMALL_GS	2.001E+00	L	12/26/2012 11:22	I
2353053	TC-99	14133-76-7	7.44E+00	pCi/L	4.3E+00	5.9E+00	U	9.82E+00	100.0	TC99_SEP_LSC	1.25E-01	L	12/27/2012 00:52	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:
9MXL5D10	B2N1H5		MW6-SBB-A1	S13-012	W06505					12/14/2012 08:37

TestAmerica
 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.

1/15/2013 9:31:04 AM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 54248 File Name: h:\Reportdb\ledd\Fead\VRad\W06505.Edd, h:\Reportdb\ledd\Fead\VRad\54248.Ed

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2353052	BE-7	13966-02-4	2.40E+00	pCi/L	9.2E+00	9.2E+00	U	1.67E+01		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I
2353052	CO-60	10198-40-0	-2.76E-01	pCi/L	1.1E+00	1.1E+00	U	2.07E+00		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I
2353052	CS-134	13967-70-9	3.31E-02	pCi/L	1.2E+00	1.2E+00	U	2.13E+00		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I
2353052	CS-137	10045-97-3	-8.43E-02	pCi/L	9.3E-01	9.3E-01	U	1.64E+00		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I
2353052	EU-152	14683-23-9	-2.12E+00	pCi/L	2.7E+00	2.7E+00	U	4.38E+00		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I
2353052	EU-154	15585-10-1	2.76E-01	pCi/L	3.7E+00	3.7E+00	U	6.76E+00		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I
2353052	EU-155	14391-16-3	-2.27E-01	pCi/L	1.8E+00	1.8E+00	U	3.05E+00		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I
2353052	K-40	13966-00-2	1.61E+01	pCi/L	3.5E+01	3.5E+01	U	2.51E+01		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I
2353052	RU-106	13967-48-1	3.98E+00	pCi/L	9.1E+00	9.1E+00	U	1.69E+01		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I
2353052	SB-125	14234-35-6	-1.20E+00	pCi/L	2.7E+00	2.7E+00	U	4.47E+00		GAMMALL_GS	2.0006E+00	L	12/26/2012 14:51	I

TestAmerica

rpt\FeadRadSummaryEdd 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.

Tuesday, January 15, 2013 Lab Code: TARL
TestAmerica QC Blank Report
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\W06505.Edd, h:\Reportdb\edd\Fead\W06505.Edd

Lab Sample Id: MXMJ11AB Sdg/Rept Nbr: W06505 Collection Date: 12/13/2012 13:30
 Client Id: NA Matrix: WATER Sample On Date: 12/14/2012
 Moisture/Solids%*: QC Type: BLK Received Date: 12/14/2012

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
2353050	I-129	-1.11E-01	pCi/L	1.2E-01	U	1.89E-01	92.4		I129LL_SEP_L	3.8957E+00	12/31/2012 18:30				D
BLK	15046-84-1			1.2E-01						L					

TestAmerica /
 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.

Tuesday, January 15, 2013 Lab Code: TARL
TestAmerica QC Blank Report
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W06505.Edd, h:\Reportdb\edd\Fead\Rad\54248.Ed

Lab Sample Id: MXMJ31AB Sdg/Rept Nbr: W06505 Collection Date: 12/06/2012 14:07
 Cifent Id: NA Matrix: WATER Sample On Date: 12/07/2012
 Moisture/Solids%*: QC Type: BLK Received Date: 12/07/2012

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
2353051	H-3	7.15E+00	pCi/L	2.5E+01	U	2.63E+01	100.0		906.0ML_H3_L	1.0029E-02	12/21/2012 06:07				D
BLK	10028-17-8			1.2E+01						L					

TestAmerica 2
 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.

TestAmerica QC Blank Report

Tuesday, January 15, 2013 Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\W06505.Edd; h:\Reportdb\edd\Fead\W06505.Edd

Lab Sample Id: MXMJ71AB Sdg/Rept Nbr: W06505 Collection Date: 12/13/2012 11:08

Client Id: NA Matrix: WATER Sample On Date: 12/14/2012

Moisture/Solids%*: QC Type: BLK Received Date: 12/14/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	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 Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2353052	BE-7	-1.28E+01	pCi/L	1.4E+01	U	2.24E+01			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	13966-02-4			1.4E+01						L					
2353052	CO-60	5.56E-01	pCi/L	1.5E+00	U	3.07E+00			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	10198-40-0			1.5E+00						L					
2353052	CS-134	1.63E+00	pCi/L	1.7E+00	U	3.33E+00			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	13967-70-9			1.7E+00						L					
2353052	CS-137	3.52E-01	pCi/L	1.5E+00	U	2.86E+00			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	10045-97-3			1.5E+00						L					
2353052	EU-152	-4.00E+00	pCi/L	4.0E+00	U	6.22E+00			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	14683-23-9			4.0E+00						L					
2353052	EU-154	-1.41E+00	pCi/L	4.6E+00	U	8.26E+00			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	15585-10-1			4.6E+00						L					
2353052	EU-155	-7.98E-02	pCi/L	3.1E+00	U	5.51E+00			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	14391-16-3			3.1E+00						L					
2353052	K-40	-4.16E+01	pCi/L	3.9E+01	U	7.87E+01			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	13966-00-2			3.9E+01						L					
2353052	RU-106	8.92E+00	pCi/L	1.5E+01	U	2.78E+01			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	13967-48-1			1.5E+01						L					
2353052	SB-125	1.07E+00	pCi/L	3.8E+00	U	6.89E+00			GAMMALL_GS	1.9998E+00	12/26/2012 14:52				D
BLK	14234-35-6			3.8E+00						L					

TestAmerica 3

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.

Tuesday, January 15, 2013 Lab Code: TARL
TestAmerica QC Blank Report
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\W06505.Edd, h:\Reportdb\edd\Fead\W06505.Edd

Lab Sample Id: MXMK81AB **Sdg/Rept Nbr:** W06505 **Collection Date:** 12/11/2012 08:58
Client Id: NA **Matrix:** WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 12/11/2012

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	Tof/Cnt Uncert ZS	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2353054 BLK	TC-99 14133-76-7	1.07E+00	pCi/L	5.9E+00 4.3E+00	U	1.03E+01	100.0		TC99_ETVDSK	1.253E-01 L	12/29/2012 03:54				D

TestAmerica 4
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.

Tuesday, January 15, 2013 Lab Code: TARL
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W06505.Edd; h:\Reportdb\edd\Fead\Rad\54248.Ed

TestAmerica QC Blank Report

Lab Sample Id: MXMKQ1AB Sdg/Rept Nbr: W06505 Collection Date: 12/12/2012 12:34
 Client Id: NA Matrix: WATER Sample On Date: 12/13/2012
 Moisture/Solids%*: QC Type: BLK Received Date: 12/13/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ
	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
2353053	TC-99	2.65E+00	pCi/L	5.6E+00	U	9.81E+00	100.0		TC99_SEP_LS	1.25E-01	12/27/2012 04:02				D
BLK	14133-76-7			4.1E+00						L					

TestAmerica
 rptfheadRadEdd 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.

Tuesday, January 15, 2013 Lab Code: TARL
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\W06505.Edd, h:\Reportdb\ledd\Fead\W06505.Edd
TestAmerica QC Blank Report

Lab Sample Id: MXMLM1AB Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 08:58
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
	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 Type
2353055 BLK	13966-02-4	-4.22E-02	pCi/L	5.8E+00	U	1.04E+01			GAMMA_GS	L	07:46				D
2353055 BLK	10198-40-0	9.70E-02	pCi/L	9.1E-01	U	1.75E+00			GAMMA_GS	L	07:46				D
2353055 BLK	13967-70-9	4.95E-01	pCi/L	9.2E-01	U	1.76E+00			GAMMA_GS	L	07:46				D
2353055 BLK	10045-97-3	-3.44E-01	pCi/L	8.1E-01	U	1.37E+00			GAMMA_GS	L	07:46				D
2353055 BLK	14683-23-9	1.40E+00	pCi/L	2.0E+00	U	3.62E+00			GAMMA_GS	L	07:46				D
2353055 BLK	15585-10-1	-3.04E-01	pCi/L	2.4E+00	U	4.48E+00			GAMMA_GS	L	07:46				D
2353055 BLK	14391-16-3	9.29E-01	pCi/L	1.3E+00	U	2.40E+00			GAMMA_GS	L	07:46				D
2353055 BLK	13966-00-2	-2.37E+01	pCi/L	2.6E+01	U	5.32E+01			GAMMA_GS	L	07:46				D
2353055 BLK	13967-48-1	-4.02E+00	pCi/L	7.8E+00	U	1.30E+01			GAMMA_GS	L	07:46				D
2353055 BLK	14234-35-6	-1.04E+00	pCi/L	2.0E+00	U	3.29E+00			GAMMA_GS	L	07:46				D

TestAmerica
 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.

Tuesday, January 15, 2013 Lab Code: TARL
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\W06505.Edd, h:\Reportdb\ledd\Fead\W06505.Edd

TestAmerica QC Blank Report

Lab Sample Id: MXMM01AB Sdg/Rept Nbr: W06505 Collection Date: 12/11/2012 12:05
 Client Id: NA Matrix: WATER Sample On Date: 12/11/2012
 Moisture/Solids%*: QC Type: BLK Received Date: 12/11/2012

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	Tof/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
2353059	BETA	8.58E-03	pCi/L	1.0E+00	U	1.88E+00	100.0		9310_ALPHAB	2.003E-01	12/27/2012 17:20				D
BLK	12587-47-2			1.0E+00						L					

TestAmerica
 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.

Tuesday, January 15, 2013 Lab Code: TARL
TestAmerica QC Blank Report
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\W06505.Edd, h:\Reportdb\edd\Fead\W06505.Edd

Lab Sample Id: MXMM51AB Sdg/Rept Nbr: W06505 Collection Date: 12/11/2012 12:05
 Cifent Id: NA Matrix: WATER Sample On Date: 12/11/2012
 Moisture/Solids%*: QC Type: BLK Received Date: 12/11/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt	Qu-	Tracer	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Type
2353060 BLK	SR-90	2.47E-02	pCi/L	7.7E-01	U	Yield		SRISO_SEP_P	5.015E-01	01/11/2013 07:41	UCL	UCL		D

MDC 1.62E+00 67.2
 2.8E-01

TestAmerica 8
 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.

Tuesday, January 15, 2013
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Report\bld\Fead\Rad\W06505.Edd, h:\Report\bld\Fead\Rad\54248.Ed
 Lab Code: TARL

TestAmerica QC Blank Report

Lab Sample Id: MXMMMCZAB Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 12:05
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 12/11/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt	Uncert	2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Type
3002029	H-3	1.91E+02	pCi/L	1.7E+02	1.5E+02		U	3.62E+02	100.0		906.0_H3_LSC	5.017E-03	01/02/2013 22:54				D
BLK	10028-17-8											L					

TestAmerica 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. 9

Tuesday, January 15, 2013
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\W06505.Edd, h:\Reportdb\edd\Fead\W06505.Edd, h:\Reportdb\edd\Fead\W06505.Edd, h:\Reportdb\edd\Fead\W06505.Edd
 Lab Code: TARL

TestAmerica QC Blank Report

Lab Sample Id: MXMMW1AB Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 12:05
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType
2353058	MW6-SBB-A19981								BZ	H
BLK	12587-46-1									

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 Type
2353058	ALPHA	-2.73E-01	pCi/L	4.4E-01	U	9.01E-01	100.0		9310_ALPHAB	2.003E-01	12/28/2012 08:41				D
BLK	12587-46-1			4.4E-01						L					

TestAmerica
 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.

Tuesday, January 15, 2013 Lab Code: TARL
FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Report\bld\Fead\Rad\W06505.Edd, h:\Report\bld\Fead\Rad\54248.Ed

TestAmerica QC Control Sample Report

Lab Sample Id: MXMJ11CS **Sdg/Rept Nbr:** W06505 **Collection Date:** 12/13/2012 13:30
Client Id: NA **Matrix:** WATER **Decant:** 54248 **Sample On Date:** 12/14/2012
Moisture/Solids%*: **QC Type:** BS **Received Date:** 12/14/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt	Uncert ZS	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2353050	I-129	1.13E+01	pCi/L	1.3E+00	1.3E+00		2.37E-01	92.6	1.00E+01	1129LL_SEP_L	3.8927E+00	12/31/2012 18:31			70	D
BS	15046-84-1								113.1		L				130	

TestAmerica 11
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.

Tuesday, January 15, 2013
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Report\bbedd\Fead\W06505.Edd, h:\Report\bbedd\Fead\W06505.Edd, h:\Report\bbedd\Fead\W06505.Edd, h:\Report\bbedd\Fead\W06505.Edd
 Lab Code: TARL

TestAmerica QC Control Sample Report

Lab Sample Id: MXMJ31CS Sdg/Rept Nbr: W06505 54248 Collection Date: 12/06/2012 14:07
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 12/07/2012

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
2353051	H-3	7.81E+03	pCi/L	9.0E+02	6.1E+01			2.64E+01	100.0	9.03E+03	906.0ML_H3_L	1.0004E-02	12/21/2012 06:07			70	D
BS	10028-17-8									86.6		L				130	

TestAmerica
 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.

Tuesday, January 15, 2013
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\W06505.Edd, h:\Reportdb\edd\Fead\W06505.Edd
 Lab Code: TARL

TestAmerica QC Control Sample Report

Lab Sample Id: MXMJ71CS Sdg/Rept Nbr: W06505 54248 Collection Date: 12/13/2012 11:08
 Cilent Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 12/14/2012

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
2353052	CO-60	4.06E+01	pCi/L	6.8E+00		2.87E+00		3.84E+01	GAMMALL_GS	2.0004E+00	12/26/2012			70	D
BS	10198-40-0			6.8E+00				105.8		L	14:52			130	
2353052	CS-137	4.52E+01	pCi/L	7.8E+00		2.89E+00		5.03E+01	GAMMALL_GS	2.0004E+00	12/26/2012			70	D
BS	10045-97-3			7.8E+00				90.0		L	14:52			130	
2353052	EU-152	6.69E+01	pCi/L	1.3E+01		6.96E+00		7.70E+01	GAMMALL_GS	2.0004E+00	12/26/2012			70	D
BS	14683-23-9			1.3E+01				86.9		L	14:52			130	

Distilled Volume Decant File Id FSuffix RTyp
 BM H

TestAmerica
 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.

Tuesday, January 15, 2013
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Report\bledd\Fead\W06505.Edd, h:\Report\bledd\Fead\W06505.Edd, h:\Report\bledd\Fead\W06505.Edd
 Lab Code: TARL

TestAmerica QC Control Sample Report

Lab Sample Id: MXMK81CS Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 08:58
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ					
	MW6-SBB-A19981								BO	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
2353054 BS	TC-99 14133-76-7	4.66E+02	pCi/L	3.1E+01 1.3E+01		1.05E+01	100.0	5.49E+02 84.9	TC99_ETVDSK	1.238E-01	12/29/2012 04:58			70	D
										L				130	

TestAmerica
 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.

Tuesday, January 15, 2013 Lab Code: TARL
FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\Fead\Rad\W06505.Edd, h:\Reportdb\edd\Fead\Rad\54248.Ed

TestAmerica QC Control Sample Report

Lab Sample Id: MXMKQ1CS **Sdg/Rept Nbr:** W06505 **Collection Date:** 12/12/2012 12:34
Cfent Id: NA **Matrix:** WATER **Decant:** WATER **Sample On Date:** 12/13/2012
Moisture/Solids%*: BS **QC Type:** BS **Received Date:** 12/13/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Distilled Volume	File Id	FSuffix	RType
	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
2353053	TC-99	4.46E+02	pCi/L	3.0E+01		9.79E+00	100.0	5.43E+02	TC99_SEP_LS	1.252E-01	12/27/2012 05:05			70	D
BS	14133-76-7			1.2E+01				82.2		L				130	

TestAmerica
 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.

Tuesday, January 15, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Report\bledd\Fead\W06505.Edd, h:\Report\bledd\Fead\W06505.Edd, h:\Report\bledd\Fead\W06505.Edd

Lab Sample Id: MXMLM1CS Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 08:58
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ					
	MW6-SBB-A19981								BS	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
2353055	CO-60	3.15E+01	pCi/L	5.1E+00		2.10E+00		3.07E+01	GAMMA_GS	2.4984E+00	12/24/2012			70	D
BS	10198-40-0			5.1E+00				102.4		L	16:24			130	
2353055	CS-137	4.02E+01	pCi/L	6.1E+00		2.53E+00		4.06E+01	GAMMA_GS	2.4984E+00	12/24/2012			70	D
BS	10045-97-3			6.1E+00				98.9		L	16:24			130	
2353055	EU-152	6.53E+01	pCi/L	1.1E+01		6.40E+00		6.23E+01	GAMMA_GS	2.4984E+00	12/24/2012			70	D
BS	14683-23-9			1.1E+01				104.9		L	16:24			130	

TestAmerica
 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.

Tuesday, January 15, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\W06505.Edd, h:\Reportdb\edd\Fead\W06505.Edd

Lab Sample Id: MXMM51CS Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 12:05
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 12/11/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tof/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
2353060	SR-90	2.85E+01	pCi/L	4.6E+00		9.80E-01	76.8	2.77E+01	SRISO_SEP_P	5.012E-01	01/11/2013 07:41			70	D
BS	10098-97-2			1.6E+00				102.8		L				130	

TestAmerica
 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.

Tuesday, January 15, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIVRad\W06505.Edd, h:\Reportdb\edd\FeadIVRad\54248.Ed

Lab Sample Id: MXMMC1CS Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 12:05
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BX	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2353057 H-3		2.88E+03	pCi/L	2.5E+02 2.2E+02		3.32E+02	100.0	2.70E+03 106.8	906.0_H3_LSC	5.014E-03	12/20/2012 00:14			70 130	D
BS	10028-17-8									L					

TestAmerica

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.

Tuesday, January 15, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\W06505.Edd, h:\Reportdb\ledd\Fead\W06505.Edd

Lab Sample Id: MXMMW1CS Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 12:05
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 12/11/2012

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

Batch # / Qc Type	Analw/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt	Uncert 2S	Qu-	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2353058	ALPHA	2.11E+01	pCi/L	5.5E+00	1.6E+00	al	7.86E-01	100.0	2.31E+01	9310_ALPHAB	2.002E-01	12/28/2012			70	D
BS	12587-46-1								91.3		L	08:41			130	

TestAmerica
 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.

Tuesday, January 15, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W06505.Edd, h:\Reportdb\edd\Fead\Rad\54248.Ed

Lab Sample Id: MXJ021LR Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 08:58
 Client Id: B2MT32 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
113-002	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 Type
2353054	TC-99	5.75E+00	pCi/L	6.2E+00	U	1.03E+01	100.0		TC99_ETVDSK	1.251E-01	12/29/2012 00:44	9.0	0.1		D
DUP	14133-76-7	5.26E+00		4.4E+00						L		20.0	3		

TestAmerica
 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.

TestAmerica QC Duplicate Report

Tuesday, January 15, 2013 Lab Code: TARL

FormNbr: R VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\W06505.Edd, h:\Reportdb\edd\Fead\W06505.Edd

FormatType: FEAD Sdg/Rept Nbr: W06505 Collection Date: 12/11/2012 08:58

Lab Sample Id: MXJ021MR 54248 Sample On Date:

Client Id: B2MT32 Matrix: WATER Received Date: 12/11/2012

Moisture/Solids%*: QC Type: DUP

Batch # / Qc Type	Analyst / CAS#	Result / Orig Rst	Unit	Tot/Cnt Uncert 2S	Case Nbr	MDC	Tracer Yield	Spk Concl %Rec	Decant	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2353055	BE-7	1.65E+00	pCi/L	1.4E+01	U	2.49E+01			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.4		D
DUP	13966-02-4	-2.07E+00	pCi/L	1.4E+01	U	2.45E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.7		D
2353055	CO-60	-3.73E-01	pCi/L	1.3E+00	U	3.13E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	1.1		D
DUP	10198-40-0	2.71E-01	pCi/L	1.3E+00	U	3.18E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	189.8	1.6		D
2353055	CS-134	-2.04E+00	pCi/L	2.0E+00	U	7.45E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.1		D
DUP	13967-70-9	-4.93E-01	pCi/L	2.0E+00	U	7.81E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	20.0	3		D
2353055	CS-137	5.21E-02	pCi/L	1.8E+00	U	4.93E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.8		D
DUP	10045-97-3	2.00E+00	pCi/L	1.8E+00	U	7.94E+01			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	20.0	3		D
2353055	EU-152	-8.41E-01	pCi/L	4.4E+00	U	2.76E+01			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.9		D
DUP	14683-23-9	-1.15E+00	pCi/L	4.4E+00	U	7.33E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.1		D
2353055	EU-154	-5.33E-01	pCi/L	4.2E+00	U	4.2E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	266.0	1.4		D
DUP	15585-10-1	3.76E+00	pCi/L	4.2E+00	U	4.93E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	20.0	3		D
2353055	EU-155	-1.42E+00	pCi/L	2.9E+00	U	7.94E+01			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.2		D
DUP	14391-16-3	2.68E-01	pCi/L	2.9E+00	U	2.76E+01			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	111.3	0.9		D
2353055	K-40	-6.11E+01	pCi/L	4.1E+01	U	1.4E+01			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	20.0	3		D
DUP	13966-00-2	-5.54E+01	pCi/L	4.1E+01	U	7.33E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.1		D
2353055	RU-106	1.26E+01	pCi/L	1.4E+01	U	4.2E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.1		D
DUP	13967-48-1	3.58E+00	pCi/L	1.4E+01	U	4.2E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	20.0	3		D
2353055	SB-125	-9.69E-01	pCi/L	4.2E+00	U	4.2E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	0.0	0.1		D
DUP	14234-35-6	-7.75E-01	pCi/L	4.2E+00	U	4.2E+00			GAMMA_GS	GAMMA_GS	1.9591E+00	12/26/2012 07:45	20.0	3		D

TestAmerica 22

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.

Tuesday, January 15, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdbled\Fead\W06505.Edd, h:\Reportdbled\Fead\W06505.Edd, h:\Reportdbled\Fead\W06505.Edd

Lab Sample Id: MXJ031MR Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 12:05
 Cilent Id: B2MRP9 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
113-002	MW6-SBB-A19981								AY	H					
Batch # / Qc Type	Analyl/ 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 Type
2353057	H-3	1.28E+04	pCi/L	5.2E+02		3.25E+02	100.0		906.0_H3_LSC	5.011E-03	12/19/2012	4.9	1.7		D
DUP	10028-17-8	1.22E+04		4.0E+02						L	21:29	20.0	3		

TestAmerica
 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.

Tuesday, January 15, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\VRad\W06505.Edd, h:\Reportdb\ledd\Fead\VRad\54248.Ed

Lab Sample Id: MXJ031NR Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 12:05
 Client Id: B2MRP9 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Disilled Volume	File Id	FSuffix	RType					
113-002	MW6-SBB-A19981								AZ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tof/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
2353058	ALPHA	7.52E-01	pCi/L	8.8E-01	U	1.46E+00	100.0		9310_ALPHAB	1.993E-01	12/28/2012 08:41	35.0	0.4		D
DUP	12587-46-1	5.28E-01		8.6E-01					L			20.0	3		

TestAmerica

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.

Tuesday, January 15, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 Sdg/Rept Nbr: W06505 Collection Date: 12/11/2012 12:05 File Name: h:\Reportdb\edd\Feed\VRad\W06505.Edd, h:\Reportdb\edd\Feed\VRad\54248.Ed

Lab Sample Id: MXJ031QR Matrix: WATER Decant Distilled Volume File Id FSuffix RType
 Client Id: B2MRP9 QC Type: DUP Spk Concl/ %Rec Aliq Size/ Date/Time Analyzed RER/ UCL LCS R
 Moisture/Solids%*: MDC SRISO_SEP_P 3.609E-01 01/11/2013 2753.5 1.4 D
 DUP 10098-97-2 9.1E-01 9.1E-01 U 2.01E+00 79.5 L 07:41 20.0 3

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType
113-002	MW6-SBB-A19981								BA	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt	Qu-	al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS	R
2353060	SR-90	5.36E-01	pCi/L	9.9E-01	U		2.01E+00	79.5		SRISO_SEP_P	3.609E-01	01/11/2013	2753.5	1.4		D
DUP	10098-97-2	-4.63E-01		9.1E-01							L	07:41	20.0	3		

TestAmerica
 rptFeedRadEdd 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.

Tuesday, January 15, 2013 Lab Code: TARL
TestAmerica QC Duplicate Report
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\VRad\W06505.Edd, h:\Reportdb\ledd\Fead\VRad\54248.Ed

Lab Sample Id: MXJ032PR Sdg/Rept Nbr: W06505 Collection Date: 12/11/2012 12:05
 Client Id: B2MRP9 Matrix: WATER Sample On Date: 12/11/2012
 Moisture/Solids%*: QC Type: DUP Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R TYP
I13-002	MW6-SBB-A19981								BB	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
2353059	BETA	6.15E+00	pCi/L	1.7E+00		2.24E+00	100.0		9310_ALPHAB	1.795E-01	12/28/2012	18.3	1.1		D
DUP	12587-47-2	7.38E+00		1.5E+00						L	19:05	20.0	3		

TestAmerica 26
 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.

Tuesday, January 15, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Feed\W06505.Edd, h:\Reportdb\edd\Feed\W06505.Edd

Lab Sample Id: MXJAK1DR Sdg/Rept Nbr: W06505 54248 Collection Date: 12/06/2012 14:07
 Client Id: B2N1H0 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 12/07/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ					
S13-012	MW6-SBB-A19981								BC	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
2353051	H-3	-3.82E+01	pCi/L	2.3E+01	U	2.49E+01	100.0		906.0ML_H3_L	1.0037E-02	12/21/2012 06:07	0.0	1.4		D
DUP	10028-17-8	-1.56E+01		1.0E+01						L		20.0	3		

TestAmerica
 rptFeedRadEdd 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.

Tuesday, January 15, 2013 Lab Code: TARL
FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\Fead\Rad\W06505.Edd, h:\Reportdb\edd\Fead\Rad\54248.Ed

TestAmerica QC Duplicate Report

Lab Sample Id: MXK251DR **Sdg/Rept Nbr:** W06505 **54248** **Collection Date:** 12/12/2012 12:34
Client Id: B2N098 **Matrix:** WATER **WATER** **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 12/13/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ					
S13-012	MW6-SBB-A19981								BD	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
2353053	TC-99	3.73E+03	pCi/L	2.1E+02		9.83E+00	100.0		TC99_SEP_LS	1.251E-01	12/26/2012	2.9	0.7		D
DUP	14133-76-7	3.62E+03		3.4E+01						L	23:49	20.0	3		

TestAmerica
 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.

Tuesday, January 15, 2013
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\W06505.Edd, h:\Reportdb\ledd\Fead\W06505.Edd
 Lab Code: TARL

TestAmerica QC Duplicate Report

Lab Sample Id: MXL3A1CR Sdg/Rept Nbr: W06505 54248 Collection Date: 12/13/2012 13:30
 Client Id: B2MXX8 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 12/14/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType								
113-009	MW6-SBB-A19981								BE	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	
2353050	I-129	2.47E+00	pCi/L	4.4E-01	4.4E-01			2.25E-01	91.4		I129LL_SEP_L	3.8603E+00	12/31/2012	11.9	0.9			D
DUP	15046-84-1	2.20E+00		4.4E-01								L	07:13	20.0	3			

TestAmerica
 rptFeadRadEdd v3.68

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 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.

Tuesday, January 15, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Frad\W06505.Edd, h:\Reportdb\ledd\Frad\W06505.Edd

Lab Sample Id: MXL4Q1CR Sdg/Rept Nbr: W06505 54248 Collection Date: 12/13/2012 11:08
 Client Id: B2N0B4 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: DUP Received Date: 12/14/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tof/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
S13-012	MW6-SBB-A19981														
2353052	BE-7	-2.82E+00	pCi/L	8.1E+00	U	1.38E+01			GAMMALL_GS	1.8662E+00	12/26/2012	641.4	1.4		D
DUP	13966-02-4	5.38E+00	pCi/L	8.1E+00	U	1.79E+00			GAMMALL_GS	L	11:22	20.0	3		D
2353052	CO-60	-9.21E-01	pCi/L	1.1E+00	U	2.03E+00			GAMMALL_GS	L	11:22	20.0	3		D
DUP	10198-40-0	-6.70E-01	pCi/L	1.1E+00	U	1.81E+00			GAMMALL_GS	L	11:22	20.0	3		D
2353052	CS-134	1.87E-01	pCi/L	1.1E+00	U	3.86E+00			GAMMALL_GS	L	11:22	20.0	3		D
DUP	13967-70-9	-2.78E-01	pCi/L	1.1E+00	U	5.53E+00			GAMMALL_GS	L	11:22	20.0	3		D
2353052	CS-137	-9.22E-01	pCi/L	1.4E+00	U	2.41E+00			GAMMALL_GS	L	11:22	20.0	3		D
DUP	10045-97-3	-3.02E-01	pCi/L	1.4E+00	U	2.13E+01			GAMMALL_GS	L	11:22	20.0	3		D
2353052	EU-152	8.65E-01	pCi/L	2.1E+00	U	3.58E+00			GAMMALL_GS	L	11:22	20.0	3		D
DUP	14683-23-9	-8.18E-01	pCi/L	2.1E+00	U	1.8E+00			GAMMALL_GS	L	11:22	20.0	3		D
2353052	EU-154	-9.82E-01	pCi/L	3.0E+00	U	2.13E+01			GAMMALL_GS	L	11:22	20.0	3		D
DUP	15585-10-1	-4.11E-01	pCi/L	3.0E+00	U	1.44E+01			GAMMALL_GS	L	11:22	20.0	3		D
2353052	EU-155	-6.17E-02	pCi/L	1.4E+00	U	1.8E+00			GAMMALL_GS	L	11:22	20.0	3		D
DUP	14391-16-3	-6.37E-02	pCi/L	1.4E+00	U	1.8E+00			GAMMALL_GS	L	11:22	20.0	3		D
2353052	K-40	2.68E+00	pCi/L	2.1E+01	U	2.13E+01			GAMMALL_GS	L	11:22	20.0	3		D
DUP	13966-00-2	-2.78E+01	pCi/L	2.1E+01	U	1.44E+01			GAMMALL_GS	L	11:22	20.0	3		D
2353052	RU-106	2.06E+00	pCi/L	8.0E+00	U	1.8E+00			GAMMALL_GS	L	11:22	20.0	3		D
DUP	13967-48-1	2.33E+00	pCi/L	8.0E+00	U	3.58E+00			GAMMALL_GS	L	11:22	20.0	3		D
2353052	SB-125	2.19E+00	pCi/L	1.8E+00	U	1.8E+00			GAMMALL_GS	L	11:22	20.0	3		D
DUP	14234-35-6	2.09E+00	pCi/L	1.8E+00	U	1.8E+00			GAMMALL_GS	L	11:22	20.0	3		D

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.

TestAmerica
 rptFeadRadEdd v3.68

Tuesday, January 15, 2013

TestAmerica Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\W06505.Edd, h:\Reportdb\ledd\Fead\W06505.Edd

Lab Sample Id: MXJ031LW Sdg/Rept Nbr: W06505 54248 Collection Date: 12/11/2012 12:05
 Client Id: B2MRP9 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: MS Received Date: 12/11/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
113-002	MW6-SBB-A19981								AX	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
2353054	TC-99	3.05E+03	pCi/L	1.7E+02		1.03E+01	100.0	3.66E+03	TC99_ETVDSK	1.252E-01	12/29/2012			60	D
MS	14133-76-7			3.0E+01				83.5		L	02:51			140	

TestAmerica
 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.

Tuesday, January 15, 2013
 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\Fead\W06505.Edd, h:\Reportdb\ledd\Fead\W06505.Edd
 Lab Code: TARL

TestAmerica Qc Matrix Spike Report

Lab Sample Id: MXL461DW Sdg/Rept Nbr: W06505 54248 Collection Date: 12/13/2012 09:45
 Cifent Id: B2N0B8 Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: MS Received Date: 12/14/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp							
S13-012	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
2353053 MS	TC-99 14133-76-7	3.02E+03	pCi/L	1.7E+02	3.0E+01			9.81E+00	100.0	3.63E+03 83.0	TC99_SEP_LS	1.252E-01	12/27/2012 02:58			70	D
												L				130	

TestAmerica
 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.

923
1/15/13



Hexavalent Chromium - Water

Analyst: H. Rahavi		Batch #	
Start Date: 12/11/2012	12/11/2012	SDG #	2346077
End Date: 12/11/2012	16:00	Matrix	Water
End Time: 17:00	17:00	SOP Information RL-WC-003 Revision 0	
Analyst Signature: <i>[Signature]</i>		Instrument Information Instrument: Hach DR2010 Wavelength: 540	
Date: 12/11/12			

Calibration Curve Information			
Amount (mL)	Conc. (mg/L)	ABS.	
Blank	0.000	0.000	0.000
Std. 1	0.100	0.048	0.104
Std. 2	0.500	0.238	0.489
Std. 3	0.750	0.356	0.717
Std. 4	1.500	0.713	1.412
Std. 5	2.000	0.950	1.849
Standard Volume (mL): 95.000			
Date of Curve: 12/11/2012			

$y = 0.0170x^2 + 0.4826x - 0.0012$
 $R^2 = 1.0000$

Dilution ID #	ICV/CCV Information:	LCS Information:	Matrix Spike Information:
Cr-12-00423	Cr-12-00424	Cr-12-00423	Cr-12-00423
12/11/12	12/11/12	12/11/12	12/11/12
50	50	50	50
12/12/12	12/12/12	12/12/12	12/12/12
70,190	190	190	190
	1.000	1.00	1.50
	100.000	100.00	100.00
	0.475	0.475	0.713

Sample ID	Client ID	Type	Sample Volume (mL)	Final Volume (mL)	Sample ABS.	Color Blank ABS.	Corrected ABS.	Dilution Factor	Curve Conc. (mg/L)	Expected (mg/L)	% Rec. / RPD	Final Reported Conc. (mg/L)	Qualifier
n/a	n/a	ICV	95.000	100.000	0.968		0.968	1	0.4819	0.4750	101.45%	0.482	
n/a	n/a	ICB	95.000	100.000	0.001		0.001	1	-0.0007			<MDL	
n/a	n/a	CCV	95.000	100.000	0.959		0.959	1	0.4772	0.4750	100.47%	0.477	
n/a	n/a	CCB	95.000	100.000	0.002		0.002	1	-0.0002			<MDL	
MX1091AA	n/a	BLK	95.000	100.000	0.003		0.003	1	0.0002			<MDL	
MX1091AC	n/a	LCS	95.000	100.000	0.947		0.947	1	0.4711	0.4750	99.17%	0.471	
MX1021AA	B2MT32*	Sample	95.000	100.000	0.271		0.271	1	0.1308			0.131	
MX1021AC-S	B2MT32*-MS	MS*	95.000	100.000	1.744		1.744	1	0.8922	0.7500	101.51%	0.761	
MX1021AD-D	B2MT32-MSD	MSD*	95.000	100.000	1.708		1.708	1	0.8727	0.7500	98.91%	0.742	
MX1021AE-X	B2MT32-DUP	Duplicate	95.000	100.000	0.271		0.271	1	0.1308			0.131	
MX1031AA	B2MRP9*	Sample	95.000	100.000	0.011		0.011	1	0.0041			<MDL	U
			95.000	100.000				1					
			95.000	100.000				1					
n/a	n/a	CCV	95.000	100.000	0.958		0.958	1	0.4767	0.4750	100.36%	0.477	
n/a	n/a	CCB	95.000	100.000	0.001		0.001	1	-0.0007			<MDL	

*If the parent sample is above the MDL, the Final Reported Conc. (mg/L) for the MS and MSD is corrected for the parent sample.
CG-223 Rev. 0 1/2013

Lot No., Due Date: J2L110430; 01/15/2013
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 2353058; RALPHA-A Alpha by GPC-Am
 SDG, Matrix: W06505; 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 *La Anderson* Date *12/28/12*



Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 23 530 58

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances 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: CRDC = 3.0 pCi/l

Second Level Review: [Signature] Date: 12/31/12

Lot No., Due Date: J2L110430; 01/15/2013
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 2353059; RBETA-SR Beta by GPC-Sr/Y
 SDG, Matrix: W06505; WATER

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

NCM 10-22520

First Level *Ma Anton* Date *12/31/12*



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 2353059

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓	✓	
C. Other			
1. Are all Non-conformances 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: CRDL = 4.0 pCi/L
See NCM # 10-22-520

Second Level Review: *[Signature]* Date: 1/2/13

LS-038B, Rev. 10, 9/07

**Clouseau
Nonconformance Memo**



NCM #: 10-22520	Classification: Anomaly
NCM Initiated By: Lisa Antonson	Status: PMREVIEW
Date Opened: 12/31/2012	Production Area: Counting
Date Closed:	Tests: Beta by GPC-Sr/Y
	Lot #'s (Sample #'s): J2L110430 (2), J2L180000 (59),
	QC Batches: 2353059,
Nonconformance: Dups not within acceptance limits	
Subcategory: Other (explanation required)	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	12/31/2012	The duplicates were slightly above the 20% required RPD in the original count. A recount brought them within limits.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	12/31/2012	The dups were recounted

Client Notification Summary

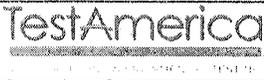
<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>
			<u>Response</u>		<u>Response Note</u>

Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
			This section not yet completed by QA.

Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>
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Lot No., Due Date: J2L110430; 01/15/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2353060; RSR85907 Sr-85/90 by GPC-7
SDG, Matrix: W06505; WATER

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

NCM 10-22594

First Level *[Signature]* Date 1/14/13



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 2353060

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances 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: CRDL = 2.0 pCi/L
See NCM #: 10-22594

Second Level Review: Date: 1/14/13

**Clouseau
Nonconformance Memo**



NCM #: 10-22594 NCM Initiated By: Lisa Antonson Date Opened: 01/14/2013 Date Closed:	Classification: Anomaly Status: PMREVIEW Production Area: Environmental - Prep Tests: Sr-85/90 by GPC-7 Lot #'s (Sample #'s): J2L110430 (1,2), J2L180000 (60), QC Batches: 2353060,
Nonconformance: MDA not met Subcategory: Data accepted	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	01/14/2013	MDA exceeds CRDL for sample MXJ02 and is right at CRDL for MXJ03 and it's dup due to reduced aliquots based on activity screening.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	01/14/2013	None

Client Notification Summary

<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>
			<u>Response</u>		<u>Response Note</u>

Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
			This section not yet completed by QA.

Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>
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Lot No., Due Date: J2L130450,J2L170417; 01/15/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2353052; RGAMMA Gamma by GER
SDG, Matrix: W06505; 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 *Paul Antonson* Date *1/7/13*



Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 23 53052

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			✓
1. Are all Non-conformances 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: MDL = 6.0 pci/L

Second Level Review: [Signature] Date: 1/31/13

Lot No., Due Date: J2L110430; 01/15/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2353055; RGAMMA Gamma by GER
SDG, Matrix: W06505; WATER

1.0 COC		
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes	No N/A
	<input checked="" type="checkbox"/>	
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
	<input checked="" type="checkbox"/>	
2.2 Are the QC appropriate for the analysis included in the batch?	Yes	No N/A
	<input checked="" type="checkbox"/>	
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes	No N/A
	<input checked="" type="checkbox"/>	
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No N/A
	<input checked="" type="checkbox"/>	
3.0 QC & Samples		
3.1 Is the blank results, yield, and MDA within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	
3.5 Are the sample yields and MDAs within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	
4.0 Raw Data		
4.1 Were results calculated in the correct units?	Yes	No N/A
	<input checked="" type="checkbox"/>	
4.2 Were analysis volumes entered correctly?	Yes	No N/A
	<input checked="" type="checkbox"/>	
4.3 Were Yields entered correctly?	Yes	No N/A
	<input checked="" type="checkbox"/>	
4.4 Were spectra reviewed/meet contractual requirements?	Yes	No N/A
	<input checked="" type="checkbox"/>	
4.5 Were raw counts reviewed for anomalies?	Yes	No N/A
	<input checked="" type="checkbox"/>	
5.0 Other		
5.1 Are all nonconformances included and noted?	Yes	No N/A
	<input checked="" type="checkbox"/>	
5.2 Are all required forms filled out?	Yes	No N/A
	<input checked="" type="checkbox"/>	
5.3 Was the correct methodology used?	Yes	No N/A
	<input checked="" type="checkbox"/>	
5.4 Was transcription checked?	Yes	No N/A
	<input checked="" type="checkbox"/>	
5.5 Were all calculations checked at a minimum frequency?	Yes	No N/A
	<input checked="" type="checkbox"/>	
5.6 Are worksheet entries complete and correct?	Yes	No N/A
	<input checked="" type="checkbox"/>	
6.0 Comments on any No response: Please see NCM #10-22493		

First Level *John Storte* **Date** 12-26-12



Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 2353055

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances 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: CRD = 15.0 pCi / c

Second Level Review: [Signature] Date: 1/12/12

**Clouseau
Nonconformance Memo**



NCM #: 10-22493 NCM Initiated By: John Norton Date Opened: 12/26/2012 Date Closed:	Classification: Anomaly Status: PMREVIEW Production Area: Environmental - Prep Tests: Gamma by GER Lot #'s (Sample #'s): J2L110430 (1,2), J2L180000 (55), QC Batches: 2353055,
Nonconformance: Other (describe in detail) Subcategory: Other (explanation required)	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	12/26/2012	Apparent blank/spike switch, the activity expected for the spike was found in the blank.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	12/26/2012	When the activity detected in the blank was calculated as the spike the yields were approximately 100 % of the expected values. The sample ID numbers were re-assigned in data review to reflect the blank/spike switch. Significant activity was not detected in any of the samples.

Client Notification Summary

<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>
			<u>Response</u>		<u>Response Note</u>

Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
		This section not yet completed by QA.	

Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>
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Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

1/7/2013 9:57:39 AM

Lot No., Due Date: J2L070436, J2L130450, J2L170414, J2L170417; 01/15/2013
Client, Site: 384868; PGW 615 HANFORD HANFORD
QC Batch No., Method Test: 2353050; RGAMLEPS Gamma by LEPS
SDG, Matrix: W06505; 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 John Horton Date 1-7-13



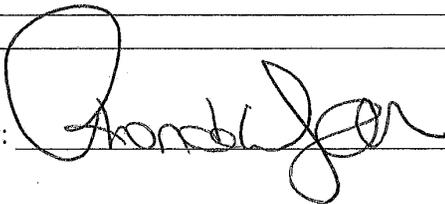
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 23 53050

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances 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: QPD = 0.5 pCi/L

Second Level Review:  Date: 1/8/13

LS-038B, Rev. 10, 9/07



Lot No., Due Date: J2L110430; 01/15/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2353054; RTC99 Tc-99 by LSC
SDG, Matrix: W06505; 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 *[Signature]* Date 12/31/12



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 235 3054

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?	✓		
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			✓
1. Are all Non-conformances 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: CRDL = 15.0 dpm/L

Second Level Review: [Signature] Date: 1/2/13

Lot No., Due Date: J2L130450,J2L170417; 01/15/2013
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 2353053; RTC99 Tc-99 by LSC
 SDG, Matrix: W06505; 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 *R. Anton* Date *12/31/12*



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 2353053

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?	✓		
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances 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: CROL = 15.0 pci/k

Second Level Review: [Signature] Date: 1/2/13

Lot No., Due Date: J2L110430; 01/15/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2353057; RTRITIUM H-3 by LSC
SDG, Matrix: W06505; WATER

1.0 COC		
1.1	Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
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 <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2.2	Are the QC appropriate for the analysis included in the batch?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2.3	Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2.4	Does the Worksheets include a Tracer Vial label for each sample?	Yes No N/A <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
3.0 QC & Samples		
3.1	Is the blank results, yield, and MDA within contract limits?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3.2	Is the LCS result, yield, and MDA within contract limits?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3.3	Are the MS/MSD results, yields, and MDA within contract limits?	Yes No N/A <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
3.4	Are the duplicate result, yields, and MDAs within contract limits?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3.5	Are the sample yields and MDAs within contract limits?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.0 Raw Data		
4.1	Were results calculated in the correct units?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.2	Were analysis volumes entered correctly?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.3	Were Yields entered correctly?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.4	Were spectra reviewed/meet contractual requirements?	Yes No N/A <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
4.5	Were raw counts reviewed for anomalies?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.0 Other		
5.1	Are all nonconformances included and noted?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.2	Are all required forms filled out?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.3	Was the correct methodology used?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.4	Was transcription checked?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.5	Were all calculations checked at a minimum frequency?	Yes No N/A <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
5.6	Are worksheet entries complete and correct?	Yes No N/A <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
6.0	Comments on any No response: Please see NCM #10-22556	

First Level John North Date 1-7-13

Lot No., Due Date: ; J2L110430
 Client, Site: PGW
 QC Batch No., Method Test: 3002029;
 SDG, Matrix: W06505; Water

1.0 COC		
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
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
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
2.2 Are the QC appropriate for the analysis included in the batch?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
3.0 QC & Samples		
3.1 Is the blank results, yield, and MDA within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
3.5 Are the sample yields and MDAs within contract limits?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
4.0 Raw Data		
4.1 Were results calculated in the correct units?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
4.2 Were analysis volumes entered correctly?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
4.3 Were Yields entered correctly?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
4.4 Were spectra reviewed/meet contractual requirements?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
4.5 Were raw counts reviewed for anomalies?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
5.0 Other		
5.1 Are all nonconformances included and noted?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
5.2 Are all required forms filled out?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
5.3 Was the correct methodology used?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
5.4 Was transcription checked?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
5.5 Were all calculations checked at a minimum frequency?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
5.6 Are worksheet entries complete and correct?	Yes	No N/A
	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
6.0 Comments on any No response: Please see NCM #10-22556		

First Level John White Date 1-7-13

JANUARY 15, 2013



THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 2353057 & 3002029

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances 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: MDL = 400 pCi/L
See NCM #10 - 2556

Second Level Review: [Signature] Date: 1/8/13

LS-038B, Rev. 10, 9/07

**Clouseau
Nonconformance Memo**



NCM #: 10-22556 NCM Initiated By: John Norton Date Opened: 01/07/2013 Date Closed:	Classification: Anomaly Status: PMREVIEW Production Area: Counting Tests: H-3 by LSC Lot #'s (Sample #'s): J2L110430 (1,2), J2L180000 (57), QC Batches: 2353057, 3002029,
Nonconformance: Blank result above Contract Limit Subcategory: Unknown	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	01/07/2013	The result calculated for the batch blank was above the acceptable limit.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	01/07/2013	The blank was recounted in batch 3002029 for an acceptable result.

Client Notification Summary

<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>
	<u>Response</u>	<u>Response Note</u>			

Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
		This section not yet completed by QA.	

Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>
----------------------	--------------------	-----------------

Lot No., Due Date: J2L070436; 01/15/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2353051; RTRITIUM Midlevel Tritium
SDG, Matrix: W06505; 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 Joe Anderson Date 1/11/13

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 2353051

Review Item	Yes (✓)	No (✓)	NA (✓)
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			✓
1. Are all Non-conformances 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: MDL = 30.0 pCi/L

Second Level Review: [Signature] Date: 1/14/13

JANUARY 15, 2013



Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s):	2346077	Lab Sample Numbers or SDG:	W06505	
Method/Test/Parameter: Cr+6 <input checked="" type="checkbox"/> RL-WC-003(Aqueous) <input type="checkbox"/> RL-WC-004(Solid)				
Review Item	Yes (✓)	No (✓)	N/A (✓)	2 nd Level Review (✓)
A. Initial Calibration				
1. Performed at required frequency with required number of levels?	✓			✓
2. Correlation coefficient greater than 0.97?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within 10% of expected?	✓			✓
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters ≤ reporting limit?	✓			✓
B. Continuing Calibration				
1. CCV analyzed at required frequency and all parameters within 10% of expected?	✓			✓
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			✓
C. Sample Analysis				
1. Were any samples with concentrations above the linear range diluted and reanalyzed?			✓	✓
2. Were all sample holding times met?	✓			✓
D. QC Samples				
1. All results for the preparation blank below limits?	✓			✓
2. LCS percent recovery within 85-115 %	✓			✓
3. PbCrO ₄ percent recovery within 75-125%?			✓	✓
4. Sample and Duplicate within 20% (aqueous) or 35% (solid) RPD?	✓			✓
5. MS or MS/MSD recoveries within 85-115% (aqueous) or 75-125% (solid)?	✓			✓
6. On MS failure, PDMS within 85-115%?			✓	✓
E. Other				
1. Are all nonconformances included and noted?			✓	✓
2. Is the correct date and time of analysis shown?	✓			✓
3. Did the analyst sign and date the front page of the analytical run?	✓			✓
4. Correct methodology used?	✓			✓
5. Transcriptions checked?	✓			✓
6. Calculations checked at minimum frequency?	✓			✓
7. Units checked?	✓			✓

Comments on any "No" response or list NCM number:

Analyst H. Rahavi Date 1/8/13 2nd Review [Signature] Date 1/8/13

CH2M Hill Plateau Remediation Company		C.O.C. # S13-012-192 Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Collector w/A White CHPRC S13-012	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	
SAF No. S13-012	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20	
Project Title SURV, DECEMBER 2012	Logbook No. HNF-N-506 49 / 90	Ice Chest No. N/A	
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A	
Protocol SURV	Priority: 30 Days	Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No.	Filter *	Date	Time
B2N1F1	N	12-6-12	1225
B2N1F1	N	1-7-13	1-7-13
Sample Analysis		Holding Time	Preservative
MHT 98		6 Months	None
Activity Scan		6 Months	None
1129LL_SEP_LEPS_GS_LL: 1-129 (1)			

SDG # W06505
 LOT # J2L070436 W12-7-12
 Report: 1-7-13



Relinquished By w/A White CHPRC	Print Ma W White	Sign [Signature]	Date/Time DEC 06 2012 1500	Received By SSU #1	Print [Signature]	Sign [Signature]	Date/Time DEC 06 2012 1500	Matrix *
Relinquished By SSU #1	Print [Signature]	Sign [Signature]	Date/Time 12-7-12 0845	Received By C Fulton	Print [Signature]	Sign [Signature]	Date/Time 12-7-12 0845	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By C Fulton	Print [Signature]	Sign [Signature]	Date/Time 12-7-12 0945	Received By Lucas Velazquez	Print [Signature]	Sign [Signature]	Date/Time 12-7-12 0945	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time
PRINTED ON 10/24/2012				A-6004-842 (REV 2)				

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S13-012-194		
				Page 1 of 1		
Collector MA White CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650				
SAF No. S13-012	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20				
Project Title SURV, DECEMBER 2012	Logbook No. HNF-N-506 49 / 90	Ice Chest No. N/A				
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A				
Protocol SURV	Priority: 30 Days	Offsite Property No. N/A				
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)						
SPECIAL INSTRUCTIONS Hold Time <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.						
Sample No.	Filter	*	No/Type Container	Sample Analysis	Holding Time	Preservative
B2N1H0	N	W	1x1-L P	906.0ML_H3_LSC: Mid-level Tritium (1)	6 Months	None
B2N1H0	N	W	1x20-mL P	Activity Scan	6 Months	None
B2N1H0	N	W	2x4-L GIP	1129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

SDG # W06505
LOT # J2L070436

Relinquished By MA White	Print MA White	Sign MA White	Date/Time DEC 06 2012 1500	Received By SSU #1	Print SSU #1	Sign	Date/Time DEC 06 2012 1500
Relinquished By CHPRC	Print CHPRC	Sign CHPRC	Date/Time DEC 06 2012 1500	Received By SSU #1	Print SSU #1	Sign	Date/Time DEC 06 2012 1500
Relinquished By SSU #1	Print SSU #1	Sign SSU #1	Date/Time 12-7-12 0845	Received By CFulton	Print CFulton	Sign CFulton	Date/Time 12-7-12 0845
Relinquished By CFulton	Print CFulton	Sign CFulton	Date/Time 12-7-12 0945	Received By Lucas Velazquez	Print Lucas Velazquez	Sign Lucas Velazquez	Date/Time 12-7-12 0945

S	=	Soil	DS	=	Drum Solids
SE	=	Sediment	DL	=	Drum Liquids
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

JANUARY 15, 2013



Sample Check-in List

Date/Time Received: 12-7-12 0945 Container GM Screen Result: (Airlock) .02 Initials [LV]
Sample GM Screen Result (Sample Receiving) .04 Initials [LV]

Client: PLW SDG #: W06505 NA [] SAF #: S13-012 NA []

Lot Number: J2L070436

Chain of Custody # S13-012-194-192

Shipping Container ID: Hand Delivery NA [LV] Air Bill Number: NA []

Samples received inside shipping container/cooler/box Yes [LV] Continue with 1 through 4. Initial appropriate response.
No [] Go to 5, add comment to #16.

- 1. Custody Seals on shipping container intact? Yes [] No [] No Custody Seal [LV]
2. Custody Seals dated and signed? Yes [] No [] No Custody Seal [LV]
3. Cooler temperature: _____ °C NA [LV]
4. Vermiculite/packing materials is NA [] Wet [] Dry [LV]

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [LV] No []
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2x vial; 1x LP; 4x LP

8. Sample holding times exceeded? NA [] Yes [] No [LV]

9. Samples have: _____ tape _____ hazard labels
LV custody seals LV appropriate sample labels

10. Matrix: _____ A (FLT, Wipe, Solid, Soil) LV I (Water)
_____ S (Air, Niosh 7400) _____ T (Biological, Ni-63)

11. Samples: LV are in good condition _____ are leaking
_____ are broken _____ have air bubbles (Only for samples requiring no head space)
Other N/A

12. Sample pH appropriate for analysis requested Yes [LV] No [] NA []
(If acidification is necessary, then document sample ID, initial pH, amount of HNO3 added and pH after addition on table overleaf)
RPL ID # of preservative used: N/A

13. Were any anomalies identified in sample receipt? Yes [] No [LV]

14. Description of anomalies (include sample numbers): NA []

CH2MHill Plateau Remediation Company

C.O.C. # I13-002-139

Page 1 of 1

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: **LD Wall CHPRC** Telephone No. 376-4650

SAF No. I13-002 Purchase Order/Charge Code 30007IES20

Project Title 100KR4(1) NOVEMBER 2012 Ice Chest No. N/A

Shipped To (Lab) **TestAmerica Incorporated, Richland** Bill of Lading/Air Bill No. N/A

Protocol CERCLA Priority: 30 Days Offsite Property No. N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
 100 Area Generator Knowledge Information Form applies.
 The CACN for all analytical work at WSCF is 401647.
 FY12 and FY13 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MRP9	N	W	12-1-12	1205	1x500-mL aG	7196_CR6: Hexavalent Chromium (1)	24 Hours	Cool-4C
B2MRP9	N	W			1x1-L P	906.0_H3_LSC: Tritium (1)	6 Months	None
B2MRP9	N	W			1x1-L P	9310_ALPHABETA_GPC: Alpha + Beta (2)	6 Months	HNO3 to pH <2
B2MRP9	N	W			1x20-mL P	Activity Scan	6 Months	None
B2MRP9	N	W			2x1-L G/P	C14_LSC: C-14 (1)	6 Months	None
B2MRP9	N	W			3x1-L G/P	GAMMA_GS: List-1 (10)	6 Months	HNO3 to pH <2
B2MRP9	N	W			3x1-L G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	6 Months	HNO3 to pH <2
B2MRP9	N	W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	6 Months	HCl to pH <2

SAL110430 MTSJ03
WOL505

Relinquished By LD Wall CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time DEC 11 2012	Received By RASHEPARD	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time DEC 11 2012
Relinquished By LD Wall CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time DEC 11 2012	Received By S. BOUJ	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time DEC 11 2012
Relinquished By LD Wall CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time DEC 11 2012	Received By S. BOUJ	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time DEC 11 2012

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

CH2M Hill Plateau Remediation Company		C.O.C.# I13-002-140 Page 1 of 1	
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
Collector LD. Wall CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	
SAF No. I13-002	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20	
Project Title 100KR4(1) NOVEMBER 2012	Logbook No. HNF-N-506 57 / 62	Ice Chest No. N/A	
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A	
Protocol CERCLA	Priority: 30 Days	Offsite Property No. N/A	

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

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
 100 Area Generator Knowledge Information Form applies.
 The CACN for all analytical work at WSCF is 401647.
 FY12 and FY13 samples cannot be in the same SDG.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MT32	N	W	12-11-12	0558	1x500-mL aG	7196_CR6: Hexavalent Chromium (1)	24 Hours	Cool-4C
B2MT32	N	W			1x1-L P	906.0_H3_LSC: Tritium (1)	6 Months	None
B2MT32	N	W			1x20-mL P	Activity Scan	6 Months	None
B2MT32	N	W			2x1-L G/P	C14_LSC: C-14 (1)	6 Months	None
B2MT32	N	W			3x1-L G/P	GAMMA_GS: List-1 (10)	6 Months	HNO3 to pH <2
B2MT32	N	W			3x1-L G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	6 Months	HNO3 to pH <2
B2MT32	N	W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	6 Months	HCl to pH <2

5A1110430
 W04505



J2L110430

Relinquished By LD. Wall CHPRC	Print LD. Wall	Sign [Signature]	Date/Time DEC 11 2012	Date/Time DEC 11 2012
Relinquished By [Signature]	Print [Signature]	Sign [Signature]	Date/Time DEC 11 2012	Date/Time DEC 11 2012
Relinquished By [Signature]	Print [Signature]	Sign [Signature]	Date/Time DEC 11 2012	Date/Time DEC 11 2012
Relinquished By [Signature]	Print [Signature]	Sign [Signature]	Date/Time DEC 11 2012	Date/Time DEC 11 2012

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

Relinquished By [Signature]	Date/Time DEC 11 2012	Received By [Signature]	Date/Time DEC 11 2012
Relinquished By [Signature]	Date/Time DEC 11 2012	Received By [Signature]	Date/Time DEC 11 2012
Relinquished By [Signature]	Date/Time DEC 11 2012	Received By [Signature]	Date/Time DEC 11 2012

Sample Check-in List

Date/Time Received: 12-11-12 / 1345 Container GM Screen Result: (Airlock) .06 Initials JB
Sample GM Screen Result (Sample Receiving) .06 Initials JB

Client: Plw SDG #: W06505 NA [] SAF #: I13-002 NA []

Lot Number: J2L170430

Chain of Custody # I13-002-139, 140

Shipping Container ID: hand deliv. NA JB Air Bill Number: _____ NA JB

Samples received inside shipping container/cooler/box Yes JB] Continue with 1 through 4. Initial appropriate response.
No [] Go to 5, add comment to #16.

- 1. Custody Seals on shipping container intact? Yes [] No [] No Custody Seal JB]
- 2. Custody Seals dated and signed? Yes [] No [] No Custody Seal JB]
- 3. Cooler temperature: 53 °C Ice NA []
- 4. Vermiculite/packing materials is NA JB] Wet [] Dry []

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes JB] No []
- 6. Number of samples received (Each sample may contain multiple bottles): 2
- 7. Containers received: 2 x Vial 20; 2 x 500 mlp; 2 x 500 ml AB; 19 x LP

8. Sample holding times exceeded? NA [] Yes [] No JB]

9. Samples have:
JB tape custody seals JB hazard labels appropriate sample labels

10. Matrix:
JB A (FLT, Wipe, Solid, Soil) JB I (Water)
S (Air, Niosh 7400) T (Biological, Ni-63)

11. Samples:
JB are in good condition _____ are leaking
are broken _____ have air bubbles (Only for samples requiring no head space)
Other N/A

12. Sample pH appropriate for analysis requested Yes JB] No [] NA []
(If acidification is necessary, then document sample ID, initial pH, amount of HNO₃ added and pH after addition on table overleaf)
RPL ID # of preservative used : N/A

13. Were any anomalies identified in sample receipt? Yes [] No JB]

14. Description of anomalies (include sample numbers): N/A

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S13-012-174	
Collector D.J. Woehle CHPRC		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1	
SAF No. S13-012		Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20		
Project Title SURV, DECEMBER 2012		Logbook No. HNF-N-506 51 / 64	Ice Chest No. N/A		
Shipped To (Lab) TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A		
Protocol SURV		Priority: 30 Days	Offsite Property No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			
Sample No.	Filter	* Date	Time	No/Type Container	Sample Analysis
B2N060	N	W 12-12-12	1141	1x20-ml P	Activity Scan
B2N060	N	W 12-12-12	1141	2x4-L GP	1129LL_SEP_LEPS_GS_LL: 1-129 (1) mkat
				Holding Time	Preservative
				6 Months	None
				6 Months	None

12-13-12
SDB# Jau130450
LDF# W006505



Relinquished By D.J. Woehle CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time DEC 12 2012 1430	Received By SSA-1	Print	Sign	Date/Time DEC 12 2012 1430	Matrix *
Relinquished By SSA-1	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 12-13-12 0800	Received By CFulton	Print	Sign <i>[Signature]</i>	Date/Time 12-13-12 0800	S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge W = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By CFulton	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 12-13-12 1005	Received By Incashel...	Print	Sign <i>[Signature]</i>	Date/Time 12-13-12 1005	
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S13-012-175
Collector D.J. Woehle CHPRC	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1	
SAF No. S13-012	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20		
Project Title SURV, DECEMBER 2012	Logbook No. HNF-N-506 51 / 64	Ice Chest No. N/A		
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A		
Protocol SURV	Priority 30 Days	Offsite Property No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)				
Sample No.	Filter *	Date	Time	No./Type Container
B2N064	N	12-12-12	1042	1x20-mL P
B2N064	N	12-12-12	1042	2x4-L G/P
Sample Analysis: 1129LL_SEP_LEPS_GS_LL: 1-129 (1) mnxao				
SPECIAL INSTRUCTIONS			Hold Time	Preservative
FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.			6 Months	None
Total Activity-Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			6 Months	None

Sal130450
w06505

W12-1312

Relinquished By D.J. Woehle CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time DEC 12 2012 1430	Received By SSU	Date/Time DEC 12 2012 1430	Print	Sign	Date/Time DEC 12 2012 1430	Matrix *
Relinquished By SSU	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 12-13-12 0800	Received By CRUTON	Date/Time 12-13-12 0800			Date/Time 12-13-12 0800	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By CRUTON	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 12-13-12 1005	Received By LUCAS	Date/Time 12-13-12			Date/Time 12-13-12	
Relinquished By	Print	Sign	Date/Time	Received By	Date/Time			Date/Time	
Disposal Method (e.g., Return to customer, per lab procedure, used in process)									
Disposed By									
Date/Time									

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S13-012-176			
Collector D.J. Woehle CHPRC	Contact/Requester Karen Waters-Ellusted	Telephone No. 376-4650	Page 1 of 1				
SAF No. S13-012	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20					
Project Title SURV, DECEMBER 2012	Logbook No. HNF-N-506 51 / 64	Ice Chest No. N/A					
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A					
Protocol SURV	Priority: 30 Days	Offsite Property No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS		Total Activity Exemption: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.					
Sample No.	Filter	* Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservative
B2N065	N	W 12-12-12	1042	1x20-mL P	Activity Scan	6 Months	None
B2N065	N	W 12-12-12	1042	2x4-L GP	1129LL_SEP_LEPS_GS_LL: 1-129 (1) MNAKAT	6 Months	None

JAL130450
W06505

Relinquished By D.J. Woehle CHPRC	Print <i>[Signature]</i>	Sign	Date/Time DEC 12 2012 1430	Received By SSA-1	Print	Sign	Date/Time DEC 12 2012 1430	Matrix *
Relinquished By SSA-1	Print <i>[Signature]</i>	Sign	Date/Time DEC 12 2012 0800	Received By <i>[Signature]</i>	Print	Sign	Date/Time 12-13-12 0800	S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe L = Water LI = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign	Date/Time 12-13-12 1005	Received By <i>[Signature]</i>	Print	Sign	Date/Time 12-13-12 1005	
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time
PRINTED O 10/31/2012				A-6004-842 (REV 2)				

CH2M Hill Plateau Remediation Company		C.O.C.# S13-012-178	
Collector: D.J. Woehle CHPRC		Contact/Requester: Karen Waters-Husted	Telephone No. 376-4650
SAF No. S13-012		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071ES20
Project Title: SURV, DECEMBER 2012		Logbook No. HNF-N-506 51 / 64	Ice Chest No. N/A
Shipped To (Lab): TestAmerica Incorporated, Richland		Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A
Protocol: SURV		Priority: 30 Days	Offsite Property No. N/A
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			
SPECIAL INSTRUCTIONS: Hold Time		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.			
Sample No.	Filter *	Date	Time
B2N075	N	12-12-12	0937
B2N075	N	12-12-12	0937
Sample Analysis		Holding Time	Preservative
1129LL_SEP_LEPS_GS_LL: 1-129 (1) MTKaa		6 Months	None
		6 Months	None

Jau30450
w066505

Relinquished By: D.J. Woehle CHPRC	Print: <i>[Signature]</i>	Sign:	Date/Time: DEC 12 2012 1430
Received By: SSU #1	Print: <i>[Signature]</i>	Sign:	Date/Time: 12-13-12 0800
Relinquished By: <i>[Signature]</i>	Print: <i>[Signature]</i>	Sign:	Date/Time: 12-13-12 1005
Received By: <i>[Signature]</i>	Print: <i>[Signature]</i>	Sign:	Date/Time: 12-13-12 1005
Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids 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)	
PRINTED ON 10/31/2012		A-6004-842 (REV 2)	

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S13-012-180
Collector F. M. Hall	Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1	
SAF No. S13-012	Sampling Origin Hanford Site	Purchase Order/Charge Code 30007IES20		
Project Title SURV, DECEMBER 2012	Logbook No. HNF-N-506 36/44	Ice Chest No. N/A		
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A		
Protocol SURV	Priority: 30 Days	Offsite Property No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS *** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		
Sample No.	Filter	Date	Time	No/Type Container
B2N083	N	W 12/12/12	1006	1x20-mL P
B2N083	N	W	↓	2x4-L G/P
Jaliboyso wdsds				
Sample Analysis		Holding Time		Preservative
Activity Scan		6 Months		None
1129LL_SEP_LEPS_GS_LL: 1-129 (1) MYK24		6 Months		None

Jaliboyso
wdsds

Relinquished By F. M. Hall	Print 	Sign 	Date/Time DEC 12 2012 1535	Received By SSU #1	Print 	Sign 	Date/Time DEC 12 2012 1535	Matrix *
Relinquished By SSU #1	Print 	Sign 	Date/Time DEC 12 2012 0900	Received By Stutton	Print 	Sign 	Date/Time 12-13-12 0800	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By Stutton	Print 	Sign 	Date/Time 12-13-12 1005	Received By Lucas	Print 	Sign 	Date/Time 12-13-12 1218	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time
Disposed By								Date/Time

CH2M Hill Plateau Remediation Company		C.O.C. # S13-012-184 Page 1 of 1			
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					
Collector	F. M. Hall	Contact/Requester	Karen Waters-Husted		
SAF No.	S13-012	Sampling Origin	Hanford Site		
Project Title	SURV, DECEMBER 2012	Logbook No.	HNF-N-506	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE		
Protocol	SURV	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.			
Sample No.	Filter	*	Date	Time	No/Type Container
B2N098	N	W	12/12/12	1234	1x20-mL P
B2N098	N	W	↓	↓	1x4-L G/P
B2N098	N	W	↓	↓	3x1-L G/P
Sample Analysis		Activity Scan		Holding Time	
GAMMALL_GS: List-1 (9)		TC99_SEP_LSC: Tc-99 (1)		6 Months	
mTKAS				None	
				HNO3 to pH <2	
				HCl to pH <2	

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W20505

Relinquished By	F. M. Hall	Print		Sign		Date/Time	DEC 12 2012 1535
Received By	SSU #1	Print		Sign		Date/Time	DEC 12 2012 1535
Relinquished By	Fulton	Print		Sign		Date/Time	12-13-12 0800
Received By	Lucas Velazquez	Print		Sign		Date/Time	12-13-12 1005
Relinquished By	Fulton	Print		Sign		Date/Time	12-13-12 0800
Received By	Lucas Velazquez	Print		Sign		Date/Time	12-13-12 1005

S	= Soil	DS	= Drum Solids
SE	= Sediment	DL	= Drum Liquids
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)	Date/Time

JANUARY 15, 2013



Sample Check-in List

Date/Time Received: 12-13-12 @ 1005 Container GM Screen Result: (Airlock) 09 Initials [LV]
Sample GM Screen Result (Sample Receiving) 05 Initials [LV]

Client: PGL SDG #: W06505 NA [] SAF #: 513-012 NA []

Lot Number: J2L130450

Chain of Custody # 513-012-174; 175; 176; 178; 180; 184

Shipping Container ID: Hand Delivery NA [LV] Air Bill Number: NA []

Samples received inside shipping container/cooler/box Yes [LV] Continue with 1 through 4. Initial appropriate response.
No [] Go to 5, add comment to #16.

- 1. Custody Seals on shipping container intact? Yes [] No [] No Custody Seal [LV]
2. Custody Seals dated and signed? Yes [] No [] No Custody Seal [LV]
3. Cooler temperature: °C NA [LV]
4. Vermiculite/packing materials is NA [] Wet [] Dry [LV]

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [LV] No []
6. Number of samples received (Each sample may contain multiple bottles): 6
7. Containers received: 6x vial; 3xLP; 11x4LP

8. Sample holding times exceeded? NA [] Yes [] No [LV]

9. Samples have: tape hazard labels
LV custodial seals LV appropriate sample labels

10. Matrix: A (FLT, Wipe, Solid, Soil) LV I (Water)
S (Air, Niosh 7400) T (Biological, Ni-63)

11. Samples: LV are in good condition are leaking
are broken have air bubbles (Only for samples requiring no head space)
Other N/A

12. Sample pH appropriate for analysis requested Yes [LV] No [] NA []
(If acidification is necessary, then document sample ID, initial pH, amount of HNO3 added and pH after addition on table overleaf)
RPL ID # of preservative used: N/A

13. Were any anomalies identified in sample receipt? Yes [] No [LV]

14. Description of anomalies (include sample numbers): NA [LV]

CH2M Hill Plateau Remediation Company		C.O.C. # I13-009-007	
		Page 1 of 1	
Collector	F. M. Hall	Contact/Requester	Karen Waters-Husted
SAF No.	I13-009	Telephone No.	376-4650
Project Title	200ZP1, DECEMBER 2012	Purchase Order/Charge Code	300071ES20
Shipped To (Lab)	TestAmerica Incorporated, Richland	Ice Chest No.	N/A
Protocol	CERCLA	Bill of Lading/Air Bill No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS		Offsite Property No.	N/A
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		Priority:	30 Days
		Method of Shipment	GOVERNMENT VEHICLE
		Logbook No.	HNF-N-506 49/95
		Sample Analysis	MYL3A
		Hold Time	200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.
Sample No.	Filter	Date	Time
B2MXX8	N	12-13-12	1330
B2MXX8	N	↓	↓
No/Type Container	Activity Scan		
1x20-mL P	1129LL_SEP_LEPS_GS_LL: 1-129 (1)		
Holding Time	Preservative		
6 Months	None		
Sample Analysis	Preservative		
MYL3A	None		

SDG # 606505
 LOT # J2L 170414
 Report: 1-14-13



Relinquished By	F. M. Hall	Print	<i>[Signature]</i>	Sign		Date/Time	12/13/12
Received By	F. M. Hall	Print	<i>[Signature]</i>	Sign	SS4 # 1	Date/Time	DEC 13 2012 1525
Relinquished By	SSU # 1	Print	<i>[Signature]</i>	Sign		Date/Time	DEC 14 2012 1104
Received By	Mitzi White	Print	<i>[Signature]</i>	Sign		Date/Time	DEC 14 2012 1104
Relinquished By	Mitzi White	Print	<i>[Signature]</i>	Sign		Date/Time	DEC 14 2012 1500
Received By	Laura Velazquez	Print	<i>[Signature]</i>	Sign		Date/Time	DEC 14 2012 1500
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time	

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # I13-009-008	
Collector F. M. Hall		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1	
SAF No. I13-009		Sampling Origin Hanford Site	Purchase Order/Charge Code 30007IES20		
Project Title 200ZP1, DECEMBER 2012		Logbook No. HNF-N-506 44/95	Ice Chest No. N/A		
Shipped To (Lab) TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A		
Protocol CERCLA		Priority: 30 Days	Offsite Property No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)					
SPECIAL INSTRUCTIONS 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Sample No.	Filter	Date	No/Type Container	Sample Analysis	Holding Time
B2MXX9	N	12-13-12 1330	1x20-mL P	ML3G	6 Months
B2MXX9	N	↓	2x4-L GIP	1129LL_SEP_LEPS_GS_LL: 1-129 (1)	6 Months

SDG# W06505
LOT# JH70414

Relinquished By F. M. Hall	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By SSGFI	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By Mitch White	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By Mitch White	Print <i>[Signature]</i>	Sign <i>[Signature]</i>
Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525	Date/Time DEC 13 2012 1525
Relinquished By SSU #1	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By Mitch White	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By Mitch White	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By Mitch White	Print <i>[Signature]</i>	Sign <i>[Signature]</i>
Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104	Date/Time DEC 14 2012 1104
Relinquished By Mitch White	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By Mitch White	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By Mitch White	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Received By Mitch White	Print <i>[Signature]</i>	Sign <i>[Signature]</i>
Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520	Date/Time DEC 14 2012 1520

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

JANUARY 15, 2013



Sample Check-in List

Date/Time Received: 12-14-12 @ 1500 Container GM Screen Result: (Airlock) .06 Initials [LV]
Sample GM Screen Result (Sample Receiving) .09 Initials [LV]

Client: PGW SDG #: W06505 NA [] SAF #: I13-009 NA []

Lot Number: J2L1704114

Chain of Custody # I13-009-007;008

Shipping Container ID: Hand Delivery NA [LV] Air Bill Number: NA [LV]

Samples received inside shipping container/cooler/box Yes [LV] Continue with 1 through 4. Initial appropriate response.
No [] Go to 5, add comment to #16.

- 1. Custody Seals on shipping container intact? Yes [] No [] No Custody Seal [LV]
2. Custody Seals dated and signed? Yes [] No [] No Custody Seal [LV]
3. Cooler temperature: _____ °C NA [LV]
4. Vermiculite/packing materials is NA [] Wet [] Dry [LV]

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [LV] No []
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2xVial, 4x4LP

8. Sample holding times exceeded? NA [] Yes [] No [LV]

9. Samples have: tape hazard labels
[X] custody seals [LV] appropriate sample labels

10. Matrix: A (FLT, Wipe, Solid, Soil) I (Water)
S (Air, Niosh 7400) T (Biological, Ni-63)

11. Samples: [LV] are in good condition are leaking
are broken have air bubbles (Only for samples requiring no head space)
Other N/A

12. Sample pH appropriate for analysis requested Yes [LV] No [] NA []
(If acidification is necessary, then document sample ID, initial pH, amount of HNO3 added and pH after addition on table overleaf)
RPL ID # of preservative used: N/A

13. Were any anomalies identified in sample receipt? Yes [LV] No [LV]

14. Description of anomalies (include sample numbers): NA [LV]

CH2M Hill Plateau Remediation Company		C.O.C. # S13-012-179	
Collector: F. M. Hall		Contact/Requester: Karen Waters-Husted	Telephone No. 376-4650
SAF No. S13-012	Sampling Origin: Hanford Site	Logbook No. HNF-N-506 49 / 95	Purchase Order/Charge Code 30007IES20
Project Title: SURV, DECEMBER 2012	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A	Ice Chest No. N/A
Shipped To (Lab): TestAmerica Incorporated, Richland	Priority: 30 Days	Offsite Property No. N/A	
Protocol: SURV	POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1995)		
SPECIAL INSTRUCTIONS Hold Time: Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.			
Sample No.	Filter	Date	Time
B2N079	N	12-13-12	1056
B2N079	N	↓	↓
Sample Analysis: MXL 4H		Sample Analysis: MXL 4H	Hold Time: 6 Months
Activity Scan: I129LL_SEP_LEPS_GS_LL: I-129 (1)		Activity Scan: I129LL_SEP_LEPS_GS_LL: I-129 (1)	Preservative: None

SDG# W06805
 LOT# JRL170417
 Report: 1-14-13



Relinquished By: F. M. Hall	Date/Time: 12/13/2012	Received By: SSA #1	Date/Time: 12/13/2012	Sign:	Matrix *:
Relinquished By: SSA #1	Date/Time: 12/14/2012	Received By: MIRA White	Date/Time: 12/14/2012	Sign: MIRA White	Matrix *:
Relinquished By: MIRA White	Date/Time: 12/14/2012	Received By: Lucas Velazquez	Date/Time: 12/14/2012	Sign: Lucas Velazquez	Matrix *:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Sign:	Matrix *:
FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By:		Date/Time:	

CH2M Hill Plateau Remediation Company		C.O.C.# S13-012-182	
Collector F. M. Hall		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650
SAF No. S13-012	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20	Page 1 of 1
Project Title SURV, DECEMBER 2012	Logbook No. HNF-N-506 57 / 65	Ice Chest No. N/A	
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A	
Protocol SURV	Priority: 30 Days	Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			
SPECIAL INSTRUCTIONS FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCP is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No. B2N088	Filter * N	Date 12-14-12	Time 0833
Sample No. B2N088	Filter * N	Date ↓	Time ↓
Sample Analysis MX LHK		Holding Time 6 Months	Preservative None
Activity Scan I129LL_SEP_LEPS_GS_LL: I-129 (1)		Holding Time 6 Months	Preservative None

SDG # W06505
LOT # JAL170417

Relinquished By F. M. Hall	Print	Sign	Date/Time DEC 14 2012 1245	Received By Miza White	Print	Sign	Date/Time DEC 14 2012 1245	Matrix * S = Soil DS = Drum Solids
Relinquished By Miza White	Print	Sign	Date/Time DEC 14 2012 1500	Received By Lucas Velazquez-Lugo	Print	Sign	Date/Time DEC 14 2012	SE = Sediment DL = Drum Liquids
Relinquished By Miza White	Print	Sign	Date/Time DEC 14 2012 1500	Received By	Print	Sign	Date/Time	SO = Solid T = Tissue
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	SL = Sludge WI = Wipe
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	W = Water L = Liquid
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	O = Oil V = Vegetation
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	A = Air X = Other
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Date/Time
PRINTED ON 10/31/2012		Disposed By						Date/Time

CH2M Hill Plateau Remediation Company		C.O.C. # S13-012-183	
Collector F. M. Hall		Contact/Requester	Karen Waters-Husted
SAF No.	S13-012	Sampling Origin	Hanford Site
Project Title	SURV, DECEMBER 2012	Logbook No.	HNF-N-506 57 / 65
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE
Protocol	SURV	Priority:	30 Days
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)		Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample No.	Filter	Date	Time
B2N094	N	12-14-12	0921
B2N094	N	↓	↓
No/Type Container 1x20-mL P 2x4-L G/P		Activity Scan	I129LL_SEP_LEPS_GS_LL: I-129 (1)
Sample Analysis		MXL 4M	Preservative
Holding Time		6 Months	None
Holding Time		6 Months	None

SDG # W06505
 LOT # J2L170417

Relinquished By	F. M. Hall	Print	<i>F. M. Hall</i>	Sign		Date/Time	DEC 14 2012 1245
Received By	Maria White	Print	<i>Maria White</i>	Sign		Date/Time	DEC 14 2012 1245
Relinquished By	Maria White	Print	<i>Maria White</i>	Sign		Date/Time	DEC 14 2012 1500
Received By	Lucas White	Print	<i>Lucas White</i>	Sign		Date/Time	DEC 14 2012 1500
Relinquished By		Date/Time					
Received By		Date/Time					

S	=	Soil	DS	=	Drum Solids
SE	=	Sediment	DL	=	Drum Liquids
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

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # S13-012-186	
Collector JANELLE ZUNKER		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650		Page 1 of 1		
SAF No. S13-012		Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20				
Project Title SURV, DECEMBER 2012		Logbook No. HNF-N-506_36 / 46	Ice Chest No. N/A				
Shipped To (Lab) TestAmerica Incorporated, Richland		Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A				
Protocol SURV		Priority: 30 Days	Offsite Property No. N/A				
POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Hold Time		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)		FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.					
Sample No.	Filter *	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2N0B4	N	W DEC 13 2012	1108	1x20-ml P	ML 410	6 Months	None
B2N0B4	N	W	↓	1x4-L G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2

SDG # W64505
LOT # J2L170417

Relinquished By JANELLE ZUNKER	Print <i>[Signature]</i>	Received By SSU # 1	Sign <i>[Signature]</i>	Date/Time DEC 13 2012 1545	Matrix *
Relinquished By SSU #	Print <i>[Signature]</i>	Received By Mrs White	Sign <i>[Signature]</i>	Date/Time DEC 14 2012 1104	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By Mrs White	Print <i>[Signature]</i>	Received By Mrs White	Sign <i>[Signature]</i>	Date/Time DEC 14 2012 1500	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By	Print	Received By	Sign	Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)	
PRINTED O 10/24/2012				A-6004-842 (REV 2)	

CH2M Hill Plateau Remediation Company		C.O.C. # S13-012-187	
Collectors: JANELLE ZUNKER		Page 1 of 1	
SAF No.	S13-012	Contact/Requester	Karen Waters-Husted
Project Title	SURV, DECEMBER 2012	Sampling Origin	Hanford Site
Shipped To (Lab)	TestAmerica Incorporated, Richland	Logbook No.	HNF-N-506 36/46
Protocol	SURV	Method of Shipment	GOVERNMENT VEHICLE
Priority: 30 Days		Bill of Lading/Air Bill No.	N/A
Priority: 30 Days		Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)			
SPECIAL INSTRUCTIONS		Hold Time	
FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No.	Filter	* Date	Time
B2N0B7	N	W DEC 13 2012	0730
B2N0B7	N	W	↓
B2N0B7	N	W	↓
Sample Analysis		MX/4V	
No/Type Container		Activity Scan	
1x20-mL P		6 Months	
1x4-L G/P		6 Months	
3x1-L G/P		6 Months	
Sample Analysis		HCl to pH <2	
Sample Analysis		HCl to pH <2	

SDG # W66505
LOT # 02170417

Relinquished By JANELLE ZUNKER	Print <i>Janelle Zunker</i>	Sign	Received By SSU #1	Print	Sign	Date/Time DEC 13 2012 1545	Matrix *
Relinquished By SSU #1	Print	Sign	Received By Miza White	Print	Sign	Date/Time DEC 14 2012 1104	S = Soil
Relinquished By Miza White	Print	Sign	Received By Miza White	Print	Sign	Date/Time DEC 14 2012 1500	SE = Sediment
Relinquished By	Print	Sign	Received By	Print	Sign	Date/Time	SO = Solid
							SL = Sludge
							W = Water
							O = Oil
							A = Air
							DS = Drum Solids
							DL = Drum Liquids
							T = Tissue
							WI = Wipe
							L = Liquid
							V = Vegetation
							X = Other
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time	
PRINTED O 10/24/2012							A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company		C.O.C.# S13-012-188	
Collector JANELLE ZUNKER		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650
SAF No. S13-012	Project Title SURV, DECEMBER 2012	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20
Shipped To (Lab) TestAmerica Incorporated, Richland	Logbook No. HNF-N-506 36 / 46	Ice Chest No. N/A	Bill of Lading/Air Bill No. N/A
Protocol SURV	Priority: 30 Days	Offsite Property No. N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No.	Filter *	Date	Time
B2N0B8	N	DEC 13 2012	0945
B2N0B8	N	↓	↓
B2N0B8	N	↓	↓
No/Type Container 1x20-mL P Activity Scan 1x4-L G/P GAMMALL_GS: List-1 (9) 3x1-L G/P TC99_SEP_LSC: Tc-99 (1)		Sample Analysis MXL 416	Holding Time 6 Months
			Preservative None
			HNO3 to pH <2
			HCl to pH <2

SDG # W06505
 LOT # J7H170417

Relinquished By JANELLE ZUNKER	Print Sign	Date/Time DEC 13 2012 1545	Received By SSU#1	Print Sign	Date/Time DEC 13 2012 1455	Matrix * S = Soil
Relinquished By SL#1	Print Sign	Date/Time DEC 14 2012 1104	Received By Mitzel White	Print Sign	Date/Time DEC 14 2012 1104	SE = Sediment
Relinquished By Mitzel White	Print Sign	Date/Time DEC 14 2012 1500	Received By Mitzel White	Print Sign	Date/Time DEC 14 2012 1500	SO = Solid
Relinquished By	Print Sign	Date/Time	Received By	Print Sign	Date/Time	SL = Sludge
						W = Water
						O = Oil
						A = Air
						DS = Drum Solids
						DL = Drum Liquids
						T = Tissue
						WI = Wipe
						L = Liquid
						V = Vegetation
						X = Other
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S13-012-195
Collector Kevin Patterson	Contact/Requester Karen Waters-Husted	Telephone No.	376-4650	
SAF No. S13-012	Sampling Origin Hanford Site	Purchase Order/Charge Code	30007 IES20	
Project Title SURV, DECEMBER 2012	Logbook No. HNF-N-506 36 / 48	Ice Chest No.	N/A	
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A	
Protocol SURV	Priority: 30 Days	Offsite Property No.	N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS		Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS	FY12 and FY13 samples cannot be in the same SDG. Site-Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No.	Filter	Date	Time	No/Type Container
B2N1H5	N	DEC 14 2012	0827	1x20-mL P
B2N1H5	N	W		1x4-L GIP
				GAMMALL_GS: List-1 (9)
				Activity Scan
				Sample Analysis
				MLSD
				Holding Time
				6 Months
				6 Months
				Preservative
				None
				HINO3 to pH <2

SDG # W06505
LOT # 02L170417

Reinquired By Kevin Patterson	Print 	Sign	Date/Time DEC 14 2012 1330	Received By M. White	Print M. White	Sign	Date/Time DEC 14 2012 1330
Reinquired By M. White	Print 	Sign	Date/Time 12-14-12 1500	Received By L. V. V. V.	Print L. V. V. V.	Sign	Date/Time 12-14-12 1500
Reinquired By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Reinquired By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time

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

FINAL SAMPLE DISPOSITION

JANUARY 15, 2013



Sample Check-in List

Date/Time Received: 12-14-12 @ 1500 Container GM Screen Result: (Airlock) .04 Initials [LV]
Sample GM Screen Result (Sample Receiving) .04 Initials [LV]

Client: PGL SDG #: W06505 NA [] SAF #: S13-012 NA []

Lot Number: J2L170417

Chain of Custody # S13-012-179;181;182;183;186;187;188;195

Shipping Container ID: Hand Delivery NA [LV] Air Bill Number: NA [LV]

Samples received inside shipping container/cooler/box Yes [LV] Continue with 1 through 4. Initial appropriate response.
No [] Go to 5, add comment to #16.

- 1. Custody Seals on shipping container intact? Yes [] No [] No Custody Seal [LV]
2. Custody Seals dated and signed? Yes [] No [] No Custody Seal [LV]
3. Cooler temperature: _____ °C NA [LV]
4. Vermiculite/packing materials is NA [] Wet [] Dry [LV]

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [LV] No []
6. Number of samples received (Each sample may contain multiple bottles): 8
7. Containers received: 8xVial; 6xLP; 12xLP

8. Sample holding times exceeded? NA [] Yes [] No [LV]

9. Samples have:
tape LV hazard labels
LV custody seals LV appropriate sample labels

10. Matrix:
A (FLT, Wipe, Solid, Soil) LV I (Water)
S (Air, Niosh 7400) T (Biological, Ni-63)

11. Samples:
LV are in good condition are leaking
are broken have air bubbles (Only for samples requiring no head space)
Other N/A

12. Sample pH appropriate for analysis requested Yes [LV] No [] NA [LV]
(If acidification is necessary, then document sample ID, initial pH, amount of HNO3 added and pH after addition on table overleaf)
RPL ID # of preservative used: N/A

13. Were any anomalies identified in sample receipt? Yes [] No [LV]

14. Description of anomalies (include sample numbers): NA [LV]

Sample Preparation/Analysis									
12/27/2012 2:27:37 PM		Balance Id: 1120482733		AZ Gross Alpha Prp GPC001		Pipet #:		CR Analyst, Init/Date	
384868, CH2M Hill Plateau Remediation Company		PM, Quote: SS, 57671		S7 Gross Alpha by GPC using Am-241 curve		Prep Tech: NyeP		Count On Off (24hr) Circle	
Pacific Northwest National Lab		pCi/L		5I CLIENT: HANFORD		Detector Id		Comments:	
AnalytDueDate: 01/15/2013		Batch: 2353058 WATER		Sep1 DT/Tm Tech:		Count Time Min			
SEQ Batch, Test: None		199.70g, in		199.70g		240			
Work Ord. Lot, Sample Date		Initial Aliquot Amt/Unit		Adj Aliq Amt (Un-Acidified)		Ppt or Geometry		Dish Size	
Total Amt/Unit		Total Acidified/Unit		QC Tracer Prep Date		Tracer Yield		Alpha: -1.35E-03 uCi/Sa	
1 MXJ03-1-AD		199.70g, in		199.30g		33.3mg		1.5	
J2L110430-2-SAMP		199.30g, in		200.30g		31.1mg		22A 1090 12/26/12	
12/11/2012 12:05		AmiRec: 1XVIAL202X500;10XLP		#Containers: 13		Scr:		Beta: 5.61E-03 uCi/Sa 1.8E-01L	
2 MXJ03-1-AN-X		199.30g, in		200.30g		0.4mg		22C	
J2L110430-2-DUP		200.30g, in		200.20g		0.8mg		22D	
12/11/2012 12:05		AmiRec: 1XVIAL202X500;10XLP		#Containers: 13		Scr:		Alpha: Alpha: 5.61E-03 uCi/Sa 1.8E-01L	
3 MXMMW-1-AA-B		200.30g, in		200.20g		0.8mg		22D	
J2L180000-58-BLK		200.20g, in		200.20g		0.8mg		22D	
12/18/2012 12:32 pd		AmiRec: ASD5451		09/19/12, pd		Scr:		Alpha: Alpha: 5.61E-03 uCi/Sa 1.8E-01L	
4 MXMMW-1-AC-C		200.20g, in		200.20g		0.8mg		22D	
J2L180000-58-LCS		200.20g, in		200.20g		0.8mg		22D	
12/18/2012 12:32 pd		AmiRec: ASD5451		09/19/12, pd		Scr:		Alpha: Alpha: 5.61E-03 uCi/Sa 1.8E-01L	

Comments: MXJ03-SAMP "Comments: Samples reduced due to activity screens P JUN 12-20-2012."
 MXMMW-BLK Comments: S-12-00228, P-12-00579

All Clients for Batch: 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS, 57671

MXJ031AD-SAMP	Constituent List:	pCi/L	LCL:	UCL:	RPD:
ALPHA	RDL: 3				
MXMMW1A-BLK:					
ALPHA	RDL: 3				
MXMMW1AC-LCS:					
Am-241	RDL:	pCi/L	LCL: 70	UCL: 130	RPD: 20

TestAmerica Key: in - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added
 ISV - Insufficient Volume for Analysis
 WO Cnt: 4
 Prep_SamplePrep v4.8.60

Sample Preparation/Analysis		Balance Id:1120482733											
AZ Gross Alpha Prp GPC001 S7 Gross Alpha by GPC using Am-241 curve 5I CLIENT: HANFORD		Pipet #:											
AnalyteDueDate: 01/15/2013		Sep1 DT/Tm Tech:											
Batch: 2353058 SEQ Batch, Test: None		Sep2 DT/Tm Tech:											
pCi/L		Prep Tech: NyeP											
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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:
MKJ031AD-SAMP Calc Info: Uncert Level (#s):: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MKMMW1AA-BLK: Uncert Level (#s):: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MKMMW1AC-LCS: Uncert Level (#s):: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B													

JANUARY 15, 2013

12/28/2012 2:32:59 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/29/2011, 1/2/2013, Batch: '2353058', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2353058				
AC	Rev1C	NyeP	12/20/2012 8:03:15	
SC		davilan	IsBatched	12/18/2012 12:36:12 PM
SC		NyeP	InPrep	12/20/2012 8:03:15 AM
SC		LoeberL	Prep2C	12/27/2012 2:49:08 PM
SC		ClarkR	InCnt1	12/27/2012 2:56:10 PM
SC		ClarkR	CalcC	12/28/2012 12:22:49 PM
SC		antonsonl	Rev1C	12/28/2012 2:32:53 PM
AC		LoeberL	12/27/2012 2:49:08	ICOC_RADCALC v4.8.49
AC		ClarkR	12/27/2012 2:56:10	RL-PRP-004 REVISION 2
AC		ClarkR	12/28/2012 12:22:49	RL-GPC-001 REVISION 2
AC		antonsonl	12/28/2012 2:32:53	RL-CI-006 REVISION 3
				RL-CI-006 REVISION 3
				RL-DR-001 Rev 2

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

12/27/2012 2:39:10 PM		Sample Preparation/Analysis		Balance Id: 1120482733									
BC Gross Beta Prp GPC001		S8 Gross Beta by GPC using Sr/Y-90 curve		Pipet #:									
5I CLIENT: HANFORD		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:									
Batch: 2353059		pCi/L		Prep Tech: NyeP									
SEQ Batch, Test: None													
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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:
Uncert Level (#s) : 2	Decay to SaDt: Y	Decay to SaDt: Y	Blk Subt.: N	Blk Subt.: N	Sci. Not.: Y	ODRs: B							
Uncert Level (#s) : 2	Decay to SaDt: Y	Decay to SaDt: Y	Blk Subt.: N	Blk Subt.: N	Sci. Not.: Y	ODRs: B							
Uncert Level (#s) : 2	Decay to SaDt: Y	Decay to SaDt: Y	Blk Subt.: N	Blk Subt.: N	Sci. Not.: Y	ODRs: B							

JANUARY 15, 2013

*** RE-COUNT REQUEST ***

DUE DATE 1/15/13

CUSTOMER CH2m

ANALYSIS Beta

MATRIX water

LOT NUMBER J2L110430

SAMPLE DELIVERY GROUP _____

OLD BATCH NUMBER 2353059

NEW BATCH NUMBER _____

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) <u>MXJ031A2</u>		<u>dupout</u>
2) <u>MXJ031AP</u>		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

RC-126 Rev 6, 9/10

Sample Preparation/Analysis													
Balance Id: 1120482733					Pipet #:								
BC Gross Beta Prp GPC001					Sep1 DT/Tm Tech:								
S8 Gross Beta by GPC using Sr/Y-90 curve					Sep2 DT/Tm Tech:								
51 CLIENT: HANFORD					Prep Tech: NyeP								
PM, Quote: SS, 57671													
AWTA, 2346077 88EA, 2353054 FPS5, 2353055 AWTA, 2353057 ARS6, 2353058 AZS7,													
5SS3, AWTA, 2346077 88EA, 2353054 FPS5, 2353055 AWTA, 2353057 ARS6, 2353058 AZS7,													
51 CLIENT: HANFORD													
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Inrt/Date	Comments:
1 MXJ03-1-AE	179.30g.in	179.30g	179.30g.in	179.30g			1.5	1.4477	200				
J2L110430-2-SAMP													
12/11/2012 12:05													
2 MXJ03-1-AP-X	179.50g.in	179.50g	179.50g.in	179.50g									
J2L110430-2-DUP													
12/11/2012 12:05													
3 MXJ03-2-AE	179.30g	179.30g	179.30g	179.30g									
J2L110430-2-SAMP													
12/11/2012 12:05													
4 MXJ03-2-AP-X	179.50g	179.50g	179.50g	179.50g									
J2L110430-2-DUP													
12/11/2012 12:05													
5 MXMM0-1-AA-B	200.30g.in	200.30g	200.30g.in	200.30g									
J2L180000-59-BLK													
12/18/2012 12:32 pd													
6 MXMM0-1-AC-C	200.30g.in	200.30g	200.30g.in	200.30g									
J2L180000-59-LCS													
12/18/2012 12:32 pd													

12/28/2012 3:09:58 PM		Sample Preparation/Analysis		Balance Id: 1120482733																																																																									
BC Gross Beta Prp GPC001		S8 Gross Beta by GPC using Sr/Y-90 curve		Pipet #:																																																																									
51 CLIENT: HANFORD		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:																																																																									
Batch: 2353059		pCi/L		Prep Tech: NyeP																																																																									
SEQ Batch, Test: None		Total Amt/Unit		Count (24hr) Circle																																																																									
Total Amt/Unit		Total Acidified/Unit		Detector Id																																																																									
Initial Aliquot Amt/Unit		Adj Aliq Amt (Un-Acidified)		CR Analyst, Int/Date																																																																									
QC Tracer Prep Date		Tracer Yield		Count Time Min																																																																									
Dish Size		Ppt or Geometry		Comments:																																																																									
<p>Comments: MXJ03-SAMP "Comments: Samples reduced due to activity screens PJN 12-20-2012-" MXMM0-BLK Comments P-12-00579, S-12-00228, pH < 2 PJN 12-20-2012"</p>																																																																													
<p>All Clients for Batch: 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS, 57671</p>																																																																													
<p>MXJ031AE-SAMP Constituent List:</p> <table border="1"> <thead> <tr> <th>Constituent</th> <th>RDL</th> <th>pCi/L</th> <th>LCL</th> <th>UCL</th> <th>RPD</th> </tr> </thead> <tbody> <tr> <td>BETA</td> <td>4</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MXMM01AA-BLK</td> <td>4</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BETA</td> <td>4</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MXMM01AC-LCS</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sr-90</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MXJ031AE-SAMP Calc Info:</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Uncert Level (#s):</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MXMM01AA-BLK</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Uncert Level (#s):</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MXMM01AC-LCS</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Uncert Level (#s):</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						Constituent	RDL	pCi/L	LCL	UCL	RPD	BETA	4					MXMM01AA-BLK	4					BETA	4					MXMM01AC-LCS						Sr-90						MXJ031AE-SAMP Calc Info:						Uncert Level (#s):	2					MXMM01AA-BLK						Uncert Level (#s):	2					MXMM01AC-LCS						Uncert Level (#s):	2				
Constituent	RDL	pCi/L	LCL	UCL	RPD																																																																								
BETA	4																																																																												
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TestAmerica		Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2		Page 2																																																																									
Richland Wa.		pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec - Enrichment Cell, ct - Cocktail Added		ISV - Insufficient Volume for Analysis																																																																									
				WO Cnt: 6																																																																									
				ICOC v4.8.49																																																																									

12/31/2012 11:43:51 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/1/2012, 1/5/2013, Batch: '2353059', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2353059				
AC	Rev1C	NyeP	12/20/2012 8:11:02	
SC		davilan	IsBatched	12/18/2012 12:36:17 PM
SC		NyeP	InPrep	12/20/2012 8:11:02 AM
SC		LoeberL	Prep2C	12/27/2012 2:49:27 PM
SC		ClarkR	InCnt1	12/27/2012 2:55:36 PM
SC		DawkinsO	CalcC	12/27/2012 8:39:43 PM
SC		DawkinsO	InCnt1	12/28/2012 5:42:24 PM
SC		ClarkR	CalcC	12/31/2012 10:07:49 AM
SC		antonsonl	Rev1C	12/31/2012 11:43:38 AM
AC		LoeberL		12/27/2012 2:49:27
AC		ClarkR		12/27/2012 2:55:36
AC		DawkinsO		12/27/2012 8:39:43
AC		DawkinsO		12/28/2012 5:42:24
AC		ClarkR		12/31/2012 10:07:49
AC		antonsonl		12/31/2012 11:43:38

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

Sample Preparation/Analysis									
12/20/2012 7:10:40 AM		Balance Id: 1120403183		Pipet #:		Sep1 DTTm Tech: 1820 1/2/13 APA		Sep2 DTTm Tech: 1030 1/9/13 APA	
384868, CH2M Hill Plateau Remediation Company		CL Sr-90 Prp/Sep GPC003(GPC004)		TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth		51 CLIENT: HANFORD		Prep Tech: RichardsonB	
AnalyteDueDate: 01/15/2013		AWTA, 2346077 88EA, 2353054 FPS5, 2353055 AWTA, 2353057 ARS6, 2353058 AZS7,		PM, Quote: SS, 57671		Dish Size		Count Time Min	
Batch: 2353060 WATER		5SS3, AWTA, 2346077 88EA, 2353054 FPS5, 2353055 AWTA, 2353057 ARS6, 2353058 AZS7,		QC Tracer Prep Date		Tracer Yield		Ppt or Geometry	
SEQ Batch, Test: None		Initial Aliquot Amt/Unit		Adj Aliq Amt (Un-Acidified)		Total Acidified/Unit		Detector Id	
2353059 BCS8, 2353060 CLTL,		280.30g.in		280.30g		SRTB18191		Count On (24hr) Circle	
Work Ord, Lot, Sample Date		Total Amt/Unit		Total Acidified/Unit		Initial Aliquot Amt/Unit		Off Circle	
1 MXJ02-1-AF		280.30g.in		280.30g		SRTB18191		Init/Date	
J2L110430-1-SAMP		22.9		0.76799		12/19/12		1933	
1.668 / 2.0081 = 0.8306		83.60%		1313 APA		83.06%		3" 0812 1/10/13CJH	
12/11/2012 08:58		AmtRec: 1XVIAL20;2X500;9XLP		#Containers: 12		SRTB18192		1/11/13CJH	
2 MXJ03-1-AH		360.80g.in		360.80g		SRTB18192		Alpha: -2.71E-03 uCi/Sa	
J2L110430-2-SAMP		0.76889		-0.74609		12/19/12		Beta: 6.30E-03 uCi/Sa	
1.699 / 2.0265 = 0.8384		83.84%		22.8 mg		3" 2007 1/2/13/2008		1.4E-01L	
12/11/2012 12:05		AmtRec: 1XVIAL20;2X500;10XLP		#Containers: 13		SRTB18193		Alpha: -1.35E-03 uCi/Sa	
3 MXJ03-1-AO-X		360.90g.in		360.90g		SRTB18193		Beta: 5.61E-03 uCi/Sa	
J2L110430-2-DUP		0.75719		-0.73389		12/19/12		1.8E-01L	
1.748 / 2.0177 = 0.8663		86.63%		23.3 mg		3" 2039 1/2/13 020		Alpha: -1.35E-03 uCi/Sa	
12/11/2012 12:05		AmtRec: 1XVIAL20;2X500;10XLP		#Containers: 13		SRTB18194		Beta: 5.61E-03 uCi/Sa	
4 MXMM5-1-AA-B		501.50g.in		501.50g		SRTB18194		Alpha: -1.35E-03 uCi/Sa	
J2L180000-60-BLK		0.76439		-0.74209		12/19/12		1.8E-01L	
1.540 / 2.0107 = 0.7659		76.59%		22.3 mg		3" 2112 1/2/13 020		Alpha: -1.35E-03 uCi/Sa	
12/18/2012 12:32 pd		AmtRec:		#Containers: 1		SRTB18194		Beta:	

12/20/2012 7:10:41 AM
 Balance Id: 1120403183
 CL Sr-90 Prip/Sep GPC003(GPC004)
 TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
 5I CLIENT: HANFORD

AnalyDueDate: 01/15/2013
 Batch: 2353060
 SEQ Batch, Test: None

12/18/2012 12:32 pd
 AmtRec: #Containers: 1
 Comments: MXMM5-BLK CommentsP-12-00228,P-12-00478

Prep Tech: RichardsonB
 Sep1 DT/Tm Tech:
 Sep2 DT/Tm Tech:

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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 MXMM5-1-AC-C	501.20g.in		501.20g		SRSGL783	12/19/12	84.81%	1.0"	0.76219 -0.73919	3"	2154	1/2/13 ORO	
J2L180000-60-LCS									23.0mg	2A	0812	1/10/13 OJA	
										2A	0841	1/11/13 OJA	

1.701/2.0057 = 0.8481

AmfRec: #Containers: 1
 AmtRec: 1
 Alpha:
 Beta:

All Clients for Batch:
 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS, 57671

Constituent List:	RDL:	UCL:	LCL:	Sr-90	RDL:	UCL:	LCL:	RPD:	ODRS:	Sci. Not.:	Blk Subt.:	Decay to SaDt:	Decay Level (#s):	Uncert Level (#s):
MXJ021AF-SAMP	pCi/L	UCL:105	LCL:20	Sr-90	RDL:2	UCL:130	LCL:70	RPD:20	B	N	N	Y	2	2
Sr-85	pCi/L	UCL:105	LCL:20	Sr-90	RDL:2	UCL:130	LCL:70	RPD:20	B	N	N	Y	2	2
MXMM51AA-BLK	pCi/L	UCL:105	LCL:20	Sr-90	RDL:2	UCL:130	LCL:70	RPD:20	B	N	N	Y	2	2
Sr-85	pCi/L	UCL:105	LCL:20	Sr-90	RDL:2	UCL:130	LCL:70	RPD:20	B	N	N	Y	2	2
MXMM51AC-LCS	pCi/L	UCL:105	LCL:20	Sr-90	RDL:2	UCL:130	LCL:70	RPD:20	B	N	N	Y	2	2
Sr-85	pCi/L	UCL:105	LCL:20	Sr-90	RDL:2	UCL:130	LCL:70	RPD:20	B	N	N	Y	2	2

MXJ021AF-SAMP Calc Info:
 Uncert Level (#s): 2
 MXMM51AA-BLK:
 Uncert Level (#s): 2
 MXMM51AC-LCS:
 Uncert Level (#s): 2

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep 1, s2 - Sep 2
 pd - Prep Dt, dc - Date Crg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

TestAmerica
 Richland Wa.
 ISV - Insufficient Volume for Analysis
 Page 2
 WO Cnt: 5
 Prep_SamplePrep v4.8.60

JANUARY 15, 2013

1/14/2013 10:09:59 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/15/2012, 1/19/2013, Batch: '2353060', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2353060				
AC	Rev1C	RichardsonB	12/20/2012 7:06:25	
SC		davilan	IsBatched	12/18/2012 12:36:22 PM
SC		RichardsonB	InPrep	12/20/2012 7:06:25 AM
SC		AshworthA	Sep1C	1/2/2013 6:42:40 PM
SC		DawkinsO	InCnt1	1/2/2013 7:00:46 PM
SC		DawkinsO	Cnt1C	1/2/2013 10:17:56 PM
SC		AshworthA	Sep2C	1/9/2013 12:58:08 PM
SC		ClarkR	InCnt2	1/9/2013 1:01:47 PM
SC		ClarkR	CalcC	1/11/2013 12:15:23 PM
SC		antonsonl	Rev1C	1/14/2013 10:09:47 AM
AC		AshworthA	1/2/2013 6:42:40 PM	
AC		DawkinsO	1/2/2013 7:00:46 PM	
AC		DawkinsO	1/2/2013 10:17:56 PM	
AC		AshworthA	1/9/2013 12:58:08 PM	
AC		ClarkR	1/9/2013 1:01:47 PM	
AC		ClarkR	1/11/2013 12:15:23	
AC		antonsonl	1/14/2013 10:09:47	

ICOC_RADCALC v4.8.49
RL-PRP-004 REVISION 2
RL-GPC-003 REV. 2
RL-CI-007 REV. 2
RL-CI-007 REV. 2
RL-GPC-004 REV. 2
RL-CI-006 REVISION 3
RL-CI-006 REVISION 3
RL-DR-001 Rev 2

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

PGW

12/19/2012 9:57:39 AM **Sample Preparation/Analysis** Balance Id: 1120482733

384868, CH2M Hill Plateau Remediation Company AW Gamma Prp GAM001 Pipet #:
 Pacific Northwest National Lab TA Gamma by HPGE

AnalyteDueDate: 01/15/2013 5I CLIENT: HANFORD

Batch: 2353052 WATER pCi/L PM, Quote: SS, 57671

SEQ Batch, Test: None All Tests: 2353050 BNTB, 2353052 AWTA, 2353053 AMS5,

Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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 MXL25-1-AA			2001.50g.in	2001.50g					100 200	511	1107	12/26/12 m	
J2L130450-6-SAMP													
12/12/2012 12:34													
2 MXL40-1-AA			2001.10g.in	2001.10g						Alpha: 7.44E-04 uCi/Sa		Beta: 4.89E-04 uCi/Sa	
J2L170417-5-SAMP													
12/13/2012 11:08													
3 MXL40-1-AC-X			1866.20g.in	1866.20g						Alpha: 2.20E-04 uCi/Sa		Beta: 4.95E-04 uCi/Sa	
J2L170417-5-DUP													
12/13/2012 11:08													
4 MXL4V-1-AA			2001.00g.in	2001.00g						Alpha: 2.20E-04 uCi/Sa		Beta: 4.95E-04 uCi/Sa	
J2L170417-6-SAMP													
12/13/2012 07:30													
5 MXL46-1-AA			2000.50g.in	2000.50g						Alpha: 3.29E-04 uCi/Sa		Beta: 4.51E-04 uCi/Sa	
J2L170417-7-SAMP													
12/13/2012 09:45													
6 MXL5D-1-AA			2000.60g.in	2000.60g						Alpha: 3.66E-04 uCi/Sa		Beta: 2.35E-04 uCi/Sa	
J2L170417-8-SAMP													
12/14/2012 08:37													
7 MXLJ7-1-AA-B			1999.80g.in	1999.80g						Alpha: 3.47E-04 uCi/Sa		Beta: 1.07E-04 uCi/Sa	
J2L180000-52-BLK													
12/18/2012 12:32 pd													

TestAmerica Key: In - Initial Amt, fi - Final Amt, ci - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 7
 Prep_SamplePrep v4.8.60

12/19/2012 9:57:41 AM **Sample Preparation/Analysis** Balance Id: 1120482733

AW Gamma Prp GAM001
TA Gamma by HPGE
51 CLIENT: HANFORD

AnalytDueDate: 01/15/2013

Batch: 2353052
SEQ Batch, Test: None

pCi/L

Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: NyeP

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Defector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MXMJ7-1-AC-C	2000.40g.in	2000.40g	2000.40g	QCAG1924								
J2L180000-52-LCS				12/06/12.pd								
12/18/2012 12:32 pd				07/16/00.r								

Alpha: Beta: Scr: #Containers: 1

Comments: MXL4Q-SAMP *CommentsRemainder of sample used for Dup. P.JN 12-19-2012*
MXMJ7-BLK CommentsP-12-00579,S-12-00228

All Clients for Batch:
384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS , 57671

MXK251AA-SAMP Constituent List:

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

MXMJ71AA-BLK:

Co-60	RDL:0.00E+00	pCi/L	LCL	LCL:	UCL	UCL:	RPD	RDL:0.00E+00	pCi/L	LCL	LCL:	UCL	UCL:	RPD
Cs-137	RDL:6.00E+00	pCi/L	LCL:	LCL:	UCL:	UCL:	RPD:	RDL:6.00E+00	pCi/L	LCL:	LCL:	UCL:	UCL:	RPD:
Eu-154	RDL:0.00E+00	pCi/L	LCL:	LCL:	UCL:	UCL:	RPD:	RDL:0.00E+00	pCi/L	LCL:	LCL:	UCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	LCL:	UCL:	UCL:	RPD:	RDL:0.00E+00	pCi/L	LCL:	LCL:	UCL:	UCL:	RPD:

MXMJ71AC-LCS:

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

MXK251AA-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subst.: N	Sci.Not.: Y	ODRs: B
MXMJ71AA-BLK	Decay to SaDt: Y	Blk Subst.: N	Sci.Not.: Y	ODRs: B
MXMJ71AC-LCS	Decay to SaDt: Y	Blk Subst.: N	Sci.Not.: Y	ODRs: B

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2
Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 2

WO Cnt: 8
Prep_SamplePrep v4.8.60

12/19/2012 9:57:41 AM

Sample Preparation/Analysis

Balance Id: 1120482733

AW Gamma Prp GAM001
TA Gamma by HPGE

Pipet #:

AnalyDueDate: 01/15/2013

Sep1 DT/Tm Tech:

Batch: 2353052

Sep2 DT/Tm Tech:

5l CLIENT: HANFORD

pCi/L

Prep Tech: NyeP

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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:

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 3

Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 8

Prep_SamplePrep v4.8.60

JANUARY 15, 2013

1/7/2013 4:23:43 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/8/2012, 1/12/2013, Batch: '2353052', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2353052				
AC	Rev1C	NyeP	12/19/2012 9:35:56	
SC		davilan	IsBatched	12/18/2012 12:35:42 PM
SC		NyeP	InPrep	12/19/2012 9:35:56 AM
SC		SannohS	Prep1C	12/24/2012 1:52:37 PM
SC		DawkinsO	InCnt1	12/24/2012 1:57:32 PM
SC		DawkinsO	CalcC	12/26/2012 5:34:13 PM
SC		antonsonl	Rev1C	1/7/2013 4:23:33 PM
AC		SannohS	12/24/2012 1:52:37	ICOC_RADCALC v4.8.49
AC		DawkinsO	12/24/2012 1:57:32	RL-PRP-004 REVISION 2
AC		DawkinsO	12/24/2012 1:57:40	RL-PRP-004 REVISION 2
AC		DawkinsO	12/26/2012 5:34:13	RL-CI-007 REV. 2
AC		DawkinsO	12/26/2012 7:51:25	RL-CI-007 REV. 2
AC		antonsonl	1/7/2013 4:23:33 PM	RL-DR-001 Rev 2

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

PGW

12/19/2012 9:31:38 AM **Sample Preparation/Analysis** Balance Id: 1120482733

384868, CH2M Hill Plateau Remediation Company **AW Gamma Prp GAM001** Pipet #: _____
 Pacific Northwest National Lab **TA Gamma by HPGE**

Analyte Due Date: 01/15/2013 51 CLIENT: HANFORD

Batch: 2353055 WATER pCi/L PM, Quote: SS, 57671
 SEQ Batch, Test: None All Tests: 5SS3, AWTA, 2346077 88EA, 2353054 FPS5, 2353055 AWTA, 2353057 ARS6, 2353058 AZS7,
 2353059 BCS8, 2353060 CLTL, _____

Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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 MXJ02-1-AE	1959.10g.in	1959.10g	1959.10g.in	1959.10g				100	200	G11	7942	12/24/12 00	
J2L110430-1-SAMP													
12/11/2012 08:58													
2 MXJ02-1-AM-X	1959.10g.in	1959.10g	1959.10g.in	1959.10g									
J2L110430-1-DJUP													
12/11/2012 08:58													
3 MXJ03-1-AG	1581.40g.in	1581.40g	1581.40g.in	1581.40g									
J2L110430-2-SAMP													
12/11/2012 12:05													
4 MXJ03-1-AA-B	2498.40g.in	2498.40g	2498.40g.in	2498.40g									
J2L180000-55-BLK													
12/18/2012 12:32 pd													
5 MXJ03-1-AC-C	2498.90g.in	2498.90g	2498.90g.in	2498.90g									
J2L180000-55-LCS													
12/18/2012 12:32 pd													

Comments: Samples Redwood due to screens - PGW 12-19-12
 ISV Sor dip, please recount on different detector - PGW 12-19-12

All Clients for Batch: 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS, 57671

MXJ021AE-SAMP Constituent List: RDL: 2.50E+01 pCi/L LCL: RPD: Cs-134 RDL: 1.50E+01 pCi/L LCL: RPD: DCL: RPD: WO Cnt: 5
 Co-60 RDL: 2.50E+01 pCi/L LCL: RPD: Cs-134 RDL: 1.50E+01 pCi/L LCL: RPD: DCL: RPD: Prep_SamplePrep v4.8.60

Sample Preparation/Analysis												
Balance Id: 1120482733					Pipet #:							
AW Gamma Prp GAM001					TA Gamma by HPGE							
51 CLIENT: HANFORD					Sep1 DT/Tm Tech:							
Batch: 2353055					Sep2 DT/Tm Tech:							
SEQ Batch, Test: None					Prep Tech: ,NyeP							
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/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:
CS-137	RDL:1.50E+01	pCi/L	LCL:70	RPD:20	CS-137DA	Eu-154	RDL:1.50E+01	pCi/L	Eu-154	LCL:70	UCL:130	RPD:20
Eu-152	RDL:5.00E+01	pCi/L	LCL:	RPD:	K-40	K-40	RDL:5.00E+01	pCi/L	K-40	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	RPD:			RDL:0.00E+00	pCi/L		LCL:	UCL:	RPD:
SB-125	RDL:5.00E+01	pCi/L	LCL:	RPD:								
XXXXXXXXXX-MIAA-BLK:												
CS-60	RDL:2.50E+01	pCi/L	LCL:	RPD:	CS-134	CS-134	RDL:1.50E+01	pCi/L	CS-134	LCL:	UCL:	RPD:
CS-137	RDL:1.50E+01	pCi/L	LCL:	RPD:	CS-137DA	Eu-154	RDL:1.50E+01	pCi/L	Eu-154	LCL:	UCL:	RPD:
Eu-152	RDL:5.00E+01	pCi/L	LCL:	RPD:	K-40	K-40	RDL:5.00E+01	pCi/L	K-40	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	RPD:			RDL:0.00E+00	pCi/L		LCL:	UCL:	RPD:
SB-125	RDL:5.00E+01	pCi/L	LCL:	RPD:								
XXXXXXXXXX-MIAC-LCS:												
CS-137	RDL:15	pCi/L	LCL:70	RPD:20	CS-137DA	Eu-154	RDL:15	pCi/L	Eu-154	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	RPD:20	Ra-226	Ra-226	RDL:6	pCi/L	Ra-226	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	RPD:20	RA-228DA	RA-228DA	RDL:--	pCi/L	RA-228DA	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	RPD:20								
XXXXXXXXXX-021AE-SAMP Calc Info:												
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subst.: N	Sci.Not.: Y	ODRs: B								
XXXXXXXXXX-MIAA-BLK:												
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subst.: N	Sci.Not.: Y	ODRs: B								
XXXXXXXXXX-MIAC-LCS:												
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subst.: N	Sci.Not.: Y	ODRs: B								

JANUARY 15, 2013

12/26/2012 2:22:39 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/27/2011, 12/31/2012, Batch: '2353055', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	2353055				
AC		Rev1C	NyeP	12/19/2012 9:20:03	
SC			davilan	IsBatched 12/18/2012 12:35:59 PM	ICOC_RADCALC v4.8.49
SC			NyeP	InPrep 12/19/2012 9:20:03 AM	RL-PRP-004 REVISION 2
SC			SannohS	Prep1C 12/21/2012 11:30:21 AM	RL-PRP-004 REVISION 2
SC			HiattC	InCnt1 12/21/2012 11:32:39 AM	RL-CI-007 REV. 2
SC			ClarkR	CalcC 12/26/2012 11:39:50 AM	RL-CI-007 REV. 2
SC			nortonj	Rev1C 12/26/2012 2:19:52 PM	RL-DR-001 Rev 2
AC			SannohS	12/21/2012 11:30:21	
AC			HiattC	12/21/2012 11:32:39	
AC			ClarkR	12/26/2012 11:39:50	
AC			nortonj	12/26/2012 2:19:52	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

PKV

Sample Preparation/Analysis										
Balance Id: 1120482733					Pipet #:					
BN I-129 Prp/Sep GAM002					Prep Tech: HoganH					
TB Gamma by LEPD					Count On Off					
51 CLIENT: HANFORD					Detector Id					
Sep1 DT/Tm Tech:					Circle					
Sep2 DT/Tm Tech:					Comments:					
PM, Quote: SS, 57671										
Batch: 2353050 WATER pCi/L										
SEQ Batch, Test: None All Tests: 2353050 BNTB, 2353051 ART0,										
384868, CH2M Hill Plateau Remediation Company										
Pacific Northwest National Lab										
AnalyseDate: 01/15/2013										
Work Ord, Lot, Sample Date										
Total Amt/Unit										
Initial Aliquot Amt/Unit										
Adj Aliq Amt (Un-Acidified)										
QC Tracer Prep Date										
Tracer Yield										
Dish Size										
Ppt or Geometry										
Count Time Min										
Detector Id										
Count On Off (24hr) Circle										
CR Analyst, Intri/Date										
1	MXH98-1-AA									
J2L070436-1-SAMP										
12/06/2012 12:25										
AmtRec: 1XVIAL2X4LP #Containers: 3										
2	MXJAK-1-AC									
J2L070436-2-SAMP										
12/06/2012 14:07										
AmtRec: 1XVIAL2X4LP #Containers: 4										
3	MXK2X-1-AA									
J2L130450-1-SAMP										
12/12/2012 11:41										
AmtRec: 1XVIAL20X4LP #Containers: 3										
4	MXK20-1-AA									
J2L130450-2-SAMP										
12/12/2012 10:42										
AmtRec: 1XVIAL20X4LP #Containers: 3										
5	MXK21-1-AA									
J2L130450-3-SAMP										
12/12/2012 10:42										
AmtRec: 1XVIAL20X4LP #Containers: 3										
6	MXK22-1-AA									
J2L130450-4-SAMP										
12/12/2012 09:37										
AmtRec: 1XVIAL20X4LP #Containers: 3										
7	MXK24-1-AA									
J2L130450-5-SAMP										
12/12/2012 10:06										
AmtRec: 1XVIAL20X4LP #Containers: 3										

Sample Preparation/Analysis													
12/28/2012 7:11:39 AM		Balance Id: 1120482733		BN I-129 Prp/Sep GAM002		Pipet #:							
384868, CH2M Hill Plateau Remediation Company		Pacific Northwest National Lab		TB Gamma by LEPD		Sep1 DT/Tm Tech:							
AnalytDueDate: 01/15/2013		51 CLIENT: HANFORD		PM, Quote: SS, 57671		Sep2 DT/Tm Tech:							
Batch: 2353050 WATER		pCi/L		Prep Tech: ,HoganH									
SEQ Batch, Test: None													
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	OC 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:
8 MXL3A-1-AA	3868.10g,in	3868.10g	ITA12490	09/18/12	33.1mg					L5	0106	12/28/12awl	
J2L170414-1-SAMP													
12/13/2012 13:30													
9 MXL3A-1-AC-X	3860.30g,in	3860.30g	ITA12491	09/18/12	33.8mg					L5	1033	12/11/12w	
J2L170414-1-DUP													
12/13/2012 13:30													
10 MXL3G-1-AA	3864.90g,in	3864.90g	ITA12492	09/18/12	33.3mg					L5	1034		
J2L170414-2-SAMP													
12/13/2012 13:30													
11 MXL4H-1-AA	3875.10g,in	3875.10g	ITA12493	09/18/12	31.7mg					L5	1359	12/31/12w	
J2L170417-1-SAMP													
12/13/2012 10:56													
12 MXL4J-1-AA	3869.60g,in	3869.60g	ITA12494	09/18/12	33.5mg					L5	1400		
J2L170417-2-SAMP													
12/14/2012 08:33													
13 MXL4K-1-AA	3868.30g,in	3868.30g	ITA12495	09/18/12	33.5mg					L4	1725	12/31/12awl	
J2L170417-3-SAMP													
12/14/2012 08:33													
14 MXL4M-1-AA	3885.90g,in	3885.90g	ITA12496	09/18/12	33.2mg					L5	1726		
J2L170417-4-SAMP													
12/14/2012 09:21													

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added
 ISV - Insufficient Volume for Analysis
 WO Cnt: 14
 Prep_SamplePrep v4.8.60

JANUARY 15, 2013

1/7/2013 9:56:26 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/8/2012, 1/12/2013, Batch: '2353050', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2353050				
AC	Rev1C	HoganH	12/21/2012 8:37:54	
SC		davilan	IsBatched 12/18/2012 12:35:31 PM	ICOC_RADCALC v4.8.49
SC		HoganH	InPrep 12/21/2012 8:37:54 AM	RL-PRP-004 REVISION 2
SC		HoganH	Prep1C 12/27/2012 7:24:40 AM	RL-GAM-002 REVISION 3
SC		HoganH	InPrep2 12/27/2012 7:25:32 AM	RL-GAM-002 REVISION 3
SC		HoganH	Prep2C 12/27/2012 10:31:57 AM	RL-GAM-002 REVISION 3
SC		ClarkR	InCnt1 12/28/2012 7:34:00 AM	RL-CI-007 REV. 2
SC		ClarkR	CalcC 1/2/2013 10:48:36 AM	RL-CI-007 REV. 2
SC		nortonj	Rev1C 1/7/2013 9:56:18 AM	RL-DR-001 Rev 2
AC		HoganH	12/27/2012 7:24:40	
AC		HoganH	12/27/2012 7:25:32	
AC		HoganH	12/27/2012 10:31:57	
AC		ClarkR	12/28/2012 7:34:00	
AC		ClarkR	1/2/2013 10:48:36	
AC		nortonj	1/7/2013 9:56:18 AM	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

Sample Preparation/Analysis									
12/19/2012 9:53:26 AM		Balance Id: 1120403183		Pipet #:		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:	
384868, CH2M Hill Plateau Remediation Company		FP Tc-99 Prp/Sep LSC014		PM, Quote: SS, 57671		Prep Tech: ,RichardsonB			
Pacific Northwest National Lab		S5 Technetium-99 by Liquid Scint		5SS3, AWTA, 2346077 88EA, 2353054 FPS5, 2353055 AWTA, 2353057 ARS6, 2353058 AZS7,					
AnalyteDueDate: 01/15/2013		5I CLIENT: HANFORD		QC Tracer		Count On / Off		CR Analyst,	
Batch: 2353054 WATER		pCi/L		Prep Date		Circle		Init/Date	
SEQ Batch, Test: None		AWTA, 2346077 88EA, 2353054 FPS5, 2353055 AWTA, 2353057 ARS6, 2353058 AZS7,		Yield		Detector		Comments:	
2353059 BCS8, 2353060 CLT,		5SS3,		Tracer		Id			
All Tests:		Initial Aliquot		Adj Aliq Amt		Ppt or			
		Amt/Unit		(Un-Acidified)		Geometry			
Total		Amt/Unit		Yield		Dish			
Acidified/Unit		Amt/Unit		Prep Date		Size			
Total		Amt/Unit		Yield		Time Min			
Sample Date		Amt/Unit		Prep Date		Count			
		Amt/Unit		Prep Date		Time Min			
1 MXJ02-1-AG									
J2L110430-1-SAMP		125.40g,in		125.40g		Scr:		Alpha: -2.71E-03 uCi/Sa Beta: 6.30E-03 uCi/Sa 1.4E-01L	
12/11/2012 08:58		AmtRec: 1XVIAL20;2X500;9XLP		#Containers: 12					
2 MXJ02-1-AL-X									
J2L110430-1-DUP		125.10g,in		125.10g		Scr:		Alpha: -2.71E-03 uCi/Sa Beta: 6.30E-03 uCi/Sa 1.4E-01L	
12/11/2012 08:58		AmtRec: 1XVIAL20;2X500;9XLP		#Containers: 12					
3 MXJ03-1-AJ									
J2L110430-2-SAMP		125.30g,in		125.30g		Scr:		Alpha: -1.35E-03 uCi/Sa Beta: 5.61E-03 uCi/Sa 1.8E-01L	
12/11/2012 12:05		AmtRec: 1XVIAL20;2X500;10XLP		#Containers: 13					
4 MXJ03-1-AL-S									
J2L110430-2-MS		125.20g,in		125.20g		Scr:		Alpha: -1.35E-03 uCi/Sa Beta: 5.61E-03 uCi/Sa 1.8E-01L	
12/11/2012 12:05		AmtRec: 1XVIAL20;2X500;10XLP		#Containers: 13					
5 MXMK8-1-AA-B									
J2L180000-54-BLK		125.30g,in		125.30g		Scr:		Alpha: -1.35E-03 uCi/Sa Beta: 5.61E-03 uCi/Sa 1.8E-01L	
12/18/2012 12:32 pd		AmtRec:		#Containers: 1					
6 MXMK8-1-AC-C									
J2L180000-54-LCS		123.80g,in		123.80g		Scr:		Alpha: Beta:	
12/18/2012 12:32 pd		AmtRec:		#Containers: 1					
7 MXMK8-1-AD-BN									
J2L180000-54-BLK		123.80g,in		123.80g		Scr:		Alpha: Beta:	
12/18/2012 12:32 pd		AmtRec:		#Containers: 1					

12/19/2012 9:53:27 AM		Sample Preparation/Analysis										Balance Id:	
AnalytDueDate: 01/15/2013		FP Tc-99 Prp/Sep LSC014 S5 Technetium-99 by Liquid Scint 5I CLIENT: HANFORD										Pipet #:	
Batch: 2353054		pCi/L										Sep1 DT/Tm Tech:	
SEQ Batch, Test: None												Sep2 DT/Tm Tech:	
												Prep Tech:	
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On (24hr) Circle	CR Analyst, Init/Date	Comments:
Comments: MXMK8-BLK Comments P-12-00228, P-12-00478													
All Clients for Batch: Pacific Northwest National Lab, SS , 57671													
384868, CHEM Hill Plateau Remediation Company													
MXJ021AG-SAMP Constituent List:													
Tc-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20								
MXJ031AL-MS:													
MXMK81AA-BLK:	RDL:15	pCi/L	LCL:	UCL:	RPD:								
TC-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20								
MXMK81AD-IBLK:	RDL:15	pCi/L	LCL:	UCL:	RPD:								
MXJ021AG-SAMP Calc Info:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B								
MXJ031AL-MS:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B								
MXMK81AA-BLK:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B								
MXMK81AC-LCS:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B								
MXMK81AD-IBLK:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B								

WO Crit: 7
Prep_SamplePrep v4.8.60

ISV - Insufficient Volume for Analysis

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 2

JANUARY 15, 2013

12/31/2012 3:03:15 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/1/2012, 1/5/2013, Batch: '2353054', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2353054				
AC	Rev1C	RichardsonB	12/19/2012 9:49:17	
SC		davilan	IsBatched	12/18/2012 12:35:48 PM
SC		RichardsonB	InPrep	12/19/2012 9:49:17 AM
SC		JorgensonD	Sep2C	12/28/2012 11:34:09 AM
SC		ClarkR	InCnt1	12/28/2012 11:37:10 AM
SC		ClarkR	CalcC	12/31/2012 12:33:54 PM
SC		antonsonl	Rev1C	12/31/2012 2:52:26 PM
AC		JorgensonD	12/28/2012 11:34:09	ICOC_RADCALC v4.8.49
AC		ClarkR	12/28/2012 11:37:10	RL-PRP-004 REVISION 2
AC		ClarkR	12/31/2012 12:33:54	RL-LSC-014 REVISION 2
AC		antonsonl	12/31/2012 2:52:26	RL-CI-005 REV. 2

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

Sample Preparation/Analysis									
12/19/2012 9:59:04 AM		Balance Id: 1120403183		Pipet #:		Prep Tech: ,RichardsonB		Comments:	
384868, CH2M Hill Plateau Remediation Company		AM Tc-99 Prp/Sep LSC013		S5 Technetium-99 by Liquid Scint		Sep1 DT/Tm Tech:		CR Analyst, Init/Date	
Pacific Northwest National Lab		51 CLIENT: HANFORD		PM, Quote: SS, 57671		Sep2 DT/Tm Tech:			
AnalyteDueDate: 01/15/2013		pCi/L		Dish Size		Count Time Min			
Batch: 2353053 WATER		Adj Aliq Amt (Un-Acidified)		QC Tracer Prep Date		Tracer Yield			
SEQ Batch, Test: None		Initial Aliquot Amt/Unit		AmfRec: 1XVIAL20;1X4LP;3XLP		#Containers: 5			
All Tests: 2353050 BNIB, 2353052 AWTA, 2353053 AMS5,		Total Amt/Unit		Total Acidified/Unit		Total Amt/Unit			
1 MXK25-1-AC		124.90g,in		124.90g		Scr:		Alpha: 7.44E-04 uCi/Sa Beta: -4.89E-04 uCi/Sa	
J2L130450-6-SAMP		125.10g,in		125.10g		Scr:		Alpha: 7.44E-04 uCi/Sa Beta: -4.89E-04 uCi/Sa	
12/12/2012 12:34		AmfRec: 1XVIAL20;1X4LP;3XLP		#Containers: 5					
2 MXK25-1-AD-X		125.00g,in		125.00g		Scr:		Alpha: 3.29E-04 uCi/Sa Beta: -4.51E-04 uCi/Sa	
J2L170417-6-DUP		125.00g,in		125.00g		Scr:		Alpha: 3.29E-04 uCi/Sa Beta: -4.51E-04 uCi/Sa	
12/12/2012 12:34		AmfRec: 1XVIAL20;1X4LP;3XLP		#Containers: 5					
3 MXL4V-1-AC		125.00g,in		125.00g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
J2L170417-7-SAMP		125.00g,in		125.00g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
12/13/2012 07:30		AmfRec: 1XVIAL;1X4LP;3XLP		#Containers: 5					
4 MXL46-1-AC		125.20g,in		125.20g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
J2L170417-7-SAMP		125.20g,in		125.20g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
12/13/2012 09:45		AmfRec: 1XVIAL;1X4LP;3XLP		#Containers: 5					
5 MXL46-1-AD-S		125.00g,in		125.00g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
J2L170417-7-MS		125.00g,in		125.00g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
12/13/2012 09:45		AmfRec: 1XVIAL;1X4LP;3XLP		#Containers: 5					
6 MXMKQ-1-AA-B		125.20g,in		125.20g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
J2L180000-53-BLK		125.20g,in		125.20g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
12/18/2012 12:40 pd		AmfRec: 1XVIAL;1X4LP;3XLP		#Containers: 1					
7 MXMKQ-1-AC-C		125.20g,in		125.20g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
J2L180000-53-LCS		125.20g,in		125.20g		Scr:		Alpha: 3.66E-04 uCi/Sa Beta: 2.35E-04 uCi/Sa	
12/18/2012 12:40 pd		AmfRec: 1XVIAL;1X4LP;3XLP		#Containers: 1					

Sample Preparation/Analysis		Balance Id: _____
AM Tc-99 Prp/Sep LSC013 S5 Technetium-99 by Liquid Scint 51 CLIENT: HANFORD		Pipet #: _____
Analyte Due Date: 01/15/2013	pCi/L	Sep1 DT/Tm Tech: _____
Batch: 2353053		Sep2 DT/Tm Tech: _____
SEQ Batch, Test: None		Prep Tech: _____
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit
Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield
Dish Size	Ppt or Geometry	Count Time Min
Detector Id	Count (24hr) Circle	CR Analyst, Init/Date
8 MXMKQ-1AD-BN		Comments:
J2L180000-53-IBLK		
12/18/2012 12:40 pd		
AmiRec: _____		Alpha: _____
#Containers: 1		Beta: _____
Comments: MXMKQ-BLK CommentsP-12-00228,P-12-00478 All Clients for Batch: 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS , 57671		
MXK251AC-SAMP Constituent List: Tc-99 RDL:1.50E+01 pCi/L LCL:70 UCL:130 RPD:20 MXL461AD-MS: MXMKQ1AA-BLK: Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD: MXMKQ1AC-LCS: Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20 MXMKQ1AD-IBLK: Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD: MXK251AC-SAMP Calc Info: Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MXL461AD-MS: Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MXMKQ1AA-BLK: Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MXMKQ1AC-LCS: Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MXMKQ1AD-IBLK: Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B		
TestAmerica	Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2	Page 2
Richland Wa.	pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	
	ISV - Insufficient Volume for Analysis	WO Cnt: 8
		Prep_SamplePrep v4.8.60

JANUARY 15, 2013

12/31/2012 2:07:23 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/1/2012, 1/5/2013, Batch: '2353053', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2353053				
AC	Rev1C	RichardsonB	12/19/2012 9:54:38	
SC		davilan	IsBatched 12/18/2012 12:35:45 PM	ICOC_RADCALC v4.8.49
SC		RichardsonB	InPrep 12/19/2012 9:54:38 AM	RL-PRP-004 REVISION 2
SC		JorgensonD	Sep2C 12/26/2012 3:35:03 PM	RL-LSC-013 REVISION 2
SC		DawkinsO	InCnt1 12/26/2012 3:48:13 PM	RL-CI-005 REV. 2
SC		ClarkR	CalcC 12/27/2012 9:14:20 AM	RL-CI-005 REV. 2
SC		antonsonl	Rev1C 12/31/2012 2:07:09 PM	RL-DR-001 Rev 2
AC		JorgensonD	12/26/2012 3:35:03	
AC		DawkinsO	12/26/2012 3:48:13	
AC		ClarkR	12/27/2012 9:14:20	
AC		antonsonl	12/31/2012 2:07:09	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

Sample Preparation/Analysis													
12/18/2012 12:32:59 PM		Balance Id:		Pipet #:		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:					
384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab		AR H-3 Prp/Sep LSC005 S6 Tritium by Liquid Scint		51 CLIENT: HANFORD		PM, Quote: SS, 57671							
AnalytDueDate: 01/15/2013		WATER		pCi/L		Prep Tech:							
Batch: 2353057		WATER		None		Prep Tech:							
SEQ Batch, Test: None													
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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 MXJ02-1-AC	J2L110430-1-SAMP												
12/11/2012 08:58													Beta: 6.30E-03 uCi/Sa 1.4E-01L
AmtRec: 1XVIAL20;2X500;9XLP #Containers: 12													
2 MXJ03-1-AC	J2L110430-2-SAMP												
12/11/2012 12:05													Beta: 5.61E-03 uCi/Sa 1.8E-01L
AmtRec: 1XVIAL20;2X500;10XLP #Containers: 13													
3 MXJ03-1-AM-X	J2L110430-2-DUJ												
12/11/2012 12:05													Beta: 5.61E-03 uCi/Sa 1.8E-01L
AmtRec: 1XVIAL20;2X500;10XLP #Containers: 13													
4 MXMMC-1-AA-B	J2L180000-57-BLK												
12/18/2012 12:32 pd													Beta:
AmtRec: #Containers: 1													
5 MXMMC-1-AC-C	J2L180000-57-LCS												
12/18/2012 12:32 pd													Beta:
AmtRec: #Containers: 1													
6 MXMMC-1-AD-BN	J2L180000-57-IBLK												
12/18/2012 12:32 pd													Beta:
AmtRec: #Containers: 1													

12/18/2012 12:32:59 PM **Sample Preparation/Analysis**

Balance Id: _____ Pipet #: _____

AR H-3 Prp/Sep LSC005
S6 Tritium by Liquid Scint
51 CLIENT: HANFORD

Analyte Due Date: 01/15/2013

Batch: 2353057
SEQ Batch, Test: None

Prep Tech: _____

Sep1 DT/Tm Tech: _____

Sep2 DT/Tm Tech: _____

Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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:
<p>All Clients for Batch: 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS, 57671</p> <p>MXJ02IAC-SAMP Constituent List: H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20 MXMMCLAA-BLK: MXMMCLAC-LCS: MXMMCLAD-IBLK:</p> <p>MXJ02IAC-SAMP Calc Info: Uncert Level (#s): 2 Decay to Sabt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MXMMCLAA-BLK: Uncert Level (#s): 2 Decay to Sabt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MXMMCLAC-LCS: Uncert Level (#s): 2 Decay to Sabt: Y Blk Subt.: N Sci.Not.: Y ODRs: B MXMMCLAD-IBLK: Uncert Level (#s): 2 Decay to Sabt: Y Blk Subt.: N Sci.Not.: Y ODRs: B</p>													

Comments:

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
 Richland Wa. pd - Prep Dt, dc - Date Ctg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis WO Cnt: 6 ICOC v4.8.49

1/7/2013 9:59:50 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/8/2012, 1/12/2013, Batch: '2353057', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2353057				
AC		Rev1C	NyeM	12/19/2012 7:16:00
SC			davilan	IsBatched 12/18/2012 12:36:07 PM
SC			NyeM	InPrep 12/19/2012 7:16:00 AM
SC			NyeM	Sep1C 12/19/2012 11:11:47 AM
SC			HiattC	InCnt1 12/19/2012 11:17:03 AM
SC			HiattC	CalcC 12/20/2012 1:25:23 PM
SC			nortonj	Rev1C 1/7/2013 9:59:40 AM
AC			NyeM	12/19/2012 11:11:47
AC			HiattC	12/19/2012 11:17:03
AC			HiattC	12/20/2012 1:25:23
AC			nortonj	1/7/2013 9:59:40 AM

ICOC_RADCALC v4.8.49
 RL-LSC-005 REVISION 2
 RL-LSC-005 REVISION 2
 RL-CI-005 REV. 2
 RL-CI-005 REV. 2
 RL-DR-001 Rev 2

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
 Richland Wa.

JANUARY 15, 2013

*** RE-COUNT REQUEST ***

DUE DATE 1/15/13

CUSTOMER CH2M

ANALYSIS H3

MATRIX water

LOT NUMBER J0110130

SAMPLE DELIVERY GROUP _____

OLD BATCH NUMBER 2353057

NEW BATCH NUMBER 300 2029

LAB SAMPLE ID CLIENT ID REASON FOR REQUEST & ANALYSIS COMMENTS

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) <u>mxmmCIAA</u>		<u>High Blank</u>
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

RC-126 Rev 6, 9/10

1/2/2013 10:07:15 AM **Sample Preparation/Analysis** Balance id: _____
 AR H-3 Prp/Sep LSC005 Pipet #: _____
 S6 Tritium by Liquid Scint Sep1 DT/Tm Tech: _____
 5I CLIENT: HANFORD Sep2 DT/Tm Tech: _____

Batch: 3002029 pCi/L
 SEQ Batch, Test: None All Tests: 2352190 CLTL, 2352207 6DSO, 2352493 AZS7, 2352494 BCS8, 2352495 BCTD, 2352496 6DSO, 2352497
 7YSR, 2352498 AWTA, 2352538 46DQ, 2352541 APS6, 2352542 APS6, 2353031 FJTA, 2353032 BAS7, 2353033 BDS8, 2353034 77SS
 Prep Tech: _____

Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/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 MXMMC-2-AA-B												
J2L180000-57-BLK												
01/02/2013 10:06 pd												
2 MXMMC-2-AD-BN												
J2L180000-57-BLK												
01/02/2013 10:06 pd												

Scr: _____ Alpha: _____ Beta: _____
 #Containers: 1

Scr: _____ Alpha: _____ Beta: _____
 #Containers: 1

Comments: MXMMC-BLK P-12-00181,P-12-00078,H312B110

All Clients for Batch:

MXMMC2AA-BLK Constituent List:
 MXMMC2AD-IBLK Constituent List:

MXMMC2AA-BLK Calc Info:
 Uncert Level (#s): 4 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
 MXMMC2AD-IBLK Calc Info:
 Uncert Level (#s): 4 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Key: In - Initial Amt. fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
 Richland Wa. pd - Prep Dt. dc - Date Chg. r - Reference Dt. ec-Enrichment Cell, ct-Cocktailed Added
 iSV - Insufficient Volume for Analysis
 WO Cnt: 2
 ICOC v4.8.49

1/7/2013 10:04:30 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/8/2012, 1/12/2013, Batch: '3002029', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
3002029				
AC	Rev1C	ClarkR	1/3/2013 10:46:07	
SC		ClarkR	CalcC	1/3/2013 10:46:07 AM
SC		nortonj	Rev1C	1/7/2013 10:04:19 AM
AC		nortonj	1/7/2013 10:04:19	RL-CI-005 REV. 2 RL-DR-001 Rev 2

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

12/18/2012 12:32:56 PM **Sample Preparation/Analysis**

384868, CH2M Hill Plateau Remediation Company AR H-3 Prp/Sep LSC005
 Pacific Northwest National Lab T0 Tritium Midlevel by Liquid Scint
 Analyze Date: 01/15/2013 51 CLIENT: HANFORD

Balance Id: _____ Pipet #: _____

Batch: 2353051 WATER pCi/L PM, Quote: SS, 57671
 SEQ Batch, Test: None

Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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 MXJAK-1-AA													
J2L070436-2-SAMP													
12/06/2012 14:07													Beta: 1.69E-03 uCi/Sa
2 MXJAK-1-AD-X													
J2L070436-2-DUP													
12/06/2012 14:07													Beta: 1.69E-03 uCi/Sa
3 MXMJ3-1-AA-B													
J2L180000-51-BLK													
12/18/2012 12:32 pd													Beta: 1.69E-03 uCi/Sa
4 MXMJ3-1-AC-C													
J2L180000-51-LCS													
12/18/2012 12:32 pd													Beta: 1.69E-03 uCi/Sa
5 MXMJ3-1-AD-BN													
J2L180000-51-BLK													
12/18/2012 12:32 pd													Beta: 1.69E-03 uCi/Sa

Comments:

All Clients for Batch:
 384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS, 57671

MXJAK1AA-SAMP Constituent List:
 H-3 RDL:3.00E+01 pCi/L LCL: UCL: RPD:

Test/America Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

WO Cnt: 5
 ICOC v4.8.49

JANUARY 15, 2013

1/11/2013 3:16:47 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/12/2012, 1/16/2013, Batch: '2353051', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
2353051				
AC	Rev1C	NyeM	12/19/2012 9:29:29	
SC		davilan	IsBatched 12/18/2012 12:35:39 PM	ICOC_RADCALC v4.8.49
SC		NyeM	InPrep 12/19/2012 9:29:29 AM	RL-LSC-005 REVISION 2
SC		NyeM	Sep1C 12/20/2012 9:20:38 AM	RL-LSC-005 REVISION 2
SC		ClarkR	InCnt1 12/20/2012 9:25:33 AM	RL-CI-005 REV. 2
SC		ClarkR	CalcC 12/28/2012 11:48:39 AM	RL-CI-005 REV. 2
SC		antonsonl	Rev1C 1/11/2013 3:16:41 PM	RL-DR-001 Rev 2
AC		NyeM	12/20/2012 9:20:38	
AC		ClarkR	12/20/2012 9:25:33	
AC		ClarkR	12/28/2012 11:48:39	
AC		antonsonl	1/11/2013 3:16:41 PM	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

Sample Preparation/Analysis									
12/11/2012 3:37:27 PM		Balance Id:		Pipet #:		Sep1 DT/Tm Tech:		Sep2 DT/Tm Tech:	
384868, CH2M Hill Plateau Remediation Company		88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION		EA Chromium, Hexavalent (7196A)		5I CLIENT: HANFORD			
Pacific Northwest National Lab		AWTA, ARS6, BCS8, CLTL, FPS5, 2346077 88EA,		PM, Quote: SS, 57671					
Analyte: WATER		mg/L		AZS7, CLTL, FPS5, 2346077 88EA,					
SEQ Batch, Test: None		All Tests:		AWTA, ARS6, BCS8, CLTL, FPS5, 2346077 88EA,					
Batch: 2346077		WATER		mg/L		PM, Quote: SS, 57671			
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 MXJ02-1-AA									
J2L110430-1-SAMP									
12/11/2012 08:58									
AmtRec: 1XVIAL20;2X500;9XLP #Containers: 12									
2 MXJ02-1-AH-S									
J2L110430-1-MS									
12/11/2012 08:58									
AmtRec: 1XVIAL20;2X500;9XLP #Containers: 12									
3 MXJ02-1-AJ-D									
J2L110430-1-MSD									
12/11/2012 08:58									
AmtRec: 1XVIAL20;2X500;9XLP #Containers: 12									
4 MXJ02-1-AK-X									
J2L110430-1-DUP									
12/11/2012 08:58									
AmtRec: 1XVIAL20;2X500;9XLP #Containers: 12									
5 MXJ03-1-AA									
J2L110430-2-SAMP									
12/11/2012 12:05									
AmtRec: 1XVIAL20;2X500;10XLP #Containers: 13									
6 MXJ09-1-AA-B									
J2L110000-77-BLK									
12/11/2012 15:37 pd									
AmtRec: #Containers: 1									
7 MXJ09-1-AC-C									
J2L110000-77-LCS									
12/11/2012 15:37 pd									
AmtRec: #Containers: 1									

WO Cnt: 7
ICOC v4.8.49

ISV - Insufficient Volume for Analysis

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

12/11/2012 3:37:28 PM	Sample Preparation/Analysis				Balance Id:	
	88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION				Pipet #:	
	EA Chromium, Hexavalent (7196A)				Sep1 DT/Tm Tech:	
	51 CLIENT: HANFORD				Sep2 DT/Tm Tech:	
AnalytDueDate: 01/10/2013	mg/L				Prep Tech:	
Batch: 2346077					CR Analyst,	
SEQ Batch, Test: None					Init/Date	
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
Comments:						
All Clients for Batch:						
384868, CH2M Hill Plateau Remediation Company Pacific Northwest National Lab, SS , 57671						
MXJ021AA-SAMP Constituent List:						
MXJ021AH-MS Constituent List:						
MXJ021AJ-MSD:						
MXJ091AA-BLK:						
MXJ091AC-LCS:						
MXJ021AA-SAMP Calc Info:						
Uncert Level (#s):	2	Decay to Sadt: Y	Blk Subst.: N	Sci. Not.: Y	ODRs: B	
MXJ021AH-MS Calc Info:						
Uncert Level (#s):	2	Decay to Sadt: Y	Blk Subst.: N	Sci. Not.: Y	ODRs: B	
MXJ021AJ-MSD:						
Uncert Level (#s):	2	Decay to Sadt: Y	Blk Subst.: N	Sci. Not.: Y	ODRs: B	
MXJ091AA-BLK:						
Uncert Level (#s):	2	Decay to Sadt: Y	Blk Subst.: N	Sci. Not.: Y	ODRs: B	
MXJ091AC-LCS:						
Uncert Level (#s):	2	Decay to Sadt: Y	Blk Subst.: N	Sci. Not.: Y	ODRs: B	

TestAmerica Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
 Richland Wa. pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added
 ISV - Insufficient Volume for Analysis
 WO Cnt: 7
 ICOC v4.8.49